

MULTIMORBIDITY IN PATIENTS WITH COPD AND PULMONARY REHABILITATION

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Abstract

Background:

Chronic Obstructive Pulmonary Disease (COPD) is a major health challenge, with an increasing morbidity and mortality worldwide. COPD is associated with several comorbidities, including skeletal muscle loss and dysfunction and osteoporosis, which impact the patient's quality of life and increase the risk of falls and fractures. Pulmonary rehabilitation (PR) is a core management for COPD and has been proven to improve dyspnoea, exercise capacity, and quality of life. The PR programme includes patient education, exercise training, and psychosocial/behavioural intervention that aim to reduce COPD symptoms and enhance the patient's quality of life. COPD guidelines recommend that patients with COPD who have Medical Research Council dyspnoea score of grade 3 or worse should be referred to PR. However, the pattern of PR referral in the UK is unknown. Large primary care data may provide the opportunity to explore the patterns of PR referral among the population of patients with COPD. Furthermore, to evaluate the quality of the PR service, the clinical outcomes of patient performance after PR should be assessed. Data from a recent UK National COPD audit programme PR workstream may facilitate quality control by allowing comparisons of patients' performances between different programmes.

Method:

A systematic review was undertaken to assess the impact of PR on two outcomes: survival and falls (balance). Using The Health Improvement Network (THIN) database, a large database of UK primary care records, the

recording of the PR events among patients diagnosed with COPD were analysed. A survival analysis was also conducted, which compared patients with records of PR and those without. Using this large dataset, a comparison of the incidence of falls between age- and sex-matched patients with COPD and individuals without COPD was conducted. Subsequently, the UK National COPD audit programme PR workstream data were used for two investigations. First, due to the differences in the capacities of PR programmes across the UK, the effect of these variations on the clinical outcomes associated with PR was investigated. Second, the number of patients who underwent PR assessment and performed a practice exercise walk test during PR baseline assessment, along with its association with the clinical response of PR, were investigated.

Results:

An assessment of PR recording in THIN showed that only 9.8% of patients with COPD have ever had a coded PR record. The systematic review demonstrated some evidence of the benefits of PR on balance but it had no effect on survival. However, the survival evidence from the THIN primary care data analysis found that patients with a record of PR on at least one occasion were 22% less likely to die than those with no record [adjusted hazard ratio (aHR) 0.78; 95% CI 0.69 – 0.88]. The investigation of the incidence of falls in THIN showed that patients with COPD were 55% more likely to have a recorded incidence of a fall than the non-COPD subjects (aHR, 1.55; 95% CI, 1.50 to 1.59) The investigation of the National COPD audit programme data showed that larger PR programmes with high staff/patient ratios were better at enrolling patients within three months of referral and achieved minimal clinical importance differences in the 6-minute walk test. Only 22.6% of patients who

were assessed for PR had a practice exercise walk test at assessment. The practice walk test was significantly related to better baseline exercise distance, better enrolment and completion rates, and better improvement in dyspnoea scores.

Conclusion:

The low incidence of PR recording among patients with COPD in UK primary care records demonstrates the need for further strategies to improve pulmonary rehabilitation recording. Moreover, the demonstrated increased risk of falls in patients with COPD in THIN suggests a need for fall risk assessments at COPD diagnosis. The audit analysis demonstrated an enrolment delay more than 90 days of referral at small PR programmes, which could worsen the patient's condition. Furthermore, the second audit analysis found that a substantial proportion of patients who were assessed for PR had not had a practice exercise walk test at their baseline assessment. The analysis also demonstrated its role in maximising the PR benefits and suggested the importance of issues that limit its application to PR programmes.

Peer-Reviewed Publications and Presentations arising from this Thesis

Publications

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Hakamy A, McKeever TM, Gibson JE, Bolton CE. The Recording and Characteristics of Pulmonary Rehabilitation in Patients with COPD Using The Health Information Network (THIN) Primary Care Database. NPJ Prim. Care Respir. Med. 2017;27(1):58.

Hakamy A, McKeever TM, Steiner MC, Roberts CM, Singh SJ, Bolton CE. The use of the practice walk test in pulmonary rehabilitation program: National COPD Audit Pulmonary Rehabilitation Workstream. Int J Chron Obstruct Pulmon Dis. 2017;12:2681-6.

Hakamy A, Bolton CE, Gibson JE, McKeever TM. The Risk of Fall in Patients with Chronic Obstructive Pulmonary Disease (COPD). *Thorax* Published Online First: 21 March 2018. doi:10.1136/thoraxjnl-2017-211008.

Presentations

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LIST OF ABBREVIATIONS

ABC	Activities-Specific Balance Confidence Scale
aHR	Adjusted Hazard Ratio
aOR	Adjusted Odds Ratio
ATS	American Thoracic Society
BBS	Berg Balance Scale
BESTest	Balance Evaluation Systems Test
BLF	British Lung Foundation
BTS	British Thoracic Society
CAT	COPD Assessment Test
COPD	Chronic Obstructive Pulmonary Disease
CRQ	Chronic Respiratory Questionnaire
ERS	European Respiratory Society
FEV_1	Forced Expiratory Volume in One Second
FVC	Forced Vital Capacity
GOLD	Global Initiative for Chronic Obstructive Lung Disease
HQIP	Healthcare Quality Improvement Partnership
ISWD	Incremental Shuttle Walk Distance
ISWT	Incremental Shuttle Walk Test
MCID	Minimal Clinically Important Difference
MD	Mean Difference
MDC	Minimum Detectable Change
MRC	Medical Research Council
NICE	National Institute for Health and Care Excellence
NHS	National Health Service
PR	Pulmonary Rehabilitation
QOF	Quality Outcome Framework
UK	United Kingdom
US	United States of America

RCP	Royal College of Physicians
RCT	Randomised Control Trial
SD	Standard Deviation
SGRQ	St George's Respiratory Questionnaire
THIN	The Health Information Network
TUG	Timed Up and Go Test
95% CI	95% Confidence Interval
6MWD	Six-Minute Walk Distance
6MWT	Six-Minute Walk Test

1 INTRODUCTION

1.1 Definition of Chronic Obstructive Pulmonary Disease (COPD)

COPD is defined as a lung disease characterised by persistent airflow limitation and respiratory symptoms based on the Global Initiative for Chronic Obstructive Lung Disease (GOLD) [1]. The airflow limitation is usually caused by conditions such as emphysema (parenchymal destruction) and chronic bronchitis. It is a progressive disease that worsens over time, and the degree to which these processes manifest in a particular patient compared with others is highly heterogeneous, thus making its clinical manifestation a complex disease to manage [2]. It constitutes the inflammation of the respiratory tract and a dysfunction in mucociliary functioning, and it can even lead to structural changes in the airway, lung tissue and pulmonary blood vessels [3].

1.2 Risk factors of COPD

Tobacco smoking has been the most common environmental factor that increases the risk of COPD [1,4]. Tobacco smoke on lung tissue causes inflammation by stimulating the macrophages and cytokines, which contribute to the increased inflammation of the tissue [5]. However, further evidence have shown an incidence of COPD in non-smokers individuals [6]. Air pollution occurs through industries, biomass cooking smoke, poorly ventilated housing and airborne pollution through vehicular and traffic smoke dispersion are also identified as potential COPD risk factors [1,6]. For instance, countries like China, which has intensified vehicular pollution, have increased incidences of COPD

[7]. More females from rural areas were reported to have been diagnosed with COPD than those from urban areas because of cooking methods involving smoke in low income countries [6]. Furthermore, evidence has shown an association between socioeconomic status and COPD [8,9]. In addition, recent analysis of UK primary care database showed that the prevalence of COPD in the United Kingdom was high among the most deprived individuals [10]. Genetics also plays a role in triggering COPD, as a deficiency in alpha-1 antitrypsin is a cause of COPD [1], though other genetic factors are likely to contribute [11].

1.3 Symptoms and diagnosis of COPD

The main symptoms of COPD are dyspnoea, wheezing, chronic cough and increased of sputum production [1]. COPD should be suspected in people with a history of smoking who exhibit any of these respiratory symptoms [1].

Exertional dyspnoea is associated with decreased physical activity, disability and anxiety in COPD [12]. A way to measure the severity of functional dyspnoea is the Medical Research Council (MRC) dyspnoea score [13,14]. It is a simple measure, in which patients indicate the extent to which their breathlessness affects their daily activity [Table 1-1] [13,14]. In addition, a previous study suggested that the MRC score could predicts patients' levels of physical activity and mortality [15].

Table 1-1. Medical Research Council dyspnoea scale

Grade	Degree of breathlessness related to activities
1	Not troubled by breathlessness except on strenuous exercise
2	Short of breath when hurrying or walking up a slight hill
3	Walks slower than contemporaries on level ground because of breathlessness, or has to stop for breath when walking at own pace
4	Stops for breath after walking about 100 meters or after a few minutes on level ground
5	Too breathless to leave the house, or breathless when dressing or undressing

The National Institute for Health and Care Excellence (NICE), the American Thoracic Society (ATS), and the European Respiratory Society (ERS) COPD guidelines on the diagnosis of COPD require a confirmatory post-bronchodilator spirometry (a forced expiratory volume in one second (FEV_1)/forced vital capacity (FVC) ratio of less than 70%) in patients who develop chronic cough, an increase in sputum production, dyspnoea and/or a history of exposure to the risk factors of COPD [16,17]. Spirometry is an objective, non-invasive measurement of airflow limitation [18]. Measurements of an individual's lung function, such as FEV_1 and FVC, are evaluated by comparison with reference values, based on age, gender, race and height [18]. GOLD classifies the severity of airflow obstruction in patients with COPD based on the FEV_1 test, using cut-off points ranging from mild to very severe [Table 1-2] [1].

Table 1-2. GOLD classification of severity of airflow limitation in COPD, based on post bronchodilator FEV_1

GOLD Stage	**FEV_1 % predicted**
GOLD 1: Mild	- $FEV_1/FVC < 0.70$ - $FEV_1 \geq 80\%$
GOLD 2: Moderate	- $FEV_1/FVC < 0.70$ - $50\% \leq FEV_1 < 80\%$
GOLD 3: Severe	- $FEV_1/FVC < 0.70$ - $30\% \leq FEV_1 < 50\%$
GOLD 4: Very Severe	- $FEV_1/FVC < 0.70$ - $FEV_1 < 30\%$

1.4 Epidemiology of COPD

1.4.1 Prevalence and incidence of COPD

COPD is one of the greatest health concerns across the world, with increased incidence in recent years [19]. Worldwide, an estimated 200 million people have been diagnosed by COPD, with one-fourth of adults over 40 years have evidence of airflow obstruction [20]. The prevalence trend in the last 2 decades (1990 to 2010) for COPD shows an increase of the disease. The highest prevalence of COPD is observed in the American region 15.1% (95% confidence interval (CI): 14.8% to 15.5%; 72 million cases), followed by the European region 13.7% (95% CI: 13.5% to 13.9%; 66 million cases), and the least region was the South East Asia 9.6% (95% CI: 9.2% to 10.1%; 75 million cases) as of the 2010 study [20]. In 2011, the Centres for Disease Control in the

United State (US) Behavioural Risk Factor Surveillance System reported the prevalence of COPD as 15 million among American adults, with an age adjusted prevalence of 6% [21]. The survey also showed that the prevalence increased from 3.2% in people aged 44 years to 11.6% in people aged 65 years. In the UK, the prevalence of COPD was 2% (1.2 million) estimated by the British Lung Foundation (BLF) in 2012 [22]. The number of diagnosed patients with COPD has increased from 2004 to 2012, (999,000 and 1,202,000 patients, respectively) [22]. In 2011, the Department of Health in the UK estimated over 3 million patients are likely to have COPD, but only 835,000 patients were actually diagnosed with COPD [23]. Moreover, a cross-sectional study estimated the population prevalence of COPD in adults aged 40-90 years old in England and Wales [24]. The prevalence was estimated based on two different criteria: 22.2% (95% CI 21.2% to 23.2%) using the GOLD criteria and 13.1% (95% CI 12.2% to 13.9%) using the lower limits of normal FEV_1/FVC [24]. Furthermore, data from the Quality Outcome Framework (QOF) for General Practices estimated one million registered diagnosed patients with COPD in England only in 2013–2014 [25].

1.4.2 COPD Mortality

COPD has a high mortality rate; it is the third leading cause of death worldwide [26]. In 2010, a global study reported that 3.4 million patients

with COPD died worldwide [26]. In the United States, COPD was the cause of 133,965 deaths in 2009 [27]. Based on the BLF statistics, among the top 20 countries for COPD mortality worldwide, the United Kingdom (UK) ranks 12th [22]. A total of 29,776 patients with COPD died, accounting for 5.3% of total deaths in the UK in 2012. The gender distribution of these deaths showed that among the 29,776 deaths, 15,245 (51.2%) were males and 14,531 (48.8%) were females [22].

1.5 COPD Management

Since the 1990s, global initiatives and societies have been established to raise COPD awareness, attract the attention of governments and improve outcomes [1]. The optimal goal of COPD management is to improve patients' quality of life and functional status by preserving lung function, improving symptoms, reducing exacerbations and managing comorbidities for a decreased effect on COPD progression [19]. Smoking cessation is the first and most important intervention that is undertaken for patients with COPD who smoke [1,16]. Smoking cessation can be assisted by pharmacological therapies, such as nicotine replacement therapy, and non-pharmacological counselling and behavioural interventions [1,16]. Influenza and pneumococcal vaccination are also recommended for patients with COPD to reduce the incidence of influenza-related illness and pneumonia [1,16]. Inhaled medications therapy, such as bronchodilator and corticosteroids are indicated to control and manage COPD to help in symptomatic relief and to reduce the severity of exacerbations [16].

NICE have established an updated algorithm for inhaled medication for stable COPD based on clinical evidence [16]. Short acting $beta_2$ agonists are indicated as first line inhaled medication to treat breathlessness and exercise limitation as necessary [16]. If the breathlessness persists, additional medications such as long acting beta agonists with inhaled corticosteroid are indicated. More importantly, checking the proper inhaler technique and assessing compliance is necessary to ensure the delivery of the medication is important.

A COPD exacerbation is characterised by worsening dyspnoea, increased cough and sputum production worsens the disease progression and increases hospitalisation and mortality [28]. These often require oral corticosteroids and / or antibiotics and sometimes hospitalisation. The ATS/ERS new guidelines for COPD exacerbation management have recommended an oral steroid rather than intravenous during hospitalisation, non-invasive ventilation with acute or acute on chronic respiratory failure, and pulmonary rehabilitation within 3 weeks of discharge rather than during hospitalisation [28].

1.6 Pulmonary Rehabilitation (PR)

PR is defined according to the ATS/ERS 2013 statement [29]:

"*It is a comprehensive intervention based on a thorough patient assessment followed by patient-tailored therapies, which include, but are not limited to, exercise training, education and behaviour change, designed to improve the physical and emotional condition of people with chronic respiratory disease and to promote the long-term adherence of health-enhancing behaviours.*"

And according to NICE COPD guidelines [16], PR is:

"*An interdisciplinary programme of care for patients with chronic respiratory impairment that is individually tailored and designed to optimise each patient's physical and social performance and autonomy. Programmes comprise individualised exercise programmes and education*"

The main goals of the PR programme are:

- reducing symptom burdens
- maximising exercise performance
- promoting self-management
- increasing participation in daily activities
- enhancing quality of life

A comprehensive PR programme includes patient education, exercise training, nutritional therapy and psychosocial/behavioural intervention [29,30]. Exercise training is known as the cornerstone of the PR. It is indicated to improve the

limb muscle function, and to reduce exercise-induced symptoms. Exercise training load will be determined at the assessment stage, which include various modes of exercise training, with endurance and strength training for both lower and upper extremities [29]. Education is a core component of the PR programme, aiming to enhance disease-specific knowledge, self-efficacy and collaborative self-management through various topics, such as breathing exercises, proper medication technique, and maintaining physical activity [29]. The psychosocial aspect of PR aims to improve patients' behaviours, help them adapt to their current limitations and reduce symptoms of anxiety and depression [31].

In the UK, the BTS and NICE provide recommendations for programmes through their Guidelines and Quality Standards for PR [16,30,32]. The guidelines recommend that patients with COPD who have an MRC dyspnoea score of grade 3 [Table 1-1] or worse should be referred to PR [16]. However, the pattern of referral for PR is not known. A 2002 BTS/BLF PR report suggested that resources are restricted, with only a few patients (< 2% patients with COPD) having access; however, this survey was limited and is now outdated [33].

The BTS recommends patient should enrol in PR programme within three months of referral [32]. Before starting a PR programme, patients require an assessment to determine their severity and limitations. The PR baseline assessment includes medical history, physical examination, patient education and spirometry. Moreover, based on an exercise assessment, individual exercise training prescriptions will be established at this initial stage of

rehabilitation [31]. Validated clinical measures related to dyspnoea and fatigue, including exercise walk tests, dyspnoea scores, and quality of life measures, should be recorded at this stage, to assess changes from and effectiveness of PR [31].

The optimal duration of PR is unknown [34], and the recommended duration varies among countries [29]. The duration of PR recommended by BTS is 6 to 12 weeks, at minimum of twice weekly supervised sessions [16,30 29]. At the time of discharge from PR, a written discharge plan, with strategies aimed at maintaining the long-term PR benefits through lifestyle changes, is recommended [29]. Patients should be encouraged to continue with an exercise regime after the completion of the programme [30].

Details of PR programmes vary which there may be significant differences within the programmes that affect the enrolling process and the effectiveness of the intervention [35]. To date, there is no evidence to support an optimal staffing ratio or optimal programme capacity [29]. Each PR programme should be able to demonstrate its effectiveness through an annual audit [32]. The clinical outcomes of patients' performance with PR should be recorded, to evaluate the quality of the programme as a whole. Data from recent UK National COPD audit programme PR workstreams may facilitate quality control through comparison of performances across programmes [36,37].

Many studies on PR programmes have clearly demonstrated the positive effect of PR programmes on exercise tolerance, dyspnoea and quality of life of patients with COPD [30]. The following section discusses the evidence on the impact of PR on patients with COPD.

1.6.1 Effect of PR on exercise capacity

Previous studies provided evidence that PR improved exercise capacity in patients with COPD [38-40]. Different measures of exercise capacity, such as cycle ergometer test, incremental shuttle walk test (ISWT) and six-minute walk test (6MWT), have been studied. The recent Cochrane review assessed the changes brought by PR in various symptoms of COPD. Including 65 studies, the results from this analysis showed overwhelmingly that PR led to improve exercise capacity [38]. In the Cochrane review, a meta-analysis of the 16 trials evaluated exercise capacity using cycle ergometer test measure (779 participants). The analysis indicated that patients who received PR had a significant increase in the maximum work rate compared with those who received the usual care [weighted mean difference (MD) 6.77; 95% CI 1.8–11.6] [38]. Evaluating exercise capacity using ISWT, the eight trials included in the meta-analysis (694 participants) showed an increase in mean walked distance in patients who received PR compared with those who received the usual care [MD 39.7 m; 95% CI 22.3–57.1] [38]; the value was lower than the reported minimal clinically important difference (MCID) for ISWT of 48 m [40]. In the same review, the analysis of 38 trials (1879 participants) using 6MWT to

evaluate exercise capacity showed a significant increase in walked distance in patients assigned for PR [MD 43.9 m; 95% CI 32.6–55.2] [38]; the lower limit of the confidence interval was higher than the reported MCID for 6MWT of 30 m [41]. This evidence concludes that pulmonary rehabilitation improves patient's exercise capacity compared with usual care.

1.6.2 Effect of PR on health status and dyspnoea

The chronic respiratory questionnaire (CRQ), the COPD assessment test (CAT) and St George's respiratory questionnaire (SGRQ) have been used to evaluate health status (or health related quality of life) in patients with COPD [42,43]. Dyspnoea in patients with COPD contributes to systemic consequences, including disability, physical activity, quality of life [44,45]. In the Cochrane review, 19 studies (CRQ 1,283 patients and SGRQ 1,146 patients) indicated that patients who underwent PR had a significant improvement in quality of life compared with patients underwent usual care [38]. The change in CRQ (dyspnoea domain) was 0.79 unit higher in PR group (95% CI 0.56 – 1.03) [38], a change of 0.5 unit higher is clinical important difference [43]. Whereas, the change in SGRQ (total domain) was 6.89 unit lower in PR group (95% CI 9.26 – 4.52) [38], a change of 4 unit lower is clinical important difference [42]. In conclusion, participating in PR has been shown to improve quality of life and in particularly an improvement of dyspnoea.

1.6.3 Effect of PR on muscle strength

Muscle dysfunction of the lower limbs has been identified as a cause of impairment of exercise in COPD [46]. In addition, quadriceps muscle dysfunction is a predictor of mortality in moderate to severe COPD [47]. Studies evaluating quadriceps muscle strength after regular PR are still lacking [30]. A recent meta-analysis of 11 randomised trials (including 331 patients) have demonstrated strengthening exercises such as a combination of resistance training and endurance training improve patients' leg muscle strength (MD 0.69; 95% CI 0.39-0.98) [48]. These exercises approaches might lead to the remodelling of peripheral muscles and thus to improved muscle strength [49].

1.6.4 Effect of PR on balance

Balance deficits have been demonstrated in patients with COPD compared with healthy individuals of the same age [50-53]. Two previous studies (single arm longitudinal and randomised control trial (RCT)) found some positive benefits in the balance of patients with COPD receiving PR therapy [54]. However, PR has shown benefits in terms of exercise tolerance, increasing muscle strength, and improving general quality of life of the patients with COPD [30]. These in turn might help in improving balance and reduces the risk of future fall.

1.6.5 Effect of PR on physical activity

Evidence has shown that physical inactivity in patients with COPD contributes to reduced activities of daily living and increased mortality [55,56]. As COPD progress, the physical inactivity increases [57]. The improvement of exercise capacity and behaviour changes through PR may increase patients' daily physical activity [29]. A recent review of twelve studies evaluating the impact of PR on patients' physical activity shows inconsistence results[58]. Some of the reviewed studies have shown an increase of physical activities and some have not. They assumed that was due to the choice of the assessment tools, duration of the PR therapy, and the nature of the study. However, one of the studies have shown an improvement in patients' daily activities [59]. A further work to gain better understanding of how PR can improve physical activity [58].

1.6.6 Effect of PR on mortality

PR is considered a good adjunct therapy to conventional treatment options to reduces symptoms, improve patient's quality of life and improve survival [60]. A systematic review of nine studies showed survival benefits in patients with COPD undergoing PR after an acute exacerbation (pooled odds ratio 0.29; 95% CI 0.10 – 0.84) [60].

1.6.7 Effect of PR on health service cost

COPD is a costly disease. In 2006, the estimated cost of direct health care for COPD in the UK was £800 million [61]; the estimated annual cost of prescribing care for COPD to National Health Services is £800 [62]. Given the demonstrated benefits from PR, it is possible that COPD patients attending pulmonary rehabilitation reduce the total cost of the health services, compared with patients not attending PR. As previous studies demonstrated that PR reduced the costs for hospitalization and emergency visits by 30–90% [29,63], and indeed was at worse cost neutral for acute care and physician visits [29]. However, evidence on the effect of PR on the cost per quality-adjusted life-year (QALY) ratio is still inconclusive [29].

1.7 COPD Comorbidities

COPD is associated with several comorbidities that contributes to impact patient's quality of life, further increasing the already high risk of mortality [64]. As estimated globally, around two-thirds of patients with COPD are afflicted with either one or two comorbidities [65]. The major comorbidities are associated with COPD including cardiovascular diseases, skeletal muscle loss and dysfunction, osteoporosis, depression and anxiety [64]. These comorbidities are not only associated with poor outcomes [66], but also with high healthcare costs, thus increasing the economic burden of COPD [67].

1.7.1 Skeletal Muscle Dysfunction

Skeletal muscle dysfunction has been recognized as major systematic consequences in COPD due to its association with physical inactivity, and reduced quality of life [68]. A study by Seymour et al., demonstrated 32% of patients with COPD exhibit quadriceps muscle weakness [69]. In addition, loss of quadriceps muscle mass have been observed in patients with COPD [69,70]. A study showed 50% of patients with COPD at GOLD stage 4 had low fat-free mass index (a muscle mass measure) [71], it even appear in the early stages [69]. Furthermore, muscle weakness might lead to decreased balance which result in increased risk of falls in patients with COPD [72]. Previous studies have suggested an association between COPD and decreased in balance [50,73]. Importantly, evidence has shown that muscle weakness in COPD contributes to decreased functional capacity, decreased quality of life, increased incidence of hospitalisation and mortality [47,74].

1.7.2 Osteoporosis

In terms of skeletal disorders, osteoporosis is a common ailment afflicting both male and female patients with COPD [64,75]. Patients who have worse airflow obstruction also have a greater risk of developing osteoporosis, and COPD has been observed to be an independent predictor of reduced bone mineral density, which leads to increased risk of fractures [76,77]. A systematic review show the

prevalence of osteoporosis ranges from 24% - 69% among patients with COPD [78]. Patients with COPD are susceptible to exhibit muscle weakness, loss of balance control, and osteoporosis which increases the risk of falling as well as fracture risk, and further increase hospital admission and mortality [47,72,79].

1.7.3 Cardiovascular Diseases

Cardiovascular disease and COPD have common potential risk factors, such as smoking, sex, advance age, low level of physical activity [80], systemic inflammation, oxidative stress, physiological stress, and abnormalities in the vascular walls [81]. The prevalence of cardiovascular disease, such as coronary artery disease and arteriosclerosis, in patients with COPD is significantly higher than that in patients without COPD [82]. In a large cohort study, the prevalence of coronary artery disease was 33% in patients with COPD compared with 27% in patients without COPD [83]. Cardiovascular disease is identified as an important comorbidity in patients with COPD, as its' association with survival [64]. A large cohort study have determined the increased contribution of cardiovascular disease to increasing the morbidity and mortality of patients with COPD [84].

1.7.4 Anxiety and Depression

Depression and anxiety are also common comorbidities in COPD [85]. A study showed that the prevalence of depression was 10%–42% in patients with COPD, among which10%–19% had anxiety [86]. These comorbidities have a significant effect on patients with COPD, as they negatively affect quality of life and adherence to COPD treatment [64].

1.8 Falls

1.8.1 Falls in the Elderly

Falls is also a common public health challenge among older adults, around 30% of 65 years of age are falling each year [87]. It can have health consequences on overall function, and health related quality of life. In addition, the World Health Organization had determined falls as the second leading cause of accidental deaths worldwide [88], around 424,000 individuals die from falls globally each year [88]. It is also estimated to cost the National Health Services more than £2 billion each year in the UK [87]. Most falls are caused by complex interaction of risk factors, and the greater risk factors increases the risk of falling [88]. Previous studies identified numbers of fall risk factors including: demographic factors (such as advanced age), chronic diseases (such as coronary heart disease), and medications (such as sedatives) [87,89,90]. Therefore, fall prevention strategies emphasize to focus more on these risk factors.

1.8.2 Falls in COPD

Evidence demonstrated that COPD is associated with one or more comorbidities [91]; including muscle weakness, reduce balance control. Moreover, small studies suggest that COPD patients demonstrate deficits in balance compared with healthy individuals of the same age, which might leads to loss of functional independence and increases risk of falls [50-53]. However, evidence on the incidence of falls in patients with COPD is limited.

1.9 Justification and Aims and Objectives of the Study

COPD is a major public health challenge, ranked as the third-leading cause of death worldwide [26]. Comorbidities, which are common in patients with COPD, increase the progression of the disease and contribute to morbidity and mortality [64]. The awareness of increased mortality and increased risk of fall in patients with COPD underlines the need for further research on COPD.

Evidence has shown the effectiveness of PR intervention in improving exercise tolerance, dyspnoea and quality of life for patients with COPD[30]. Patients will not receive PR unless they get referrals. In the UK, the provision and referral

pattern of PR is not known. Furthermore, to ensure the quality and effectiveness of the PR, monitoring of PR performance is required.

Therefore, the aims of this project are:

1. To conduct a systematic review of the effect of pulmonary rehabilitation on patients with COPD in terms of mortality and balance/fall in the previous literature

2. To determine the demographics of patients with COPD attending pulmonary rehabilitation and to compare them with those who have not attended pulmonary rehabilitation using The Health Information Network (THIN) primary care database.

3. To assess survival within the UK of patients with COPD in relation to attending pulmonary rehabilitation using the THIN database

4. To investigate the risk of fall among patients with COPD in THIN, compare the frequency of fall with individuals without COPD and perform a survival analysis

5. To investigate the relationship between pulmonary rehabilitation clinical outcomes with the number of available pulmonary

rehabilitation spaces per programme, number of patients assessed per programme and staff/patient ratio

6. To assess the effect of the practice exercise walk test on i) the baseline exercise walk test; ii) enrolment and completion; and iii) clinical response to pulmonary rehabilitation using the National COPD Audit Pulmonary Rehabilitation Workstream

2 THE EFFECT OF PULMONARY REHABILITATION ON MORTALITY, BALANCE, AND RISK OF FALL IN STABLE PATIENTS WITH COPD: A SYSTEMATIC REVIEW

2.1 Introduction

Comorbidities influence the prognosis of patients with COPD which include cardiovascular disease, diabetes mellitus, osteoporosis, increased risk of fall, and depression [92]. In general, impaired mobility, muscle weakness, and impairment of balance due to chronic diseases are strong predictors of fall in adults [93]; recent studies have found that balance is impaired in patients with COPD [51]. A recent Cochrane systematic review showed evidence that falls in elderly can be prevented with exercise [94]. Exercise, with balance training, has been recommended in the guidelines for prevention of falls in older people with grade B evidence [95].

As discussed in Chapter 1, PR is an important part in the clinical management of COPD, and it includes education, exercise training, and psychological support [29]. There are demonstrable improvements in exercise tolerance, muscle strength, dyspnoea, and quality of life in patients with COPD after PR, cemented in a Cochrane review [38] and the BTS guidelines [30]. Improving muscle strength and exercise tolerance through PR as well as the opportunity for educational support and improving confidence may well therefore improve risk of future falls. Given patients with COPD have a high prevalence of osteoporosis [92]; an increased risk of falls is of even more concern. Further quality of life in the older population as a whole is associated with falls.

Whilst a systematic review of six clinical trials has shown survival benefit in those undergoing PR in patients with COPD after an acute exacerbation [96], the situation in stable patients undergoing standard PR is uncertain. The BTS PR guidelines document research recommendations and include need for research on comorbidities, preserving health, personalisation of PR and extending the outcomes used [30].

2.1.1 Objective

The aim of this study was to conduct a systematic review of published studies that evaluate the effect of a PR programme on stable patients with COPD to determine if there is benefit with regard to balance or falls, and survival.

2.2 Method

2.2.1 Database

Electronic databases were conducted through OVID on Medline, EMBASE, Cochrane Collaboration Library and the register of controlled trials from 1st of January 1980 until 15th of November 2014, and through an update in 10th of October 2015 to identify new studies. Unpublished trials were searched electronically using www.ClinicalTrials.gov.

2.2.2 Search strategies

The search strategies included adult human studies on patients with COPD who have had standard PR not less than four weeks; and limited to articles in "English" and "humans". The search was conducted with the University library services who approved the search terms and methodology structure (see Appendix 9.1 for the complete search syntax). The outcome measures were balance, fall, survival, and mortality. We conducted this review in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines [97].

2.2.3 Inclusion and exclusion criteria

Using the PICOS (The **p**opulation, **i**ntervention, **c**omparison, **o**utcome, and **s**etting) model, only studies meeting the following criteria were included:

1. The population: Stable adult patients with COPD.

2. The intervention: Standard multidisciplinary PR of not less four weeks.

3. The comparator/control: Other patients with COPD who did not have participated in PR. Studies without a comparator group were also included.

4. The outcome: Either balance, fall, survival, mortality.

5. Setting: Either cohort or clinical trials from 1980 onward.

2.2.4 Outcomes

- Survival rate.
- Balance tests:
  - Berg Balance Scale (BBS): is widely used scale to evaluate balance control; it contains 14 activity items that each one scales from 0 (unsafe) to 4 (efficient). A Score of 46 and below has been determined to identify patients at risk of falling; and a change of 4 or more has been identified as the Minimum Detectable Change (MDC) [98,99].
  - Timed Up and Go test (TUG): is a timed measure of balance that requires patient to rise from a standard armchair and walk 3 meters, walk back and sit down on the chair. A Score of 16 seconds or more has been determined to identify patients at risk of falling; and a change of 15 seconds in frail elderly patients more has been identified as the MDC [100,101].
  - Activities-Specific Balance Confidence scale (ABC): is a balance confidence scale that require patient to perform 16 activities on 11-points scale without losing their balance. Higher score indicate good balance confidence and a change of 13% have been suggested as the MDC [102,103].
  - Balance Evaluation Systems Test (BESTest): is a comprehensive balance assessment tool of six items of balance control that each one scales from 0 (unable) to 3 (performed normally); greater numbers indicate better balance [104].

All of them have shown consistency, reliability, and validity for determining balance and fall risk in adults and have been used to evaluate the ability to maintain balance and quantify patients with COPD at risk of falling [Table 2-1].

Table 2-1. Cut-off and minimum detectable change for balance tests

Balance Test	**Cut-off score***	**MDC**
BBS	<46	≥ 4
ABC	<67%	13
BESTest	<69%	8.9
TUG	>16 seconds	4-15 seconds

*Cut-off score: to define whom at risk of falling. These cut-off scores are what have been used to assess the balance on the included studies, there are different other scores reported in other studies.
Abbreviations: MDC: Minimum Detectable Change; BBS: Berg Balance Scale, BESTest: Balance Evaluation Systems Test, ABC: Activities-Specific Balance Confidence scale, TUG: Timed Up and Go test.

2.2.5 Quality assessment

Citations were imported into Endnote to remove any duplicates. Two reviewers independently assessed the titles (AH and TMM) and then abstracts (AH and CB); from this, full text was sought and these were evaluated by (AH, CB, and TMM) based on outcome and type of rehabilitation program provided the intervention was for at least 4 weeks. These studies were evaluated and selected independently for inclusion in the systematic review. Any disagreements were resolved by a third member of the team for consensus.

Additional studies were searched for the bibliographies and relevance of the retrieved articles. Studies that did not fulfil the selection criteria were excluded.

The Cochrane Collaboration's 'Cochrane risk of bias tool (modified) was used for quality assessment of the RCT. It covers of many items within six domains of bias: selection, performance, detection, attrition, reporting, and other bias. The tool involves assigning a judgement for each item: high, low, or unclear risk of bias. The judgment would be unclear of bias if the trial reported insufficient detail. After summering assessments across items, an overall risk of bias can be concluded based on which domains are most important [105].

The Newcastle-Ottawa scale (NOS) was used to assess the methodology and quality of the cohort studies. It is a quality assessment tool for case-control and cohort studies devolved by universities of Newcastle, Australia and Ottawa, Canada. The scale is based on a star system on three board perspectives: 4 stars for selection of the study groups, 2 stars for comparability of the groups, and 3 stars for ascertainment of the outcome - a score of 9 is the highest [106].

2.2.6 Data Extraction

Data from each of the included studies for the systematic review was collected using developed data extraction forms (see Appendix 9.2 the data extraction form). The information for each study was extracted according to the study

design, year of publication, type of PR program and duration, the quality assessment, and the outcomes (mortality, fall, balance).

2.2.7 Database development

Microsoft Word and Excel were used to accommodate information concerning the study level characteristics, the quality of study and the outcomes into spreadsheets and tables.

2.2.8 Assessment of the included study

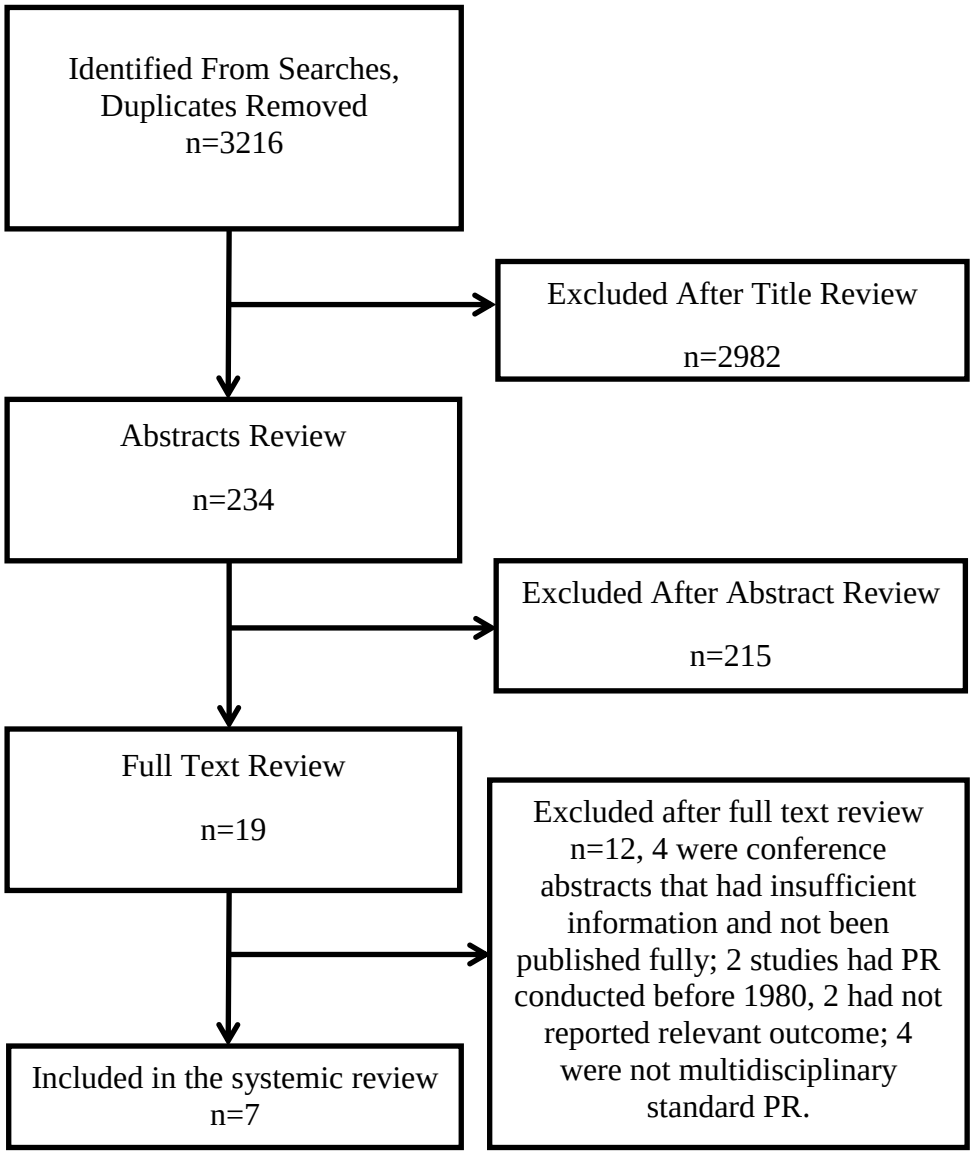
AH, TMM, and CB independently extracted the full text of the included articles and recorded details on authorship, year of publication, study design, interventions, patient information and outcome measures. Risk of bias was assessed using the Cochrane Collaboration's Cochrane risk of bias tool (modified) for quality assessment of the RCT and The Newcastle-Ottawa scale (NOS) was used to assess the quality of the cohort studies. Any disagreements were resolved by a third member of the team.

2.3 Results

2.3.1 Study selection

A total of 3216 citations were identified from the databases in the original search. Of these, 3,197 were excluded for not fulfilling the eligibility criteria (during title and abstract screening). A full text reports of 19 articles were retrieved and evaluated based on the inclusion and exclusion criteria. Excluded conference abstracts that did not report sufficient information (n=4), studies had conducted PR programme before 1980 (n=2), studies did not report relevant outcomes (n=2), or PR program were not standard multidisciplinary program (n=4). In the end, seven studies that met the eligibility criteria of the review, of which 2 were randomized control trials and 5 were cohort studies, were included for evidence synthesis [39,107-112]. **Figure 2-1** show details of the selections process of the studies after searching.

Figure 2-1. Flow diagram of the selection process of studies included in the systematic review



2.3.2 Quality Assessment

The quality of the cohort studies, as assessed by the NOS with overall score of ≥6 out of 9, with points loss due to sampling method or inadequate time for follow-up [106] [Figure 2-2]. For the two randomized trials, the quality of the included studies' reporting was high with low risk of bias; allocation

concealment and sequence generation were clearly described in both trials. But one trial did not use blinding while the other was only single-blinded [105] [Figure 2-3].

Figure 2-2. Quality assessment of the Cohort studies using Newcastle-Ottawa risk of bias tool

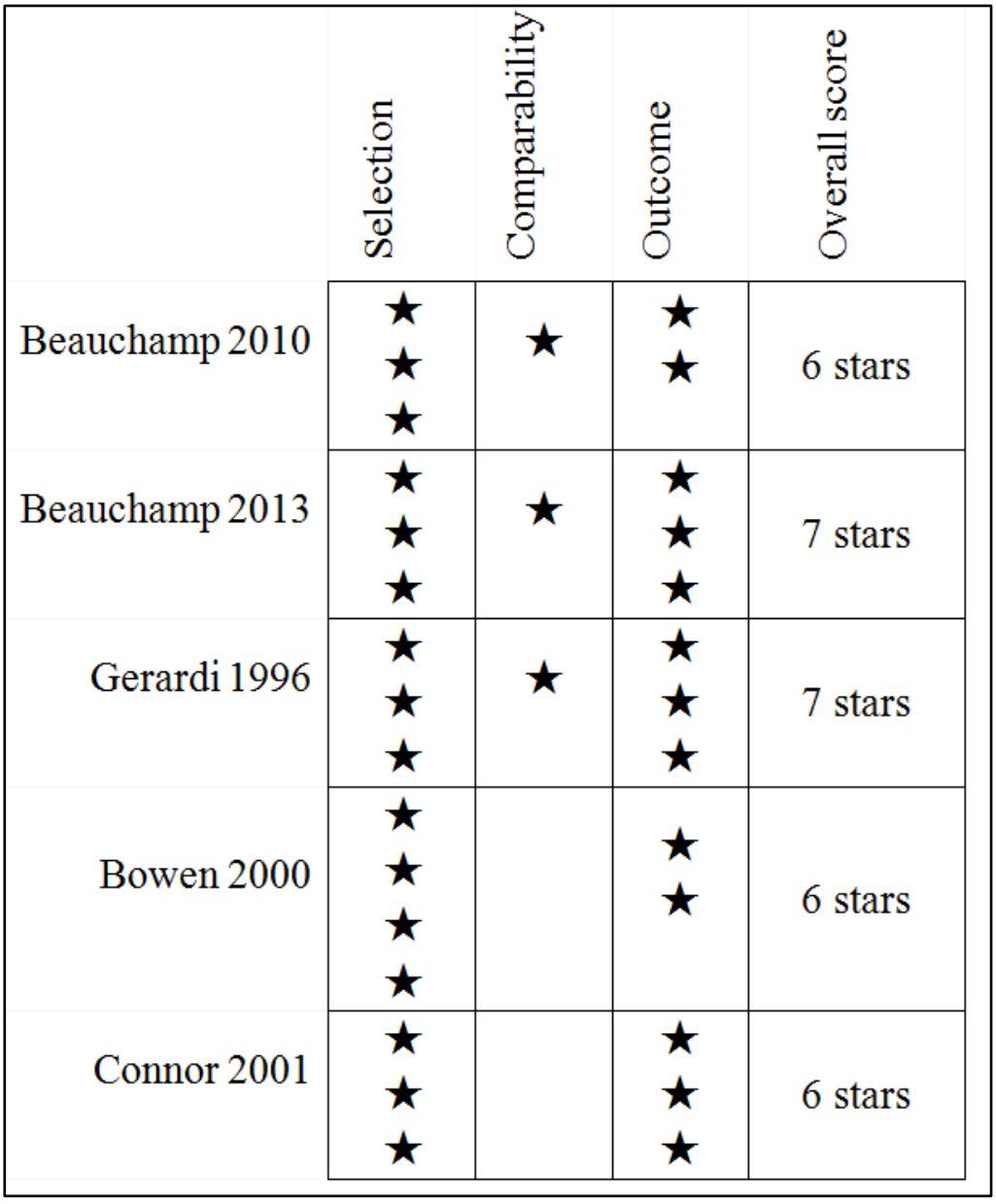
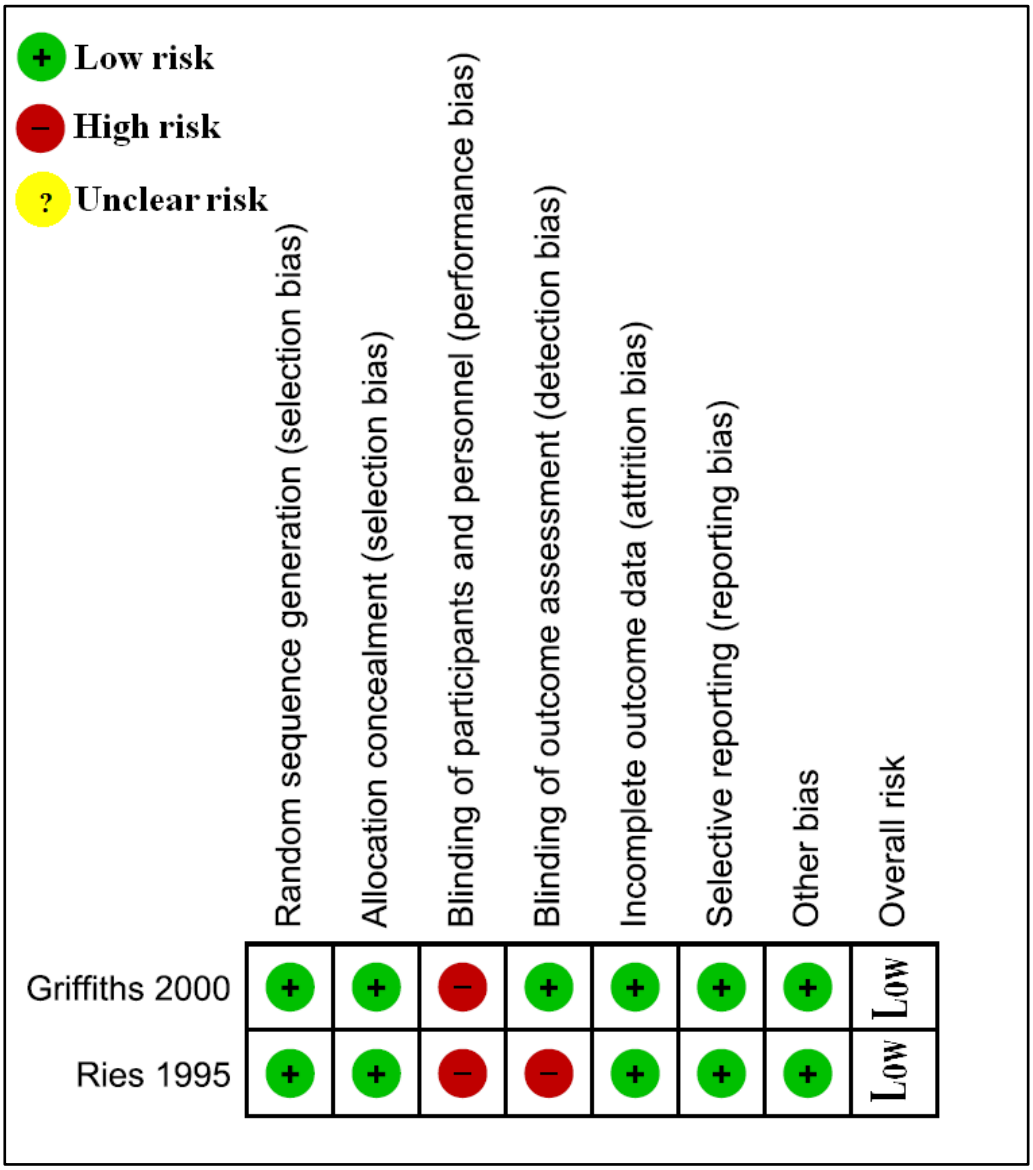


Figure 2-3. Quality assessment of the control trials using Cochrane risk of bias tool



2.3.3 Characteristics of the included studies

Detailed characteristics of the included studies and quality assessment for risk of bias:

Beauchamp, 2010[107]

Methods	Cohort study
Participants	29 diagnosed patients with COPD (mean ±SD age, 69.8±10.3y; forced expiratory volume in 1 second, 46.3%± 22.3% predicted; 59% men[n=17]).
Pulmonary rehabilitation	6-week inpatient PR which includes: Supervised endurance exercise training 4 to 5 times a week, Lower- and upper-extremity strength training 3 times a week, Breathing exercises daily. Self-management education and psychological and social support were provided through lectures, relaxation classes, and recreational activities at least twice a week for 30 minutes.
Outcome	BBS, TUG, ABC
Risk of bias	
NOS selection	***
NOS comparability	*
NOS ascertainment	**
*NOS: selection, comparability and ascertainment asterisks (*) with a maximum score of 4, 2, and 3, respectively.	

Beauchamp, 2013[108]

Methods	Cohort study. (this was a clinical trial on PR vs PR with balance training, for the purpose of the systematic review we have taken only PR only and treated it as cohort study)
Participants	17 patients with COPD (mean ±SD age, 67.1±9.4y; forced expiratory volume in 1 second, 35.4%± 17.5% predicted; 52% women [n=9]).
Pulmonary rehabilitation	6-week inpatient PR which includes: Supervised endurance exercise training 4 to 5 times a week, Lower- and upper-extremity strength training 3 times a week, Breathing exercises daily. Self-management education and psychological and social support were provided through lectures, relaxation classes, and recreational activities at least twice a week for 30 minutes.
Outcome	BBS, BESTest, ABC
Risk of bias	
NOS selection	***
NOS comparability	*
NOS ascertainment	***
*NOS: selection, comparability and ascertainment asterisks (*) with a maximum score of 4, 2, and 3, respectively.	

Gerardi, 1996[109]

Methods	Cohort study
Participants	Records from 158 patients who completed outpatient pulmonary rehabilitation from Nov1989 to Mar1993 [COPD (87%), asthma (8%), restrictive disease (2.5%), and bronchiectasis (2.5%)]; (mean ±SD age 67±10y)
Pulmonary rehabilitation	Outpatient 3 h/ twice weekly/ 6 weeks. Educational, with topics including symptom management, medications, compliance, breathing retraining, pacing, nutrition, and stress reduction. The remainder of the time was spent on exercise conditioning. Exercise included upper extremity training with weights and elastic bands, inspiratory resistive exercise, and lower extremity training with a treadmill and stationary bicycle.
Outcome	Survival
Risk of bias	
NOS selection	***
NOS comparability	*
NOS ascertainment	***
*NOS: selection, comparability and ascertainment asterisks (*) with a maximum score of 4, 2, and 3, respectively.	

Bowen, 2000[110]

Methods	Cohort study
Participants	149 patients with symptomatic lung disease (89% COPD; mean ±SD age 69±9y; forced expiratory volume in 1 second, 39%± 19% predicted; 55% women [n=82]).
Pulmonary rehabilitation (duration, frequency, in or out-patient, and what it did include)	Connecticut Pulmonary Rehabilitation Consortium program. 10 programs gave outpatient PR; 1 of them had both out and inpatient PR. PR includes education, breathing exercise, and exercise training. Duration and visit varies, [visits per week X program weeks, 1(2X5) 2(1X10-12) 3(2X6-8) 4(1-3X8-12) 5(3X6) 6(2X8) 7(2X6) 8 inpatient (7-9X4) outpatient (2X4) 9(3X12) 10(2X8)]
Outcome	Survival
Risk of bias	
NOS selection	****
NOS comparability	
NOS ascertainment	**
*NOS: selection, comparability, and ascertainment asterisks (*) with a maximum score of 4, 2, and 3, respectively.	

Connor, 2001[111]

Methods	Cohort study
Participants	170 patients with COPD (mean ±SD age 68.5±8.3y; forced expiratory volume in 1 second, 43.8%± 17.6% predicted; 59% men [n=100]).
Pulmonary rehabilitation (duration, frequency, in or out-patient, and what it did include)	8 weeks. The first week of this programme consisted of in-patient stay of 5 days and 4 nights, followed by twice weekly attendances of 2 hours each. Education was during an in-patient stay and utilises a multidisciplinary team. There were 2 types of exercise practised. A circuit of mobility and strength exercises was performed twice weekly according to an individual prescription time and the patient was also encouraged to perform this circuit at home. Endurance exercise, in the form of continuous walking, was performed by the patient at home for a minimum of 3 and maximum of 6 days per week and a diary was completed.
Outcome	Survival
Risk of bias	
NOS selection	***
NOS comparability	
NOS ascertainment	***
*NOS: selection, comparability, and ascertainment asterisks (*) with a maximum score of 4, 2, and 3, respectively.	

Ries, 1995[112]

Methods	Randomized Control trial
Participants	119 stable patients with COPD, rehabilitation group (n=57, mean ±SD age 61.5±8y; forced expiratory volume in 1 second, 1.21L± 0.55L predicted; 74% men [n=42]) education group (n=62, mean ±SD age 63.6±6.3y; forced expiratory volume in 1 second, 1.24L± 0.56L predicted; 73% men [n=45]).
Pulmonary rehabilitation (duration, frequency, and what it did include)	8-week, 2-phase comprehensive rehabilitation program; 1st phase involved education, physical and respiratory care instruction, psychosocial support, supervised exercise training. 2nd phase involved monthly follow-up visits for 1 year; this visit included a supervised period of exercise, group sessions to discuss progress and problems, and the introduction of maintenance techniques.
Outcome	Survival

Risk of bias

Based on Cochrane Risk of Bias Tool:	**Yes**	**No**	**Unclear**
Was the allocation sequence adequately generated?	✓		
Was the sequence generation adequately concealed before group assignments?	✓		
Was knowledge of the allocated interventions adequately hidden from the participants and personnel after participants were assigned to respective groups?		✓	
Was knowledge of the allocated interventions adequately hidden from the outcome assessors after participants were assigned to respective groups?		✓	
Were incomplete outcome data adequately addressed?	✓		
Are study reports free from suggestion of selective outcome reporting?	✓		
Was the study apparently free of other problems that could put it at risk of bias?	✓		

*"Yes" indicates low risk of bias; "no" indicates high risk of bias; and "unclear" indicates an unclear risk of bias for that specific entry.

Griffiths, 2000[39]

Methods	Randomized Control Trial
Participants	200 patients with COPD, rehabilitation group (n=99, mean ±SD age 68.2±8.2y; forced expiratory volume in 1 second, 39.7%± 16.2% predicted; 62% men [n=61]) control group (n=101, mean ±SD age 68.3±8.1y; forced expiratory volume in 1 second, 39.4%± 16.4% predicted; 58% men [n=59]).
Pulmonary rehabilitation (duration, frequency, in or out-patient, and what it did include)	Multidisciplinary outpatient PR, 3 half days per week for 6 weeks. Each session was about 2 hours long. The first third of the time was spent in educational activities; an exercise session followed with individually prescribed training programmes: 30 min of exercise for the legs and arms; treadmill; circuit training, individual dietary advice was also given.
Outcome	Survival

Risk of bias

Based on Cochrane Risk of Bias Tool:	**Yes**	**No**	**Unclear**
Was the allocation sequence adequately generated?	✓		
Was the sequence generation adequately concealed before group assignments?	✓		
Was knowledge of the allocated interventions adequately hidden from the participants and personnel after participants were assigned to respective groups?		✓	
Was knowledge of the allocated interventions adequately hidden from the outcome assessors after participants were assigned to respective groups?	✓		
Were incomplete outcome data adequately addressed?	✓		
Are reports of the study free from suggestion of selective outcome reporting?	✓		
Was the study apparently free of other problems that could put it at risk of bias?	✓		

"Yes" indicates low risk of bias; "no" indicates high risk of bias; and "unclear" indicates an unclear risk of bias for that specific entry.

2.3.4 Fall/Balance

There were no studies that report the impact of PR on falls directly, while two cohort studies evaluated the effect of standard PR on balance in patients with COPD. [Table 2-2] Both studies assessed the balance tests using MDC as the true change in the balance. The first cohort study by Beauchamp *et al.*[107] studied 29 patients with COPD (pre- and post-PR), and found significant improvement in measures of balance, [BBS MD=2.8 points; 95% CI (1.7 to 3.8); P<0.001], [TUG MD=-1.5s; 95% CI (-2.4 to -0.5); P=0.003], but not for self-assessed balance confidence score as measured by ABC [MD=4.8; 95% CI (-1.0 to 10.7), p=0.1]. In the second study by the same authors [108], they conducted a randomized clinical trial comparing standard PR with PR + balance training. Based on our inclusion criteria we have taken only the control arm of this trial (PR) and treated as a cohort study. Here, patient inclusion criteria also included a self-reported decline in balance, fall in the last 5 years or a near fall. Within this control arm, 17 patients (pre- and post-PR program) were studied and this time the results showed no significant improvement in the BBS [MD=1.6 points; 95% CI (-0.26 to 3.46), p=0.07]; but there was significant improvement in ABC confidence [MD=13; 95% CI (3.72 to 22.27), p=0.014]. Here, the Balance Evaluation Systems Test (BESTest) showed significant improvement as well [MD=6; 95% CI (3.39 to 8.60), p=0.0003].

Table 2-2. Two cohort studies assessing the impact of pulmonary rehabilitation on fall/balance

Author/Year	PR site	Inclusion	Exclusion	PR weeks	PR Education	PR Breath Tech	PR Exercise Train	Total No /Lost to follow up/Final No of patients	Quality score*	Outcome	Mean difference (95% CI)	P- value
Beauchamp 2010 [107]	Inpatient	COPD (FEV1 <80% predicted and FEV1/forced vital capacity <70% predicted), smoking history >20 pack/year	Cognitive impairment, symptomatic cardiovascular disease, musculoskeletal condition that limited mobility	6	2/wk /30min	Daily	4-5 times/ week	33 / 4 / 29	6 out of 9	BBS	2.8 (1.7 to 3.8)	P<0.001
										TUG	-1.5 (-2.4 to -0.5)	P=0.003
										ABC	4.8 (-1.0 to 10.7)	P=0.10
Beauchamp 2013 [108]	Inpatient	patients with COPD who reported decline in balance or fall in last 5 years or a recent near-fall	Inability to communicate, comorbidity that influenced balance, musculoskeletal condition that severely limited mobility and balance	6	2/wk /30min	Daily	4-5 times/ week	18 / 1 / 17	7 out of 9	BBS	1.6 (-0.26 to 3.46)	P=0.07
										BESTest	6 (3.39 to 8.60)	P=0.0003
										ABC	13 (3.72 to 22.27)	P=0.014

* Studies' quality assessed by Newcastle-Ottawa scale.
Abb i: PR: pulmonary rehabilitation, wk: week, BBS: Berg Balance Scale, BESTest: Balance Evaluation Systems Test, ABC: Activities-Specific Balance Confidence scale, TUG: Timed Up and Go test.

2.3.5 Survival

Three cohort studies [109-111] [Table 2-3] and two randomized controlled trials [39,112], [Table 2-4] contributed to the mortality data with PR. In 1996, a cohort study by Gerardi [109] investigated survival in 158 patients (of which 87% had COPD) who had completed the PR program, and the survival rate was 80% at 3 years after rehabilitation. In another cohort study by Bowen [110] in 2000 (of which 89% had COPD) the survival rate in 149 patients who completed the PR program was 95% at 1 year, 92% at 2 years, 85% at 3 years, and 73% at 4 years after rehabilitation. In the third cohort study by Connor [111] in 2001 on 170 patients, the 1-year survival rate was slightly lower than Bowen's study at 91%.

Table 2-3. Cohort studies assessing the impact of pulmonary rehabilitation on mortality

Author/ Year	PR site	Inclusion	Exclusion	PR weeks	PR Education	PR Breath Tech	PR Exercise Train	Total No / Lost follow up / Final No of patients	Quality score*	Duration of follow-up	Survival Rate
Gerardi 1996 [109]	Outpatient	Pt. completed PR from Nov1989 to Mar1993	Not mentioned	6	Included	Included	3 h/ twice /wk	158 / 0 / 158 (87% COPD)	7 out of 9	3 years	80% at 3 years
Bowen 2000 [110]	10 programs inpatient + 1 outpatient	Symptomatic lung disease (89% COPD)	Not mentioned	4-12	1-3 wk	1-3 wk	1-3 wk *inpatient 7-9days	164 / 15 / 149	6 out of 9	44 ± 12 months	95% at 1 year 92% at 2 years 85% at 3 years 73% at 4 years
Connor 2001 [111]	1st week inpatient, and the rest is outpatient	All patients with COPD	Not mentioned	8	1st wk	Not included	Circuit of mobility twice/wk. endurance exercise 3-6 days/wk	170 / 0 / 170	6 out of 9	1 year	91% at 1 year

* Studies' quality assessed by Newcastle-Ottawa scale**.**

Abb ii: PR: pulmonary rehabilitation, wk: week

In addition, two randomized control trials [39,112] compared the survival rate between PR and control groups [Table 2-4], where survival was a secondary outcome in both cases. In 1995, Ries *et al* [112] studied two groups of patients; 57 patients (rehab) received the standard PR program and 62 patients (control) received only the PR education component. They found at 3 years that 85% survived in the rehab group compared to 74% amongst the control group; and at 6 years, 67% in rehab and 56% in the control group survived. Although the PR survival was better, there was no significant difference in survival rate [Hazard ratio=0.74 (95% CI, 0.41 to 1.34; P = 0.32)]. In the second trial in 2000, Griffiths *et al.* [39] compared a standard rehab group (92 patients) with a control group (90 patients); survival was reported as a supplementary result of their study. By year 1 of the study, 94.5% survived in the rehab group compared to 90% in the control group, (P value=0.032).

Table 2-4. Randomized control trials assessing the impact of pulmonary rehabilitation on mortality

Author/ Year	PR site	Inclusion	Exclusion	PR weeks	PR Education	PR Breath Tech	PR Exercise Train	Total No of patients / Lost follow up / Final No of patients	Quality score*	Duration of follow-up	Survival Rate
Ries 1995	Inpatient	COPD, asthmatic bronchitis, stable, no heart problem or disabilities	Reversible asthma, current smokers don't want to quit	8 weeks and monthly visit for 1 year	Control group 8 weeks, rehab group 8wk+1year	Included in only rehab group	Included in only rehab group	Rehab 63 / 6 / 57 Control 65 / 3 / 62	5 Yes, 2 No	6 year	At 3 years: rehab 85% and control 74%. At 6 years: rehab 67% and control 56%. P=0.32
Griffiths 2000	Outpatient	Stable patient with FEV1 <60%, with less than 20% reversibility	Pt. can't walk, cognitive impairment, symptomatic heart disease	6 weeks for rehab group	Third of the PR time in the rehab group	Included in rehab group only	3 half days /wk for rehab group	Rehab 99 (83% COPD) / 7 / 92	6 Yes, 1 No	1 year	At 1 year: rehab 94.5% and control 90%. P=0.032

* Studies' quality assessed by the Cochrane collaboration risk of bias tool. Abbreviations: PR: pulmonary rehabilitation, wk: week

2.4 Discussion

This systematic review identified a paucity of studies that focus on the effect of PR on falls, balance or survival. In the two studies that examined any potential benefit of PR on balance, the results were not consistent across the two studies even though each of them demonstrated a significant improvement in at least one of the balance scores. The survival in patients with COPD who had PR at clinical stability appeared to show some benefit however this was not always statistically significant.

The identified studies on balance [107,108] have small sample size and they have excluded patients with many comorbidities that could influence their balance. Small statistical differences in some of the balance tests were found but these were not consistent across the studies. Previous research have shown that patients with COPD have worse balance score on their BBS test compared to healthy individuals [113,114]. The balance tests used in the studies (BBS, TUG, and BESTest) and the ABC balance confidence are important as they have shown reliable and valid results for determining balance and fall risk in adults [102,104,115,116]. In addition, they have been used to evaluate the ability to maintain balance and quantify patients with COPD at risk of falling [93,117]. Both cohorts used MDC instead of the MCID. MDC is the smallest change in a patient's score which assures that the change in attribute is greater than measurement error while MCID is defined as "the smallest difference in score in the domain of interest which patients perceive as beneficial and which would mandate a

change in the patient's management" [118]. MCID are frequently used to determine if interventions have made a meaningful difference on patients. An important aspect to consider is whether these "meaningful changes" are based on individual or group differences. "Statistically significant difference" does not necessarily mean "clinically important" in terms of a clinically demonstrable change. A small mean change in the group does not provide information about individuals' scores, because significant difference could by shown by a number of individuals in that group [119]. There is a lack of the studies uses which utilize MCID for BBS, BESTest, ABC, and TUG to assess balance and risk of fall. Recently, Beauchamp carried out a secondary analysis to determine the MCID of the BBS, BESTest, and ABC [120]. Further physical therapy research is required to gain a better understanding of how best to assess responsiveness of those measures and establish clinically significant change.

Previous evidence has shown that exercise reduces falls in the elderly [94]. Furthermore, studies have found that standard PR with adding balance training component had a better effect on functional balance and muscle strength in patients with COPD which should, in turn lead to reduced falls [121,122]. On the current evidence therefore, patients at risk of falls, undergoing PR should have a personalised balance training.

PR has been associated with improved survival in patients with COPD after an acute exacerbation [60]. Recent National COPD audit programme report showed a higher mortality rate in patients either not enrolled or enrolled but completed

PR compared to those who enrolled and completed PR within 90 days (1.6% Vs. 0.1%) and 180 days (3.2% Vs. 0.5%) [123]. However, this is only for a maximum of 180 day and based on completed PR or not with no consideration of mortality risk factors such comorbidities [123]. Furthermore, large recent retrospective study (n=1,515) of two hospitals showed better survival in patients who complete PR (n=823, 54.3%) compare to patients dropped out (n=692, 45.7%) [124]. However, the evidence that PR is associated with improved survival in stable patients with COPD is not as clear. The RCTs included in this review were underpowered to show a difference in survival. They both showed improved survival but they were not both statistically significant [39,112]. In addition to the RCT's we identified the three cohort studies that showed survival following PR, though it is difficult to then compare with other reports of survival in patients with COPD generally. The four year survival in a general cohort of patients with COPD was 81% [125], in one study and as expected, varied according to severity of COPD in another study [126]. When assessed according to airflow obstruction alone, survival at 52 months was 75% for patients with stage I (FEV_1> 50) and II (FEV_1 36-50), and 48% for stage III (FEV_1< 35) [126]. Overall, although evidence on PR has shown significant improvement in the quality of life and dyspnoea, the outcomes of balance, fall, and survival are less clear.

2.4.1 Strength and Limitations

The main strength of this review was in the rigorous study selection process, and therefore it is unlikely to have missed any research in this area. The main limitation of this review was the inconsistency of the reported outcomes (balance tests, and survival rates) across studies. In addition, the evidence of the included studies was weak due to small sample sizes and short follow-up periods. Moreover, most of the studies did not have a comparator group. Also, Gerardi [109] and Bowen [110] have included patients with diagnoses other than COPD, although the majority did have COPD. It was not possible to look at survival in those with COPD alone. The inconsistency of the results within the included studies and the heterogeneity in the PR intervention prevent us from assessing the odds of death and drawing conclusions about the impact of PR on survival. Another limitation of this review was the included studies limited to studies published in English which might have introduced language bias in the studies selection process.

2.5 Conclusion

In conclusion, this systematic review is unable to demonstrate sufficient evidence of the role of PR in improving balance or survival in patients with COPD. Further studies with alternative strategies may need to be employed to determine the benefits of PR particularly on survival as the short-term benefits

are from pulmonary are well established, and therefore unethical to withhold from patients.

3 THE RECORDING AND CHARACTERISTICS OF PULMONARY REHABILITATION IN PATIENTS WITH COPD USING THIN PRIMARY CARE DATABASE

3.1 Introduction

PR is a core management strategy in patients with COPD [16,29,30]. Ever since the NICE guidelines for COPD in the UK were issued in 2004 [127], PR has been recommended, a finding further reiterated in the 2013 BTS, NICE accredited pulmonary rehabilitation guidelines [16,30]. The primary benefits of PR include improving exercise tolerance, dyspnoea and quality of life with the strongest evidence for its role in patients with COPD and with an MRC breathlessness score of 3 or worse [30]. The decision to refer to PR should not be based on parameters such as age or comorbidities but rather on disability and functional limitation [16,30,128,129]. Co-morbidities in patients with COPD are recognised, impacting hugely on morbidity and mortality [66,130], but patients with co-morbidities gain benefit from PR and hence are not outright exclusions [131,132].

There is increasing interest in provision of PR across the UK with the ongoing work of the National COPD audit program: pulmonary rehabilitation workstream. Maps of PR sites have now been produced [37] and a greater understanding of the unmet need is emerging. There remains a poor understanding of referral patterns into PR programme. A recent primary care snapshot audit of COPD in Wales, UK also confirmed low numbers of patients referred to PR [133].

COPD is punctuated by acute exacerbations that often require hospitalization which is known to be associated with significant mortality in COPD.[134] A

recent Cochrane review found that participating in a PR programme after an acute exacerbation reduces hospital admission and improves overall survival in patients with COPD.[60] However, information regarding survival following the more common, usual PR is limited [39,112]. One of the objectives of a PR program is to improve physical activity [30]. Increased levels of physical activity itself is beneficial for survival [15]. A large UK primary care research database to identify patients with COPD, their record of PR, demographics, and clinical characteristics was used. Survival rate according to PR recording were also investigated.

3.1.1 Objectives

The primary aim of this study is to explore the PR referral pattern in the UK using the primary care database and investigates if there is a PR survival benefit. Firstly, an assessment of the coding of PR in the THIN primary care database of patients with COPD was conducted. Secondly, a survival analysis was performed to compare patients with and without PR codes.

3.2 Methods

3.2.1 Data source

The Health Improvement Network (THIN) is a large nationally representative database of general practice patient health records in the UK provided by Epidemiology and Pharmacology Information Core (EPIC). THIN provides anonymous patient data, including demographics, geographical distribution and practice size, past history and prescriptions. THIN also contains information on referral to specialists, diagnostics and laboratory results, some lifestyle characteristics and other measurements taken within the general practice. The source population included patients in the UK enrolled with a GP who contributed to the THIN primary care database. THIN data collection started in January 2003 recorded using hierarchical Read Codes, using a proprietary Vision™ data capture software [135].

3.2.2 Ethical Approval

Ethical approval for the study was provided by the Cegedim Strategic Data Medical Research Scientific Review Committee (14-066). The methods were performed in accordance with relevant regulations and guidelines.

3.2.3 Study Population

In 2004, NICE recommended PR for patients with COPD [127]. Therefore, patients with a new coded diagnosis of COPD (Appendix 9.3) made from January 1, 2004 until May 22, 2014 were included. Patients were excluded if they met any of the additional criteria:

1. COPD Read code with a missing date in the patient record: because the diagnosis might have been recorded at some unknown time prior to the first COPD code with a valid date.
2. Patients who died or left their practice prior of diagnosis were excluded as their practice would not have had sufficient opportunity to follow-up and were unlikely to have clinical measurements recorded afterward.
3. Patients had PR record prior of diagnosis.

3.2.4 PR coding

The definition of PR record included: the first of any PR Read code (Appendix 9.4) recorded at or after the date of diagnosis for COPD. Patients were classified according to the PR codes:

- "Recorded PR" group: at least 1 coding of being assessed, referred, or having completed PR records on at least one occasion; the first recording of any of these was used if the patient had more than 1 coding.
- "Declined PR" group, those who have only a code of declining PR.

- "Not recorded PR": those who have no code of PR.

3.2.5 Demographics and clinical characteristics

The identified patient demographic and clinical variables included:

- Age at diagnosis: The age of each patient at diagnosis of COPD was estimated using their date of new code of diagnosis of COPD - date of birth. Age at diagnosis categorized as: ≤50, 51-60, 61-70, and ≥71 years.
- Gender.
- Quintile of the Townsend Index of Deprivation: it is a quintile that measure socio-economic status using patients' postcode of residence by THIN as part of the data collection process [136]. It ranked from least deprived, quintile1, to most deprived, quintile 5 and combines information about unemployment, car ownership, housing tenure, and overcrowding.
- MRC dyspnoea score: it is a scale measures the effect of breathlessness on the daily activity [13], (see Appendix 9.5 for Read codes).
- Smoking status: each patient was identified as current smoker, ex-smoker, never smoke on each date where their smoking status was recorded. The Read codes used to identify smoking status were classified by Dr Szatkowski [137].
- Smoking cessation: records of patients smoking cessation was identified on each date where their cessation advice or referral was offered (Appendix 9.6).

- Flu vaccination: records of patients' flu vaccination was identified on each date where their vaccination was offered (Appendix 9.7).

- Charlson Comorbidities Index: an index used for classifying or weighting comorbid conditions. Each condition is assigned a score of 1, 2, 3, or 6 [Table 3-1] [138]. Conditions that preceded and included date of diagnosis of COPD were included. Then the total score was divided into 4 categories: 1, 2, 3, or 4 or more (Appendix 9.8).

Table 3-1. Charlson Comorbidity Index Scoring System [138]

Score	Conditions
1	Myocardial Infarction
	Congestive Heart Failure
	Peripheral Vascular Disease
	Cerebrovascular Disease
	Dementia
	Chronic Pulmonary disease
	Connective Tissue Disease
	Peptic Ulcer disease
	Mild Liver Disease
	Diabetes without end-organ damage
2	Hemiplegia
	Moderate or severe renal disease
	Diabetes with end-organ damage
	Tumor without metastases
	Leukaemia
	Lymphoma
3	Moderate or severe liver disease
6	Metastasis solid tumor
	AIDS

3.2.6 Evaluation of demographics and clinical differences

There were 2 analyses conducted using logistic regression: a comparison of demographic and disease severity between those who have a code of recorded PR versus those with no recorded PR, and the same characteristics between those with coded declined PR against those with recorded PR were compared. For recorded or declined PR groups, MRC dyspnoea score, and smoking status were used within 15 months prior to the first PR code. Patients with no MRC dyspnoea score or smoking status recorded at this time were categorised as not recorded. The median time from diagnosis with COPD to recorded PR group was determined. This was added to the diagnosis date in those patients without a recorded PR. Using this new date, MRC dyspnoea score and smoking status were recorded from within 15 months prior to this time. We performed a further review on two other aspects of COPD care according to recorded PR, declined PR, or not to put in context, namely smoking cessation coding in the current smokers and flu vaccination. For recorded and declined PR groups, flu vaccination and smoking cessation to current smokers were used within 15 months prior to the first PR code. And for not recorded PR group, flu vaccination and smoking cessation to current smokers were recorded from within 15 months prior to same pointed time for MRC score and smoking status.

3.2.7 Survival analysis

The Cox regression model was used for a multivariate survival analysis between the recorded PR and not recorded PR, and between declined PR and recorded PR, adjusting for demographic, smoking status, MRC dyspnoea score, and level of comorbidities within the model. The start date was the date of the first PR record for recorded PR and declined PR groups and was inputted date of diagnosis plus the median time from diagnosis to PR in the not recorded PR group. In addition, for the survival analyses, patients who did not have a PR record and had then less person-time than the median time from date of diagnosis to date of survival were excluded. The end date was the date of death, the date of leaving the dataset, or end date of data collection (May 22, 2014). Person time values were all calculated with the proper person time approach for each group. We did sensitivity analysis that excluded patients with MRC 1 and 2 and we additionally looked at survival from date of diagnosis. All statistical analyses were performed using the Stata version 13 software (StataCorp LP, college station, TX, US). P-values were determined using likelihood ratio test.

3.3 Result

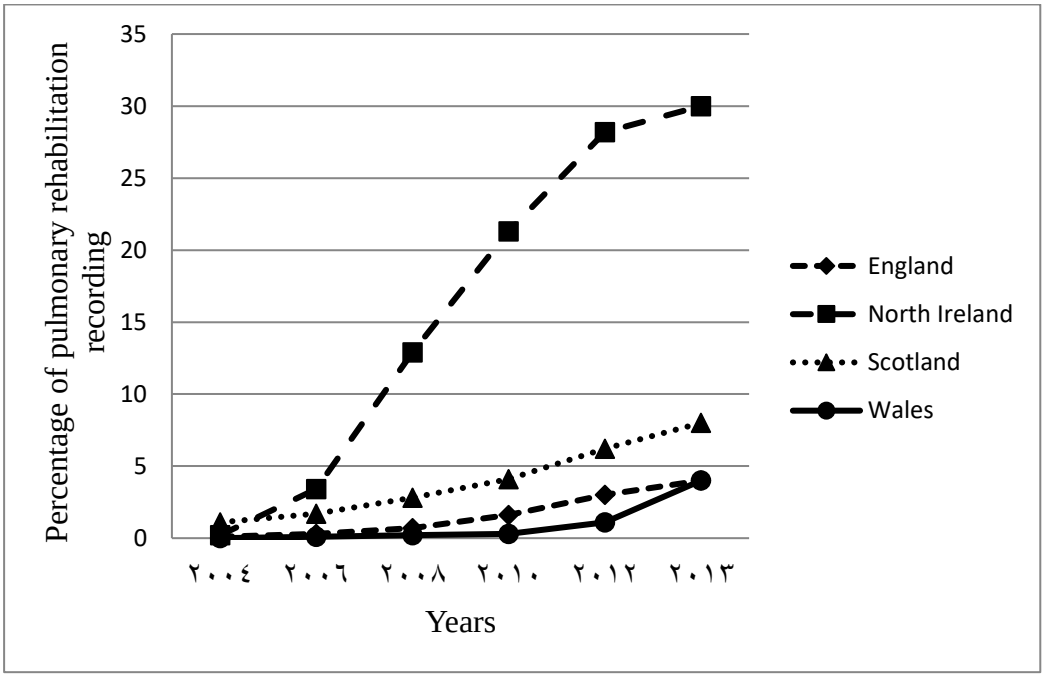
3.3.1 Initial analysis of the THIN data

64,473 patients with COPD were collected from THIN GP database. There were more men than women (53.63% vs. 46.37%); the mean age at the diagnosis was 67 years. Table 3-2 and Figure **3-1** show that recording of PR for Northern Ireland has been increasing since 2006 whereas in Wales the increased observed after 2010 besides the number of diagnosed patients didn't spike up. Table 3-2 and Figure **3-1** show the records per two years' worth of data. Patients and records were included in this specific analysis from January 1, 2004 until December 31, 2013 since the extraction date of this analysis was May 22, 2014.

Table 3-2. Pulmonary rehabilitation records for each UK country per two year within THIN primary care database.

Denominators: Number of patients diagnosed with COPD						
	2004	**2006**	**2008**	**2010**	**2012**	**2013**
England	24,336	30,020	35,512	40,640	45,613	47,811
North Ireland	887	1,156	1,362	1,559	1,758	1,872
Scotland	3,864	4,881	5,923	6,996	8,192	8,802
Wales	2,521	3,084	3,607	4,086	4,678	4,968
Number of pulmonary rehabilitation records (percent per patients)						
	2004	**2006**	**2008**	**2010**	**2012**	**2013**
England	14 (0.1)	91 (0.3)	278 (0.7)	672 (1.6)	1,366 (3)	1,873 (4)
North Ireland	2 (0.2)	40 (3.4)	176 (12.9)	333 (21.3)	496 (28.2)	574 (30)
Scotland	44 (1.1)	86 (1.7)	171 (2.8)	292 (4.1)	511 (6.2)	670 (8)
Wales	0 (0)	2 (0.1)	7 (0.2)	12 (0.3)	50 (1.1)	207 (4)

Figure 3-1. Pulmonary rehabilitation records per diagnosed patients with COPD per two years for each UK countries.

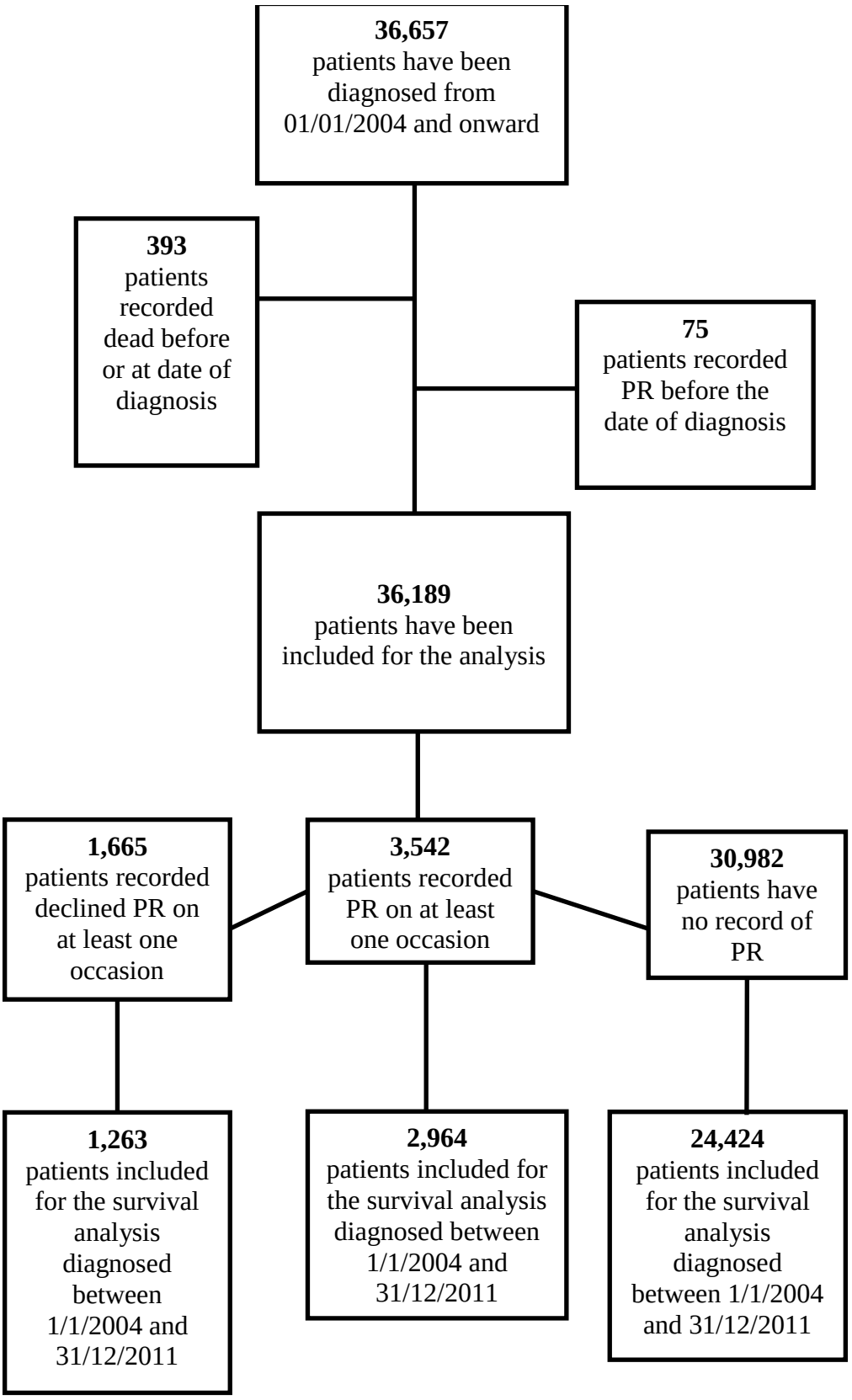


3.3.2 Descriptive analysis of the included population

36,657 patients had a diagnosis of COPD that was made after January 1, 2004. With further exclusions as detailed above, this resulted in a study population of 36,189 [Figure 3-2]. Of these, 19,354 (53%) were male, with a mean (SD) age at diagnosis of 66.9 (11.4) years, while 18,680 (51.6%) were ex-smokers. 6,602 (18.2%) patients had no record of the MRC score and 10,667 (36%) of those who had a record of MRC score, had a score of 3 or worse. There were 3,542 patients (9.8%) with a recorded PR code, 30,982 (85.6%) with no recorded PR code of any sort, and 1,665 (4.6%) with a declined PR code (and there was no other code of subsequently going or being referred). Of those patients who

reported MRC 3 or worse (9,750 patients), 7,693 (81.8%) did not have a record of PR. The median time from the date of diagnosis to the first PR record date was 875 days (interquartile range 271 – 1756).

Figure 3-2. Patients with COPD from the THIN database according to pulmonary rehabilitation



3.3.3 Recorded PR group to not recorded PR

In comparing the recorded PR group to the not recorded group (3,542 vs 30,982 patients) [Table 3-3], older patients (≥71 years old) at diagnosis were less likely to have a record of PR than younger patients (51 – 60 years old), with an adjusted Odds Ratio (aOR) of 0.60 (95% CI 0.53 – 0.76). The most deprived patients (Townsend quintile 5) were less likely to have a record of PR than the least deprived ones (Townsend quintile 1), aOR 0.61 (95% CI 0.54 – 0.70). 2,057 patients (21.1%) with MRC of 3 or worse had a record of PR. Patients with the worse MRC score were more likely to have a record of PR than those with a better score. Current smokers were more likely to have a record of PR compared with ex-smokers; aOR 2.60 (95% CI 2.41 – 2.86). Patients with a higher Charlson comorbidity index (4 or greater) were more likely to have a record of PR than those with a lower index (1); aOR 10.44 (95% CI 9.17 – 12.23). Provision of flu vaccination and smoking cessation advice to smokers was also better in those with recorded PR than not PR: Flu vaccination: 58% vs 48% (aOR 1.42; 95% CI, 1.31 - 1.53); Smoking cessation to smokers 77% vs 52% (aOR 2.90; 95% CI, 2.52 - 3.34).

Table 3-3. Univariate and Multivariate logistic regression for patients with COPD who have recorded pulmonary rehabilitation compared with who have not recorded pulmonary rehabilitation

	Recorded PR 3,542	**Not Recorded PR 30,982**	**uOR**	**aOR (95%CI)**	**P value**
Age at the diagnosis (years)					
≤50	271 (9.86)	2,477 (90.14)	0.79	0.82 (0.70-0.97)	<0.0001
51-60	782 (12.07)	5,695 (87.93)	1		
61-70	1,310 (11.96)	9,643 (88.04)	0.98	1.01 (0.91-1.12)	
≥71	1,179 (8.22)	13,167 (91.78)	0.65	0.60 (0.53-0.76)	
Gender					
Male	1,849 (10.00)	16,648 (90.00)	1		0.757
Female	1,693 (10.56)	14,334 (89.44)	1.06	0.99 (0.92-1.07)	
Townsend Category					
I least deprived	550 (9.97)	4,968 (90.03)	1		<0.0001
II	577 (9.71)	5,368 (90.29)	0.97	0.89 (0.78-1.02)	
III	709 (10.20)	6,245 (89.80)	1.02	0.79 (0.70-0.91)	
IV	849 (10.16)	7,153 (89.39)	1.07	0.71 (0.63-0.81)	
V most deprived	779 (10.95)	6,336 (89.05)	1.11	0.61 (0.54-0.70)	
Missing	78 (7.88)	912 (92.12)	0.77	0.59 (0.45-0.77)	
MRC score*					
MRC 1	223 (3.20)	6,743 (96.80)	1		<0.0001
MRC 2	880 (7.81)	10,382 (92.19)	2.56	2.41 (2.06-2.81)	
MRC 3	1,230 (20.02)	4,915 (79.98)	7.56	6.43 (5.51-7.50)	
MRC 4	715 (23.99)	2,266 (76.01)	9.54	8.01 (6.77-9.47)	
MRC 5	112 (17.95)	512 (82.05)	6.61	5.96 (4.58-7.76)	
Not recorded	382 (5.84)	6,164 (94.16)	1.87	1.47 (1.23-1.76)	
Smoking status*					
Never	279 (3.24)	8,324 (96.76)	0.32	0.28 (0.25-0.32)	<0.0001
Ex	1,696 (9.44)	16,275 (90.56)	1		
Current	1,486 (18.82)	6,334 (81.18)	2.22	2.62 (2.41-2.86)	
Unknown	99 (66.89)	49 (33.11)	19.38	25.95 (17.00-39.62)	
Charlson Comorbidities index					
1	304 (2.42)	12,247 (97.58)	1		<0.0001
2	1,494 (12.43)	10,522 (87.57)	5.72	5.40 (5.13-6.63)	
3	920 (15.52)	5,006 (84.48)	7.40	7.23 (6.64-8.75)	
≥4	824 (20.44)	3,207 (79.56)	10.35	10.44 (9.17-12.23)	
Flu vaccination*					
Received	2,054 (58)	14,871 (48)	1.56	1.42 (1.31–1.53)	<0.0001
Smoking Cessation to smokers*					
Received	1,130 (77)	3,293 (52)	3.12	2.9 (2.52-3.34)	<0.0001

*****For Recorded PR: MRC, smoking status, flu vaccination, and smoking cessation record was taken 15 months prior to the date of first PR record. Not recorded: it was taken 15 months prior to the index time point- 875 days plus date of diagnosis.
Abbreviations: uOR (unadjusted odds ratio), aOR (adjusted odds ratios) of recorded PR.

3.3.4 Declined PR group to recorded PR

Table 3-4 shows the unadjusted and adjusted odds ratio of the declined PR group compared to the recorded PR group (1,665 vs 3,542 patients). The patients' age at diagnosis was associated with a code of declining PR; 71 years and older were more likely to have a record of declining PR than 51-60 years old, aOR 1.22 (95% CI, 1.03 - 1.46). There was no difference between those who decline PR and those with a recording for gender or the Charlson Comorbidities Index. Socioeconomic deprivation was strongly associated with recording of declining PR; the most deprived (Townsend quintile 5) patients were more likely to record declining PR than the least deprived ones (Townsend quintile 1), aOR 1.81; (95% CI, 1.46 - 2.25). Patients with a worse MRC score were less likely to have a record of declining PR than those with a better score. Current smokers were more likely to have a record of declining PR than ex-smokers, aOR 1.38; (95% CI, 1.21 - 1.58). Smoking cessation advice to smokers was better in those with recorded PR than declined PR, 77% vs 72% (aOR 0.77; 95% CI, 0.62 – 0.92).

Table 3-4. Univariate and Multivariate logistic regression for patients with COPD who have declined pulmonary rehabilitation compared with who have recorded pulmonary rehabilitation

	Declined PR 1,665	**Recorded PR 3,542**	**uOR**	**aOR (95%CI)**	**P value**
Age at the diagnosis (years)					
≤50	113 (29.43)	271 (70.57)	0.87	0.80 (0.62-1.03)	0.007
51-60	371 (32.18)	782 (67.82)	1		
61-70	615 (31.95)	1,310 (68.05)	0.98	1.04 (0.89-1.23)	
≥71	566 (32.44)	1,179 (67.56)	1.01	1.22 (1.03-1.46)	
Gender					
Male	857 (31.67)	1,849 (68.33)	1		0.503
Female	808 (32.31)	1,693 (67.69)	1.02	1.03 (0.91-1.16)	
Townsend Category					
I least deprived	179 (24.55)	550 (75.45)	1		<0.0001
II	244 (29.72)	577 (70.28)	1.29	1.36 (1.08-1.71)	
III	322 (31.23)	709 (68.77)	1.39	1.44 (1.15-1.79)	
IV	430 (33.62)	849 (66.38)	1.55	1.59 (1.29-1.96)	
V most deprived	446 (36.41)	779 (63.59)	1.75	1.81 (1.46-2.25)	
Missing	44 (36.07)	78 (63.93)	1.73	1.72 (1.13-2.60)	
MRC score*					
MRC 1	148 (39.89)	223 (60.11)	1		<0.0001
MRC 2	544 (38.20)	880 (61.80)	0.93	0.89 (0.70-1.29)	
MRC 3	591 (32.45)	1,230 (67.55)	0.72	0.67 (0.53-0.85)	
MRC 4	279 (28.07)	715 (71.93)	0.58	0.53 (0.41-0.68)	
MRC 5	47 (29.56)	112 (70.44)	0.63	0.57 (0.38-0.85)	
Not recorded	56 (12.79)	382 (87.21)	0.22	0.21 (0.14-0.30)	
Smoking status*					
Never	97 (25.80)	279 (74.20)	0.83	0.84 (0.65-1.09)	<0.0001
Ex	709 (29.48)	1,696 (70.52)	1		
Current	834 (36.23)	1,468 (63.77)	1.35	1.38 (1.21-1.58)	
Unknown	25 (20.16)	99 (79.84)	0.60	0.70 (0.44-1.12)	
Charlson Comorbidities index					
1	149 (32.89)	304 (67.11)	1		0.105
2	673 (31.06)	1,494 (68.94)	0.91	0.95 (0.76-1.19)	
3	410 (30.83)	920 (69.17)	0.90	0.95 (0.75-1.20)	
≥4	433 (34.45)	824 (65.55)	1.07	1.14 (0.90-1.45)	
Flu vaccination*					
Received	932 (56)	2,054 (58)	0.82	0.88 (0.72–1.07)	0.209
Smoking Cessation to smokers*					
Received	608 (72)	1,130 (77)	0.76	0.75 (0.62-0.92)	0.007

*****MRC and smoking status was taken 15 months prior to the date of first recorded or declined PR for both groups.
Abbreviations: uOR (unadjusted odds ratio), aOR (adjusted odds ratios) of recorded decline PR.

3.3.5 Survival analysis

In the abridged period of COPD diagnosis for the survival analysis in order to allow follow-up time, 27,388 patients were included in this analysis: 53% were male, mean (SD) age at diagnosis was 67 (11) years, 50.5% ex-smokers, and 11% with Charlson Comorbidity Index of 4 or greater; which was similar to the full population. Patients with a record of PR on at least one occasion were 22% less likely to die than those with no record; adjusted hazard ratio (aHR) 0.78 (95% CI 0.69 – 0.88). [Table 3-5]

Table 3-5. Mutually Adjusted Hazard Ratios of Patients who have Recorded Pulmonary Rehabilitation (n=2,964) to those have not Recorded (n=24,424)

	aHR	**95% CI**
Recorded PR	0.78	0.69-0.88
No record PR	1	
Age at the diagnosis (years)		
<50	0.51	0.39-0.66
50-60	1	
60-70	1.65	1.45-1.87
>70	3.18	2.82-3.59
Gender		
Male	1	
Female	0.78	0.73-0.83
Townsend Category		
I least deprived	1	
II	0.99	0.88-1.11
III	1.08	0.97-1.21
IV	1.06	0.95-1.19
V most deprived	1.06	0.94-1.19
Missing	0.70	0.54-0.92
MRC score*		
MRC 1	1	
MRC 2	1.54	1.36-1.75
MRC 3	2.36	2.07-2.69
MRC 4	3.75	3.26-4.31
MRC 5	5.42	4.50-6.54
Not recorded	2.96	2.61-3.37
Smoking status*		
Never	0.91	0.84-0.98
Ex	1	
Current	1.18	1.07-1.29
Unknown	0.99	0.58-1.68
Charlson Comorbidities index		
1	1	
2	1.13	1.03-1.23
3	1.24	1.13-1.37
≥4	1.51	1.36-1.69

*****For Recorded PR: MRC and smoking status was taken 15 months prior to the date of first PR record. Not recorded: it was taken 15 months prior to the index time point- 875 days plus date of diagnosis.
Abbreviation: aHR (adjusted hazard ratio). CI (confidence interval).

Analysing only those with an MRC of 3 or worse showed a similar survival effect, aHR 0.76 (95% CI 0.64 - 0.89). Survival was not affected by year of diagnosis or by GOLD airflow obstruction (where % predicted spirometry was available [Table 3-6]), aHR 0.78 (95% CI 0.69 - 0.88).

Table 3-6. Recorded GOLD stages by spirometry for those patients with diagnosis of COPD in THIN primary care database

Stage	**Not recorded n=30,982 (%)**	**Recorded PR n=3,452 (%)**
GOLD 1 ≥80% FEV_1	671 (91)	66 (8)
GOLD 2 50≤FEV_1<80	2,441 (87)	355 (12)
GOLD 3 30≤FEV_1<50	720 (77)	211 (22)
GOLD 4 <30% FEV_1	109 (77)	32 (22)
Not recorded	27,041 (90)	2,878 (9)

A secondary survival analysis from the date of diagnosis emphasised the above finding. Patients with recorded PR were 66% less likely to die than those with no recorded PR, aHR 0.34 (95% CI 0.31 - 0.39). Survival analysis between declined PR and recorded PR revealed that patients with a record of declined PR on at least one occasion were 15% more likely to die than those with a record of PR; adjusted hazard ratio (aHR) 1.15 (95% CI 0.69 – 0.88) [Table 3-7].

Table 3-7. Mutually Adjusted Hazard Ratios of Patients who have Recorded declined Pulmonary Rehabilitation (n=1,263) to those have recorded pulmonary rehabilitation (n=2,964)

	aHR	**95% CI**
Declined PR	1.15	0.91-1.47
Recorded PR	1	
Age at the diagnosis (years)		
<50	0.93	0.51-1.72
50-60	1	
60-70	1.77	1.24-2.51
>70	3.91	2.79-5.45
Gender		
Male	1	
Female	0.73	0.61-0.89
Townsend Category		
I least deprived	1	
II	0.78	0.54-1.13
III	1.03	0.73-1.46
IV	1.03	0.74-1.44
V most deprived	1.07	0.76-1.49
Missing	0.70	0.33-1.49
MRC score*		
MRC 1	1	
MRC 2	1.35	0.77-2.35
MRC 3	1.81	1.05-3.11
MRC 4	2.56	1.47-4.43
MRC 5	6.45	3.54-11.75
Not recorded	2.22	1.26-3.89
Smoking status*		
Never	0.87	0.57-1.31
Ex	1	
Current	1.26	1.02-1.56
Unknown	1.76	1.01-3.04
Charlson Comorbidities index		
1	1	
2	1.14	0.77-1.69
3	1.32	0.88-1.98
≥4	1.44	0.95-2.16

***** MRC and smoking status was taken 15 months prior to the date of first PR record.
Abbreviation: aHR (adjusted hazard ratio). CI (confidence interval).

3.4 Discussion

The majority of patients diagnosed with COPD have no coded record of PR in their primary care records, even amongst those with an MRC dyspnoea score of 3 or worse. This is despite PR being one of the most effective interventions in patients with COPD and ingrained in guidelines. Several factors appear to have influenced PR recording including younger age at diagnosis, better socioeconomic status, worse breathlessness score, current smoking status, and more comorbidities - all of which are associated with having a record of PR. A survival benefit was seen among those with a record of PR compared to those without a record but PR record was associated with better coding of other COPD treatments, suggesting better package of COPD care generally.

With both the NICE COPD and the BTS PR guidelines recommending PR to all eligible patients with COPD, the recording of PR here, in primary care records is disappointingly low [16,30]. There are several factors that may be important to consider in relation to recording with PR, recently highlighted as crucial barriers to overcome [139]. They include healthcare professional awareness of the referral criteria, referral pathway and the likely benefits of PR together with patient awareness and willingness to be referred and attend. Further, availability of PR and distance to travel may be further issues. The recent National COPD audit, pulmonary rehabilitation workstream in England and Wales determined spaces at each PR site and the precedent mapping exercise identified over 230 programmes and their geographical location [37].

How that then meets the needs of the COPD population and people with other chronic respiratory disease is required, not least as PR can be repeated. Furthermore, introducing PR as part of the QOF reward for GPs could increase PR referral recording within primary care, as shown by Wales in April 2013 [140]. This would enable clinical commissioners to assess the extent of PR the referral pattern annually. However, pulmonary rehabilitation referral is an educational and motivational process [140]. The patient should understand the benefits of pulmonary rehabilitation and have all his or her concerns answered. Thus, the healthcare referrer should have sufficient knowledge of the PR programme and its effectiveness [30]. Previous studies have demonstrated that patients are positively influenced by the initial healthcare professional interaction and the knowledge they gain about PR [141-143]. The referrer enthusiasm identified as potential factor for the attendance and completion of the PR intervention [141]. The use such QOF indicator attached to fixed performance target could impact the physician-patient interaction and thus the PR attendance and completion.

Factors that determine attendance and drop-out of patients in PR are important to identify as good attendance facilitates the optimal functional benefits [144-147]. Those associated with non-adherence include lower social class and current smoking [145,148,149]. However, irrespective of age [128,129], current smoking [150], or comorbidities [132], functional and psychological benefits can be achieved with PR and would therefore should not be barriers to referral [30]. Indeed, PR promotes lifestyle change and as such may facilitate smoking cessation [150]. It is

thus reassuring that in our study, we report better recording of PR in those with current smoking status or with more comorbidities.

One possible explanation that the recording increases with higher comorbidities index is that patients with higher comorbidities might visit their GP more frequently than lower comorbidities patients and therefore a greater opportunity for them to be referred. Additionally, these patients might feel worse due to their co-morbid illness and therefore the GP might be more likely refer them more to PR programme. Similarly, current smokers had better PR recording than others and as the PR programme often consists of smoking cessation the GP could use PR as an opportunity to facilitate and reinforce smoking cessation. However, recording was worse in those with lower socioeconomic status or older age at diagnosis. Compared to those patients who were assessed for PR in the national PR audit [36], the socio-demographic characteristics of this study population with record of PR in their primary care record were broadly similar.

Systematic reviews have demonstrated improved survival for patients with COPD undergoing PR after an acute exacerbation[60,96], such that the meta-analysis of PR following an exacerbation, the OR for mortality was 0.28; 95% CI 0.10 to 0.84 [60,96]. This was more favourable than our reported OR of 0.78 (0.69-0.88) for all recording of PR but the difference perhaps reflects the post exacerbation period of instability and generally greater increased mortality at this time. In the standard PR, delivered at clinical stability, the evidence from

published literature of survival benefit is weaker as there was only data from two small randomised clinical trials where survival was a secondary outcome in both publications [39,112]. One study compared standard PR to education only with a non-significant finding but generally indicating better survival in the PR group [112]. The other reported better survival in those who received standard PR (92 patients) compared to a group who did not, in the following year (P = 0.032).[39] Deliberately denying patients access to PR in one arm of a randomised control trial to assess survival is not an option in a government funded healthcare system like the UK, given the overwhelming evidence PR delivers in other outcomes. Moreover, although we tried to assess the impact of the most potential confounders (comorbidities, smoking status, MRC dyspnoea score), unmeasured confounders such as level of physical activity were not accounted for in the analyses. We cannot tell whether adjusting for these unmeasured confounders could account for the survival benefits.

Mechanisms as to how PR might improve mortality may be through improving physical activity [151]. Physical activity is a strong predictor of survival in both the general population and in patients with COPD [56,152]. Multidisciplinary PR aims to improve exercise tolerance, muscle strength as well as psychological barriers and hence impact on physical activity [153]. A study showed an overall improvement in the multi-composite BODE index score in patients attending PR after 3 months compared to baseline [154]. Further, the goals of PR are a longer-term lifestyle change, that therefore likely impact further on survival [30]. Improvements in depression and greater disease understanding from PR may also be relevant [30]. An alternative plausible explanation for better survival that

is likely is that patients with PR recorded are also receiving a more comprehensive COPD package of care in other aspects, demonstrated in the better coding for influenza vaccination and smoking cessation that we used as surrogate markers here. Finally it is possible that health inequalities is a possible explanation for these findings, as patients from lower socioeconomic class tend to be less educated in general and specifically about their conditions, have less medication adherence, less access to health care than the patients from higher social class [9,155], and all of these factors are likely to impact on survival.

3.4.1 Strengths and Limitations

A strength of this study is this primary care data is large, representative sample of patients within the UK with limited missing data. Patients with COPD were included from 2004 onwards when the QOF was established and therefore the diagnoses of COPD are more likely to be reliant on spirometry. However, the possibility of misdiagnosis of COPD remains [156,157]. A 2004 start for this analysis also coincides with the NICE COPD guidelines being published which recommended PR for patients diagnosed with COPD with a MRC dyspnoea score of 3 or worse [127]. Large differences exist among PR programmes worldwide [35], making it is difficult to generalize wider than the UK processes of referral and healthcare delivery. Importantly, the GP research database does not record information on adherence, attendance and core outcome measures, which can vary markedly. The use of PR Read codes in primary care data

included 3 different codes “assessed”, “referred”, and “completed” were rarely used all together to describe a patient PR experience, generally just one of these were used. Therefore, the three codes were combined to represent an episode of PR. However, it is possible for a patient to be assessed or referred but not to have completed PR which would if anything moves our survival results towards the null hypothesis. Although THIN primary care data is used extensively for research, its primary purpose is for clinical care and it is possible the clinician discussed and recorded the PR decision as free text or had offered the PR and the patient declined it and then did not record the outcome. Both of these would bias the results towards the null hypothesis. Recording of data in general practice has been emphasised as a core competency in the Royal College of General Practitioners training curriculum, 2016 [158]. Moreover, introduction of the QOF has been suggested previously to improve the quality of recording [159]. It is important to consider that some variables used in these analyses can change from the last recorded coded entry in records. An example of this is smoking status which when self-reported, also has limitations. A patients’ health-related behaviour can also effect the patients participation and completion in the PR programmes [160]. PR referral may have stemmed from hospital physicians or community teams distinct from the GP surgery [35]. However, the entry for PR still should be recorded in the patients’ record whatever its source. And where it is not recoded, should prompt a clinician to ask at the next review and record then. It appears this population with missing data have more severe COPD as they more likely to be referred for PR than those with MRC score 1 and have a worse survival as well. The imputed anchor point that we used for the survival analysis in those

who did not have PR record is a limitation but is preferable to using diagnosis date which exaggerates the survival difference - anyone who dies within a short period from diagnosis would be unlikely to have PR by this very nature.

3.4.2 Clinical implication and conclusion

Despite the proven effectiveness of PR for patients with COPD, it was not recorded for the majority of patients with COPD in UK primary care records. Younger age at diagnosis, better socioeconomic status, worse breathlessness score, current smoking and more comorbidities were associated with improved recording of PR. Further, we determined a survival benefit in favour of those with a record of PR, likely as part of a better package of COPD care. This study adds to the understanding of the characteristics of the patients with a PR record and future research needs to gain a better understanding of any barriers that prevent patients attending or being referred.

4 THE RISK OF FALLS IN PATIENTS WITH COPD

4.1 Introduction

The morbidity and mortality associated with COPD pose a public health challenge with a high economic burden [1]. As COPD progresses, the patient's exercise limitation increases results in atrophy of skeletal muscles [161]. In addition, studies have demonstrated deficits in the balance of patients with COPD compared to healthy individuals of the same age [50-53], which may lead to loss of functional independence and falls.

Falls are also a common health challenge among the elderly. Approximately 30% of people aged 65 years or older experience a fall each year [88,117]. In fact, falls are recognised as the second leading cause of accidental death among the elderly,[88] and it has been estimated that 14–58% of people who suffer a hip fracture as a result of a fall die within one year of the incident [162]. In the UK, falls are estimated to cost the National Health Service (NHS) more than £2 billion each year [87].

Studies reported that COPD is one of the chronic conditions with high prevalence of falls [163,164]. Two small studies, both consisting of less than 100 patients with COPD, reported that almost half of the patients had fallen in the preceding year [165,166]. The risk of falling usually involves the complex interactions of several independent risk factors [87-89], some of which are common, if not more problematic, in patients with COPD, including impaired balance control and skeletal muscle dysfunction [72,165]. Yet, there is little

consideration of the risk of falls amongst patients with COPD in the fall prevention or COPD guidelines [16,87].

4.1.1 Hypothesis and objectives

Given the lack of evidence, the hypothesis of this study is that the incidence rate of falls in patients with COPD would be greater. The purpose of this study was, therefore, to determine the incidence of coded recording of a fall in patients following a diagnosis of COPD in a matched cohort study within The Health Improvement Network (THIN) primary care database in the UK.

4.2 Methods

4.2.1 Data source

As previous chapter, the THIN primary care database was used in this study.

4.2.2 Study population

The study population included individuals aged ≥ 35 years who had a diagnosis of COPD between 1 January 2000 and 4 May 2014. The index date was the date of first recorded COPD diagnosis. Non-COPD subjects were selected using

incidence density sampling [167]. Up to four non-COPD individuals were matched for each patient with COPD based on sex, age within one year of the index date, and general practice and were assigned the same index date as their matched cases. Individuals were excluded if they met any of these additional criteria:

1. Individuals with a missing diagnosis date.
2. Individuals who died or left their practice prior to diagnosis.

4.2.3 Demographic characteristics

The identified patient demographic and clinical variables included:

- Age at diagnosis: the age at diagnosis was categorised as < 65, 65–79, or ≥ 80 years based on the distribution of the data.
- Gender.
- Socioeconomic status (quintile of the Townsend Index of Deprivation) ranked from least deprived (quintile 1) to most deprived (quintile 5) [136].

4.2.4 Clinical characteristics

- Body mass index (BMI): the most recent recorded BMI was categorised as BMI ≤ 20, BMI > 20kg/m^2, or missing.
- Cigarette smoking: the most recent recorded smoking status was categorised as current smoker, ex-smoker, never smoker, or unknown.

The Read codes used to identify smoking status were classified previously by Dr Szatkowski [137].

- History of any of the following fall risk factors before the index date[87-89]:

  Sight impairment, depression, stroke/cerebrovascular accident, heart failure, peripheral vascular disease (PVD), coronary heart disease (CHD), rheumatoid arthritis, urinary incontinence, Parkinson's disease, arrhythmia, dizziness (syncope/postural hypotension), osteoporosis, dementia, leg ulcer, or use of a walking aid.

- Medications at risk of fall: all prescriptions dispensed during the follow-up of the following medications were identified[87-89]:

  Sedatives, psychotropics, antidepressants, benzodiazepines, diuretics, class 1α antiarrhythmics, digoxin, antihypertensives, and beta blockers.

Appendix 9.9 and **9.10** provides chronic conditions and medications fall risk factors Read codes used in this study. **Appendix 9.11** provides all fall Read codes.

4.2.5 Medications exposure time analysis

All medications episodes were constructed for each participant, and the exposure time was divided into non-exposed periods and exposed periods.

Exposed periods commenced with the medication dispensing date until the first gap of more than 90 days between prescriptions. Medications started within 90 days prior to the index date were considered within the exposed period. Records of medications initiated more than 90 days prior to the index date were not considered in the analysis. A 90-day exposure window has been used widely in primary care database studies as the maximum prescription duration in the UK is 90 days [168,169].

4.2.6 Statistical analysis

The demographic and clinical characteristics of the COPD and non-COPD subjects were examined using frequency distribution, chi-square tests, and t-test analysis. Only the first fall event following the index date was considered. Complete case analysis, a multivariable Cox proportional hazard model was used to evaluate the association between COPD and falls. Person-time commenced at the index date and ended either when a fall was experienced or when a patient died or left a contributing general practice or end of the dataset, whichever occurred first. Each of the covariates was included in a separate regression model. All variables that changed the association between fall and COPD by 5% were included in the multivariate Cox regression model. Data management and statistical analysis were performed using Stata version 13 (StataCorp, College Station, TX, US).

4.3 Results

4.3.1 Descriptive analysis of the included population

A total of 44,400 patients diagnosed with COPD and 175,545 non-COPD subjects were included in the analysis. The clinical features of the study population are presented in Table **4-1**. The whole population had a mean (SD) age of 66.8 (11.4) years, and 53% were men. Of the patients with COPD, 37% were current smokers, compared to 15% of the non-COPD subjects. As shown in Table **4-2** all of fall risk factors were higher in patients with COPD, except diabetes. Depression was the most common reported condition prior to the index date, appearing in 22% of patients with COPD and 14% of non-COPD individuals [Table 4-2].

Table 4-1. Demographic characteristics of patients diagnosed with COPD and up to four non-COPD subjects who were matched by age, sex, and general practice in THIN.

Characteristics	**COPD** n=44,400	**Non-COPD** n=175,545	**P-value***
Age at diagnosis mean(SD)	67 (11.4)	66.8 (11.4)	-
Age at diagnosis categories n (%)			
<65	18,838 (42.4)	75,122 (42.7)	0.002
65-79	18,627 (41.9)	73,898 (42.1)	
61-70	6,935 (15.6)	26,536 (15.1)	
Gender n(%)			
Male	23,509 (52.9)	92,981 (52.9)	-
Female	20,891 (47.1)	82,564 (47.1)	
Townsend Quintile n(%)			
1 least deprived	6,890 (15.5)	39,167 (22.3)	<0.001
2	7,585 (17.1)	37,957 (21.6)	
3	8,937 (20.1)	34,992 (19.9)	
4	10,297 (23.1)	32,518 (18.5)	
5 most deprived	9,222 (20.7)	24,787 (14.1)	
Not recorded	1,472 (3.3)	6,124 (3.5)	
Most recent smoking status n(%)			
Never	4,773 (10.7)	84,184 (47.9)	<0.001
Ex	21,983 (49.5)	55,599 (31.7)	
Current	16,497 (37.1)	27,349 (15.6)	
Not recorded	1,147 (2.5)	8,424 (4.7)	
Most recent BMI n(%)			
≤20 kg/m^2	5,578 (12.5)	9,541 (5.4)	<0.001
>20 kg/m^2	36,722 (82.7)	149,065 (84.8)	
Not recorded	2,100 (4.7)	16,939 (9.6)	

Abbreviations: BMI: body mass index
*P-value for age and sex were not included due to matching.

Table 4-2. Comparisons of previously determined fall risk factors that were recorded prior to the index date in patients diagnosed with COPD and subjects without COPD in THIN.

fall risk factors*	COPD 44,409 n(%)	Non-COPD 175,580 n(%)	P-value
Previous fall	4,656 (10.4)	14,114 (8.1)	P<0.01
Parkinson	177 (0.4)	1,170 (0.6)	P<0.01
Urinary incontinence	2,284 (5.1)	7,063 (4.1)	P<0.01
Arrhythmia	3,272 (7.3)	9,330 (5.3)	P<0.01
Osteoporosis	2,156 (4.8)	5,933 (3.3)	P<0.01
Depression	9,775 (22.1)	25,524 (14.5)	P<0.01
PVD	2,320 (5.2)	4,165 (2.3)	P=0.01
Leg ulcer	80 (0.1)	203 (0.1)	P<0.01
CHD	7,589 (17.1)	20,785 (11.8)	P<0.01
Stroke	3,034 (6.8)	9,241(5.2)	P<0.01
Insight impairment	4,531 (10.2)	15,734 (8.9)	P<0.01
Rheumatoid arthritis	948 (2.1)	2,276 (1.2)	P<0.01
Heart Failure	2,562 (5.7)	4,356 (2.4)	P<0.01
Diabetes	4,261 (9.5)	17,166 (9.7)	P=0.27
Dizziness	1,197 (2.7)	3,445 (1.9)	P<0.01
Used walking aid	92 (0.2)	272 (0.1)	P=0.01
Abbreviations: PVD: peripheral vascular disease; CHD: coronary heart disease. * Conditions that were previously identified as fall risk factors.			

Table 4-3. Comparisons of previously determined fall risk medications that were recorded within one year prior to the index date in patients diagnosed with COPD and subjects without COPD in THIN.

Medications*	COPD 44,409 n(%)	Non-COPD 175,580 n(%)	P-value
Antihypertensive	6,499 (14.6)	20,126 (11.4)	P<0.01
Digoxin	1,526 (3.4)	3,575 (2.1)	P<0.01
Antiarrhythmic	1,534 (3.4)	3,620 (2.1)	P<0.01
Diuretics	13,171 (29.6)	35,335 (20.1)	P<0.01
Benzodiazepines	4,401 (9.9)	9,555 (5.4)	P<0.01
Antidepressants	9,281 (20.9)	30,787 (17.5)	P<0.01
Psychotropic	5,342 (12.1)	13,004 (7.4)	P<0.01
Sedatives	2,855 (6.4)	6,341 (3.6)	P<0.01
Beta Blockers	2,943 (4.5)	7,130 (4.1)	P<0.01
Abbreviations: PVD: peripheral vascular disease; CHD: coronary heart disease * Medications that were previously identified as fall risk factors.			

4.3.2 Incidence of falls

Of the patients with COPD, 10,646 (24%) had a doctor recorded fall after the index date, compared to 22,117 (12%) of the non-COPD subjects. Similar median follow-up time for COPD and non-COPD, (median 4.2 years; IQR 1.8-7.4 and 4.1 years; IQR 1.7 to 7.5, respectively). The incidence rate of falls in patients with COPD was 44.9 per 1,000 person-years (95% CI 44.1 to 45.8), and in non-COPD subjects, it was 24.1 per 1,000 person-years (95% CI 23.8 to 24.5). The time to first recorded fall was significantly different between patients with COPD and non-COPD subjects ($p < 0.0001$). In addition, patients with COPD were 55% more likely to have a recorded incidence of a fall than the non-COPD subjects (aHR, 1.55; 95% CI, 1.50 to 1.59) after adjusting for age at index date, sex, smoking status, use of antidepressants and diuretics. [Figure 4-1] [Table 4-4].

Figure 4-1. Kaplan-Meier analysis of the incidence of falls in patients diagnosed with COPD and in non-COPD subjects in THIN primary care database.

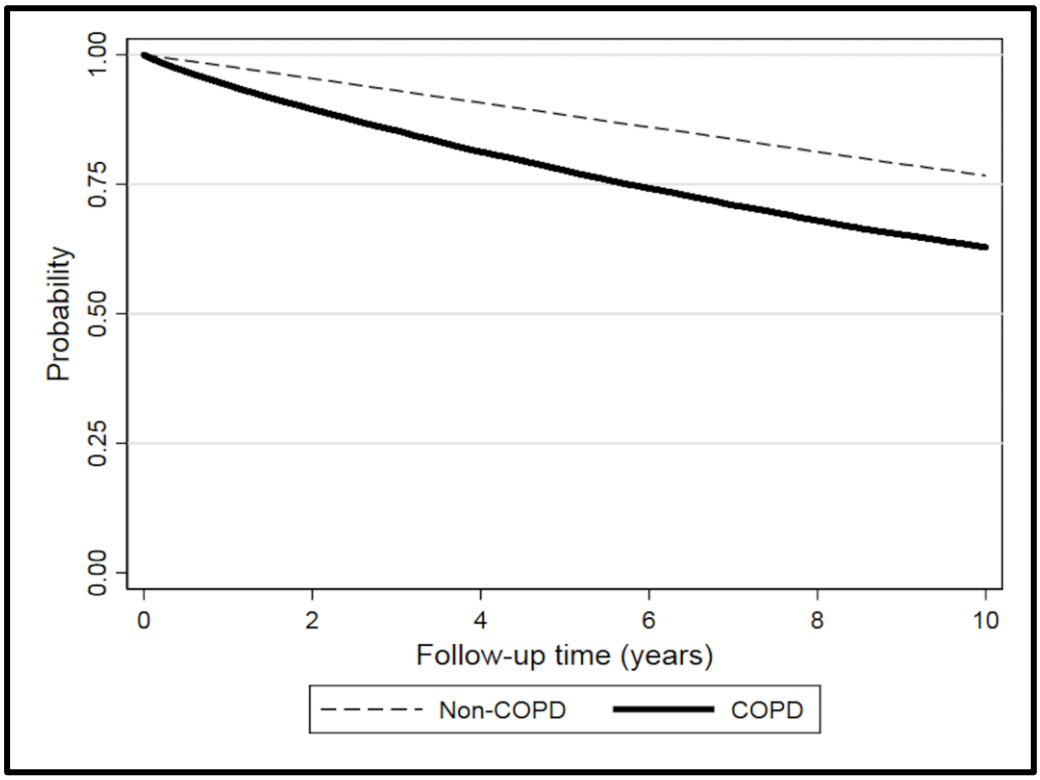


Table 4-4. Multivariate Cox regression model of the association of the incidence of falls in patients diagnosed with COPD compared to subjects without COPD in THIN (COPD n=44,409, Non-COPD n=175,580), controlled for fall risk factors: age, sex, smoking status, and previous used of antidepressants and diuretics.

	Unadjusted HR	**Adjusted HR**
COPD	1.96 (1.91 – 2.01)	1.55 (1.50 - 1.59)
Age at diagnosis (years)		
<65	1	1
65-79	3.28 (3.17 – 3.40)	3.55 (3.32 - 3.53)
≥80	9.09 (8.76–9.43)	10.5(10.1– 10.9)
Sex (female)	0.73 (0.71 – 0.75)	0.76 (0.74 – 0.78)
Most recent smoking status		
Never	1	1
Ex	1.30 (1.26 – 1.34)	1.27 (1.24 – 1.31)
Current	1.38 (1.33 – 1.43)	1.95 (1.89 -2.02)
Antidepressants	0.77 (0.74 – 0.81)	0.76 (0.72 – 0.79)
Diuretics	1.02 (1.01 – 1.06)	0.82 (0.79 – 0.86)
Abbreviations: HR: hazard ratio.		

4.4 Discussion

The coded incidence rate of falls was significantly greater amongst patients with COPD compared to the non-COPD subjects from the THIN primary care database, even after consideration of adjustments for age, gender, and other confounding factors. To the best of our knowledge, this was the first study that investigated the incidence of falls in patients with COPD and which considered other fall risk factors.

Recent literature has highlighted the importance of identifying fall risk factors in the elderly general population to improve prevention [89]. A meta-

analysis suggested a strong association between lower limb muscle weakness and incidence of falls [170]. Muscle strength, endurance, and lower limb muscles are impaired in patients with COPD [171]. Furthermore, a number of factors likely to contribute to falls in the elderly are of even more relevance in patients with COPD. These include advanced age, impaired balance, and skeletal muscle dysfunction [47,54], but might also include cognition, tremulousness and vision, and skeletal muscle dysfunction [16,87]. Given these factors, patients with COPD may experience difficulties performing activities of daily living that require muscle strength and balance control and may be at high risk of falling [172].

In 2009, two small studies consisting of 80 and 39 patients with COPD, respectively, reported almost half of their populations had fallen in the preceding year [165,166]. Another two studies determined that 30–50% of patients with COPD fall at least once each year [50,73]. Given the high incidence of falls in patients with COPD and the consequences of falls on mobility, quality of life, and injury-related mortality [173], assessment of the risk of falls is important to identify modifiable factors.

Patients with COPD usually experience conditions, such as cardiovascular disease, depression, and anxiety; the use of diuretics and antidepressants are indicated among these patients [64]. Studies have previously demonstrated adverse effects such as syncope and postural hypotension, which could be potential fall risk factors, in patients receiving these medications [16,87].

However, use of diuretics and antidepressants reduced the risk of fall in this study. It is possible to speculate that individuals received these medications have received as well fall precautions and support services that reduce the chances of having fall.

4.4.1 Strengths and limitations

A strength of this study is that this primary care data is a large, representative sample cohort of patients with COPD within the UK. Also, the time varying covariate method reduces the misclassification of exposed patients [174]. However, the THIN primary care database exists for clinical purposes; the actual incidence of falls might be underestimated because of the possibility that patients who experienced minor falls may not have reported them to their GP, and some incidents might be not recorded or recorded as free text. Either of these factors would bias the results towards the null hypothesis. Another limitation, this study is based on Read coded COPD diagnosis. Read coded spirometry confirmation at time of diagnosis is not consistently available. Furthermore, this analysis focused on the first recorded fall and does not consider repeat falls for the same patient. Finally, considerable missing data particularly for social class, smoking status, and BMI were observed. Given that high BMI is a potential fall risk factor [88]; it is possible that missing BMI data might lead to inaccurate estimates.

4.4.2 Conclusion

By using the large population-based claims data from the THIN primary care databases, this retrospective cohort study demonstrated an increased risk of recorded falls in patients with incident diagnosis of COPD. A fall risk assessment might be indicated in patients with COPD with opportunity to address modifiable factors.

5 CAPACITY AND STAFFING OF PULMONARY REHABILITATION PROGRAMMES AND CONSEQUENCES ON PATIENTS' CLINICAL OUTCOMES

5.1 Introduction

PR is a clinically effective therapy leading to a significant reduction in dyspnoea, improved exercise tolerance and better quality of life [30]. This evidence is based on high quality clinical studies where the quality of the PR programme and the nature of the intervention are considered alongside the results. However, evaluating and monitoring the quality of service within a healthcare system is a strategy used to ensure optimal patient care. The BTS Quality Standards for adult PR recommend that each PR programmes should conduct an internal annual audit within their practice to ensure the quality and improve their services [32].

In the UK, a COPD audit programme has been conducted by the Royal College of Physicians (RCP), the BTS, and the Healthcare Quality Improvement Partnership (HQIP) since 2001 [175]. The current 5-year audit programme has focused on three workstreams: primary care, PR, and secondary care. The PR workstream consists of two data: organisational data, which includes data of surveyed PR programmes and sites throughout England and Wales [37], and clinical data of the patients referred to PR programmes were surveyed over a 3 month period (from 12 January until 10 April 2015) [36]. This data enables a comparison of the PR programmes' performances and it may highlight any differences in patient care and clinical outcomes across those programmes.

As with other health services, across the UK, it is likely the capacity, quality, and staffing of PR programmes differ [35]. Until the audit, the extent of this variability was unknown as was the impact, if any, on the completion rate and clinical outcomes of PR programmes. Previous reports have identified the factors that could potentially impact the completion rates of PR programmes [148]. MRC dyspnoea scores, anxiety, depression, airflow obstruction [176], transportation to PR centres, socioeconomic status and practice exercise walk tests during assessment were identified as potential factors for patients dropping out of PR programmes [148,149,177,178].

The BTS PR guidelines recommend offering PR to improve patients' exercise capacities by achieving significant clinical improvement in exercise walk tests such as the incremental shuttle walk distance (ISWD) test and the six-minute walk distance (6MWD) test [30]. Previous studies have demonstrated a learning-effect from repeating the walk test and motivation both influence the exercise walking distances[179-181]. Moreover, patients with worse baseline ISWD and 6MWD were more likely to achieve significant clinical improvement in both walking tests [182].

The BTS guidelines recommend that dyspnoea and health status are important outcomes that should be measured during PR [30]. Health status measures, such as the chronic respiratory disease questionnaire (CRQ) [43], the St George's respiratory questionnaire (SGRQ) [42] and the COPD assessment test (CAT) [183], include health status domains, such as dyspnoea and fatigue. A meta-analysis

of the health benefits of PR identified a reduction in dyspnoea and an improvement in health status following PR [38].

The main objective of the PR workstream audit is to drive improvements in the quality of care and services provided to patients with COPD in PR programmes through England and Wales [36,37]. The audit encompassed over 200 programmes and reported on over 7000 patients. There was variations in the referrals received, number of assessments in a year, and the number of spaces offered per programme [37].

5.1.1 Hypothesis and objectives

The hypothesis of this study is that a low staff/patient ratio is associated with worse outcomes and that a minimum number of patients is required to prevent enrolment delays and optimise clinical outcomes. This chapter aims to investigate the relationship between the number of available PR spaces per programme, the number of patients assessed per programme and the staff/patient ratio with clinical outcomes following PR.

5.2 Methods

5.2.1 Data source

The National COPD audit programme's PR workstream audit was conducted in 2015 throughout England and Wales [37]. It was commissioned by the HQIP as part of the National Clinical Audit (NCA). The National COPD audit was led by the RCP, the BTS, the Primary Care Respiratory Society, UK, the BLF and the Health and Social Care Information Centre.

The two elements of the audit are:

1. Organisational data – 230 PR programmes across England and Wales were surveyed and mapped. The term "PR programme" in the audit was defined as 'the PR service with a shared staff where referral was received and operates different "PR sites" underneath'. The survey consisted of two different sections, for PR programmes and for each of the individual PR sites.

2. Clinical data – clinical outcome data for patients who attended a PR programme's initial assessment between 12 January and 10 April 2015 with data capture up till 10 July 2015, to allow patients to allow outcomes capture.

5.2.2 Ethical approval

Caldicott Guardian approval was obtained from each participating unit before access to an online audit web tool was granted, and following National Confidentiality Advisory Group advice, patients enrolled in the audit provided individual written consents before their data were uploaded. Permission for the use of this data and for the work that follows in this study was granted by the HQIP and the RCP.

5.2.3 Exposure variables

1) Number of annual PR spaces per programme

The number of available PR spaces per programme variable in the financial year preceding the audit (i.e. from April 2013 to March 2014) were initially categorised in this analysis as 0–50, 51–100, 101–150, 151–200, 201–300, 301–400, 401–500 and >500. As this resulted in several small groups the available PR spaces per programme variable categories were merged to 1–100, 101–200, 201–300 and >300.

2) Number of actual patients assessed per PR programme

The number of the actual patients assessed per PR programme variable in the financial year April 2013 to March 2014 was categorized as 1–100,

101–200, 201–300 and >300. PR programmes that did not report how many patients were assessed were excluded.

3) Ratio of minimum staff to maximum patients per PR site

The number of the minimum staff and maximum groups of patients were identified per site rather than per programme in the organisational audit data [37]. The ratio of the minimum staff to maximum patients per PR site was computed and categorized as less than 2:10 (<0.2) and 2:10 or more (≥0.2).

5.2.4 Outcomes variables

1) *The number of days from referral to enrolment variable* was categorized as 90 days or less or more than 90 days, as per the BTS Quality Standard 1 recommendation [32].

2) *Completion of PR programme variable* was defined from the audit data by binary a variable (yes or no) as reported in the organisational PR audit

3) *Sessions attended of scheduled sessions variable* were computed as a proportion of the total available. Patients who did not have a record of scheduled sessions were excluded from this particular analysis. If

patients attended more sessions than the number of scheduled sessions, this was considered as a 100% proportion.

4) *Change in walking-test distance with PR*. Only patients who had both baseline and discharge exercise test assessments (be it either ISWD and 6MWD tests) were included in this analysis.

   – ISWD test: the patient require to walk back and forth on a 10 m course with a certain speed dictated by an audio signal from any kind of sound player [184]. The walking speed increases every minute until the participant can no longer continue the test. The maximum duration of this test is 20 min [41,184].

   – 6MWD test: the patient require to walk quickly for 6 min back and forth around a flat, hard surfaced 30 m long hallway, and the distance the patient is able to walk is recorded [41,185].

5) *Achievement of the MCID variable for ISWD and 6MWD* based on previously reported MCID (change of ≥48 m for ISWD and ≥30 m for 6MWD), was categorized as MCID met or not met, for ISWD and 6MWD separately [40,41,181]. Further analysis of the achievement of MCID in both or any of the two exercise tests was conducted.

6) *Improvement in MRC score variable* was categorized as improved or not improved (worsen or stay the same) MRC score.

7) *Achievement of MCID variable for health status measures* was based on previously reported MCID (increase of 0.5 of points of the chronic respiratory disease questionnaire and a reduction of 2 points for the COPD assessment test) was categorized as MCID met or not met. Further analysis of the achievement of MCID in both or any of the two health status tests or not was conducted.

- Chronic Respiratory Disease Questionnaire (CRQ): a disease specific questionnaire that consists of 20 items scored on a scale of 1 to 7 across four domains: dyspnoea, fatigue, emotion and mastery [43].
- COPD Assessment Test (CAT): a self-reported questionnaire that consists of eight questions scored on a scale of 1 to 5, including cough, sputum, breathlessness, chest tightness, confidence, activity, sleep and energy levels [186]

5.2.5 Demographics and clinical characteristics

Demographics and clinical characteristics that could contribute to the outcome of this analysis were taken into account, including:

- Age
- Gender

- MRC dyspnoea score: MRC scores of 1 and 2 were merged into one category and scores of 3, 4 and 5 were treated as separate categories.
- Smoking status: was categorized as current, ex-smoker, never or not recorded.
- FEV_1 percent predicted.
- Preselected conditions that were asked during the clinical audit including (alcohol-related condition, atrial fibrillation, cor pulmonale, dementia/confusion, diabetes, gastrointestinal condition, hearing impairment, hypertension, ischaemic heart disease, kidney disease, learning disability, left heart failure, locomotor problems, lung cancer, mental health disorder, neurological condition, osteoporosis, stroke, thromboembolic disease (pulmonary embolism, deep vein thrombosis), visual impairment, other respiratory disease, other cardiovascular disease, other endocrine disorder, other malignant disease, other (not specify)) [36]. Preselected condition were numbered as 0, 1, 2 and >2.
- Long-term oxygen therapy used: yes or no.
- Practice walk test at assessment: yes or no [178].
- Baseline exercise walking-test distances: ISWD and 6MWD.
- Individual type of PR was evaluated and recorded in two ways from the patients' organisational and clinical data. At the assessment stage, the recording was according to the PR programme (organisational data), and for patients enrolled and already commenced PR, the evaluation was based on what type of PR they actually underwent (clinical data). In this analysis, the type of PR in the clinical data was used.

5.2.6 Statistical analysis

All statistical analysis was performed using Stata, Version 13, software (StataCorp LP, College Station, TX, US). Data were described in terms of proportion and mean (standard deviation [SD]) as appropriate. Logistic regression was used to examine the numbers of spaces and the numbers of patients assessed effects on time of enrolment, completion rate and achievement of MCID for exercise tests. Demographics and clinical characteristics factors that changed the relationship between exposures and outcomes by more than 10% were entered into a final multivariate model to calculate the adjusted odds ratios. Multivariate linear regression was used to examine the relationships between the three exposures (separately) and ISWD and 6MWD with β regression coefficients and their 95% confidence.

5.3 Results

5.3.1 Descriptive statistics

The audit gathered data from 230 PR programmes (670 sites), and 7,413 participants from 210 PR programmes participated in the clinical audit. Of the 7,413 patients referred, 53% were male (3,948), with a mean age of 69 years (SD = 9); 70% (5,179) were ex-smokers and only 6,306 (85%) had enrolled and commenced PR.

5.3.2 The association of the number of spaces available per PR programme per year with measured PR clinical outcomes

210 programmes had identified how many PR spaces were available in the April 2013 to March 2014 financial year. 6,306 patients who had enrolled and commenced PR in these programmes were included in this analysis. Baseline characteristics according to the classification of the number of spaces available are shown in

Table 5-1.

Table 5-1. Baseline characteristics of patients who enrolled in pulmonary rehabilitation programmes that participated in the National COPD audit and the number of available pulmonary rehabilitation spaces in the programmes in which they were enrolled (n = 6,306).

	Spaces 1–100 n=651 (patients)	**Spaces 101–200 n=1,492 (patients)**	**Spaces 201–300 n=1,138 (patients)**	**Spaces >300 n=3,025 (patients)**
Age (years) mean(SD)	69.2 (9.4)	69.8 (9.3)	69.1 (9.2)	69.8 (9.2)
Gender n(%)				
Male	331 (51)	801 (53)	600 (53)	1,623 (54)
Female	320 (49)	691 (47)	538 (47)	1,402 (46)
MRC baseline n(%)				
MRC 1&2	94 (14)	242 (16)	187 (16)	514 (16)
MRC 3	237 (36)	554 (37)	432 (37)	1,090 (36)
MRC 4	192 (29)	487 (32)	397 (34)	896 (29)
MRC 5	50 (7)	92 (6)	78 (6)	300 (9)
Not recorded	78 (11)	117 (7)	44 (3)	225 (7)
Smoking status n(%)				
Never	30 (4)	104 (6)	67 (5)	197 (6)
Ex-smoker	460 (70)	1,076 (72)	800 (70)	2,156 (71)
Current smoker	142 (21)	294 (19)	243 (21)	617 (20)
Not recorded	19 (2)	18 (1)	28 (2)	55 (1)
Type of PR that patient underwent (clinical audit) n(%)				
Rolling	205 (31)	675 (44)	672 (59)	1,803 (59)
Cohort	426 (65)	803 (54)	461 (40)	1,065 (35)
Other	20 (3)	14 (1)	5 (0.4)	157 (5)
Comorbidities n(%)				
0	122 (18)	174 (11)	132 (11)	439 (14)
1	200 (30)	593 (39)	376 (33)	930 (30)
2	164 (25)	371 (24)	291 (25)	813 (26)
>2	165 (25)	354 (23)	339 (29)	843 (27)

5.3.2.1 Enrolment within 90 days, sessions attending and the completion of the PR

Of a total of 6,306 patients, 2,554 (40%) were enrolled after more than 90 days from the referral date [Table 5-2]. Number of available spaces per programme

per year was statistically related to the delay of the enrolment to PR, $p<0.01$. In comparison with PR programmes with 1–100 spaces available per year, patients referred to PR programmes with 101–200 available spaces per year were 41% more likely to delay the enrolment more than 90 days (aOR 1.41; 95% CI 1.17 to 1.72; $p<0.0001$), while patients referred to programmes with 201–300 and >300 available spaces per year were 14% and 8% less likely to be delayed [(aOR 0.85; 95% CI 0.70 to 1.15; $p=0.1$) and (aOR 0.91; 95% CI 0.76 to 1.09; $p=0.3$), respectively] after adjusting for age, sex and individual type of PR.

In regard to session attending, 31 patients who did not have a record of how many sessions were excluded. In addition, of the 6,275 resulting patients included in this analysis, 150 patients attended more sessions than scheduled; the mean of the proportion of sessions attended was 76% (SD = 29). The sessions attended was not statistically related to the number of available PR spaces per year per programme ($p=0.2$). Regarding completion of the PR programme, 4,454 (70%) had completed a PR programme [Table 5-2]. However, the PR completion rate was not statistically related to the number of available PR spaces per year per programme ($p = 0.2$), and the completion rate was almost the same (70%).

Table 5-2. The association between the number of available pulmonary rehabilitation spaces per programme per year with different pulmonary rehabilitation clinical outcomes of patients who enrolled in these programmes that participated in the National COPD audit.

	PR programme spaces				P-value
	1-100	**101-200**	**201-300**	**>300**	
Number of days from referral to enrolment n=6,306					
≤90 days n(%)	361 (55)	736 (49)	724 (63)	1,931 (63)	P<0.01
>90 days n(%)	290 (44)	756 (50)	414 (36)	1,094 (36)	
The delay of enrolment more than 90 days n=6,306					
aOR(95%CI)*	1	1.4(1.1-1.7)	0.8(0.7-1.1)	0.9(0.7-1.1)	P<0.01
Did the patient complete the PR? n=6,306					
Yes n(%)	470 (72)	1,048 (69)	828 (72)	2,108 (69)	P=0.2
No n(%)	181 (27)	444 (30)	310 (27)	917 (30)	
The completion of PR n=6,306					
aOR (95% CI)*	1	0.9 (0.7-1.7)	1.1 (0.9-1.4)	0.9 (0.8-1.2)	P=0.2
Proportion of sessions attended n=6,275					
β coefficient %(95% CI)*	1	-2.4 (-5.1 to 0.2)	2.3 (-0.4 to 5.1)	0.2 (-2.2 to 2.7)	P=0.2
The change in ISWD with PR n=2,254					
β coefficient m(95% CI)*	1	-1 (-14 to 11)	-0.1 (-12 to 12)	0.1 (-11 to 11)	P=0.9
Achievement of MCID in ISWD with PR n=2,254					
MCID met n(%)	125 (59)	257 (51)	312 (59)	589 (57)	P=0.04
MCID not met n(%)	86 (40)	240 (48)	209 (40)	436 (42)	
aOR(95% CI)	1	0.7 (0.5-9)	0.9 (0.6-1.3)	0.8 (0.6-1.1)	
The change in 6MWD with PR n=1,684					
β coefficient m(95% CI)*	1	-19 (-29 to -8)	-16 (-28 to -4)	-14 (-24 to -5)	P<0.01
Achievement of MCID in 6MWD with PR n=1,684					
MCID met n(%)	167 (78)	305 (69)	146 (65)	562 (69)	P=0.03
MCID not met n(%)	47 (21)	135 (30)	76 (34)	246 (30)	
aOR(95% CI)	1	0.6 (0.4-0.9)	0.5 (0.3-0.8)	0.6 (0.4-0.9)	
Improvement of MRC with PR n=3,305					
Improved n(%)#	115 (37)	289 (34)	267 (41)	536 (35)	P=0.1
Not Improved n(%)	191 (62)	561 (66)	382 (58)	964 (64)	
aOR(95% CI)	1	0.8 (0.6-1.1)	1.1 (0.8-1.5)	0.9 (0.7-1.1)	
Achievement of MCID for CAT with PR n=2,395					
MCID met n(%)	143 (63)	343 (62)	208 (57)	760 (60)	P=0.3
MCID not met n(%)	81 (36)	209 (37)	156 (42)	495 (39)	
aOR(95% CI)	1	0.9 (0.6-1.3)	0.7 (0.5-1.1)	0.8 (0.6-1.1)	
Achievement of MCID for CRQ with PR n=1,542					
MCID met n(%)	126 (54)	218 (59)	190 (58)	335 (56)	P=0.3
MCID not met n(%)	113 (46)	155 (41)	138 (42)	267 (44)	
aOR(95% CI)	1	1.1 (0.7-1.5)	1.1 (0.8-1.5)	1.1 (0.8-1.5)	

*after adjusting for age, sex, and type of PR
#improved by 1 or more.
abbreviations: PR: pulmonary rehabilitation; MRC: medical research council; MCID: minimum clinically important difference; aOR: adjusted odds ratio; SD standard deviation; CI: confidence interval; CAT: COPD assessment test; CRQ: Chronic respiratory questionnaire

5.3.2.2 Improvement with PR

- **Exercise tests**

Only 2,254 patients with baseline and discharge ISWD assessments were included in this analysis. Overall, the mean change in ISWD was 63 m (SD = 79), and 1,283 (57%) met the MCID [Table 5-2]. The number of available PR spaces per year per programme was not statistically related to the change in ISWD (p=0.9), whereas it was statistically related to the achievement of MCID for ISWD (p=0.04). Patients enrolled in a PR programme with 101–200 available spaces per year were 30% less likely to achieve MCID for ISWD compared to patients enrolled in a programme with less than 100 spaces (aOR 0.70; 95% CI 0.50 to 0.97; p=0.04). In addition, the achievement of MCID for ISWD in programmes with 201–300 and >300 available spaces per year was not statistically different compared to patients enrolled in programmes with less than 100 spaces [(aOR 0.95; 95% CI 0.68 to 1.32; p=0.76) and (aOR 0.87; 95% CI 0.64 to 1.19; p=0.41), respectively] after adjusting for age, sex and individual type of PR programme.

Only 1,684 patients with baseline and discharge 6MWD assessments were included in this analysis. Overall, the mean change in 6MWD was 57 m (SD = 64), and 1,180 (70%) met the MCID [Table 5-2]. The change in 6MWD and achievement of MCID for 6MWD were statistically related to the number of available PR spaces per year per programme (p<0.01 and p=0.03, respectively). Patients enrolled in PR programmes with 101–200 available spaces per year had a change of 19m in 6MWD less than patients enrolled in

PR programmes with 1–100 available spaces per year (β coefficient -19; 95% CI -29 to -8.7; p<0.01); while patients enrolled in PR programmes with 201–300 available spaces per year had a change of 16m less (β coefficient -16; 95% CI -28 to -3.8; p=0.01) after adjusting for age, and sex.

In regards to achievement of MCID, in comparison to patients enrolled in PR programmes with less than 100 available spaces per year, patients enrolled in PR programmes with 101–200 and >300 available spaces per year were 36% less likely to achieve MCID for 6MWD after adjusting for age and sex [(aOR 0.64; 95% CI 0.43 to 0.93; p=0.02) and (aOR 0.64; 95% CI 0.45 to 0.91; p=0.01)], respectively, while patients enrolled in PR programmes with 201–300 spaces available per year were 46% less likely to achieve MCID for 6MWD (aOR 0.54; 95% CI 0.35 to 0.82; p=0.005). Further analysis demonstrated significant association of the achievement of MCID in both or any of the exercise tests with number of available spaces per programme, (p=0.0009) [Table 5-3].

Table 5-3. The association between the number of available pulmonary rehabilitation spaces per programme per year with achievement of MCID in both or any of exercise test (ISWT and 6MWT) n=3,906

	PR programme spaces				**P-value**
	1-100	**101-200**	**201-300**	**>300**	
MCID met n(%)	287 (70)	562 (60)	452 (62)	1,151 (63)	P=0.001
MCID not met n(%)	125 (30)	375 (40)	274 (38)	680 (37)	
aOR(95% CI)*	1	0.6 (0.4-0.8)	0.6 (0.5-0.8)	0.7 (0.5-0.9)	
*Adjusted odds ratio after adjusting for age, sex, and type of PR Abbreviations: PR: pulmonary rehabilitation; MCID: minimum clinically important difference.					

- **MRC dyspnoea score and MCID in health status measures**

The number of available PR spaces per year per programme was not statistically related to either the improvement of MRC (p=0.1), nor to the MCID achievement for CAT (p= 0.3), nor to the MCID achievement for the CRQ (p=0.3) [Table 5-2]. However, the number of the available PR spaces per year per programme was not also statistically related to the MCID achievement for both or any of health status measures, (p=0.09), [Table 5-4].

Table 5-4. The association between the number of available pulmonary rehabilitation spaces per programme per year with achievement of MCID in both or any of health status test (CAT and CRQ) n=3,495

	PR programme spaces				**P-value**
	1-100	**101-200**	**201-300**	**>300**	
MCID met n(%)	318 (83)	631 (78)	499 (78)	1,213 (73)	P=0.09
MCID not met n(%)	67 (17)	179 (22)	139 (22)	449 (27)	
aOR(95% CI)*	1	0.7 (0.5-0.9)	0.7 (0.5-1)	0.5 (0.4-0.7)	
*Adjusted odds ratio after adjusting for age, sex, and type of PR Abbreviations: PR: pulmonary rehabilitation; MCID: minimum clinically important difference.					

5.3.3 The association of the number of patients assessed per PR programme per year with measured outcomes

Eight PR programmes participating in the clinical audit did not identify how many patients were assessed per PR programme in the April 2013–March 2014 financial year and therefore were excluded from this analysis. 6,062 patients who enrolled and commenced PR programmes were included for this analysis.

Baseline characteristics based on the categorized number of patients assessed per PR programme per year is shown in Table 5-5.

Table 5-5. Baseline characteristics of patients who enrolled in pulmonary rehabilitation programmes that participated in the National COPD audit and the number of patients assessed per year per referred programme to (n = 6,062).

	1–100 patients assessed n=428 (patients)	**101–200 patients assessed n=1,397 (patients)**	**201–300 patients assessed n=1,215 (patients)**	**>300 patients assessed n=2,967 (patients)**
Age (years) mean(SD)	69.5 (9.1)	69.6 (9.1)	69.4 (9.2)	69.7 (9.2)
Gender n(%)				
Male	224 (50)	765 (54)	638 (52)	1,583 (53)
Female	238 (49)	632 (45)	577 (47)	1,385 (46)
MRC baseline n(%)				
MRC 1&2	81 (16)	212 (15)	172 (14)	550 (18)
MRC 3	191 (39)	535 (38)	456 (37)	1,042(36)
MRC 4	118 (24)	482 (34)	421 (34)	881 (29)
MRC 5	23 (4)	87 (6)	90 (7)	290 (9)
Not recorded	69 (14)	81 (75)	75 (6)	205 (6)
Smoking status n(%)				
Never	33 (6)	92 (6)	73 (6)	192 (6)
Ex-smoker	345 (71)	1,032 (73)	841 (69)	2,106 (71)
Current smoker	97(20)	252 (18)	266 (21)	623 (20)
Not recorded	7 (1)	21 (1)	35 (2)	44 (1)
Type of PR where patient underwent (clinical audit) n(%)				
Rolling	176 (36)	736 (52)	707 (58)	1,693 (57)
Cohort	306 (63)	654 (46)	500 (41)	1,112 (37)
Other	0 (0)	7 (0.5)	8 (0.6)	161 (5)
Comorbidities n(%)				
0	68 (14)	175 (12)	150 (12)	412 (13)
1	162 (33)	559 (40)	394 (32)	917 (30)
2	122 (25)	343 (24)	300 (24)	811 (27)
>2	130 (26)	320 (22)	371 (30)	828 (27)

5.3.3.1 Enrolment within 90 days, sessions attending and the completion of the PR

The number of patients assessed per programme per year was statistically related to the delay of the enrolment to PR, ($p<0.01$). In comparison to PR programmes assessing 1–100 patients per year, patients referred to PR programmes assessing 101–200 patients per year were the same for the delay in enrolment of more than 90 days (aOR 1.00; 95% CI 0.80 to 1.72; $p=0.9$), while patients referred to programmes assessing 201–300 patients per year were 40% less likely to be delayed (aOR 0.60; 95% CI 0.48 to 0.75; $p<0.001$), and patients referred to programmes assessing >300 patients per year were 22% less likely to be delayed (aOR 0.78; 95% CI 0.64 to 0.95; $p=0.01$), after adjusting for age, sex and individual type of PR [Table 5-6].

Neither the PR completion rate was statistically related to the number of patients assessed per year per PR programme ($p=0.57$) nor the proportions of the sessions attended ($p=0.09$).

Table 5-6. The association between the number of patients assessed per programme per year with different clinical outcomes of patients who enrolled in these programmes in the National COPD audit.

	Number of patients assessed				P-value
	1–100	**101–200**	**201–300**	**>300**	
Number of days between referral and enrolment n=6,062					
≤90 days n(%)	233 (48)	732 (52)	790 (65)	1,807 (60)	P<0.01
>90 days n(%)	249 (51)	665 (47)	425 (34)	1,161 (39)	
The delay of enrolment more than 90 days n=6,062					
aOR(95%CI)	1	1(0.8.-1.7)	0.6(0.4-0.7)	0.7(0.6-0.9)	P<0.01
Did the patient complete the PR ? n=6,062					
Yes n(%)	351 (72)	974 (69)	865 (71)	2,087 (70)	P=0.5
No n(%)	131 (27)	423 (30)	350 (28)	881 (29)	
The completion of the PR n=6,062					
aOR (95% CI)*	1	0.8(1.8-0.6)	0.9(0.7-1.1)	0.8(0.7-1.1)	P=0.5
Proportion of sessions attended n=6,062					
β coefficient %(95% CI)*	1	-2.6 (-5.7 to 0.3)	0.2 (-2.8 to 3.3)	-0.7 (-3.6 to 2)	P=0.1
The change in ISWD with PR n=2,225					
β coefficient m(95% CI)*	1	11 (-2 to 24)	6 (-7 to 19)	10 (-2.6 to 23)	P=0.1
Achievement of MCID in ISWD with PR n=2,225					
MCID met n(%)	98 (54)	298 (55)	360 (56)	612 (58)	P=0.9
MCID not met n(%)	81 (45)	241 (44)	203 (43)	432 (41)	
aOR(95% CI)	1	0.9 (0.6-1.3)	0.9 (0.6-1.3)	1.1 (0.7-1.5)	
The change in 6MWD n=1,570					
β coefficient m(95% CI)*	1	8 (-3 to 20)	8 (-3 to 20)	8 (-2 to 20)	P=0.2
Achievement of MCID in 6MWD with PR n=1,570					
MCID met n(%)	102 (69)	263 (73)	215 (66)	519 (69)	P=0.4
MCID not met n(%)	44 (30)	96 (26)	108 (33)	223 (30)	
aOR(95% CI)	1	1.1 (0.7-1.8)	0.8 (0.5-1.3)	1 (0.6-1.5)	
Improvement of MRC with PR n=3,208					
Improved n(%)#	87 (37)	310 (35)	211 (38)	563 (36)	P=0.6
Not Improved n(%)	146 (62)	557 (64)	335 (61)	999 (63)	
aOR(95% CI)	1	1 (0.7-1.3)	1 (0.7-1.4)	1 (0.7-1.3)	
Achievement of MCID for CAT with PR n=2,297					
MCID met n(%)	124 (60)	273 (62)	267 (58)	731 (61)	P=0.6
MCID not met n(%)	82 (39)	166 (37)	188 (41)	466 (38)	
aOR(95%CI)	1	1.1 (0.7-1.5)	0.9 (0.6-1.3)	1 (0.7-1.4)	
Achievement of MCID for CRQ with PR n=1,494					
MCID met n(%)	80 (50)	243 (63)	167 (59)	358 (56)	P=0.1
MCID not met n(%)	81 (50)	154 (37)	121 (41)	290 (44)	
aOR(95%CI)	1	1.4 (0.9-2)	1.3 (0.8-1.9)	1.3 (0.9-1.8)	

*after adjusting for age, sex, and type of PR
#improved by 1 or more.
abbreviations: PR: pulmonary rehabilitation; MRC: medical research council; MCID: minimum clinically important difference; aOR: adjusted odds ratio; SD standard deviation; CI: confidence interval; CAT: COPD assessment test; CRQ: Chronic respiratory questionnaire

5.3.3.2 Improvement with PR

– **Exercise test**

Neither the change in ISWD or 6MWD was statistically related to the number of patients assessed per year per programme (p=0.1 and p=0.2, respectively) nor the achievement of MCID for ISWD and 6MWD (p=0.9 and p=0.4, respectively). Further analysis demonstrated no association of MCID achievement in both or any of the exercise tests with number of patients assessed per programme, (p=0.717) [Table 5-7].

Table 5-7. The association between the number of patients assessed per programme per year with achievement of MCID in both or any of exercise test (ISWT and 6MWT) n=3,763

	Number of patients assessed				**P-value**
	1-100	**101-200**	**201-300**	**>300**	
MCID met n(%)	195 (62)	561 (62)	300 (39)	653 (37)	P=0.717
MCID not met n(%)	118 (38)	336 (38)	469 (61)	1,131 (63)	
aOR(95% CI)*	1	0.6 (0.4-0.8)	0.6 (0.5-0.8)	0.7 (0.5-0.9)	
*Adjusted odds ratio after adjusting for age, sex, and type of PR MCID: minimum clinically important difference.					

– **MRC dyspnoea score and MCID achievement in health status measures**

Improvement in MRC dyspnoea score was also not statistically related to the number of patients assessed per year per programme (p=0.6). Also, MCID achievement for health status CAT and CRQ was not statistically related to the number of patients assessed per year per programme (p=0.6 and p=0.1, respectively). However, the number of patients assessed per year per

programme was not also statistically related to the MCID achievement for both or any of health status measures, (p=0.3), [Table 5-8].

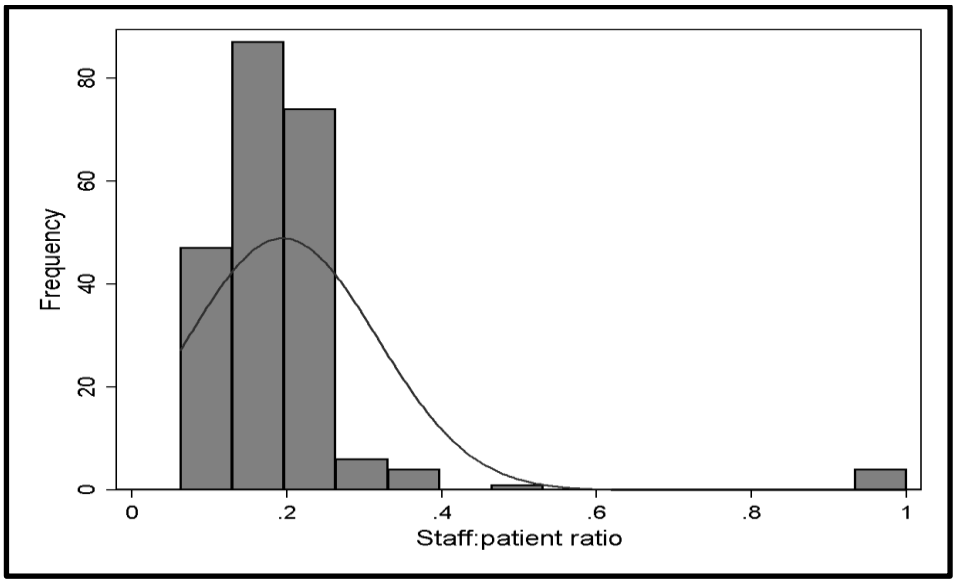
Table 5-8. The association between the number of available pulmonary rehabilitation spaces per programme per year with achievement of MCID in both or any of health status test (CAT and CRQ) n=3,348

	Number of patients assessed				**P-value**
	1-100	**101-200**	**201-300**	**>300**	
MCID met n(%)	231 (78)	596 (81)	495 (73)	1,231 (75)	P=0.3
MCID not met n(%)	66 (22)	136 (19)	175 (26)	418 (25)	
aOR(95% CI)*	1	1.2 (0.8-1.7)	0.7 (0.5-1.1)	0.8 (0.6-1.1)	
*Adjusted odds ratio after adjusting for age, sex, and type of PR MCID: minimum clinically important difference.					

5.3.4 The association of the ratio of minimum staff to maximum patients per PR site with measured outcomes

Of 670 sites participating in the organisational data, only one PR site did not answer the question regarding the number of staff and were excluded for this analysis. The ratio variable was categorized as less than 2:10 (<0.2) and 2:10 or more (≥0.2) at the mean (0.2) [Figure 5-1].

Figure 5-1. Histogram of the ratio of minimum staff to maximum groups of patients per pulmonary rehabilitation site that participated in the National COPD audit.



A total of 6,300 patients who commenced the PR programmes were included for this analysis. Baseline characteristics based on the classification of the staff/patient ratio is shown in [Table 5-9].

Table 5-9. Baseline characteristics of patients referred to pulmonary rehabilitation (PR) programmes in relation to the ratio of minimum staff to maximum patients of the PR site that participated in the National COPD audit (n = 6,300).

	<0.2 ratio n=3,889 patients	**≥0.2 ratio n=2,411 patients**
Age (years) mean(SD)	69.6 (9.3)	69.5 (9.2)
Gender n(%)		
Male	2,067 (53)	1,184 (53)
Female	1,822 (47)	1,127 (46)
MRC baseline n(%)		
MRC 1&2	665 (17)	372 (15)
MRC 3	1,428 (36)	885 (36)
MRC 4	1,216 (31)	754 (31)
MRC 5	284 (7)	232 (9)
Not recorded	296 (7)	168 (6)
Smoking status n(%)		
Never	254 (6)	144 (6)
Ex-smoker	2,826 (72)	1,662 (68)
Current smoker	730 (18)	564 (23)
Not recorded	79 (2)	41 (1)
Type of PR that patient underwent (clinical audit) n(%)		
Rolling	1,985 (51)	1,370 (56)
Cohort	1,846 (47)	909 (37)
Other	58 (1)	132 (5)
Comorbidities n(%)		
0	548 (14)	318 (13)
1	1,328 (34)	770 (31)
2	1,007 (25)	632 (26)
>2	1,006 (25)	691 (28)

5.3.4.1 Enrolment within 90 days, sessions attending and the completion of the PR

Patients enrolled in PR sites with ratios of ≥0.2 were 32% less likely to be delayed in enrolment compared to patients enrolled in PR sites with ratios <0.2 (aOR 0.68; 95% CI 0.61 to 0.76; $p < 0.0001$) after adjusting for age, sex and individual type of PR [Table 5-10].

Table 5-10. The association between the staff/patient ratio per site per year with different clinical outcomes of patients who enrolled in these sites in the National COPD audit.

	Ratio of min staff to max patients		**P-value**
	<0.2	**≥0.2**	
Number of days from referral to enrolment n=6,300			
≤90 days n(%)	2,148 (55)	1,598 (66)	P<0.01
>90 days n(%)	1,741 (44)	813 (33)	
The delay of enrolment more than 90 days n=6,300			
aOR(95% CI)	1	0.68 (0.6-0.7)	P<0.01
Did the patient complete the PR? n=6,300			
Yes n(%)	2,776 (71)	1,672 (69)	P=0.08
No n(%)	1,113 (29)	739 (31)	
The completion of the PR n=6,300			
aOR(95% CI)	1	0.9 (0.8-1.01)	P=0.08
Proportion of sessions attended n=6,269			
β coefficient %(95% CI)*	1	0.5 (-0.9 to 2)	P=0.4
The change in ISWD with PR n=2,225			
β coefficient m(95% CI)*	1	2.7(-3.8 to 9)	P=0.4
Achievement of MCID in ISWD with PR			
MCID met n(%)	757 (56)	526 (56)	P=0.9
MCID not met n(%)	578 (43)	393 (43)	
aOR(95% CI)	1	1 (0.8-1.1)	
The change in 6MWD with PR n=2,225			
β coefficient m(95% CI)*	1	7(-2.3-17)	P=0.1
Achievement of MCID in 6MWD with PR n=2,225			
MCID met n(%)	795 (68)	385 (73)	P=0.01
MCID not met n(%)	368 (31)	136 (26)	
aOR(95% CI)	1	1.34(1.06-1.69)	
Improvement in MRC with PR n=3,299			
Improved n(%)#	715 (36)	488 (36)	P=0.6
Not Improved n(%)	1,263 (63)	833 (63)	
aOR(95% CI)	1	1.06 (0.9-1.2)	
Achievement of MCID in CAT with PR n=2,369			
MCID met n(%)	1,018 (62)	436 (56)	P=0.01
MCID not met n(%)	611 (37)	330 (43)	
aOR(95% CI)	1	0.79(0.6-0.9)	
Achievement of MCID in CRQ with PR n=1,542			
MCID met n(%)	537 (57)	316 (55)	P=0.3
MCID not met n(%)	422 (43)	267 (45)	
aOR(95% CI)	1	1 (0.8-1.3)	

*after adjusting for age, sex, and type of PR.
#improved by 1 or more.
Abbreviations: PR: pulmonary rehabilitation; MRC: medical research council; MCID: minimum clinically important difference; aOR: adjusted odds ratio; SD standard deviation; CI: confidence interval; CAT: COPD assessment test; CRQ: Chronic respiratory questionnaire

Neither the PR completion rate was statistically related to the staff/patient ratio per site (aOR 0.90; 95% CI 0.81 to 1.01; p = 0.08), nor the proportions of the sessions attended (β coefficient 0.52%; 95% CI -0.95 to 2.1; p = 0.4) after adjusting for age and sex.

5.3.4.2 Improvement with PR

- **Exercise tests**

The change in ISWD in patients enrolled in PR programme with ≥0.2 staff/patients ratio was 2.7m more than patients enrolled in PR programme <0.2 staff/patients ratio (β coefficient 2.7 m; 95% CI -3.8 to 9.2; p = 0.4) after adjusting for age and sex [Table 5-10]. Furthermore, patients enrolled in PR sites with staff/patient ratios <0.2 and ≥0.2 were the same for achievement of MCID for ISWD (aOR 1.00; 95% CI 0.84 –1.19; p = 0.9) after adjusting for age and sex. In addition, the change in 6MWD was 7m more in patients enrolled in PR sites with ratios ≥0.2 compared to patients enrolled in PR sites with ratios <0.2 (β coefficient 7m; 95% CI -2.3–17.1; p = 0.1) after adjusting for age and sex. Interestingly, patients were 34% more likely to achieve MCID for 6MWD if they were enrolled in PR sites with ratios of ≥0.2 compared to patients enrolled in PR sites with ratios of <0.2 (aOR 1.34; 95% CI 1.06–1.69; p = 0.01) after adjusting for age and sex. Further analysis shows no association between staff/patient ratio per site and MCID achievement in both or any of exercise tests, (p=0.3), [Table 5-11].

Table 5-11. The association between the staff/patient ratio per site per year with achievement of MCID in both or any of exercise test (ISWT and 6MWT) n=3,906

	Ratio of min staff to max patients		**P-value**
	<0.2	**≥0.2**	
MCID met n(%)	1,548 (62)	904 (64)	P=0.3
MCID not met n(%)	942 (38)	512 (36)	
aOR(95% CI)*	1	1.1 (0.9-1.2)	
*Adjusted odds ratio after adjusting for age, sex, and type of PR MCID: minimum clinically important difference.			

- **MRC dyspnoea score and achievement of MCID in health status tests**

Of 3,299 patients, improvement in MRC dyspnoea score was not statistically related to staff/patient ratio per site (p = 0.6). In regard to health status, patients were 21% less likely to achieve MCID for CAT if the patients were enrolled in PR sites with ratios of ≥0.2 compared to patients enrolled in PR sites with ratios of <0.2 (aOR 0.79; 95% CI 0.66 to 0.94; p = 0.01) after adjusting for age and sex. Of the 1,542 patients, the achievement of MCID for CRQ was not statistically related to staff/patient ratio per PR site (p=0.3). Further analysis shows no association between staff/patient ratio per site and MCID achievement in both or any of health status tests (p=0.3), [Table 5-12].

Table 5-12. The association between the staff/patient ratio per site per year with achievement of MCID in both or any of health status test (CAT and CRQ) n=3,495

	Ratio of min staff to max patients		**P-value**
	<0.2	**≥0.2**	
MCID met n(%)	1,742 (76)	919 (76)	P=0.3
MCID not met n(%)	539 (24)	295 (24)	
aOR(95% CI)*	1	0.9 (0.8-1.1)	
*Adjusted odds ratio after adjusting for age, sex, and type of PR MCID: minimum clinically important difference.			

5.4 Discussion

The principal finding of this study, based on the reported clinical outcomes from the National COPD PR audit data, was that the relationship between various PR programme capacity measures and PR clinical outcomes was inconsistent. However, PR programmes with fewer available spaces and fewer patients assessed and sites with smaller staff/patient ratios were significantly associated with delayed (>90 days) enrolment. In addition, the achievement of clinically important differences in 6MWD was associated with sites having smaller numbers of available spaces and higher staff/patient ratios. The number of sessions attended, completion of the programme and improvements in the MRC dyspnoea score and health status were not related to the programme capacity measures.

The BTS PR Quality Standards recommends that patients accepted for PR should be enrolled within 90 days after referral [32]. In this analysis, larger PR programmes with higher staff/patient ratios had enrolled the referred patients within the recommended timeframe. Moreover, almost half of the referred patients delayed the PR utilisation, which might impact their condition [187]. In addition, the 2017 data has been published since this thesis was originally submitted which also showed similar issue in which patients had to wait too long for enrolment [188]. Furthermore, given that the type of PR was a contributing factor towards enrolment time, patients who were referred to cohort PR programmes had to wait for enrolment longer than patients whowere referred to rolling programmes [188]. The cohort type of programmes enrol

patients who start and finish the programme at the same time, and any drop out spaces will remain unoccupied until the whole group finishes the programme [30]. In contrast, the rolling PR programmes have a continuing cycling of sessions, where patients join as space becomes available, and upon drop out, a new patient will join the programme [30]. Therefore, the 2017 audit recommended changing the cohort PR programmes to rolling or combination PR programmes to avoid delays [188]. To the best of our knowledge, this is the first study demonstrated the association of a PR programme's capacity with enrolment time.

The reported evidence of PR benefits requires identification of the factors that impact the completion rates of PR programmes [30]. PR programme capacity, evaluated by the number of spaces, the number of patients assessed and the staff/patient ratio, did not correlate to the completion rates of PR programmes or the proportion of scheduled sessions that were attended. Furthermore, overwhelming evidence has previously demonstrated that PR improves exercise capacity [30]. The BTS's PR quality standards recommend assessing exercise capacity for patients attending a PR programme [32]. Various factors, including learning effects, baseline walking tests and motivation, have been determined to be associated with change and improvement in walking-test distances [179-182]. While the findings of the present study did not determine any association between a programme's capacity and change in ISWD, an association did exist in the change and MCID achievement in 6MWD with PR. Programmes with smaller numbers of available spaces per year and higher staff/patient ratios were related to improvements in 6MWD. One possible

explanation for this is that sites with better staff/patient ratios delivered more individualised PR programmes with targeted improvement. However, the audit highlights the significant patients dropout rate, which will eventfully increase the staff/patient ratio in the cohort running programmes, due to the nature of their enrolment processes. Furthermore, 6MWT was more sensitive to clinical changes following pulmonary rehabilitation than the ISWT, perhaps due to the differences in exercise performance mechanism. 6MWT requires the patient to walk for 6 minute speed while the ISWT for 20 minute [189]. In addition, 6MWT is a time-limited test for endurance in which the patient determines the walking speed. By contrast, the ISWT is a symptom-limited walking test that measures maximal capacity. Improvements in health status and dyspnoea scores were observed irrespective of the programmes' capacities. However, various PR programmes may have patients with differing complexities of COPD; some of the hospital-based programmes may have more complex cases, which the community-based programmes will not accept, because they are too breathless and may need a higher staffing ratio.

A wider literature search of staffing capacity in other rehabilitation programmes identified a single study on a cardiac rehabilitation service, which included 48,476 patients from 178 cardiac rehabilitation centres. It showed no significant relationship between centre capacity and clinical outcomes, which support this study findings [190].

5.4.1 Strength and limitation

To our knowledge, this is the first study to investigate whether a PR programme's annual capacity influenced a range of PR outcomes for over 6,000 patients that enrolled in and commenced PR programmes in the UK. However, this study has some limitations that there was significant under-reporting of clinical outcomes of exercise walk tests, dyspnoea and health status. Few patients (n=262) had St George's respiratory questionnaire, thus were not evaluated. Another limitation of this study was that quality factors that might have influenced the PR outcomes, such as the PR staff level, speciality and also skills, experience and training, could not be directly analysed here. The 2017 HQIP/RCP pulmonary rehabilitation audit, which assess staffing qualification, staff payment grade, staff vacancies, and amount of life support training for the past 12 months, may be able to answer some of these questions [37].

5.5 Conclusion

In conclusion, larger programmes with greater available spaces and higher staffing ratios were more likely to enrol patients within three months from the time of referral, as recommended. The achievement of clinical improvements in the exercise walk test (6MWT) was related to sites having small numbers of available spaces per programme and higher staff/patient ratios. However, the

analysis was unable to show a significant association between PR programme capacity and other measured clinical PR outcomes.

6 THE USE OF THE PRACTICE WALK TEST IN PULMONARY REHABILITATION PROGRAMME: NATIONAL COPD AUDIT PULMONARY REHABILITATION WORKSTREAM

6.1 Introduction

PR has become firmly established as a core management strategy for patients with COPD [30]. In clinical practice, the PR programme should include outcome assessments to determine patient progress during the programme including measures of functional performance, breathlessness, and health-related quality of life [30].

Field exercise tests, such as 6MWT and ISWT, are commonly used to assess changes in the functional performance among patients with COPD undergoing PR [191-193]. Both tests have demonstrated their validity and reliability and are sensitive to improvement following PR [181]. Importantly, these tests are also the platform for individually prescribing the tailored exercise programme [41,194], in order to deliver the intensity of training required to gain physiological benefit. A recent systematic review determined a learning effect when two or more of functional exercise tests are conducted [181]; a mean improvement of 20m on the second ISWT and 26m on the second 6MWT. This learning effect is large enough to be clinically important when they are used to prescribe exercise and evaluate the improvement due to PR intervention [181]. As a result, at least one practice functional exercise test at assessment is recommended [41].

The baseline exercise test provides a platform for prescriptions during PR programmes, and the failure to conduct a quality baseline, including a practice exercise walk test, may affect the prescription intensity. Moreover, ERS/ATS

reinforces the use of the practice walk test, given the learning effect that is obtained with exercise tests. Currently, there is a lack of evidence evaluating the effect of practice walk test at assessment on enrolment and completion of PR.

6.1.1 Hypothesis and objectives

The study hypothesised that the patients having a practice walk test at assessment would have a better baseline exercise test with which to base the exercise prescription and thereby positively impact on the clinical response to PR. In this work, this chapter aimed to address in real life practice the use of and the impact of a practice walk test on i) the baseline exercise test; ii) enrolment, and completion; iii) clinical response to PR particularly in the functional assessment.

6.2 Methods

6.2.1 Data source

The National COPD audit programme: pulmonary rehabilitation workstream, 2015 audit as reported in Chapter 5, was used.

6.2.2 Demographics and clinical characteristics

The identified patient demographic and clinical variables included the following: age (four categories: <60, 60-<70, 70-<80, and ≥80 years), gender, MRC dyspnoea score, smoking status (current, ex, never or not recorded), FEV_1 percent predicted, presence of selected comorbidities (atrial fibrillation (AF), diabetes (DM), ischemic heart disease (IHD), and left ventricular failure (LVF)), whether long term oxygen therapy was used, the functional exercise tests (6MWT and ISWT), enrolment to PR and completion of PR (as reported by the PR team), proportion of sessions attended out of sessions scheduled and then categorised as (≤50%, 51-75%, and >75%), and health status measures (St George's Respiratory Questionnaire, and the COPD Assessment Test). The type of PR (whether cohort, rolling, other) was recorded in two ways: in the analyses at assessment, the type of PR for that programme was used from organisational data, as some individual who did not enroll would not have this data, therefore for everyone it was decided to use the organisational data. For those who enrolled, the type of PR was recorded as the actual PR programme the patient underwent (from clinical data). Patients were divided into two groups depending on whether or not they have had practice test at the assessment ("Practice test" versus "No practice test").

6.2.3 Statistical analysis

Data were described in terms of proportion and mean (standard deviation, SD) as appropriate. Logistic regression was used to examine the practice walk test effect on enrolment, starting and completion of PR between those who had practice test at assessment versus those with no practice tests. Potential confounders that change the relation between practice test and either enrolment, starting and completion of PR by more than 10% were entered into a final multivariate model to calculate the adjusted odds ratios. Linear regression was used to further explore the relationship between having a practice test and ISWD and 6MWD at baseline and discharge with β regression coefficients and their 95% confidence. All statistical analysis was performed using the Stata version 13 software (StataCorp LP, college station, TX, US).

6.3 Results

6.3.1 Demographic and clinical differences

Of the 230 programmes surveyed, 210 PR programmes participated in the clinical audit. The audit collected data from 7,413 patients; 58 of these patients had no record whether they had practice test at assessment or not and were thus excluded [Table 6-1]. 7,355 patients were included; 1,666 (22.6%) had a recorded “Practice test” compared to 5,689 (77.3%) “No practice test”. The demographic and clinical characteristics between the two groups are listed in

[Table 6-2]. The significant differences were that the group who performed a practice test at assessment were more likely to be male and have severe airflow obstruction. Those who performed a practice test at assessment were more likely to be referred to PR programme which in the organisational data stated they offered both the cohort and rolling type of PR programme.

Table 6-1. Demographics and clinical characteristics differences between whole population and patients recorded practice test at assessment or not.

	Total population N=7,413	**Patients with Practice test or not n=7,355**
Age category (years)		
<60	1,245 (16.80)	1,235 (16.79)
60-<70	2,704 (36.48)	2,680 (36.44)
70-<80	2,616 (35.29)	2,599 (35.34)
≥80	847 (11.43)	840 (11.42)
Missing	1	1
Gender		
Male (%)	3,948 (53.26)	3,913 (53.20)
Female (%)	3,465 (46.74)	3,442 (46.80)
FEV1% Predicted	N=4,561	N=4,546
Mean (SD)	54.62 (19.72)	54.57 (19.72)
GOLD 1	488 (6.57)	485 (6.58)
GOLD 2	2,093 (28.18)	2,072 (28.12)
GOLD 3	1,545 (20.80)	1,543 (20.94)
GOLD 4	449 (6.05)	446 (6.05)
Not Recorded	2,852 (38.40)	2,823 (38.31)
Smoking status		
Never	449 (6.06)	443 (6.02)
Ex-smoker	5,179 (69.86)	5,147 (69.98)
Current smoker	1,614 (21.77)	1,602 (21.78)
Not recorded	171 (2.31)	163 (2.22)
MRC baseline		
MRC 1&2	1,195 (16.12)	1,188 (16.15)
MRC 3	2,656 (35.83)	2,638 (35.87)
MRC 4	2,328 (31.40)	2,313 (31.45)
MRC 5	643 (8.67)	640 (8.70)
Not recorded	591 (7.97)	576 (7.83)

Abbreviations: FEV1(Forced Expiratory volume in one second); SD(standard deviation); GOLD(global initiative for obstructive lung disease); MRC(medical research council dyspnoea score).

Table 6-2. Demographic and clinical Characteristics of Patients according to whether or not Practice test at baseline assessment (n=7,355)

	Practice test n=1,666 n (%)	**No Practice Test n=5,689 n (%)**	**P value**
Age category (years)			
≤60	266 (15.9)	969 (17.0)	0.307
60-<70	593 (35.5)	2,087 (36.6)	
70-<80	599 (35.9)	2,000 (35.1)	
≥80	208 (12.4)	632 (11.1)	
missing	0	1	
Gender			
Male (%)	961 (57.6)	2,952 (51.8)	<0.0001
Female (%)	705 (42.3)	2,737 (48.1)	
FEV_1% Predicted	N=1,151	N=3,395	0.003
Mean (SD)	53.1 (19.1)	55.1 (19.9)	
GOLD 1	102 (8.8)	383 (11.2)	0.002
GOLD 2	504 (43.7)	1,568 (46.1)	
GOLD 3	421 (36.5)	1,122 (33.0)	
GOLD 4	124 (10.7)	322 (9.4)	
Not Recorded	515	2,294	
Smoking status			
Never	95 (5.8)	348 (6.2)	0.184
Ex-smoker	1,201 (73.3)	3,946 (71.0)	
Current smokers	341 (20.8)	1,261 (22.7)	
Not recorded	29	134	
MRC baseline			
MRC 1&2	302 (18.8)	886 (17.1)	0.243
MRC 3	609 (38.0)	2,029 (39.1)	
MRC 4	533 (33.3)	1,780 (34.3)	
MRC 5	155 (6.6)	485 (9.3)	
Not recorded	67	509	
Comorbidities			
AF	120 (7.2)	358 (6.2)	0.185
DM	232 (13.9)	749 (13.1)	0.422
IHD	180 (10.8)	648 (11.3)	0.505
LVF	42 (2.5)	147 (2.5)	0.886
O2 use			
Long Term Oxygen	66 (3.9)	227 (3.9)	0.958
Organisational Type of PR offered at that programme			
Rolling Only	508 (30.4)	2,548 (44.7)	<0.0001
Cohort only	582 (34.9)	1,929 (33.9)	
Both types	519 (31.1)	1,171 (20.5)	
Only Other	57 (3.4)	41 (0.7)	

Exercise test at baseline assessment			
ISWD	N=1,004	N=2,808	
Mean(SD)	214.1 (134.4)	193.1 (133.3)	<0.0001
6MWD	N=668	N=2167	
Mean(SD)	272.4 (114.7)	240.1 (114.1)	<0.0001
Enrolment n (%)	1,519 (91.1)	4,762 (83.7)	<0.0001
Commenced PR n(%)	1,518 (91.1)	4,751 (83.5)	<0.0001
Abbreviations: FEV_1 (Forced Expiratory volume in one second); SD (standard deviation); GOLD (global initiative for obstructive lung disease); MRC (medical research council dyspnoea score); AF (atrial fibrillation); DM (diabetes); IHD (ischemic heart disease); LVF (left ventricular failure); O2 (oxygen); PR (pulmonary rehabilitation); ISWD (Incremental shuttle walked distance); 6MWD (6-minute walk distance).			

6.3.2 ISWT and 6MWT at baseline

Among 3,812 patients who had ISWT and 2,835 patients with 6MWT at assessment, both the ISWD and 6MWD at baseline were significantly greater in the practice test group compared to the no practice test group. After adjusting for age, gender, and type of PR programme, linear regression demonstrated that the difference between the two groups was maintained (ISWD; β coefficient 17.9m; 95% CI 8.2 to 27.5; P<0.0001) (6MWD; β coefficient 34.8m; 95% CI 24.7 to 44.9; P<0.0001).

6.3.3 Enrolment and Commencement of PR programme

Of the 7,355 patients, 6,269 (85.2%) patients were enrolled and subsequently commenced the PR programme, with 1,518 (91.1%) had a practice test and 4,751 (83.5%) had not [Table 6-3]. Of those patients who started PR, patients

with a practice test were more likely to be male and more severe airflow obstruction. In addition, the patients were more likely to actually enrol onto a cohort type of PR programme (clinical audit data). After adjusting for age, gender, and type of PR, logistic regression revealed that those patients with a practice test were two times more likely to enrol for PR than no practice test patients (aOR 2.2; 95% CI 1.8 – 2.6). A sensitivity analyses in those who did an ISWT and then those who did a 6MWT separately were performed and included the baseline distance to see if this modified the relationship which it did not (ISWT: aOR 1.9; 95% CI 1.6 – 2.2) (6MWT: aOR 2.1; 95% CI 1.8 – 2.5).

Table 6-3. Demographic and clinical Characteristics of Patients who enrolled and commenced pulmonary rehabilitation according to whether or not Practice test at baseline assessment (n=6,269)

	Practice test n=1,518 n(%)	**No Practice Test n=4,751 n(%)**	**P value**
Age category (years)			
≤60	235 (15.4)	742 (15.6)	0.678
60-<70	542 (35.7)	1,763 (37.1)	
70-<80	554 (36.5)	1,702 (35.8)	
≥80	187 (12.3)	544 (11.4)	
missing	0	1	
Gender			
Male (%)	877 (57.7)	2,456 (51.6)	<0.0001
Female (%)	641 (42.3)	2,295 (48.3)	
FEV_1% Predicted	N=1,052	N=2,878	
Mean (SD)	53.0 (19.2)	54.9 (19.8)	0.006
GOLD 1	96 (9.1)	320 (11.1)	0.002
GOLD 2	453 (43.0)	1,323 (45.9)	
GOLD 3	388 (36.8)	973 (33.8)	
GOLD 4	116 (10.9)	262 (9.1)	
Not Recorded	466	1,873	
Smoking status			
Never	89 (5.9)	305 (6.55)	0.320
Ex-smoker	1,108 (74.1)	3,360 (72.1)	
Current smokers	297 (19.8)	990 (21.2)	
Not recorded	24	96	
MRC baseline			
MRC 1& 2	275 (18.8)	756 (17.3)	0.670
MRC 3	553 (37.9)	1,746 (40.1)	
MRC 4	490 (33.6)	1,471 (33.8)	
MRC 5	139 (9.5)	379 (8.7)	
Not recorded	61	366	
Comorbidities			
AF	110 (7.25)	292 (6.15)	0.127
Diabetes	208 (13.7)	630 (13.2)	0.659
IHD	162 (10.6)	518 (10.9)	0.801
LVF	37 (2.4)	125 (2.6)	0.679
O2 use			
Long Term Oxygen	63 (4.1)	189 (3.9)	0.766
Individual type of PR			
Rolling	741 (48.8)	2,603 (54.7)	0.0002
Cohort	731 (48.1)	2,001 (42.1)	
Other	46 (3.0)	147 (3.0)	

Exercise test at assessment			
ISWT	N=921	N=2,529	<0.0001
Mean (SD)	216.4 (135.2)	194.1 (132.1)	
6MWT	N=605	N=1,924	<0.0001
Mean (SD)	274.6 (114.3)	244.1 (113.7)	
Abbreviations: FEV_1 (Forced Expiratory volume in one second); SD (standard deviation); GOLD (global initiative for obstructive lung disease); MRC (medical research council dyspnoea score); AF (atrial fibrillation); DM (diabetes); IHD (ischemic heart disease); LVF (left ventricular failure); O2 (oxygen); PR (pulmonary rehabilitation); ISWD (Incremental shuttle walked distance); 6MWD (6-minute walk distance).			

6.3.4 Completion of PR programme

Of the 6,269 patients who were enrolled, 4,426 (70.6%) patients completed the PR programme; 1,117 (73.5%) patients who had had a practice test compared to 4,751 (69.6%) patients who had not [Table 6-4]. After adjusting for age, gender, and type of PR programme, the practice test group were 17% more likely to complete the PR programme (aOR 1.17; 95% CI 1.03 – 1.34). Furthermore, practice test patients had also attended more scheduled PR sessions (p=0.021).

Table 6-4. Completion and number of sessions attended of pulmonary rehabilitation among the patients who started Pulmonary Rehabilitation. (n=6,269)

	Practice test N=1,518 n(%)	**No Practice Test n=4,751 n(%)**	**P value**
Completed PR n (%)	1,117 (73.5)	3,309 (69.6)	0.003
Individual Type of PR			
Rolling	741 (48.8)	2,603 (54.7)	0.0002
Cohort	731 (48.1)	2,001 (42.1)	
Other	46 (3.0)	147 (3.0)	
Proportion of session attended/schedule			
<50 %	290 (19.1)	1,111 (23.3)	0.021
50-75%	236 (15.5)	643 (13.5)	
>75%	992 (65.3)	2,997 (63.1)	
Abbreviations: PR (pulmonary rehabilitation); ISWD (Incremental shuttle walked distance); 6MWD (6-minute walk distance).			

6.3.5 Change in ISWD and 6MWD with pulmonary rehabilitation

2,251 patients had both baseline and discharge assessments for ISWT and 1,662 patients had both assessments for 6MWT. Overall, the mean improvement in ISWD was 63m (95% CI 60.3 to 66.8) and for 6MWD 59m (95% CI 54.6 to 63.7). Minimal clinically important difference was achieved in 57% of patients for ISWD and 70% for 6MWD [40,41,181]. The change in the distance recorded was lower for both tests in the group who had undergone the practice test [Table 6-5]. After adjusting for age, gender, and baseline exercise tests the practice test patients improved by 12.3m less (ISWD) and 8.9m less (6MWD) than the no practice patients (ISWD change; β coefficient -12.3m; 95% CI -19.5 to -5.1; P=0.001), (6MWD change; β coefficient -8.9m; 95% CI -19 to 1.4; p=0.09). The patients who had practice test were 41% more likely

to improve on their MRC dyspnoea score (after adjusting for age and gender, aOR 1.41; 95% CI 1.21 to 1.65), whilst there was no difference regarding change in health status.

Table 6-5. The change in functional exercise tests stratified by practice test at assessment for patients who had both a baseline and discharge assessment test recorded.

mean(SD)	**ISWD (m)**		**6MWD (m)**	
	Practice test n=626	No practice test n=1,625	Practice test n=414	No practice test n=1,248
At baseline	221(136)	202 (129)	287 (110)	258 (112)
At discharge	275m (156)	269m (151)	337 (111)	320 (140)
Change	54 (79)	67 (78)	49 (57)	62 (103)
The difference of the change in functional exercise tests between the two group				
Unadjusted β coefficient (95% CI)	-12.9 (-5.6 to -20.2)		-12.5 (-4.5 to -20.5)	
Adjusted β coefficient (95% CI)*	-12.3 (-19.5 to -5.1)		-8.9 (-19 to 1.4)	

Abbreviations: m (meters); ISWD (Incremental shuttle walked distance); 6MWD (6-minute walk distance).
*after adjusting for age, gender and baseline exercise distance

6.4 Discussion

Only 22.6% of the 7355 patients in the 2015 National COPD PR audit had a practice walk test at baseline, despite recommendations that a practice test is required in such circumstances [41]. Not only was the distance of the baseline exercise test greater in the group who underwent a practice walk test, so too were both enrolment and completion rates in this group. Although the change in recorded exercise performance was not greater in the patients with a practice

test, they performed better at discharge assessment and were more likely to have an improvement with their dyspnoea score.

The 2015 National COPD pulmonary rehabilitation audit offers opportunity to assess the role of the practice test in a large cohort of subjects within the UK, undergoing PR [36]. There is strong recommendation for the conducting at least one practice test prior to the formal assessment, yet this was not found when assessed in the 2015 audit data [41,181]. Moreover, in the 2017 audit, conducting practice exercise walk test rate in PR programmes remains low [188]. Despite the evidence showing the importance of the practice walk test, putting this into practice, across the world has been slow such that a survey of 75 PR centre across Canada and the US, had suggested similar finding [195]. A more recent survey in Australia, reported in 2011, suggested a marginally better result that 39% of 161 PR programmes performed two tests at assessment [196]. There are a number of reasons for a centre to choose to do or not to a practice test and are likely to be centre-based decision and reflect educational, resource or time constraints. The practice exercise walk test was used as a means for judging the quality of PR programmes in the 2017 audit [188], which determined how the services that are provided to the patient are consistent with PR recommendations and quality standards.

Studies have previously demonstrated that factors such as learning effect and motivation influence the exercise walking distance [179-181]. Improvements after a repeated test have not only been seen among patients with chronic respiratory

disease [181], but also in healthy adults [197], and other medical conditions [198]. The marked difference in the current study in baseline functional tests between the two groups is likely to be as a result of the learning effect after practice test. Unfortunately, the practice test distance was not recorded alongside the formal distance in order to ascertain the learning effect specifically.

PR programmes prescribe the exercise training based on the initial exercise assessment outcome. The lack of a practice test prior to the formal assessment of an exercise test will likely under-represent the distance, which then may lead to underestimating the training intensity, and thus the patient's true training potential [41,199]. This study shows an association between the functional exercise tests' distances at baseline and discharge and practice test. One possible explanation for the greater change in the exercise tests in patients who did not perform practice test was the incorporation of a learning effect into the overall change from baseline to post visit. It is possible to speculate therefore that if this was removed from the overall PR gain, that there was less impact of PR in the group without a practice test given that the difference at baseline was greater than the mean change. Furthermore, more patients improved their breathlessness score in those who performed the practice test suggesting better clinical improvement. Although, improvements in dyspnoea with PR are well recognised irrespective to the patients' initial degree of dyspnoea [30,200], this interesting finding associated with practice test perhaps relates to the improved exercise prescription received.

Moreover, this data highlights the apparent impact of the practice walk test on enrolment and completion of PR. Factors that affect enrolment and completion of PR programmes are widely recognised, such as transportation to the PR centre, social deprivation, smoking status, and level of comorbidities [148,149,177,201,202]. The findings here demonstrate the practice walk test was also associated with enrolment and completion of PR.

6.4.1 Strengths and limitations

The strength of this study was the audit is comprehensive, large and representative of the UK with over 7000 individuals attending an assessment for PR. However, differences exist among PR programmes across countries. There might be other quality or process factors influencing both the conduct of the practice walk test and the outcomes such as staffing or other resources that are not directly possible to analyse here. In addition, the practice walk test actual distance value was not recorded and we also know little information regarding the practicalities such as the timing of the procedure or the reasons why a practice was not performed.

6.5 Conclusion

In conclusion, only 22.6% of patients being assessed for pulmonary rehabilitation had a practice test prior to their exercise assessment. Although this may be a measure of broader service quality, its utility in reliably setting an exercise prescription cannot be ignored. There are important clinical implications of this work for the conduct of pulmonary rehabilitation. The work robustly demonstrates the role of the practice walk test in the baseline assessment of pulmonary rehabilitation to maximise the benefits of the programmes. Finally, given that pulmonary rehabilitation is central to the management of COPD, the technical standards for the performance of exercise tests need to be understood and implemented by rehabilitation practitioners in the field.

7 SUMMARY OF CONCLUSIONS, CLINICAL IMPLICATIONS AND DIRECTIONS FOR FUTURE RESEARCH

7.1 Introduction

This final chapter provides a summary of the thesis and shows where its findings contribute to the current knowledge of COPD management. The thesis highlights the important aspects of managing patients with COPD. Some of these aspects have the potential to be directly implemented within primary care practices and PR programmes, whereas others need further research.

7.2 Pulmonary rehabilitation programme referral patterns

The findings from the THIN primary care analysis contribute to our knowledge of the PR referral patterns by primary care practices within the UK. Most of the referrals to PR are performed by primary and secondary healthcare practitioners within the UK [35]. The disappointing lack of PR recordings within UK primary care practices highlights the need to review this pathway. However, although the several evidence-based guidelines for PR in managing COPD exist, the referral rate to PR remains poor worldwide [203]. For instance, the 2016 New Zealand COPD audit shows that only 2% of eligible patients with COPD were referred to PR [204]. Many factors have been determined as potential barriers to pulmonary rehabilitation referral, including both healthcare practitioners' and patients' lack of awareness of pulmonary rehabilitation benefits, the time constrains for the referrer, and PR accessibility [205]. The intervention of healthcare trusts and commissioners is needed to eliminate these barriers.

Furthermore, this analysis also has shown that patients who received PR codes may be in an area of better care because they also had better recording of other primary COPD management interventions such smoking cessation and influenza vaccination. The question arises about the reasons of these primary COPD interventions are not well recorded in THIN database. The quality of recording such interventions in primary care practices needs to improve to properly assess compliance with NICE guidelines and standards of COPD management.

In 2004, the NHS introduced a pay-for-performance scheme known as the Quality and Outcomes Framework (QOF) [159,206]. The QOF uses certain indicators that are based on healthcare guidelines and controls of the NHS primary care trust. The QOF has accelerated primary care trends towards a systematic management of chronic diseases [159]. In regard to PR, only Wales has introduced PR QOF indicators, which occurred in April 2013. Since then, the recording and referral patterns to PR have increased in Wales. GPs referral to PR increased from <10 referrals in April 2013 to approximately 150 referrals in March 2014 [140]. Furthermore, Hull et al. 2014 evaluated defined COPD key performance indicators, including PR, within 36 GP practices in London and identified a PR referral improvement by 25% (from 45% to 70%) [207]. However, the referral is a complete process of education and a motivation task. A fixed performance incentive may impact the physician-patient interaction and, therefore the enrolment and attending. On other side, the

introduction of PR QOF indicators in England would be challenging, as there are already delays in PR access. Therefore, the introduction of QOF is a subject for future quality-of-care research.

Recommendations:

- Primary- and speciality-care physicians and other healthcare professionals should have educational opportunities to increase their awareness of the referral criteria, the referral pathway, and the benefits of PR, together with patient awareness and willingness to overcome patient barriers to attend PR.
- Introducing PR as part of the QOF reward for primary care may improve the recording and referral to PR programmes.

Future research:

- A cohort study investigating the enrolment and completion of the PR in patients with COPD who were referred to PR by GPs in Wales is an option to assess the advantage and disadvantage of the QOF for PR.

7.3 Pulmonary rehabilitation survival benefit

Whilst evidence has shown that PR benefits exercise capacity, dyspnoea, and quality of life in patients with COPD [30], the survival benefits remain uncertain.

In this thesis, a systematic review found limited, inconclusive evidence of the impact of PR (when conducted on clinical stability) on survival in patients with COPD. This review was conducted in 2015, and the studies that were reviewed were outdated, given that the management of COPD has been changed during the last two decades [16]. However, recent studies have shown strong evidence of survival benefits among patients with COPD who have completed PR programmes [123,124]. In the audit report, patients who completed PR had better survival within 90 days and 180 days [123]. Also, the cohort study showed also a better survival in those who complete PR [124]. Interestingly, the findings of the THIN primary care data analysis, support these evidence that demonstrates the positive impact of PR on survival in patients with PR records.

Previous RCT studies described the effectiveness of PR on quality of life, dyspnoea, physical activity, and exercise tolerance and discussed how these could enhance survival [30,56,124] Given the proven efficacy of PR and the NHS recommendation of PR for all eligible patients with COPD, an RCT with survival as the primary outcome is not an option within the UK [29]. However, in countries that rely on economic data, such as the US, randomised control trials with long-term follow-up periods should be considered. Furthermore, other countries with such databases may have follow-up PR data that could provide information on the impact of PR on the survival of patients with COPD.

Contribution:

- The thesis findings added supporting evidence of the positive impact of

pulmonary rehabilitation on the survival of patients with COPD.

7.4 The risk of falls in patients with COPD

The consequences of falls, including fractures, cuts, bruising, immobility, hospitalisation, and even increased mortality, highlight the importance of identifying patients at high risk for falling. Fall prevention societies emphasise on identifying factors that lead to falls to develop early preventative strategy interventions [95]. The analysis of THIN primary care revealed that patients with COPD had an increased risk of falls in comparison to age- and sex-matched individuals without COPD in primary care. The analysis also allowed us to evaluate the effects of wide range of previously identified fall risk factors, including chronic conditions and medications. This increased incidence supports the need to extend the clinical focus towards factors that might make patients more likely to fall. In addition, a need exists for a basic research mechanism to determine the factors that increase the risk of falls in persons with COPD, and further work is warranted to evaluate the contribution of comorbidities and medications to fall risks.

Balance impairment has been associated with an increased risk of falls, and balance tests are recommended during routine COPD assessment [107]. Whilst the focus on falls is evident, the systematic review demonstrated evidence of PR's effects on improving balance in patients with COPD. It showed an inconsistence but positive effect of PR on balance. However, this evidence

regarding improved balance is limited by the small study sample sizes. There is still a lack of studies that have evaluated the impact of PR on falls and balance.

The optimal therapeutic options for preventing falls, which include focusing on increased functional muscle strength and managing balance at the time of COPD diagnosis, need to be considered. Given that PR improves balance and muscle strength, PR could be an effective fall-prevention strategy that reduces the risk and consequences of falls. This also will be the subject of future research, and larger RCTs are needed to evaluate the effectiveness of PR on balance.

Contribution:

- This thesis contributes to the knowledge of COPD management by revealing the risk of falling in patients with COPD at risk of falls.
- It also highlighted the lack of studies evaluating the impact of PR on improving balance and preventing falls in patients with COPD.

Recommendations:

- A risk of falls assessment should be included during the diagnosis of COPD to educate them about the potential risks.
- A balance test during routine COPD assessments may detect any balance deficit as early as possible and reduce the risk of falls.
- Refer patients who identified at-risk for falling to a pulmonary

rehabilitation programme.

Future research:

- Prospective cohort studies are needed to examine whether balance deficits can predict falls in patients with COPD.
- A large randomised controlled trial could evaluate the effects of PR on balance performance in patients with COPD who are at increased risk of falling.

7.5 The association between pulmonary rehabilitation outcomes and programme capacity

The findings of this thesis revealed that larger PR programmes were better than smaller programmes at enrolling and accommodating patients into their PR programmes within three months of referral. The enrolment delay might worsen the patients' condition. The 2015 audit reported that 30% of the assessed patients were at high risk for hospital admission at six months [123]. They have reported that the risk of admission could be reduced if the referred patients did not wait too long to start the PR programme. This is very important due to the hospital admission would affect the completion of PR programme.

Furthermore, the nature of enrolling patients in a cohort-based PR programme may delay enrolment, given the dropout possibility. Therefore, the 2017 audit recommended switching the cohort programme to a rolling programme or a

combination of both, to avoid further delay. Furthermore, ATS/ERS, in 2015, have highlighted the accessibility issue and recommended establishing new programmes in regions where they are needed [139]. This require a formal educational effort and discussion with healthcare systems and payers to persuade them to increase programme funding or establish new programmes [139]. The likelihood is high that these changes may prevent unnecessary delays for the referred patients that could cause their condition to worsen. This is a subject for further research.

Furthermore, the analysis revealed that the staff/patient ratio per PR programme was associated with minimal clinical improvements in the six-minute walk test but not in the incremental shuttle walk test. The differences between these two exercise tests might explain this finding. However, this is a cluster of data from multiple PR programmes, so the patients may shared some similarities. A recent cohort study evaluated the association of survival with clinical improvement in ISWT [124]. They found a better survival in patients who achieved the MCID of ISWT compared to those who did not. Thus, taken together this evidence and the thesis findings, the staff/patient ratio of 0.2 or more is crucial in achieving clinical improvements in exercise tests as important for survival. This is the first study to evaluate the association of the PR programme staff/patient ratio with clinical outcomes; the previous staff/patient ratios were based on expert opinions.

This work developed a robust approach for conducting audit-based research, and it established a baseline in the UK from which future longitudinal audit-based research can be conducted. Concerns were raised about the impact of a PR programme's capacity on PR clinical outcomes. The limitations of this study have been acknowledged in that there was an opportunity to focus on many factors that influence patient clinical outcomes. The 2017 PR audits have captured more information regarding staffing qualifications and years of experience with a PR programme [188,208].

Recommendations:

- Switch cohort type to rolling or combination type of PR programme, for which any patient dropout can allow the inclusion of a new patient.
- Regular formal discussions to convince healthcare systems and payers for commissioning adequate number of programmes with adequate staff/patient ratio around the country to avoid unnecessary delay.

Future research:

- The 2017 latest audit included factors such staff qualification and experience and provides an opportunity to investigate the effect of these factors on the pulmonary rehabilitation clinical outcomes.

7.6 Practice exercise walk test at baseline in the 2015 National COPD audit and assess its association with clinical outcomes

The second analysis of the 2015 national COPD data revealed a disappointing result: only 22.6% of patients assessed in PR programmes had a practice exercise walk test prior to their baseline exercise assessments. This was also the case in the 2017 audit [188]. The analysis also revealed that the clinical outcomes of many patients (exercise tests, dyspnoea score, quality of life tests) are not recorded at baseline or discharge. The lack of a practice exercise walk test prior to the formal assessment of an exercise test will likely under-represent the distance, which then may lead to underestimating the training intensity and thus the patient's true training potential. The technical standards for performing the practice exercise walk test require strict adherence. However, the previous evidence of the association between improving in exercise walk test and survival [124], support the importance to perform the exercise tests per standard and recommendation.

These findings should lead to the consideration of educational, practical, and resource issues that might limit test inclusion in PR programmes. Moreover, this investigation reinforces the consensus recommendations for ensuring that the quality of PR programmes is adequate for improving services in the UK. The 2017 audit introduced this as quality priority and recommends that "*each PR programme should comply that all exercise assessments are performed per*

recommended technical standards including routine conduct of practice exercise walk tests at assessment ".

Contribution:

- This thesis reveals the lack of conducting the practice exercise walk test around the England and Wales PR practices. It also highlights its association with completion and clinical outcomes.

Recommendation:

- Strategies and policies are required that focus on emphasising the performance of the practice exercise walk test during pulmonary rehabilitation assessments.

7.7 Closing Remark

In the course of this study, this thesis determines new evidence for the management of COPD. Given the disappointed findings of the pulmonary rehabilitation practice within primary care, strategies to improve PR recording and referral processes within primary care should be implemented. Considering that this work highlights the high incidence of falls in patients with COPD, fall assessment in these patients is required. Furthermore, strategies that stress and highlight the importance of implementing a practice exercise walk test during the baseline assessment can be incorporated into every PR programme. Finally,

an adequate number of PR programmes and adequate staffing are important to achieve PR benefits and eliminate any further risk of delay.

8 REFERENCES

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9 APPENDICES

9.1 Search strategy for systematic review of the effect of pulmonary rehabilitation on mortality, balance, and risk of fall in stable patients with chronic obstructive pulmonary disease

(Pulmonary Rehabilitation) AND ((COPD) OR (chronic obstructive pulmonary disease) (chronic obstructive lung disease) OR (Chronic bronchitis) OR (emphysema) OR (bronchitis)) AND ((mortality) OR (death) OR (survival) OR (survive) OR (fall) OR (faller) OR (falling) OR (accidental fall) OR (balance) OR (imbalance)) limits: Humans, English, publication date from 01 January 1980 to 10 October 2015

9.2 Data extraction form for systematic review of the effect of pulmonary rehabilitation on mortality, balance, and risk of fall in stable patients with chronic obstructive pulmonary disease

Reviewer			
Lead author		Year of paper	
Full paper ☐	Abstract only ☐		
RCT ☐	Cross-Sectional ☐ Cohort☐	Case-Control ☐	

Pulmonary Rehabilitation (Duration, frequency, In or out-patient, and what it did include)			
Inclusion Criteria			
Exclusion Criteria			
Participants Studied	Rehab	No Rehab	Notes
Number Enrolled Into Study			
Number Lost To Follow Up			
Final Number Of Participants Evaluated			

METHODOLOGICAL QUALITY OF STUDIES

Newcastle–Ottawa Scale	Case-control studies / cross-sectional studies		Cohort studies	
1. Selection	a) Case definition b) Representativeness of cases c) Selection of control d) Definition of controls		a) Representativeness of exposed cohort b) Selection of non-exposed cohort c) Ascertainment of exposure d) Outcome occurred	
2.Comparability	a) Matching / adjustment for age b) Matching / adjustment for other factors Factors=……		a) Matching / adjustment for age b) Matching / adjustment for other factors Factors=……	
3.Ascertainment	a) Ascertainment of exposure b) Same method of ascertainment for cases and controls c) Non response rate		a) Ascertainment of outcome b) Was follow up long enough for outcomes to occur c) Adequacy of follow up of cohort	

Randomized Control Trail

Based on Cochrane risk of Bias Tool:	Yes	No	Unclear
Was the allocation sequence adequately generated?			
Was the sequence generation adequately concealed before group assignments?			
Was knowledge of the allocated interventions adequately hidden from the participants and personnel after participants were assigned to respective groups?			
Was knowledge of the allocated interventions adequately hidden from the outcome assessors after participants were assigned to respective groups?			
Were incomplete outcome data adequately addressed?			
Are reports of the study free of suggestion of selective outcome reporting?			
Was the study apparently free of other problems that could put it at a risk of bias?			

Comments:

OUTCOME MEASURES

Primary outcome measures	Method for assessing outcome
1. Mortality YES / NO	
2. Fall/Balance YES / (NO)	

RESULTS

Primary Outcomes	Rehab, N=	No Rehab, N=	Overall
1. Mortality			
2. Fall/balance			

Comments:

9.3 List of COPD read codes

Code	Term
H3...00	Chronic obstructive pulmonary disease
H3...11	Chronic obstructive airways disease
H31..00	Chronic bronchitis
H310.00	Simple chronic bronchitis
H310000	Chronic catarrhal bronchitis
H310z00	Simple chronic bronchitis NOS
H311.00	Mucopurulent chronic bronchitis
H311000	Purulent chronic bronchitis
H311100	Fetid chronic bronchitis
H311z00	Mucopurulent chronic bronchitis NOS
H312.00	Obstructive chronic bronchitis
H312000	Chronic asthmatic bronchitis
H312011	Chronic wheezy bronchitis
H312100	Emphysematous bronchitis
H312300	Bronchiolitis obliterans
H312z00	Obstructive chronic bronchitis NOS
H313.00	Mixed simple and mucopurulent chronic bronchitis
H31y.00	Other chronic bronchitis
H31y100	Chronic tracheobronchitis
H31yz00	Other chronic bronchitis NOS
H31z.00	Chronic bronchitis NOS
H32..00	Emphysema
H320.00	Chronic bullous emphysema
H320000	Segmental bullous emphysema
H320100	Zonal bullous emphysema
H320200	Giant bullous emphysema

H320300	Bullous emphysema with collapse
H320311	Tension pneumatocoele
H320z00	Chronic bullous emphysema NOS
H321.00	Panlobular emphysema
H322.00	Centrilobular emphysema
H32y.00	Other emphysema
H32y000	Acute vesicular emphysema
H32y100	Atrophic (senile) emphysema
H32y111	Acute interstitial emphysema
H32y200	MacLeod's unilateral emphysema
H32yz00	Other emphysema NOS
H32z.00	Emphysema NOS
H36..00	Mild chronic obstructive pulmonary disease
H37..00	Moderate chronic obstructive pulmonary disease
H38..00	Severe chronic obstructive pulmonary disease
H39..00	Very severe chronic obstructive pulmonary disease
H3A..00	End stage chronic obstructive airways disease
H3y..00	Other specified chronic obstructive airways disease
H3y..11	Other specified chronic obstructive pulmonary disease
H3z..00	Chronic obstructive airways disease NOS
H3z..11	Chronic obstructive pulmonary disease NOS

9.4 List of pulmonary rehabilitation read codes

Code	Term
8FA..00	"PULMONARY REHABILITATION"
8FA0.00	"ASSESSMENT FOR PULMONARY REHABILITATION COMPLETED"
8FA1.00	"PULMONARY REHABILITATION PROGRAMME COMMENCED"
8FA2.00	"PULMONARY REHABILITATION PROGRAMME COMPLETED"
8H7u.00	"REFERRAL TO PULMONARY REHABILITATION"
8IA9.00	"PULMONARY REHABILITATION DECLINED"
9kf0.11	"COPD PATIENT UNSUITABLE FOR PULMONARY REHABILITATION"
Z678.00	"PULMONARY REHABILITATION CLASS"

9.5 List of medical research council dyspnoea score read codes

Code	Term
173H.00	MRC BREATHLESSNESS SCALE: GRADE 1
173I.00	MRC BREATHLESSNESS SCALE: GRADE 2
173J.00	MRC BREATHLESSNESS SCALE: GRADE 3
173K.00	MRC BREATHLESSNESS SCALE: GRADE 4
173L.00	MRC BREATHLESSNESS SCALE: GRADE 5

9.6 List of smoking cessation read codes

Code	Term

6791.00	Health ed. - smoking
67A3.00	Pregnancy smoking advice
67H1.00	Lifestyle advice regarding smoking
8CAL.00	Smoking cessation advice
ZG23300	Advice on smoking
8H7i.00	Referral to smoking cessation advisor
8HTK.00	Referral to stop smoking clinic
82655998	Nicotinc/larop 1g/20mg m/r tab
92840997	Nicotine 0.35mg lozenge
81928998	Nicotine 1.5mg fresh mint loz
82707998	Nicotine 1.5mg liquor mint loz
84442998	Nicotine 1.5mg liquor mint loz
82435978	Nicotine 1.5mg liquor mint loz
84443998	Nicotine 1.5mg lozenges sugar free
88288998	Nicotine 10mg inhal start pac
88291998	Nicotine 10mg inhalation cartridges with device
87188979	Nicotine 10mg inhalation cartridges with device
97763997	Nicotine 10mg/16hours patches
82494998	Nicotine 10mg/16hours patches
94598979	Nicotine 10mg/16hours patches
97739997	Nicotine 10mg/16hours transdermal patches
83272998	Nicotine 10mg/16hours transdermal patches
92657998	Nicotine 10mg/ml nasal spray
82490998	Nicotine 10mg/ml nasal spray
92892997	Nicotine 11mg/24 hr transdermal patch
98581997	Nicotine 11mg/24hours patches
88005997	Nicotine 14mg/24hours patches
97737997	Nicotine 14mg/24hours patches

82510998	Nicotine 14mg/24hours patches
82509998	Nicotine 14mg/24hours patches
82771998	Nicotine 14mg/24hours patches
97740997	Nicotine 14mg/24hours patches
84468998	Nicotine 14mg/24hours patches
94604979	Nicotine 14mg/24hours patches
97673997	Nicotine 14mg/24hours transdermal patches
81174998	Nicotine 15mg inhalation cartridges with device
81173998	Nicotine 15mg inhalator
82428998	Nicotine 15mg patch+2mg gum
82429998	Nicotine 15mg/16 hours transdermal patches and nicotine 2mg medicated chewing gum sugar free
97763996	Nicotine 15mg/16hours patches
82492998	Nicotine 15mg/16hours patches
94596979	Nicotine 15mg/16hours patches
97739996	Nicotine 15mg/16hours transdermal patches
83271998	Nicotine 15mg/16hours transdermal patches
94597979	Nicotine 15mg/16hours transdermal patches
98430998	Nicotine 1mg lozenge
91248996	Nicotine 1mg lozenges
83326998	Nicotine 1mg lozenges
81570998	Nicotine 1mg oromucosal spray
81571998	Nicotine 1mg/dose oromucosal spray sugar free
82613978	Nicotine 2.5mg oral film
82614978	Nicotine 2.5mg orodispersible films sugar free
88005996	Nicotine 21mg/24hours patches
97737996	Nicotine 21mg/24hours patches
82508998	Nicotine 21mg/24hours patches
82507998	Nicotine 21mg/24hours patches

82770998	Nicotine 21mg/24hours patches
97740996	Nicotine 21mg/24hours patches
84466998	Nicotine 21mg/24hours patches
94602979	Nicotine 21mg/24hours patches
97673996	Nicotine 21mg/24hours transdermal patches
53664979	Nicotine 21mg/24hours transdermal patches
92892998	Nicotine 22mg/24 hr transdermal patch
98581998	Nicotine 22mg/24 hr transdermal patch
83270998	Nicotine 25mg/16hours patches
83273998	Nicotine 25mg/16hours transdermal patches
91248998	Nicotine 2mg chewing gum
82504998	Nicotine 2mg chewing gum
82473998	Nicotine 2mg chewing gum
82476998	Nicotine 2mg chewing gum
81221998	Nicotine 2mg chewing gum
82503998	Nicotine 2mg citrus chew gum
82505998	Nicotine 2mg citrus chew gum
82502998	Nicotine 2mg citrus chew gum
92841998	Nicotine 2mg citrus chew gum
98904998	Nicotine 2mg icemint chew gum
89112998	Nicotine 2mg icemint chew gum
82506998	Nicotine 2mg icemint chew gum
82475998	Nicotine 2mg liquorice gum
82474998	Nicotine 2mg liquorice gum
91384998	Nicotine 2mg lozenges
87922998	Nicotine 2mg lozenges
87920998	Nicotine 2mg lozenges
55533979	Nicotine 2mg lozenges

81576998	Nicotine 2mg lozenges
91162998	Nicotine 2mg lozenges sugar free
95727998	Nicotine 2mg medicated chewing gum sugar free
86655979	Nicotine 2mg medicated chewing gum sugar free
92840998	Nicotine 2mg mint flavour chewing-gum
92841997	Nicotine 2mg s/l tabs
82500998	Nicotine 2mg s/l tabs
82603998	Nicotine 2mg s/l tabs
92840996	Nicotine 2mg sublingual tablets sugar free
91848998	Nicotine 4mg cherry lozenges
82706998	Nicotine 4mg cherry lozenges
87919998	Nicotine 4mg cherry lozenges
55532979	Nicotine 4mg cherry lozenges
98904997	Nicotine 4mg chewing gum
89110998	Nicotine 4mg chewing gum
82497998	Nicotine 4mg chewing gum
82499998	Nicotine 4mg chewing gum
82496998	Nicotine 4mg chewing gum
98904996	Nicotine 4mg chewing gum
82498998	Nicotine 4mg fruit chewing gum
82470998	Nicotine 4mg fruit chewing gum
81220998	Nicotine 4mg fruit chewing gum
91248997	Nicotine 4mg icemint chew gum
82501998	Nicotine 4mg icemint chew gum
82469998	Nicotine 4mg icemint chew gum
82471998	Nicotine 4mg icemint chew gum
82472998	Nicotine 4mg liquorice gum
83301998	Nicotine 4mg lozenges

98082998	Nicotine 4mg lozenges sugar free
95727997	Nicotine 4mg medicated chewing gum sugar free
86653979	Nicotine 4mg medicated chewing gum sugar free
95727996	Nicotine 4mg mint flavour chewing-gum
92836998	Nicotine 500micrograms/dose nasal spray
97763998	Nicotine 5mg/16hours patches
82495998	Nicotine 5mg/16hours patches
94600979	Nicotine 5mg/16hours patches
97739998	Nicotine 5mg/16hours transdermal patches
88005998	Nicotine 7mg/24hours patches
97737998	Nicotine 7mg/24hours patches
82511998	Nicotine 7mg/24hours patches
82723998	Nicotine 7mg/24hours patches
82512998	Nicotine 7mg/24hours patches
97740998	Nicotine 7mg/24hours patches
84469998	Nicotine 7mg/24hours patches
97673998	Nicotine 7mg/24hours transdermal patches
82527998	Nicotine bitartrate 1mg lozenges sugar free
82526998	Nicotine bitartrate 2mg lozenges sugar free
82604998	Nicotine bitartrate 2mg sublingual tablet
96845992	Nicotine transdermal patch 20cm
96844992	Nicotine transdermal patch 30cm
87850998	Nicotinic acid 1000mg m/r tab
98066996	Nicotinic acid 100mg tablet
83594998	Nicotinic acid 1g / laropiprant 20mg modified-release tablets
87853998	Nicotinic acid 1g modified-release tablets
98066998	Nicotinic acid 25mg tablet
87849998	Nicotinic acid 375mg + 500mg + 750mg modified-

	release tablet
97800992	Nicotinic acid 500 mg tab
62572979	Nicotinic acid 500mg capsules
87852998	Nicotinic acid 500mg m/r tabs
87855998	Nicotinic acid 500mg modified-release tablets
98066997	Nicotinic acid 50mg tablets
99725990	Nicotinic acid 50mg tablets
87851998	Nicotinic acid 750mg m/r tabs
87854998	Nicotinic acid 750mg modified-release tablets
87848998	Nicotinic acid starter pack
90498998	Nicotinic acid with colecalciferol and calcium gluconate tablet

9.7 List of flu vaccination read codes

Code	Term
65E..00	INFLUENZA VACCINATION
65E0.00	FIRST PANDEMIC INFLUENZA VACCINATION
65E1.00	SECOND PANDEMIC INFLUENZA VACCINATION
65E2.00	INFLUENZA VACC OTHR HLTH PROV
65E3.00	1ST PAN FLU VAC OTHR HLTH PROV
65E4.00	2ND PAN FLU VAC OTHR HLTH PROV
ZV04800	[V]INFLUENZA VACCINATION
ZV04811	[V]FLU - INFLUENZA VACCINATION
n47e.00	BEGRIVAC VACCINE syringe
n47..00	INFLUENZA VACCINES
n471.00	FLUVIRIN syringe
n472.00	INFLUVAC SUB-UNIT syringe
n473.00	INFLUVAC SUB-UNIT syringe
n474.00	INFLUVAC SUB-UNIT vials
n475.00	INFLUVAC SUB-UNIT vials
n476.00	MFV-JECT syringe
n477.00	INACTIVATED INFLUENZA VACCINE injection
n478.00	INACTIVATED INFLUENZA VACCINE syringe
n479.00	INFLUENZA VACCINE vials
n47a.00	INFLUENZA VACCINE vials
n47b.00	FLUZONE syringe
n47c.00	FLUZONE vials
n47l.00	INVIVAC syringe
n47j.00	MASTAFLU syringe

n47k.00	INFLEXAL V syringe
n47d.00	FLUARIX VACCINE syringe
n47f.00	AGRIPPAL VACCINE syringe
n47g.00	INACT INFLUENZA VACC (SPLIT VIRION) syringe
n47h.00	INACT INFLUENZA VACC (SURFACE ANT) syringe
n47i.00	INFLEXAL BERNA V syringe
n47o.00	IMUVAC syringe
n47u.00	INTANZA 9mcg/strain injection
n47v.00	INACTIVATED INFLUENZA VACCINE 9mcg/strain injection
n47m.00	ENZIRA syringe
n47z.00	INACTIVATED INFLUENZA VACCINE syringe
n47y.00	INACT INFLUENZA VACC (SPLIT VIRION) syringe
n47n.00	VIROFLU syringe
n47p.00	INTANZA 15mcg/strain injection
n47q.00	INACTIVATED INFLUENZA VACCINE 15mcg/strain injection
97812998	INFLUENZA VACCINE vials 25mL
97766998	Haemophilus influenzae vaccine product
99534998	INACT INFLUENZA VAC srg 0.5mL
97690998	Haemophilus influenzae vaccine product
97665998	Haemophilus influenzae b diphtheria protein conjugate vaccine 10micrograms/0.5ml 10 0.5ml vial + diluent
97300998	Influenza virosome vacc syrg
96568990	Influenza inactivated split virion vaccine 10 0.5ml pre-filled syringe
96210990	Influenza inactivated split virion vaccine 10 0.5ml pre-filled syringe
95235992	INACT INFLUENZA VAC srg 0.5mL

96138990	Influenza inactivated surface antigen vaccine 1 0.5ml pre-filled syringe
98598998	Influenza virosome vacc syrg
95029992	Influenza virosome vacc syrg
94619998	Influenza inactivated surface antigen vaccine 1 0.5ml pre-filled syringe
94117998	INACT INFLUENZA VAC srg 0.5mL
93907990	Influenza inactivated split virion vaccine 10 0.5ml pre-filled syringe
93764990	Influenza inactivated split virion paed vac 1 pre-filled syringe
92978990	Influenza inactivated split virion vaccine 10 0.5ml pre-filled syringe
92686998	Influenza virosome vacc syrg
91031998	Influenza virosome vacc syrg
89568998	Influenza inactivated split virion vaccine 10 0.5ml syringe(s)
89566998	Influenza inactivated split virion vaccine 10 0.5ml pre-filled syringe
89094998	Influenza virosome vacc syrg
88711998	Influenza virosome vacc syrg
88710998	HAEMOPHILUS INFLUENZAE BTETANUS CONJUGATE
88709998	Haemophilus influenzae vaccine product
87345998	Diphtheria & tetanus + pertussis, poliomyelitis & haemophilus influenzae b (dtap/ipv/hib) adsorbed vaccine 1 vial + 0.5m
87229998	Influenza virosome vacc syrg
86596998	Influenza virosome vacc syrg
86542998	Influenza inactivated split virion paed vac 1 pre-filled syringe
86091998	Haemophilus influenzae b & neisseria meningitidis group c conjugate vaccine 1 vial + 0.5ml prefilled syringe

85743998	Influenza virosome vacc syrg
85735998	Influenza virosome vacc syrg
82815998	Influenza inactivated split virion vaccine 9micrograms 1 0.1ml pre-filled syringe
82814998	Influenza inactivated split virion vaccine 15micrograms 1 0.1ml pre-filled syringe
82566998	Influenza (h1n1) inactivated split virion vaccine 50 10 dose vial + adjuvant
82565998	Influenza surf antigen vaccine
82552998	Influenza (h1n1) inactivated whole virion vaccine 20 10 dose vial
82551998	Influenza surf antigen vaccine
81125998	Influenza virosome vacc syrg
95234992	INACT INFLUENZA VAC srg 0.5mL

9.8 List of Charlosn Comorbidity Index Conditions read codes

Code	Term	Charlson disease category	score weight
G301.00	Other specified anterior myocardial infarction	Myocardial infarction	1
G30z.00	Acute myocardial infarction NOS	Myocardial infarction	1
G30..14	Heart attack	Myocardial infarction	1
G30..15	MI - acute myocardial infarction	Myocardial infarction	1
G305.00	Lateral myocardial infarction NOS	Myocardial infarction	1
4109TC	THROMBOSIS CORONARY	Myocardial infarction	1
G307.00	Acute subendocardial infarction	Myocardial infarction	1
14AH.00	H/O: Myocardial infarction in last year	Myocardial infarction	1
G30y.00	Other acute myocardial infarction	Myocardial infarction	1
G303.00	Acute inferoposterior infarction	Myocardial infarction	1
G30..00	Acute myocardial infarction	Myocardial infarction	1
G300.00	Acute anterolateral infarction	Myocardial infarction	1
G32..12	Personal history of myocardial infarction	Myocardial infarction	1
G30X000	Acute ST segment elevation myocardial infarction	Myocardial infarction	1
G30..13	Cardiac rupture following myocardial infarction (MI)	Myocardial infarction	1
G307100	Acute non-ST segment elevation myocardial infarction	Myocardial infarction	1

G307000	Acute non-Q wave infarction	Myocardial infarction	1
G301100	Acute anteroseptal infarction	Myocardial infarction	1
G32..00	Old myocardial infarction	Myocardial infarction	1
G30..17	Silent myocardial infarction	Myocardial infarction	1
G32..11	Healed myocardial infarction	Myocardial infarction	1
G30..12	Coronary thrombosis	Myocardial infarction	1
G30yz00	Other acute myocardial infarction NOS	Myocardial infarction	1
G302.00	Acute inferolateral infarction	Myocardial infarction	1
7824AC	HEART FAILURE ACUTE	Congestive heart disease	1
G580.00	Congestive heart failure	Congestive heart disease	1
14A6.00	H/O: heart failure	Congestive heart disease	1
7824BW	WEAK HEART	Congestive heart disease	1
G58..11	Cardiac failure	Congestive heart disease	1
1O1..00	Heart failure confirmed	Congestive heart disease	1
G580000	Acute congestive heart failure	Congestive heart disease	1
8H2S.00	Admit heart failure emergency	Congestive heart disease	1
G58z.00	Heart failure NOS	Congestive heart disease	1
7824FH	HEART FAILURE	Congestive heart disease	1

G711.00	Thoracic aortic aneurysm which has ruptured	Peripheral vascular disease	1
G73z.00	Peripheral vascular disease NOS	Peripheral vascular disease	1
G73zz00	Peripheral vascular disease NOS	Peripheral vascular disease	1
G71z.00	Aortic aneurysm NOS	Peripheral vascular disease	1
G713.00	Abdominal aortic aneurysm which has ruptured	Peripheral vascular disease	1
7A14.11	Aortic aneurysm repair	Peripheral vascular disease	1
14NB.00	H/O: Peripheral vascular disease procedure	Peripheral vascular disease	1
G71..00	Aortic aneurysm	Peripheral vascular disease	1
G713.11	Ruptured abdominal aortic aneurysm	Peripheral vascular disease	1
Gyu7200	[X]Aortic aneurysm of unspecified site, nonruptured	Peripheral vascular disease	1
G732300	Gangrene of thumb	Peripheral vascular disease	1
R054000	[D]Gangrene, spreading cutaneous	Peripheral vascular disease	1
G714.11	AAA - Abdominal aortic aneurysm without mention of rupture	Peripheral vascular disease	1
G714.00	Abdominal aortic aneurysm without mention of rupture	Peripheral vascular disease	1
Gyu7400	[X]Other specified peripheral vascular diseases	Peripheral vascular disease	1
G718.00	Leaking abdominal aortic aneurysm	Peripheral vascular disease	1
7A14411	Tube graft of Abdominal aortic aneurysm	Peripheral vascular disease	1
G711.11	Ruptured thoracic aortic aneurysm	Peripheral vascular disease	1

G61..12	Stroke due to intracerebral haemorrhage	Cerebrovascular disease	1
G600.00	Ruptured berry aneurysm	Cerebrovascular disease	1
G601.00	Subarachnoid haemorrhage from carotid siphon and bifurcation	Cerebrovascular disease	1
G61..00	Intracerebral haemorrhage	Cerebrovascular disease	1
G605.00	Subarachnoid haemorrhage from basilar artery	Cerebrovascular disease	1
G68..00	Late effects of cerebrovascular disease	Cerebrovascular disease	1
Gyu6100	[X]Other subarachnoid haemorrhage	Cerebrovascular disease	1
S620.00	Closed traumatic subarachnoid haemorrhage	Cerebrovascular disease	1
Gyu6000	[X]Subarachnoid haemorrhage from other intracranial arteries	Cerebrovascular disease	1
G66..11	CVA unspecified	Cerebrovascular disease	1
G660.00	Middle cerebral artery syndrome	Cerebrovascular disease	1
662M.00	Stroke monitoring	Cerebrovascular disease	1
G669.00	Cerebral palsy, not congenital or infantile, acute	Cerebrovascular disease	1
G661.00	Anterior cerebral artery syndrome	Cerebrovascular disease	1
G66..00	Stroke and cerebrovascular accident unspecified	Cerebrovascular disease	1
G667.00	Left sided CVA	Cerebrovascular disease	1
G66..13	CVA - Cerebrovascular accident unspecified	Cerebrovascular disease	1
G666.00	Pure sensory lacunar syndrome	Cerebrovascular disease	1

G663.00	Brain stem stroke syndrome	Cerebrovascular disease	1
G664.00	Cerebellar stroke syndrome	Cerebrovascular disease	1
G665.00	Pure motor lacunar syndrome	Cerebrovascular disease	1
G668.00	Right sided CVA	Cerebrovascular disease	1
G66..12	Stroke unspecified	Cerebrovascular disease	1
14A7.00	H/O: CVA/stroke	Cerebrovascular disease	1
G662.00	Posterior cerebral artery syndrome	Cerebrovascular disease	1
14A7.12	H/O: stroke	Cerebrovascular disease	1
G64..13	Stroke due to cerebral arterial occlusion	Cerebrovascular disease	1
E001z00	Presenile dementia NOS	Dementia	1
E004200	Arteriosclerotic dementia with paranoia	Dementia	1
Eu00z11	[X]Alzheimer's dementia unspec	Dementia	1
E001000	Uncomplicated presenile dementia	Dementia	1
Eu01z00	[X]Vascular dementia, unspecified	Dementia	1
Eu02500	[X]Lewy body dementia	Dementia	1
Eu00112	[X]Senile dementia,Alzheimer's type	Dementia	1
E004.11	Multi infarct dementia	Dementia	1
Eu02z14	[X] Senile dementia NOS	Dementia	1
E041.00	Dementia in conditions EC	Dementia	1
Eu01111	[X]Predominantly cortical dementia	Dementia	1
Eu02z16	[X] Senile dementia, depressed or paranoid type	Dementia	1
Eu00.00	[X]Dementia in Alzheimer's disease	Dementia	1
Eu02z00	[X] Unspecified dementia	Dementia	1

Eu00011	[X]Presenile dementia,Alzheimer's type	Dementia	1
E004.00	Arteriosclerotic dementia	Dementia	1
Eu02.00	[X]Dementia in other diseases classified elsewhere	Dementia	1
Eu01000	[X]Vascular dementia of acute onset	Dementia	1
Eu01100	[X]Multi-infarct dementia	Dementia	1
299 G	DEMENTIA AGGRESSIVE	Dementia	1
E000.00	Uncomplicated senile dementia	Dementia	1
E004z00	Arteriosclerotic dementia NOS	Dementia	1
Eu02y00	[X]Dementia in other specified diseases classif elsewhere	Dementia	1
E001.00	Presenile dementia	Dementia	1
Eu00z00	[X]Dementia in Alzheimer's disease, unspecified	Dementia	1
Eu01y00	[X]Other vascular dementia	Dementia	1
Eu01.11	[X]Arteriosclerotic dementia	Dementia	1
Eu00113	[X]Primary degen dementia of Alzheimer's type, senile onset	Dementia	1
E004000	Uncomplicated arteriosclerotic dementia	Dementia	1
E00..12	Senile/presenile dementia	Dementia	1
Eu00200	[X]Dementia in Alzheimer's dis, atypical or mixed type	Dementia	1
E00..11	Senile dementia	Dementia	1
E004300	Arteriosclerotic dementia with depression	Dementia	1
E004100	Arteriosclerotic dementia with delirium	Dementia	1
2900	SENILE DEMENTIA	Dementia	1
Eu00100	[X]Dementia in Alzheimer's disease with late onset	Dementia	1
Eu01.00	[X]Vascular dementia	Dementia	1
2901A	PRESENILE DEMENTIA	Dementia	1

Eu02z13	[X] Primary degenerative dementia NOS	Dementia	1
1461	H/O: dementia	Dementia	1
Eu01200	[X]Subcortical vascular dementia	Dementia	1
e000.00	Uncomplicated senile dementia	Dementia	1
Eu00012	[X]Primary degen dementia, Alzheimer's type, presenile onset	Dementia	1
Eu00000	[X]Dementia in Alzheimer's disease with early onset	Dementia	1
Eu01300	[X]Mixed cortical and subcortical vascular dementia	Dementia	1
H41..00	Asbestosis	Chronic pulmonary disease	1
9OJ1.00	Attends asthma monitoring	Chronic pulmonary disease	1
H352100	Pigeon-fanciers' lung	Chronic pulmonary disease	1
H331.00	Intrinsic asthma	Chronic pulmonary disease	1
H331.11	Late onset asthma	Chronic pulmonary disease	1
H31..00	Chronic bronchitis	Chronic pulmonary disease	1
H350.00	Farmers' lung	Chronic pulmonary disease	1
H334.00	Brittle asthma	Chronic pulmonary disease	1
H582.00	Compensatory emphysema	Chronic pulmonary disease	1

H57yz00	Lung disease with diseases EC NOS	Chronic pulmonary disease	1
H311.00	Mucopurulent chronic bronchitis	Chronic pulmonary disease	1
H31y100	Chronic tracheobronchitis	Chronic pulmonary disease	1
H320200	Giant bullous emphysema	Chronic pulmonary disease	1
663N.00	Asthma disturbing sleep	Chronic pulmonary disease	1
H310100	Smokers' cough	Chronic pulmonary disease	1
H4y1000	Chronic pulmonary fibrosis following radiation	Chronic pulmonary disease	1
1O2..00	Asthma confirmed	Chronic pulmonary disease	1
H464000	Chronic emphysema due to chemical fumes	Chronic pulmonary disease	1
H331000	Intrinsic asthma without status asthmaticus	Chronic pulmonary disease	1
H33z200	Late-onset asthma	Chronic pulmonary disease	1
H340.00	Recurrent bronchiectasis	Chronic pulmonary disease	1
H410.00	Pleural plaque disease due to asbestosis	Chronic pulmonary disease	1
H333.00	Acute exacerbation of asthma	Chronic	1

		pulmonary disease	
8H2P.00	Emergency admission, asthma	Chronic pulmonary disease	1
H40..00	Coal workers' pneumoconiosis	Chronic pulmonary disease	1
14B4.00	H/O: asthma	Chronic pulmonary disease	1
H320z00	Chronic bullous emphysema NOS	Chronic pulmonary disease	1
H310000	Chronic catarrhal bronchitis	Chronic pulmonary disease	1
H313.00	Mixed simple and mucopurulent chronic bronchitis	Chronic pulmonary disease	1
H31z.00	Chronic bronchitis NOS	Chronic pulmonary disease	1
H331z00	Intrinsic asthma NOS	Chronic pulmonary disease	1
H434.00	Siderosis	Chronic pulmonary disease	1
H34..00	Bronchiectasis	Chronic pulmonary disease	1
H312100	Emphysematous bronchitis	Chronic pulmonary disease	1
H352z00	Bird-fancier's lung NOS	Chronic pulmonary disease	1
H331100	Intrinsic asthma with status asthmaticus	Chronic pulmonary	1

		disease	
H35yz00	Other allergic alveolitis NOS	Chronic pulmonary disease	1
H435.00	Stannosis	Chronic pulmonary disease	1
H33z111	Asthma attack NOS	Chronic pulmonary disease	1
H35y300	Furriers' lung	Chronic pulmonary disease	1
h33z100	Asthma attack	Chronic pulmonary disease	1
663r.00	Asthma causes night symptoms 1 to 2 times per month	Chronic pulmonary disease	1
H32z.00	Emphysema NOS	Chronic pulmonary disease	1
H330z00	Extrinsic asthma NOS	Chronic pulmonary disease	1
H33..11	Bronchial asthma	Chronic pulmonary disease	1
H32y000	Acute vesicular emphysema	Chronic pulmonary disease	1
663q.00	Asthma daytime symptoms	Chronic pulmonary disease	1
H464100	Obliterative bronchiolitis due to chemical fumes	Chronic pulmonary disease	1
Hyu4000	[X]Pneumoconiosis due to other dust containing silica	Chronic pulmonary disease	1

H330011	Hay fever with asthma	Chronic pulmonary disease	1
H43..00	Pneumoconiosis due to other inorganic dust	Chronic pulmonary disease	1
H423.00	Massive silicotic fibrosis	Chronic pulmonary disease	1
H460z00	Bronchitis and pneumonitis due to chemical fumes NOS	Chronic pulmonary disease	1
H330000	Extrinsic asthma without status asthmaticus	Chronic pulmonary disease	1
H35z100	Hypersensitivity pneumonitis NOS	Chronic pulmonary disease	1
663u.00	Asthma causes daytime symptoms 1 to 2 times per week	Chronic pulmonary disease	1
663P.00	Asthma limiting activities	Chronic pulmonary disease	1
H57y.00	Lung disease with diseases EC	Chronic pulmonary disease	1
5192CM	OBSTRUCTIVE LUNG DISEASE COMPENSATORY	Chronic pulmonary disease	1
H311000	Purulent chronic bronchitis	Chronic pulmonary disease	1
H581.00	Interstitial emphysema	Chronic pulmonary disease	1
5199CL	OBSTRUCTIVE LUNG DISEASE	Chronic pulmonary disease	1
H45..00	Pneumoconiosis NOS	Chronic	1

		pulmonary disease	
H311z00	Mucopurulent chronic bronchitis NOS	Chronic pulmonary disease	1
SK07.00	Subcutaneous emphysema	Chronic pulmonary disease	1
7832AB	WHEEZING BRONCHIAL	Chronic pulmonary disease	1
Hyu4100	[X]Pneumoconiosis due to other specified inorganic dusts	Chronic pulmonary disease	1
H300.00	Tracheobronchitis NOS	Chronic pulmonary disease	1
663w.00	Asthma limits walking up hills or stairs	Chronic pulmonary disease	1
H440.00	Byssinosis	Chronic pulmonary disease	1
H356.00	Maple bark strippers' lung	Chronic pulmonary disease	1
H30z.00	Bronchitis NOS	Chronic pulmonary disease	1
663p.00	Asthma treatment compliance unsatisfactory	Chronic pulmonary disease	1
66YC.00	Absent from work or school due to asthma	Chronic pulmonary disease	1
H432.00	Berylliosis	Chronic pulmonary disease	1
H32..00	Emphysema	Chronic pulmonary	1

		disease	
H312000	Chronic asthmatic bronchitis	Chronic pulmonary disease	1
663W.00	Asthma prophylactic medication used	Chronic pulmonary disease	1
H320000	Segmental bullous emphysema	Chronic pulmonary disease	1
H312011	Chronic wheezy bronchitis	Chronic pulmonary disease	1
H441.00	Cannabinosis	Chronic pulmonary disease	1
H311100	Fetid chronic bronchitis	Chronic pulmonary disease	1
H33zz12	Allergic asthma NEC	Chronic pulmonary disease	1
L4930LO	LATE ONSET ASTHMA	Chronic pulmonary disease	1
H430.00	Aluminosis of lung	Chronic pulmonary disease	1
H331111	Intrinsic asthma with asthma attack	Chronic pulmonary disease	1
H431.00	Bauxite fibrosis of lung	Chronic pulmonary disease	1
Hyu3000	[X]Other emphysema	Chronic pulmonary disease	1
H47y000	Detergent asthma	Chronic pulmonary disease	1

H35y.00	Other allergic alveolitis	Chronic pulmonary disease	1
H330.00	Extrinsic (atopic) asthma	Chronic pulmonary disease	1
173A.00	Exercise induced asthma	Chronic pulmonary disease	1
7341AA	LUPUS ERYTHEMATOSUS SYSTEMIC	Rheumatological disease	1
N041.00	Felty's syndrome	Rheumatological disease	1
7179FN	RHEUMATISM NONARTICULAR	Rheumatological disease	1
Nyu1000	[X]Rheumatoid arthritis?????? organs or systems	Rheumatological disease	1
N001200	Systemic sclerosis induced by drugs and chemicals	Rheumatological disease	1
N04y011	Caplan's syndrome	Rheumatological disease	1
N001000	Progressive systemic sclerosis	Rheumatological disease	1
N001.12	Systemic sclerosis	Rheumatological disease	1
N040B00	Rheumatoid arthritis of hip	Rheumatological disease	1
N000300	Systemic lupus erythematosus with organ or sys involv	Rheumatological disease	1
N04y012	Fibrosing alveolitis associated with rheumatoid arthritis	Rheumatological disease	1
N047.00	Seropositive errosive rheumatoid arthritis	Rheumatological disease	1
N000.00	Systemic lupus erythematosus	Rheumatological disease	1
N040J00	Rheumatoid arthritis of other tarsal joint	Rheumatological disease	1

N04X.00	Seropositive rheumatoid arthritis, unspecified	Rheumatological disease	1
Nyu1G00	[X]Seropositive rheumatoid arthritis, unspecified	Rheumatological disease	1
N040A00	Rheumatoid arthritis of DIP joint of finger	Rheumatological disease	1
N040300	Rheumatoid arthritis of sternoclavicular joint	Rheumatological disease	1
N240000	Rheumatism unspecified	Rheumatological disease	1
N240200	Muscular rheumatism	Rheumatological disease	1
N200.00	Giant cell arteritis with polymyalgia rheumatica	Rheumatological disease	1
N20..00	Polymyalgia rheumatica	Rheumatological disease	1
N040900	Rheumatoid arthritis of PIP joint of finger	Rheumatological disease	1
N000100	Libman-Sacks disease	Rheumatological disease	1
2A42.00	SYSTEMIC LUPUS ERYTHEMATOSUS WITH RENAL	Rheumatological disease	1
N000400	Systemic lupus erythematosus with pericarditis	Rheumatological disease	1
N040M00	Rheumatoid arthritis of IP joint of toe	Rheumatological disease	1
N040800	Rheumatoid arthritis of MCP joint	Rheumatological disease	1
N2y..00	Other specified nonarticular rheumatism	Rheumatological disease	1
H572.00	Lung disease with systemic sclerosis	Rheumatological disease	1
N04..00	Rheumatoid arthritis and other inflammatory polyarthropathy	Rheumatological disease	1
N040P00	Seronegative rheumatoid arthritis	Rheumatological disease	1

G5yA.00	Rheumatoid carditis	Rheumatological disease	1
7340BC	SCLERODERMA ACROSCLEROTIC	Rheumatological disease	1
H57y400	Lung disease with systemic lupus erythematosus	Rheumatological disease	1
K01x411	Lupus nephritis	Rheumatological disease	1
N001.11	Acrosclerosis	Rheumatological disease	1
N000000	Disseminated lupus erythematosus	Rheumatological disease	1
N040T00	Flare of rheumatoid arthritis	Rheumatological disease	1
N040.00	Rheumatoid arthritis	Rheumatological disease	1
N04y111	Sero negative polyarthritis	Rheumatological disease	1
Nyu4500	[X]Other forms of systemic sclerosis	Rheumatological disease	1
N240z00	Rheumatism or fibrositis NOS	Rheumatological disease	1
N040L00	Rheumatoid arthritis of lesser MTP joint	Rheumatological disease	1
N231400	Polymyositis ossificans	Rheumatological disease	1
Nyu1200	[X]Other specified rheumatoid arthritis	Rheumatological disease	1
F396600	Myopathy due to scleroderma	Rheumatological disease	1
F396400	Myopathy due to rheumatoid arthritis	Rheumatological disease	1
N042100	Rheumatoid lung disease	Rheumatological disease	1
N040G00	Rheumatoid arthritis of subtalar joint	Rheumatological disease	1

7341CL	LIBMAN- SACKS DISEASE	Rheumatological disease	1
N040200	Rheumatoid arthritis of shoulder	Rheumatological disease	1
N040H00	Rheumatoid arthritis of talonavicular joint	Rheumatological disease	1
N040D00	Rheumatoid arthritis of knee	Rheumatological disease	1
718 BH	RHEUMATISM HANDS ACUTE	Rheumatological disease	1
N040F00	Rheumatoid arthritis of ankle	Rheumatological disease	1
N060.11	Endemic polyarthritis	Rheumatological disease	1
Nyu4300	[X]Other forms of systemic lupus erythematosus	Rheumatological disease	1
Nyu1100	[X]Other seropositive rheumatoid arthritis	Rheumatological disease	1
7179GB	RHEUMATISM NONARTICULAR SHOULDER	Rheumatological disease	1
N004.00	Polymyositis	Rheumatological disease	1
H57y100	Lung disease with polymyositis	Rheumatological disease	1
N040E00	Rheumatoid arthritis of tibio-fibular joint	Rheumatological disease	1
N040600	Rheumatoid arthritis of distal radio-ulnar joint	Rheumatological disease	1
N240.00	Rheumatism and fibrositis unspecified	Rheumatological disease	1
N040C00	Rheumatoid arthritis of sacro-iliac joint	Rheumatological disease	1
F396100	Myopathy due to disseminated lupus erythematosus	Rheumatological disease	1
N040K00	Rheumatoid arthritis of 1st MTP joint	Rheumatological disease	1

N001.00	Scleroderma	Rheumatological disease	1
N2z..00	Nonarticular rheumatism NOS	Rheumatological disease	1
7179PR	POLYMYALGIA RHEUMATICA	Rheumatological disease	1
N040500	Rheumatoid arthritis of elbow	Rheumatological disease	1
N000200	Drug-induced systemic lupus erythematosus	Rheumatological disease	1
K01x400	Nephrotic syndrome in systemic lupus erythematosus	Rheumatological disease	1
H570.00	Rheumatoid lung	Rheumatological disease	1
N000z00	Systemic lupus erythematosus NOS	Rheumatological disease	1
N040700	Rheumatoid arthritis of wrist	Rheumatological disease	1
N240700	Hand rheumatism	Rheumatological disease	1
N040400	Rheumatoid arthritis of acromioclavicular joint	Rheumatological disease	1
N04y000	Rheumatoid lung	Rheumatological disease	1
F371200	Polyneuropathy in rheumatoid arthritis	Rheumatological disease	1
7149A	RHEUMATIC ARTHRITIS	Rheumatological disease	1
J120y00	Acute duodenal ulcer unspecified	Peptic ulcer disease	1
761D600	Endoscopic injection haemostasis of gastric ulcer	Peptic ulcer disease	1
J14y400	Unspecified gastrojejunal ulcer with obstruction	Peptic ulcer disease	1
J13..00	Peptic ulcer - (PU) site unspecified	Peptic ulcer disease	1

J12yz00	Unspecified duodenal ulcer NOS	Peptic ulcer disease	1
J11..12	Pyloric ulcer	Peptic ulcer disease	1
J141200	Chronic gastrojejunal ulcer with perforation	Peptic ulcer disease	1
J110.00	Acute gastric ulcer	Peptic ulcer disease	1
J12y.00	Unspecified duodenal ulcer	Peptic ulcer disease	1
J121y00	Chronic duodenal ulcer unspecified	Peptic ulcer disease	1
J110111	Bleeding acute gastric ulcer	Peptic ulcer disease	1
J11yy00	Unspec gastric ulcer; unspec haemorrhage and/or perforation	Peptic ulcer disease	1
J111y00	Chronic gastric ulcer unspecified	Peptic ulcer disease	1
J111100	Chronic gastric ulcer with haemorrhage	Peptic ulcer disease	1
J14..15	Stomal ulcer	Peptic ulcer disease	1
J131y00	Chronic peptic ulcer unspecified	Peptic ulcer disease	1
J110y00	Acute gastric ulcer unspecified	Peptic ulcer disease	1
J13z.00	Peptic ulcer NOS	Peptic ulcer disease	1
J11..11	Prepyloric ulcer	Peptic ulcer disease	1
J110300	Acute gastric ulcer with haemorrhage and perforation	Peptic ulcer disease	1
761Jz00	Operation on gastric ulcer NOS	Peptic ulcer disease	1
J14y100	Unspecified gastrojejunal ulcer with haemorrhage	Peptic ulcer disease	1

J121400	Chronic duodenal ulcer with obstruction	Peptic ulcer disease	1
J130z00	Acute peptic ulcer NOS	Peptic ulcer disease	1
J12y400	Unspecified duodenal ulcer with obstruction	Peptic ulcer disease	1
J11y100	Unspecified gastric ulcer with haemorrhage	Peptic ulcer disease	1
J140400	Acute gastrojejunal ulcer with obstruction	Peptic ulcer disease	1
J12y000	Unspecified duodenal ulcer without mention of complication	Peptic ulcer disease	1
J122.00	Duodenal ulcer disease	Peptic ulcer disease	1
J121000	Chronic duodenal ulcer without mention of complication	Peptic ulcer disease	1
J14y200	Unspecified gastrojejunal ulcer with perforation	Peptic ulcer disease	1
J11..00	Gastric ulcer - (GU)	Peptic ulcer disease	1
J141y00	Chronic gastrojejunal ulcer unspecified	Peptic ulcer disease	1
5340GJ	ULCER GASTROJEJUNAL PERFORATED	Peptic ulcer disease	1
J141300	Chronic gastrojejunal ulcer with haemorrhage and perforation	Peptic ulcer disease	1
J11y400	Unspecified gastric ulcer with obstruction	Peptic ulcer disease	1
J13y.00	Unspecified peptic ulcer	Peptic ulcer disease	1
J131.00	Chronic peptic ulcer	Peptic ulcer disease	1
J120z00	Acute duodenal ulcer NOS	Peptic ulcer disease	1
J140000	Acute gastrojejunal ulcer without mention of complication	Peptic ulcer disease	1

J110200	Acute gastric ulcer with perforation	Peptic ulcer disease	1
J111400	Chronic gastric ulcer with obstruction	Peptic ulcer disease	1
J121.00	Chronic duodenal ulcer	Peptic ulcer disease	1
J14yy00	Unspec gastrojejunal ulcer; unspec haemorrhage/perforation	Peptic ulcer disease	1
J14..12	Gastrocolic ulcer	Peptic ulcer disease	1
J130.00	Acute peptic ulcer	Peptic ulcer disease	1
J11y200	Unspecified gastric ulcer with perforation	Peptic ulcer disease	1
J120300	Acute duodenal ulcer with haemorrhage and perforation	Peptic ulcer disease	1
J120100	Acute duodenal ulcer with haemorrhage	Peptic ulcer disease	1
J13y300	Unspecified peptic ulcer with haemorrhage and perforation	Peptic ulcer disease	1
J14y300	Unspec gastrojejunal ulcer with haemorrhage and perforation	Peptic ulcer disease	1
J131300	Chronic peptic ulcer with haemorrhage and perforation	Peptic ulcer disease	1
J111111	Bleeding chronic gastric ulcer	Peptic ulcer disease	1
761J000	Closure of perforated gastric ulcer	Peptic ulcer disease	1
J120200	Acute duodenal ulcer with perforation	Peptic ulcer disease	1
J130200	Acute peptic ulcer with perforation	Peptic ulcer disease	1
761J111	Suture of ulcer of stomach NEC	Peptic ulcer disease	1
J140100	Acute gastrojejunal ulcer with haemorrhage	Peptic ulcer disease	1

J12y200	Unspecified duodenal ulcer with perforation	Peptic ulcer disease	1
J111z00	Chronic gastric ulcer NOS	Peptic ulcer disease	1
5329BD	ULCER DUODENAL RECURRANCE	Peptic ulcer disease	1
J11yz00	Unspecified gastric ulcer NOS	Peptic ulcer disease	1
J14z.00	Gastrojejunal ulcer NOS	Peptic ulcer disease	1
J14y000	Unspecified gastrojejunal ulcer without mention complication	Peptic ulcer disease	1
J11z.00	Gastric ulcer NOS	Peptic ulcer disease	1
J14y.00	Unspecified gastrojejunal ulcer	Peptic ulcer disease	1
J141z00	Chronic gastrojejunal ulcer NOS	Peptic ulcer disease	1
J13yy00	Unspec peptic ulcer; unspec haemorrhage and/or perforation	Peptic ulcer disease	1
7612111	Balfour excision of gastric ulcer	Peptic ulcer disease	1
J12yy00	Unspec duodenal ulcer; unspec haemorrhage and/or perforation	Peptic ulcer disease	1
J111000	Chronic gastric ulcer without mention of complication	Peptic ulcer disease	1
J110000	Acute gastric ulcer without mention of complication	Peptic ulcer disease	1
J130000	Acute peptic ulcer without mention of complication	Peptic ulcer disease	1
J111300	Chronic gastric ulcer with haemorrhage and perforation	Peptic ulcer disease	1
J140300	Acute gastrojejunal ulcer with haemorrhage and perforation	Peptic ulcer disease	1
J13y000	Unspecified peptic ulcer without mention of complication	Peptic ulcer disease	1

J14..00	Gastrojejunal ulcer (GJU)	Peptic ulcer disease	1
J11y.00	Unspecified gastric ulcer	Peptic ulcer disease	1
J120.00	Acute duodenal ulcer	Peptic ulcer disease	1
J130400	Acute peptic ulcer with obstruction	Peptic ulcer disease	1
J141400	Chronic gastrojejunal ulcer with obstruction	Peptic ulcer disease	1
J13y100	Unspecified peptic ulcer with haemorrhage	Peptic ulcer disease	1
J120000	Acute duodenal ulcer without mention of complication	Peptic ulcer disease	1
J121300	Chronic duodenal ulcer with haemorrhage and perforation	Peptic ulcer disease	1
7627000	Closure of perforated duodenal ulcer	Peptic ulcer disease	1
J131z00	Chronic peptic ulcer NOS	Peptic ulcer disease	1
J13..11	Stress ulcer NOS	Peptic ulcer disease	1
J130y00	Acute peptic ulcer unspecified	Peptic ulcer disease	1
J112.00	Anti-platelet induced gastric ulcer	Peptic ulcer disease	1
J110z00	Acute gastric ulcer NOS	Peptic ulcer disease	1
J111.00	Chronic gastric ulcer	Peptic ulcer disease	1
J110400	Acute gastric ulcer with obstruction	Peptic ulcer disease	1
J121z00	Chronic duodenal ulcer NOS	Peptic ulcer disease	1
J131000	Chronic peptic ulcer without mention of complication	Peptic ulcer disease	1

J12..00	Duodenal ulcer - (DU)	Peptic ulcer disease	1
J141.00	Chronic gastrojejunal ulcer	Peptic ulcer disease	1
J11y000	Unspecified gastric ulcer without mention of complication	Peptic ulcer disease	1
J111200	Chronic gastric ulcer with perforation	Peptic ulcer disease	1
J123.00	Duodenal erosion	Peptic ulcer disease	1
J13y400	Unspecified peptic ulcer with obstruction	Peptic ulcer disease	1
761J100	Closure of gastric ulcer NEC	Peptic ulcer disease	1
J131400	Chronic peptic ulcer with obstruction	Peptic ulcer disease	1
5349MR	ULCER MARGINAL	Peptic ulcer disease	1
J11z.12	Multiple gastric ulcers	Peptic ulcer disease	1
J14yz00	Unspecified gastrojejunal ulcer NOS	Peptic ulcer disease	1
ZV12711	[V]Personal history of peptic ulcer	Peptic ulcer disease	1
J130100	Acute peptic ulcer with haemorrhage	Peptic ulcer disease	1
7612500	Resection of gastric ulcer by cautery	Peptic ulcer disease	1
J120400	Acute duodenal ulcer with obstruction	Peptic ulcer disease	1
ZV12C00	[V] Personal history of gastric ulcer	Peptic ulcer disease	1
J12y300	Unspecified duodenal ulcer with haemorrhage and perforation	Peptic ulcer disease	1
J13yz00	Unspecified peptic ulcer NOS	Peptic ulcer disease	1

761J.11	Stomach ulcer operations	Peptic ulcer disease	1
J111211	Perforated chronic gastric ulcer	Peptic ulcer disease	1
J12z.00	Duodenal ulcer NOS	Peptic ulcer disease	1
J140200	Acute gastrojejunal ulcer with perforation	Peptic ulcer disease	1
J131100	Chronic peptic ulcer with haemorrhage	Peptic ulcer disease	1
J141000	Chronic gastrojejunal ulcer without mention of complication	Peptic ulcer disease	1
J131200	Chronic peptic ulcer with perforation	Peptic ulcer disease	1
J124.00	Recurrent duodenal ulcer	Peptic ulcer disease	1
J130300	Acute peptic ulcer with haemorrhage and perforation	Peptic ulcer disease	1
J11y300	Unspecified gastric ulcer with haemorrhage and perforation	Peptic ulcer disease	1
J141100	Chronic gastrojejunal ulcer with haemorrhage	Peptic ulcer disease	1
J121111	Bleeding chronic duodenal ulcer	Peptic ulcer disease	1
5319PP	ULCER PREPYLORIC	Peptic ulcer disease	1
761Jy00	Other specified operation on gastric ulcer	Peptic ulcer disease	1
J140z00	Acute gastrojejunal ulcer NOS	Peptic ulcer disease	1
J140y00	Acute gastrojejunal ulcer unspecified	Peptic ulcer disease	1
J13y200	Unspecified peptic ulcer with perforation	Peptic ulcer disease	1
J110100	Acute gastric ulcer with haemorrhage	Peptic ulcer disease	1

761J.00	Operations on gastric ulcer	Peptic ulcer disease	1
J140.00	Acute gastrojejunal ulcer	Peptic ulcer disease	1
J616100	Secondary biliary cirrhosis	Mild liver disease	1
J615400	Fatty portal cirrhosis	Mild liver disease	1
J616z00	Biliary cirrhosis NOS	Mild liver disease	1
J614.00	Chronic hepatitis	Mild liver disease	1
J614y00	Chronic hepatitis unspecified	Mild liver disease	1
J615100	Multilobular portal cirrhosis	Mild liver disease	1
J635600	Toxic liver disease with fibrosis and cirrhosis of liver	Mild liver disease	1
C350012	Pigmentary cirrhosis of liver	Mild liver disease	1
J615z14	Laennec's cirrhosis, non-alcoholic	Mild liver disease	1
5719HP	LIVER CIRRHOSIS	Mild liver disease	1
J617000	Chronic alcoholic hepatitis	Mild liver disease	1
J615z11	Macronodular cirrhosis of liver	Mild liver disease	1
J614100	Chronic active hepatitis	Mild liver disease	1
J615000	Unilobular portal cirrhosis	Mild liver disease	1
5719CH	HEPATITIS CHRONIC	Mild liver disease	1
5719CB	SECONDARY BILIARY CIRRHOSIS (LIVER)	Mild liver disease	1

J615y00	Portal cirrhosis unspecified	Mild liver disease	1
J615z00	Non-alcoholic cirrhosis NOS	Mild liver disease	1
J612.00	Alcoholic cirrhosis of liver	Mild liver disease	1
J615A00	Pipe-stem portal cirrhosis	Mild liver disease	1
J615.11	Portal cirrhosis	Mild liver disease	1
J615300	Diffuse nodular cirrhosis	Mild liver disease	1
5719PB	PRIMARY BILIARY CIRRHOSIS (LIVER)	Mild liver disease	1
5730CA	HEPATITIS CHRONIC ACTIVE	Mild liver disease	1
5719CL	CIRRHOSIS	Mild liver disease	1
5710MC	MICRONODULAR CIRRHOSIS	Mild liver disease	1
J615C00	Xanthomatous portal cirrhosis	Mild liver disease	1
J615z13	Cirrhosis of liver NOS	Mild liver disease	1
J614300	Recurrent hepatitis	Mild liver disease	1
Jyu7100	[X]Other and unspecified cirrhosis of liver	Mild liver disease	1
J61..00	Cirrhosis and chronic liver disease	Mild liver disease	1
J615F00	Syphilitic portal cirrhosis	Mild liver disease	1
C310400	Glycogenosis with hepatic cirrhosis	Mild liver disease	1
J615z12	Cryptogenic cirrhosis of liver	Mild liver disease	1

J616000	Primary biliary cirrhosis	Mild liver disease	1
J616.00	Biliary cirrhosis	Mild liver disease	1
J615.00	Cirrhosis - non alcoholic	Mild liver disease	1
J633.00	Hepatitis unspecified	Mild liver disease	1
J615700	Cardiac portal cirrhosis	Mild liver disease	1
J614000	Chronic persistent hepatitis	Mild liver disease	1
J600200	Acute yellow atrophy	Mild liver disease	1
J615B00	Toxic portal cirrhosis	Mild liver disease	1
J61y300	Portal fibrosis without cirrhosis	Mild liver disease	1
J614200	Chronic aggressive hepatitis	Mild liver disease	1
J601200	Subacute yellow atrophy	Mild liver disease	1
J615111	Postnecrotic cirrhosis of liver	Mild liver disease	1
J612.11	Florid cirrhosis	Mild liver disease	1
J614z00	Chronic hepatitis NOS	Mild liver disease	1
66AJ.11	Unstable diabetes	Diabetes	1
C108600	Insulin dependent diabetes mellitus with gangrene	Diabetes	1
C101100	Diabetes mellitus, adult onset, with ketoacidosis	Diabetes	1
C10M.00	Lipoatrophic diabetes mellitus	Diabetes	1
C103000	Diabetes mellitus, juvenile type, with ketoacidotic coma	Diabetes	1

C109500	Non-insulin dependent diabetes mellitus with gangrene	Diabetes	1
C109900	Non-insulin-dependent diabetes mellitus without complication	Diabetes	1
C109412	Type 2 diabetes mellitus with ulcer	Diabetes	1
C10FG00	Type 2 diabetes mellitus with arthropathy	Diabetes	1
C109.11	NIDDM - Non-insulin dependent diabetes mellitus	Diabetes	1
C109G11	Type II diabetes mellitus with arthropathy	Diabetes	1
C10z.00	Diabetes mellitus with unspecified complication	Diabetes	1
C10EM11	Type I diabetes mellitus with ketoacidosis	Diabetes	1
C107200	Diabetes mellitus, adult with gangrene	Diabetes	1
C10FJ00	Insulin treated Type 2 diabetes mellitus	Diabetes	1
C108911	Type I diabetes mellitus maturity onset	Diabetes	1
C102z00	Diabetes mellitus NOS with hyperosmolar coma	Diabetes	1
G73y000	Diabetic peripheral angiopathy	Diabetes	1
66AJ.00	Diabetic - poor control	Diabetes	1
C109J12	Insulin treated Type II diabetes mellitus	Diabetes	1
C109F12	Type 2 diabetes mellitus with peripheral angiopathy	Diabetes	1
C109300	Non-insulin-dependent diabetes mellitus with multiple comps	Diabetes	1
C108400	Unstable insulin dependent diabetes mellitus	Diabetes	1
C10F900	Type 2 diabetes mellitus without complication	Diabetes	1
C10y.00	Diabetes mellitus with other specified manifestation	Diabetes	1
C10F.11	Type II diabetes mellitus	Diabetes	1

C10FL00	Type 2 diabetes mellitus with persistent proteinuria	Diabetes	1
C109G00	Non-insulin dependent diabetes mellitus with arthropathy	Diabetes	1
C109G12	Type 2 diabetes mellitus with arthropathy	Diabetes	1
66A5.00	Diabetic on insulin	Diabetes	1
C109511	Type II diabetes mellitus with gangrene	Diabetes	1
L180600	Pre-existing diabetes mellitus, non-insulin-dependent	Diabetes	1
C10FN00	Type 2 diabetes mellitus with ketoacidosis	Diabetes	1
C10E400	Unstable type 1 diabetes mellitus	Diabetes	1
C10zy00	Other specified diabetes mellitus with unspecified comps	Diabetes	1
C10D.00	Diabetes mellitus autosomal dominant type 2	Diabetes	1
C107z00	Diabetes mellitus NOS with peripheral circulatory disorder	Diabetes	1
C10EN00	Type 1 diabetes mellitus with ketoacidotic coma	Diabetes	1
C101000	Diabetes mellitus, juvenile type, with ketoacidosis	Diabetes	1
C100011	Insulin dependent diabetes mellitus	Diabetes	1
C108411	Unstable type I diabetes mellitus	Diabetes	1
C103.00	Diabetes mellitus with ketoacidotic coma	Diabetes	1
C107.11	Diabetes mellitus with gangrene	Diabetes	1
C10E500	Type 1 diabetes mellitus with ulcer	Diabetes	1
C109400	Non-insulin dependent diabetes mellitus with ulcer	Diabetes	1
C10yy00	Other specified diabetes mellitus with other spec comps	Diabetes	1
C109711	Type II diabetes mellitus - poor control	Diabetes	1

C10A000	Malnutrition-related diabetes mellitus with coma	Diabetes	1
C10F.00	Type 2 diabetes mellitus	Diabetes	1
C109J11	Insulin treated non-insulin dependent diabetes mellitus	Diabetes	1
8A13.00	Diabetic stabilisation	Diabetes	1
C108.00	Insulin dependent diabetes mellitus	Diabetes	1
C10EG00	Type 1 diabetes mellitus with peripheral angiopathy	Diabetes	1
C108E12	Type 1 diabetes mellitus with hypoglycaemic coma	Diabetes	1
C108.13	Type I diabetes mellitus	Diabetes	1
C107100	Diabetes mellitus, adult, peripheral circulatory disorder	Diabetes	1
C10A100	Malnutrition-related diabetes mellitus with ketoacidosis	Diabetes	1
C102000	Diabetes mellitus, juvenile type, with hyperosmolar coma	Diabetes	1
C109411	Type II diabetes mellitus with ulcer	Diabetes	1
C10F500	Type 2 diabetes mellitus with gangrene	Diabetes	1
C102100	Diabetes mellitus, adult onset, with hyperosmolar coma	Diabetes	1
C108E11	Type I diabetes mellitus with hypoglycaemic coma	Diabetes	1
C109K00	Hyperosmolar non-ketotic state in type 2 diabetes mellitus	Diabetes	1
66AJz00	Diabetic - poor control NOS	Diabetes	1
C10FJ11	Insulin treated Type II diabetes mellitus	Diabetes	1
C108500	Insulin dependent diabetes mellitus with ulcer	Diabetes	1
C109J00	Insulin treated Type 2 diabetes mellitus	Diabetes	1
C10E800	Type 1 diabetes mellitus - poor control	Diabetes	1
C108812	Type 1 diabetes mellitus - poor control	Diabetes	1

C107400	NIDDM with peripheral circulatory disorder	Diabetes	1
C10G.00	Secondary pancreatic diabetes mellitus	Diabetes	1
C10EM00	Type 1 diabetes mellitus with ketoacidosis	Diabetes	1
66AV.00	Diabetic on insulin and oral treatment	Diabetes	1
L180500	Pre-existing diabetes mellitus, insulin-dependent	Diabetes	1
C10FP00	Type 2 diabetes mellitus with ketoacidotic coma	Diabetes	1
C100.00	Diabetes mellitus with no mention of complication	Diabetes	1
C10E600	Type 1 diabetes mellitus with gangrene	Diabetes	1
C109D12	Type 2 diabetes mellitus with hypoglycaemic coma	Diabetes	1
C10FF00	Type 2 diabetes mellitus with peripheral angiopathy	Diabetes	1
C108.12	Type 1 diabetes mellitus	Diabetes	1
C109.00	Non-insulin-dependent diabetes mellitus	Diabetes	1
C109D00	Non-insulin dependent diabetes mellitus with hypoglyca coma	Diabetes	1
C10zz00	Diabetes mellitus NOS with unspecified complication	Diabetes	1
C10EE00	Type 1 diabetes mellitus with hypoglycaemic coma	Diabetes	1
66AS.00	Diabetic annual review	Diabetes	1
C107000	Diabetes mellitus, juvenile ??? circulatory disorder	Diabetes	1
C10E412	Unstable insulin dependent diabetes mellitus	Diabetes	1
C10E900	Type 1 diabetes mellitus maturity onset	Diabetes	1
C101y00	Other specified diabetes mellitus with ketoacidosis	Diabetes	1
C10FL11	Type II diabetes mellitus with persistent	Diabetes	1

	proteinuria		
C109712	Type 2 diabetes mellitus - poor control	Diabetes	1
Cyu2.00	[X]Diabetes mellitus	Diabetes	1
C10..00	Diabetes mellitus	Diabetes	1
C10EA00	Type 1 diabetes mellitus without complication	Diabetes	1
C100z00	Diabetes mellitus NOS with no mention of complication	Diabetes	1
C103z00	Diabetes mellitus NOS with ketoacidotic coma	Diabetes	1
C108G00	Insulin dependent diab mell with peripheral angiopathy	Diabetes	1
C108E00	Insulin dependent diabetes mellitus with hypoglycaemic coma	Diabetes	1
C101.00	Diabetes mellitus with ketoacidosis	Diabetes	1
C10E812	Insulin dependent diabetes mellitus - poor control	Diabetes	1
C10F700	Type 2 diabetes mellitus - poor control	Diabetes	1
66AK.00	Diabetic - cooperative patient	Diabetes	1
C10B000	Steroid induced diabetes mellitus without complication	Diabetes	1
C100111	Maturity onset diabetes	Diabetes	1
C10E.00	Type 1 diabetes mellitus	Diabetes	1
8H2J.00	Admit diabetic emergency	Diabetes	1
C108811	Type I diabetes mellitus - poor control	Diabetes	1
C10E.12	Insulin dependent diabetes mellitus	Diabetes	1
C100100	Diabetes mellitus, adult onset, no mention of complication	Diabetes	1
C10F400	Type 2 diabetes mellitus with ulcer	Diabetes	1
C10z100	Diabetes mellitus, adult onset, unspecified complication	Diabetes	1
L180X00	Pre-existing diabetes mellitus, unspecified	Diabetes	1

8BL2.00	Patient on maximal tolerated therapy for diabetes	Diabetes	1
C10yz00	Diabetes mellitus NOS with other specified manifestation	Diabetes	1
C102.00	Diabetes mellitus with hyperosmolar coma	Diabetes	1
C10A.00	Malnutrition-related diabetes mellitus	Diabetes	1
C108.11	IDDM-Insulin dependent diabetes mellitus	Diabetes	1
C101z00	Diabetes mellitus NOS with ketoacidosis	Diabetes	1
C10FD00	Type 2 diabetes mellitus with hypoglycaemic coma	Diabetes	1
C108800	Insulin dependent diabetes mellitus - poor control	Diabetes	1
C10EK00	Type 1 diabetes mellitus with persistent proteinuria	Diabetes	1
C10H.00	Diabetes mellitus induced by non-steroid drugs	Diabetes	1
C107.00	Diabetes mellitus with peripheral circulatory disorder	Diabetes	1
C10D.11	Maturity onset diabetes in youth type 2	Diabetes	1
C107300	IDDM with peripheral circulatory disorder	Diabetes	1
C109F11	Type II diabetes mellitus with peripheral angiopathy	Diabetes	1
C109D11	Type II diabetes mellitus with hypoglycaemic coma	Diabetes	1
C10EL00	Type 1 diabetes mellitus with persistent microalbuminuria	Diabetes	1
C100112	Non-insulin dependent diabetes mellitus	Diabetes	1
C10FM00	Type 2 diabetes mellitus with persistent microalbuminuria	Diabetes	1
Cyu2000	[X]Other specified diabetes mellitus	Diabetes	1
C109.12	Type 2 diabetes mellitus	Diabetes	1

C103y00	Other specified diabetes mellitus with coma	Diabetes	1
C109.13	Type II diabetes mellitus	Diabetes	1
C108511	Type I diabetes mellitus with ulcer	Diabetes	1
C10EN11	Type I diabetes mellitus with ketoacidotic coma	Diabetes	1
C109700	Non-insulin dependant diabetes mellitus - poor control	Diabetes	1
250 H	COMA DIABETIC	Diabetes	1
C10y100	Diabetes mellitus, adult, other specified manifestation	Diabetes	1
C10E.11	Type I diabetes mellitus	Diabetes	1
C10N.00	Secondary diabetes mellitus	Diabetes	1
C10F711	Type II diabetes mellitus - poor control	Diabetes	1
66AI.00	Diabetic - good control	Diabetes	1
C100000	Diabetes mellitus, juvenile type, no mention of complication	Diabetes	1
F241000	Flaccid paraplegia	Hemiplegia	2
F222.00	Left hemiplegia	Hemiplegia	2
F22z.00	Hemiplegia NOS	Hemiplegia	2
F230000	Congenital paraplegia	Hemiplegia	2
F221.00	Spastic hemiplegia	Hemiplegia	2
F223.00	Right hemiplegia	Hemiplegia	2
F230.11	Paraplegia - congenital	Hemiplegia	2
F241100	Spastic paraplegia	Hemiplegia	2
F241.00	Paraplegia	Hemiplegia	2
F141.00	Hereditary spastic paraplegia	Hemiplegia	2
F220.00	Flaccid hemiplegia	Hemiplegia	2
F22..00	Hemiplegia	Hemiplegia	2
K080000	Phosphate-losing tubular disorders	Renal disease	2

K032z00	Nephritis unsp????? glomerulonephritis lesion NOS	Renal disease	2
K080100	Renal dwarfism	Renal disease	2
K04z.00	Acute renal failure NOS	Renal disease	2
K101100	Acute pyelonephritis with medullary necrosis	Renal disease	2
K02z.00	Chronic glomerulonephritis NOS	Renal disease	2
K060.11	Impaired renal function	Renal disease	2
K021.00	Chronic membranous glomerulonephritis	Renal disease	2
K023.00	Chronic rapidly progressive glomerulonephritis	Renal disease	2
K032y00	Nephritis unsp membranoprolif glomerulonephritis lesion	Renal disease	2
1Z11.00	Chronic kidney disease stage 2	Renal disease	2
K041.00	Acute renal cortical necrosis	Renal disease	2
K032y13	Mesangioproliferative glomerulonephritis NEC	Renal disease	2
K0...00	Nephritis, nephrosis and nephrotic syndrome	Renal disease	2
K02..12	Nephropathy - chronic	Renal disease	2
K08yz00	Other impaired renal function disorder NOS	Renal disease	2
K081.00	Nephrogenic diabetes insipidus	Renal disease	2
K080.00	Renal osteodystrophy	Renal disease	2
K0A3400	Chron neph syn difuse endocap prolifrativ glomerulonephritis	Renal disease	2
K06..00	Renal failure unspecified	Renal disease	2
K0A3200	Chron nephritic syndrom difuse membranous glomerulonephritis	Renal disease	2
K034.00	Renal cortical necrosis unspecified	Renal disease	2
K02y200	Chronic focal glomerulonephritis	Renal disease	2
K03..00	Nephritis and nephropathy unspecified	Renal disease	2

K05..00	Chronic renal failure	Renal disease	2
K0A5500	[X]Heredtry nephrpthy NEC difus mesangiocapilry glomneph	Renal disease	2
K101000	Acute pyelonephritis without medullary necrosis	Renal disease	2
K02..00	Chronic glomerulonephritis	Renal disease	2
K080300	Renal rickets	Renal disease	2
1Z13.00	Chronic kidney disease stage 4	Renal disease	2
K032.00	Membranoproliferative nephritis unspecified	Renal disease	2
K012.00	Nephrotic syndrome??????? glomerulonephritis	Renal disease	2
K0A3300	Chron neph syn difus mesangial prolifrtiv glomerulonephritis	Renal disease	2
1Z14.00	Chronic kidney disease stage 5	Renal disease	2
Kyu2.00	[X]Renal failure	Renal disease	2
K08z.00	Impaired renal function disorder NOS	Renal disease	2
K050.00	End stage renal failure	Renal disease	2
K100000	Chronic pyelonephritis without medullary necrosis	Renal disease	2
K04y.00	Other acute renal failure	Renal disease	2
14D1.00	H/O: nephritis	Renal disease	2
K02..11	Nephritis - chronic	Renal disease	2
1Z10.00	Chronic kidney disease stage 1	Renal disease	2
K032000	Focal membranoproliferative glomerulonephritis	Renal disease	2
K03..11	Nephritis and nephropathy unspecified	Renal disease	2
K042.00	Acute renal medullary necrosis	Renal disease	2
K022.00	Chronic membranoproliferative glomerulonephritis	Renal disease	2
K032y14	Mesangiocapillary glomerulonephritis NEC	Renal disease	2

K080200	Renal infantilism	Renal disease	2
K001.00	Acute nephritis with lesions of necrotising glomerulitis	Renal disease	2
1Z12.00	Chronic kidney disease stage 3	Renal disease	2
K02yz00	Other chronic glomerulonephritis NOS	Renal disease	2
K02y300	Chronic diffuse glomerulonephritis	Renal disease	2
K080z00	Renal osteodystrophy NOS	Renal disease	2
K019.00	Nephrotic syn,diffuse mesangiocapillary glomerulonephritis	Renal disease	2
K035.00	Renal medullary necrosis unspecified	Renal disease	2
K0A3700	Chronic nephritic syn diffuse crescentic glomerulonephritis	Renal disease	2
K08y000	Hypokalaemic nephropathy	Renal disease	2
Kyu2100	[X]Other chronic renal failure	Renal disease	2
K0A3500	Chronic neph syn difus mesangiocapillary glomerulonephritis	Renal disease	2
K02y000	Chronic glomerulonephritis diseases EC	Renal disease	2
K100100	Chronic pyelonephritis with medullary necrosis	Renal disease	2
Kyu2000	[X]Other acute renal failure	Renal disease	2
F464000	Diabetic cataract	Diabetes with complications	2
C109212	Type 2 diabetes mellitus with neurological complications	Diabetes with complications	2
C104000	Diabetes mellitus, juvenile type, with renal manifestation	Diabetes with complications	2
C109111	Type II diabetes mellitus with ophthalmic complications	Diabetes with complications	2
2BBP.00	O/E - right eye background diabetic retinopathy	Diabetes with complications	2
C108C11	Type I diabetes mellitus with polyneuropathy	Diabetes with complications	2
C108H00	Insulin dependent diabetes mellitus with	Diabetes with	2

	arthropathy	complications	
C109C00	Non-insulin dependent diabetes mellitus with nephropathy	Diabetes with complications	2
C108B00	Insulin dependent diabetes mellitus with mononeuropathy	Diabetes with complications	2
C106100	Diabetes mellitus, adult onset, neurological manifestation	Diabetes with complications	2
C108000	Insulin-dependent diabetes mellitus with renal complications	Diabetes with complications	2
C109H00	Non-insulin dependent d m with neuropathic arthropathy	Diabetes with complications	2
C108200	Insulin-dependent diabetes mellitus with neurological comps	Diabetes with complications	2
C10F100	Type 2 diabetes mellitus with ophthalmic complications	Diabetes with complications	2
2BBQ.00	O/E - left eye background diabetic retinopathy	Diabetes with complications	2
C109011	Type II diabetes mellitus with renal complications	Diabetes with complications	2
F420200	Preproliferative diabetic retinopathy	Diabetes with complications	2
C105000	Diabetes mellitus, juvenile type, ophthalmic manifestation	Diabetes with complications	2
C10FR00	Type 2 diabetes mellitus with gastroparesis	Diabetes with complications	2
C109100	Non-insulin-dependent diabetes mellitus with ophthalm comps	Diabetes with complications	2
C10FE00	Type 2 diabetes mellitus with diabetic cataract	Diabetes with complications	2
C108712	Type 1 diabetes mellitus with retinopathy	Diabetes with complications	2
C106.13	Diabetes mellitus with polyneuropathy	Diabetes with complications	2
F420.00	Diabetic retinopathy	Diabetes with complications	2
C109612	Type 2 diabetes mellitus with	Diabetes with	2

	retinopathy	complications	
C109B00	Non-insulin dependent diabetes mellitus with polyneuropathy	Diabetes with complications	2
F420600	Non proliferative diabetic retinopathy	Diabetes with complications	2
C105y00	Other specified diabetes mellitus with ophthalmic complicatn	Diabetes with complications	2
C109E11	Type II diabetes mellitus with diabetic cataract	Diabetes with complications	2
C10FB00	Type 2 diabetes mellitus with polyneuropathy	Diabetes with complications	2
C10FA00	Type 2 diabetes mellitus with mononeuropathy	Diabetes with complications	2
C10F611	Type II diabetes mellitus with retinopathy	Diabetes with complications	2
C10E200	Type 1 diabetes mellitus with neurological complications	Diabetes with complications	2
C108B11	Type I diabetes mellitus with mononeuropathy	Diabetes with complications	2
C109600	Non-insulin-dependent diabetes mellitus with retinopathy	Diabetes with complications	2
F381300	Myasthenic syndrome due to diabetic amyotrophy	Diabetes with complications	2
C106z00	Diabetes mellitus NOS with neurological manifestation	Diabetes with complications	2
C104y00	Other specified diabetes mellitus with renal complications	Diabetes with complications	2
2BBV.00	O/E - left eye proliferative diabetic retinopathy	Diabetes with complications	2
C108711	Type I diabetes mellitus with retinopathy	Diabetes with complications	2
F420400	Diabetic maculopathy	Diabetes with complications	2
C109C12	Type 2 diabetes mellitus with nephropathy	Diabetes with complications	2
C106.11	Diabetic amyotrophy	Diabetes with	2

		complications	
K01x111	Kimmelstiel - Wilson disease	Diabetes with complications	2
C108D00	Insulin dependent diabetes mellitus with nephropathy	Diabetes with complications	2
C108212	Type 1 diabetes mellitus with neurological complications	Diabetes with complications	2
C108100	Insulin-dependent diabetes mellitus with ophthalmic comps	Diabetes with complications	2
F3y0.00	Diabetic mononeuropathy	Diabetes with complications	2
F372.12	Diabetic neuropathy	Diabetes with complications	2
F420300	Advanced diabetic maculopathy	Diabetes with complications	2
C10F011	Type II diabetes mellitus with renal complications	Diabetes with complications	2
2BBl.00	O/E - left eye stable treated prolif diabetic retinopathy	Diabetes with complications	2
C10FC00	Type 2 diabetes mellitus with nephropathy	Diabetes with complications	2
C10EF00	Type 1 diabetes mellitus with diabetic cataract	Diabetes with complications	2
C109E12	Type 2 diabetes mellitus with diabetic cataract	Diabetes with complications	2
C108D11	Type I diabetes mellitus with nephropathy	Diabetes with complications	2
C109B11	Type II diabetes mellitus with polyneuropathy	Diabetes with complications	2
C10F200	Type 2 diabetes mellitus with neurological complications	Diabetes with complications	2
C10EB00	Type 1 diabetes mellitus with mononeuropathy	Diabetes with complications	2
C109H12	Type 2 diabetes mellitus with neuropathic arthropathy	Diabetes with complications	2
F420800	High risk non proliferative diabetic	Diabetes with	2

	retinopathy	complications	
C108700	Insulin dependent diabetes mellitus with retinopathy	Diabetes with complications	2
C10EC00	Type 1 diabetes mellitus with polyneuropathy	Diabetes with complications	2
F374z00	Polyneuropathy in disease NOS	Diabetes with complications	2
C109112	Type 2 diabetes mellitus with ophthalmic complications	Diabetes with complications	2
2BBL.00	O/E - diabetic maculopathy present both eyes	Diabetes with complications	2
C109012	Type 2 diabetes mellitus with renal complications	Diabetes with complications	2
C109000	Non-insulin-dependent diabetes mellitus with renal comps	Diabetes with complications	2
C109200	Non-insulin-dependent diabetes mellitus with neuro comps	Diabetes with complications	2
F420700	High risk proliferative diabetic retinopathy	Diabetes with complications	2
C106.12	Diabetes mellitus with neuropathy	Diabetes with complications	2
2BBS.00	O/E - left eye preproliferative diabetic retinopathy	Diabetes with complications	2
C109E00	Non-insulin depend diabetes mellitus with diabetic cataract	Diabetes with complications	2
C10F600	Type 2 diabetes mellitus with retinopathy	Diabetes with complications	2
C108C00	Insulin dependent diabetes mellitus with polyneuropathy	Diabetes with complications	2
C108211	Type I diabetes mellitus with neurological complications	Diabetes with complications	2
C10E000	Type 1 diabetes mellitus with renal complications	Diabetes with complications	2
C109H11	Type II diabetes mellitus with neuropathic arthropathy	Diabetes with complications	2
C106.00	Diabetes mellitus with neurological	Diabetes with	2

	manifestation	complications	
C109611	Type II diabetes mellitus with retinopathy	Diabetes with complications	2
F372.11	Diabetic polyneuropathy	Diabetes with complications	2
2BBk.00	O/E - right eye stable treated prolif diabetic retinopathy	Diabetes with complications	2
F420z00	Diabetic retinopathy NOS	Diabetes with complications	2
C105z00	Diabetes mellitus NOS with ophthalmic manifestation	Diabetes with complications	2
C105100	Diabetes mellitus, adult onset, ophthalmic manifestation	Diabetes with complications	2
C10ED00	Type 1 diabetes mellitus with nephropathy	Diabetes with complications	2
C108F11	Type I diabetes mellitus with diabetic cataract	Diabetes with complications	2
C108011	Type I diabetes mellitus with renal complications	Diabetes with complications	2
C10FC11	Type II diabetes mellitus with nephropathy	Diabetes with complications	2
C108012	Type 1 diabetes mellitus with renal complications	Diabetes with complications	2
C109A11	Type II diabetes mellitus with mononeuropathy	Diabetes with complications	2
F381311	Diabetic amyotrophy	Diabetes with complications	2
C109C11	Type II diabetes mellitus with nephropathy	Diabetes with complications	2
C10EQ00	Type 1 diabetes mellitus with gastroparesis	Diabetes with complications	2
C109A00	Non-insulin dependent diabetes mellitus with mononeuropathy	Diabetes with complications	2
C108F00	Insulin dependent diabetes mellitus with diabetic cataract	Diabetes with complications	2
C104.11	Diabetic nephropathy	Diabetes with	2

		complications	
2BBR.00	O/E - right eye preproliferative diabetic retinopathy	Diabetes with complications	2
C108J12	Type 1 diabetes mellitus with neuropathic arthropathy	Diabetes with complications	2
C10FB11	Type II diabetes mellitus with polyneuropathy	Diabetes with complications	2
C106y00	Other specified diabetes mellitus with neurological comps	Diabetes with complications	2
C10FH00	Type 2 diabetes mellitus with neuropathic arthropathy	Diabetes with complications	2
C10F000	Type 2 diabetes mellitus with renal complications	Diabetes with complications	2
C105.00	Diabetes mellitus with ophthalmic manifestation	Diabetes with complications	2
F420100	Proliferative diabetic retinopathy	Diabetes with complications	2
C109211	Type II diabetes mellitus with neurological complications	Diabetes with complications	2
C104z00	Diabetes mellitis with nephropathy NOS	Diabetes with complications	2
C10E100	Type 1 diabetes mellitus with ophthalmic complications	Diabetes with complications	2
B34y000	Malignant neoplasm of ectopic site of female breast	Cancer	2
B224.00	Malignant neoplasm of lower lobe, bronchus or lung	Cancer	2
B304000	Malignant neoplasm of scapula	Cancer	2
B315100	Malig neop of connective and soft tissue of inguinal region	Cancer	2
B12..00	Malignant neoplasm of small intestine and duodenum	Cancer	2
B311200	Malignant neoplasm of connective and soft tissue of fore-arm	Cancer	2
2022BK	LYMPHOMA BURKITT'S	Cancer	2

B622600	Sezary's disease of intrapelvic lymph nodes	Cancer	2
B626z00	Malignant mast cell tumour NOS	Cancer	2
B611200	Hodgkin's granuloma of intrathoracic lymph nodes	Cancer	2
B550300	Malignant neoplasm of jaw NOS	Cancer	2
B6y0.11	Myeloproliferative disease	Cancer	2
B306.00	Malignant neoplasm of pelvic bones, sacrum and coccyx	Cancer	2
B69..00	Myelomonocytic leukaemia	Cancer	2
B613100	Hodgkin's, lymphocytic-histiocytic pred of head, face, neck	Cancer	2
B616100	Hodgkin's lymphocytic depletion of head, face and neck	Cancer	2
B624.00	Leukaemic reticuloendotheliosis	Cancer	2
B410z00	Malignant neoplasm of endocervix NOS	Cancer	2
2020FB	FOLLICULAR LYMPHOBLASTOMA	Cancer	2
B524W00	Mal neoplasm/periph nerves??? nervous system,unspc	Cancer	2
B30W.00	Malignant neoplasm/overlap lesion/bone??? cartilage	Cancer	2
B327300	Malignant melanoma of popliteal fossa area	Cancer	2
B620600	Nodular lymphoma of intrapelvic lymph nodes	Cancer	2
B326100	Malignant melanoma of upper arm	Cancer	2
B68..00	Leukaemia of unspecified cell type	Cancer	2
B482.00	Malignant neoplasm of body of penis	Cancer	2
B327900	Malignant melanoma of great toe	Cancer	2
B151000	Malignant neoplasm of interlobular bile ducts	Cancer	2
B67y000	Lymphosarcoma cell leukaemia	Cancer	2
B500100	Malignant neoplasm of iris	Cancer	2

B327.00	Malignant melanoma of lower limb and hip	Cancer	2
B60..00	Lymphosarcoma and reticulosarcoma	Cancer	2
B24..00	Malignant neoplasm of thymus, heart and mediastinum	Cancer	2
B627700	Diffuse non-Hodgkin's lymphoblastic (diffuse) lymphoma	Cancer	2
B45X.00	Malignant neoplasm/overlapping lesion/feml genital organs	Cancer	2
B601600	Lymphosarcoma of intrapelvic lymph nodes	Cancer	2
B601500	Lymphosarcoma of lymph nodes of inguinal region and leg	Cancer	2
B510300	Malignant neoplasm of globus pallidus	Cancer	2
B21..00	Malignant neoplasm of larynx	Cancer	2
B430211	Malignant neoplasm of endometrium	Cancer	2
B014.00	Malignant neoplasm of anterior 2/3 of tongue unspecified	Cancer	2
B326400	Malignant melanoma of finger	Cancer	2
B62z700	Unspec malig neop lymphoid/histiocytic of spleen	Cancer	2
B337400	Malignant neoplasm of skin of lower leg	Cancer	2
ZV10414	[V]Personal history of malignant neoplasm of ovary	Cancer	2
B200100	Malignant neoplasm of nasal conchae	Cancer	2
B201.00	Malig neop auditory tube, middle ear and mastoid air cells	Cancer	2
B205.00	Malignant neoplasm of sphenoidal sinus	Cancer	2
B21y.00	Malignant neoplasm of larynx, other specified site	Cancer	2
B220100	Malignant neoplasm of mucosa of trachea	Cancer	2
B612100	Hodgkin's sarcoma of lymph nodes of head, face and neck	Cancer	2

B335200	Malignant neoplasm of skin of breast	Cancer	2
B325100	Malignant melanoma of breast	Cancer	2
B631.00	Plasma cell leukaemia	Cancer	2
B305100	Malignant neoplasm of carpal bone - lunate	Cancer	2
B500200	Malignant neoplasm of crystalline lens	Cancer	2
B67yz00	Other and unspecified leukaemia NOS	Cancer	2
ByuD200	[X]Other types of diffuse non-Hodgkin's lymphoma	Cancer	2
B41..00	Malignant neoplasm of cervix uteri	Cancer	2
B160.11	Carcinoma gallbladder	Cancer	2
B331000	Malignant neoplasm of canthus	Cancer	2
B323000	Malignant melanoma of external surface of cheek	Cancer	2
B4...00	Malignant neoplasm of genitourinary organ	Cancer	2
B302100	Malignant neoplasm of thoracic vertebra	Cancer	2
B30X.00	Malignant neoplasm/bones??? cartilage/limb,unspfd	Cancer	2
B322000	Malignant melanoma of auricle (ear)	Cancer	2
1929AC	ASTROCYTOMA	Cancer	2
B61..00	Hodgkin's disease	Cancer	2
B471.00	Malignant neoplasm of descended testis	Cancer	2
B500000	Malignant neoplasm of ciliary body	Cancer	2
ByuDF00	[X]Non-Hodgkin's lymphoma, unspecified type	Cancer	2
B62y.00	Malignant lymphoma NOS	Cancer	2
B523100	Malignant neoplasm of spinal arachnoid mater	Cancer	2
B626300	Mast cell malignancy of intra-abdominal lymph nodes	Cancer	2
B54X.00	Malignant neoplasm-pluriglandular	Cancer	2

	involvement,unspecified		
B54y.00	Malignant neoplasm of other specified endocrine gland	Cancer	2
B18..00	Malignant neoplasm of retroperitoneum and peritoneum	Cancer	2
B30..11	Chondroma	Cancer	2
B150200	Primary angiosarcoma of liver	Cancer	2
2049AT	ADENITIS LEUKAEMIC	Cancer	2
B31..00	Malignant neoplasm of connective and other soft tissue	Cancer	2
B650.00	Acute myeloid leukaemia	Cancer	2
B661.00	Chronic monocytic leukaemia	Cancer	2
B306500	Malignant sacral teratoma	Cancer	2
B200z00	Malignant neoplasm of nasal cavities NOS	Cancer	2
B615200	Hodgkin's mixed cellularity of intrathoracic lymph nodes	Cancer	2
B18z.00	Malignant neoplasm of retroperitoneum and peritoneum NOS	Cancer	2
B621300	Mycosis fungoides of intra-abdominal lymph nodes	Cancer	2
B52..00	Malig neop of other and unspecified parts of nervous system	Cancer	2
2059MR	MYELOPROLIFERATIVE DISEASE CHRONIC	Cancer	2
B55y000	Malignant neoplasm of back NOS	Cancer	2
B304.00	Malignant neoplasm of scapula and long bones of upper arm	Cancer	2
B62z200	Unspec malig neop lymphoid/histiocytic of intrathoracic node	Cancer	2
B55y100	Malignant neoplasm of trunk NOS	Cancer	2
B1z..00	Malig neop oth/ill-defined sites digestive tract/peritoneum	Cancer	2

B524300	Malignant neoplasm of peripheral nerve of thorax	Cancer	2
B1z1.00	Malignant neoplasm of spleen NEC	Cancer	2
B55y200	Malignant neoplasm of flank NOS	Cancer	2
B55z.00	Malignant neoplasm of other and ill defined site NOS	Cancer	2
Byu5011	[X]Mesothelioma of lung	Cancer	2
B303100	Malignant neoplasm of sternum	Cancer	2
B34..00	Malignant neoplasm of female breast	Cancer	2
B070.00	Malignant neoplasm of roof of nasopharynx	Cancer	2
B680.00	Acute leukaemia NOS	Cancer	2
B51z.00	Malignant neoplasm of brain NOS	Cancer	2
B232.00	Mesothelioma of pleura	Cancer	2
B302z00	Malignant neoplasm of vertebral column NOS	Cancer	2
B11..11	Gastric neoplasm	Cancer	2
B510000	Malignant neoplasm of basal ganglia	Cancer	2
Byu7200	[X]Malignant neoplasm/overlapping lesion/feml genital organs	Cancer	2
B308100	Malignant neoplasm of talus	Cancer	2
B20y.00	Malig neop other site nasal cavity, middle ear and sinuses	Cancer	2
B662.00	Subacute monocytic leukaemia	Cancer	2
B62y300	Malignant lymphoma NOS of intra-abdominal lymph nodes	Cancer	2
B314100	Malig neoplasm of connective and soft tissues of lumb spine	Cancer	2
Byu5800	[X]Mal neoplasm/connective? tissue of trunk,unspecified	Cancer	2
B344.00	Malignant neoplasm of upper-outer quadrant of female breast	Cancer	2
B524600	Malignant neoplasm,overlap lesion	Cancer	2

	periph nerve & auton ns		
B30..12	Osteoma	Cancer	2
B33..12	Epithelioma	Cancer	2
B550200	Malignant neoplasm of nose NOS	Cancer	2
B337000	Malignant neoplasm of skin of hip	Cancer	2
B133.00	Malignant neoplasm of sigmoid colon	Cancer	2
ZV10214	[V]Personal history of malignant neoplasm of nose	Cancer	2
Byu2.00	[X]Malignant neoplasm of respiratory and intrathoracic orga	Cancer	2
B454.11	Primary vulval cancer	Cancer	2
B350z00	Malignant neoplasm of nipple or areola of male breast NOS	Cancer	2
B2...11	Carcinoma of respiratory tract and intrathoracic organs	Cancer	2
B06z.00	Malignant neoplasm of oropharynx NOS	Cancer	2
B52y.00	Malignant neoplasm of other specified part of nervous system	Cancer	2
B41y000	Malignant neoplasm of cervical stump	Cancer	2
B064100	Malignant neoplasm of glossoepiglottic fold	Cancer	2
B222.00	Malignant neoplasm of upper lobe, bronchus or lung	Cancer	2
B610700	Hodgkin's paragranuloma of spleen	Cancer	2
B630200	Plasmacytoma NOS	Cancer	2
B52z.00	Malignant neoplasm of nervous system NOS	Cancer	2
B001000	Malignant neoplasm of lower lip, external	Cancer	2
B150000	Primary carcinoma of liver	Cancer	2
B222z00	Malignant neoplasm of upper lobe, bronchus or lung NOS	Cancer	2
B512100	Malignant neoplasm of uncus	Cancer	2

B601200	Lymphosarcoma of intrathoracic lymph nodes	Cancer	2
B602600	Burkitt's lymphoma of intrapelvic lymph nodes	Cancer	2
B....00	Neoplasms	Cancer	2
B000000	Malignant neoplasm of upper lip, external	Cancer	2
Byu4000	[X]Malignant melanoma of other???? parts of face	Cancer	2
B524000	Malignant neoplasm of peripheral nerves of head, face & neck	Cancer	2
B550.00	Malignant neoplasm of head, neck and face	Cancer	2
B34y.00	Malignant neoplasm of other site of female breast	Cancer	2
B308C00	Malignant neoplasm of fifth metatarsal bone	Cancer	2
B040.00	Malignant neoplasm of anterior portion of floor of mouth	Cancer	2
B303000	Malignant neoplasm of rib	Cancer	2
B065.00	Malignant neoplasm of junctional region of epiglottis	Cancer	2
B430z00	Malignant neoplasm of corpus uteri NOS	Cancer	2
B003.00	Malignant neoplasm of lower lip, inner aspect	Cancer	2
B137.00	Malignant neoplasm of splenic flexure of colon	Cancer	2
ZV10y14	[V]Personal history of malignant neoplasm of skin	Cancer	2
B625700	Letterer-Siwe disease of spleen	Cancer	2
B300600	Malignant neoplasm of parietal bone	Cancer	2
B241.00	Malignant neoplasm of heart	Cancer	2
B62y100	Malignant lymphoma NOS of lymph nodes of head, face and neck	Cancer	2

B61z400	Hodgkin's disease NOS of lymph nodes of axilla and arm	Cancer	2
B510100	Malignant neoplasm of cerebral cortex	Cancer	2
B506.00	Malignant neoplasm of choroid	Cancer	2
ByuD700	[X]Other monocytic leukaemia	Cancer	2
B540z00	Malignant neoplasm of adrenal gland NOS	Cancer	2
Byu2200	[X]Malignant neoplasm/upper resp tract, part unspecified	Cancer	2
B410000	Malignant neoplasm of endocervical canal	Cancer	2
B691.00	Chronic myelomonocytic leukaemia	Cancer	2
B326000	Malignant melanoma of shoulder	Cancer	2
B49y.00	Malignant neoplasm of other site of urinary bladder	Cancer	2
B630300	Lambda light chain myeloma	Cancer	2
B612000	Hodgkin's sarcoma of unspecified site	Cancer	2
B313300	Malig neoplasm of connective and soft tissues of thor spine	Cancer	2
B308700	Malignant neoplasm of navicular	Cancer	2
B616.00	Hodgkin's disease, lymphocytic depletion	Cancer	2
B41..11	Cervical carcinoma (uterus)	Cancer	2
B430.00	Malignant neoplasm of corpus uteri, excluding isthmus	Cancer	2
B483.00	Malignant neoplasm of penis, part unspecified	Cancer	2
B200000	Malignant neoplasm of cartilage of nose	Cancer	2
B307z00	Malignant neoplasm of long bones of leg NOS	Cancer	2
B17yz00	Malignant neoplasm of specified site of pancreas NOS	Cancer	2
B323100	Malignant melanoma of chin	Cancer	2

B05..00	Malignant neoplasm of other and unspecified parts of mouth	Cancer	2
B513.00	Malignant neoplasm of parietal lobe	Cancer	2
By...00	Neoplasms otherwise specified	Cancer	2
B507.00	Malignant neoplasm of lacrimal duct	Cancer	2
B616z00	Hodgkin's disease, lymphocytic depletion NOS	Cancer	2
B311300	Malignant neoplasm of connective and soft tissue of hand	Cancer	2
B305z00	Malignant neoplasm of hand bones NOS	Cancer	2
Byu3200	[X]Malignant neoplasm/overlap lesion/bone??? cartilage	Cancer	2
B010.00	Malignant neoplasm of base of tongue	Cancer	2
B602200	Burkitt's lymphoma of intrathoracic lymph nodes	Cancer	2
B0z..00	Malig neop other/ill-defined sites lip, oral cavity, pharynx	Cancer	2
B134.11	Carcinoma of caecum	Cancer	2
B030.00	Malignant neoplasm of upper gum	Cancer	2
B621500	Mycosis fungoides of lymph nodes of inguinal region and leg	Cancer	2
B071.00	Malignant neoplasm of posterior wall of nasopharynx	Cancer	2
1419A	TONGUE TUMOUR MALIGNANT	Cancer	2
B625200	Letterer-Siwe disease of intrathoracic lymph nodes	Cancer	2
B625300	Letterer-Siwe disease of intra-abdominal lymph nodes	Cancer	2
B625.00	Letterer-Siwe disease	Cancer	2
B113.00	Malignant neoplasm of fundus of stomach	Cancer	2
B501.00	Malignant neoplasm of orbit	Cancer	2
B213000	Malignant neoplasm of arytenoid	Cancer	2

	cartilage		
B62x100	Lymphoepithelioid lymphoma	Cancer	2
B322.00	Malignant melanoma of ear and external auricular canal	Cancer	2
Byu0.00	[X]Malignant neoplasm of lip, oral cavity and pharynx	Cancer	2
B316.00	Malig neop of connective and soft tissue trunk unspecified	Cancer	2
B06y.00	Malignant neoplasm of oropharynx, other specified sites	Cancer	2
B3...00	Malig neop of bone, connective tissue, skin and breast	Cancer	2
B510400	Malignant neoplasm of hypothalamus	Cancer	2
ByuD900	[X]Other leukaemia of unspecified cell type	Cancer	2
B141.00	Malignant neoplasm of rectum	Cancer	2
B63z.00	Immunoproliferative neoplasm or myeloma NOS	Cancer	2
B545z00	Malignant neoplasm of aortic body or paraganglia NOS	Cancer	2
B073000	Malignant neoplasm of floor of nasopharynx	Cancer	2
B306z00	Malignant neoplasm of pelvis, sacrum or coccyx NOS	Cancer	2
B18y700	Malignant neoplasm of mesentery	Cancer	2
B326z00	Malignant melanoma of upper limb or shoulder NOS	Cancer	2
B6y1.00	Myelosclerosis with myeloid metaplasia	Cancer	2
B611600	Hodgkin's granuloma of intrapelvic lymph nodes	Cancer	2
B41y100	Malignant neoplasm of squamocolumnar junction of cervix	Cancer	2
B62x.00	Malignant lymphoma otherwise specified	Cancer	2

B4z..00	Malignant neoplasm of genitourinary organ NOS	Cancer	2
B333500	Malignant neoplasm of skin of temple	Cancer	2
ZV10411	[V]Personal history of malignant neoplasm of cervix uteri	Cancer	2
B004300	Malignant neoplasm of lip, oral aspect	Cancer	2
B600000	Reticulosarcoma of unspecified site	Cancer	2
B651.11	Chronic granulocytic leukaemia	Cancer	2
B150z00	Primary malignant neoplasm of liver NOS	Cancer	2
B326300	Malignant melanoma of hand	Cancer	2
ZV10713	[V]Personal history of other haematopoietic neoplasm	Cancer	2
B496.00	Malignant neoplasm of ureteric orifice	Cancer	2
B337.00	Malignant neoplasm of skin of lower limb and hip	Cancer	2
B43..00	Malignant neoplasm of body of uterus	Cancer	2
B626200	Mast cell malignancy of intrathoracic lymph nodes	Cancer	2
B0zz.00	Malignant neoplasm of lip, oral cavity and pharynx NOS	Cancer	2
B345.00	Malignant neoplasm of lower-outer quadrant of female breast	Cancer	2
ByuA100	[X]Malignant neoplasm/central nervous system, unspecified	Cancer	2
B2z..00	Malig neop other/ill-defined sites resp/intrathoracic organs	Cancer	2
B337600	Malignant neoplasm of skin of heel	Cancer	2
B313z00	Malig neop of connective and soft tissue of thorax NOS	Cancer	2
B44z.00	Malignant neoplasm of uterine adnexa NOS	Cancer	2
Byu5200	[X]Kaposi's sarcoma of multiple organs	Cancer	2

B64y100	Prolymphocytic leukaemia	Cancer	2
ByuDE00	[X]Unspecified B-cell non-Hodgkin's lymphoma	Cancer	2
B622.00	Sezary's disease	Cancer	2
B180100	Malignant neoplasm of perinephric tissue	Cancer	2
B410.00	Malignant neoplasm of endocervix	Cancer	2
B325700	Malignant melanoma of back	Cancer	2
B16y.00	Malignant neoplasm other gallbladder/extrahepatic bile duct	Cancer	2
B615500	Hodgkin's mixed cellularity of lymph nodes inguinal and leg	Cancer	2
B241100	Malignant neoplasm of epicardium	Cancer	2
B004z00	Malignant neoplasm of lip, inner aspect NOS	Cancer	2
B02y.00	Malignant neoplasm of other major salivary glands	Cancer	2
B201z00	Malig neop auditory tube, middle ear, mastoid air cells NOS	Cancer	2
B616200	Hodgkin's lymphocytic depletion of intrathoracic lymph nodes	Cancer	2
B335100	Malignant neoplasm of skin of chest, excluding breast	Cancer	2
B005.00	Malignant neoplasm of commissure of lip	Cancer	2
B517200	Malignant neoplasm of midbrain	Cancer	2
B0z1.00	Malignant neoplasm of Waldeyer's ring	Cancer	2
B600100	Reticulosarcoma of lymph nodes of head, face and neck	Cancer	2
B492.00	Malignant neoplasm of lateral wall of urinary bladder	Cancer	2
B161z00	Malignant neoplasm of extrahepatic bile ducts NOS	Cancer	2
B5...00	Malignant neoplasm of other and	Cancer	2

	unspecified sites		
B61z000	Hodgkin's disease NOS, unspecified site	Cancer	2
B2...00	Malig neop of respiratory tract and intrathoracic organs	Cancer	2
2029LD	LYMPHADENOMA	Cancer	2
B622z00	Sezary's disease NOS	Cancer	2
B335400	Malignant neoplasm of skin of umbilicus	Cancer	2
B4A1000	Malignant neoplasm of renal calyces	Cancer	2
Byu2400	[X]Malignant neoplasm/ill-defined sites within resp system	Cancer	2
B411.00	Malignant neoplasm of exocervix	Cancer	2
ByuA.00	[X]Malignant neoplasm of eye, brain and other parts of cent	Cancer	2
ByuDD00	[X]Oth and unspecif peripheral & cutaneous T-cell lymphomas	Cancer	2
B315000	Malignant neoplasm of connective and soft tissue of buttock	Cancer	2
B495.00	Malignant neoplasm of bladder neck	Cancer	2
B340100	Malignant neoplasm of areola of female breast	Cancer	2
B542000	Malignant neoplasm of pituitary gland	Cancer	2
B333000	Malignant neoplasm of skin of cheek, external	Cancer	2
B010z00	Malignant neoplasm of fixed part of tongue NOS	Cancer	2
B324100	Malignant melanoma of neck	Cancer	2
B65y100	Acute promyelocytic leukaemia	Cancer	2
B314z00	Malig neop of connective and soft tissue of abdomen NOS	Cancer	2
B500z00	Malignant neoplasm of eyeball NOS	Cancer	2
B312400	Malignant neoplasm of connective and soft tissue of foot	Cancer	2
B311000	Malignant neoplasm of connective and	Cancer	2

	soft tissue of shoulder		
B340.00	Malignant neoplasm of nipple and areola of female breast	Cancer	2
B00zz00	Malignant neoplasm of lip, vermilion border NOS	Cancer	2
B241000	Malignant neoplasm of endocardium	Cancer	2
B241300	Malignant neoplasm of pericardium	Cancer	2
ZV10416	[V]Personal history of malignant neoplasm of testis	Cancer	2
B630.12	Myelomatosis	Cancer	2
186 BL	TESTIS ADENOCARCINOMA INFANCY	Cancer	2
B350.00	Malignant neoplasm of nipple and areola of male breast	Cancer	2
B690.00	Acute myelomonocytic leukaemia	Cancer	2
B181.00	Mesothelioma of peritoneum	Cancer	2
B508.00	Malignant neoplasm, overlapping lesion of eye and adnexa	Cancer	2
B486.00	Malignant neoplasm of scrotum	Cancer	2
B62y600	Malignant lymphoma NOS of intrapelvic lymph nodes	Cancer	2
B554.00	Malignant neoplasm of upper limb NOS	Cancer	2
B150.00	Primary malignant neoplasm of liver	Cancer	2
B524X00	Malignant neoplasm/peripheral nerves of trunk,unspecified	Cancer	2
B443.00	Malignant neoplasm of parametrium	Cancer	2
B342.00	Malignant neoplasm of upper-inner quadrant of female breast	Cancer	2
B213100	Malignant neoplasm of cricoid cartilage	Cancer	2
B620800	Nodular lymphoma of lymph nodes of multiple sites	Cancer	2
B337300	Malignant neoplasm of skin of popliteal fossa area	Cancer	2

B551200	Malignant neoplasm of intrathoracic site NOS	Cancer	2
B311500	Malignant neoplasm of connective and soft tissue of thumb	Cancer	2
B613300	Hodgkin's, lymphocytic-histiocytic pred intra-abdominal node	Cancer	2
Byu2300	[X]Malignant neopl/overlapping les/resp???? organs	Cancer	2
ByuE.00	[X]Malignant neoplasms/independent (primary) multiple sites	Cancer	2
B410100	Malignant neoplasm of endocervical gland	Cancer	2
Byu6.00	[X]Malignant neoplasm of breast	Cancer	2
B660.00	Acute monocytic leukaemia	Cancer	2
B311z00	Malig neop connective soft tissue upper limb/shoulder NOS	Cancer	2
B624300	Leukaemic reticuloend of intra-abdominal lymph nodes	Cancer	2
B305.11	Malignant neoplasm of carpal bones	Cancer	2
B620000	Nodular lymphoma of unspecified site	Cancer	2
B621100	Mycosis fungoides of the lymph nodes of head, face and neck	Cancer	2
B621400	Mycosis fungoides of lymph nodes of axilla and upper limb	Cancer	2
B00z100	Malignant neoplasm of lip, unspecified, lipstick area	Cancer	2
2050DR	SYNDROME DREYFUS'	Cancer	2
1729B	MALIGNANT MELANOMA SKIN	Cancer	2
B622700	Sezary's disease of spleen	Cancer	2
B230.00	Malignant neoplasm of parietal pleura	Cancer	2
B10z.11	Oesophageal cancer	Cancer	2
B62zz00	Lymphoid and histiocytic malignancy NOS	Cancer	2

B224100	Malignant neoplasm of lower lobe of lung	Cancer	2
ZV10000	[V]Personal history of malig neop of gastrointestinal tract	Cancer	2
B504.00	Malignant neoplasm of cornea	Cancer	2
Byu5.00	[X]Malignant neoplasm of mesothelial and soft tissue	Cancer	2
B653000	Chloroma	Cancer	2
B334000	Malignant neoplasm of scalp	Cancer	2
B66..00	Monocytic leukaemia	Cancer	2
B622500	Sezary's disease of lymph nodes of inguinal region and leg	Cancer	2
B22y.00	Malignant neoplasm of other sites of bronchus or lung	Cancer	2
B540.11	Phaeochromocytoma	Cancer	2
B440.00	Malignant neoplasm of ovary	Cancer	2
ZV10714	[V]Personal history of reticulosarcoma	Cancer	2
B307100	Malignant neoplasm of fibula	Cancer	2
B612.00	Hodgkin's sarcoma	Cancer	2
B613z00	Hodgkin's, lymphocytic-histiocytic predominance NOS	Cancer	2
B55y.00	Malignant neoplasm of other specified sites	Cancer	2
B420.00	Choriocarcinoma	Cancer	2
B331200	Malignant neoplasm of lower eyelid	Cancer	2
B62z600	Unspec malig neop lymphoid/histiocytic of intrapelvic nodes	Cancer	2
B300C00	Malignant neoplasm of vomer	Cancer	2
B4A1.00	Malignant neoplasm of renal pelvis	Cancer	2
ByuDC00	[X]Diffuse non-Hodgkin's lymphoma, unspecified	Cancer	2
B625600	Letterer-Siwe disease of intrapelvic lymph nodes	Cancer	2

B5...11	Carcinoma of other and unspecified sites	Cancer	2
B110.00	Malignant neoplasm of cardia of stomach	Cancer	2
B553z00	Malignant neoplasm of pelvis NOS	Cancer	2
B221100	Malignant neoplasm of hilus of lung	Cancer	2
B550z00	Malignant neoplasm of head, neck and face NOS	Cancer	2
B517z00	Malignant neoplasm of brain stem NOS	Cancer	2
B33z.00	Malignant neoplasm of skin NOS	Cancer	2
ByuDA00	[X]Oth spcf mal neoplsm/lymphoid,haematopoietic? tissue	Cancer	2
B6...00	Malignant neoplasm of lymphatic and haemopoietic tissue	Cancer	2
B672.00	Megakaryocytic leukaemia	Cancer	2
B67..00	Other specified leukaemia	Cancer	2
B142000	Malignant neoplasm of cloacogenic zone	Cancer	2
B521000	Malignant neoplasm of cerebral dura mater	Cancer	2
Byu2500	[X]Malignant neoplasm of mediastinum, part unspecified	Cancer	2
B337200	Malignant neoplasm of skin of knee	Cancer	2
B612400	Hodgkin's sarcoma of lymph nodes of axilla and upper limb	Cancer	2
B211.00	Malignant neoplasm of supraglottis	Cancer	2
B337500	Malignant neoplasm of skin of ankle	Cancer	2
B333300	Malignant neoplasm of skin of forehead	Cancer	2
B17z.00	Malignant neoplasm of pancreas NOS	Cancer	2
B524400	Malignant neoplasm of peripheral nerve of abdomen	Cancer	2
B011000	Malignant neoplasm of anterior 2/3 of tongue dorsal surface	Cancer	2
B501100	Malignant neoplasm of extraocular	Cancer	2

	muscle of orbit		
B073z00	Malignant neoplasm of anterior wall of nasopharynx NOS	Cancer	2
B06yz00	Malignant neoplasm of other specified site of oropharynx NOS	Cancer	2
B64y000	Aleukaemic lymphoid leukaemia	Cancer	2
B062200	Malignant neoplasm of palatoglossal arch	Cancer	2
B553.00	Malignant neoplasm of pelvis	Cancer	2
B327500	Malignant melanoma of ankle	Cancer	2
B622000	Sezary's disease of unspecified site	Cancer	2
2070BL	LEUKAEMIA BLAST CELL	Cancer	2
B32y000	Overlapping malignant melanoma of skin	Cancer	2
B47z.00	Malignant neoplasm of testis NOS	Cancer	2
B517100	Malignant neoplasm of medulla oblongata	Cancer	2
B337700	Malignant neoplasm of skin of foot	Cancer	2
2070MA	MASTOCYTOMA	Cancer	2
B500300	Malignant neoplasm of sclera	Cancer	2
B32z.00	Malignant melanoma of skin NOS	Cancer	2
B4A..00	Malig neop of kidney and other unspecified urinary organs	Cancer	2
B615600	Hodgkin's mixed cellularity of intrapelvic lymph nodes	Cancer	2
B623100	Malignant histiocytosis of lymph nodes head, face and neck	Cancer	2
B514.00	Malignant neoplasm of occipital lobe	Cancer	2
B515100	Malignant neoplasm of floor of cerebral ventricle	Cancer	2
B315200	Malignant neoplasm of connective and soft tissue of perineum	Cancer	2
Byu5000	[X]Mesothelioma of other sites	Cancer	2

B325500	Malignant melanoma of perineum	Cancer	2
B524.00	Malig neopl peripheral nerves and autonomic nervous system	Cancer	2
B315z00	Malig neop of connective and soft tissue of pelvis NOS	Cancer	2
B517.00	Malignant neoplasm of brain stem	Cancer	2
B303400	Malignant neoplasm of costo-vertebral joint	Cancer	2
B524100	Malignant neoplasm of peripheral nerve,upp limb,incl should	Cancer	2
B627400	Diffuse non-Hodgkin's small cleaved cell (diffuse) lymphoma	Cancer	2
B323.00	Malignant melanoma of other and unspecified parts of face	Cancer	2
B450000	Malignant neoplasm of Gartner's duct	Cancer	2
B444.00	Malignant neoplasm of round ligament	Cancer	2
B3y..00	Malig neop of bone, connective tissue, skin and breast OS	Cancer	2
B30..00	Malignant neoplasm of bone and articular cartilage	Cancer	2
B45y000	Malignant neoplasm of overlapping lesion of vulva	Cancer	2
B175.00	Malignant neoplasm, overlapping lesion of pancreas	Cancer	2
B174.00	Malignant neoplasm of Islets of Langerhans	Cancer	2
B4Az.00	Malignant neoplasm of kidney or urinary organs NOS	Cancer	2
B335000	Malignant neoplasm of skin of axillary fold	Cancer	2
B056.00	Malignant neoplasm of retromolar area	Cancer	2
B452.00	Malignant neoplasm of labia minora	Cancer	2
B03..00	Malignant neoplasm of gum	Cancer	2
B18y600	Malignant neoplasm of the pouch of	Cancer	2

	Douglas		
B627600	Diffuse non-Hodgkin's immunoblastic (diffuse) lymphoma	Cancer	2
ZV10700	[V]Personal history other lymphatic/haematopoietic neoplasm	Cancer	2
B305.12	Malignant neoplasm of metacarpal bones	Cancer	2
B336200	Malignant neoplasm of skin of fore-arm	Cancer	2
B611z00	Hodgkin's granuloma NOS	Cancer	2
ZV10y16	[V]Personal history of malignant neoplasm of tongue	Cancer	2
B62z.00	Malignant neoplasms of lymphoid and histiocytic tissue NOS	Cancer	2
B140.00	Malignant neoplasm of rectosigmoid junction	Cancer	2
B681.00	Chronic leukaemia NOS	Cancer	2
ZV10011	[V]Personal history of malignant neoplasm of anus	Cancer	2
B341.00	Malignant neoplasm of central part of female breast	Cancer	2
B0zy.00	Malignant neoplasm of other sites lip, oral cavity, pharynx	Cancer	2
B300z00	Malignant neoplasm of bones of skull and face NOS	Cancer	2
B431z00	Malignant neoplasm of isthmus of uterine body NOS	Cancer	2
B062z00	Malignant neoplasm of tonsillar fossa NOS	Cancer	2
B004000	Malignant neoplasm of lip unspecified, buccal aspect	Cancer	2
B4A2.00	Malignant neoplasm of ureter	Cancer	2
B310z00	Malig neop connective and soft tissue head, face, neck NOS	Cancer	2
B003100	Malignant neoplasm of lower lip, frenulum	Cancer	2

B223100	Malignant neoplasm of middle lobe of lung	Cancer	2
B182.00	Overlapping malign lesion of retroperitoneum and peritoneum	Cancer	2
B305600	Malignant neoplasm of carpal bone - capitate	Cancer	2
B651z00	Chronic myeloid leukaemia NOS	Cancer	2
B003300	Malignant neoplasm of lower lip, oral aspect	Cancer	2
B002200	Malignant neoplasm of upper lip, mucosa	Cancer	2
B060000	Malignant neoplasm of faucial tonsil	Cancer	2
B521.00	Malignant neoplasm of cerebral meninges	Cancer	2
B00z.00	Malignant neoplasm of vermilion border of lip unspecified	Cancer	2
B431.00	Malignant neoplasm of isthmus of uterine body	Cancer	2
ZV10012	[V]Personal history of malig neop of gastrointestinal tract	Cancer	2
ByuE000	[X]Malignant neoplasms/independent(primary)multiple sites	Cancer	2
B470000	Malignant neoplasm of ectopic testis	Cancer	2
B304300	Malignant neoplasm of radius	Cancer	2
B11y000	Malignant neoplasm of anterior wall of stomach NEC	Cancer	2
B600400	Reticulosarcoma of lymph nodes of axilla and upper limb	Cancer	2
B117.00	Malignant neoplasm, overlapping lesion of stomach	Cancer	2
B305800	Malignant neoplasm of first metacarpal bone	Cancer	2
B611000	Hodgkin's granuloma of unspecified site	Cancer	2
B212.00	Malignant neoplasm of subglottis	Cancer	2

B100.00	Malignant neoplasm of cervical oesophagus	Cancer	2
B62y400	Malignant lymphoma NOS of lymph nodes of axilla and arm	Cancer	2
B430000	Malignant neoplasm of cornu of corpus uteri	Cancer	2
B507100	Malignant neoplasm of nasolacrimal duct	Cancer	2
B612500	Hodgkin's sarcoma of lymph nodes of inguinal region and leg	Cancer	2
B61zz00	Hodgkin's disease NOS	Cancer	2
B303200	Malignant neoplasm of clavicle	Cancer	2
B601700	Lymphosarcoma of spleen	Cancer	2
B66z.00	Monocytic leukaemia NOS	Cancer	2
B180.00	Malignant neoplasm of retroperitoneum	Cancer	2
B60z.00	Reticulosarcoma or lymphosarcoma NOS	Cancer	2
B50z.00	Malignant neoplasm of eye NOS	Cancer	2
B620500	Nodular lymphoma of lymph nodes of inguinal region and leg	Cancer	2
B600.00	Reticulosarcoma	Cancer	2
B516.00	Malignant neoplasm of cerebellum	Cancer	2
B523.00	Malignant neoplasm of spinal meninges	Cancer	2
B001z00	Malignant neoplasm of lower lip, vermilion border NOS	Cancer	2
Byu1100	[X]Other specified carcinomas of liver	Cancer	2
B1...11	Carcinoma of digestive organs and peritoneum	Cancer	2
B52W.00	Malig neopl, overlap lesion brain & other part of CNS	Cancer	2
B616800	Hodgkin's lymphocytic depletion lymph nodes multiple sites	Cancer	2
B49y000	Malignant neoplasm, overlapping lesion	Cancer	2

	of bladder		
B067.00	Malignant neoplasm of posterior wall of oropharynx	Cancer	2
B621z00	Mycosis fungoides NOS	Cancer	2
B624400	Leukaemic reticuloend of lymph nodes of axilla and arm	Cancer	2
B4y..00	Malignant neoplasm of genitourinary organ OS	Cancer	2
B65z.00	Myeloid leukaemia NOS	Cancer	2
B110100	Malignant neoplasm of cardio-oesophageal junction of stomach	Cancer	2
B302.00	Malignant neoplasm of vertebral column	Cancer	2
B011100	Malignant neoplasm of midline of tongue	Cancer	2
B334z00	Malignant neoplasm of scalp or skin of neck NOS	Cancer	2
B011.00	Malignant neoplasm of dorsal surface of tongue	Cancer	2
B64y200	Adult T-cell leukaemia	Cancer	2
ByuD300	[X]Other specified types of non-Hodgkin's lymphoma	Cancer	2
B337800	Malignant neoplasm of skin of toe	Cancer	2
B610800	Hodgkin's paragranuloma of lymph nodes of multiple sites	Cancer	2
B23y.00	Malignant neoplasm of other specified pleura	Cancer	2
B346.00	Malignant neoplasm of axillary tail of female breast	Cancer	2
B17..00	Malignant neoplasm of pancreas	Cancer	2
B1z2.00	Malignant neoplasm, overlapping lesion of digestive system	Cancer	2
B063.00	Malignant neoplasm of vallecula	Cancer	2
B623300	Malignant histiocytosis of intra-abdominal lymph nodes	Cancer	2

B313100	Malignant neoplasm of diaphragm	Cancer	2
B303500	Malignant neoplasm of xiphoid process	Cancer	2
B64..00	Lymphoid leukaemia	Cancer	2
B150100	Hepatoblastoma of liver	Cancer	2
B49z.00	Malignant neoplasm of urinary bladder NOS	Cancer	2
B48..00	Malignant neoplasm of penis and other male genital organs	Cancer	2
B682.00	Subacute leukaemia NOS	Cancer	2
B450100	Malignant neoplasm of vaginal vault	Cancer	2
B602800	Burkitt's lymphoma of lymph nodes of multiple sites	Cancer	2
B620400	Nodular lymphoma of lymph nodes of axilla and upper limb	Cancer	2
B302200	Malignant neoplasm of lumbar vertebra	Cancer	2
B62y000	Malignant lymphoma NOS of unspecified site	Cancer	2
B347.00	Malignant neoplasm, overlapping lesion of breast	Cancer	2
B22z.00	Malignant neoplasm of bronchus or lung NOS	Cancer	2
B625000	Letterer-Siwe disease of unspecified sites	Cancer	2
B323300	Malignant melanoma of forehead	Cancer	2
B060100	Malignant neoplasm of palatine tonsil	Cancer	2
B223000	Malignant neoplasm of middle lobe bronchus	Cancer	2
B471000	Seminoma of descended testis	Cancer	2
B615800	Hodgkin's mixed cellularity of lymph nodes of multiple sites	Cancer	2
B17y.00	Malignant neoplasm of other specified sites of pancreas	Cancer	2
B213.00	Malignant neoplasm of laryngeal	Cancer	2

	cartilage		
B062300	Malignant neoplasm of palatopharyngeal arch	Cancer	2
B68z.00	Leukaemia NOS	Cancer	2
B610400	Hodgkin's paragranuloma of lymph nodes of axilla and arm	Cancer	2
B18y000	Malignant neoplasm of mesocolon	Cancer	2
B61z300	Hodgkin's disease NOS of intra-abdominal lymph nodes	Cancer	2
ZV10712	[V]Personal history of lymphosarcoma	Cancer	2
B002300	Malignant neoplasm of upper lip, oral aspect	Cancer	2
B1zy.00	Malignant neoplasm other spec digestive tract and peritoneum	Cancer	2
B442.00	Malignant neoplasm of broad ligament	Cancer	2
B042.00	Malignant neoplasm, overlapping lesion of floor of mouth	Cancer	2
Byu1.00	[X]Malignant neoplasm of digestive organs	Cancer	2
B12z.00	Malignant neoplasm of small intestine NOS	Cancer	2
B21z.00	Malignant neoplasm of larynx NOS	Cancer	2
B517000	Malignant neoplasm of cerebral peduncle	Cancer	2
B08..00	Malignant neoplasm of hypopharynx	Cancer	2
B111100	Malignant neoplasm of pyloric canal of stomach	Cancer	2
B317.00	Malignant neoplasm, overlap lesion connective & soft tissue	Cancer	2
B13z.00	Malignant neoplasm of colon NOS	Cancer	2
B10..00	Malignant neoplasm of oesophagus	Cancer	2
B301.00	Malignant neoplasm of mandible	Cancer	2
B335500	Malignant neoplasm of skin of groin	Cancer	2

B306100	Malignant neoplasm of ischium	Cancer	2
B335A00	Malignant neoplasm of skin of scapular region	Cancer	2
B325800	Malignant melanoma of chest wall	Cancer	2
B327800	Malignant melanoma of toe	Cancer	2
B623600	Malignant histiocytosis of intrapelvic lymph nodes	Cancer	2
Byu4300	[X]Malignant neoplasm of skin, unspecified	Cancer	2
ZV10y13	[V]Personal history of malignant neoplasm of eye	Cancer	2
B304200	Malignant neoplasm of humerus	Cancer	2
B04z.00	Malignant neoplasm of floor of mouth NOS	Cancer	2
ZV10111	[V]Personal history of malignant neoplasm of bronchus	Cancer	2
B550400	Malignant neoplasm of neck NOS	Cancer	2
B551000	Malignant neoplasm of axilla NOS	Cancer	2
B670.11	Di Guglielmo's disease	Cancer	2
B620.00	Nodular lymphoma (Brill - Symmers disease)	Cancer	2
B61z600	Hodgkin's disease NOS of intrapelvic lymph nodes	Cancer	2
B66..12	Monoblastic leukaemia	Cancer	2
B652.00	Subacute myeloid leukaemia	Cancer	2
B63y.00	Other immunoproliferative neoplasms	Cancer	2
B630000	Malignant plasma cell neoplasm, extramedullary plasmacytoma	Cancer	2
B11z.00	Malignant neoplasm of stomach NOS	Cancer	2
B48z.00	Malignant neoplasm of penis and other male genital organ NOS	Cancer	2
B540.00	Malignant neoplasm of adrenal gland	Cancer	2
B312100	Malig neop of connective and soft tissue	Cancer	2

	thigh and upper leg		
B626100	Mast cell malignancy of lymph nodes of head, face and neck	Cancer	2
B305D00	Malignant neoplasm of phalanges of hand	Cancer	2
B223z00	Malignant neoplasm of middle lobe, bronchus or lung NOS	Cancer	2
B623700	Malignant histiocytosis of spleen	Cancer	2
B0...11	Carcinoma of lip, oral cavity and pharynx	Cancer	2
B222000	Malignant neoplasm of upper lobe bronchus	Cancer	2
B327z00	Malignant melanoma of lower limb or hip NOS	Cancer	2
B55yz00	Malignant neoplasm of specified site NOS	Cancer	2
B013100	Malignant neoplasm of frenulum linguae	Cancer	2
Byu7300	[X]Malignant neoplasm of female genital organ, unspecified	Cancer	2
B023.00	Malignant neoplasm, overlapping lesion of major saliv gland	Cancer	2
B310500	Malignant neoplasm soft tissues of cervical spine	Cancer	2
Byu5600	[X]Mal neoplasm/periph nerves??? nervous system,unspc	Cancer	2
ByuD000	[X]Other Hodgkin's disease	Cancer	2
B552.00	Malignant neoplasm of abdomen	Cancer	2
B520z00	Malignant neoplasm of cranial nerves NOS	Cancer	2
B082.00	Malignant neoplasm aryepiglottic fold, hypopharyngeal aspect	Cancer	2
B625.11	Histiocytosis X (acute, progressive)	Cancer	2
B312000	Malignant neoplasm of connective and soft tissue of hip	Cancer	2

B501000	Malignant neoplasm of connective tissue of orbit	Cancer	2
B201200	Malignant neoplasm of tympanic antrum	Cancer	2
B241400	Mesothelioma of pericardium	Cancer	2
ByuC000	[X]Malignant neoplasm of other specified sites	Cancer	2
B67z.00	Other specified leukaemia NOS	Cancer	2
B18y.00	Malignant neoplasm of specified parts of peritoneum	Cancer	2
B620z00	Nodular lymphoma NOS	Cancer	2
B327200	Malignant melanoma of knee	Cancer	2
B53..00	Malignant neoplasm of thyroid gland	Cancer	2
B545200	Malignant neoplasm of coccygeal body	Cancer	2
B65yz00	Other myeloid leukaemia NOS	Cancer	2
B431000	Malignant neoplasm of lower uterine segment	Cancer	2
ByuDF11	[X]Non-Hodgkin's lymphoma NOS	Cancer	2
B337900	Malignant neoplasm of skin of great toe	Cancer	2
B308600	Malignant neoplasm of cuboid	Cancer	2
Byu2100	[X]Malignant neoplasm/overlap lesion/heart,mediastinm	Cancer	2
B62x300	Malignant reticuloendotheliosis	Cancer	2
ZV10100	[V]Personal history of malig neop of trachea/bronchus/lung	Cancer	2
B000100	Malignant neoplasm of upper lip, lipstick area	Cancer	2
B611700	Hodgkin's granuloma of spleen	Cancer	2
B061.00	Malignant neoplasm of tonsillar fossa	Cancer	2
Byu8.00	[X]Malignant neoplasm of male genital organs	Cancer	2
B335700	Malignant neoplasm of skin of back	Cancer	2
Byu9000	[X]Malignant neoplasm of urinary	Cancer	2

	organ, unspecified		
B65y000	Aleukaemic myeloid leukaemia	Cancer	2
B01z.00	Malignant neoplasm of tongue NOS	Cancer	2
B33z000	Kaposi's sarcoma of skin	Cancer	2
B41y.00	Malignant neoplasm of other site of cervix	Cancer	2
B43z.00	Malignant neoplasm of body of uterus NOS	Cancer	2
B517300	Malignant neoplasm of pons	Cancer	2
B201100	Malignant neoplasm of tympanic cavity	Cancer	2
B20..00	Malig neop nasal cavities, middle ear and accessory sinuses	Cancer	2
B143.00	Malignant neoplasm of anus unspecified	Cancer	2
B623z00	Malignant histiocytosis NOS	Cancer	2
B14..00	Malignant neoplasm of rectum, rectosigmoid junction and anus	Cancer	2
B520100	Malignant neoplasm of optic nerve	Cancer	2
B485.00	Malignant neoplasm of spermatic cord	Cancer	2
B510500	Malignant neoplasm of thalamus	Cancer	2
B540000	Malignant neoplasm of adrenal cortex	Cancer	2
B314000	Malig neop of connective and soft tissue of abdominal wall	Cancer	2
B308D00	Malignant neoplasm of phalanges of foot	Cancer	2
B48y200	Malignant neoplasm, overlapping lesion male genital orgs	Cancer	2
B050.11	Malignant neoplasm of buccal mucosa	Cancer	2
B003z00	Malignant neoplasm of lower lip, inner aspect NOS	Cancer	2
B612300	Hodgkin's sarcoma of intra-abdominal lymph nodes	Cancer	2
ZV10513	[V]Personal history of malignant neoplasm of kidney	Cancer	2

B450z00	Malignant neoplasm of vagina NOS	Cancer	2
B62z000	Unspec malig neop lymphoid/histiocytic of unspecified site	Cancer	2
B020.00	Malignant neoplasm of parotid gland	Cancer	2
B67y.00	Other and unspecified leukaemia	Cancer	2
B000z00	Malignant neoplasm of upper lip, vermilion border NOS	Cancer	2
B622800	Sezary's disease of lymph nodes of multiple sites	Cancer	2
B01y.00	Malignant neoplasm of other sites of tongue	Cancer	2
B64y.00	Other lymphoid leukaemia	Cancer	2
B055000	Malignant neoplasm of junction of hard and soft palate	Cancer	2
B051.00	Malignant neoplasm of vestibule of mouth	Cancer	2
B614100	Hodgkin's nodular sclerosis of head, face and neck	Cancer	2
B004200	Malignant neoplasm of lip unspecified, mucosa	Cancer	2
B05z.00	Malignant neoplasm of mouth NOS	Cancer	2
B497.00	Malignant neoplasm of urachus	Cancer	2
B073.00	Malignant neoplasm of anterior wall of nasopharynx	Cancer	2
B670.00	Acute erythraemia and erythroleukaemia	Cancer	2
B24X.00	Malignant neoplasm of mediastinum, part unspecified	Cancer	2
B45z.00	Malignant neoplasm of female genital organ NOS	Cancer	2
B221000	Malignant neoplasm of carina of bronchus	Cancer	2
B138.00	Malignant neoplasm, overlapping lesion of colon	Cancer	2
B451.00	Malignant neoplasm of labia majora	Cancer	2

B512000	Malignant neoplasm of hippocampus	Cancer	2
B620100	Nodular lymphoma of lymph nodes of head, face and neck	Cancer	2
B310300	Malignant neoplasm of cartilage of ear	Cancer	2
B002000	Malignant neoplasm of upper lip, buccal aspect	Cancer	2
B430200	Malignant neoplasm of endometrium of corpus uteri	Cancer	2
B002z00	Malignant neoplasm of upper lip, inner aspect NOS	Cancer	2
B161000	Malignant neoplasm of cystic duct	Cancer	2
B062.00	Malignant neoplasm of tonsillar pillar	Cancer	2
ZV10200	[V]Personal history of malig neop other intrathoracic organ	Cancer	2
B24z.00	Malignant neoplasm of heart, thymus and mediastinum NOS	Cancer	2
B307000	Malignant neoplasm of femur	Cancer	2
B308200	Malignant neoplasm of calcaneum	Cancer	2
B308A00	Malignant neoplasm of third metatarsal bone	Cancer	2
B022.00	Malignant neoplasm of sublingual gland	Cancer	2
B32..00	Malignant melanoma of skin	Cancer	2
B627200	Follicular non-Hodgkin's large cell lymphoma	Cancer	2
B600600	Reticulosarcoma of intrapelvic lymph nodes	Cancer	2
B630.11	Kahler's disease	Cancer	2
B335z00	Malignant neoplasm of skin of trunk, excluding scrotum, NOS	Cancer	2
B111000	Malignant neoplasm of prepylorus of stomach	Cancer	2
B35z000	Malignant neoplasm of ectopic site of male breast	Cancer	2

B055z00	Malignant neoplasm of palate NOS	Cancer	2
B11y100	Malignant neoplasm of posterior wall of stomach NEC	Cancer	2
B300200	Malignant neoplasm of malar bone	Cancer	2
B50..00	Malignant neoplasm of eye	Cancer	2
B123.00	Malignant neoplasm of Meckel's diverticulum	Cancer	2
B50y.00	Malignant neoplasm of other specified site of eye	Cancer	2
B071z00	Malignant neoplasm of posterior wall of nasopharynx NOS	Cancer	2
B625500	Letterer-Siwe disease of lymph nodes inguinal region and leg	Cancer	2
B51y200	Malignant neoplasm, overlapping lesion of brain	Cancer	2
B054.00	Malignant neoplasm of uvula	Cancer	2
B120.00	Malignant neoplasm of duodenum	Cancer	2
B553000	Malignant neoplasm of inguinal region NOS	Cancer	2
ZV10.00	[V]Personal history of malignant neoplasm	Cancer	2
B23z.00	Malignant neoplasm of pleura NOS	Cancer	2
ZV10016	[V]Personal history of malignant neoplasm of oesophagus	Cancer	2
B602300	Burkitt's lymphoma of intra-abdominal lymph nodes	Cancer	2
B54..00	Malig neop of other endocrine glands and related structures	Cancer	2
B22..00	Malignant neoplasm of trachea, bronchus and lung	Cancer	2
B61z500	Hodgkin's disease NOS of lymph nodes inguinal region and leg	Cancer	2
B51..00	Malignant neoplasm of brain	Cancer	2
B600200	Reticulosarcoma of intrathoracic lymph	Cancer	2

	nodes		
B35..00	Malignant neoplasm of male breast	Cancer	2
B602000	Burkitt's lymphoma of unspecified site	Cancer	2
Byu8100	[X]Malignant neoplasm/overlapping lesion/male genital organs	Cancer	2
B071000	Malignant neoplasm of adenoid	Cancer	2
Byu4100	[X]Malignant melanoma of skin, unspecified	Cancer	2
ZV10412	[V]Personal history of malignant neoplasm of genital organ	Cancer	2
B621.00	Mycosis fungoides	Cancer	2
B62z100	Unspec malig neop lymphoid/histiocytic lymph node head/neck	Cancer	2
B25..00	Malig neo, overlapping lesion of heart, mediastinum & pleura	Cancer	2
ZV10017	[V]Personal history of malignant neoplasm of rectum	Cancer	2
B623000	Malignant histiocytosis of unspecified site	Cancer	2
B6y..00	Malignant neoplasm lymphatic or haematopoietic tissue OS	Cancer	2
B627300	Diffuse non-Hodgkin's small cell (diffuse) lymphoma	Cancer	2
B308000	Malignant neoplasm of patella	Cancer	2
B610100	Hodgkin's paragranuloma of lymph nodes of head, face, neck	Cancer	2
ZV10500	[V]Personal history of malignant neoplasm of urinary organ	Cancer	2
B51y000	Malignant neoplasm of corpus callosum	Cancer	2
B523000	Malignant neoplasm of spinal dura mater	Cancer	2
B310100	Malignant neoplasm of soft tissue of face	Cancer	2
B051100	Malignant neoplasm of lower buccal sulcus	Cancer	2

B327400	Malignant melanoma of lower leg	Cancer	2
B555.00	Malignant neoplasm of lower limb NOS	Cancer	2
B35zz00	Malignant neoplasm of male breast NOS	Cancer	2
B326500	Malignant melanoma of thumb	Cancer	2
B1zz.00	Malignant neoplasm of digestive tract and peritoneum NOS	Cancer	2
B332.00	Malignant neoplasm skin of ear and external auricular canal	Cancer	2
ZV10019	[V]Personal history of malignant neoplasm of tongue	Cancer	2
B335900	Malignant neoplasm of perianal skin	Cancer	2
Byu1300	[X]Malignant neoplsm/ill-defin sites within digestive system	Cancer	2
B013z00	Malignant neoplasm of ventral tongue surface NOS	Cancer	2
B601400	Lymphosarcoma of lymph nodes of axilla and upper limb	Cancer	2
B323500	Malignant melanoma of temple	Cancer	2
B51..11	Cerebral tumour - malignant	Cancer	2
B226.00	Mesothelioma	Cancer	2
B0...00	Malignant neoplasm of lip, oral cavity and pharynx	Cancer	2
B26..00	Malignant neoplasm, overlap lesion of resp & intrathor orgs	Cancer	2
B220z00	Malignant neoplasm of trachea NOS	Cancer	2
B62z500	Unspec malig neop lymphoid/histiocytic nodes inguinal/leg	Cancer	2
B616400	Hodgkin's lymphocytic depletion lymph nodes axilla and arm	Cancer	2
B611.00	Hodgkin's granuloma	Cancer	2
B16..00	Malignant neoplasm gallbladder and extrahepatic bile ducts	Cancer	2
B553100	Malignant neoplasm of presacral region	Cancer	2

B332z00	Malig neop skin of ear and external auricular canal NOS	Cancer	2
B333200	Malignant neoplasm of skin of eyebrow	Cancer	2
B2z0.00	Malig neop of upper respiratory tract, part unspecified	Cancer	2
B501z00	Malignant neoplasm of orbit NOS	Cancer	2
B300500	Malignant neoplasm of orbital bone	Cancer	2
B521z00	Malignant neoplasm of cerebral meninges NOS	Cancer	2
B624200	Leukaemic reticuloendotheliosis of intrathoracic lymph nodes	Cancer	2
B305.00	Malignant neoplasm of hand bones	Cancer	2
B315.00	Malignant neoplasm of connective and soft tissue of pelvis	Cancer	2
B615300	Hodgkin's mixed cellularity of intra-abdominal lymph nodes	Cancer	2
B200300	Malignant neoplasm of vestibule of nose	Cancer	2
ZV10417	[V]Personal history of malignant neoplasm of uterine body	Cancer	2
B060.00	Malignant neoplasm of tonsil	Cancer	2
B627C00	Follicular non-Hodgkin's lymphoma	Cancer	2
B136.00	Malignant neoplasm of ascending colon	Cancer	2
B221.00	Malignant neoplasm of main bronchus	Cancer	2
B615400	Hodgkin's mixed cellularity of lymph nodes of axilla and arm	Cancer	2
B00..00	Malignant neoplasm of lip	Cancer	2
B003000	Malignant neoplasm of lower lip, buccal aspect	Cancer	2
B671.11	Heilmeyer - Schoner disease	Cancer	2
B303z00	Malignant neoplasm of rib, sternum and clavicle NOS	Cancer	2
B131.00	Malignant neoplasm of transverse colon	Cancer	2
Byu5700	[X]Malignant neoplasm of peritoneum,	Cancer	2

	unspecified		
B010000	Malignant neoplasm of base of tongue dorsal surface	Cancer	2
B305400	Malignant neoplasm of carpal bone - trapezium	Cancer	2
B141.11	Carcinoma of rectum	Cancer	2
Byu3.00	[X]Malignant neoplasm of bone and articular cartilage	Cancer	2
B060z00	Malignant neoplasm tonsil NOS	Cancer	2
B336500	Malignant neoplasm of skin of thumb	Cancer	2
B300.00	Malignant neoplasm of bones of skull and face	Cancer	2
B625400	Letterer-Siwe disease of lymph nodes of axilla and arm	Cancer	2
B624800	Leukaemic reticuloend of lymph nodes of multiple sites	Cancer	2
B626800	Mast cell malignancy of lymph nodes of multiple sites	Cancer	2
Byu3100	[X]Malignant neoplasm/bones??? cartilage/limb,unspfd	Cancer	2
B006.00	Malignant neoplasm of overlapping lesion of lip	Cancer	2
ZV10413	[V]Personal history malignant neoplasm - male genital organ	Cancer	2
ZV10113	[V]Personal history of malignant neoplasm of trachea	Cancer	2
ZV10014	[V]Personal history of malignant neoplasm of large intestine	Cancer	2
B62x500	Malignant immunoproliferative small intestinal disease	Cancer	2
B470z00	Malignant neoplasm of undescended testis NOS	Cancer	2
ByuD600	[X]Other myeloid leukaemia	Cancer	2
B616700	Hodgkin's disease, lymphocytic depletion of spleen	Cancer	2

B306200	Malignant neoplasm of pubis	Cancer	2
B613800	Hodgkin's, lymphocytic-histiocytic pred of multiple sites	Cancer	2
B520200	Malignant neoplasm of acoustic nerve	Cancer	2
B621800	Mycosis fungoides of lymph nodes of multiple sites	Cancer	2
B62z800	Unspec malig neop lymphoid/histiocytic of multiple sites	Cancer	2
B622300	Sezary's disease of intra-abdominal lymph nodes	Cancer	2
B18yz00	Malignant neoplasm of specified parts of peritoneum NOS	Cancer	2
B626.00	Malignant mast cell tumours	Cancer	2
B324000	Malignant melanoma of scalp	Cancer	2
B621000	Mycosis fungoides of unspecified site	Cancer	2
B121.00	Malignant neoplasm of jejunum	Cancer	2
B1z1000	Angiosarcoma of spleen	Cancer	2
B480.00	Malignant neoplasm of prepuce (foreskin)	Cancer	2
B332100	Malignant neoplasm of skin of external auditory meatus	Cancer	2
B601.00	Lymphosarcoma	Cancer	2
B65..00	Myeloid leukaemia	Cancer	2
B170.00	Malignant neoplasm of head of pancreas	Cancer	2
B325000	Malignant melanoma of axilla	Cancer	2
B02..00	Malignant neoplasm of major salivary glands	Cancer	2
B051300	Malignant neoplasm of lower labial sulcus	Cancer	2
B307.00	Malignant neoplasm of long bones of leg	Cancer	2
ZV10600	[V]Personal history of leukaemia	Cancer	2
B124.00	Malignant neoplasm, overlapping lesion of small intestine	Cancer	2

B611800	Hodgkin's granuloma of lymph nodes of multiple sites	Cancer	2
B614800	Hodgkin's nodular sclerosis of lymph nodes of multiple sites	Cancer	2
B62z400	Unspec malig neop lymphoid/histiocytic lymph node axilla/arm	Cancer	2
ZV10212	[V]Personal history of malignant neoplasm of larynx	Cancer	2
B45y.00	Malignant neoplasm of other specified female genital organ	Cancer	2
B007.00	Malignant neoplasm of lip, unspecified	Cancer	2
B512z00	Malignant neoplasm of temporal lobe NOS	Cancer	2
B310400	Malignant neoplasm of tarsus of eyelid	Cancer	2
B13z.11	Colonic cancer	Cancer	2
B623800	Malignant histiocytosis of lymph nodes of multiple sites	Cancer	2
Byu7100	[X]Malignant neoplasm/other specified female genital organs	Cancer	2
B051200	Malignant neoplasm of upper labial sulcus	Cancer	2
B430100	Malignant neoplasm of fundus of corpus uteri	Cancer	2
B610500	Hodgkin's paragranuloma lymph nodes inguinal region and leg	Cancer	2
B223.00	Malignant neoplasm of middle lobe, bronchus or lung	Cancer	2
B545100	Malignant neoplasm of aortic body	Cancer	2
B08z.00	Malignant neoplasm of hypopharynx NOS	Cancer	2
B152.00	Malignant neoplasm of liver unspecified	Cancer	2
B1...00	Malignant neoplasm of digestive organs and peritoneum	Cancer	2
B323400	Malignant melanoma of external surface of nose	Cancer	2

B615z00	Hodgkin's disease, mixed cellularity NOS	Cancer	2
B613200	Hodgkin's, lymphocytic-histiocytic pred intrathoracic nodes	Cancer	2
B322100	Malignant melanoma of external auditory meatus	Cancer	2
B321.00	Malignant melanoma of eyelid including canthus	Cancer	2
B651200	Chronic neutrophilic leukaemia	Cancer	2
Byu..00	[X]Additional neoplasm classification terms	Cancer	2
Byu2000	[X]Malignant neoplasm of bronchus or lung, unspecified	Cancer	2
B6y1.11	Megakaryocytic myelosclerosis	Cancer	2
B626000	Mast cell malignancy of unspecified site	Cancer	2
B215.00	Malignant neoplasm of epiglottis NOS	Cancer	2
B0z0.00	Malignant neoplasm of pharynx unspecified	Cancer	2
ByuD800	[X]Other specified leukaemias	Cancer	2
B671.00	Chronic erythraemia	Cancer	2
B624100	Leukaemic reticuloend of lymph nodes of head, face and neck	Cancer	2
B541.00	Malignant neoplasm of parathyroid gland	Cancer	2
B545.00	Malignant neoplasm of aortic body and other paraganglia	Cancer	2
ZV10613	[V]Personal history of myeloid leukaemia	Cancer	2
B470200	Seminoma of undescended testis	Cancer	2
B626600	Mast cell malignancy of intrapelvic lymph nodes	Cancer	2
ByuA000	[X]Malignant neoplasm/other and unspecified cranial nerves	Cancer	2
B6z0.00	Kaposi's sarcoma of lymph nodes	Cancer	2

B674.00	Acute panmyelosis	Cancer	2
B614400	Hodgkin's nodular sclerosis of lymph nodes of axilla and arm	Cancer	2
B312z00	Malig neop connective and soft tissue hip and leg NOS	Cancer	2
B06y000	Malignant neoplasm of branchial cleft	Cancer	2
B602400	Burkitt's lymphoma of lymph nodes of axilla and upper limb	Cancer	2
B494.00	Malignant neoplasm of posterior wall of urinary bladder	Cancer	2
B335600	Malignant neoplasm of skin of perineum	Cancer	2
B45..00	Malig neop of other and unspecified female genital organs	Cancer	2
B336300	Malignant neoplasm of skin of hand	Cancer	2
B470300	Teratoma of undescended testis	Cancer	2
B3...12	Sarcoma of bone and connective tissue	Cancer	2
B62y700	Malignant lymphoma NOS of spleen	Cancer	2
B134.00	Malignant neoplasm of caecum	Cancer	2
B510200	Malignant neoplasm of corpus striatum	Cancer	2
ZV10512	[V]Personal history of malignant neoplasm of kidney	Cancer	2
B615.00	Hodgkin's disease, mixed cellularity	Cancer	2
Byu5500	[X]Mal neoplasm/overlap les/periph nerv??? nerv systm	Cancer	2
B48y.00	Malignant neoplasm of other male genital organ	Cancer	2
B051000	Malignant neoplasm of upper buccal sulcus	Cancer	2
B062000	Malignant neoplasm of faucial pillar	Cancer	2
B503.00	Malignant neoplasm of conjunctiva	Cancer	2
ByuD400	[X]Other malignant immunoproliferative diseases	Cancer	2
B610.00	Hodgkin's paragranuloma	Cancer	2

Byu5900	[X]Malignant neoplasm/connective soft tissue,unspecified	Cancer	2
B220000	Malignant neoplasm of cartilage of trachea	Cancer	2
B305300	Malignant neoplasm of carpal bone - pisiform	Cancer	2
B54z.00	Malig neop of endocrine gland or related structure NOS	Cancer	2
B13y.00	Malignant neoplasm of other specified sites of colon	Cancer	2
B450.00	Malignant neoplasm of vagina	Cancer	2
B40..00	Malignant neoplasm of uterus, part unspecified	Cancer	2
B001100	Malignant neoplasm of lower lip, lipstick area	Cancer	2
B51y.00	Malignant neoplasm of other parts of brain	Cancer	2
B545000	Malignant neoplasm of glomus jugulare	Cancer	2
B312300	Malig neop of connective and soft tissue of lower leg	Cancer	2
B12y.00	Malignant neoplasm of other specified site small intestine	Cancer	2
B602z00	Burkitt's lymphoma NOS	Cancer	2
B160.00	Malignant neoplasm of gallbladder	Cancer	2
B520000	Malignant neoplasm of olfactory bulb	Cancer	2
B13..00	Malignant neoplasm of colon	Cancer	2
B542.00	Malignant neoplasm pituitary gland and craniopharyngeal duct	Cancer	2
B335300	Malignant neoplasm of skin of abdominal wall	Cancer	2
B52X.00	Malignant neoplasm of meninges, unspecified	Cancer	2
B333.00	Malignant neoplasm skin of other and unspecified parts face	Cancer	2

B110111	Malignant neoplasm of gastro-oesophageal junction	Cancer	2
B306300	Malignant neoplasm of sacral vertebra	Cancer	2
B481.00	Malignant neoplasm of glans penis	Cancer	2
B61z800	Hodgkin's disease NOS of lymph nodes of multiple sites	Cancer	2
B62y200	Malignant lymphoma NOS of intrathoracic lymph nodes	Cancer	2
B507z00	Malignant neoplasm of lacrimal duct NOS	Cancer	2
B612z00	Hodgkin's sarcoma NOS	Cancer	2
B18y500	Malignant neoplasm of pelvic peritoneum	Cancer	2
B602700	Burkitt's lymphoma of spleen	Cancer	2
B614z00	Hodgkin's disease, nodular sclerosis NOS	Cancer	2
B073100	Malignant neoplasm of nasopharyngeal soft palate surface	Cancer	2
B616500	Hodgkin's lymphocytic depletion lymph nodes inguinal and leg	Cancer	2
B334.00	Malignant neoplasm of scalp and skin of neck	Cancer	2
B620700	Nodular lymphoma of spleen	Cancer	2
B61z700	Hodgkin's disease NOS of spleen	Cancer	2
B64yz00	Other lymphoid leukaemia NOS	Cancer	2
B612700	Hodgkin's sarcoma of spleen	Cancer	2
B551z00	Malignant neoplasm of thorax NOS	Cancer	2
B610300	Hodgkin's paragranuloma of intra-abdominal lymph nodes	Cancer	2
ZV10211	[V]Personal history of malignant neoplasm - accessory sinus	Cancer	2
B180z00	Malignant neoplasm of retroperitoneum NOS	Cancer	2

B304100	Malignant neoplasm of acromion	Cancer	2
B627W00	Unspecified B-cell non-Hodgkin's lymphoma	Cancer	2
B081.00	Malignant neoplasm of pyriform sinus	Cancer	2
B512.00	Malignant neoplasm of temporal lobe	Cancer	2
B064z00	Malignant neoplasm of anterior epiglottis NOS	Cancer	2
B213300	Malignant neoplasm of thyroid cartilage	Cancer	2
ZV10612	[V]Personal history of monocytic leukaemia	Cancer	2
B627100	Follicular non-Hodg mixed sml cleavd & lge cell lymphoma	Cancer	2
B084.00	Malignant neoplasm, overlapping lesion of hypopharynx	Cancer	2
B491.00	Malignant neoplasm of dome of urinary bladder	Cancer	2
B522.00	Malignant neoplasm of spinal cord	Cancer	2
B312600	Malig neop of connective and soft tissue of great toe	Cancer	2
B308800	Malignant neoplasm of first metatarsal bone	Cancer	2
B308z00	Malignant neoplasm of short bones of leg NOS	Cancer	2
B309.00	Malignant neoplasm, overlap les bone and artic cart of limbs	Cancer	2
B313000	Malignant neoplasm of connective and soft tissue of axilla	Cancer	2
B18y300	Malignant neoplasm of omentum	Cancer	2
B47z.12	Teratoma of testis	Cancer	2
B62xX00	Oth and unspecif peripheral & cutaneous T-cell lymphomas	Cancer	2
B303300	Malignant neoplasm of costal cartilage	Cancer	2
B451000	Malignant neoplasm of greater vestibular (Bartholin's) gland	Cancer	2

B620200	Nodular lymphoma of intrathoracic lymph nodes	Cancer	2
B627000	Follicular non-Hodgkin's small cleaved cell lymphoma	Cancer	2
B331.00	Malignant neoplasm of eyelid including canthus	Cancer	2
B33..15	Malignant neoplasm of sweat gland	Cancer	2
B327700	Malignant melanoma of foot	Cancer	2
B304z00	Malig neop of scapula and long bones of upper arm NOS	Cancer	2
Byu8200	[X]Malignant neoplasm of male genital organ, unspecified	Cancer	2
B610z00	Hodgkin's paragranuloma NOS	Cancer	2
B055100	Malignant neoplasm of roof of mouth	Cancer	2
B600z00	Reticulosarcoma NOS	Cancer	2
B336400	Malignant neoplasm of skin of finger	Cancer	2
Byu7000	[X]Malignant neoplasm of uterine adnexa, unspecified	Cancer	2
B105.00	Malignant neoplasm of lower third of oesophagus	Cancer	2
B470.00	Malignant neoplasm of undescended testis	Cancer	2
B616600	Hodgkin's lymphocytic depletion of intrapelvic lymph nodes	Cancer	2
B66y.00	Other monocytic leukaemia	Cancer	2
B11yz00	Malignant neoplasm of other specified site of stomach NOS	Cancer	2
B23..00	Malignant neoplasm of pleura	Cancer	2
B602500	Burkitt's lymphoma of lymph nodes of inguinal region and leg	Cancer	2
B060200	Malignant neoplasm of overlapping lesion of tonsil	Cancer	2
B4Ay.00	Malignant neoplasm of other urinary organs	Cancer	2

B614300	Hodgkin's nodular sclerosis of intra-abdominal lymph nodes	Cancer	2
B004.00	Malignant neoplasm of lip unspecified, inner aspect	Cancer	2
B511.00	Malignant neoplasm of frontal lobe	Cancer	2
B336000	Malignant neoplasm of skin of shoulder	Cancer	2
B61z100	Hodgkin's disease NOS of lymph nodes of head, face and neck	Cancer	2
B221z00	Malignant neoplasm of main bronchus NOS	Cancer	2
B43y.00	Malignant neoplasm of other site of uterine body	Cancer	2
B00..11	Carcinoma of lip	Cancer	2
B33..14	Malignant neoplasm of sebaceous gland	Cancer	2
B305C00	Malignant neoplasm of fifth metacarpal bone	Cancer	2
B614.00	Hodgkin's disease, nodular sclerosis	Cancer	2
B172.00	Malignant neoplasm of tail of pancreas	Cancer	2
B59zX00	Kaposi's sarcoma, unspecified	Cancer	2
B150300	Hepatocellular carcinoma	Cancer	2
B611100	Hodgkin's granuloma of lymph nodes of head, face and neck	Cancer	2
B621600	Mycosis fungoides of intrapelvic lymph nodes	Cancer	2
B015.00	Malignant neoplasm of tongue, junctional zone	Cancer	2
B213z00	Malignant neoplasm of laryngeal cartilage NOS	Cancer	2
B04..00	Malignant neoplasm of floor of mouth	Cancer	2
B331100	Malignant neoplasm of upper eyelid	Cancer	2
B30z000	Osteosarcoma	Cancer	2
B6y0.00	Myeloproliferative disorder	Cancer	2
B624500	Leukaemic reticuloend of lymph nodes	Cancer	2

	inguinal region and leg		
B012.00	Malignant neoplasm of tongue, tip and lateral border	Cancer	2
B305A00	Malignant neoplasm of third metacarpal bone	Cancer	2
B33..00	Other malignant neoplasm of skin	Cancer	2
ByuA200	[X]Malignant neoplasm of meninges, unspecified	Cancer	2
B640.00	Acute lymphoid leukaemia	Cancer	2
B62z300	Unspec malig neop lymphoid/histiocytic intra-abdominal nodes	Cancer	2
B614000	Hodgkin's disease, nodular sclerosis of unspecified site	Cancer	2
B010.11	Malignant neoplasm of posterior third of tongue	Cancer	2
B48yz00	Malignant neoplasm of other male genital organ NOS	Cancer	2
B510z00	Malignant neoplasm of cerebrum NOS	Cancer	2
B053.00	Malignant neoplasm of soft palate	Cancer	2
B311.00	Malig neop connective and soft tissue upper limb/shoulder	Cancer	2
B083.00	Malignant neoplasm of posterior pharynx	Cancer	2
B550100	Malignant neoplasm of cheek NOS	Cancer	2
ZV10013	[V]Personal history of malignant neoplasm of intestine	Cancer	2
B135.00	Malignant neoplasm of appendix	Cancer	2
B487.00	Malignant neoplasm, overlapping lesion of penis	Cancer	2
B151z00	Malignant neoplasm of intrahepatic bile ducts NOS	Cancer	2
B65y.00	Other myeloid leukaemia	Cancer	2
B64..11	Lymphatic leukaemia	Cancer	2

B151300	Malignant neoplasm of intrahepatic canaliculi	Cancer	2
B01..00	Malignant neoplasm of tongue	Cancer	2
B074.00	Malignant neoplasm, overlapping lesion of nasopharynx	Cancer	2
B110z00	Malignant neoplasm of cardia of stomach NOS	Cancer	2
B326200	Malignant melanoma of fore-arm	Cancer	2
B308300	Malignant neoplasm of medial cuneiform	Cancer	2
B122.00	Malignant neoplasm of ileum	Cancer	2
B064000	Malignant neoplasm of epiglottis, free border	Cancer	2
B017.00	Malignant overlapping lesion of tongue	Cancer	2
B2zz.00	Malignant neoplasm of respiratory tract NOS	Cancer	2
ZV10300	[V]Personal history of malignant neoplasm of breast	Cancer	2
B651.00	Chronic myeloid leukaemia	Cancer	2
B300400	Malignant neoplasm of occipital bone	Cancer	2
B32y.00	Malignant melanoma of other specified skin site	Cancer	2
B44y.00	Malignant neoplasm of other site of uterine adnexa	Cancer	2
B10y.00	Malignant neoplasm of other specified part of oesophagus	Cancer	2
B46..00	Malignant neoplasm of prostate	Cancer	2
B00z000	Malignant neoplasm of lip, unspecified, external	Cancer	2
B210.00	Malignant neoplasm of glottis	Cancer	2
B162.00	Malignant neoplasm of ampulla of Vater	Cancer	2
B206.00	Malignant neoplasm, overlapping lesion of accessory sinuses	Cancer	2

B110000	Malignant neoplasm of cardiac orifice of stomach	Cancer	2
B11y.00	Malignant neoplasm of other specified site of stomach	Cancer	2
B306400	Malignant neoplasm of coccygeal vertebra	Cancer	2
B325z00	Malignant melanoma of trunk, excluding scrotum, NOS	Cancer	2
B300100	Malignant neoplasm of frontal bone	Cancer	2
B300300	Malignant neoplasm of nasal bone	Cancer	2
ZV10711	[V]Personal history of Hodgkin's disease	Cancer	2
B142.11	Anal carcinoma	Cancer	2
B305500	Malignant neoplasm of carpal bone - trapezoid	Cancer	2
B308400	Malignant neoplasm of intermediate cuneiform	Cancer	2
B551.00	Malignant neoplasm of thorax	Cancer	2
B4...11	Carcinoma of genitourinary organ	Cancer	2
B500.00	Malig neop eyeball excl conjunctiva, cornea, retina, choroid	Cancer	2
B314.00	Malignant neoplasm of connective and soft tissue of abdomen	Cancer	2
B335800	Malignant neoplasm of skin of buttock	Cancer	2
B642.00	Subacute lymphoid leukaemia	Cancer	2
B312500	Malignant neoplasm of connective and soft tissue of toe	Cancer	2
B305900	Malignant neoplasm of second metacarpal bone	Cancer	2
B325400	Malignant melanoma of perianal skin	Cancer	2
B484.00	Malignant neoplasm of epididymis	Cancer	2
B48y100	Malignant neoplasm of tunica vaginalis	Cancer	2
B60y.00	Other specified reticulosarcoma or lymphosarcoma	Cancer	2

B624700	Leukaemic reticuloendotheliosis of spleen	Cancer	2
B142.00	Malignant neoplasm of anal canal	Cancer	2
B300A00	Malignant neoplasm of maxilla	Cancer	2
Byu4200	[X]Oth malignant neoplasm/skin of oth??? parts of face	Cancer	2
B336100	Malignant neoplasm of skin of upper arm	Cancer	2
ZV10015	[V]Personal history of malignant neoplasm of liver	Cancer	2
B47..00	Malignant neoplasm of testis	Cancer	2
B611400	Hodgkin's granuloma of lymph nodes of axilla and upper limb	Cancer	2
B4A4.00	Malignant neoplasm of paraurethral glands	Cancer	2
B515z00	Malignant neoplasm of cerebral ventricle NOS	Cancer	2
B332200	Malignant neoplasm of pinna NEC	Cancer	2
B540100	Malignant neoplasm of adrenal medulla	Cancer	2
B300900	Malignant neoplasm of zygomatic bone	Cancer	2
B325.00	Malignant melanoma of trunk (excluding scrotum)	Cancer	2
B1z0.00	Malignant neoplasm of intestinal tract, part unspecified	Cancer	2
B161300	Malignant neoplasm of sphincter of Oddi	Cancer	2
B002100	Malignant neoplasm of upper lip, frenulum	Cancer	2
B621700	Mycosis fungoides of spleen	Cancer	2
B542z00	Malig neop pituitary gland or craniopharyngeal duct NOS	Cancer	2
Bz...00	Neoplasms NOS	Cancer	2
B151100	Malignant neoplasm of interlobular biliary canals	Cancer	2

B601300	Lymphosarcoma of intra-abdominal lymph nodes	Cancer	2
B112.00	Malignant neoplasm of pyloric antrum of stomach	Cancer	2
B507000	Malignant neoplasm of lacrimal sac	Cancer	2
B623500	Malignant histiocytosis of lymph nodes inguinal and leg	Cancer	2
B2zy.00	Malignant neoplasm of other site of respiratory tract	Cancer	2
B055.00	Malignant neoplasm of palate unspecified	Cancer	2
B630100	Solitary myeloma	Cancer	2
B672.11	Thrombocytic leukaemia	Cancer	2
B016.00	Malignant neoplasm of lingual tonsil	Cancer	2
B002.00	Malignant neoplasm of upper lip, inner aspect	Cancer	2
B613000	Hodgkin's, lymphocytic-histiocytic predominance unspec site	Cancer	2
B350100	Malignant neoplasm of areola of male breast	Cancer	2
B622200	Sezary's disease of intrathoracic lymph nodes	Cancer	2
B115.00	Malignant neoplasm of lesser curve of stomach unspecified	Cancer	2
B505.00	Malignant neoplasm of retina	Cancer	2
B130.00	Malignant neoplasm of hepatic flexure of colon	Cancer	2
B692.00	Subacute myelomonocytic leukaemia	Cancer	2
B1z0.11	Cancer of bowel	Cancer	2
B601100	Lymphosarcoma of lymph nodes of head, face and neck	Cancer	2
B493.00	Malignant neoplasm of anterior wall of urinary bladder	Cancer	2
B6...11	Malignant neoplasm of histiocytic tissue	Cancer	2

B62yz00	Malignant lymphoma NOS	Cancer	2
B641.11	Chronic lymphatic leukaemia	Cancer	2
B243.00	Malignant neoplasm of posterior mediastinum	Cancer	2
B625800	Letterer-Siwe disease of lymph nodes of multiple sites	Cancer	2
B33X.00	Malignant neoplasm overlapping lesion of skin	Cancer	2
B161211	Carcinoma common bile duct	Cancer	2
B613700	Hodgkin's, lymphocytic-histiocytic predominance of spleen	Cancer	2
B623400	Malignant histiocytosis of lymph nodes of axilla and arm	Cancer	2
B612200	Hodgkin's sarcoma of intrathoracic lymph nodes	Cancer	2
Byu7.00	[X]Malignant neoplasm of female genital organs	Cancer	2
B1z1z00	Malignant neoplasm of spleen NOS	Cancer	2
B673.00	Mast cell leukaemia	Cancer	2
B4A0000	Hypernephroma	Cancer	2
ByuD100	[X]Other types of follicular non-Hodgkin's lymphoma	Cancer	2
B453.00	Malignant neoplasm of clitoris	Cancer	2
B47z.11	Seminoma of testis	Cancer	2
B623200	Malignant histiocytosis of intrathoracic lymph nodes	Cancer	2
B15z.00	Malignant neoplasm of liver and intrahepatic bile ducts NOS	Cancer	2
B627.00	Non - Hodgkin's lymphoma	Cancer	2
B07y.00	Malignant neoplasm of other specified site of nasopharynx	Cancer	2
B600500	Reticulosarcoma of lymph nodes of inguinal region and leg	Cancer	2

B470100	Malignant neoplasm of retained testis	Cancer	2
B611500	Hodgkin's granuloma lymph nodes of inguinal region and leg	Cancer	2
B520.00	Malignant neoplasm of cranial nerves	Cancer	2
B14z.00	Malignant neoplasm rectum,rectosigmoid junction and anus NOS	Cancer	2
B151400	Malignant neoplasm of intrahepatic gall duct	Cancer	2
B16z.00	Malignant neoplasm gallbladder/extrahepatic bile ducts NOS	Cancer	2
B241200	Malignant neoplasm of myocardium	Cancer	2
ByuA300	[X]Malig neopl, overlap lesion brain & other part of CNS	Cancer	2
B057.00	Overlapping lesion of other and unspecified parts of mouth	Cancer	2
B302000	Malignant neoplasm of cervical vertebra	Cancer	2
B524200	Malignant neoplasm of peripheral nerve of low limb, incl hip	Cancer	2
ZV10611	[V]Personal history of lymphoid leukaemia	Cancer	2
B051z00	Malignant neoplasm of vestibule of mouth NOS	Cancer	2
B050.00	Malignant neoplasm of cheek mucosa	Cancer	2
B161100	Malignant neoplasm of hepatic duct	Cancer	2
B66yz00	Other monocytic leukaemia NOS	Cancer	2
B325300	Malignant melanoma of groin	Cancer	2
B336.00	Malignant neoplasm of skin of upper limb and shoulder	Cancer	2
ByuD500	[X]Other lymphoid leukaemia	Cancer	2
B116.00	Malignant neoplasm of greater curve of stomach unspecified	Cancer	2
B41yz00	Malignant neoplasm of other site of cervix NOS	Cancer	2

B003200	Malignant neoplasm of lower lip, mucosa	Cancer	2
B4A1100	Malignant neoplasm of ureteropelvic junction	Cancer	2
B510.00	Malignant neoplasm cerebrum (excluding lobes and ventricles)	Cancer	2
B151.00	Malignant neoplasm of intrahepatic bile ducts	Cancer	2
B200.00	Malignant neoplasm of nasal cavities	Cancer	2
B104.00	Malignant neoplasm of middle third of oesophagus	Cancer	2
B111z00	Malignant neoplasm of pylorus of stomach NOS	Cancer	2
B553200	Malignant neoplasm of sacrococcygeal region	Cancer	2
B241z00	Malignant neoplasm of heart NOS	Cancer	2
B440.11	Cancer of ovary	Cancer	2
B34z.00	Malignant neoplasm of female breast NOS	Cancer	2
B542100	Malignant neoplasm of craniopharyngeal duct	Cancer	2
Byu3000	[X]Mal neoplasm/overlap lesion/bone??? cartilage/limb	Cancer	2
B622400	Sezary's disease of lymph nodes of axilla and upper limb	Cancer	2
B625z00	Letterer-Siwe disease NOS	Cancer	2
B3z..00	Malig neop of bone, connective tissue, skin and breast NOS	Cancer	2
B515000	Malignant neoplasm of choroid plexus	Cancer	2
B653.00	Myeloid sarcoma	Cancer	2
B222.11	Pancoast's syndrome	Cancer	2
B62x600	True histiocytic lymphoma	Cancer	2
B616300	Hodgkin's lymphocytic depletion intra-abdominal lymph nodes	Cancer	2

B600800	Reticulosarcoma of lymph nodes of multiple sites	Cancer	2
B624.11	Leukaemic reticuloendotheliosis	Cancer	2
B4A0.00	Malignant neoplasm of kidney parenchyma	Cancer	2
B07..00	Malignant neoplasm of nasopharynx	Cancer	2
B601000	Lymphosarcoma of unspecified site	Cancer	2
B615700	Hodgkin's disease, mixed cellularity of spleen	Cancer	2
B324z00	Malignant melanoma of scalp and neck NOS	Cancer	2
B601z00	Lymphosarcoma NOS	Cancer	2
B653100	Granulocytic sarcoma	Cancer	2
Byu5300	[X]Kaposi's sarcoma, unspecified	Cancer	2
ZV10415	[V]Personal history of malignant neoplasm of prostate	Cancer	2
B05z000	Kaposi's sarcoma of palate	Cancer	2
B61z200	Hodgkin's disease NOS of intrathoracic lymph nodes	Cancer	2
B307200	Malignant neoplasm of tibia	Cancer	2
B627X00	Diffuse non-Hodgkin's lymphoma, unspecified	Cancer	2
ZV10y12	[V]Personal history of malignant neoplasm of brain	Cancer	2
B621200	Mycosis fungoides of intrathoracic lymph nodes	Cancer	2
B300800	Malignant neoplasm of temporal bone	Cancer	2
B214.00	Malignant neoplasm, overlapping lesion of larynx	Cancer	2
B200200	Malignant neoplasm of septum of nose	Cancer	2
B306000	Malignant neoplasm of ilium	Cancer	2
B48y000	Malignant neoplasm of seminal vesicle	Cancer	2
B06..00	Malignant neoplasm of oropharynx	Cancer	2

B55..00	Malignant neoplasm of other and ill-defined sites	Cancer	2
B350000	Malignant neoplasm of nipple of male breast	Cancer	2
B31y.00	Malig neop connective and soft tissue other specified site	Cancer	2
Byu8000	[X]Malignant neoplasm/other specified male genital organs	Cancer	2
B613500	Hodgkin's, lymphocytic-histiocytic pred inguinal and leg	Cancer	2
B312.00	Malig neop of connective and soft tissue of hip and leg	Cancer	2
B613600	Hodgkin's, lymphocytic-histiocytic pred intrapelvic nodes	Cancer	2
B550000	Malignant neoplasm of head NOS	Cancer	2
B071100	Malignant neoplasm of pharyngeal tonsil	Cancer	2
B05y.00	Malignant neoplasm of other specified mouth parts	Cancer	2
B44..00	Malignant neoplasm of ovary and other uterine adnexa	Cancer	2
B0z2.00	Malignant neoplasm of laryngopharynx	Cancer	2
B432.00	Malignant neoplasm of overlapping lesion of corpus uteri	Cancer	2
B20z.00	Malignant neoplasm of accessory sinus NOS	Cancer	2
ZV10z00	[V]Personal history of unspecified malignant neoplasm	Cancer	2
ZV10y15	[V]Personal history of malignant neoplasm of thyroid	Cancer	2
B14y.00	Malig neop other site rectum, rectosigmoid junction and anus	Cancer	2
B171.00	Malignant neoplasm of body of pancreas	Cancer	2
B624600	Leukaemic reticuloendotheliosis of intrapelvic lymph nodes	Cancer	2
B626700	Mast cell malignancy of spleen	Cancer	2

B64z.00	Lymphoid leukaemia NOS	Cancer	2
B201300	Malignant neoplasm of mastoid air cells	Cancer	2
B614200	Hodgkin's nodular sclerosis of intrathoracic lymph nodes	Cancer	2
B543.00	Malignant neoplasm of pineal gland	Cancer	2
B151200	Malignant neoplasm of intrahepatic biliary passages	Cancer	2
B551100	Malignant neoplasm of chest wall NOS	Cancer	2
B524500	Malignant neoplasm of peripheral nerve of pelvis	Cancer	2
B623.00	Malignant histiocytosis	Cancer	2
B610000	Hodgkin's paragranuloma of unspecified site	Cancer	2
B614700	Hodgkin's disease, nodular sclerosis of spleen	Cancer	2
B4A..11	Renal malignant neoplasm	Cancer	2
B550500	Malignant neoplasm of supraclavicular fossa NOS	Cancer	2
B624000	Leukaemic reticuloendotheliosis of unspecified sites	Cancer	2
B320.00	Malignant melanoma of lip	Cancer	2
B08y.00	Malignant neoplasm of other specified hypopharyngeal site	Cancer	2
B62y800	Malignant lymphoma NOS of lymph nodes of multiple sites	Cancer	2
B340000	Malignant neoplasm of nipple of female breast	Cancer	2
B625100	Letterer-Siwe disease of lymph nodes of head, face and neck	Cancer	2
B323200	Malignant melanoma of eyebrow	Cancer	2
B327600	Malignant melanoma of heel	Cancer	2
B34..11	Ca female breast	Cancer	2
B525.00	Malignant neoplasm of cauda equina	Cancer	2

B66..11	Histiocytic leukaemia	Cancer	2
B18y200	Malignant neoplasm of mesorectum	Cancer	2
B4Ay000	Malignant neoplasm of overlapping lesion of urinary organs	Cancer	2
B224000	Malignant neoplasm of lower lobe bronchus	Cancer	2
B31z.00	Malignant neoplasm of connective and soft tissue, site NOS	Cancer	2
B311400	Malignant neoplasm of connective and soft tissue of finger	Cancer	2
B323z00	Malignant melanoma of face NOS	Cancer	2
B333400	Malignant neoplasm of skin of nose (external)	Cancer	2
B073200	Malignant neoplasm posterior margin nasal septum and choanae	Cancer	2
B313200	Malignant neoplasm of great vessels	Cancer	2
B052.00	Malignant neoplasm of hard palate	Cancer	2
B305200	Malignant neoplasm of carpal bone - triquetrum	Cancer	2
B343.00	Malignant neoplasm of lower-inner quadrant of female breast	Cancer	2
B62zz11	Immunoproliferative neoplasm	Cancer	2
B602100	Burkitt's lymphoma of lymph nodes of head, face and neck	Cancer	2
B521100	Malignant neoplasm of cerebral arachnoid mater	Cancer	2
B35z.00	Malignant neoplasm of other site of male breast	Cancer	2
B627800	Diffuse non-Hodgkin's lymphoma undifferentiated (diffuse)	Cancer	2
B611300	Hodgkin's granuloma of intra-abdominal lymph nodes	Cancer	2
B021.00	Malignant neoplasm of submandibular gland	Cancer	2

B031.00	Malignant neoplasm of lower gum	Cancer	2
B324.00	Malignant melanoma of scalp and neck	Cancer	2
B451z00	Malignant neoplasm of labia majora NOS	Cancer	2
B34yz00	Malignant neoplasm of other site of female breast NOS	Cancer	2
B15..00	Malignant neoplasm of liver and intrahepatic bile ducts	Cancer	2
B308500	Malignant neoplasm of lateral cuneiform	Cancer	2
B202.00	Malignant neoplasm of maxillary sinus	Cancer	2
B613400	Hodgkin's, lymphocytic-histiocytic pred axilla and arm	Cancer	2
B614600	Hodgkin's nodular sclerosis of intrapelvic lymph nodes	Cancer	2
ZV10213	[V]Personal history of malignant neoplasm of middle ear	Cancer	2
G852300	Oesophageal varices in alcoholic cirrhosis of the liver	Mod liver disease	3
J62z.00	Liver abscess and chronic liver disease causing sequelae NOS	Mod liver disease	3
G851.00	Oesophageal varices without bleeding	Mod liver disease	3
Gyu9400	[X]Oesophageal varices in diseases classified elsewhere	Mod liver disease	3
J62y.00	Other sequelae of chronic liver disease	Mod liver disease	3
G852000	Oesophageal varices with bleeding in diseases EC	Mod liver disease	3
J624.00	Hepatorenal syndrome	Mod liver disease	3
G850.00	Oesophageal varices with bleeding	Mod liver disease	3
G852.00	Oesophageal varices in diseases EC	Mod liver disease	3
J622.00	Hepatic coma	Mod liver	3

		disease	
G858.00	Oesophageal varices NOS	Mod liver disease	3
G85..11	Oesophageal varices	Mod liver disease	3
J623.00	Portal hypertension	Mod liver disease	3
G852200	Oesophageal varices in cirrhosis of the liver	Mod liver disease	3
A704z00	Other specified viral hepatitis with hepatic coma NOS	Mod liver disease	3
760F300	Rigid oesophagoscopic injection sclerotherapy oesoph varices	Mod liver disease	3
G852100	Oesophageal varices without bleeding in diseases EC	Mod liver disease	3
G852z00	Oesophageal varices in diseases EC NOS	Mod liver disease	3
B561400	Secondary and unspec malig neop post mediastinal lymph nodes	Metastatic tumour	6
B58y900	Secondary malignant neoplasm of tongue	Metastatic tumour	6
B5y..00	Malignant neoplasm of other and unspecified site OS	Metastatic tumour	6
B562300	Secondary and unspec malig neop common iliac lymph nodes	Metastatic tumour	6
B563300	Secondary and unspec malig neop pectoral lymph nodes	Metastatic tumour	6
B575.00	Secondary malignant neoplasm of large intestine and rectum	Metastatic tumour	6
B575100	Secondary malignant neoplasm of rectum	Metastatic tumour	6
B58y300	Secondary malignant neoplasm of vagina	Metastatic tumour	6
B5z..00	Malignant neoplasm of other and unspecified site NOS	Metastatic tumour	6
B58y411	Secondary cancer of the vulva	Metastatic	6

		tumour	
B564200	Secondary and unspec malig neop popliteal lymph nodes	Metastatic tumour	6
B58y600	Secondary malignant neoplasm of testis	Metastatic tumour	6
B586.00	Secondary malignant neoplasm of ovary	Metastatic tumour	6
B573.00	Secondary malignant neoplasm of other respiratory organs	Metastatic tumour	6
B593.00	Primary malignant neoplasm of unknown site	Metastatic tumour	6
B58..00	Secondary malignant neoplasm of other specified sites	Metastatic tumour	6
B581200	Secondary malignant neoplasm of urethra	Metastatic tumour	6
B563100	Secondary and unspec malig neop supratrochlear lymph nodes	Metastatic tumour	6
B56..11	Lymph node metastases	Metastatic tumour	6
B574200	Secondary malignant neoplasm of ileum	Metastatic tumour	6
ByuC.00	[X]Malignant neoplasm of ill-defined, secondary and unspeci	Metastatic tumour	6
B58y800	Secondary malignant neoplasm of epididymis and vas deferens	Metastatic tumour	6
B561300	Secondary and unspec malig neop ant mediastinal lymph nodes	Metastatic tumour	6
B58yz00	Secondary malignant neoplasm of other specified site NOS	Metastatic tumour	6
B574z00	Secondary malig neop of small intestine or duodenum NOS	Metastatic tumour	6
B560500	Secondary and unspec malig neop submandibular lymph nodes	Metastatic tumour	6
B562.00	Secondary and unspec malig neop intra-abdominal lymph nodes	Metastatic tumour	6
B562000	Secondary and unspec malig neop	Metastatic	6

	coeliac lymph nodes	tumour	
B576z00	Secondary malig neop of retroperitoneum or peritoneum NOS	Metastatic tumour	6
B561800	Secondary and unspec malig neop bronchopulmonary lymph nodes	Metastatic tumour	6
B560700	Secondary and unspec malig neop submental lymph nodes	Metastatic tumour	6
B562100	Secondary and unspec malig neop superficial mesenteric LN	Metastatic tumour	6
B56..00	Secondary and unspecified malignant neoplasm of lymph nodes	Metastatic tumour	6
B574000	Secondary malignant neoplasm of duodenum	Metastatic tumour	6
B564000	Secondary and unspec malig neop superficial inguinal LN	Metastatic tumour	6
B582100	Secondary malignant neoplasm of skin of face	Metastatic tumour	6
B577.11	Liver metastases	Metastatic tumour	6
B564100	Secondary and unspec malig neop deep inguinal lymph nodes	Metastatic tumour	6
B574100	Secondary malignant neoplasm of jejunum	Metastatic tumour	6
B56y.00	Secondary and unspec malig neop lymph nodes multiple sites	Metastatic tumour	6
B590.11	Carcinomatosis	Metastatic tumour	6
B582000	Secondary malignant neoplasm of skin of head	Metastatic tumour	6
B583z00	Secondary malignant neoplasm of brain or spinal cord NOS	Metastatic tumour	6
B576.00	Secondary malig neop of retroperitoneum and peritoneum	Metastatic tumour	6
B153.00	Secondary malignant neoplasm of liver	Metastatic tumour	6
B565.00	Secondary and unspec malig neop	Metastatic	6

	intrapelvic lymph nodes	tumour	
B563z00	Secondary and unspec malig neop axilla and upper limb LN NOS	Metastatic tumour	6
B58y.00	Secondary malignant neoplasm of other specified sites	Metastatic tumour	6
B572.00	Secondary malignant neoplasm of pleura	Metastatic tumour	6
B57..12	Secondary carcinoma of respiratory and/or digestive systems	Metastatic tumour	6
B560100	Secondary and unspec malignant neoplasm mastoid lymph nodes	Metastatic tumour	6
B582300	Secondary malignant neoplasm of skin of trunk	Metastatic tumour	6
B57..00	Secondary malig neop of respiratory and digestive systems	Metastatic tumour	6
B561200	Secondary and unspec malig neop diaphragmatic lymph nodes	Metastatic tumour	6
B592.00	Malignant neoplasms of independent (primary) multiple sites	Metastatic tumour	6
B582500	Secondary malignant neoplasm of skin of hip and leg	Metastatic tumour	6
B581100	Secondary malignant neoplasm of bladder	Metastatic tumour	6
B560200	Secondary and unspec malig neop superficial cervical LN	Metastatic tumour	6
B583100	Secondary malignant neoplasm of spinal cord	Metastatic tumour	6
B59z.00	Malignant neoplasm of unspecified site NOS	Metastatic tumour	6
B561600	Secondary and unspec malig neop superfic tracheobronchial LN	Metastatic tumour	6
B564.00	Secondary and unspec malig neop inguinal and lower limb LN	Metastatic tumour	6
B576000	Secondary malignant neoplasm of retroperitoneum	Metastatic tumour	6
B560000	Secondary and unspec malig neop of	Metastatic	6

	superficial parotid LN	tumour	
B561700	Secondary and unspec malig neop inferior tracheobronchial LN	Metastatic tumour	6
B563.00	Secondary and unspec malig neop axilla and upper limb LN	Metastatic tumour	6
B592X00	Kaposi's sarcoma of multiple organs	Metastatic tumour	6
B58y500	Secondary malignant neoplasm of prostate	Metastatic tumour	6
B58y200	Secondary malignant neoplasm of cervix uteri	Metastatic tumour	6
B58y211	Secondary cancer of the cervix	Metastatic tumour	6
B57z.00	Secondary malig neop of respiratory or digestive system NOS	Metastatic tumour	6
B582400	Secondary malignant neoplasm of skin of shoulder and arm	Metastatic tumour	6
B587.00	Secondary malignant neoplasm of adrenal gland	Metastatic tumour	6
B582200	Secondary malignant neoplasm of skin of neck	Metastatic tumour	6
B581.00	Secondary malignant neoplasm of other urinary organs	Metastatic tumour	6
B58y000	Secondary malignant neoplasm of breast	Metastatic tumour	6
B590.00	Disseminated malignancy NOS	Metastatic tumour	6
B57..11	Metastases of respiratory and/or digestive systems	Metastatic tumour	6
B58y700	Secondary malignant neoplasm of penis	Metastatic tumour	6
B565200	Secondary and unspec malig neop circumflex iliac LN	Metastatic tumour	6
B58y400	Secondary malignant neoplasm of vulva	Metastatic tumour	6
B575000	Secondary malignant neoplasm of colon	Metastatic	6

		tumour	
B561000	Secondary and unspec malig neop internal mammary lymph nodes	Metastatic tumour	6
B583000	Secondary malignant neoplasm of brain	Metastatic tumour	6
B58y100	Secondary malignant neoplasm of uterus	Metastatic tumour	6
B565300	Secondary and unspec malig neop sacral lymph nodes	Metastatic tumour	6
B582z00	Secondary malignant neoplasm of skin NOS	Metastatic tumour	6
B565100	Secondary and unspec malig neop inferior epigastric LN	Metastatic tumour	6
B582600	Secondary malignant neoplasm of skin of breast	Metastatic tumour	6
B585000	Pathological fracture due to metastatic bone disease	Metastatic tumour	6
ByuC100	[X]Malignant neoplasm/overlap lesion/other?defined sites	Metastatic tumour	6
B560600	Secondary and unspec malig neop of facial lymph nodes	Metastatic tumour	6
B560900	Secondary and unspec malig neop deep cervical LN	Metastatic tumour	6
ByuC700	[X]Secondary malignant neoplasm of other specified sites	Metastatic tumour	6
B562z00	Secondary and unspec malig neop intra-abdominal LN NOS	Metastatic tumour	6
B571.00	Secondary malignant neoplasm of mediastinum	Metastatic tumour	6
B560800	Secondary and unspec malig neop anterior cervical LN	Metastatic tumour	6
B580.00	Secondary malignant neoplasm of kidney	Metastatic tumour	6
B563000	Secondary and unspec malig neop axillary lymph nodes	Metastatic tumour	6
B560.00	Secondary and unspec malig neop lymph	Metastatic	6

	nodes head/face/neck	tumour	
ByuC800	[X]Malignant neoplasm without specification of site	Metastatic tumour	6
B560z00	Secondary unspec malig neop lymph nodes head/face/neck NOS	Metastatic tumour	6
B575z00	Secondary malig neop of large intestine or rectum NOS	Metastatic tumour	6
B583200	Cerebral metastasis	Metastatic tumour	6
ByuC500	[X]2ndry malignant neoplasm/bladder??? urinary organs	Metastatic tumour	6
B570.00	Secondary malignant neoplasm of lung	Metastatic tumour	6
B58z.00	Secondary malignant neoplasm of other specified site NOS	Metastatic tumour	6
B577.00	Secondary malignant neoplasm of liver	Metastatic tumour	6
B56z.00	Secondary and unspec malig neop lymph nodes NOS	Metastatic tumour	6
B565000	Secondary and unspec malig neop internal iliac lymph nodes	Metastatic tumour	6
B591.00	Other malignant neoplasm NOS	Metastatic tumour	6
ByuC400	[X]Secondary malignant neoplasm/oth?? digestive organs	Metastatic tumour	6
B563200	Secondary and unspec malig neop infraclavicular lymph nodes	Metastatic tumour	6
B564z00	Secondary and unspec malig neop of inguinal and leg LN NOS	Metastatic tumour	6
ByuC300	[X]Secondary malignant neoplasm/oth? respiratory organs	Metastatic tumour	6
B582.00	Secondary malignant neoplasm of skin	Metastatic tumour	6
B581z00	Secondary malignant neoplasm of other urinary organ NOS	Metastatic tumour	6
B561100	Secondary and unspec malig neop	Metastatic	6

	intercostal lymph nodes	tumour	
B581000	Secondary malignant neoplasm of ureter	Metastatic tumour	6
B585.00	Secondary malignant neoplasm of bone and bone marrow	Metastatic tumour	6
B565z00	Secondary and unspec malig neop intrapelvic LN NOS	Metastatic tumour	6
B562400	Secondary and unspec malig neop external iliac lymph nodes	Metastatic tumour	6
B583.00	Secondary malignant neoplasm of brain and spinal cord	Metastatic tumour	6
B561.00	Secondary and unspec malig neop intrathoracic lymph nodes	Metastatic tumour	6
B576200	Malignant ascites	Metastatic tumour	6
B574.00	Secondary malignant neoplasm of small intestine and duodenum	Metastatic tumour	6
B594.00	Secondary malignant neoplasm of unknown site	Metastatic tumour	6
B584.00	Secondary malignant neoplasm of other part of nervous system	Metastatic tumour	6
B562200	Secondary and unspec malig neop inferior mesenteric LN	Metastatic tumour	6
B58..11	Secondary carcinoma of other specified sites	Metastatic tumour	6
ByuC200	[X]2ndry?? malignant neoplasm lymph nodes/multi regions	Metastatic tumour	6
B57y.00	Secondary malignant neoplasm of other digestive organ	Metastatic tumour	6
B59..00	Malignant neoplasm of unspecified site	Metastatic tumour	6
B561900	Secondary and unspec malig neop pulmonary lymph nodes	Metastatic tumour	6
B561z00	Secondary and unspec malig neop intrathoracic LN NOS	Metastatic tumour	6
B561500	Secondary and unspec malig neop	Metastatic	6

	paratracheal lymph nodes	tumour	
B565400	Secondary and unspec malig neop obturator lymph nodes	Metastatic tumour	6
ByuC600	[X]2ndry malignant neoplasm/oth?? parts/nervous system	Metastatic tumour	6
B560400	Secondary and unspec malig neop deep parotid lymph nodes	Metastatic tumour	6
1983	SECONDARY NEOPLASTIC DEPOSITS BRAIN	Metastatic tumour	6
B576100	Secondary malignant neoplasm of peritoneum	Metastatic tumour	6
B560300	Secondary and unspec malignant neoplasm occipital lymph node	Metastatic tumour	6
A788W00	HIV disease resulting in unspecified malignant neoplasm	AIDS	6
A788V00	HIV disease resulting in multiple diseases CE	AIDS	6
AyuC.00	[X]Human immunodeficiency virus disease	AIDS	6
A789000	HIV disease resulting in mycobacterial infection	AIDS	6
A788400	Human immunodeficiency virus with neurological disease	AIDS	6
AyuC600	[X]HIV disease resulting in other non-Hodgkin's lymphoma	AIDS	6
A788X00	HIV disease resulting/unspcf infectious disease	AIDS	6
A788z00	Acquired human immunodeficiency virus infection syndrome NOS	AIDS	6
AyuC900	[X]HIV disease resulting in unspecified malignant neoplasm	AIDS	6
AyuC300	[X]HIV disease resulting in multiple infections	AIDS	6
A789200	HIV disease resulting in candidiasis	AIDS	6
A788500	Human immunodeficiency virus with secondary infection	AIDS	6

AyuC000	[X]HIV disease resulting in other bacterial infections	AIDS	6
AyuCD00	[X]Unspecified human immunodeficiency virus [HIV] disease	AIDS	6
AyuCC00	[X]HIV disease resulting in other specified conditions	AIDS	6
A789600	HIV disease resulting in Burkitt's lymphoma	AIDS	6
AyuC200	[X]HIV disease resulting in other mycoses	AIDS	6
A789900	HIV disease resulting in lymphoid interstitial pneumonitis	AIDS	6
A789.00	Human immunodef virus resulting in other disease	AIDS	6
A789A00	HIV disease resulting in wasting syndrome	AIDS	6
AyuC100	[X]HIV disease resulting in other viral infections	AIDS	6
A788300	Human immunodeficiency virus with constitutional disease	AIDS	6
A788.00	Acquired immune deficiency syndrome	AIDS	6
AyuCB00	[X]HIV disease result/haematological???? abnorms,NEC	AIDS	6
799MD	AIDS	AIDS	6
A789100	HIV disease resulting in cytomegaloviral disease	AIDS	6
A789500	HIV disease resulting in Kaposi's sarcoma	AIDS	6
A788200	HIV infection with persistent generalised lymphadenopathy	AIDS	6
A788U00	HIV disease result/haematological???? abnorms,NEC	AIDS	6
A788y00	Human immunodeficiency virus with other clinical findings	AIDS	6
A788600	Human immunodeficiency virus with secondary cancers	AIDS	6

A789300	HIV disease resulting in Pneumocystis carinii pneumonia	AIDS	6
AyuC500	[X]HIV disease resulting/unspcf infectious??? disease	AIDS	6
A789X00	HIV dis reslt/oth mal neopl/lymph,h'matopoetc? tissu	AIDS	6
AyuC700	[X]HIV dis reslt/oth mal neopl/lymph,h'matopoetc? tissu	AIDS	6
A788100	Asymptomatic human immunodeficiency virus infection	AIDS	6
AyuC800	[X]HIV disease resulting in other malignant neoplasms	AIDS	6
AyuC400	[X]HIV disease resulting/other infectious??? diseases	AIDS	6
A789400	HIV disease resulting in multiple infections	AIDS	6
A789800	HIV disease resulting in multiple malignant neoplasms	AIDS	6
AyuCA00	[X]HIV disease resulting in multiple diseases CE	AIDS	6

9.9 Fall risk factors conditions read codes

Read Code	Condition	Classification
28R..00	impaired insight	sight impairment
F46..00	Cataract	sight impairment
F45..00	Glaucoma	sight impairment
C28..00	Vitamin D deficiency	sight impairment
22E5.00	O/E - cataract present	sight impairment

F466.00	Bilateral cataracts	sight impairment
F46z.00	Cataract NOS	sight impairment
2BT1.00	O/E - Left cataract present	sight impairment
22E5.11	O/E - lens opacity	sight impairment
2BT0.00	O/E - Right cataract present	sight impairment
F460700	Nuclear cataract	sight impairment
F460500	Cortical cataract	sight impairment
F461.00	Senile cataract	sight impairment
22EE.00	O/E lens - early opacity	sight impairment
F461000	Unspecified senile cataract	sight impairment
F461800	Cortical senile cataract	sight impairment
F451.00	Open-angle glaucoma	sight impairment
F451100	Primary open-angle glaucoma	sight impairment
F451200	Low tension glaucoma	sight impairment
F45z.00	Glaucoma NOS	sight impairment
F45y200	Low tension glaucoma	sight impairment
F451111	Simple chronic glaucoma	sight impairment
F450.00	Borderline glaucoma	sight impairment
F450z00	Borderline glaucoma NOS	sight impairment
F451z00	Open-angle glaucoma NOS	sight impairment
212S.00	Depression resolved	depression
9H90.00	Depression annual review	depression
9H91.00	Depression medication review	depression
9H92.00	Depression interim review	depression
9HA0.00	On depression register	depression
E001300	Presenile dementia with depression	depression
E002100	Senile dementia with depression	depression

E004300	Arteriosclerotic dementia with depression	depression
E112.00	Single major depressive episode	depression
E112000	Single major depressive episode; unspecified	depression
E112100	Single major depressive episode; mild	depression
E112.11	Agitated depression	depression
E112.12	Endogenous depression first episode	depression
E112.13	Endogenous depression first episode	depression
E112.14	Endogenous depression	depression
E112200	Single major depressive episode; moderate	depression
E112300	Single major depressive episode; severe; without psychosis	depression
E112500	Single major depressive episode; partial or unspec remission	depression
E112600	Single major depressive episode; in full remission	depression
E112z00	Single major depressive episode NOS	depression
E113.00	Recurrent major depressive episode	depression
E113000	Recurrent major depressive episodes; unspecified	depression
E113100	Recurrent major depressive episodes; mild	depression
E113.11	Endogenous depression - recurrent	depression
E113200	Recurrent major depressive episodes; moderate	depression
E113300	Recurrent major depressive episodes; severe; no psychosis	depression
E113500	Recurrent major depressive episodes;partial/unspec remission	depression
E113600	Recurrent major depressive episodes; in full remission	depression

E113700	Recurrent depression	depression
E113z00	Recurrent major depressive episode NOS	depression
E11y200	Atypical depressive disorder	depression
E11z200	Masked depression	depression
E135.00	Agitated depression	depression
E200300	Anxiety with depression	depression
E204.00	Neurotic depression reactive type	depression
E204.11	Postnatal depression	depression
E211200	Depressive personality disorder	depression
E290.00	Brief depressive reaction	depression
E290z00	Brief depressive reaction NOS	depression
E291.00	Prolonged depressive reaction	depression
E2B..00	Depressive disorder NEC	depression
E2B0.00	Postviral depression	depression
E2B1.00	Chronic depression	depression
Eu32.00	Depressive episode	depression
Eu32000	Mild depressive episode	depression
Eu32100	Moderate depressive episode	depression
Eu32200	Severe depressive episode without psychotic symptoms	depression
Eu32400	Mild depression	depression
Eu32y00	Other depressive episodes	depression
Eu32y11	Atypical depression	depression
Eu32y12	Single episode of masked depression NOS	depression
Eu32z00	Depressive episode; unspecified	depression
Eu32z11	Depression NOS	depression
Eu32z12	Depressive disorder NOS	depression
Eu32z13	Prolonged single episode of reactive depression	depression

Eu32z14	Reactive depression NOS	depression
Eu33.00	Recurrent depressive disorder	depression
Eu33000	Recurrent depressive disorder; current episode mild	depression
Eu33100	Recurrent depressive disorder; current episode moderate	depression
Eu33.11	Recurrent episodes of depressive reaction	depression
Eu33.12	Recurrent episodes of psychogenic depression	depression
Eu33.13	Recurrent episodes of reactive depression	depression
Eu33.14	Seasonal depressive disorder	depression
Eu33.15	SAD - Seasonal affective disorder	depression
Eu33200	Recurr depress disorder cur epi severe without psyc sympt	depression
Eu33211	Endogenous depression without psychotic symptoms	depression
Eu33212	Major depression; recurrent without psychotic symptoms	depression
Eu33214	Vital depression; recurrent without psychotic symptoms	depression
Eu33400	Recurrent depressive disorder; currently in remission	depression
Eu33y00	Other recurrent depressive disorders	depression
Eu33z00	Recurrent depressive disorder; unspecified	depression
Eu33z11	Monopolar depression NOS	depression
Eu34100	Dysthymia	depression
Eu34111	Depressive neurosis	depression
Eu34113	Neurotic depression	depression
Eu34114	Persistant anxiety depression	depression
Eu3y111	Recurrent brief depressive episodes	depression
Eu41200	Mixed anxiety and depressive disorder	depression

Eu41211	Mild anxiety depression	depression
Eu92000	Depressive conduct disorder	depression
2960AC0	chronic agitated depression	depression
2960AD0	depression agitated	depression
2962A00	depression chronic	depression
2962AF0	reaction depressive affective	depression
2962B00	depression acute	depression
2962EN0	endogenous depression	depression
2962R00	recurrent depression	depression
3000000	anxiety depression	depression
3004000	neurosis depressive	depression
3004A00	depression	depression
3004AM0	mood depressed	depression
3004000	exogenous depression	depression
3004M00	morning depression	depression
G60..00	Subarachnoid haemorrhage	Stroke/CVA
G600.00	Ruptured berry aneurysm	Stroke/CVA
G601.00	Subarachnoid haemorrhage from carotid siphon and bifurcation	Stroke/CVA
G602.00	Subarachnoid haemorrhage from middle cerebral artery	Stroke/CVA
G603.00	Subarachnoid haemorrhage from anterior communicating artery	Stroke/CVA
G604.00	Subarachnoid haemorrhage from posterior communicating artery	Stroke/CVA
G605.00	Subarachnoid haemorrhage from basilar artery	Stroke/CVA
G606.00	Subarachnoid haemorrhage from vertebral artery	Stroke/CVA
G60X.00	Subarachnoid haemorrhage from	Stroke/CVA

	intracranial artery, unspecified	
G60z.00	Subarachnoid haemorrhage NOS	Stroke/CVA
G61..00	Intracerebral haemorrhage	Stroke/CVA
G61..11	CVA - cerebrovascular accident due to intracerebral haemorrhage	Stroke/CVA
G61..12	Stroke due to intracerebral haemorrhage	Stroke/CVA
G610.00	Cortical haemorrhage	Stroke/CVA
G611.00	Internal capsule haemorrhage	Stroke/CVA
G612.00	Basal nucleus haemorrhage	Stroke/CVA
G613.00	Cerebellar haemorrhage	Stroke/CVA
G614.00	Pontine haemorrhage	Stroke/CVA
G615.00	Bulbar haemorrhage	Stroke/CVA
G616.00	External capsule haemorrhage	Stroke/CVA
G617.00	Intracerebral haemorrhage, intraventricular	Stroke/CVA
G618.00	Intracerebral haemorrhage, multiple localized	Stroke/CVA
G61X.00	Intracerebral haemorrhage in hemisphere, unspecified	Stroke/CVA
G61X000	Left sided intracerebral haemorrhage, unspecified	Stroke/CVA
G61X100	Right sided intracerebral haemorrhage, unspecified	Stroke/CVA
G61z.00	Intracerebral haemorrhage NOS	Stroke/CVA
G62..00	Other and unspecified intracranial haemorrhage	Stroke/CVA
G62z.00	Intracranial haemorrhage NOS	Stroke/CVA
G630.00	Basilar artery occlusion	Stroke/CVA
G631.00	Carotid artery occlusion	Stroke/CVA
G631.11	Stenosis, carotid artery	Stroke/CVA
G631.12	Thrombosis, carotid artery	Stroke/CVA

G632.00	Vertebral artery occlusion 2	Stroke/CVA
G63y000	Cerebral infarct due to thrombosis of precerebral arteries	Stroke/CVA
G63y100	Cerebral infarction due to embolism of precerebral arteries	Stroke/CVA
G63z.00	Precerebral artery occlusion NOS	Stroke/CVA
G64..00	Cerebral arterial occlusion	Stroke/CVA
G64..11	CVA - cerebral artery occlusion	Stroke/CVA
G64..12	Infarction – cerebral	Stroke/CVA
G64..13	Stroke due to cerebral arterial occlusion	Stroke/CVA
G640.00	Cerebral thrombosis	Stroke/CVA
G640000	Cerebral infarction due to thrombosis of cerebral arteries	Stroke/CVA
G641.00	Cerebral embolism	Stroke/CVA
G641.11	Cerebral embolus	Stroke/CVA
G641000	Cerebral infarction due to embolism of cerebral arteries	Stroke/CVA
G64z.00	Cerebral infarction NOS	Stroke/CVA
G64z.11	Brainstem infarction NOS	Stroke/CVA
G64z.12	Cerebellar infarction	Stroke/CVA
G64z000	Brainstem infarction	Stroke/CVA
G64z100	Wallenberg syndrome	Stroke/CVA
G64z111	Lateral medullary syndrome	Stroke/CVA
G64z200	Left sided cerebral infarction	Stroke/CVA
G64z300	Right sided cerebral infarction	Stroke/CVA
G64z400	Infarction of basal ganglia	Stroke/CVA
G66..00	Stroke and cerebrovascular accident unspecified	Stroke/CVA
G66..11	CVA unspecified	Stroke/CVA
G66..12	Stroke unspecified	Stroke/CVA

G66..13	CVA - Cerebrovascular accident unspecified	Stroke/CVA
G660.00	Middle cerebral artery syndrome	Stroke/CVA
G661.00	Anterior cerebral artery syndrome	Stroke/CVA
G662.00	Posterior cerebral artery syndrome	Stroke/CVA
G663.00	Brain stem stroke syndrome	Stroke/CVA
G664.00	Cerebellar stroke syndrome	Stroke/CVA
G665.00	Pure motor lacunar syndrome	Stroke/CVA
G666.00	Pure sensory lacunar syndrome	Stroke/CVA
G667.00	Left sided CVA	Stroke/CVA
G668.00	Right sided CVA	Stroke/CVA
G671000	Acute cerebrovascular insufficiency NOS	Stroke/CVA
G676000	Cerebral infarct due cerebral venous thrombosis, nonpyogenic	Stroke/CVA
G677000	Occlusion and stenosis of middle cerebral artery	Stroke/CVA
G677100	Occlusion and stenosis of anterior cerebral artery	Stroke/CVA
G677200	Occlusion and stenosis of posterior cerebral artery	Stroke/CVA
G677300	Occlusion and stenosis of cerebellar arteries	Stroke/CVA
G6W..00	Cerebral infarct due unspecified occlusion/stenosis precerebral arteries	Stroke/CVA
G6X..00	Cerebral infarction due/unspecified occlusion or stenosis/cerebral arteries	Stroke/CVA
Gyu6000	Subarachnoid haemorrhage from other intracranial arteries	Stroke/CVA
Gyu6100	Other subarachnoid haemorrhage 3	Stroke/CVA
Gyu6200	Other intracerebral haemorrhage	Stroke/CVA
Gyu6300	Cerebral infarction due/unspecified occlusion or stenosis/cerebral arteries	Stroke/CVA

Gyu6400	Other cerebral infarction	Stroke/CVA
Gyu6500	Occlusion and stenosis of other precerebral arteries	Stroke/CVA
Gyu6600	Occlusion and stenosis of other cerebral arteries	Stroke/CVA
Gyu6E00	Subarachnoid haemorrhage from intracranial artery, unspecified	Stroke/CVA
Gyu6F00	Intracerebral haemorrhage in hemisphere, unspecified	Stroke/CVA
Gyu6G00	Cerebral infarct due unspecified occlusion/stenosis precerebral arteries	Stroke/CVA
Fyu5600	Other lacunar syndromes	Stroke/CVA
Fyu5700	Other vascular syndromes/brain in cerebrovascular diseases	Stroke/CVA
G65..00	Transient cerebral ischaemia	Stroke/CVA
G65..11	Drop attack	Stroke/CVA
G65..12	Transient ischaemic attack	Stroke/CVA
G65..13	Vertebro-basilar insufficiency	Stroke/CVA
G650.00	Basilar artery syndrome	Stroke/CVA
G650.11	Insufficiency - basilar artery	Stroke/CVA
G651.00	Vertebral artery syndrome	Stroke/CVA
G651000	Vertebro-basilar artery syndrome	Stroke/CVA
G652.00	Subclavian steal syndrome	Stroke/CVA
G653.00	Carotid artery syndrome hemispheric	Stroke/CVA
G654.00	Multiple and bilateral precerebral artery syndromes	Stroke/CVA
G656.00	Vertebrobasilar insufficiency	Stroke/CVA
G657.00	Carotid territory transient ischaemic attack	Stroke/CVA
G65y.00	Other transient cerebral ischaemia	Stroke/CVA
G65zz00	Transient cerebral ischaemia NOS	Stroke/CVA
Fyu5500	Other transient cerebral ischaemic	Stroke/CVA

	attacks+related syndromes	
33BA.00	Impaired left ventricular function	heart failure
662h.00	New York Heart Association classification - class III	heart failure
662i.00	New York Heart Association classification - class IV	heart failure
G1yz100	Rheumatic left ventricular failure	heart failure
G210100	Malignant hypertensive heart disease with congestive cardiac failure	heart failure
G211100	Benign hypertensive heart disease with congestive cardiac failure	heart failure
G21z100	Hypertensive heart disease NOS with congestive cardiac failure	heart failure
G232.00	Hypertensive heart and renal disease with (congestive) heart failure	heart failure
G234.00	Hypertensive heart and renal disease with both (congestive) heart failure and renal failure	heart failure
G343.00	Ischaemic cardiomyopathy	heart failure
G55..00	Cardiomyopathy	heart failure
G550.00	Endomyocardial fibrosis	heart failure
G551.00	Hypertrophic obstructive cardiomyopathy	heart failure
G552.00	Obscure African cardiomyopathy	heart failure
G554.00	Other primary cardiomyopathies	heart failure
G554000	Congestive cardiomyopathy	heart failure
G554100	Constrictive cardiomyopathy	heart failure
G554200	Familial cardiomyopathy	heart failure
G554300	Hypertrophic non-obstructive cardiomyopathy	heart failure
G554400	Primary dilated cardiomyopathy	heart failure
G554500	Takotsubo cardiomyopathy	heart failure

G555.00	Alcoholic cardiomyopathy	heart failure
G556.00	Cardiomyopathy in Chagas's disease	heart failure
G557.00	Nutritional and metabolic cardiomyopathies	heart failure
G557000	Amyloid heart disease	heart failure
G557100	Beriberi heart disease	heart failure
G557400	Mucopolysaccharidosis cardiomyopathy	heart failure
G557500	Thyrotoxic heart disease	heart failure
G558.00	Cardiomyopathy in disease EC	heart failure
G558000	Cardiomyopathy in Friedreich's ataxia	heart failure
G558100	Cardiomyopathy in myotonic dystrophy	heart failure
G558200	Dystrophic cardiomyopathy	heart failure
G558300	Sarcoid heart disease	heart failure
G558400	Amyloid cardiomyopathy	heart failure
G559.00	Arrhythmogenic right ventricular cardiomyopathy	heart failure
G55y.00	Secondary cardiomyopathy NOS	heart failure
G55y000	Cardiomyopathy due to drugs and other external agents	heart failure
G55z.00	Cardiomyopathy NOS	heart failure
G58..00	Heart failure	heart failure
G580.00	Congestive heart failure	heart failure
G580000	Acute congestive heart failure	heart failure
G580100	Chronic congestive heart failure	heart failure
G580200	Decompensated cardiac failure	heart failure
G580300	Compensated cardiac failure	heart failure
G580400	Congestive heart failure due to valvular disease	heart failure
G581.00	Left ventricular failure	heart failure
G581000	Acute left ventricular failure	heart failure

G582.00	Acute heart failure	heart failure
G583.00	Heart failure with normal ejection fraction	heart failure
G584.00	Right ventricular failure	heart failure
G58z.00	Heart failure NOS	heart failure
G5y1.00	Myocardial degeneration	heart failure
G5y3.00	Cardiomegaly	heart failure
G5y3600	Right ventricular dilatation	heart failure
G5y4.00	Post cardiac operation functional disturbance	heart failure
G5y7.00	Sarcoid myocarditis	heart failure
G5yy700	Left ventricular thrombosis	heart failure
G5yy900	Left ventricular systolic dysfunction	heart failure
G5yyA00	Left ventricular diastolic dysfunction	heart failure
G5yyB00	Right ventricular diastolic dysfunction	heart failure
G5yyC00	Diastolic dysfunction	heart failure
G5yyD00	Left ventricular cardiac dysfunction	heart failure
G5yyE00	Right ventricular systolic dysfunction	heart failure
G71A.00	Aortic root dilatation	heart failure
Gyu5P00	Other cardiomyopathies	heart failure
Gyu5Q00	Cardiomyopathy in infectious and parasitic diseases classified elsewhere	heart failure
Gyu5R00	Cardiomyopathy in metabolic diseases classified elsewhere	heart failure
Gyu5S00	Cardiomyopathy in nutritional diseases classified elsewhere	heart failure
Gyu5T00	Cardiomyopathy in other diseases classified elsewhere	heart failure
H541000	Chronic pulmonary oedema	heart failure
G73..00	Other peripheral vascular disease	peripheral vascular

		disease
G734.00	Peripheral arterial disease	peripheral vascular disease
G73z.00	Peripheral vascular disease NOS	peripheral vascular disease
G73z000	Intermittent claudication	peripheral vascular disease
G73zz00	Peripheral vascular disease NOS	peripheral vascular disease
Gyu7400	[X]Other specified peripheral vascular diseases	peripheral vascular disease
G73yz00	Other specified peripheral vascular disease NOS	peripheral vascular disease
G73y.00	Other specified peripheral vascular disease	peripheral vascular disease
G73..11	Peripheral ischaemic vascular disease	peripheral vascular disease
G73..13	Peripheral ischaemia	peripheral vascular disease
G732.00	Peripheral gangrene	peripheral vascular disease
G73y100	Peripheral angiopathic disease EC NOS	peripheral vascular disease
P76..11	Other congenital anomalies of peripheral arteries	peripheral vascular disease
P76..00	Other peripheral vascular system anomalies	peripheral vascular disease
P76z.00	Peripheral vascular system anomaly NOS	peripheral vascular disease
SP12.00	Peripheral vascular complications of care	peripheral vascular disease
C107100	Diabetes mellitus, adult, + peripheral circulatory disorder	peripheral vascular disease
R055000	Failure of peripheral circulation	peripheral vascular disease

G3...00	Ischaemic heart disease	Coronary heart disease
G30..00	Acute myocardial infarction	Coronary heart disease
G300.00	Acute anterolateral infarction	Coronary heart disease
G301.00	Other specified anterior myocardial infarction	Coronary heart disease
G301000	Acute anteroapical infarction	Coronary heart disease
G30..11	Attack - heart	Coronary heart disease
G301100	Acute anteroseptal infarction	Coronary heart disease
G30..12	Coronary thrombosis	Coronary heart disease
G30..13	Cardiac rupture following myocardial infarction (MI)	Coronary heart disease
G30..14	Heart attack	Coronary heart disease
G30..15	MI - acute myocardial infarction	Coronary heart disease
G30..16	Thrombosis - coronary	Coronary heart disease
G30..17	Silent myocardial infarction	Coronary heart disease
G301z00	Anterior myocardial infarction NOS	Coronary heart disease
G302.00	Acute inferolateral infarction	Coronary heart disease
G303.00	Acute inferoposterior infarction	Coronary heart disease
G304.00	Posterior myocardial infarction NOS	Coronary heart disease
G305.00	Lateral myocardial infarction NOS	Coronary heart disease

G306.00	True posterior myocardial infarction	Coronary heart disease
G307.00	Acute subendocardial infarction	Coronary heart disease
G307000	Acute non-Q wave infarction	Coronary heart disease
G307100	Acute non-ST segment elevation myocardial infarction	Coronary heart disease
G308.00	Inferior myocardial infarction NOS	Coronary heart disease
G309.00	Acute Q-wave infarct	Coronary heart disease
G30B.00	Acute posterolateral myocardial infarction	Coronary heart disease
G30X.00	Acute transmural myocardial infarction of unspecif site	Coronary heart disease
G30X000	Acute ST segment elevation myocardial infarction	Coronary heart disease
G30y.00	Other acute myocardial infarction	Coronary heart disease
G30y000	Acute atrial infarction	Coronary heart disease
G30y100	Acute papillary muscle infarction	Coronary heart disease
G30y200	Acute septal infarction	Coronary heart disease
G30yz00	Other acute myocardial infarction NOS	Coronary heart disease
G30z.00	Acute myocardial infarction NOS	Coronary heart disease
G31..00	Other acute and subacute ischaemic heart disease	Coronary heart disease
G310.00	Postmyocardial infarction syndrome	Coronary heart disease
G310.11	Dressler's syndrome	Coronary heart disease

G3...11	Arteriosclerotic heart disease	Coronary heart disease
G311.00	Preinfarction syndrome	Coronary heart disease
G311000	Myocardial infarction aborted	Coronary heart disease
G311011	MI - myocardial infarction aborted	Coronary heart disease
G311100	Unstable angina	Coronary heart disease
G311.11	Crescendo angina	Coronary heart disease
G311.12	Impending infarction	Coronary heart disease
G311.13	Unstable angina	Coronary heart disease
G311.14	Angina at rest	Coronary heart disease
G311200	Angina at rest	Coronary heart disease
G311300	Refractory angina	Coronary heart disease
G311400	Worsening angina	Coronary heart disease
G311500	Acute coronary syndrome	Coronary heart disease
G311z00	Preinfarction syndrome NOS	Coronary heart disease
G3...12	Atherosclerotic heart disease	Coronary heart disease
G312.00	Coronary thrombosis not resulting in myocardial infarction	Coronary heart disease
G3...13	IHD - Ischaemic heart disease	Coronary heart disease
G31y.00	Other acute and subacute ischaemic heart disease	Coronary heart disease

G31y000	Acute coronary insufficiency	Coronary heart disease
G31y100	Microinfarction of heart	Coronary heart disease
G31y200	Subendocardial ischaemia	Coronary heart disease
G31y300	Transient myocardial ischaemia	Coronary heart disease
G31yz00	Other acute and subacute ischaemic heart disease NOS	Coronary heart disease
G32..00	Old myocardial infarction	Coronary heart disease
G32..11	Healed myocardial infarction	Coronary heart disease
G32..12	Personal history of myocardial infarction	Coronary heart disease
G33..00	Angina pectoris	Coronary heart disease
G330.00	Angina decubitus	Coronary heart disease
G330000	Nocturnal angina	Coronary heart disease
G330z00	Angina decubitus NOS	Coronary heart disease
G33z.00	Angina pectoris NOS	Coronary heart disease
G33z000	Status anginosus	Coronary heart disease
G33z100	Stenocardia	Coronary heart disease
G33z200	Syncope anginosa	Coronary heart disease
G33z300	Angina on effort	Coronary heart disease
G33z400	Ischaemic chest pain	Coronary heart disease

G33z500	Post infarct angina	Coronary heart disease
G33z600	New onset angina	Coronary heart disease
G33z700	Stable angina	Coronary heart disease
G33zz00	Angina pectoris NOS	Coronary heart disease
G34..00	Other chronic ischaemic heart disease	Coronary heart disease
G340.00	Coronary atherosclerosis	Coronary heart disease
G340000	Single coronary vessel disease	Coronary heart disease
G340100	Double coronary vessel disease	Coronary heart disease
G340.11	Triple vessel disease of the heart	Coronary heart disease
G340.12	Coronary artery disease	Coronary heart disease
G342.00	Atherosclerotic cardiovascular disease	Coronary heart disease
G343.00	Ischaemic cardiomyopathy	Coronary heart disease
G344.00	Silent myocardial ischaemia	Coronary heart disease
G34y.00	Other specified chronic ischaemic heart disease	Coronary heart disease
G34y000	Chronic coronary insufficiency	Coronary heart disease
G34y100	Chronic myocardial ischaemia	Coronary heart disease
G34yz00	Other specified chronic ischaemic heart disease NOS	Coronary heart disease
G34z.00	Other chronic ischaemic heart disease NOS	Coronary heart disease

G34z000	Asymptomatic coronary heart disease	Coronary heart disease
G35..00	Subsequent myocardial infarction	Coronary heart disease
G350.00	Subsequent myocardial infarction of anterior wall	Coronary heart disease
G351.00	Subsequent myocardial infarction of inferior wall	Coronary heart disease
G353.00	Subsequent myocardial infarction of other sites	Coronary heart disease
G35X.00	Subsequent myocardial infarction of unspecified site	Coronary heart disease
G36..00	Certain current complication follow acute myocardial infarct	Coronary heart disease
G360.00	Haemopericardium/current comp folow acut myocard infarct	Coronary heart disease
G361.00	Atrial septal defect/curr comp folow acut myocardal infarct	Coronary heart disease
G362.00	Ventric septal defect/curr comp fol acut myocardal infarctn	Coronary heart disease
G363.00	Ruptur cardiac wall w'out haemopericard/cur comp fol ac MI	Coronary heart disease
G364.00	Ruptur chordae tendinae/curr comp fol acute myocard infarct	Coronary heart disease
G365.00	Rupture papillary muscle/curr comp fol acute myocard infarct	Coronary heart disease
G38..00	Postoperative myocardial infarction	Coronary heart disease
G380.00	Postoperative transmural myocardial infarction anterior wall	Coronary heart disease
G381.00	Postoperative transmural myocardial infarction inferior wall	Coronary heart disease
G384.00	Postoperative subendocardial myocardial infarction	Coronary heart disease
G38z.00	Postoperative myocardial infarction; unspecified	Coronary heart disease

G3y..00	Other specified ischaemic heart disease	Coronary heart disease
G3z..00	Ischaemic heart disease NOS	Coronary heart disease
Gyu3.00	Ischaemic heart diseases	Coronary heart disease
Gyu3000	Other forms of angina pectoris	Coronary heart disease
Gyu3200	Other forms of acute ischaemic heart disease	Coronary heart disease
Gyu3300	Other forms of chronic ischaemic heart disease	Coronary heart disease
Gyu3400	Acute transmural myocardial infarction of unspecif site	Coronary heart disease
Gyu3600	Subsequent myocardial infarction of unspecified site	Coronary heart disease
14G..11	"h/o: arthritis"	rheumatoid arthritis
14G1.00	"h/o: rheumatoid arthritis"	rheumatoid arthritis
14G2.00	"h/o: osteoarthritis"	rheumatoid arthritis
1JG..00	"suspected inflammatory arthritis"	rheumatoid arthritis
38DZ.00	"disease activity score in rheumatoid arthritis"	rheumatoid arthritis
43b9.00	"rheumatoid arthritis particle agglutination test"	rheumatoid arthritis
43c6.00	"rheumatoid arthritis screening test"	rheumatoid arthritis
66H..11	"arthritis monitoring"	rheumatoid arthritis
68F..00	"arthritis screen"	rheumatoid arthritis
68F1.00	"rheumatoid arthritis screen"	rheumatoid arthritis
68FZ.00	"arthritis screen nos"	rheumatoid arthritis
7P20300	"delivery of rehabilitation for rheumatoid arthritis"	rheumatoid arthritis
7P20400	"delivery of rehabilitation for	rheumatoid arthritis

	osteoarthritis"	
A022300	"salmonella arthritis"	rheumatoid arthritis
A15..12	"tuberculous arthritis"	rheumatoid arthritis
A56x000	"arthritis due to rubella"	rheumatoid arthritis
A985000	"gonococcal arthritis"	rheumatoid arthritis
C32y200	"lipoid dermatoarthritis"	rheumatoid arthritis
C372200	"hyperuricaem without sign inflamm arthritis+tophaceous dis"	rheumatoid arthritis
F371200	"polyneuropathy in rheumatoid arthritis"	rheumatoid arthritis
F396400	"myopathy due to rheumatoid arthritis"	rheumatoid arthritis
M160.11	"psoriatic arthritis"	rheumatoid arthritis
M160200	"arthritis mutilans"	rheumatoid arthritis
N010.00	"pyogenic arthritis"	rheumatoid arthritis
N010.11	"septic arthritis"	rheumatoid arthritis
N010000	"pyogenic arthritis of unspecified site"	rheumatoid arthritis
N010100	"pyogenic arthritis of the shoulder region"	rheumatoid arthritis
N010200	"pyogenic arthritis of the upper arm"	rheumatoid arthritis
N010211	"elbow pyogenic arthritis"	rheumatoid arthritis
N010300	"pyogenic arthritis of the forearm"	rheumatoid arthritis
N010311	"wrist pyogenic arthritis"	rheumatoid arthritis
N010400	"pyogenic arthritis of the hand"	rheumatoid arthritis
N010500	"pyogenic arthritis of the pelvic region and thigh"	rheumatoid arthritis
N010511	"hip pyogenic arthritis"	rheumatoid arthritis
N010600	"pyogenic arthritis of the lower leg"	rheumatoid arthritis
N010611	"knee pyogenic arthritis"	rheumatoid arthritis
N010700	"pyogenic arthritis of the ankle and foot"	rheumatoid arthritis
N010711	"ankle pyogenic arthritis"	rheumatoid arthritis
N010800	"staphylococcal arthritis and	rheumatoid arthritis

	polyarthritis"	
N010900	"pneumococcal arthritis and polyarthritis"	rheumatoid arthritis
N010A00	"arthritis in lyme disease"	rheumatoid arthritis
N010x00	"pyogenic arthritis of multiple sites"	rheumatoid arthritis
N010y00	"pyogenic arthritis of other specified sites"	rheumatoid arthritis
N010z00	"pyogenic arthritis nos"	rheumatoid arthritis
N018.00	"tuberculous arthritis"	rheumatoid arthritis
N01z.00	"infective arthritis nos"	rheumatoid arthritis
N01z000	"infective arthritis nos, of unspecified site	rheumatoid arthritis
N01z100	"infective arthritis nos, of the shoulder region	rheumatoid arthritis
N01z200	"infective arthritis nos, of the upper arm	rheumatoid arthritis
N01z300	"infective arthritis nos, of the forearm	rheumatoid arthritis
N01z400	"infective arthritis nos, of the hand	rheumatoid arthritis
N01z500	"infective arthritis nos, of the pelvic region and thigh	rheumatoid arthritis
N01z600	"infective arthritis nos, of the lower leg	rheumatoid arthritis
N01z700	"infective arthritis nos, of the ankle and foot	rheumatoid arthritis
N01z800	"infective arthritis nos, of shoulder	rheumatoid arthritis
N01z900	"infective arthritis nos, of sternoclavicular joint	rheumatoid arthritis
N01zA00	"infective arthritis nos, of acromioclavicular joint	rheumatoid arthritis
N01zB00	"infective arthritis nos, of elbow	rheumatoid arthritis
N01zC00	"infective arthritis nos, of distal radio-ulnar joint	rheumatoid arthritis
N01zD00	"infective arthritis nos, of wrist	rheumatoid arthritis
N01zE00	"infective arthritis nos, of mcp joint	rheumatoid arthritis

N01zF00	"infective arthritis nos, of pip joint of finger	rheumatoid arthritis
N01zG00	"infective arthritis nos, of dip joint of finger	rheumatoid arthritis
N01zH00	"infective arthritis nos, of hip	rheumatoid arthritis
N01zJ00	"infective arthritis nos, of sacro-iliac joint	rheumatoid arthritis
N01zK00	"infective arthritis nos, of knee	rheumatoid arthritis
N01zL00	"infective arthritis nos, of tibio-fibular joint	rheumatoid arthritis
N01zM00	"infective arthritis nos, of ankle	rheumatoid arthritis
N01zN00	"infective arthritis nos, of subtalar joint	rheumatoid arthritis
N01zP00	"infective arthritis nos, of talonavicular joint	rheumatoid arthritis
N01zQ00	"infective arthritis nos, of other tarsal joint	rheumatoid arthritis
N01zR00	"infective arthritis nos, of 1st mtp joint	rheumatoid arthritis
N01zS00	"infective arthritis nos, of lesser mtp joint	rheumatoid arthritis
N01zT00	"infective arthritis nos, of ip joint of toe	rheumatoid arthritis
N01zx00	"infective arthritis nos, of multiple sites	rheumatoid arthritis
N01zy00	"infective arthritis nos, of other specified site	rheumatoid arthritis
N01zz00	"infective arthritis nos"	rheumatoid arthritis
N02..12	"crystal arthritis"	rheumatoid arthritis
N023.00	"gouty arthritis"	rheumatoid arthritis
N023000	"gouty arthritis of unspecified site"	rheumatoid arthritis
N023100	"gouty arthritis of the shoulder region"	rheumatoid arthritis
N023200	"gouty arthritis of the upper arm"	rheumatoid arthritis
N023300	"gouty arthritis of the forearm"	rheumatoid arthritis
N023400	"gouty arthritis of the hand"	rheumatoid arthritis
N023500	"gouty arthritis of the pelvic region and thigh"	rheumatoid arthritis

N023600	"gouty arthritis of the lower leg"	rheumatoid arthritis
N023700	"gouty arthritis of the ankle and foot"	rheumatoid arthritis
N023800	"gouty arthritis of toe"	rheumatoid arthritis
N023x00	"gouty arthritis of multiple sites"	rheumatoid arthritis
N023y00	"gouty arthritis of other specified site"	rheumatoid arthritis
N023z00	"gouty arthritis nos"	rheumatoid arthritis
N035.12	"neuropathic arthritis"	rheumatoid arthritis
N038000	"postmeningococcal arthritis"	rheumatoid arthritis
N03x000	"arthritis associated with other disease, shoulder	rheumatoid arthritis
N03x100	"arthritis associated with other disease, sternoclavic joint	rheumatoid arthritis
N03x200	"arthritis associated with other disease, acromioclavic join	rheumatoid arthritis
N03x300	"arthritis associated with other disease, elbow	rheumatoid arthritis
N03x400	"arthritis associated with other disease, dist rad-uln joint	rheumatoid arthritis
N03x500	"arthritis associated with other disease, wrist	rheumatoid arthritis
N03x600	"arthritis associated with other disease, mcp joint	rheumatoid arthritis
N03x700	"arthritis associated with other disease, pip joint of finge	rheumatoid arthritis
N03x800	"arthritis associated with other disease, dip joint of finge	rheumatoid arthritis
N03x900	"arthritis associated with other disease, hip	rheumatoid arthritis
N03xA00	"arthritis associated with other disease, sacro-iliac joint	rheumatoid arthritis
N03xB00	"arthritis associated with other disease, knee	rheumatoid arthritis
N03xC00	"arthritis associated with other disease, tibio-fibular join	rheumatoid arthritis

N03xD00	"arthritis associated with other disease, ankle	rheumatoid arthritis
N03xE00	"arthritis associated with other disease, subtalar joint	rheumatoid arthritis
N03xF00	"arthritis associated with other disease, talonavicular join	rheumatoid arthritis
N03xG00	"arthritis associated with other disease, other tarsal joint	rheumatoid arthritis
N03xH00	"arthritis associated with other disease, 1st mtp joint	rheumatoid arthritis
N03xJ00	"arthritis associated with other disease, lesser mtp joint	rheumatoid arthritis
N03xK00	"arthritis associated with other disease, ip joint of toe	rheumatoid arthritis
N04..00	"rheumatoid arthritis and other inflammatory polyarthropathy	rheumatoid arthritis
N040.00	"rheumatoid arthritis"	rheumatoid arthritis
N040000	"rheumatoid arthritis of cervical spine"	rheumatoid arthritis
N040100	"other rheumatoid arthritis of spine"	rheumatoid arthritis
N040200	"rheumatoid arthritis of shoulder"	rheumatoid arthritis
N040300	"rheumatoid arthritis of sternoclavicular joint"	rheumatoid arthritis
N040400	"rheumatoid arthritis of acromioclavicular joint"	rheumatoid arthritis
N040500	"rheumatoid arthritis of elbow"	rheumatoid arthritis
N040600	"rheumatoid arthritis of distal radio-ulnar joint"	rheumatoid arthritis
N040700	"rheumatoid arthritis of wrist"	rheumatoid arthritis
N040800	"rheumatoid arthritis of mcp joint"	rheumatoid arthritis
N040900	"rheumatoid arthritis of pip joint of finger"	rheumatoid arthritis
N040A00	"rheumatoid arthritis of dip joint of finger"	rheumatoid arthritis
N040B00	"rheumatoid arthritis of hip"	rheumatoid arthritis

N040C00	"rheumatoid arthritis of sacro-iliac joint"	rheumatoid arthritis
N040D00	"rheumatoid arthritis of knee"	rheumatoid arthritis
N040E00	"rheumatoid arthritis of tibio-fibular joint"	rheumatoid arthritis
N040F00	"rheumatoid arthritis of ankle"	rheumatoid arthritis
N040G00	"rheumatoid arthritis of subtalar joint"	rheumatoid arthritis
N040H00	"rheumatoid arthritis of talonavicular joint"	rheumatoid arthritis
N040J00	"rheumatoid arthritis of other tarsal joint"	rheumatoid arthritis
N040K00	"rheumatoid arthritis of 1st mtp joint"	rheumatoid arthritis
N040L00	"rheumatoid arthritis of lesser mtp joint"	rheumatoid arthritis
N040M00	"rheumatoid arthritis of ip joint of toe"	rheumatoid arthritis
N040P00	"seronegative rheumatoid arthritis"	rheumatoid arthritis
N040S00	"rheumatoid arthritis - multiple joint"	rheumatoid arthritis
N040T00	"flare of rheumatoid arthritis"	rheumatoid arthritis
N043.00	"juvenile rheumatoid arthritis - still's disease"	rheumatoid arthritis
N043100	"acute polyarticular juvenile rheumatoid arthritis"	rheumatoid arthritis
N043200	"pauciarticular juvenile rheumatoid arthritis"	rheumatoid arthritis
N043300	"monarticular juvenile rheumatoid arthritis"	rheumatoid arthritis
N043z00	"juvenile rheumatoid arthritis nos"	rheumatoid arthritis
N045.00	"other juvenile arthritis"	rheumatoid arthritis
N045100	"juvenile seronegative polyarthritis"	rheumatoid arthritis
N045200	"juvenile arthritis in psoriasis"	rheumatoid arthritis
N045300	"juvenile arthritis in crohn's disease"	rheumatoid arthritis
N045400	"juvenile arthritis in ulcerative colitis"	rheumatoid arthritis
N045500	"juvenile rheumatoid arthritis"	rheumatoid arthritis
N045600	"pauciarticular onset juvenile chronic	rheumatoid arthritis

	arthritis"	
N047.00	"seropositive errosive rheumatoid arthritis"	rheumatoid arthritis
N04X.00	"seropositive rheumatoid arthritis, unspecified	rheumatoid arthritis
N04y012	"fibrosing alveolitis associated with rheumatoid arthritis"	rheumatoid arthritis
N04y100	"sero negative arthritis"	rheumatoid arthritis
N04y111	"sero negative polyarthritis"	rheumatoid arthritis
N05..00	"osteoarthritis and allied disorders"	rheumatoid arthritis
N05..11	"osteoarthritis"	rheumatoid arthritis
N050.00	"generalised osteoarthritis - oa"	rheumatoid arthritis
N050000	"generalised osteoarthritis of unspecified site"	rheumatoid arthritis
N050100	"generalised osteoarthritis of the hand"	rheumatoid arthritis
N050200	"generalised osteoarthritis of multiple sites"	rheumatoid arthritis
N050z00	"generalised osteoarthritis nos"	rheumatoid arthritis
N051.00	"localised, primary osteoarthritis	rheumatoid arthritis
N051000	"localised, primary osteoarthritis of unspecified site	rheumatoid arthritis
N051100	"localised, primary osteoarthritis of the shoulder region	rheumatoid arthritis
N051200	"localised, primary osteoarthritis of the upper arm	rheumatoid arthritis
N051300	"localised, primary osteoarthritis of the forearm	rheumatoid arthritis
N051400	"localised, primary osteoarthritis of the hand	rheumatoid arthritis
N051500	"localised, primary osteoarthritis of the pelvic region/thig	rheumatoid arthritis
N051600	"localised, primary osteoarthritis of the lower leg	rheumatoid arthritis

N051700	"localised, primary osteoarthritis of the ankle and foot	rheumatoid arthritis
N051800	"localised, primary osteoarthritis of other specified site	rheumatoid arthritis
N051D00	"localised, primary osteoarthritis of the wrist	rheumatoid arthritis
N051E00	"localised, primary osteoarthritis of toe	rheumatoid arthritis
N051F00	"localised, primary osteoarthritis of elbow	rheumatoid arthritis
N051z00	"localised, primary osteoarthritis nos	rheumatoid arthritis
N052.00	"localised, secondary osteoarthritis	rheumatoid arthritis
N052000	"localised, secondary osteoarthritis of unspecified site	rheumatoid arthritis
N052100	"localised, secondary osteoarthritis of the shoulder region	rheumatoid arthritis
N052200	"localised, secondary osteoarthritis of the upper arm	rheumatoid arthritis
N052300	"localised, secondary osteoarthritis of the forearm	rheumatoid arthritis
N052400	"localised, secondary osteoarthritis of the hand	rheumatoid arthritis
N052500	"localised, secondary osteoarthritis of pelvic region/thigh	rheumatoid arthritis
N052600	"localised, secondary osteoarthritis of the lower leg	rheumatoid arthritis
N052700	"localised, secondary osteoarthritis of the ankle and foot	rheumatoid arthritis
N052800	"localised, secondary osteoarthritis of other specified site	rheumatoid arthritis
N052z00	"localised, secondary osteoarthritis nos	rheumatoid arthritis
N053.00	"localised osteoarthritis, unspecified	rheumatoid arthritis
N053000	"localised osteoarthritis, unspecified, of unspecified site	rheumatoid arthritis
N053100	"localised osteoarthritis, unspecified, of shoulder region	rheumatoid arthritis

N053200	"localised osteoarthritis, unspecified, of the upper arm	rheumatoid arthritis
N053300	"localised osteoarthritis, unspecified, of the forearm	rheumatoid arthritis
N053400	"localised osteoarthritis, unspecified, of the hand	rheumatoid arthritis
N053500	"localised osteoarthritis, unspecified, pelvic region/thigh	rheumatoid arthritis
N053600	"localised osteoarthritis, unspecified, of the lower leg	rheumatoid arthritis
N053611	"patellofemoral osteoarthritis"	rheumatoid arthritis
N053700	"localised osteoarthritis, unspecified, of the ankle and foo	rheumatoid arthritis
N053800	"localised osteoarthritis, unspecified, of other spec site	rheumatoid arthritis
N053z00	"localised osteoarthritis, unspecified, nos	rheumatoid arthritis
N054.00	"oligoarticular osteoarthritis, unspecified	rheumatoid arthritis
N054000	"oligoarticular osteoarthritis, unspec, of unspecified sites	rheumatoid arthritis
N054100	"oligoarticular osteoarthritis, unspecified, of shoulder	rheumatoid arthritis
N054200	"oligoarticular osteoarthritis, unspecified, of upper arm	rheumatoid arthritis
N054300	"oligoarticular osteoarthritis, unspecified, of forearm	rheumatoid arthritis
N054400	"oligoarticular osteoarthritis, unspecified, of hand	rheumatoid arthritis
N054500	"oligoarticular osteoarthritis, unspecified, of pelvis/thigh	rheumatoid arthritis
N054600	"oligoarticular osteoarthritis, unspecified, of lower leg	rheumatoid arthritis
N054700	"oligoarticular osteoarthritis, unspecified, of ankle/foot	rheumatoid arthritis
N054800	"oligoarticular osteoarthritis, unspecified, other spec site	rheumatoid arthritis

N054900	"oligoarticular osteoarthritis, unspecified, multiple sites	rheumatoid arthritis
N054z00	"osteoarthritis of more than one site, unspecified, nos	rheumatoid arthritis
N05z.00	"osteoarthritis nos"	rheumatoid arthritis
N05z000	"osteoarthritis nos, of unspecified site	rheumatoid arthritis
N05z100	"osteoarthritis nos, of shoulder region	rheumatoid arthritis
N05z200	"osteoarthritis nos, of the upper arm	rheumatoid arthritis
N05z211	"elbow osteoarthritis nos"	rheumatoid arthritis
N05z300	"osteoarthritis nos, of the forearm	rheumatoid arthritis
N05z311	"wrist osteoarthritis nos"	rheumatoid arthritis
N05z400	"osteoarthritis nos, of the hand	rheumatoid arthritis
N05z411	"finger osteoarthritis nos"	rheumatoid arthritis
N05z412	"thumb osteoarthritis nos"	rheumatoid arthritis
N05z500	"osteoarthritis nos, pelvic region/thigh	rheumatoid arthritis
N05z511	"hip osteoarthritis nos"	rheumatoid arthritis
N05z600	"osteoarthritis nos, of the lower leg	rheumatoid arthritis
N05z611	"knee osteoarthritis nos"	rheumatoid arthritis
N05z700	"osteoarthritis nos, of ankle and foot	rheumatoid arthritis
N05z711	"ankle osteoarthritis nos"	rheumatoid arthritis
N05z712	"foot osteoarthritis nos"	rheumatoid arthritis
N05z713	"toe osteoarthritis nos"	rheumatoid arthritis
N05z800	"osteoarthritis nos, other specified site	rheumatoid arthritis
N05z900	"osteoarthritis nos, of shoulder	rheumatoid arthritis
N05zA00	"osteoarthritis nos, of sternoclavicular joint	rheumatoid arthritis
N05zB00	"osteoarthritis nos, of acromioclavicular joint	rheumatoid arthritis
N05zC00	"osteoarthritis nos, of elbow	rheumatoid arthritis
N05zD00	"osteoarthritis nos, of distal radio-ulnar	rheumatoid arthritis

	joint	
N05zE00	"osteoarthritis nos, of wrist	rheumatoid arthritis
N05zF00	"osteoarthritis nos, of mcp joint	rheumatoid arthritis
N05zG00	"osteoarthritis nos, of pip joint of finger	rheumatoid arthritis
N05zH00	"osteoarthritis nos, of dip joint of finger	rheumatoid arthritis
N05zJ00	"osteoarthritis nos, of hip	rheumatoid arthritis
N05zK00	"osteoarthritis nos, of sacro-iliac joint	rheumatoid arthritis
N05zL00	"osteoarthritis nos, of knee	rheumatoid arthritis
N05zM00	"osteoarthritis nos, of tibio-fibular joint	rheumatoid arthritis
N05zN00	"osteoarthritis nos, of ankle	rheumatoid arthritis
N05zP00	"osteoarthritis nos, of subtalar joint	rheumatoid arthritis
N05zQ00	"osteoarthritis nos, of talonavicular joint	rheumatoid arthritis
N05zR00	"osteoarthritis nos, of other tarsal joint	rheumatoid arthritis
N05zS00	"osteoarthritis nos, of 1st mtp joint	rheumatoid arthritis
N05zT00	"osteoarthritis nos, of lesser mtp joint	rheumatoid arthritis
N05zU00	"osteoarthritis nos, of ip joint of toe	rheumatoid arthritis
N05zz00	"osteoarthritis nos"	rheumatoid arthritis
N060.11	"endemic polyarthritis"	rheumatoid arthritis
N062.00	"allergic arthritis"	rheumatoid arthritis
N062000	"allergic arthritis of unspecified site"	rheumatoid arthritis
N062100	"allergic arthritis of the shoulder region"	rheumatoid arthritis
N062200	"allergic arthritis of the upper arm"	rheumatoid arthritis
N062300	"allergic arthritis of the forearm"	rheumatoid arthritis
N062400	"allergic arthritis of the hand"	rheumatoid arthritis
N062500	"allergic arthritis of the pelvic region and thigh"	rheumatoid arthritis
N062600	"allergic arthritis of the lower leg"	rheumatoid arthritis
N062700	"allergic arthritis of the ankle and foot"	rheumatoid arthritis
N062800	"allergic arthritis of other specified site"	rheumatoid arthritis

N062900	"allergic arthritis of multiple sites"	rheumatoid arthritis
N062z00	"allergic arthritis nos"	rheumatoid arthritis
N063.00	"climacteric arthritis"	rheumatoid arthritis
N063.11	"menopausal arthritis"	rheumatoid arthritis
N063000	"climacteric arthritis of unspecified site"	rheumatoid arthritis
N063100	"climacteric arthritis of the shoulder region"	rheumatoid arthritis
N063200	"climacteric arthritis of the upper arm"	rheumatoid arthritis
N063300	"climacteric arthritis of the forearm"	rheumatoid arthritis
N063400	"climacteric arthritis of the hand"	rheumatoid arthritis
N063500	"climacteric arthritis of the pelvic region and thigh"	rheumatoid arthritis
N063600	"climacteric arthritis of the lower leg"	rheumatoid arthritis
N063700	"climacteric arthritis of the ankle and foot"	rheumatoid arthritis
N063800	"climacteric arthritis of other specified site"	rheumatoid arthritis
N063900	"climacteric arthritis of multiple sites"	rheumatoid arthritis
N063z00	"climacteric arthritis nos"	rheumatoid arthritis
N065.00	"unspecified polyarthropathy or polyarthritis"	rheumatoid arthritis
N065A00	"generalised arthritis"	rheumatoid arthritis
N065z00	"unspecified polyarthropathy or polyarthritis nos"	rheumatoid arthritis
N065z11	"polyarthritis"	rheumatoid arthritis
N066.00	"unspecified monoarthritis"	rheumatoid arthritis
N066000	"unspecified monoarthritis of unspecified site"	rheumatoid arthritis
N066100	"unspecified monoarthritis of the shoulder region"	rheumatoid arthritis
N066200	"unspecified monoarthritis of the upper arm"	rheumatoid arthritis

N066300	"unspecified monoarthritis of the forearm"	rheumatoid arthritis
N066400	"unspecified monoarthritis of the hand"	rheumatoid arthritis
N066500	"unspecified monoarthritis of the pelvic region and thigh"	rheumatoid arthritis
N066600	"unspecified monoarthritis of the lower leg"	rheumatoid arthritis
N066700	"unspecified monoarthritis of the ankle and foot"	rheumatoid arthritis
N066800	"unspecified monoarthritis of other specified site"	rheumatoid arthritis
N066z00	"unspecified monoarthritis nos"	rheumatoid arthritis
N06z.11	"arthritis"	rheumatoid arthritis
N06z111	"shoulder arthritis nos"	rheumatoid arthritis
N06z211	"elbow arthritis nos"	rheumatoid arthritis
N06z311	"wrist arthritis nos"	rheumatoid arthritis
N06z411	"hand arthritis nos"	rheumatoid arthritis
N06z511	"hip arthritis nos"	rheumatoid arthritis
N06z611	"knee arthritis nos"	rheumatoid arthritis
N06z711	"ankle arthritis nos"	rheumatoid arthritis
N06z712	"foot arthritis nos"	rheumatoid arthritis
N06zA00	"acute arthritis"	rheumatoid arthritis
N06zB00	"chronic arthritis"	rheumatoid arthritis
N11..11	"arthritis of spine"	rheumatoid arthritis
N11..12	"osteoarthritis of spine"	rheumatoid arthritis
N110.12	"osteoarthritis cervical spine"	rheumatoid arthritis
N11D.00	"osteoarthritis of spine"	rheumatoid arthritis
N11D000	"osteoarthritis of cervical spine"	rheumatoid arthritis
N11D100	"osteoarthritis of thoracic spine"	rheumatoid arthritis
N11D200	"osteoarthritis of lumbar spine"	rheumatoid arthritis

N11D300	"osteoarthritis of spine nos"	rheumatoid arthritis
N11z.11	"osteoarthritis spine"	rheumatoid arthritis
N212000	"periarthritis of shoulder"	rheumatoid arthritis
N214200	"periarthritis of wrist"	rheumatoid arthritis
N21z100	"periarthritis nos"	rheumatoid arthritis
Nyu0000	"[x]other streptococcal arthritis and polyarthritis"	rheumatoid arthritis
Nyu0100	"[x]arthritis+polyarthritis due/other specfd bacterial agent	rheumatoid arthritis
Nyu0200	"[x]arthritis in other infectious and parasitic diseases ce"	rheumatoid arthritis
Nyu1000	"[x]rheumatoid arthritis+involvement/other organs or systems	rheumatoid arthritis
Nyu1100	"[x]other seropositive rheumatoid arthritis"	rheumatoid arthritis
Nyu1200	"[x]other specified rheumatoid arthritis"	rheumatoid arthritis
Nyu1500	"[x]other juvenile arthritis"	rheumatoid arthritis
Nyu1600	"[x]juvenile arthritis in other diseases ce"	rheumatoid arthritis
Nyu1B00	"[x]other specified arthritis"	rheumatoid arthritis
Nyu1G00	"[x]seropositive rheumatoid arthritis, unspecified	rheumatoid arthritis
ZR1U.00	"arthritis impact measurement scale"	rheumatoid arthritis
ZR1U.11	"aims - arthritis impact measurement scale"	rheumatoid arthritis
ZR1U100	"arthritis impact measurement scale i"	rheumatoid arthritis
ZR1U111	"aims i - arthritis impact measurement scale i"	rheumatoid arthritis
ZR1U200	"arthritis impact measurement scale ii"	rheumatoid arthritis
ZR1U211	"aims ii - arthritis impact measurement scale ii"	rheumatoid arthritis
ZV13400	"[v]personal history of arthritis"	rheumatoid arthritis
ZV17700	"[v]family history of arthritis"	rheumatoid arthritis

ZV7y100	"[v]screening for rheumatoid arthritis"	rheumatoid arthritis
1A24.00	Stress incontinence	urinary incontinence
R083.00	[D]Incontinence of urine	urinary incontinence
8C14.00	Incontinence care	urinary incontinence
1A24.11	Stress incontinence - symptom	urinary incontinence
1A26.00	Urge incontinence of urine	urinary incontinence
K586.00	Stress incontinence - female	urinary incontinence
K198.00	Stress incontinence	urinary incontinence
1593.00	H/O: stress incontinence	urinary incontinence
8HTX.00	Referral to incontinence clinic	urinary incontinence
16F..00	Double incontinence	urinary incontinence
R083200	[D] Urge incontinence	urinary incontinence
R083z00	[D]Incontinence of urine NOS	urinary incontinence
8D7..12	Incontinence control	urinary incontinence
R083100	[D]Urethral sphincter incontinence	urinary incontinence
8D71.00	Incontinence control	urinary incontinence
Kyu5A00	[X]Other specified urinary incontinence	urinary incontinence
1A23.00	Incontinence of urine	urinary incontinence
Fyu2000	[X]Other drug-induced secondary parkinsonism	parkinson
F12..00	Parkinson's disease	parkinson
F12z.00	Parkinson's disease NOS	parkinson
G567400	Wolff-Parkinson-White syndrome	parkinson
F121.11	Drug induced parkinsonism	parkinson
Eu02300	[X]Dementia in Parkinson's disease	parkinson
147F.00	History of Parkinson's disease	parkinson
F124.00	Vascular parkinsonism	parkinson

F121.00	Parkinsonism secondary to drugs	parkinson
F12X.00	Secondary parkinsonism, unspecified	parkinson
F130300	Parkinsonism with orthostatic hypotension	parkinson
F12W.00	Secondary parkinsonism due to other external agents	parkinson
Fyu2200	[X]Parkinsonism in diseases classified elsewhere	parkinson
A94y100	Syphilitic parkinsonism	parkinson
F123.00	Postencephalitic parkinsonism	parkinson
Fyu2900	[X]Secondary parkinsonism, unspecified	parkinson
Fyu2100	[X]Other secondary parkinsonism	parkinson
14AN.00	h/o: atrial fibrillation	arrhythmia
14AR.00	history of atrial flutter	arrhythmia
212R.00	atrial fibrillation resolved	arrhythmia
327..00	ecg: supraventricular arrhythmia	arrhythmia
3272.00	ecg: atrial fibrillation	arrhythmia
3273.00	ecg: atrial flutter	arrhythmia
328..00	ecg: ventricular arrhythmia	arrhythmia
3282.00	ecg: ventricular tachycardia	arrhythmia
328Z.00	ecg: ventricular arrhythmia nos	arrhythmia
662S.00	atrial fibrillation monitoring	arrhythmia
6A9..00	atrial fibrillation annual review	arrhythmia
7936A00	implant intravenous pacemaker for atrial fibrillation	arrhythmia
8CMW200	atrial fibrillation care pathway	arrhythmia
8HTy.00	referral to atrial fibrillation clinic	arrhythmia
9hF..00	exception reporting: atrial fibrillation quality indicators	arrhythmia

9hF1.00	excepted from atrial fibrillation qual indic: inform dissent	arrhythmia
9Os..00	atrial fibrillation monitoring administration	arrhythmia
9Os0.00	atrial fibrillation monitoring first letter	arrhythmia
9Os1.00	atrial fibrillation monitoring second letter	arrhythmia
9Os2.00	atrial fibrillation monitoring third letter	arrhythmia
9Os3.00	atrial fibrillation monitoring verbal invite	arrhythmia
9Os4.00	atrial fibrillation monitoring telephone invite	arrhythmia
G559.00	arrhythmogenic right ventricular cardiomyopathy	arrhythmia
G55A.11	tachycardia-induced cardiomyopathy	arrhythmia
G56..00	conduction disorders	arrhythmia
G56..11	conduction disorders of heart	arrhythmia
G567400	wolff-parkinson-white syndrome	arrhythmia
G56y.00	other conduction disorders	arrhythmia
G56y000	lown-ganong-levine syndrome	arrhythmia
G56zz00	conduction disorders nos	arrhythmia
G57..00	cardiac dysrhythmias	arrhythmia
G570.00	paroxysmal supraventricular tachycardia	arrhythmia
G570000	paroxysmal atrial tachycardia	arrhythmia
G570100	paroxysmal atrioventricular tachycardia	arrhythmia
G570200	paroxysmal junctional tachycardia	arrhythmia
G570300	paroxysmal nodal tachycardia	arrhythmia
G570z00	paroxysmal supraventricular tachycardia nos	arrhythmia
G571.00	paroxysmal ventricular tachycardia	arrhythmia
G57..11	cardiac arrhythmias	arrhythmia
G571.11	ventricular tachycardia	arrhythmia

G572.00	paroxysmal tachycardia unspecified	arrhythmia
G572000	essential paroxysmal tachycardia	arrhythmia
G572z00	paroxysmal tachycardia nos	arrhythmia
G573.00	atrial fibrillation and flutter	arrhythmia
G573000	atrial fibrillation	arrhythmia
G573100	atrial flutter	arrhythmia
G573200	paroxysmal atrial fibrillation	arrhythmia
G573300	non-rheumatic atrial fibrillation	arrhythmia
G573400	permanent atrial fibrillation	arrhythmia
G573500	persistent atrial fibrillation	arrhythmia
G573600	paroxysmal atrial flutter	arrhythmia
G573z00	atrial fibrillation and flutter nos	arrhythmia
G574.00	ventricular fibrillation and flutter	arrhythmia
G574100	ventricular flutter	arrhythmia
G574z00	ventricular fibrillation and flutter nos	arrhythmia
G576300	atrial premature depolarization	arrhythmia
G576400	junctional premature depolarization	arrhythmia
G576500	ventricular premature depolarization	arrhythmia
G57y.00	other cardiac dysrhythmias	arrhythmia
G57y600	nodal rhythm disorder	arrhythmia
G57y900	supraventricular tachycardia nos	arrhythmia
G57yA00	re-entry ventricular arrhythmia	arrhythmia
G57yz00	other cardiac dysrhythmia nos	arrhythmia
G57z.00	cardiac dysrhythmia nos	arrhythmia
Gyu5a00	[x]other specified cardiac arrhythmias	arrhythmia
R002.11	[D]Syncope	syncope
1B6..12	Syncope symptom	syncope

1B62.00	Syncope/vasovagal faint	syncope
147A.00	H/O: syncope	syncope
R002.00	[D]Syncope and collapse	syncope
R002z00	[D]Syncope and collapse NOS	syncope
R002400	[D]Micturition syncope	syncope
R062000	[D]Cough syncope	syncope
R002600	[D]Asystolic vasovagal syncope	syncope
SN21.12	Heat syncope or collapse	syncope
SN21.00	Heat syncope or collapse	syncope
G33z200	Syncope anginosa	syncope
R002500	[D]Defaecation syncope	syncope
Eu46y16	[X]Psychogenic syncope	syncope
585O.00	Quantitative ultrasound scan of heel - result osteoporotic	osteoporosis
58E4.00	Forearm DXA scan result osteoporotic	osteoporosis
58E8.00	Heel DXA scan T score	osteoporosis
58EA.00	Heel DXA scan result osteoporotic	osteoporosis
58EA.00	Heel DXA scan result osteoporotic	osteoporosis
58EE.00	Hip DXA scan T score	osteoporosis
58EG.00	Hip DXA scan result osteoporotic	osteoporosis
58EG.00	Hip DXA scan result osteoporotic	osteoporosis
58EK.00	Lumbar spine DXA scan T score	osteoporosis
58EM.00	Lumbar DXA scan result osteoporotic	osteoporosis
58EM.00	lumbar dxa scan result osteoporotic	osteoporosis
58ES.00	femoral neck dexa scan t score	osteoporosis
58EV.00	femoral neck dexa scan result osteoporotic	osteoporosis
7230A	osteoporosis	osteoporosis

7230B	osteoporosis senilis	osteoporosis
7230D	vertebral osteoporosis	osteoporosis
7230PM	osteoporosis postmenopausal	osteoporosis
7230PT	osteoporosis post-traumatic	osteoporosis
N330.00	osteoporosis	osteoporosis
N330.00	osteoporosis	osteoporosis
N330000	Osteoporosis; unspecified	osteoporosis
N330000	Osteoporosis; unspecified	osteoporosis
N330100	Senile osteoporosis	osteoporosis
N330100	Senile osteoporosis	osteoporosis
N330200	Postmenopausal osteoporosis	osteoporosis
N330200	Postmenopausal osteoporosis	osteoporosis
N330300	Idiopathic osteoporosis	osteoporosis
N330300	Idiopathic osteoporosis	osteoporosis
N330400	Dissuse osteoporosis	osteoporosis
N330400	Dissuse osteoporosis	osteoporosis
N330500	Drug-induced osteoporosis	osteoporosis
N330500	Drug-induced osteoporosis	osteoporosis
N330600	Postoophorectomy osteoporosis	osteoporosis
N330600	Postoophorectomy osteoporosis	osteoporosis
N330700	Postsurgical malabsorption osteoporosis	osteoporosis
N330700	Postsurgical malabsorption osteoporosis	osteoporosis
N330800	Localized osteoporosis - Lequesne	osteoporosis
N330800	Localized osteoporosis - Lequesne	osteoporosis
N330900	Osteoporosis in multiple myelomatosis	osteoporosis
N330900	Osteoporosis in multiple myelomatosis	osteoporosis
N330A00	Osteoporosis in endocrine disorders	osteoporosis
N330A00	Osteoporosis in endocrine disorders	osteoporosis

N330B00	Vertebral osteoporosis	osteoporosis
N330B00	Vertebral osteoporosis	osteoporosis
N330C00	Osteoporosis localized to spine	osteoporosis
N330C00	Osteoporosis localized to spine	osteoporosis
N330D00	Osteoporosis due to corticosteroids	osteoporosis
N330D00	Osteoporosis due to corticosteroids	osteoporosis
N330z00	Osteoporosis NOS	osteoporosis
N330z00	Osteoporosis NOS	osteoporosis
N331200	Postoophorectomy osteoporosis with pathological fracture	osteoporosis
N331200	Postoophorectomy osteoporosis with pathological fracture	osteoporosis
N331300	Osteoporosis of disuse with pathological fracture	osteoporosis
N331300	Osteoporosis of disuse with pathological fracture	osteoporosis
N331400	Postsurgical malabsorption osteoporosis with path fracture	osteoporosis
N331500	Drug-induced osteoporosis with pathological fracture	osteoporosis
N331600	Idiopathic osteoporosis with pathological fracture	osteoporosis
N331600	Idiopathic osteoporosis with pathological fracture	osteoporosis
N331800	Osteoporosis + pathological fracture lumbar vertebrae	osteoporosis
N331900	Osteoporosis + pathological fracture thoracic vertebrae	osteoporosis
N331A00	Osteoporosis + pathological fracture cervical vertebrae	osteoporosis
N331B00	Postmenopausal osteoporosis with pathological fracture	osteoporosis
N331M00	Fragility fracture due to unspecified osteoporosis	osteoporosis

N331N00	Fragility fracture	osteoporosis
NyuB000	[X]Other osteoporosis with pathological fracture	osteoporosis
NyuB000	[X]Other osteoporosis with pathological fracture	osteoporosis
NyuB100	[X]Other osteoporosis	osteoporosis
NyuB100	[X]Other osteoporosis	osteoporosis
NyuB200	[X]Osteoporosis in other disorders classified elsewhere	osteoporosis
NyuB800	[X]Unspecified osteoporosis with pathological fracture	osteoporosis
NyuB800	[X]Unspecified osteoporosis with pathological fracture	osteoporosis
1461000	H/O: dementia	dementia
E000.00	Uncomplicated senile dementia	dementia
E001.00	Presenile dementia	dementia
E001000	Uncomplicated presenile dementia	dementia
E00..11	Senile dementia	dementia
E001100	Presenile dementia with delirium	dementia
E00..12	Senile/presenile dementia	dementia
E001200	Presenile dementia with paranoia	dementia
E001300	Presenile dementia with depression	dementia
E001z00	Presenile dementia NOS	dementia
E002.00	Senile dementia with depressive or paranoid features	dementia
E002000	Senile dementia with paranoia	dementia
E002100	Senile dementia with depression	dementia
E002z00	Senile dementia with depressive or paranoid features NOS	dementia
E003.00	Senile dementia with delirium	dementia

E004.00	Arteriosclerotic dementia	dementia
E004000	Uncomplicated arteriosclerotic dementia	dementia
E004100	Arteriosclerotic dementia with delirium	dementia
E004.11	Multi infarct dementia	dementia
E004200	Arteriosclerotic dementia with paranoia	dementia
E004300	Arteriosclerotic dementia with depression	dementia
E004z00	Arteriosclerotic dementia NOS	dementia
E041.00	Dementia in conditions EC	dementia
Eu00.00	[X]Dementia in Alzheimer's disease	dementia
Eu00000	[X]Dementia in Alzheimer's disease with early onset	dementia
Eu00011	[X]Presenile dementia;Alzheimer's type	dementia
Eu00012	[X]Primary degen dementia; Alzheimer's type; presenile onset	dementia
Eu00013	[X]Alzheimer's disease type 2	dementia
Eu00100	[X]Dementia in Alzheimer's disease with late onset	dementia
Eu00111	[X]Alzheimer's disease type 1	dementia
Eu00112	[X]Senile dementia;Alzheimer's type	dementia
Eu00113	[X]Primary degen dementia of Alzheimer's type; senile onset	dementia
Eu00200	[X]Dementia in Alzheimer's dis; atypical or mixed type	dementia
Eu00z00	[X]Dementia in Alzheimer's disease; unspecified	dementia
Eu00z11	[X]Alzheimer's dementia unspec	dementia
Eu01.00	[X]Vascular dementia	dementia
Eu01000	[X]Vascular dementia of acute onset	dementia
Eu01100	[X]Multi-infarct dementia	dementia
Eu01.11	[X]Arteriosclerotic dementia	dementia

Eu01111	[X]Predominantly cortical dementia	dementia
Eu01200	[X]Subcortical vascular dementia	dementia
Eu01300	[X]Mixed cortical and subcortical vascular dementia	dementia
Eu01y00	[X]Other vascular dementia	dementia
Eu01z00	[X]Vascular dementia; unspecified	dementia
Eu02z00	[X] Unspecified dementia	dementia
Eu02z11	[X] Presenile dementia NOS	dementia
Eu02z13	[X] Primary degenerative dementia NOS	dementia
Eu02z14	[X] Senile dementia NOS	dementia
Eu02z16	[X] Senile dementia; depressed or paranoid type	dementia
Eu04100	[X]Delirium superimposed on dementia	dementia
F110.00	Alzheimer's disease	dementia
F110000	Alzheimer's disease with early onset	dementia
F110100	Alzheimer's disease with late onset	dementia
Fyu3000	[X]Other Alzheimer's disease	dementia
M271300	Arterial leg ulcer	leg ulcer
M271400	Mixed venous and arterial leg ulcer	leg ulcer
M271600	Traumatic leg ulcer	leg ulcer
M271.12	Ischaemic leg ulcer	leg ulcer
M271.15	Trophic leg ulcer	leg ulcer
M273.00	Non-healing leg ulcer	leg ulcer
M274.00	Recurrent leg ulcer	leg ulcer
M271.14	Neurogenic leg ulcer	leg ulcer
8CV2.00	Leg ulcer compression therapy started	leg ulcer
8CT1.00	Leg ulcer compression therapy finished	leg ulcer
14F5.00	H/O: venous leg ulcer	leg ulcer

13C4.00	needs walking aid in home	using walking aid
39B..00	walking aid use	using walking aid
39B1.00	stick only for walking	using walking aid
39B2.00	Tripod/quadrupod: walking	using walking aid
39B3.00	uses zimmer frame	using walking aid
39B4.00	uses single walking stick	using walking aid
39B5.00	uses two walking sticks	using walking aid
39B6.00	uses single crutch	using walking aid
39B7.00	uses two crutches	using walking aid
39B8.00	uses orthotic shoes	using walking aid
39BZ.00	other walking aid	using walking aid

9.10 Fall risk factors medications read codes

Drug code	Drug name and dosage	Classification
9930099	Chlordiazepoxide 5mg capsules	benzodiazepines

9963498	Diazepam 2mg/5ml oral solution sugar free	benzodiazepines
8728799	Chlordiazepoxide 5mg capsules	benzodiazepines
9742799	Temazepam 10mg/5ml oral solution sugar free	benzodiazepines
9341699	Temazepam 10mg capsules	benzodiazepines
9729399	Diazepam s/r 10 mg cap	benzodiazepines
9899899	Diazepam 5mg capsules	benzodiazepines
9864998	Diazepam 10mg/2.5ml rectal solution tube	benzodiazepines
8501997	Diazepam 10mg/5ml oral solution	benzodiazepines
9851498	Temazepam 20mg tablets	benzodiazepines
8413299	Lorazepam 1mg/5ml oral solution	benzodiazepines
9746499	Flurazepam 15 mg tab	benzodiazepines
9834399	Amitriptyline 25mg / chlordiazepoxide 10mg capsules	benzodiazepines
9857098	Diazepam 10mg/2ml solution for injection ampoules	benzodiazepines
9868099	Diazepam 2mg tablets	benzodiazepines
9649799	Flurazepam 30mg capsules	benzodiazepines
9717399	Temazepam 10mg tablets	benzodiazepines
9379599	Lorazepam 1mg tablets	benzodiazepines
9777799	Chlordiazepoxide 5mg capsules	benzodiazepines
9521599	Temazepam 15mg capsules	benzodiazepines
9341899	Temazepam 10mg gel-fill capsules	benzodiazepines
9802299	Temazepam 10mg tablets	benzodiazepines
9341599	Temazepam 30mg capsules	benzodiazepines
8660499	Clonazepam 500micrograms/5ml solution sugar free	benzodiazepines
8543899	Lorazepam oral solution	benzodiazepines
7913297	Diazepam 10mg/5ml oral solution	benzodiazepines
9729099	Diazepam 20 mg inj	benzodiazepines
9640899	Diazepam 5mg suppository	benzodiazepines

8461999	Triazolam (roi) 250microgram tablet	benzodiazepines
9971699	Oxazepam 10mg tablets	benzodiazepines
9435499	Diazepam 10mg/2.5ml rect.soln	benzodiazepines
9447399	Triazolam 250mcg tablets	benzodiazepines
9772099	Temazepam 10mg tablets	benzodiazepines
8111499	Lorazepam 500micrograms/5ml oral solution	benzodiazepines
9719299	Diazepam 5mg capsules	benzodiazepines
9807998	Diazepam 2.5mg/5ml oral suspension	benzodiazepines
9308799	Temazepam ud 5ml 10 mg/5ml eli	benzodiazepines
9930098	Chlordiazepoxide 10mg capsules	benzodiazepines
9422299	Lorazepam 5 mg tab	benzodiazepines
9377499	Chlordiazepoxide 25mg tablets	benzodiazepines
9935798	Temazepam 20mg tablets	benzodiazepines
8643099	Lorazepam 500micrograms/5ml oral suspension	benzodiazepines
9917699	Clonazepam 2mg tablets	benzodiazepines
9864799	Chlordiazepoxide 5mg capsules	benzodiazepines
9976199	Diazepam 10mg/2ml emulsion inj	benzodiazepines
9824198	Oxazepam 15mg tablets	benzodiazepines
9466699	Chlordiazepoxide 10mg tablets	benzodiazepines
9640799	Diazepam 10mg/2.5ml rectal solution tube	benzodiazepines
9963298	Diazepam 10mg tablets	benzodiazepines
9657199	Clonazepam 2mg/5ml oral solution sugar free	benzodiazepines
9777798	Chlordiazepoxide 10mg capsules	benzodiazepines
8950199	Diazepam 10mg/2.5ml rect.soln	benzodiazepines
7912897	Diazepam 2.5mg/5ml oral solution	benzodiazepines
9916898	Lorazepam 2.5mg tablets	benzodiazepines
9824199	Oxazepam 10mg tablets	benzodiazepines
9552099	Diazepam 10mg tablets	benzodiazepines

9619599	Diazepam 10 mg inj	benzodiazepines
9916899	Lorazepam 1mg tablets	benzodiazepines
9721699	Diazepam 5mg tablets	benzodiazepines
9963199	Diazepam 2mg tablets	benzodiazepines
9767999	Lorazepam 1 mg sus	benzodiazepines
7956797	Lorazepam 5mg/5ml oral solution	benzodiazepines
9348599	Temazepam 30mg capsules	benzodiazepines
9795099	Temazepam 10mg/5ml oral solution sugar free	benzodiazepines
9860698	Temazepam 10mg tablets	benzodiazepines
8604999	Diazepam 2mg/5ml oral solution sugar free	benzodiazepines
8520697	Diazepam 5mg/5ml oral solution	benzodiazepines
9308399	Temazepam ud 10ml 10 mg/5ml eli	benzodiazepines
9524797	Clonazepam 500microgram tablets	benzodiazepines
9899599	Diazepam 10mg suppositories	benzodiazepines
9721399	Lorazepam 2.5mg tablets	benzodiazepines
9887099	Temazepam 20mg capsules	benzodiazepines
8555999	Clonazepam 250micrograms/5ml oral solution	benzodiazepines
9680899	Chlordiazepoxide 10mg tablets	benzodiazepines
9473799	Diazepam 2mg tablets	benzodiazepines
9285899	Diazepam 10mg/2ml solution for injection ampoules	benzodiazepines
9963299	Diazepam 2mg tablets	benzodiazepines
9858098	Chlordiazepoxide 5mg tablets	benzodiazepines
9279699	Clonazepam 500microgram tablets	benzodiazepines
5981997	Clonazepam 2mg/5ml oral solution sugar free	benzodiazepines
9864999	Diazepam 5mg/5ml oral solution	benzodiazepines
8462099	Triazolam (roi) 125microgram tablet	benzodiazepines
9770899	Temazepam 10mg/5ml oral solution sugar free	benzodiazepines
9519399	Lorazepam 1mg tablets	benzodiazepines

9868098	Diazepam 10mg tablets	benzodiazepines
9654699	Diazepam 10mg/2ml injection	benzodiazepines
9719399	Diazepam 10mg tablets	benzodiazepines
9970599	Diazepam 2.5mg rectal solution	benzodiazepines
9717398	Temazepam 20mg tablets	benzodiazepines
9257399	Diazepam 20mg rectal tubes	benzodiazepines
9978999	Flurazepam 15mg capsules	benzodiazepines
9964599	Diazepam 2mg tablets	benzodiazepines
9947399	Chlordiazepoxide hcl 10mg tabs	benzodiazepines
9864798	Chlordiazepoxide 10mg capsules	benzodiazepines
9721599	Diazepam 2mg/5ml oral solution	benzodiazepines
9754999	Oxazepam 15mg tablets	benzodiazepines
9754998	Oxazepam 10mg tablets	benzodiazepines
9963499	Diazepam 5mg tablets	benzodiazepines
9851799	Clonazepam 1mg/1ml injection	benzodiazepines
9963198	Diazepam 5mg tablets	benzodiazepines
9802298	Temazepam 20mg tablets	benzodiazepines
9599699	Diazepam 5mg tablets	benzodiazepines
9923598	Diazepam 5mg tablets	benzodiazepines
9523099	Temazepam 10mg tablets	benzodiazepines
9904798	Temazepam 10mg/5ml oral solution sugar free	benzodiazepines
9611999	Diazepam 2mg tablets	benzodiazepines
9947599	Clidinium bromide with chlordiazepoxide tablets	benzodiazepines
9624298	Diazepam 5mg tablets	benzodiazepines
9891998	Triazolam 250microgram tablet	benzodiazepines
9963398	Diazepam 10mg tablets	benzodiazepines
9947499	Chlordiazepoxide 5mg capsules	benzodiazepines
9640999	Diazepam 5mg/5ml oral solution	benzodiazepines

9637499	Oxazepam 15 mg cap	benzodiazepines
9642499	Temazepam 10mg tablets	benzodiazepines
9670098	Temazepam 20mg tablets	benzodiazepines
9656098	Diazepam 5mg tablets	benzodiazepines
8842299	Clonazepam 2.5mg/ml drops sugar free	benzodiazepines
9660398	Lorazepam 2.5mg tablets	benzodiazepines
9663499	Clonazepam 500microgram tablets	benzodiazepines
9391399	Clonazepam 500micrograms/5ml solution sugar free	benzodiazepines
9864899	Diazepam 10mg suppositories	benzodiazepines
9935898	Temazepam 20mg capsules	benzodiazepines
9819099	Chlordiazepoxide 5mg capsules	benzodiazepines
9899999	Diazepam 10mg/2ml injection	benzodiazepines
9599799	Diazepam 2mg tablets	benzodiazepines
9512199	Triazolam 125microgram tablet	benzodiazepines
9670099	Temazepam 10mg tablets	benzodiazepines
9790199	Alprazolam 250mcg tablets	benzodiazepines
9933999	Temazepam 10mg capsules	benzodiazepines
9680599	Chlordiazepoxide 10mg tablets	benzodiazepines
9680699	Chlordiazepoxide 10mg capsules	benzodiazepines
9701399	Oxazepam 10mg tablets	benzodiazepines
8051697	Clonazepam 250micrograms/5ml oral suspension	benzodiazepines
8728699	Chlordiazepoxide 10mg capsules	benzodiazepines
9728299	Diazepam 10mg/2ml emulsion inj	benzodiazepines
9341799	Temazepam 30mg gel-fill capsules	benzodiazepines
8842399	Clonazepam 2.5mg/ml drops sugar free	benzodiazepines
9522999	Temazepam 20mg tablets	benzodiazepines
9729199	Diazepam rectal 4 mg sol	benzodiazepines

9729299	Diazepam rectal 2 mg/ml sol	benzodiazepines
9384899	Diazepam 5mg/5ml oral solution	benzodiazepines
9753399	Diazepam 5mg/2.5ml rect.soln	benzodiazepines
9931998	Temazepam 20mg tablets	benzodiazepines
9665699	Clidinium bromide with chlordiazepoxide tablets	benzodiazepines
9768498	Temazepam 20mg tablets	benzodiazepines
9776699	Diazepam 2mg tablets	benzodiazepines
9662799	Dipotassium clorazepate 7.5mg capsules	benzodiazepines
9899699	Diazepam 10mg tablets	benzodiazepines
9680999	Chlordiazepoxide 5mg capsules	benzodiazepines
9135499	Diazepam 20mg rectal tubes	benzodiazepines
9791399	Temazepam 20mg tablets	benzodiazepines
9790899	Triazolam 125mcg tablets	benzodiazepines
9903299	Clorazepate 7.5mg capsules	benzodiazepines
6977697	Clonazepam 312.5micrograms/5ml oral suspension	benzodiazepines
9650499	Diazepam 20mg/4ml injection	benzodiazepines
9661699	Temazepam 20mg tablets	benzodiazepines
5957797	Clonazepam 500micrograms/5ml oral solution sugar free	benzodiazepines
9631199	Diazepam 2mg tablets	benzodiazepines
9656099	Diazepam 2mg tablets	benzodiazepines
9964598	Diazepam 5mg tablets	benzodiazepines
9466499	Diazepam 10mg/2.5ml rect.soln	benzodiazepines
9823998	Chlordiazepoxide 5mg capsules	benzodiazepines
9824899	Chlordiazepoxide 10mg capsules	benzodiazepines
8108399	Clonazepam 500micrograms/5ml oral solution	benzodiazepines
9935899	Temazepam 10mg capsules	benzodiazepines
6156197	Diazepam 2mg/5ml oral suspension	benzodiazepines

9813599	Diazepam 5mg/2.5ml rectal solution tube	benzodiazepines
9725999	Diazepam 10mg/2ml solution for injection ampoules	benzodiazepines
9858099	Chlordiazepoxide 25mg tablets	benzodiazepines
9971698	Oxazepam 15mg tablets	benzodiazepines
9819098	Chlordiazepoxide 10mg capsules	benzodiazepines
9128299	Diazepam 10mg capsules	benzodiazepines
9679197	Diazepam 5mg tablets	benzodiazepines
9971398	Oxazepam 15mg tablets	benzodiazepines
9631198	Diazepam 5mg tablets	benzodiazepines
9860798	Temazepam 10mg tablets	benzodiazepines
9971399	Oxazepam 10mg tablets	benzodiazepines
9772098	Temazepam 20mg tablets	benzodiazepines
9470499	Amitriptyline 25mg / chlordiazepoxide 10mg capsules	benzodiazepines
9523199	Temazepam 10mg/5ml oral solution sugar free	benzodiazepines
9899799	Diazepam 2mg/5ml oral solution	benzodiazepines
9508799	Triazolam 125mcg tablets	benzodiazepines
9851499	Temazepam 10mg tablets	benzodiazepines
9746599	Flurazepam 30 mg tab	benzodiazepines
9566799	Oxazepam 30mg capsule	benzodiazepines
9993299	Lorazepam 2.5mg tablets	benzodiazepines
9483797	Diazepam 5mg/2.5ml rect.soln	benzodiazepines
9937098	Lorazepam 2.5mg tablets	benzodiazepines
8054897	Clomipramine 50mg/5ml oral solution	psychotropic
9713598	Haloperidol 1.5mg tablets	psychotropic
9813198	Haloperidol 1mg/ml oral solution	psychotropic
8108199	Haloperidol 1mg/5ml oral solution	psychotropic

9369599	Haloperidol 20mg/2ml solution for injection ampoules	psychotropic
9986499	Amitriptyline 10mg tablets	psychotropic
8236799	Fluoxetine 10mg tablets	psychotropic
9675899	Haloperidol 20mg/2ml injectio	psychotropic
9477199	Amitriptyline 25mg tablets	psychotropic
7590597	Fluoxetine 20mg dispersible tablets sugar free	psychotropic
8443699	Fluoxetine 20mg/5ml oral solution sugar free	psychotropic
9280899	Amitriptyline 10mg/5ml sugar free oral solution	psychotropic
8874799	Doxepin hydrochloride 5% cream	psychotropic
9508699	Haldol 1.5 mg tab	psychotropic
8529899	Fluphenazine dec 50mg/2ml inj	psychotropic
9634598	Fluvoxamine 100mg tablets	psychotropic
9690198	Clomipramine 50mg capsules	psychotropic
9910799	Trifluoperazine 15mg m/r caps	psychotropic
9911299	Isopropamide iodide with trifluoperazine tablet	psychotropic
9986899	Amitriptyline 10mg tablets	psychotropic
9463099	Nortriptyline 10mg / fluphenazine 500microgram tablets	psychotropic
9986999	Amitriptyline 10mg tablets	psychotropic
9317399	Sertraline 50mg tablets	psychotropic
9664099	Clomipramine 10mg capsules	psychotropic
9734499	Haloperidol 50mg/1ml injection	psychotropic
7993297	Haloperidol 2mg/5ml oral suspension	psychotropic
9400799	Loxapine 25mg capsules	psychotropic
9670999	Fluoxetine 20mg capsules	psychotropic
9955498	Imipramine 25mg tablets	psychotropic
9613099	Imipramine 25mg/5ml oral solution	psychotropic
9192199	Haloperidol 1mg/ml sugar free oral solution	psychotropic

8387899	Clomipramine 50mg/5ml oral suspension	psychotropic
9987099	Amitriptyline 10mg tablets	psychotropic
9665499	Fluoxetine 20mg capsules	psychotropic
9624999	Haloperidol 500microgram tablets	psychotropic
9369499	Sertraline 50mg tablets	psychotropic
9538899	Fluoxetine 20mg capsules	psychotropic
9711299	Imipramine 25mg tablets	psychotropic
9650199	Fluphenazine 2.5mg tablets	psychotropic
9649399	Fluvoxamine 100mg tablets	psychotropic
9713599	Haloperidol 500microgram tablets	psychotropic
8517199	Doxepin 50mg capsules	psychotropic
9813899	Amitriptyline 25mg m/r caps	psychotropic
8111599	Haloperidol 1mg/5ml oral suspension	psychotropic
7993097	Haloperidol 500micrograms/5ml oral solution	psychotropic
9384299	Sertraline 100mg tablets	psychotropic
9630799	Haloperidol 100mg/ml 100 mg inj	psychotropic
5947497	Trifluoperazine 1mg/5ml oral solution sugar free	psychotropic
8615999	Sertraline 50mg/5ml oral suspension	psychotropic
8530399	Fluphenazine decanoate 12.5mg/0.5ml solution for injection a	psychotropic
9986998	Amitriptyline 25mg tablets	psychotropic
9515499	Imipramine 75 mg tab	psychotropic
9709199	Imipramine 10mg tabs	psychotropic
9815599	Haloperidol 5mg/ml injection	psychotropic
9941199	Fluphenazine hcl 5mg tablets	psychotropic
9515599	Imipramine 25 mg cap	psychotropic
8530199	Fluphenazine decanoate 50mg/2ml solution for injection ampou	psychotropic
9281599	Haloperidol 1.5mg/5ml sugar free oral solution	psychotropic

8021097	Doxepin 50mg/5ml oral solution	psychotropic
9515699	Imipramine 50 mg tab	psychotropic
9986798	Amitriptyline 25mg tablets	psychotropic
9569599	Nortriptyline 10mg/5ml liquid	psychotropic
9569699	Nortriptyline 10mg tablets	psychotropic
8940799	Doxepin 5% cream	psychotropic
9979499	Clomipramine hcl 25mg/2ml inj	psychotropic
9510799	Trimipramine 25mg tablets	psychotropic
9794499	Haloperidol 20mg/2ml injectio	psychotropic
9384199	Trimipramine 10mg tablets	psychotropic
9820399	Trifluoperazine 5.00mg/ml 5 mg syr	psychotropic
9692499	Amitriptyline 10mg/ml injection	psychotropic
9192899	Fluoxetine 20mg/5ml oral solution	psychotropic
9400699	Loxapine 50mg capsules	psychotropic
9987199	Amitriptyline 10mg tablets	psychotropic
9929798	Clomipramine 50mg capsules	psychotropic
9986898	Amitriptyline 50mg tablets	psychotropic
9444799	Fluoxetine 60mg capsules	psychotropic
9812399	Doxepin 75mg capsules	psychotropic
7639897	Fluoxetine 20mg orodispersible tablets sugar free	psychotropic
9986399	Amitriptyline 10mg tablets	psychotropic
9754898	Clomipramine 25mg capsules	psychotropic
9805298	Trifluoperazine 1mg tablets	psychotropic
9777398	Clomipramine 25mg capsules	psychotropic
9663799	Clomipramine hcl 25mg/2ml inj	psychotropic
9081499	Fluoxetine 20mg capsules	psychotropic
9470399	Amitriptyline 10mg / perphenazine 2mg tablets	psychotropic

9674299	Fluphenazine decanoate 25mg/1ml solution for injection ampou	psychotropic
9557499	Perphenazine 2mg with amitriptyline 25mg tablet	psychotropic
8146799	Haloperidol 10mg/5ml oral solution sugar free	psychotropic
8529699	Fluphenazine decanoate 100mg/1ml solution for injection ampo	psychotropic
9722399	Amitriptyline 50mg tablets	psychotropic
9400499	Amoxapine 150mg tablets	psychotropic
9383999	Trimipramine 50mg capsules	psychotropic
9650099	Fluphenazine enanthate 25mg/ml injection	psychotropic
8146899	Haloperidol 5mg/5ml oral solution sugar free	psychotropic
9834098	Clomipramine 25mg capsules	psychotropic
8440399	Fluoxetine 20mg/5ml oral solution sugar free	psychotropic
6618797	Sertraline 150mg/5ml oral suspension	psychotropic
8320699	Doxepin 25mg/5ml oral suspension	psychotropic
9390599	Fluoxetine 20mg capsules	psychotropic
9628199	Fluoxetine 20mg capsules	psychotropic
9517499	Thioridazine 100mg/5ml oral suspension	psychotropic
9862599	Haloperidol 2mg/ml sugar free liquid	psychotropic
8517299	Doxepin 25mg capsules	psychotropic
9759399	Imipramine hcl 12.5 mg inj	psychotropic
9303299	Fluphenazine decanoate 12.5 mg inj	psychotropic
9663899	Clomipramine 75mg modified-release tablets	psychotropic
9624699	Haloperidol 500microgram capsules	psychotropic
9628699	Fluphenazine decanoate 25mg/1ml solution for injection ampou	psychotropic
9624499	Haloperidol 500mcg tablets	psychotropic
9514399	Tranylcypromine with trifluoperazine tablet	psychotropic
9624799	Haloperidol 1mg/5ml sugar free oral solution	psychotropic

9626599	Haldol 20 mg tab	psychotropic
9987198	Amitriptyline 50mg tablets	psychotropic
9688998	Haloperidol 500microgram tablets	psychotropic
9667499	Fluoxetine 20mg capsules	psychotropic
8530299	Fluphenazine decanoate 25mg/1ml solution for injection ampou	psychotropic
9511899	Trifluoperazine 5mg/5ml oral solution sugar free	psychotropic
9616297	Fluoxetine 20mg capsules	psychotropic
9644299	Desipramine 25mg tablets	psychotropic
8543799	Imipramine oral solution	psychotropic
9814099	Imipramine 25mg tablets	psychotropic
9374999	Sertraline 50mg tablets	psychotropic
9986198	Amitriptyline 25mg tablets	psychotropic
9406799	Amitriptyline 75 mg tab	psychotropic
9986498	Amitriptyline 50mg tablets	psychotropic
9517599	Thioridazine 10mg tablets	psychotropic
9986398	Amitriptyline 50mg tablets	psychotropic
9400999	Amoxapine 100mg tablets	psychotropic
7993497	Haloperidol 2mg/5ml oral solution	psychotropic
9664799	Fluoxetine 20mg capsules	psychotropic
9812899	Amitriptyline 10mg/5ml sugar free oral solution	psychotropic
9955499	Imipramine 10mg tablets	psychotropic
9862598	Haloperidol 1mg/5ml sugar free oral solution	psychotropic
9624299	Haloperidol 2mg/ml liquid	psychotropic
9668799	Imipramine 100 mg tab	psychotropic
9840398	Thioridazine 10mg/5ml oral solution	psychotropic
9813699	Trimipramine 25mg tablets	psychotropic
9813199	Haloperidol 1.5mg tablets	psychotropic

9664499	Fluoxetine 20mg capsules	psychotropic
9986699	Amitriptyline 10mg tablets	psychotropic
9630899	Doxepin 25mg capsules	psychotropic
9889999	Thioridazine 100mg/5ml susp	psychotropic
9672999	Fluoxetine 20mg capsules	psychotropic
9665999	Fluoxetine 20mg capsules	psychotropic
9943799	Thioridazine 10mg tablets	psychotropic
9840498	Thioridazine 50mg tablets	psychotropic
8529999	Fluphenazine dec 25mg/1ml inj	psychotropic
9665199	Fluoxetine 20mg capsules	psychotropic
9689199	Amitriptyline s/f 25 mg/5ml syr	psychotropic
6793597	Haloperidol 1.5mg/5ml oral suspension	psychotropic
8243299	Imipramine 25mg/5ml oral solution sugar free	psychotropic
9336099	Clomipramine hcl 10mg capsules	psychotropic
9800399	Thioridazine 25mg tablets	psychotropic
9479599	Doxepin hydrochloride 5% cream	psychotropic
6618597	Sertraline 20mg/5ml oral suspension	psychotropic
9806798	Amitriptyline 50mg/5ml oral solution sugar free	psychotropic
9806799	Amitriptyline 25mg/5ml oral solution sugar free	psychotropic
9821299	Trimipramine 50 mg tab	psychotropic
8378699	Haloperidol 5mg/1ml injection	psychotropic
9511999	Trifluoperazine 5mg tablets	psychotropic
9681098	Fluvoxamine 100mg tablets	psychotropic
9317499	Sertraline 50mg tablets	psychotropic
9982699	Amitriptyline 200 mg tab	psychotropic
9658697	Trifluoperazine 1mg tablets	psychotropic
9814299	Clomipramine hcl 75mg m/r tabs	psychotropic

9910999	Trifluoperazine 5mg tablets	psychotropic
9910899	Trifluoperazine 2mg m/r caps	psychotropic
9400599	Amoxapine 50mg tablets	psychotropic
9015999	Fluoxetine 20mg capsules	psychotropic
9649299	Fluvoxamine maleate 100mg tabs	psychotropic
9854499	Haloperidol 1.5mg tablets	psychotropic
9734599	Haloperidol 5mg/1ml injection	psychotropic
9306699	Fluoxetine 20mg capsules	psychotropic
9955698	Imipramine 25mg tablets	psychotropic
9660699	Fluoxetine 20mg capsules	psychotropic
9272999	Sertraline 100mg tablets	psychotropic
9262399	Trifluoperazine 2mg modified-release capsules	psychotropic
9929799	Clomipramine 10mg capsules	psychotropic
9746699	Fluphenazine hcl eli	psychotropic
9373299	Sertraline 100mg tablets	psychotropic
9756899	Haloperidol 5 mg liq	psychotropic
8102497	Amitriptyline 5mg/5ml oral suspension	psychotropic
9616897	Fluoxetine 20mg capsules	psychotropic
9649899	Fluphenazine decanoate 25mg/ml injection	psychotropic
9959299	Fluoxetine 20mg capsules	psychotropic
9815299	Nortriptyline 25mg tablets	psychotropic
9517399	Thioridazine 25mg/5ml oral solution	psychotropic
9794699	Haloperidol 1.5mg tablets	psychotropic
9407699	Amitriptyline 25mg tablets	psychotropic
9282199	Thioridazine 100mg/5ml sugar free oral solution	psychotropic
9615597	Fluoxetine 20mg/5ml oral solution	psychotropic
8529799	Fluphenazine decanoate 50mg/0.5ml solution for injection amp	psychotropic

9800398	Thioridazine 50mg tablets	psychotropic
9840499	Thioridazine 25mg tablets	psychotropic
9818399	Tofranil 50 mg tab	psychotropic
9943699	Thioridazine 100mg tablets	psychotropic
9805299	Trifluoperazine 5mg tablets	psychotropic
8529599	Fluphenazine 50mg/0.5ml inj	psychotropic
9561099	Fluoxetine 60mg capsules	psychotropic
9940899	Fluphenazine enan 25mg/1ml in	psychotropic
9335899	Clomipramine hcl 50mg capsules	psychotropic
9812499	Doxepin 50mg capsules	psychotropic
9813099	Amitriptyline 25mg tablets	psychotropic
9812999	Amitriptyline 75mg m/r caps	psychotropic
9734699	Haloperidol 10mg tablets	psychotropic
9815499	Nortriptyline 10mg capsules	psychotropic
9814699	Desipramine hcl 25mg tablets	psychotropic
9840399	Thioridazine 25mg/5ml oral solution	psychotropic
8108599	Amitriptyline 10mg/5ml oral solution	psychotropic
9820699	Trifluoperazine tab	psychotropic
9808099	Haloperidol 1.5mg/5ml sugar free oral solution	psychotropic
9384099	Trimipramine 25mg tablets	psychotropic
9986698	Amitriptyline 50mg tablets	psychotropic
9854498	Haloperidol 5mg tablets	psychotropic
9449099	Fluoxetine 20mg capsules	psychotropic
9834099	Clomipramine 10mg capsules	psychotropic
9987098	Amitriptyline 25mg tablets	psychotropic
9814999	Imipramine 25mg tablets	psychotropic
9076699	Fluoxetine 20mg/5ml oral liq	psychotropic
9771598	Thioridazine 50mg tablets	psychotropic

9688999	Haloperidol 5mg tablets	psychotropic
9611599	Haloperidol 1.5mg tablets	psychotropic
9955598	Imipramine 25mg tablets	psychotropic
9955599	Imipramine 10mg tablets	psychotropic
9986199	Amitriptyline 10mg tablets	psychotropic
9272899	Sertraline 50mg tablets	psychotropic
9193299	Haloperidol 5mg/5ml oral solution sugar free	psychotropic
8529499	Fluphenazine dec 100mg/1ml inj	psychotropic
9754899	Clomipramine 10mg capsules	psychotropic
9982499	Amitriptyline 100 mg tab	psychotropic
8719099	Haloperidol 250micrograms/5ml oral suspension	psychotropic
9462699	Trifluoperazine with tranylcypromine 1mg + 10mg tablet	psychotropic
9624899	Haloperidol 10mg tablets	psychotropic
9560799	Trifluoperazine 1mg tablets	psychotropic
9627299	Fluoxetine 20mg capsules	psychotropic
9542699	Fluoxetine 20mg/5ml oral solution	psychotropic
9986599	Amitriptyline 25mg tablets	psychotropic
9524299	Haloperidol 500microgram tablets	psychotropic
9582099	Fluoxetine 20mg/5ml oral solution	psychotropic
9581399	Fluoxetine 20mg/5ml oral solution	psychotropic
9657099	Thioridazine s/f 50 mg/5ml syr	psychotropic
9771599	Thioridazine 25mg tablets	psychotropic
8378799	Haloperidol 5mg/1ml solution for injection ampoules	psychotropic
9815099	Amitriptyline 25mg tablets	psychotropic
9624897	Nortriptyline 10mg tablets	psychotropic
9624599	Haloperidol decanoate 50mg/1ml solution for injection ampoul	psychotropic

9836098	Haloperidol 1.5mg tablets	psychotropic
9794599	Haloperidol 10mg tablets	psychotropic
6618397	Sertraline 25mg/5ml oral suspension	psychotropic
9875999	Fluphenazine dec 100mg/1ml inj	psychotropic
6294897	Imipramine 25mg/5ml oral solution sugar free	psychotropic
9692599	Amitriptyline 75mg modified-release capsules	psychotropic
8108499	Amitriptyline 10mg/5ml oral suspension	psychotropic
9400899	Amoxapine 150mg tablets	psychotropic
9982599	Amitriptyline 300 mg tab	psychotropic
9840099	Trifluoperazine 1mg tablets	psychotropic
9802799	Sinequan 15 mg tab	psychotropic
9716799	Clomipramine 25 mg tab	psychotropic
7926197	Sertraline 100mg/5ml oral suspension	psychotropic
9986299	Amitriptyline 25mg tablets	psychotropic
9424999	Nortriptyline 10 mg eli	psychotropic
7029097	Amitriptyline 2.5mg/5ml oral solution	psychotropic
9147899	Propranolol 160mg m/r capsules	antidepressant
9818699	Chlorpromazine 25mg/ml injection	antidepressant
9404699	Lamotrigine 200mg tablets	antidepressant
9691699	Carbamazepine 100mg tablets	antidepressant
9467199	Hydrochlorothiazide with atenolol and amiloride capsule	antidepressant
8698499	Risperidone 500microgram orodispersible tablets sugar free	antidepressant
8601999	Lamotrigine 50mg dispersible tablets sugar free	antidepressant
9806298	Chlorpromazine 100mg/5ml oral solution	antidepressant
9009497	Mirtazapine 30mg disp tabs	antidepressant
9908197	Propranolol 10mg tablets	antidepressant

9658699	Buspirone 5mg tablets	antidepressant
9403599	Mirtazapine 45mg tablets	antidepressant
9845199	Propranolol 80mg tablets	antidepressant
9907797	Propranolol 10mg tablets	antidepressant
8148099	Carbamazepine 200mg m/r tabs	antidepressant
9295499	Risperidone 3mg tablets	antidepressant
9483599	Gabapentin 300mg capsules	antidepressant
9374699	Propranolol 80mg m/r capsules	antidepressant
9217499	Citalopram 40mg/ml oral drops sugar free	antidepressant
8296199	Venlafaxine 225mg modified-release tablets	antidepressant
9623898	Propranolol 40mg tablets	antidepressant
9928199	Tranylcypromine 10mg tablets	antidepressant
9898999	Gabapentin 800mg tablets	antidepressant
8838899	Propranolol 160mg m/r capsules	antidepressant
9466899	Nifedipine with atenolol 20mg + 50mg capsule	antidepressant
9399499	Citalopram 10mg tablets	antidepressant
8280199	Clozapine 200mg tablets	antidepressant
9353099	Carbamazepine 200mg chewable tablets sugar free	antidepressant
9155499	Propranolol 10mg tablets	antidepressant
9670297	Chlorpromazine 10mg tablets	antidepressant
9401299	Lamotrigine 50mg tablets	antidepressant
9270999	Lamotrigine 100mg disp tablets	antidepressant
9941798	Propranolol 80mg tablets	antidepressant
8171899	Propranolol 80mg modified-release capsules	antidepressant
8315099	Venlafaxine 75mg m/r capsules	antidepressant
9778698	Atenolol 100mg tablets	antidepressant
9290899	Risperidone 1mg/ml oral solution sugar free	antidepressant
6158397	Olanzapine 15mg orodispersible tablets	antidepressant

9515999	Gabapentin 300mg capsules	antidepressant
9767499	Lithium 250 mg cap	antidepressant
9431999	Propranolol paed 4 mg tab	antidepressant
6158197	Olanzapine 20mg orodispersible tablets	antidepressant
9138099	Citalopram 40mg tablets	antidepressant
9476199	Chlorpromazine 50mg tablets	antidepressant
8636299	Gabapentin 400mg/5ml oral suspension	antidepressant
9146599	Lamotrigine 2mg dispersible tablets sugar free	antidepressant
8097699	Olanzapine 10mg oral lyophilisates sugar free	antidepressant
9339799	Lithium succinate 8% ointment	antidepressant
8821799	Carbamazepine 400mg m/r tabs	antidepressant
8745399	Aripiprazole 10mg tablets	antidepressant
9307699	Atenolol 50mg tablets	antidepressant
9412699	Mirtazapine 30mg tablets	antidepressant
7939997	Propranolol 40mg/5ml oral solution	antidepressant
8503999	Risperidone 3mg disp tabs	antidepressant
8167799	Lamotrigine 50mg suppository	antidepressant
9830099	Atenolol 50mg tablets	antidepressant
8694599	Methylphenidate 30mg m/r caps	antidepressant
6109197	Carbamazepine 200mg tablets	antidepressant
9743399	Olanzapine 15mg tablets	antidepressant
8698199	Mirtazapine 45mg tablets	antidepressant
9712899	Carbamazepine 200mg modified-release tablets	antidepressant
9669798	Carbamazepine 100mg tablets	antidepressant
9505199	Paroxetine 20mg tablets	antidepressant
8701999	Clozapine 100mg tablets	antidepressant
8708999	Aripiprazole 5mg tablets	antidepressant
8277299	Quetiapine 100mg/5ml oral suspension	antidepressant

9358799	Chlorpromazine 100mg suppository	antidepressant
9599597	Citalopram 10mg tablets	antidepressant
9430999	Methylphenidate 20mg m/r caps	antidepressant
5863897	Quetiapine 25mg tablets	antidepressant
8725199	Citalopram 10mg tablets	antidepressant
9295799	Risperidone 500microgram tablets	antidepressant
9984399	Prazepam 10mg tablets	antidepressant
9525897	Carbamazepine 100mg/5ml oral suspension sugar free	antidepressant
8694999	Methylphenidate 10mg modified-release capsules	antidepressant
9953699	Propranolol 160mg m/r capsules	antidepressant
9668999	Chlorpromazine 100mg tablets	antidepressant
9723699	Chlorpromazine 25mg tablets	antidepressant
9467099	Atenolol with amiloride and hydrochlorothiazide capsules	antidepressant
8473399	Methylphenidate 27mg modified-release tablets	antidepressant
8839699	Topiramate 50mg capsules	antidepressant
8745199	Aripiprazole 30mg tablets	antidepressant
9454599	Amiloride with atenolol with hydrochlorothiazide capsules	antidepressant
9144899	Methylphenidate 5mg tablets	antidepressant
9468199	Propranolol 160mg modified-release capsules	antidepressant
9186999	Olanzapine 15mg tablets	antidepressant
8766299	Escitalopram 5mg tablets	antidepressant
8473699	Methylphenidate 40mg m/r caps	antidepressant
9690799	Atenolol 5mg/10ml solution for injection ampoules	antidepressant
9691499	Risperidone 3mg tablets	antidepressant
9399699	Citalopram 20mg tablets	antidepressant

9493699	Citalopram 40mg tablets	antidepressant
8828599	Escitalopram 10mg tablets	antidepressant
9600399	Propranolol 40mg tablets	antidepressant
8816399	Risperidone 37.5mg powder and solvent for suspension for inj	antidepressant
8852199	Propranolol 160mg m/r capsules	antidepressant
9623899	Propranolol 10mg tablets	antidepressant
9468299	Propranolol 80mg modified-release capsules	antidepressant
9806299	Chlorpromazine 25mg/5ml oral solution	antidepressant
5273697	Quetiapine 200mg tablets	antidepressant
8807799	Atenolol 50mg tablets	antidepressant
9500799	Paroxetine 30mg tablets	antidepressant
8097499	Olanzapine 15mg orodispersible tablets sugar free	antidepressant
9137499	Risperidone 1mg orodispersible tablets sugar free	antidepressant
9357999	Carbamazepine 200mg modified-release tablets	antidepressant
9039599	Risperidone 1mg disp tablets	antidepressant
9139599	Citalopram 40mg tablets	antidepressant
9713499	Chlorpromazine 200 mg tab	antidepressant
9551999	Risperidone 50mg powder and solvent for suspension for injec	antidepressant
9167199	Escitalopram 10mg tablets	antidepressant
9290399	Mirtazapine 45mg orodispersible tablets	antidepressant
9518799	Gabapentin 600mg tablets	antidepressant
9221299	Buspirone 5mg tablets	antidepressant
9533399	Citalopram 40mg tablets	antidepressant
9767399	Lithium chloride 400 mg sol	antidepressant
5874797	Mirtazapine 15mg orodispersible tablets sugar free	antidepressant

8002497	Venlafaxine 150mg m/r tablets	antidepressant
5874597	Mirtazapine 45mg orodispersible tablets sugar free	antidepressant
9798399	Propranolol 80mg modified-release capsules	antidepressant
9599599	Propranolol 80mg tablets	antidepressant
9136199	Nefazodone starter pack	antidepressant
8098099	Olanzapine 5mg orodispersible tablets	antidepressant
5216597	Venlafaxine 150mg m/r tablets	antidepressant
8873799	Quetiapine 100mg tablets	antidepressant
8794699	Mirtazapine 30mg orodispersible tablets	antidepressant
8916297	Methylphenidate 54mg modified-release tablets	antidepressant
9479799	Mirtazapine 30mg tablets	antidepressant
8296399	Venlafaxine 75mg m/r tablets	antidepressant
8916797	Methylphenidate 10mg m/r caps	antidepressant
9993399	Lorazepam 4mg/1ml injection	antidepressant
5805197	Methylphenidate 30mg m/r caps	antidepressant
9513397	Lamotrigine 100mg tablets	antidepressant
8431199	Carbamazepine 500mg/5ml oral suspension	antidepressant
9493799	Citalopram 20mg tablets	antidepressant
9759099	Propranolol 10mg tablets	antidepressant
8102299	Propranolol 80mg m/r capsules	antidepressant
9603497	Venlafaxine 75mg modified-release capsules	antidepressant
6816597	Carbamazepine 10mg/5ml oral suspension	antidepressant
6244697	Gabapentin 6% gel	antidepressant
9570599	Citalopram 10mg tablets	antidepressant
9472699	Atenolol+nifedip 50/20mg m/r	antidepressant
9297999	Mirtazapine 45mg orodispersible tablets	antidepressant
5937097	Quetiapine 300mg m/r tablets	antidepressant

9927899	Atenolol 50mg tablets	antidepressant
8326499	Venlafaxine 150mg m/r capsules	antidepressant
9230999	Bupropion 150mg modified-release tablets	antidepressant
8956999	Olanzapine 7.5mg tablets	antidepressant
9526999	Citalopram 40mg tablets	antidepressant
9467999	Atenolol 50mg tablets	antidepressant
9254299	Lithium carb 400mg m/r tabs	antidepressant
8990899	Risperidone 50mg pdr+solv inj	antidepressant
9516199	Gabapentin 100mg capsules	antidepressant
9359599	Clozapine 100mg tablets	antidepressant
9059099	Methylphenidate hcl 20mg tabs	antidepressant
8316099	Venlafaxine 75mg modified-release tablets	antidepressant
9563399	Citalopram 10mg tablets	antidepressant
9526697	Carbamazepine 400mg m/r tabs	antidepressant
9777999	Carbamazepine 100mg tablets	antidepressant
9711199	Olanzapine 15mg tablets	antidepressant
9703399	Carbamazepine 100mg tablets	antidepressant
9642197	Olanzapine 2.5mg tablets	antidepressant
9042599	Gabapentin 600mg tablets and gabapentin 300mg capsules	antidepressant
9833699	Venlafaxine 75mg tablets	antidepressant
8956799	Olanzapine 7.5mg tablets	antidepressant
6960597	Citalopram 10mg/5ml oral suspension	antidepressant
8873499	Quetiapine 25+100+150mg tabs	antidepressant
7691697	Carbamazepine 400mg m/r tabs	antidepressant
8379399	Sodium valproate with valproic acid 250mg modified release g	antidepressant
9712399	Propranolol 10mg tablets	antidepressant
8709099	Aripiprazole 5mg tablets	antidepressant

8379099	Sodium valproate with valproic acid 1000mg modified release	antidepressant
5508397	Quetiapine 50mg modified-release tablets	antidepressant
9039699	Risperidone 2mg orodispersible tablets sugar free	antidepressant
6532797	Topiramate 100mg/5ml oral solution	antidepressant
9183799	Propranolol 160mg m/r capsules	antidepressant
9477399	Mirtazapine 30mg tablets	antidepressant
9794399	Propranolol 160mg modified-release capsules	antidepressant
9859198	Atenolol 25mg tablets	antidepressant
9339699	Lithium with zinc sulphate 8% + 0.05% cream	antidepressant
8219099	Venlafaxine 150mg m/r capsules	antidepressant
8279999	Clozapine 50mg/ml oral suspension sugar free	antidepressant
9295199	Lorazepam 1mg tablets	antidepressant
6158597	Olanzapine 10mg orodispersible tablets	antidepressant
8583599	Aripiprazole 1mg/ml oral solution	antidepressant
8146599	Methylphenidate 5mg m/r caps	antidepressant
9796899	Atenolol 25mg tablets	antidepressant
9838099	Propranolol 160mg tablets	antidepressant
9670197	Chlorpromazine 25mg tablets	antidepressant
6530997	Topiramate 20mg/5ml oral suspension	antidepressant
5946997	Quetiapine 25mg tablets	antidepressant
6114597	Olanzapine 20mg oral lyophilisates sugar free	antidepressant
9964999	Risperidone 1mg tablets	antidepressant
8794599	Mirtazapine 30mg disp tabs	antidepressant
9440199	Mirtazapine 15mg tablets	antidepressant
9770599	Lithium citr 5.4mmol/5ml liq	antidepressant
7930497	Venlafaxine 37.5mg modified-release capsules	antidepressant
9187099	Olanzapine 10mg tablets	antidepressant

8503899	Risperidone 4mg disp tabs	antidepressant
9341299	Lithium car 520mg/5ml s/f liq	antidepressant
8497799	Lithium carbonate 200mg/5ml oral suspension	antidepressant
6960697	Citalopram 10mg/5ml oral suspension	antidepressant
9533299	Paroxetine 20mg tablets	antidepressant
9231199	Bupropion hcl 150mg m/r tabs	antidepressant
8413499	Lorazepam 1mg/5ml oral suspension	antidepressant
9975199	Carbamazepine 100mg tablets	antidepressant
9291799	Sodium valproate with valproic acid 200mg modified release t	antidepressant
6462297	Quetiapine 50mg m/r tablets	antidepressant
8123699	Quetiapine 12.5mg/5ml oral solution	antidepressant
9210799	Risperidone 2mg disp tablets	antidepressant
9551499	Propranolol 10 mg sus	antidepressant
8321799	Venlafaxine 150mg m/r capsules	antidepressant
9281399	Mirtazapine 45mg tablets	antidepressant
8002797	Gabapentin 300mg/5ml oral solution	antidepressant
9856199	Escitalopram 20mg tablets	antidepressant
9521699	Sodium valproate with valproic acid 500mg modified release t	antidepressant
9489499	Citalopram 20mg tablets	antidepressant
8474399	Methylphenidate hcl 20mg tabs	antidepressant
9989699	Venlafaxine 37.5mg tablets	antidepressant
8104199	Olanzapine 5mg disp tabs	antidepressant
9688599	Carbamazepine 100mg/5ml oral suspension sugar free	antidepressant
9249199	Risperidone 500microgram orodispersible tablets sugar free	antidepressant
8111399	Quetiapine 12.5mg/5ml oral suspension	antidepressant
8097399	Olanzapine 15mg orodispersible tablets	antidepressant

9533499	Citalopram 20mg tablets	antidepressant
8219999	Olanzapine 300mg pdr+solv inj	antidepressant
9600099	Lithium citrate 564mg modified-release tablets	antidepressant
8473999	Methylphenidate 20mg m/r caps	antidepressant
8097199	Olanzapine 20mg orodispersible tablets sugar free	antidepressant
8893897	Quetiapine 300mg m/r tablets	antidepressant
9202399	Risperidone 0.5mg tablets	antidepressant
8474099	Methylphenidate 10mg m/r caps	antidepressant
9273499	Carbamazepine 125mg suppositories	antidepressant
9042699	Gabapentin 800mg tablets	antidepressant
5936997	Quetiapine 200mg m/r tablets	antidepressant
9404499	Lamotrigine 25mg dispersible tablets sugar free	antidepressant
9105199	Topiramate 50mg tablets	antidepressant
9819298	Chlorpromazine 100mg tablets	antidepressant
9845198	Propranolol 80mg modified-release capsules	antidepressant
8220299	Olanzapine 210mg pdr+solv inj	antidepressant
9566699	Citalopram 40mg tablets	antidepressant
9904497	Propranolol 80mg m/r capsules	antidepressant
5326797	Gabapentin 50mg/ml oral solution sugar free	antidepressant
8694799	Methylphenidate 10mg m/r caps	antidepressant
9346099	Lamotrigine 50mg tablets	antidepressant
8287599	Venlafaxine 75mg m/r capsules	antidepressant
6495197	Gabapentin 600mg/5ml oral solution	antidepressant
8537699	Olanzapine 20mg tablets	antidepressant
9245499	Mirtazapine 15mg orodispersible tablets	antidepressant
6464097	Venlafaxine 75mg/5ml oral solution	antidepressant
5879997	Quetiapine 50mg m/r tablets	antidepressant

9184499	Methylphenidate 20mg modified-release capsules	antidepressant
8193099	Venlafaxine 75mg modified-release capsules	antidepressant
8583399	Aripiprazole 15mg disp tabs	antidepressant
9686599	Lithium 10.8 mmols/5mls liq	antidepressant
9298099	Mirtazapine 30mg orodispersible tablets	antidepressant
8220199	Olanzapine embonate 300mg powder and solvent for suspension	antidepressant
9667497	Chlorpromazine 25mg/5ml oral solution	antidepressant
8307499	Venlafaxine 150mg modified-release capsules	antidepressant
8632599	Olanzapine 20mg orodispersible tablet	antidepressant
8916697	Methylphenidate 20mg modified-release tablets	antidepressant
9295399	Risperidone 4mg tablets	antidepressant
8296299	Venlafaxine 150mg m/r tablets	antidepressant
6367397	Quetiapine 50mg/5ml oral solution	antidepressant
8840599	Propranolol 80mg m/r capsules	antidepressant
5952997	Chlorpromazine 10mg capsules	antidepressant
9411199	Chlorpromazine hcl 100 mg tab	antidepressant
8766399	Escitalopram 5mg tablets	antidepressant
9290699	Mirtazapine 15mg orodispersible tablets	antidepressant
8192499	Quetiapine 150mg modified-release tablets	antidepressant
9836099	Carbamazepine 100mg/5ml sf liq	antidepressant
9901099	Chlorpromazine 50mg tablets	antidepressant
8379299	Sodium valproate with valproic acid 500mg modified release g	antidepressant
6309497	Risperidone 125micrograms/5ml oral solution	antidepressant
8474499	Methylphenidate hcl 10mg tabs	antidepressant
9492197	Topiramate 15mg beads in caps	antidepressant
8177099	Topiramate 25mg/5ml oral suspension	antidepressant

8764799	Olanzapine 10mg powder for solution for injection vials	antidepressant
9167699	Risperidone 25mg pdr+solv inj	antidepressant
9381299	Gabapentin 100mg capsules	antidepressant
9535099	Paroxetine 20mg tablets	antidepressant
9387799	Propranolol 160mg modified-release capsules	antidepressant
9066499	Olanzapine 2.5mg tablets	antidepressant
9012597	Mirtazapine 15mg tablets	antidepressant
9669099	Chlorpromazine 100mg/5ml oral suspension sugar free	antidepressant
6017897	Lamotrigine 25mg tablets	antidepressant
9691999	Chlorpromazine 50mg tablets	antidepressant
6157997	Olanzapine 5mg orodispersible tablets	antidepressant
9440099	Mirtazapine 45mg tablets	antidepressant
6532597	Topiramate 10mg/5ml oral solution	antidepressant
8287499	Venlafaxine 150mg m/r capsules	antidepressant
8307599	Venlafaxine 75mg modified-release capsules	antidepressant
9388699	Propranolol 10mg tablets	antidepressant
9401099	Lamotrigine 200mg tablets	antidepressant
8311599	Venlafaxine 75mg m/r capsules	antidepressant
8875599	Venlafaxine 150mg m/r capsules	antidepressant
9600299	Lithium carbonate 450mg modified-release tablets	antidepressant
9798398	Propranolol 160mg modified-release capsules	antidepressant
8537799	Olanzapine 20mg tablets	antidepressant
9937099	Lorazepam 1mg tablets	antidepressant
9401399	Lamotrigine 25mg tablets	antidepressant
8745099	Aripiprazole 10mg tablets	antidepressant
9182899	Olanzapine 20mg tablets	antidepressant
8790899	Quetiapine 300mg tablets	antidepressant

9563299	Citalopram 20mg tablets	antidepressant
8146699	Methylphenidate 5mg modified-release capsules	antidepressant
9530397	Carbamazepine 200mg tablets	antidepressant
9356399	Atenolol 50mg tablets	antidepressant
8147399	Quetiapine 25mg/5ml oral suspension	antidepressant
5552397	Risperidone 25mg pdr+solv inj	antidepressant
9104599	Topiramate 25mg tablets	antidepressant
6470597	Gabapentin 400mg/5ml oral solution	antidepressant
6541097	Topiramate 12.5mg/5ml oral suspension	antidepressant
8106799	Propranolol 160mg modified-release capsules	antidepressant
9491099	Dexedrine 2.5 mg tab	antidepressant
8279199	Escitalopram 20mg/ml oral drops sugar free	antidepressant
9104499	Topiramate 15mg capsules	antidepressant
9725299	Dexamphetamine sulphate/amphetamine 20 mg cap	antidepressant
9536599	Chlorpromazine 25mg tablets	antidepressant
9710598	Propranolol 80mg modified-release capsules	antidepressant
9449399	Propranolol 160mg m/r capsules	antidepressant
9845099	Propranolol 40mg tablets	antidepressant
9348999	Paroxetine 30mg tablets	antidepressant
8171699	Propranolol 160mg modified-release capsules	antidepressant
8399699	Quetiapine 50mg modified-release tablets	antidepressant
8399599	Quetiapine 200mg modified-release tablets	antidepressant
9412099	Lamotrigine 25mg tablets	antidepressant
9725399	Dexamphetamine sulphate 15 mg spa	antidepressant
5273297	Lithium citrate 509mg/5ml oral solution	antidepressant
8538299	Paroxetine 10mg tablets	antidepressant
9283799	Carbamazepine 200mg tablets	antidepressant

8316399	Venlafaxine 37.5mg tablets	antidepressant
8583299	Aripiprazole 1mg/ml oral soln	antidepressant
9599399	Lorazepam 4mg/1ml solution for injection ampoules	antidepressant
9901797	Atenolol 50mg tablets	antidepressant
9610299	Chlorpromazine hcl 50 mg inj	antidepressant
9353299	Carbamazepine 200mg m/r tabs	antidepressant
9712999	Chlorpromazine hcl 10 mg inj	antidepressant
6113197	Olanzapine 15mg oral lyophilisates sugar free	antidepressant
9356199	Atenolol 25mg tablets	antidepressant
9403799	Mirtazapine 15mg tablets	antidepressant
8822999	Methylphenidate hcl 10mg tabs	antidepressant
8370999	Sodium valproate with valproic acid 50mg modified release gr	antidepressant
9281499	Mirtazapine 15mg tablets	antidepressant
8326599	Venlafaxine 75mg m/r capsules	antidepressant
9713798	Atenolol 50mg tablets	antidepressant
8349099	Quetiapine 400mg m/r tablets	antidepressant
6467397	Olanzapine 2.5mg/5ml oral suspension	antidepressant
8954999	Methylphenidate 18mg modified-release tablets	antidepressant
9600499	Lithium carbonate 200mg modified-release tablets	antidepressant
9521799	Sodium valproate with valproic acid 300mg modified release t	antidepressant
6638997	Quetiapine 25mg/5ml oral solution	antidepressant
9881499	Lithium carb 400mg m/r tabs	antidepressant
8280299	Clozapine 50mg tablets	antidepressant
9298899	Mirtazapine 15mg orodispersible tablets	antidepressant
9404899	Lamotrigine 50mg tablets	antidepressant

6160297	Olanzapine 5mg oral lyophilisates sugar free	antidepressant
9301699	Valproic acid 300mg e/c caps	antidepressant
8097899	Olanzapine 10mg orodispersible tablets sugar free	antidepressant
8315899	Venlafaxine 75mg m/r tablets	antidepressant
9533599	Citalopram 10mg tablets	antidepressant
8315799	Venlafaxine 150mg m/r tablets	antidepressant
7840697	Aripiprazole 400mg powder and solvent for suspension for inj	antidepressant
8743099	Mirtazapine 15mg/ml oral solution sugar free	antidepressant
8314999	Venlafaxine 150mg m/r capsules	antidepressant
8764699	Olanzapine 10mg inj powder	antidepressant
9941799	Propranolol 10mg tablets	antidepressant
9549999	Buspirone 5mg tablets	antidepressant
9797999	Lithium carbonate 400mg modified-release tablets	antidepressant
9161899	Olanzapine 5mg disp tabs	antidepressant
9600199	Lithium carb 300mg m/r tabs	antidepressant
9787999	Chlorpromazine 100mg tablets	antidepressant
9829899	Propranolol 160mg tablets	antidepressant
8504299	Risperidone 3mg orodispersible tablets sugar free	antidepressant
9410799	Chlorpromazine hcl 50 mg tab	antidepressant
9526599	Propranolol 160mg modified-release capsules	antidepressant
9482199	Chlorpromazine hcl 25 mg tab	antidepressant
9504597	Gabapentin 100mg capsules	antidepressant
6367197	Quetiapine 50mg/5ml oral suspension	antidepressant
9356299	Atenolol 50mg tablets	antidepressant
6116597	Olanzapine 10mg oral lyophilisates sugar free	antidepressant
6109297	Carbamazepine 100mg tablets	antidepressant

9859199	Atenolol 100mg tablets	antidepressant
9759799	Spironolactone with propranolol tablet	antidepressant
8002397	Venlafaxine 75mg m/r tablets	antidepressant
9916998	Atenolol 100mg tablets	antidepressant
9404999	Lamotrigine 25mg tablets	antidepressant
9540499	Lamotrigine 25mg tablets	antidepressant
9691998	Chlorpromazine 100mg tablets	antidepressant
9777998	Carbamazepine 200mg tablets	antidepressant
9708699	Carbamazepine 200mg tablets	antidepressant
8171499	Propranolol 160mg m/r capsules	antidepressant
9282799	Propranolol 40mg/5ml oral solution sugar free	antidepressant
9275199	Yohimbine with pemoline & methyl testosterone	antidepressant
9692498	Atenolol 100mg tablets	antidepressant
8399399	Quetiapine 400mg modified-release tablets	antidepressant
9975198	Carbamazepine 200mg tablets	antidepressant
6960497	Citalopram 20mg/5ml oral suspension	antidepressant
9105099	Topiramate 50mg tablets	antidepressant
8597099	Escitalopram 10mg/ml oral dps	antidepressant
9710599	Propranolol 160mg modified-release capsules	antidepressant
9566599	Tranylcypromine 10mg tablets	antidepressant
8734099	Clozapine 100mg tablets	antidepressant
8916597	Methylphenidate 20mg modified-release tablets	antidepressant
9136499	Olanzapine 15mg disp tabs	antidepressant
8886899	Topiramate 15mg beads in caps	antidepressant
9362599	Propranolol 80mg m/r capsules	antidepressant
9515799	Gabapentin 600mg tablets	antidepressant
9762899	Valproic acid 250mg gastro-resistant tablets	antidepressant

9359699	Clozapine 25mg tablets	antidepressant
9210299	Methylphenidate hcl 5mg tabs	antidepressant
8192999	Venlafaxine 150mg modified-release capsules	antidepressant
9838199	Propranolol 40mg tablets	antidepressant
9712299	Propranolol 5mg/5ml oral solution	antidepressant
9406899	Valproic acid 250mg e/c tabs	antidepressant
9908898	Propranolol 80mg modified-release capsules	antidepressant
9644698	Carbamazepine 400mg modified-release tablets	antidepressant
9858599	Risperidone 2mg tablets	antidepressant
9570399	Citalopram 40mg tablets	antidepressant
9844899	Propranolol 1mg/1ml injection	antidepressant
9270099	Lamotrigine 100mg dispersible tablets sugar free	antidepressant
7691897	Carbamazepine 100mg tablets	antidepressant
9349099	Paroxetine 20mg tablets	antidepressant
9833898	Carbamazepine 200mg tablets	antidepressant
9965199	Perphenazine 2mg tablets	antidepressant
9298699	Mirtazapine 45mg orodispersible tablets	antidepressant
9542199	Citalopram 10mg tablets	antidepressant
6109097	Carbamazepine 400mg tablets	antidepressant
5946797	Quetiapine 25mg tablets	antidepressant
9377199	Propranolol 20 mg tab	antidepressant
9556099	Phenelzine 15mg tablets	antidepressant
9769199	Propranolol 80mg m/r capsules	antidepressant
9725499	Dexamphetamine sulphate 5 mg tab	antidepressant
8473799	Methylphenidate 40mg modified-release capsules	antidepressant
8938499	Carbamazepine 200mg m/r tabs	antidepressant
9511797	Lamotrigine 25mg tablets	antidepressant

6462197	Quetiapine 50mg m/r tablets	antidepressant
8702099	Clozapine 25mg tablets	antidepressant
9416499	Perphenazine 8mg tablets	antidepressant
9778699	Perphenazine 4mg/5ml oral solution sugar free	antidepressant
9904297	Propranolol 80mg m/r capsules	antidepressant
9644699	Carbamazepine 200mg modified-release tablets	antidepressant
9602997	Venlafaxine 150mg m/r capsules	antidepressant
9298199	Mirtazapine 15mg orodispersible tablets	antidepressant
6530397	Topiramate 5mg/5ml oral solution	antidepressant
8744899	Aripiprazole 30mg tablets	antidepressant
8744999	Aripiprazole 15mg tablets	antidepressant
8096999	Olanzapine 20mg oral lyophilisates sugar free	antidepressant
9233399	Topiramate 25mg tablets	antidepressant
9502899	Paroxetine 30mg tablets	antidepressant
9714399	Buspirone 5mg tablets	antidepressant
9511297	Lamotrigine 25mg tablets	antidepressant
9404399	Lamotrigine 100mg dispersible tablets sugar free	antidepressant
9723698	Chlorpromazine 100mg tablets	antidepressant
9796898	Atenolol 50mg tablets	antidepressant
9432199	Propranolol 30 mg sus	antidepressant
9879899	Atenolol 50mg tablets	antidepressant
8570299	Chlorpromazine 50mg/2ml solution for injection ampoules	antidepressant
8175099	Venlafaxine 75mg modified-release capsules	antidepressant
9471799	Pemoline 20mg tablets	antidepressant
9658698	Buspirone 10mg tablets	antidepressant
9484799	Mirtazapine 30mg tablets	antidepressant
9042499	Gabapentin 300mg cap/600mg tab	antidepressant

9799599	Olanzapine 15mg orodispersible tablet	antidepressant
6116697	Olanzapine 5mg oral lyophilisates sugar free	antidepressant
9725599	Dexamphetamine sulphate 10 mg cap	antidepressant
8174999	Venlafaxine 150mg modified-release capsules	antidepressant
9159699	Lamotrigine 200mg tablets	antidepressant
9065999	Olanzapine 5mg orodispersible tablet	antidepressant
9411899	Lamotrigine 100mg tablets	antidepressant
8379499	Sodium valproate with valproic acid 100mg modified release g	antidepressant
9895799	Pemoline 20mg tablets	antidepressant
9787499	Chlorpromazine 50mg/2ml inj	antidepressant
9542099	Citalopram 20mg tablets	antidepressant
8150699	Venlafaxine 37.5mg modified-release tablets	antidepressant
8199199	Gabapentin 250mg/5ml oral suspension	antidepressant
9909099	Propranolol 40mg tablets	antidepressant
8349199	Quetiapine 300mg m/r tablets	antidepressant
5290497	Propranolol 10mg tablets	antidepressant
8768799	Mirtazapine 15mg orodispersible tablets	antidepressant
9541899	Citalopram 40mg tablets	antidepressant
8698299	Mirtazapine 15mg tablets	antidepressant
8106899	Propranolol 80mg m/r capsules	antidepressant
9850199	Lorazepam 1mg tablets	antidepressant
9422399	Lorazepam .5 mg tab	antidepressant
8295999	Venlafaxine 225mg m/r tablets	antidepressant
5449597	Paroxetine 10mg tablets	antidepressant
5780397	Topiramate 25mg capsules	antidepressant
7930397	Venlafaxine 37.5mg modified-release capsules	antidepressant
8597199	Escitalopram 10mg/ml oral drops sugar free	antidepressant
8889699	Propranolol 80mg m/r capsules	antidepressant

9608799	Paroxetine 20mg tablets	antidepressant
9520099	Chlorpromazine 100mg/5ml susp	antidepressant
9317899	Mirtazapine 45mg orodispersible tablets	antidepressant
9123799	Methylphenidate 36mg m/r tabs	antidepressant
8311499	Venlafaxine 150mg m/r capsules	antidepressant
9691698	Carbamazepine 200mg tablets	antidepressant
5780597	Topiramate 25mg tablets	antidepressant
9814398	Atenolol 100mg tablets	antidepressant
9814399	Atenolol 50mg tablets	antidepressant
9394899	Citalopram 10mg tablets	antidepressant
9906799	Atenolol 25mg/5ml syrup	antidepressant
8097299	Olanzapine 15mg oral lyophilisates sugar free	antidepressant
8873699	Quetiapine 150mg tablets	antidepressant
9432099	Propranolol powders 5 mg pow	antidepressant
9359399	Chlorpromazine 100mg/5ml oral solution	antidepressant
9668399	Chlortalidone 12.5mg with atenolol 50mg tablets	antidepressant
9217299	Citalopram 40mg/ml oral drops	antidepressant
8788199	Propranolol 160mg m/r capsules	antidepressant
8877699	Venlafaxine 150mg modified-release capsules	antidepressant
9273599	Carbamazepine 250mg supps	antidepressant
9829999	Propranolol 40mg tablets	antidepressant
8790799	Quetiapine 300mg tablets	antidepressant
9544499	Lamotrigine 25mg tablets	antidepressant
9196899	Risperidone 500microgram tablets	antidepressant
9819299	Chlorpromazine 50mg tablets	antidepressant
9755899	Atenolol 25mg tablets	antidepressant
8314599	Venlafaxine 150mg modified-release capsules	antidepressant
9566899	Citalopram 10mg tablets	antidepressant

8150599	Venlafaxine 37.5mg m/r tablets	antidepressant
8001797	Gabapentin 50mg/5ml oral solution	antidepressant
9710499	Propranolol 10mg tablets	antidepressant
8390399	Aripiprazole 9.75mg/1.3ml solution for injection vials	antidepressant
8349299	Quetiapine 200mg m/r tablets	antidepressant
8254099	Venlafaxine 75mg modified-release capsules	antidepressant
9978899	Amphetamine 5 mg tab	antidepressant
9425099	Mirtazapine 15mg tablets	antidepressant
8320599	Venlafaxine 75mg m/r capsules	antidepressant
8123799	Topiramate 50mg/5ml oral suspension	antidepressant
9870299	Propranolol 80mg m/r capsules	antidepressant
8314699	Venlafaxine 75mg modified-release capsules	antidepressant
8768599	Mirtazapine 15mg disp tabs	antidepressant
9833899	Carbamazepine 100mg tablets	antidepressant
9927799	Atenolol 50mg tablets	antidepressant
9529797	Carbamazepine 400mg tablets	antidepressant
9713299	Chlorpromazine 50 mg inj	antidepressant
8871799	Mirtazapine 30mg tablets	antidepressant
9794398	Propranolol 80mg modified-release capsules	antidepressant
9932298	Propranolol 160mg modified-release capsules	antidepressant
9585599	Propranolol 80mg modified-release capsules	antidepressant
9975299	Carbamazepine 100mg tablets	antidepressant
8379199	Sodium valproate with valproic acid 750mg modified release g	antidepressant
9359099	Chlorpromazine 25mg/ml injection	antidepressant
9482499	Buspirone 5mg tablets	antidepressant
9605497	Venlafaxine 75mg tablets	antidepressant
8473299	Methylphenidate 27mg m/r tabs	antidepressant

7691797	Carbamazepine 200mg m/r tabs	antidepressant
8648599	Gabapentin 250mg/5ml oral solution	antidepressant
9787799	Perphenazine 8 mg tab	antidepressant
9401199	Lamotrigine 100mg tablets	antidepressant
9136299	Nefazodone hcl 200mg tabs	antidepressant
8315999	Venlafaxine 150mg modified-release tablets	antidepressant
6579797	Propranolol 5mg/5ml oral solution	antidepressant
9473299	Atenolol+nifedip 50/20mg m/r	antidepressant
9653699	Carbamazepine 200mg modified-release tablets	antidepressant
9726099	Dextroamphetamine 5 mg tab	antidepressant
8098199	Olanzapine 5mg orodispersible tablets sugar free	antidepressant
9941998	Propranolol 160mg tablets	antidepressant
9265799	Propranolol 160mg modified-release capsules	antidepressant
9489599	Citalopram 10mg tablets	antidepressant
9551699	Propranolol 15 mg syr	antidepressant
9667397	Chlorpromazine 25mg/5ml syrup	antidepressant
9981797	Propranolol 5mg/5ml oral solution sugar free	antidepressant
6580197	Propranolol 50mg/5ml oral solution	antidepressant
9937799	Phenelzine 15mg tablets	antidepressant
9836199	Carbamazepine 100mg tablets	antidepressant
8192399	Quetiapine 150mg m/r tablets	antidepressant
9660399	Lorazepam 1mg tablets	antidepressant
9502199	Atenolol 100mg with chlortalidone 25mg tablets	antidepressant
9595999	Morphine,cocaine & chlorpromazine mix	antidepressant
9527697	Carbamazepine 400mg m/r tabs	antidepressant
9669199	Chlorpromazine 10mg tablets	antidepressant
8694699	Methylphenidate 20mg m/r caps	antidepressant

9176699	Propranolol 160mg m/r capsules	antidepressant
8570499	Chlorpromazine 25mg/1ml solution for injection ampoules	antidepressant
9786199	Propranolol 160mg m/r capsules	antidepressant
9633597	Lithium carb 400mg m/r tabs	antidepressant
9946599	Lithium carb 450mg m/r tabs	antidepressant
9975298	Carbamazepine 200mg tablets	antidepressant
8097099	Olanzapine 20mg orodispersible tablets	antidepressant
8873399	Quetiapine 200mg tablets	antidepressant
9244199	Methylphenidate 36mg modified-release tablets	antidepressant
8277399	Quetiapine 100mg/5ml oral solution	antidepressant
8399499	Quetiapine 300mg modified-release tablets	antidepressant
9557599	Perphenazine 5mg/ml injection	antidepressant
9491497	Topiramate 25mg beads in caps	antidepressant
9668997	Chlorpromazine 50mg tablets	antidepressant
8745299	Aripiprazole 15mg tablets	antidepressant
8279099	Escitalopram 20mg/ml oral dps	antidepressant
9879898	Atenolol 25mg tablets	antidepressant
9788099	Chlorpromazine 10mg tablets	antidepressant
9661499	Chlorpromazine hcl 100 mg mix	antidepressant
9466999	Atenolol 50mg / nifedipine 20mg modified-release capsules	antidepressant
9497297	Topiramate 50mg tablets	antidepressant
9787199	Chlorpromazine 100mg supps	antidepressant
9527099	Citalopram 20mg tablets	antidepressant
6585697	Propranolol 10mg/5ml oral suspension	antidepressant
9488099	Citalopram 40mg tablets	antidepressant
9713199	Chlorpromazine 25 mg sup	antidepressant
8694899	Methylphenidate 30mg modified-release	antidepressant

	capsules	
9557899	Paroxetine 20mg tablets	antidepressant
8474599	Methylphenidate hcl 5mg tabs	antidepressant
9985899	Lithium carbonate 250mg tabs	antidepressant
9536499	Chlorpromazine 50mg tablets	antidepressant
9514499	Tranylcypromine 10mg tablets	antidepressant
9818999	Chlorpromazine 25mg tablets	antidepressant
8816499	Risperidone 25mg powder and solvent for suspension for injec	antidepressant
8889099	Propranolol 80mg m/r capsules	antidepressant
9570499	Citalopram 20mg tablets	antidepressant
9670497	Buspirone 10mg tablets	antidepressant
8953297	Aripiprazole 5mg tablets	antidepressant
8632499	Olanzapine 20mg disp tabs	antidepressant
8583499	Aripiprazole 10mg disp tabs	antidepressant
9602599	Propranolol 160mg tablets	antidepressant
9618099	Dexamphetamine sulphate 15 mg cap	antidepressant
8147999	Carbamazepine 400mg m/r tabs	antidepressant
5805797	Methylphenidate 20mg m/r caps	antidepressant
9921799	Lithium carb 400mg m/r tabs	antidepressant
5946897	Quetiapine 25mg tablets	antidepressant
8583799	Aripiprazole 10mg orodispersible tablets sugar free	antidepressant
9537799	Propranolol 1mg/1ml solution for injection ampoules	antidepressant
9324299	Chlorpromazine 25mg/5ml syrup	antidepressant
9299299	Mirtazapine 45mg orodispersible tablets	antidepressant
9927898	Atenolol 100mg tablets	antidepressant
8928899	Atenolol+bendro 25/1.25mg cap	antidepressant
8321899	Venlafaxine 75mg m/r capsules	antidepressant

9213199	Carbamazepine 200mg m/r tabs	antidepressant
9771699	Lithium citrate 1.018g/5ml oral solution	antidepressant
8768699	Mirtazapine 45mg orodispersible tablets	antidepressant
9602297	Venlafaxine 150mg m/r capsules	antidepressant
9804199	Propranolol 80mg m/r capsules	antidepressant
9603397	Venlafaxine 75mg m/r capsules	antidepressant
8583699	Aripiprazole 15mg orodispersible tablets sugar free	antidepressant
9867698	Propranolol 40mg tablets	antidepressant
8504099	Risperidone 4mg orodispersible tablets sugar free	antidepressant
8316299	Venlafaxine 75mg m/r tablets	antidepressant
9694099	Atenolol 50mg tablets	antidepressant
9489399	Citalopram 40mg tablets	antidepressant
9900799	Chlorpromazine 25mg/5ml oral solution sugar free	antidepressant
9963799	Risperidone 4mg tablets	antidepressant
8871599	Mirtazapine 30mg tablets	antidepressant
8480799	Paroxetine 10mg tablets	antidepressant
9612899	Carbamazepine 200mg modified-release tablets	antidepressant
9503297	Gabapentin 300mg capsules	antidepressant
8892497	Quetiapine 400mg m/r tablets	antidepressant
9537899	Propranolol 80mg modified-release capsules	antidepressant
8473899	Methylphenidate 30mg m/r caps	antidepressant
8280399	Clozapine 50mg tablets	antidepressant
9148099	Methylphenidate 18mg m/r tabs	antidepressant
9506599	Methylphenidate 10mg tablets	antidepressant
8097999	Olanzapine 5mg oral lyophilisates sugar free	antidepressant
8280099	Clozapine 200mg tablets	antidepressant

8289299	Chlorpromazine 100mg tablets	antidepressant
9714398	Buspirone 10mg tablets	antidepressant
9713799	Atenolol 25mg tablets	antidepressant
9879999	Atenolol 50mg tablets	antidepressant
8349399	Quetiapine 50mg m/r tablets	antidepressant
9647999	Carbamazepine 100mg/5ml sf liq	antidepressant
9318099	Mirtazapine 15mg orodispersible tablets	antidepressant
9941999	Propranolol 10mg tablets	antidepressant
8768499	Mirtazapine 45mg disp tabs	antidepressant
9563199	Citalopram 40mg tablets	antidepressant
9492999	Atenolol 25mg/5ml oral solution sugar free	antidepressant
9519099	Gabapentin 100mg capsules	antidepressant
9712898	Carbamazepine 400mg modified-release tablets	antidepressant
9981697	Propranolol 50mg/5ml oral solution sugar free	antidepressant
6639597	Quetiapine 125mg/5ml oral suspension	antidepressant
9324099	Risperidone 1mg/ml liquid	antidepressant
8929099	Atenolol 25mg / bendroflumethiazide 1.25mg capsules	antidepressant
8698399	Risperidone 0.5mg disp tablets	antidepressant
9602397	Venlafaxine 150mg modified-release capsules	antidepressant
9353199	Carbamazepine 100mg chew tabs	antidepressant
8219899	Olanzapine 405mg pdr+solv inj	antidepressant
9653698	Carbamazepine 400mg modified-release tablets	antidepressant
9360899	Atenolol 25mg tablets	antidepressant
9144999	Methylphenidate hcl 10mg tabs	antidepressant
8643199	Venlafaxine 37.5mg/5ml oral suspension	antidepressant
8734199	Clozapine 25mg tablets	antidepressant
9482399	Buspirone 10mg tablets	antidepressant

9442299	Propranolol 160mg modified-release / bendroflumethiazide 5mg	antidepressant
9518999	Gabapentin 300mg capsules	antidepressant
6464297	Venlafaxine 37.5mg/5ml oral solution	antidepressant
9246399	Gabapentin 600mg tablets	antidepressant
9208999	Risperidone 37.5mg pdr inj	antidepressant
9568799	Chlorpromazine 25mg/5ml oral solution	antidepressant
8219199	Venlafaxine 75mg m/r capsules	antidepressant
7957197	Lorazepam 2mg/5ml oral suspension	antidepressant
9483499	Gabapentin 300mg capsules	antidepressant
9867699	Propranolol 10mg tablets	antidepressant
9301599	Valproic acid 500mg gastro-resistant capsules	antidepressant
9612799	Carbamazepine 400mg modified-release tablets	antidepressant
8097799	Olanzapine 10mg orodispersible tablets	antidepressant
8320499	Venlafaxine 150mg m/r capsules	antidepressant
9527199	Citalopram 10mg tablets	antidepressant
9493399	Disopyramide 100 mg tab	class 1a anti-arrhythmic
9419099	Quinidine bisulfate 250mg modified-release tablets	class 1a anti-arrhythmic
9540099	Procainamide 250mg tablet	class 1a anti-arrhythmic
9703099	Disopyramide 150mg capsules	class 1a anti-arrhythmic
9950799	Quinidine 250mg m/r capsules	class 1a anti-arrhythmic
9419199	Quinidine 300mg tablet	class 1a anti-arrhythmic
9333899	Quinidine bisulphate 300 mg tab	class 1a anti-arrhythmic

9338699	Disopyramide 25 mg tab	class 1a anti-arrhythmic
9806399	Quinidine sulphate 300mg tablet	class 1a anti-arrhythmic
9848399	Disopyramide 50mg/5ml inj	class 1a anti-arrhythmic
9453599	Quinidine bisulphate 200 mg tab	class 1a anti-arrhythmic
9797799	Quinidine bisulphate tab	class 1a anti-arrhythmic
9848599	Disopyramide 250mg m/r tablets	class 1a anti-arrhythmic
9634199	Disopyramide 50mg/5ml solution for injection ampoules	class 1a anti-arrhythmic
9920699	Procainamide hcl 250mg tabs	class 1a anti-arrhythmic
9634299	Disopyramide 150mg modified-release tablets	class 1a anti-arrhythmic
9916599	Disopyramide 100mg capsules	class 1a anti-arrhythmic
5870097	Quinidine sulfate 200mg tablets	class 1a anti-arrhythmic
9194899	Disopyramide 250mg m/r caps	class 1a anti-arrhythmic
9961699	Disopyramide 100mg capsules	class 1a anti-arrhythmic
9950699	Quinidine bisul 250mg m/r tab	class 1a anti-arrhythmic
9921199	Procainamide 500mg modified-release tablets	class 1a anti-arrhythmic
9859999	Disopyramide 150mg m/r tabs	class 1a anti-arrhythmic
9184599	Digoxin 62.5micrograms tablets	digoxin
9964399	Digoxin 125microgram tablets	digoxin

9184699	Digoxin 250microgram tablets	digoxin
8220699	Digoxin 62.5micrograms tablets	digoxin
9862899	Digoxin 125microgram tablets	digoxin
9962999	Digoxin 125microgram tablets	digoxin
9782699	Digoxin 250microgram tablets	digoxin
9963098	Digoxin 125microgram tablets	digoxin
8220599	Digoxin 50microgram/ml elixir	digoxin
9413999	Digoxin .05 mg tab	digoxin
7052697	Digoxin 125micrograms/5ml oral solution	digoxin
9964398	Digoxin 62.5microgram tablets	digoxin
9344399	Digoxin 250micrograms tablets	digoxin
9923098	Digoxin 125microgram tablets	digoxin
9862799	Digoxin 62.5micrograms tablets	digoxin
9949699	Digoxin 250microgram tablets	digoxin
9807999	Digoxin 125microgram tablets	digoxin
7052297	Digoxin 250micrograms/5ml oral solution	digoxin
9492199	Digoxin .25 mg tab	digoxin
9934897	Digoxin 50micrograms/ml oral solution	digoxin
9962998	Digoxin 250microgram tablets	digoxin
9817598	Digoxin 125microgram tablets	digoxin
8220899	Digoxin 250microgram tablets	digoxin
9638199	Digoxin 500micrograms/2ml solution for infusion ampoules	digoxin
9782698	Digoxin 125microgram tablets	digoxin
9711999	Digoxin 250microgram tablets	digoxin
9817599	Digoxin 62.5microgram tablets	digoxin
9638099	Digoxin 500mcg/2ml injection	digoxin
9420899	Diamorphine hydrochloride 30mg powder for	diuretics

	injection solution	
9496499	Pilocarpine hydrochloride 3% with hypromellose 0.5% eye drop	diuretics
8465099	Furosemide 20mg/2ml solution for injection ampoules	diuretics
9894299	Bumetanide 5mg/10ml injection	diuretics
8604899	Spironolactone 15mg/5ml oral suspension	diuretics
9480399	Chlorothiazide 50 mg sus	diuretics
9402499	Ephedrine hydrochloride 30mg tablets	diuretics
9749299	Frusemide 20mg/spironolactone 50mg mg cap	diuretics
9171299	Lidocaine hydrochloride 0.5% / cetylpyridinium chloride 0.02	diuretics
6936697	Furosemide 20mg/5ml oral solution	diuretics
6476897	Furosemide 5mg/5ml oral solution	diuretics
9693499	Amiloride 5mg tablets	diuretics
9494999	Lisinopril 20mg / hydrochlorothiazide 12.5mg tablets	diuretics
9499399	Lisinopril 10mg / hydrochlorothiazide 12.5mg tablets	diuretics
9885299	Diamorphine hydrochloride powder	diuretics
9538499	Promethazine hydrochloride 25mg/ml injection	diuretics
9593599	Bumetanide 2mg/4ml solution for injection ampoules	diuretics
9864199	Paracetamol 500mg / pseudoephedrine hydrochloride 60mg table	diuretics
9546999	Polythiazide 1mg tablets	diuretics
9398799	Tetracycline hydrochloride/amphotericin syr	diuretics
8935199	Oxycodone hydrochloride 10mg/ml injection	diuretics
8062997	Chlorothiazide 50mg/5ml oral suspension	diuretics
9486999	Captopril 50mg with hydrochlorothiazide 25mg tablets	diuretics

5456397	Metolazone 2.5mg tablets	diuretics
8609299	Olmesartan medoxomil 20mg / hydrochlorothiazide 25mg tablets	diuretics
9944898	Pilocarpine hydrochloride 2% eye drops	diuretics
9994399	Bendroflumethiazide 2.5mg tabs	diuretics
5826197	Pilocarpine hydrochloride 0.125% eye drops	diuretics
6939097	Furosemide 10mg/5ml oral solution	diuretics
9325099	Chlorthalidone 25mg/potassium6.7mmol s/r mg tab	diuretics
6519397	Spironolactone 4mg/5ml oral suspension	diuretics
9293799	Diamorphine hydrochloride 5mg powder for injection solution	diuretics
9463499	Metoprolol 100mg / hydrochlorothiazide 12.5mg tablets	diuretics
9717299	Bumetanide 1mg tablets	diuretics
6474997	Spironolactone 100mg/5ml oral solution	diuretics
8742299	Hydrochlorothiazide with valsartan 25mg with 160mg tablet	diuretics
9282099	Spironolactone 100mg/5ml oral solution sugar free	diuretics
9282899	Spironolactone 5mg/5ml oral suspension sugar free	diuretics
9374099	Promethazine hydrochloride 20mg tablets	diuretics
9867998	Furosemide 500mg tablets	diuretics
9699099	Acebutolol 200mg / hydrochlorothiazide 12.5mg tablets	diuretics
9438899	Pseudoephedrine hydrochloride 60mg / triprolidine 2.5mg tabl	diuretics
9293699	Diamorphine hydrochloride 100mg powder for injection solutio	diuretics
9873399	Methadone hydrochloride powder	diuretics
9358699	Diamorphine hydrochloride and cocaine oral solution	diuretics

6803797	Spironolactone 5mg/5ml / chlorothiazide 50mg/5ml oral suspen	diuretics
9987499	Amiloride 5mg tablets	diuretics
9501199	Bendroflumethiazide 2.5mg with timolol maleate 10mg tablets	diuretics
9669699	Chlorothiazide 500mg tablets	diuretics
9307899	Furosemide 40mg tablets	diuretics
9495899	Enduronyl tab	diuretics
9906399	Pilocarpine hydrochloride 4% eye drops	diuretics
7116297	Glucosamine hydrochloride 1.5g chewable tablets	diuretics
9454699	Amiloride 2.5mg / hydrochlorothiazide 25mg tablets	diuretics
6261397	Glucosamine hydrochloride 1.5g tablets	diuretics
9351799	Furosemide 40mg/5ml oral solution sugar free	diuretics
9842798	Pilocarpine hydrochloride 4% eye drops	diuretics
9801499	Pilocarpine hydrochloride 0.5% eye drops	diuretics
9894399	Bendroflumethiazide 5mg tablet	diuretics
9622299	Metolazone 500microgram low dose tablet	diuretics
9586199	Methyclothiazide 5mg tablets	diuretics
9576599	Nadolol 80mg / bendroflumethiazide 5mg tablets	diuretics
9320099	Pilocarpine hydrochloride 4% with hypromellose 0.5% eye drop	diuretics
8146099	Olmesartan medoxomil with amlodipine and hydrochlorothiazide	diuretics
9347999	Procaine hydrochloride 40mg/2ml solution for injection ampou	diuretics
9455199	Timolol maleate with amiloride and hydrochlorothiazide table	diuretics
9310199	Quinapril 10mg / hydrochlorothiazide 12.5mg tablets	diuretics
9455099	Amiloride with timolol with	diuretics

	hydrochlorothiazide tablets	
9814498	Bendroflumethiazide 2.5mg tablets	diuretics
9928697	Furosemide 40mg/5ml oral solution sugar free	diuretics
9706699	Bumetanide 1mg tablets	diuretics
9454999	Hydrochlorothiazide with timolol and amiloride 25mg with 10m	diuretics
9454799	Amiloride 10mg / furosemide 80mg tablets	diuretics
9512899	Triamterene with hydrochlorothiazide 50mg + 25mg tablet	diuretics
9620999	Hydrochlorothiazide 25mg tabs	diuretics
8802499	Papaverine 25mg/1ml hydrochloride	diuretics
9424799	Diamorphine hydrochloride bpc 1973 3mg/5ml oral solution	diuretics
9386099	Promethazine hydrochloride 1.5mg with paracetamol 120mg/5ml	diuretics
9873699	Spironolactone 50mg tablets	diuretics
8548599	Pilocarpine hydrochloride eye drops	diuretics
8853199	Paracetamol 500mg / pseudoephedrine hydrochloride 60mg table	diuretics
8107897	Amiloride 5mg/5ml oral suspension	diuretics
9647499	Furosemide with triamterene 40mgwith50mg tablet	diuretics
9400399	Chlorothiazide/spironolactone sachets 100 mg	diuretics
9002699	Amiloride 5mg/5ml s/f soln	diuretics
9760099	Spironolactone 50mg tablets	diuretics
9455399	Hydrochlorothiazide with captopril 12.5mg with 25mg tablet	diuretics
9509499	Bendroflumethiazide 2.5mg / potassium chloride 630mg (potass	diuretics
7916497	Spironolactone 10mg/5ml oral suspension	diuretics
8146199	Olmesartan medoxomil with amlodipine and hydrochlorothiazide	diuretics

9420999	Diamorphine hydrochloride 10mg powder for injection solution	diuretics
6832397	Glucosamine hydrochloride 500mg / chondroitin 400mg chewable	diuretics
9722499	Amiloride 5mg/5ml oral solution sugar free	diuretics
6797197	Chlorothiazide 250mg/5ml oral solution	diuretics
9958699	Furosemide 20mg tablets	diuretics
8156399	Bendroflumethiazide 2.5mg tabs	diuretics
9467599	Amiloride hcl 5mg tablets	diuretics
8169199	Aminolevulinic acid hydrochloride 30mg/ml oral solution	diuretics
9908198	Pilocarpine hydrochloride 2% eye drops	diuretics
8185399	Ibuprofen 200mg / pseudoephedrine hydrochloride 30mg tablets	diuretics
9979298	Bendroflumethiazide 5mg tablets	diuretics
9990599	Thiamine hydrochlor 100mg tabs	diuretics
9833698	Bendroflumethiazide 2.5mg tablets	diuretics
6984597	Lidocaine hydrochloride 0.6% / cetylpyridinium chloride 0.02	diuretics
9526799	Sotalol 160mg with hydrochlorothiazide 25mg tablet	diuretics
9512699	Triamterene 50mg / benzthiazide 25mg capsules	diuretics
9962099	Triamt+furosemide 50/40mg tabs	diuretics
9686299	Spironolactone 10 mg/5ml liq	diuretics
9963698	Diamorphine hydrochloride 30mg powder for injection solution	diuretics
9943698	Pilocarpine hydrochloride 0.5% eye drops	diuretics
9512399	Triamterene with chlortalidone 50mg + 25mg tablet	diuretics
9611699	Furosemide 40mg tablets	diuretics
8795699	Chlorothiazide 250mg/5ml oral suspension	diuretics

8925499	Phenylephrine hydrochloride 0.5% with lidocaine hydrochlorid	diuretics
6917397	Furosemide 50mg/5ml oral solution	diuretics
7814897	Glucosamine hydrochloride 600mg capsules	diuretics
9389499	Trientine dihydrochloride 300mg capsules	diuretics
9346999	Furosemide 20mg/5ml oral solution sugar free	diuretics
9157799	Hydrochlorothiazide with losartan 12.5mg with 50mg tablet	diuretics
9288999	Bisoprolol 10mg / hydrochlorothiazide 6.25mg tablets	diuretics
6519597	Spironolactone 4mg/5ml oral solution	diuretics
8227199	Hydrochloroq sulf 200mg tabs	diuretics
9289099	Bisoprolol+hydrochloroth tabs	diuretics
8945599	Promethazine hydrochloride 1.5mg with pholcodine 1.5mg/5ml o	diuretics
6651397	Metolazone 2.5mg/5ml oral solution	diuretics
8407599	Pilocarpine hydrochloride 2% eye drops preservative free	diuretics
9481999	Chlorothiazide 40mg /spironolactone 4mg pow	diuretics
9593499	Bumetanide 500microgram / potassium chloride 573mg (potassiu	diuretics
9809599	Spironolactone 50mg/5ml oral suspension sugar free	diuretics
9342699	Diamorphine hydrochloride 3mg/5ml oral solution	diuretics
9702198	Furosemide 20mg tablets	diuretics
8439899	Papaverine 30mg/1ml hydrochloride	diuretics
6474197	Spironolactone 5mg/5ml oral solution	diuretics
9319599	Amiloride+bumetan 5mg/1mg tabs	diuretics
6231497	Glucosamine hydrochloride 416.6mg / chondroitin 90mg capsule	diuretics
6538097	Spironolactone 200mg/5ml oral suspension	diuretics

9936699	Polythiazide 1mg tablets	diuretics
9386299	Paracetamol with promethazine hydrochloride tablet	diuretics
6535797	Spironolactone 250mg/5ml oral suspension	diuretics
6533397	Spironolactone 3mg/5ml oral suspension	diuretics
8930999	Paracetamol 500mg / pseudoephedrine hydrochloride 30mg table	diuretics
9755699	Bendroflumethiazide 5mg tablets	diuretics
6476697	Furosemide 5mg/5ml oral suspension	diuretics
8439599	Papaverine 80mg/2ml hydrochloride	diuretics
9783099	Bumetanide 1mg tablets	diuretics
9442099	Neomycin 0.5% / chlorhexidine hydrochloride 0.1% cream	diuretics
9999099	Pseudoephedrine hydrochloride 60mg / triprolidine 2.5mg tabl	diuretics
9593699	Bumetanide 5mg tablets	diuretics
8543199	Glucosamine hydrochloride 1.5g chewable tablets	diuretics
9432399	Pholcodine with papaverine hydrochloride linctus	diuretics
9476599	Spironolactone 100mg tablets	diuretics
9720199	Spironolactone 100mg tablets	diuretics
6474597	Spironolactone 25mg/5ml oral solution	diuretics
6474397	Spironolactone 50mg/5ml oral solution	diuretics
9512099	Furosemide 20mg/2ml injection	diuretics
9145699	Promethazine hydrochloride 50mg with pethidine 100mg/2ml inj	diuretics
9958598	Furosemide 20mg/2ml injection	diuretics
6271397	Glucosamine hydrochloride 750mg orodispersible tablets sugar	diuretics
9459399	Spironolactone 25mg tablets	diuretics
9770699	Pilocarpine hydrochloride 4% eye drops	diuretics

8609399	Olmesartan medoxomil 20mg / hydrochlorothiazide 12.5mg table	diuretics
6474797	Spironolactone 10mg/5ml oral solution	diuretics
9043499	Dil+hydrochlor 150/12.5mg cap	diuretics
6408997	Glucosamine hydrochloride 500mg capsules	diuretics
9846299	Hydrochloroq sulf 200mg tabs	diuretics
9782899	Bumetanide 1mg tablets	diuretics
9051697	Pilocarpine hydrochloride 0.25% eye drops	diuretics
9958698	Furosemide 40mg tablets	diuretics
8210299	Chlorothiazide 250mg tablets	diuretics
8742499	Valsartan 160mg / hydrochlorothiazide 25mg tablets	diuretics
7116197	Glucosamine hydrochloride 1.5g chewable tablets	diuretics
9386199	Promethazine hydrochloride with paracetamol tablet	diuretics
9911899	Sotal+hydrochlor 160/25mg tab	diuretics
9808299	Spironolactone 50mg tablets	diuretics
9986799	Bumetanide 1mg tablets	diuretics
6539497	Spironolactone 12mg/5ml oral solution	diuretics
8945499	Promethazine hydrochloride 1.5mg with pholcodine 1.5mg/5ml o	diuretics
8521999	Irbesartan 300mg / hydrochlorothiazide 25mg tablets	diuretics
8939499	Furosemide 20mg/5ml s/f soln	diuretics
9881799	Morphine hydrochloride powder	diuretics
9770799	Pilocarpine hydrochloride 1% eye drops	diuretics
9989499	Bendroflumethiazide 5mg tablet	diuretics
9526199	Spironolactone 100mg capsule	diuretics
6220697	Glucosamine hydrochloride 500mg tablets	diuretics
8453099	Glucosamine hydrochloride 625mg tablets	diuretics

9518299	Theophylline 120mg / ephedrine hydrochloride 11mg tablets	diuretics
6513397	Spironolactone 8mg/5ml oral suspension	diuretics
6795597	Chlorothiazide 30mg/5ml oral suspension	diuretics
9808199	Morphine hydrochloride 15mg suppositories	diuretics
9043399	Diltiazem and hydrochlorothiazide 150mg+12.5mg modified-rele	diuretics
9619199	Diamorphine hydrochloride 20 mg inj	diuretics
9862699	Furosemide 40mg tablets	diuretics
9591299	Lidocaine hydrochloride 0.5% / cetylpyridinium chloride 0.02	diuretics
9809698	Spironolactone 25mg/5ml oral suspension sugar free	diuretics
9501299	Bendroflumethiazide 5mg with nadolol 80mg tablets	diuretics
9647799	Furosemide 10mg/ml injection	diuretics
8676299	Furosemide 80mg/8ml solution for injection pre-filled syring	diuretics
9992099	Hydrochloric acid dilute liquid	diuretics
6379497	Glucosamine hydrochloride 750mg capsules	diuretics
9108999	Irbesartan 300mg / hydrochlorothiazide 12.5mg tablets	diuretics
8595599	Thiamine hydrochlor 100mg tabs	diuretics
6916997	Furosemide 6.5mg/5ml oral solution	diuretics
8795599	Chlorothiazide 250mg/5ml susp	diuretics
9348799	Diamorphine hydrochloride 30mg powder for injection solution	diuretics
8604199	Chlorothiazide 150mg/5ml oral suspension	diuretics
9711499	Furosemide 20mg tablets	diuretics
9700399	Diamorphine hydrochloride 10mg powder for injection solution	diuretics
8219799	Olmesartan medoxomil 40mg / hydrochlorothiazide 12.5mg table	diuretics

9949299	Furosemide 1mg/1ml liquid	diuretics
8500499	Furosemide oral solution	diuretics
9336199	Paracetamol 500mg / pseudoephedrine hydrochloride 60mg table	diuretics
8742799	Hydrochlorothiazide with valsartan 12.5mg with 160mg tablet	diuretics
9537199	Proxymetacaine hydrochloride 0.5% eye drops	diuretics
8107899	Spironolactone 25mg/5ml oral suspension	diuretics
7810597	Glucosamine hydrochloride 750mg tablets	diuretics
8416199	Thiamine hydrochlor 100mg tabs	diuretics
6984497	Lidocaine hydrochloride 0.6% / cetylpyridinium chloride 0.02	diuretics
9480499	Chlorothiazide sachets 60 mg	diuretics
9545399	Bendroflumethiazide 2.5mg tablets	diuretics
6917197	Furosemide 50mg/5ml oral suspension	diuretics
9883499	Bumetanide 5mg tablets	diuretics
9832297	Losartan 50mg / hydrochlorothiazide 12.5mg tablets	diuretics
9124099	Losartan 50mg / hydrochlorothiazide 12.5mg tablets	diuretics
9500299	Furosemide 40mg tablets	diuretics
9999699	Reserpine with bendroflumethiazide tablet	diuretics
9632199	Bumetanide 1mg tablets	diuretics
9418599	Hydrochlorothiazide 12.5mg/k 8.1mmol s/r 12.5 mg tab	diuretics
9568599	Nystatin 100,000units/g / chlorhexidine hydrochloride 1% cre	diuretics
8417899	Losartan 100mg / hydrochlorothiazide 12.5mg tablets	diuretics
9908199	Pilocarpine hydrochloride 1% eye drops	diuretics
6214597	Glucosamine hydrochloride 1.5g effervescent tablets sugar fr	diuretics

9319799	Pilocarpine hydrochloride 4% with hypromellose 0.5% eye drop	diuretics
9926699	Enalapril 20mg / hydrochlorothiazide 12.5mg tablets	diuretics
9436999	Furosemide 20mg tablets	diuretics
8721499	Valsartan 80mg / hydrochlorothiazide 12.5mg tablets	diuretics
9900699	Cocaine hydrochloride powder	diuretics
9427199	Pholcodine with promethazine hydrochloride linctus	diuretics
9957099	Ephedrine hydrochloride 15mg / chlorphenamine 10mg tablets	diuretics
6258197	Glucosamine hydrochloride 1g tablets	diuretics
7918097	Spironolactone 5mg/5ml oral suspension	diuretics
9987899	Amiloride 5mg tablets	diuretics
9620299	Hydroflumethiazide with spironolactone 50mg+50mg tablet	diuretics
9621299	Hydrochlorothiazide 50mg tablets	diuretics
9987599	Amiloride 5mg tablets	diuretics
9827099	Prolintane hydrochloride with vitamins liquid	diuretics
9967799	Hydrochlorothiazide 50mg tabs	diuretics
9496599	Pilocarpine hydrochloride 0.5% with hypromellose 0.5% eye dr	diuretics
9390399	Furosemide 20mg tablets	diuretics
9589799	Meprobamate with bendroflumethiazide tablet	diuretics
9647299	Furosemide 500mg tablets	diuretics
9906999	Meprobamate with bendroflumethiazide tablet	diuretics
6261197	Glucosamine hydrochloride 500mg / dimethyl sulfone 500mg tab	diuretics
9892699	Pseudoephedrine with diphenhydramine hydrochloride oral solu	diuretics
5370497	Morphine hydrochloride 5mg/5ml solution for injection ampoul	diuretics

8964099	Paracetamol with promethazine hydrochloride 120mg+1.5mg/5ml	diuretics
9631399	Bendroflumethiazide 2.5mg tablets	diuretics
6897297	Morphine hydrochloride 10mg/5ml oral solution	diuretics
9725199	Telmisartan 80mg / hydrochlorothiazide 12.5mg tablets	diuretics
9879799	Bendroflumethiazide 2.5mg tablets	diuretics
9979199	Bendroflumethiazide 2.5mg tablets	diuretics
9979099	Bendroflumethiazide 2.5mg tablets	diuretics
9663999	Dicyclomine hydrochloride/dimethicone 10 mg liq	diuretics
9944998	Pilocarpine hydrochloride 1% eye drops	diuretics
6897397	Morphine hydrochloride 10mg/5ml oral solution	diuretics
8145899	Olmesartan medoxomil with amlodipine and hydrochlorothiazide	diuretics
9936899	Bendroflumethiazide 5mg tablet	diuretics
9621999	Bendroflumethiazide 2.5mg tablets	diuretics
9861699	Spironolactone 25mg tablets	diuretics
9552199	Pilocarpine hydrochloride 4% eye drops	diuretics
9728499	Diamorphine hydrochloride 60 mg inj	diuretics
9893999	Furosemide 20mg/2ml injection	diuretics
9512999	Triamterene 50mg capsules	diuretics
7915897	Spironolactone 100mg/5ml oral suspension	diuretics
9810998	Pilocarpine hydrochloride 2% eye drops	diuretics
9990699	Thiamine hydrochlor 3mg tabs	diuretics
8417799	Hydrochlorothiazide with losartan 12.5mg with 100mg tablet	diuretics
9209497	Thiamine hydrochlor 50mg tabs	diuretics
9883799	Hydrochloric acid oral solution	diuretics

8145999	Olmesartan medoxomil with amlodipine and hydrochlorothiazide	diuretics
6220797	Glucosamine hydrochloride 500mg tablets	diuretics
6214797	Glucosamine hydrochloride 1.5g effervescent tablets sugar fr	diuretics
9755799	Bendroflumethiazide 2.5mg tablets	diuretics
9874499	Furosemide 50mg/5ml injection	diuretics
9886799	Furosemide 50mg/5ml injection	diuretics
9483999	Furosemide 250mg/25ml inj	diuretics
8742899	Valsartan 160mg / hydrochlorothiazide 12.5mg tablets	diuretics
9954899	Chlorthalidone 100mg tablets	diuretics
8447499	Trimetazidine dihydrochloride 20mg tablet	diuretics
9054799	Telmisartan 40mg / hydrochlorothiazide 12.5mg tablets	diuretics
6537697	Spironolactone 20mg/5ml oral suspension	diuretics
9855199	Furosemide 10mg/ml injection	diuretics
9970299	Ethacrynic acid 50mg tablets	diuretics
9854999	Furosemide 40mg tablets	diuretics
9755199	Reserpine with hydrochlorothiazide tablet	diuretics
9621099	Hydrochlorothiazide with triamterene 25mgwith50mg tablet	diuretics
9264599	Ibuprofen 200mg / pseudoephedrine hydrochloride 30mg tablets	diuretics
9706698	Bumetanide 5mg tablets	diuretics
9980698	Morphine hydrochloride 15mg suppositories	diuretics
9550299	Prilocaine hydrochloride/adrenaline 3 % inj	diuretics
8612899	Bendroflumethiazide 2.5mg/5ml oral suspension	diuretics
9647599	Furosemide with amiloride 80mg+10mg tablet	diuretics
8978299	Pilocarpine hydrochloride 4% eye gel	diuretics

9942999	Metolazone 5mg tablets	diuretics
9273699	Bendroflumethiazide 5mg tablet	diuretics
8652299	Losartan 100mg / hydrochlorothiazide 25mg tablets	diuretics
9582799	Metolazone 5mg tablets	diuretics
9552299	Pilocarpine hydrochloride 1% eye drops	diuretics
9798499	Quinine dihydrochloride 200 mg tab	diuretics
8417399	Glucosamine hydrochloride 500mg / chondroitin 400mg chewable	diuretics
9361299	Amiloride hcl 5mg tablets	diuretics
9421399	Furosemide 20mg/2ml injection	diuretics
9391099	Oxycodone hydrochloride 30mg suppositories	diuretics
9310299	Quinapril+hydrochlorothiazide	diuretics
9949199	Furosemide 40mg tablets	diuretics
8963999	Promethazine hydrochloride 1.5mg with paracetamol 120mg/5ml	diuretics
6650597	Metolazone 5mg/5ml oral solution	diuretics
9672499	Bumetanide 1mg tablets	diuretics
9979098	Bendroflumethiazide 5mg tablets	diuretics
9538399	Promethazine hydrochloride 25mg tablets	diuretics
8107799	Spironolactone 50mg/5ml oral suspension	diuretics
9410199	Chlorothiazide 25 mg liq	diuretics
9410599	Chlorothiazide / spironolactone 100 mg pow	diuretics
9620399	Hydroflumethiazide 50mg tablet	diuretics
9532199	Bendroflumethiazide 2.5mg tablets	diuretics
9763799	Spironolactone 50mg tablets	diuretics
9537099	Pseudoephedrine hydrochloride 60mg tablets	diuretics
9481799	Chlorothiazide/spironolactone/lactose mg pow	diuretics
9949499	Furosemide+k 20mg/10mmol tabs	diuretics
9789299	Amiloride 5mg tablets	diuretics

9688399	Amiloride s/f 5 mg/5ml sol	diuretics
9231999	Pilocarpine hydrochloride 1% eye drops preservative free	diuretics
9422099	Lignocaine hydrochloride/noradrenaline 2 % inj	diuretics
9631799	Bumetanide 1mg tablets	diuretics
9230299	Furosemide 20mg tablets	diuretics
6533597	Spironolactone 3mg/5ml oral solution	diuretics
9496099	Quinine hydrochloride 300mg tablet	diuretics
9970899	Triamterene 50mg capsules	diuretics
9647399	Furosemide with penbutolol tablet	diuretics
9560299	Furosemide 40mg tablets	diuretics
9783098	Bumetanide 5mg tablets	diuretics
8652199	Hydrochlorothiazide with losartan 25mg with 100mg tablet	diuretics
9526099	Spironolactone 50mg with hydroflumethiazide 50mg tablet	diuretics
9376099	Prolintane hydrochloride with vitamins liquid	diuretics
9456299	Pseudoephedrine hydrochloride 60mg / triprolidine 2.5mg tabl	diuretics
9944699	Pilocarpine hydrochloride 0.5% eye drops	diuretics
9973599	Furosemide+k 40mg/8mmol tabs	diuretics
9937999	Spironolactone 25mg tablets	diuretics
9958499	Furosemide 40mg tablets	diuretics
9334199	Triamterene 50mg hydrochlorothiazide25mg tab	diuretics
9333799	Glutamic acid hydrochloride/pepsin 500 mg tab	diuretics
9818099	Spironolactone 50mg tablets	diuretics
9384699	Metolazone 500mcg tablets	diuretics
9051497	Pilocarpine hydrochloride 0.5% eye drops preservative free	diuretics

9979299	Bendroflumethiazide 2.5mg tablets	diuretics
7810897	Glucosamine hydrochloride 750mg tablets	diuretics
9339999	Amiloride 2.5mg / cyclopenthiazide 250microgram tablets	diuretics
6538497	Spironolactone 2.5mg/5ml oral suspension	diuretics
9709299	Furosemide 40mg tablets	diuretics
9261099	Furosemide 250mg/25ml solution for injection ampoules	diuretics
9647699	Furosemide 40mg / potassium chloride 600mg (potassium 8mmol)	diuretics
6532997	Spironolactone 4.5mg/5ml oral suspension	diuretics
9532499	Reserpine with hydrochlorothiazide tablet	diuretics
9621199	Hydrochlorothiazide with amiloride 25mgwith2.5mg tablet	diuretics
9702199	Furosemide 40mg tablets	diuretics
9512599	Triamterene 50mg / furosemide 40mg tablets	diuretics
8551799	Spironolactone oral solution	diuretics
9742599	Hydroflumethiazide 50mg tabs	diuretics
5952797	Furosemide 250mg/5ml solution for injection vials	diuretics
9707799	Bumetanide 1mg tablets	diuretics
9867999	Furosemide 40mg tablets	diuretics
9711399	Furosemide 500mg tablets	diuretics
9552799	Pilocarpine hydrochloride 0.5% with hypromellose 0.5% eye dr	diuretics
9552699	Pilocarpine hydrochloride 3% with hypromellose 0.5% eye drop	diuretics
8417299	Glucosamine hydrochloride 500mg / chondroitin 400mg chewable	diuretics
9833198	Diamorphine hydrochloride 10mg powder for injection solution	diuretics
8604099	Hydrochlorothiazide with olmesartan medoxomil 25mg with 20mg	diuretics

9499299	Lisinopril 20mg / hydrochlorothiazide 12.5mg tablets	diuretics
9727999	Spironolactone 100mg capsules	diuretics
9319499	Bumetanide with amiloride tablets	diuretics
9944899	Pilocarpine hydrochloride 1% eye drops	diuretics
9927597	Furosemide 20mg/2ml solution for injection ampoules	diuretics
9801399	Pilocarpine hydrochloride 3% eye drops	diuretics
9942499	Amiloride hcl 5mg tablets	diuretics
9403099	Ephedrine hydrochloride 15mg / chlorphenamine 10mg tablets	diuretics
9937898	Spironolactone 100mg tablets	diuretics
8372199	Telmisartan 80mg / hydrochlorothiazide 25mg tablets	diuretics
9916199	Chlorothiazide 500mg tablets	diuretics
9883399	Bumetanide 1mg/5ml liquid	diuretics
8675499	Furosemide 80mg/8ml syringe	diuretics
9261499	Furosemide 1mg/ml oral solution	diuretics
9861698	Spironolactone 100mg tablets	diuretics
9958498	Furosemide 20mg tablets	diuretics
9694199	Furosemide 40mg tablets	diuretics
9501499	Bendroflumethiazide 2.5mg with propanolol 80mg capsules	diuretics
9808399	Spironolactone 25mg tablets	diuretics
9481199	Chlorothiazide 250 mg syr	diuretics
9481899	Chlorothiazide 60mg / spironolactone 6mg pow	diuretics
6915797	Furosemide 8mg/5ml oral solution	diuretics
8603999	Hydrochlorothiazide with olmesartan medoxomil 12.5mg with 20	diuretics
9814499	Bendroflumethiazide 5mg tablets	diuretics

9818098	Spironolactone 25mg tablets	diuretics
9463399	Hydrochlorothiazide with metoprolol tartrate 25mg with 200mg	diuretics
8420799	Octenidine hydrochloride lotion	diuretics
6271497	Glucosamine hydrochloride 500mg/5ml oral solution sugar free	diuretics
9985399	Amiloride hcl 5mg tablets	diuretics
6650397	Metolazone 5mg/5ml oral suspension	diuretics
9937899	Spironolactone 25mg tablets	diuretics
9346899	Furosemide 40mg/5ml oral solution sugar free	diuretics
9496199	Quinine dihydrochloride 300mg tablet	diuretics
9855098	Furosemide 40mg tablets	diuretics
9488999	Bendroflumethiazide 2.5mg tablets	diuretics
9319299	Amiloride 5mg / bumetanide 1mg tablets	diuretics
7990897	Hydrochlorothiazide 25mg/5ml oral suspension	diuretics
9721799	Bendroflumethiazide 5mg tablets	diuretics
9972399	Furosemide 40mg tablets	diuretics
9525799	Spironolactone 50mg / furosemide 20mg capsules	diuretics
9586299	Methyclothiazide 5mg tablet	diuretics
9340199	Amiloride+cyclopen 2.5/0.25mg	diuretics
9282999	Furosemide 50mg/5ml oral solution sugar free	diuretics
9944698	Pilocarpine hydrochloride 2% eye drops	diuretics
8721399	Hydrochlorothiazide with valsartan 12.5mg with 80mg tablet	diuretics
9987799	Amiloride 5mg tablets	diuretics
9700299	Diamorphine hydrochloride 100mg powder for injection solutio	diuretics
8416299	Thiamine hydrochlor 50mg tabs	diuretics
8447699	Furosemide 5mg/5ml oral solution sugar free	diuretics

9530199	Furosemide 20mg tablets	diuretics
9154599	Papaverine 30mg/1ml hydrochloride	diuretics
9808398	Spironolactone 50mg tablets	diuretics
9932899	Lisinopril 20mg / hydrochlorothiazide 12.5mg tablets	diuretics
9736499	Furosemide 50mg/5ml injection	diuretics
9718899	Spironolactone 100mg tablets	diuretics
9546299	Zolpidem 10mg tablets	sedatives
7003597	Dichlorobenzyl alcohol 1.29mg pastilles sugar free	sedatives
8998699	Liquid paraffin with acetylated wool alcohols bath oil	sedatives
9478199	Clindamycin 1% alcoholic solution	sedatives
9342599	Chloramphenicol/polyvinyl alcohol eye dro	sedatives
8553499	Primidone 50mg capsules	sedatives
8653297	Dichlorobenzyl alcohol 1.2mg / amylmetacresol 600microgram l	sedatives
8827599	Zaleplon 10mg capsules	sedatives
9117499	Lidocaine with dichlorobenzyl alcohol and amylmetacresol loz	sedatives
6642197	Midazolam 6.25mg/5ml oral solution	sedatives
9270399	Zolpidem tartrate 5mg tablets	sedatives
9867599	Nitrazepam 5mg tablets	sedatives
9890499	Alcohol absolute injection	sedatives
9572199	Nitrazepam 5mg capsule	sedatives
5588697	Midazolam 10mg/1ml oromucosal solution pre-filled oral syrin	sedatives
8779799	Midazolam 10mg/ml buccal solution	sedatives
9348699	Amobarbital sodium 500mg inj	sedatives
9406599	Cetrimide with undecenoic acid and	sedatives

	phenylethyl alcohol	
9682799	Cetylpyridinium chloride alcohol free oral rinse	sedatives
9310099	Liquid paraffin with acetylated wool alcohols bath oil	sedatives
9580999	Zolpidem 5mg tablets	sedatives
9544199	Polyvinyl alcohol 1.4% e/d	sedatives
6479897	Dichlorobenzyl alcohol 230micrograms / amylmetacresol 120mic	sedatives
5502897	Isopropyl alcohol 70% inj swa	sedatives
8845899	Zopiclone 3.75mg tablets	sedatives
6644197	Midazolam 2.5mg/5ml oral solution	sedatives
9449999	Midazolam 5mg/ml injection	sedatives
5564397	Midazolam 2.5mg/0.25ml oromucosal solution pre-filled oral s	sedatives
9634099	Zopiclone 7.5mg tablets	sedatives
6709397	Chlorhexidine gluconate 2% / isopropyl alcohol 70% solution	sedatives
6280097	Midazolam 7.5mg/1.5ml oromucosal solution pre-filled oral sy	sedatives
6051397	Midazolam 10mg/1ml oromucosal solution pre-filled oral syrin	sedatives
9716298	Zopiclone 3.75mg tablets	sedatives
9567799	Zopiclone 7.5mg tablets	sedatives
9544099	Polyvinyl alcohol 1% e/d	sedatives
9720599	Nitrazepam 5mg capsules	sedatives
6709597	Chlorhexidine gluconate 2% / isopropyl alcohol 70% solution	sedatives
6072897	Midazolam 10mg/1ml oromucosal solution pre-filled oral syrin	sedatives
6710097	Chlorhexidine gluconate 2% / isopropyl alcohol 70% solution	sedatives
9824399	Zinc undecenoate with chlorophenoxyethanol	sedatives

	powder	
9550699	Zolpidem 10mg tablets	sedatives
9603698	Zolpidem 10mg tablets	sedatives
9446999	Liquid paraffin 65% / acetylated wool alcohols 5% bath oil	sedatives
9311799	Dichlorobenzyl alcohol 1.2mg / amylmetacresol 600microgram l	sedatives
6280497	Midazolam 2.5mg/0.5ml oromucosal solution pre-filled oral sy	sedatives
6117997	Midazolam 10mg/ml oromucosal solution	sedatives
9597499	Pilocarpine 1%/polyvinyl alcohol eye dro	sedatives
8571399	Midazolam 5mg/5ml solution for injection ampoules	sedatives
9446499	Carbaryl 0.5% alcoholic lotion	sedatives
9593099	Malathion 0.5% alcoholic lotion	sedatives
6644597	Midazolam 11mg/5ml oral solution	sedatives
8571099	Midazolam 50mg/10ml solution for injection ampoules	sedatives
7979097	Primidone 250mg tablets	sedatives
9916999	Nicotinyl alcohol 25mg tabs	sedatives
7109997	Chlorhexidine gluconate 2% / isopropyl alcohol 70% solution	sedatives
9061897	Midazolam 10mg/2ml solution for injection ampoules	sedatives
9971799	Nitrazepam 5mg tablets	sedatives
8119099	Midazolam 2.5mg/0.5ml oromucosal solution pre-filled oral sy	sedatives
9406499	Cetrimide with undecenoic acid and phenylethyl alcohol	sedatives
9821099	Malathion 0.5% alcoholic lotn	sedatives
9116897	Polyvinyl alcohol 1.4% s-d e/d	sedatives
9685798	Zopiclone 7.5mg tablets	sedatives

7109897	Chlorhexidine gluconate 2% / isopropyl alcohol 70% solution	sedatives
8163099	Midazolam 2.5mg/ml oral solution	sedatives
9572599	Nicotinyl alcohol 150mg modified-release tablet	sedatives
8815099	Liquid paraffin 65% / acetylated wool alcohols 5% bath oil	sedatives
9707099	Ethanolamine oleate 5% injection	sedatives
8184299	Primidone 50mg tablets	sedatives
8114099	Iodine alcoholic solution	sedatives
8218197	Primidone 50mg tablets	sedatives
9558599	Sodium amytal 200 mg sup	sedatives
8590299	Zopiclone 3.75mg/5ml oral suspension	sedatives
9546399	Zolpidem 5mg tablets	sedatives
9688299	Carbaryl 0.5% alcoholic lotion	sedatives
8253497	Primidone 50mg tablets	sedatives
9615099	Cetrimide/phenylethyl alcohol shampoo 10 % liq	sedatives
6292597	Chlorhexidine gluconate 0.2% oromucosal solution alcohol fre	sedatives
9360699	Pilocarpine 2%/polyvinyl alcohol eye dro	sedatives
9702799	Zopiclone 7.5mg tablets	sedatives
8779899	Midazolam 10mg/ml buccal solution	sedatives
9811899	Povidone-iod 10% alcohol soln	sedatives
8412799	Primidone 100mg/5ml oral solution	sedatives
9728899	Malathion 0.5% alcoholic lotn	sedatives
8220597	Primidone 250mg tablets	sedatives
6709897	Chlorhexidine gluconate 2% / isopropyl alcohol 70% solution	sedatives
9992699	Wool alcohols ointment	sedatives
8183099	Primidone 50mg tablets	sedatives

8463399	Midazolam oral solution	sedatives
9371799	Paraffin & wool fat with cetostearyl alcohol	sedatives
9726499	Di-isobutylphenoxypolyethoxyethanol 1 % gel	sedatives
9726899	Nitrazepam 5mg capsules	sedatives
9338299	Cetyl alcohol-tar / salicylic / sulphur % oin	sedatives
8653197	Dichlorobenzyl alcohol 1.2mg / amylmetacresol 600microgram l	sedatives
8522799	Chlorhexidine gluconate 2% alcoholic solution	sedatives
6367597	Primidone 100mg/5ml oral suspension	sedatives
8525897	Midazolam 5mg/2ml solution for injection ampoules	sedatives
8530497	Polyvinyl alcohol 1.4% eye drops preservative free	sedatives
9106199	Liquid paraffin 65% / acetylated wool alcohols 5% bath oil	sedatives
8571499	Midazolam 2mg/2ml solution for injection ampoules	sedatives
6280397	Midazolam 5mg/1ml oromucosal solution pre-filled oral syring	sedatives
5363997	Dichlorobenzyl alcohol 1.2mg / amylmetacresol 600microgram l	sedatives
8571799	Midazolam 10mg/5ml solution for injection ampoules	sedatives
6280597	Midazolam 10mg/2ml oromucosal solution pre-filled oral syrin	sedatives
9517799	Thiopental 500mg powder for solution for injection vials	sedatives
7770099	Polyvinyl alcohol 1.4% e/d	sedatives
8653397	Dichlorobenzyl alcohol 1.2mg / amylmetacresol 600microgram l	sedatives
9855099	Midazolam 10mg/2ml injection	sedatives
9626899	Midazolam 10mg/5ml solution for injection ampoules	sedatives

8710699	Primidone 250mg tablets	sedatives
6644997	Midazolam 10mg/5ml oral solution	sedatives
9851899	Isopropyl alcohol liquid	sedatives
8522999	Chlorhexidine gluconate 2% alcoholic solution	sedatives
9917099	Flunitrazepam 1mg tablets	sedatives
9105699	Cetylpyridinium chloride alcohol free oral rinse	sedatives
8189299	Midazolam maleate buccal solution	sedatives
8921599	Polyvinyl alcohol 1.4% eye drops 0.4ml unit dose preservativ	sedatives
6117897	Midazolam 10mg/ml oromucosal solution	sedatives
9287299	Polyvinyl alcohol 1.4% eye drops 0.4ml unit dose preservativ	sedatives
8118599	Midazolam 10mg/2ml oral syrg	sedatives
9993999	Furosemide 40mg tablets	sedatives
9270499	Zolpidem 5mg tablets	sedatives
9834599	Amobarbital 50mg tablets	sedatives
7110097	Chlorhexidine gluconate 2% / isopropyl alcohol 70% solution	sedatives
9542299	Povidone-iod 10% alcohol soln	sedatives
8889999	Liquid paraffin 65% / acetylated wool alcohols 5% bath oil	sedatives
8634999	Primidone 25mg/5ml oral suspension	sedatives
9891199	Wool alcohols ointment	sedatives
9607099	Zopiclone 7.5mg tablets	sedatives
9558499	Sodium amytal 50 mg cap	sedatives
8631197	Dichlorobenzyl alcohol 1.2mg / amylmetacresol 600microgram l	sedatives
9707699	Zopiclone 3.75mg tablets	sedatives
9722799	Nitrazepam 5mg tablets	sedatives
9389799	Isopropyl alcohol 70% / triclosan 0.5% topical	sedatives

	solution	
9081199	Polyvinyl alcohol 1.4% s-d e/d	sedatives
9789999	Pilocarpine 4%/polvinyl alcohol eye dro	sedatives
9858799	Alcohol dilute 90% liquid	sedatives
9084697	Clindamycin 1% alcoholic solution	sedatives
9089299	Alcohol absolute injection	sedatives
9515299	Midazolam 1mg/ml injection	sedatives
9847099	Nitrazepam 5mg tablets	sedatives
9587499	Zolpidem 10mg tablets	sedatives
6206397	Midazolam 7.5mg tablets	sedatives
9303799	Phenobarbitone sodium alcohol free 50 mg/5ml mix	sedatives
9972099	Nitrazepam 5mg tablets	sedatives
8546699	Primidone 62.5mg/5ml oral suspension	sedatives
9685799	Zopiclone 3.75mg tablets	sedatives
9971999	Nitrazepam 5mg tablets	sedatives
8571699	Midazolam 100mg/50ml solution for infusion vials	sedatives
5564297	Midazolam 5mg/0.5ml oromucosal solution pre-filled syringes	sedatives
9544299	Polyvinyl alcohol 1% eye drops	sedatives
9971899	Nitrazepam 5mg tablets	sedatives
9364199	Zopiclone 7.5mg tablets	sedatives
9503899	Amobarbital sodium 200mg capsules	sedatives
9540399	Primidone 250mg/5ml oral suspension	sedatives
9531399	Nembutal 100 mg cap	sedatives
9992698	Wool alcohols vehicle base	sedatives
8668199	Chlorhexidine 0.5% / isopropyl alcohol 70% impregnated swabs	sedatives
9329699	Midazolam 2mg/2ml solution for injection	sedatives

	ampoules	
9914999	Secobarbital 100mg capsules	sedatives
9715599	Zopiclone 3.75mg tablets	sedatives
9924499	Salicylic acid with chlorophenoxyethanol & menthol cream	sedatives
9405899	Ethanol 90% including duty	sedatives
8670499	Isopropyl alcohol 70% impregnated swabs	sedatives
8267097	Midazolam 2mg/2ml solution for injection pre-filled syringes	sedatives
9821199	Carbaryl 0.5% alcoholic lotion	sedatives
7162197	Midazolam 10mg/ml oral solution	sedatives
9580899	Zolpidem 10mg tablets	sedatives
8201299	Chlorhexidine gluconate 2% alcoholic solution	sedatives
9693299	Nitrazepam 5mg tablets	sedatives
9021197	Primidone 250mg/5ml oral suspension	sedatives
9116797	Polyvinyl alcohol 1.4% s-d e/d	sedatives
6309897	Midazolam 12.5mg/5ml oral suspension	sedatives
9504099	Amobarbital 200mg tablets	sedatives
9504199	Amobarbital 15mg tablets	sedatives
9580299	Midazolam 1mg/ml injection	sedatives
8580099	Dichlorobenzyl alcohol with amylmetacresol with levomenthol	sedatives
8118899	Midazolam 10mg/2ml oromucosal solution pre-filled oral syrin	sedatives
9550799	Zolpidem 5mg tablets	sedatives
9794999	Primidone 200 mg tab	sedatives
8118999	Midazolam 7.5mg/1.5ml oromucosal solution pre-filled oral sy	sedatives
9544399	Polyvinyl alcohol 1.4% eye drops	sedatives
9558699	Sodium amytal 30 mg cap	sedatives

9564699	Zolpidem 5mg tablets	sedatives
9979699	Amylmetacresol/dichlorobenzyl alcohol loz	sedatives
9433899	Sodium amytal 30 mg tab	sedatives
9914299	Nitrazepam 5mg tablets	sedatives
9616099	Zopiclone 7.5mg tablets	sedatives
9584299	Salicylic acid/coal tar soln/alcohol sol	sedatives
9587599	Zolpidem 5mg tablets	sedatives
9519697	Primidone 250mg tablets	sedatives
8518099	Primidone 50mg/5ml oral suspension	sedatives
9603699	Zolpidem 5mg tablets	sedatives
5563997	Midazolam 7.5mg/0.75ml oromucosal solution pre-filled syring	sedatives
7914997	Benzyl alcohol 7.5% / eucalyptus oil 1% cream	sedatives
9612499	Midazolam 5mg/ml injection	sedatives
9520397	Primidone 250mg tablets	sedatives
9478299	Clindamycin 1% alcoholic solution	sedatives
9613699	Idoxuridine with polyvinyl alcohol ophthalmic solution	sedatives
6709997	Chlorhexidine gluconate 2% / isopropyl alcohol 70% solution	sedatives
9503799	Amobarbital 50mg / secobarbital sodium 50mg capsules	sedatives
9729899	Polyvinyl alcohol 1.4% e/d	sedatives
9950299	Thiamine with caffeine kola nut extract & alcohol	sedatives
9938399	Primidone 250mg/5ml susp	sedatives
6984797	Isopropyl alcohol 70% spray	sedatives
9363899	Zopiclone 7.5mg tablets	sedatives
5588597	Midazolam 10mg/ml oromucosal solution	sedatives
9913199	Amobarbital sodium 200mg caps	sedatives

8310499	Liquid paraffin 65% / acetylated wool alcohols 5% bath oil	sedatives
8156099	Midazolam 5mg/1ml oral syringe	sedatives
8571599	Midazolam 50mg/50ml solution for infusion vials	sedatives
8970399	Zopiclone 3.75mg tablets	sedatives
9940499	Nitrazepam 5mg tablets	sedatives
9652099	Flunitrazepam 1mg tablets	sedatives
9287399	Polyvinyl alcohol 1.4% s-d e/d	sedatives
8109799	Zopiclone 3.75mg/5ml oral solution	sedatives
9679799	Coaltar soln/hydroalcoholic gel base gel	sedatives
9669999	Liq paraffin/wool alcohols acetylated ml emu	sedatives
9558799	Zopiclone 3.75mg tablets	sedatives
9672099	Chlorhexidine gluconate 0.5% alcoholic solution	sedatives
9572699	Nicotinyl alcohol 25mg tablet	sedatives
9238899	Deionised water with glycerin with benzyl alcohol cream	sedatives
9116697	Polyvinyl alcohol 1.4% s-d e/d	sedatives
8176399	Chlorhexidine gluconate 0.2% oromucosal solution alcohol fre	sedatives
9563599	Emulsifyin ointment with phenoxyethanol cream	sedatives
9912599	Nitrazepam 2.5mg/5ml mixture	sedatives
9534299	Secobarbital sodium 50mg capsules	sedatives
8728999	Nitrazepam 5mg tablets	sedatives
8963399	Liquid paraffin with wool alcohols and white soft paraffin 4	sedatives
9626898	Midazolam 10mg/2ml solution for injection ampoules	sedatives
9716299	Zopiclone 7.5mg tablets	sedatives
8571199	Midazolam 10mg/2ml solution for injection	sedatives

	ampoules	
9348499	Amobarbital sodium 500mg injection	sedatives
9849999	Dichlorobenzyl alcohol 1.2mg / amylmetacresol 600microgram l	sedatives
7855597	Primidone 50mg tablets	sedatives
9935499	Nitrazepam 5mg tablets	sedatives
8611099	Isopropyl alcohol 70% liquid	sedatives
5564197	Midazolam 5mg/0.5ml oromucosal solution pre-filled syringes	sedatives
9707698	Zopiclone 7.5mg tablets	sedatives
9628499	Midazolam 10mg/5ml solution for injection ampoules	sedatives
7153297	Ethanol 70% duty paid	sedatives
8425999	Coconut oil with isopropyl alcohol and anise oil	sedatives
9117899	Lidocaine with dichlorobenzyl alcohol and amylmetacresol loz	sedatives
9628498	Midazolam 10mg/2ml solution for injection ampoules	sedatives
8827499	Zaleplon 10mg capsules	sedatives
9572099	Nitrazepam 10mg tablet	sedatives
6709797	Chlorhexidine gluconate 2% / isopropyl alcohol 70% solution	sedatives
9808899	Nitrazepam 5mg/5ml oral suspension	sedatives
8156199	Midazolam 5mg/1ml oromucosal solution pre-filled oral syring	sedatives
8268399	Chlorhexidine gluconate 0.2% oromucosal solution alcohol fre	sedatives
9542499	Povidone-iodine 10% alcoholic solution	sedatives
9966499	Liquid paraffin with acetylated wool alcohols bath oil	sedatives
9405999	Alcohol 90% liquid	sedatives
9588699	Chlorhex.gluc.0.5%/isopropyl alcohol 70% sol	sedatives

9702798	Zopiclone 3.75mg tablets	sedatives
9715598	Zopiclone 7.5mg tablets	sedatives
9503999	Amobarbital sodium 60mg capsules	sedatives
94542996	Doxazosin 4mg tablets	antihypertensive
94542997	Doxazosin 2mg tablets	antihypertensive
94542998	Doxazosin 1mg tablets	antihypertensive
88958998	Doxazosin 4mg modified-release tablets	antihypertensive
88958997	Doxazosin 8mg modified-release tablets	antihypertensive
88481998	Doxazosin 4mg m/r tablets	antihypertensive
88481997	Doxazosin 8mg m/r tablets	antihypertensive
94541997	Doxazosin 2mg tablets	antihypertensive
94541998	Doxazosin 1mg tablets	antihypertensive
94541996	Doxazosin 4mg tablets	antihypertensive
89337998	Doxazosin 4mg tablets	antihypertensive
89431998	Doxazosin 2mg tablets	antihypertensive
97267998	Doxazosin 1mg tablets	antihypertensive
84832998	Doxazosin 4mg tablets	antihypertensive
95998990	Doxazosin 4mg tablets	antihypertensive
95999990	Doxazosin 2mg tablets	antihypertensive
92240990	Doxazosin 4mg modified-release tablets	antihypertensive
95989990	Doxazosin 4mg tablets	antihypertensive
95990990	Doxazosin 2mg tablets	antihypertensive
86348998	Doxazosin 1mg/5ml oral suspension	antihypertensive
95942990	Doxazosin 1mg tablets	antihypertensive
96000990	Doxazosin 1mg tablets	antihypertensive
84534998	Doxazosin 4mg/5ml oral suspension	antihypertensive
95938990	Doxazosin 4mg tablets	antihypertensive

95642990	Doxazosin 4mg tablets	antihypertensive
95923990	Doxazosin 2mg tablets	antihypertensive
93919990	Doxazosin 4mg tablets	antihypertensive
90939998	Doxazosin 2mg tablets	antihypertensive
84445998	Doxazosin 4mg modified-release tablets	antihypertensive
85046998	Doxazosin 4mg tablets	antihypertensive
95963990	Doxazosin 1mg tablets	antihypertensive
95991990	Doxazosin 1mg tablets	antihypertensive
85375998	Doxazosin 4mg modified-release tablets	antihypertensive
95959990	Doxazosin 2mg tablets	antihypertensive
90938998	Doxazosin 4mg tablets	antihypertensive
69263979	Doxazosin 2mg/5ml oral suspension	antihypertensive
84548998	Doxazosin 4mg modified-release tablets	antihypertensive
92699990	Doxazosin 4mg modified-release tablets	antihypertensive
81777998	Doxazosin 4mg modified-release tablets	antihypertensive
95961990	Doxazosin 4mg tablets	antihypertensive
95962990	Doxazosin 2mg tablets	antihypertensive
81717998	Doxazosin 4mg modified-release tablets	antihypertensive
79850978	Doxazosin 4mg tablets	antihypertensive
81787998	Doxazosin 4mg m/r tablets	antihypertensive
84444998	Doxazosin 4mg modified-release tablets	antihypertensive
95922990	Doxazosin 4mg tablets	antihypertensive
95924990	Doxazosin 1mg tablets	antihypertensive
95940990	Doxazosin 2mg tablets	antihypertensive
95419997	Prazosin 1mg tablets	antihypertensive
95419996	Prazosin 2mg tablets	antihypertensive
95419998	Prazosin 500microgram tablets	antihypertensive
99546996	Prazosin hcl 2mg tablets	antihypertensive

99546997	Prazosin hcl 1mg tablets	antihypertensive
95418998	Prazosin 5mg tablets	antihypertensive
99546998	Prazosin hcl 500mcg tablets	antihypertensive
99545998	Prazosin hcl 5mg tablets	antihypertensive
96804998	Prazosin hcl starter pack	antihypertensive
99095998	Prazosin hcl 5mg tablets	antihypertensive
99079996	Prazosin hcl 2mg tablets	antihypertensive
99079997	Prazosin hcl 1mg tablets	antihypertensive
94826996	Prazosin hcl 1mg tablets	antihypertensive
99079998	Prazosin hcl 500mcg tablets	antihypertensive
94826997	Prazosin hcl 500mcg tablets	antihypertensive
98457988	Prazosin 1mg tablets	antihypertensive
94825998	Prazosin hcl 2mg tablets	antihypertensive
94826998	Prazosin hcl starter pack	antihypertensive
98359990	Prazosin 500microgram tablets	antihypertensive
97904990	Prazosin 2mg tablets	antihypertensive
98459988	Prazosin 2mg tablets	antihypertensive
98457989	Prazosin 500microgram tablets	antihypertensive
98459990	Prazosin 500microgram tablets	antihypertensive
98459989	Prazosin 1mg tablets	antihypertensive
94891996	Terazosin 5mg tablets	antihypertensive
94891997	Terazosin 2mg tablets	antihypertensive
94890998	Terazosin 10mg tablets	antihypertensive
94889997	Terazosin 2mg tablets	antihypertensive
94889996	Terazosin 5mg tablets	antihypertensive
94888998	Terazosin 10mg tablets	antihypertensive
99135997	Terazosin 2mg tablets	antihypertensive
99135996	Terazosin 5mg tablets	antihypertensive

93535998	Terazosin 2mg tablets and terazosin 1mg tablets	antihypertensive
84464998	Terazosin 5mg tablets	antihypertensive
84465998	Terazosin 2mg tablets	antihypertensive
93536998	Terazosin starter pack 1mg+2mg	antihypertensive
99135998	Terazosin 1mg+2mg+5mg start pk	antihypertensive
84463998	Terazosin 10mg tablets	antihypertensive
99279998	Terazosin 10mg tablets	antihypertensive
94891998	Terazosin 1mg tablets	antihypertensive
89403998	Terazosin bph starter pack 7x1mg with 14x2mg with 7x5mg	antihypertensive
95649990	Terazosin 2mg tablets	antihypertensive
87218998	Eplerenone 50mg tablets	antihypertensive
87217998	Eplerenone 25mg tablets	antihypertensive
87216998	Eplerenone 50mg tablets	antihypertensive
87219998	Eplerenone 25mg tablets	antihypertensive
99850998	Clonidine 100microgram tablets	antihypertensive
98276998	Clonidine 250mcg m/r capsules	antihypertensive
96632997	Clonidine 300microgram tablets	antihypertensive
99850997	Clonidine 300mcg tablets	antihypertensive
93659998	Clonidine 250microgram modified-release capsules	antihypertensive
95460990	Clonidine 25microgram tablets	antihypertensive
96631998	Clonidine 150micrograms/1ml solution for injection ampoules	antihypertensive
80465979	Clonidine 50micrograms/5ml oral solution	antihypertensive
80473979	Clonidine 12.5micrograms/5ml oral solution	antihypertensive
71677979	Clonidine 100micrograms/24hours transdermal patches	antihypertensive
95330990	Clonidine 25microgram tablets	antihypertensive

69971979	Clonidine 125micrograms/5ml oral solution	antihypertensive
80469979	Clonidine 25micrograms/5ml oral solution	antihypertensive
80463979	Clonidine 50micrograms/5ml oral suspension	antihypertensive
71674979	Clonidine 300micrograms/24hours transdermal patches	antihypertensive
81896979	Clonidine 200micrograms/24hours transdermal patches	antihypertensive
97337998	Clonidine 150mcg/ml injection	antihypertensive
96633998	Clonidine 25microgram tablets	antihypertensive
99733998	Clonidine hcl 25mcg tablets	antihypertensive
96632998	Clonidine 100microgram tablets	antihypertensive
97204997	Methyldopa 250mg tablets	antihypertensive
99975997	Methyldopa 250mg tablets	antihypertensive
97204996	Methyldopa 500mg tablets	antihypertensive
97204998	Methyldopa 125mg tablets	antihypertensive
99975996	Methyldopa 500mg tablets	antihypertensive
97741992	Methyldopa 250 mg cap	antihypertensive
99975998	Methyldopa 125mg tablets	antihypertensive
98292997	Methyldopa 250mg tablets	antihypertensive
82001998	Methyldopa 250mg tablets	antihypertensive
99102998	Methyldopa 250mg tablets	antihypertensive
92094998	Methyldopa 250mg capsule	antihypertensive
99102997	Methyldopa 500mg tablets	antihypertensive
95856998	Methyldopa 250mg/5ml oral suspension	antihypertensive
98292996	Methyldopa 500mg tablets	antihypertensive
98406998	Methyldopa 250mg/5ml mixture	antihypertensive
82000998	Methyldopa 500mg tablets	antihypertensive
98292998	Methyldopa 125mg tablets	antihypertensive
98488990	Methyldopa 250mg tablets	antihypertensive

99508989	Methyldopa 250mg tablets	antihypertensive
99509989	Methyldopa 250mg tablets	antihypertensive
98405998	Methyldopat hcl 250mg/5ml inj	antihypertensive
95276992	Methyldopa 200 mg tab	antihypertensive
95856997	Methyldopa 50mg/ml injection	antihypertensive
98734979	Methyldopa 500mg tablets	antihypertensive
97831998	Lofexidine 200microgram tablets	antihypertensive
97863998	Lofexidine hcl 200mcg tablets	antihypertensive
58543979	Azilsartan medoxomil 80mg tablets	antihypertensive
58545979	Azilsartan medoxomil 40mg tablets	antihypertensive
58544979	Azilsartan medoxomil 40mg tabs	antihypertensive
58319979	Azilsartan medoxomil 20mg tabs	antihypertensive
90503998	Candesartan 2mg tablets	antihypertensive
87028998	Candesartan 32mg tablets	antihypertensive
91571996	Candesartan cilexetil 8mg tabs	antihypertensive
91571997	Candesartan cilexetil 4mg tabs	antihypertensive
88335998	Candesartan cilexet 16mg tabs	antihypertensive
91571998	Candesartan cilexetil 2mg tabs	antihypertensive
87027998	Candesartan cilexetl 32mg tabs	antihypertensive
58058979	Candesartan 32mg tablets	antihypertensive
53673979	Candesartan 2mg tablets	antihypertensive
58096979	Candesartan 8mg tablets	antihypertensive
52839979	Candesartan 2mg tablets	antihypertensive
58688979	Candesartan 4mg tablets	antihypertensive
90503996	Candesartan 8mg tablets	antihypertensive
90503997	Candesartan 4mg tablets	antihypertensive
90504998	Candesartan 16mg tablets	antihypertensive
89283996	Eprosartan 600mg tablets	antihypertensive

89283998	Eprosartan 300mg tablets	antihypertensive
89283997	Eprosartan 400mg tablets	antihypertensive
89282998	Eprosartan 300mg tablets	antihypertensive
89282996	Eprosartan 600mg tablets	antihypertensive
89282997	Eprosartan 400mg tablets	antihypertensive
84313998	Irbesartan 300mg/5ml oral suspension	antihypertensive
88507997	Irbesartan 150mg tablets	antihypertensive
88507996	Irbesartan 300mg tablets	antihypertensive
88507998	Irbesartan 75mg tablets	antihypertensive
88506997	Irbesartan 150mg tablets	antihypertensive
88506996	Irbesartan 300mg tablets	antihypertensive
88506998	Irbesartan 75mg tablets	antihypertensive
82751998	Losartan 2.5mg/ml oral suspension sugar free	antihypertensive
82894998	Losartan potassium 12.5mg tabs	antihypertensive
82750998	Losartan potass 2.5mg/ml susp	antihypertensive
64539979	Losartan 25mg/5ml oral suspension	antihypertensive
64572979	Losartan 50mg/5ml oral suspension	antihypertensive
92516998	Losartan 50mg tablets	antihypertensive
91520998	Losartan 100mg tablets	antihypertensive
92516997	Losartan 25mg tablets	antihypertensive
92517998	Losartan potassium 50mg tabs	antihypertensive
82895998	Losartan 12.5mg tablets	antihypertensive
90789998	Losartan potassium 100mg tabs	antihypertensive
92517997	Losartan potassium 25mg tabs	antihypertensive
91867998	Olmesartan medoxomil 10mg tabs	antihypertensive
91868998	Olmesartan medoxomil 20mg tabs	antihypertensive
97649998	Olmesartan medoxomil 40mg tabs	antihypertensive
91861998	Olmesartan medoxomil 20mg tablets	antihypertensive

91872998	Olmesartan medoxomil 10mg tablets	antihypertensive
91873998	Olmesartan medoxomil 40mg tablets	antihypertensive
90432998	Telmisartan 40mg tablets	antihypertensive
90432997	Telmisartan 80mg tablets	antihypertensive
90432996	Telmisartan 20mg tablets	antihypertensive
92990998	Telmisartan 40mg tablets	antihypertensive
92990997	Telmisartan 80mg tablets	antihypertensive
92990996	Telmisartan 20mg tablets	antihypertensive
89513996	Valsartan 160mg capsules	antihypertensive
89513998	Valsartan 40mg capsules	antihypertensive
84169998	Valsartan 320mg tablets	antihypertensive
87153998	Valsartan 40mg tablets	antihypertensive
85416998	Valsartan 80mg tablets	antihypertensive
85414998	Valsartan 160mg tablets	antihypertensive
89514997	Valsartan 80mg capsules	antihypertensive
81863998	Valsartan 160mg tablets	antihypertensive
89514998	Valsartan 40mg capsules	antihypertensive
89514996	Valsartan 160mg capsules	antihypertensive
89513997	Valsartan 80mg capsules	antihypertensive
81611998	Valsartan 3mg/1ml oral solution	antihypertensive
84168998	Valsartan 320mg tablets	antihypertensive
87152998	Valsartan 40mg tablets	antihypertensive
98419997	Acebutolol 200mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
82858998	Clopamide 5mg with pindolol 10mg tablets	antihypertensive
67637994	Pindolol 10mg / clopamide 5mg tablets	antihypertensive
67981994	Pindolol+clopamide 10/5mg tabs	antihypertensive
94059994	Furosemide with penbutolol tablet	antihypertensive
91877994	Hydrochlorothiazide with atenolol and	antihypertensive

	amiloride capsule	
99529998	Amiloride with atenolol with hydrochlorothiazide capsules	antihypertensive
94456996	Atenol+co-amiloz 50/2.5/25mg	antihypertensive
94395998	Atenolol 100mg with chlortalidone 25mg tablets	antihypertensive
92829998	Atenolol 25mg / bendroflumethiazide 1.25mg capsules	antihypertensive
87174998	Atenolol 50mg / nifedipine 20mg modified-release capsules	antihypertensive
82468998	Atenolol 50mg with chlortalidone 12.5mg tablets	antihypertensive
99767998	Atenolol/chlorthalidone 50 mg tab	antihypertensive
95332997	Atenolol+bendro 25/1.25mg cap	antihypertensive
99395996	Atenolol+nifedip 50/20mg m/r	antihypertensive
81963998	Atenolol+nifedip 50/20mg m/r	antihypertensive
93499998	Betaxolol hcl 20mg tablets	antihypertensive
98006994	Bisoprolol 10mg / hydrochlorothiazide 6.25mg tablets	antihypertensive
99253998	Bisoprolol+hydrochloroth tabs	antihypertensive
89188994	Hydrochlorothiazide /metoprolol tartrate 25 mg tab	antihypertensive
93188994	Hydrochlorothiazide with metoprolol tartrate 12.5mg with 100mg tablet	antihypertensive
93603997	Hydrochlorothiazide with metoprolol tartrate 25mg with 200mg modified-release tablet	antihypertensive
81192998	Metoprolol 100mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
82298979	Metoprolol 200mg modified-release / hydrochlorothiazide 25mg tablets	antihypertensive
83243994	Metoprolol tartrate with chlortalidone tablet	antihypertensive
83285994	Metoprolol+hydrochl 100/12.5m	antihypertensive
80891994	Sotalol 160mg with hydrochlorothiazide 25mg	antihypertensive

	tablet	
81273998	Sotalol 80mg with hydrochlorothiazide 12.5mg tablet	antihypertensive
81307994	Sotalol hcl 40 mg inj	antihypertensive
81308994	Sotalol hcl s/r 80 mg tab	antihypertensive
99893998	Bendroflumethiazide 5mg with nadolol 40mg tablets	antihypertensive
85281998	Bendroflumethiazide 5mg with nadolol 80mg tablets	antihypertensive
94028992	Nadolol 40mg / bendroflumethiazide 5mg tablets	antihypertensive
94287994	Nadolol 80mg / bendroflumethiazide 5mg tablets	antihypertensive
94634992	Nadolol 80mg/bendrofluazide 5mg mg tab	antihypertensive
94692997	Nadolol+bendroflu 40/5mg tabs	antihypertensive
94751992	Nadolol+bendroflu 80/5mg tabs	antihypertensive
81021994	Propranolol 160mg modified-release / bendroflumethiazide 5mg capsules	antihypertensive
81896979	Propranolol 80mg / bendroflumethiazide 2.5mg capsules	antihypertensive
83079979	Spironolactone with propranolol tablet	antihypertensive
60056979	Timolol 10mg/bendrofluazide 2.5mg tab	antihypertensive
60174979	Timolol maleate with amiloride and hydrochlorothiazide tablet	antihypertensive
60178979	Timolol maleate with bendroflumethiazide 20mg + 5mg tablet	antihypertensive
60200979	Timolol maleate with dorzolamide 0.5% + 2% eye drops	antihypertensive
60278979	Timolol+bendrofl 10/2.5mg tabs	antihypertensive
60287979	Timolol+bendrofl 10/2.5mg tabs	antihypertensive
60291979	Timolol+bendrofl 20/5mg tabs	antihypertensive
60297979	Timolol+co-amiloz 10/2.5/25mg	antihypertensive
85219998	Irbesartan 300mg / hydrochlorothiazide 25mg	antihypertensive

	tablets	
91089998	Irbesartan 150mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
91089997	Irbesartan 300mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
93144998	Prazosin 1mg tablets and prazosin 500microgram tablets	antihypertensive
95855998	Methyldopa with hydrochlorothiazide tablet	antihypertensive
91577998	Hydrochlorothiazide with losartan 12.5mg with 50mg tablet	antihypertensive
86521998	Hydrochlorothiazide with losartan 25mg with 100mg tablet	antihypertensive
98322979	Losartan 50mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
91240998	Losartan 50mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
86522998	Losartan 100mg / hydrochlorothiazide 25mg tablets	antihypertensive
84178998	Losartan 100mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
86093998	Olmesartan medoxomil 20mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
86092998	Olmesartan medoxomil 20mg / hydrochlorothiazide 25mg tablets	antihypertensive
82915998	Olmesartan medoxomil 20mg / amlodipine 5mg tablets	antihypertensive
82914998	Olmesartan medoxomil 40mg / amlodipine 5mg tablets	antihypertensive
81461998	Olmesartan medoxomil with amlodipine and hydrochlorothiazide 20mg + 5mg + 12.5mg tablet	antihypertensive
86039998	Hydrochlorothiazide with olmesartan medoxomil 12.5mg with 20mg tablet	antihypertensive
86040998	Hydrochlorothiazide with olmesartan medoxomil 25mg with 20mg tablet	antihypertensive
81459998	Olmesartan medoxomil with amlodipine and	antihypertensive

	hydrochlorothiazide 40mg + 10mg + 12.5mg tablet	
81460998	Olmesartan medoxomil with amlodipine and hydrochlorothiazide 40mg + 5mg + 12.5mg tablet	antihypertensive
81458998	Olmesartan medoxomil with amlodipine and hydrochlorothiazide 40mg + 5mg + 25mg tablet	antihypertensive
90547998	Telmisartan 40mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
83721998	Telmisartan 80mg / hydrochlorothiazide 25mg tablets	antihypertensive
97251998	Telmisartan 80mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
87428998	Valsartan 160mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
87214998	Valsartan 80mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
94869998	Captopril 50mg with hydrochlorothiazide 25mg tablets	antihypertensive
79164979	Lisinopril 20mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
79965978	Lisinopril 20mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
80156994	Lisinopril 20mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
99388998	Lisino+hydrochl 10/12.5mg tabs	antihypertensive
99435990	Lisino+hydrochl 10/12.5mg tabs	antihypertensive
99451994	Lisino+hydrochl 10/12.5mg tabs	antihypertensive
99502994	Lisino+hydrochl 10/12.5mg tabs	antihypertensive
99617998	Lisino+hydrochl 10/12.5mg tabs	antihypertensive
99629998	Lisino+hydrochl 10/12.5mg tabs	antihypertensive
99864989	Lisino+hydrochl 20/12.5mg tabs	antihypertensive
99911992	Lisino+hydrochl 20/12.5mg tabs	antihypertensive

99969992	Lisino+hydrochl 20/12.5mg tabs	antihypertensive
53770979	Lisino+hydrochl 20/12.5mg tabs	antihypertensive
53778979	Lisino+hydrochl 20/12.5mg tabs	antihypertensive
54461979	Lisinopril 10mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
55681979	Lisinopril 10mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
82566994	Perindopril arginine 5mg / indapamide 1.25mg tablets	antihypertensive
82311979	Perind arg+indap 5/1.25mg tabs	antihypertensive
82312979	Perind erb+indap 4/1.25mg tabs	antihypertensive
82945978	Perindopril erbumine 4mg / indapamide 1.25mg tablets	antihypertensive
83334998	Perindopril tosilate 5mg / indapamide 1.25mg tablets	antihypertensive
94553998	Hydrochlorothiazide with captopril 25mg with 50mg tablet	antihypertensive
94553997	Hydrochlorothiazide with captopril 12.5mg with 25mg tablet	antihypertensive
85018998	Amlodipine 5mg / valsartan 160mg tablets	antihypertensive
89822994	Enalap+hydrochl 20/12.5mg tabs	antihypertensive
84924998	Valsartan 160mg with amlodipine 5mg tablets	antihypertensive
83624998	Enalapril 20mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
84925998	Valsartan 80mg with amlodipine 5mg tablets	antihypertensive
84922998	Valsartan 160mg with amlodipine 10mg tablets	antihypertensive
87427998	Hydrochlorothiazide with valsartan 12.5mg with 160mg tablet	antihypertensive
87213998	Hydrochlorothiazide with valsartan 12.5mg with 80mg tablet	antihypertensive
87422998	Hydrochlorothiazide with valsartan 25mg with 160mg tablet	antihypertensive

89721998	Quinapril+hydrochlorothiazide	antihypertensive
89463998	Quinapril 10mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
93373998	Ramipril 2.5mg with felodipine 2.5mg modified-release tablet	antihypertensive
93748992	Ramipril 5mg with felodipine 5mg modified-release tablet	antihypertensive
95701990	Verapamil 180mg modified-release / trandolapril 2mg capsules	antihypertensive
73348979	Trandolapril with verapamil 2mg + 180mg modified-release capsule	antihypertensive
99139998	Amlodipne+valsartn 5/80mg tabs	antihypertensive
75698994	Amlodpne+valsartn 5/160mg tabs	antihypertensive
97885994	Amlodpne+valsrtn 10/160mg tabs	antihypertensive
99139998	Amlodipne+valsartn 5/80mg tabs	antihypertensive
75698994	Amlodpne+valsartn 5/160mg tabs	antihypertensive
97885994	Amlodpne+valsrtn 10/160mg tabs	antihypertensive
99139998	Amlodipne+valsartn 5/80mg tabs	antihypertensive
75698994	Amlodpne+valsartn 5/160mg tabs	antihypertensive
97885994	Amlodpne+valsrtn 10/160mg tabs	antihypertensive
99139998	Amlodipne+valsartn 5/80mg tabs	antihypertensive
75698994	Amlodpne+valsartn 5/160mg tabs	antihypertensive
97885994	Amlodpne+valsrtn 10/160mg tabs	antihypertensive
99139998	Amlodipne+valsartn 5/80mg tabs	antihypertensive
75698994	Amlodpne+valsartn 5/160mg tabs	antihypertensive
97885994	Amlodpne+valsrtn 10/160mg tabs	antihypertensive
99139998	Amlodipne+valsartn 5/80mg tabs	antihypertensive
75698994	Amlodpne+valsartn 5/160mg tabs	antihypertensive
97885994	Amlodpne+valsrtn 10/160mg tabs	antihypertensive
74938994	Olmesartan medoxomil 40mg / amlodipine 10mg tablets	antihypertensive

75306994	Olmesartan medoxomil 40mg / hydrochlorothiazide 12.5mg tablets	antihypertensive
98183990	Diltiazem and hydrochlorothiazide 150mg+12.5mg modified-release capsules	antihypertensive
92030994	Felodipine 2.5mg modified-release / ramipril 2.5mg tablets	antihypertensive
95259994	Felodipine 5mg modified-release / ramipril 5mg tablets	antihypertensive
98491994	Felodipine+ramipril 5/5mg tabs	antihypertensive
94311994	Felodip+ramiprl 2.5/2.5mg tabs	antihypertensive
96156994	Reserpine with bendroflumethiazide tablet	antihypertensive
96164990	Reserpine with hydrochlorothiazide tablet	antihypertensive
96185994	Reserpine with hydrochlorothiazide tablet	antihypertensive
96198992	Reserpine with phenobarbital & theobromine tablet	antihypertensive
96202997	Reserpine/bendrofluazide 150 mcg tab	antihypertensive
98033998	Aliskiren 150mg tablets	antihypertensive
89003998	Aliskiren 150mg tablets	antihypertensive
89661994	Aliskiren 300mg tablets	antihypertensive
94943997	Aliskiren 300mg tablets	antihypertensive
72841979	Sodium nitroprusside 50mg powder for solution for infusion vials	antihypertensive
72435994	Minoxidil 10mg tablets	antihypertensive
73686979	Minoxidil 10mg tablets	antihypertensive
74914994	Minoxidil 2.5mg tablets	antihypertensive
75258994	Minoxidil 2.5mg tablets	antihypertensive
75507994	Minoxidil 20mg/ml topical liq	antihypertensive
75518994	Minoxidil 20mg/ml topical liq	antihypertensive
75702994	Minoxidil 20mg/ml topical liq	antihypertensive
76457979	Minoxidil 50mg/ml topical liq	antihypertensive
76470979	Minoxidil 50mg/ml topical liq	antihypertensive

76987994	Minoxidil 50mg/ml topical liq	antihypertensive
77169994	Minoxidil 5mg tablets	antihypertensive
77293994	Minoxidil 5mg tablets	antihypertensive
82675978	Hydralazine 1 mg syr	antihypertensive
82762994	Hydralazine 10mg/5ml oral suspension	antihypertensive
82942994	Hydralazine 20mg powder for solution for injection ampoules	antihypertensive
83180994	Hydralazine 25mg tablets	antihypertensive
83966994	Hydralazine 25mg tablets	antihypertensive
84157998	Hydralazine 25mg tablets	antihypertensive
84300994	Hydralazine 50mg tablets	antihypertensive
84709979	Hydralazine 50mg tablets	antihypertensive
85525994	Hydralazine 6.25 mg syr	antihypertensive
86014998	Hydralazine hcl 10 mg tab	antihypertensive
86221994	Hydralazine hcl 12.5 mg tab	antihypertensive
87227994	Hydralazine hcl 20mg inj	antihypertensive
87283998	Hydralazine hcl 25mg tabs	antihypertensive
87412994	Hydralazine hcl 50mg tabs	antihypertensive
89395998	Diazoxide 250mg/5ml oral solution	antihypertensive
53327979	Diazoxide 250mg/5ml oral suspension	antihypertensive
81805998	Diazoxide 25mg/5ml oral solution	antihypertensive
82553998	Diazoxide 300mg/20ml solution for injection ampoules	antihypertensive
84804998	Diazoxide 50mg tablets	antihypertensive
91924994	Diazoxide 50mg tablets	antihypertensive
76814994	Diazoxide 50mg/5ml oral suspension	antihypertensive
83751998	Diazoxide 50mg/ml oral solution	antihypertensive
84078994	Diazoxide oral liquid	antihypertensive
96108992	Reserpine 100mcg tablets	antihypertensive

96126998	Reserpine 100micrograms tablet	antihypertensive
96129994	Reserpine 250mcg tablets	antihypertensive
96139998	Reserpine 250micrograms tablet	antihypertensive
96795992	Guanethidine 10mg tablet	antihypertensive
97125990	Guanethidine 10mg tablets	antihypertensive
97971997	Guanethidine 10mg/1ml inj	antihypertensive
98091997	Guanethidine 10mg/1ml solution for injection ampoules	antihypertensive
98487994	Guanethidine 25mg tablet	antihypertensive
98648997	Guanethidine 25mg tablets	antihypertensive
95702992	Verapamil 180mg modified-release capsules	antihypertensive
95704992	Verapamil 240mg m/r capsules	antihypertensive
95711992	Verapamil 240mg m/r tablets	antihypertensive
95714994	Verapamil 240mg m/r tablets	antihypertensive
95716992	Verapamil 240mg m/r tablets	antihypertensive
95724990	Verapamil 240mg m/r tablets	antihypertensive
95731997	Verapamil 240mg m/r tablets	antihypertensive
95732997	Verapamil 240mg m/r tablets	antihypertensive
95733994	Verapamil 240mg m/r tablets	antihypertensive
95735990	Verapamil 240mg m/r tablets	antihypertensive
95738992	Verapamil 240mg m/r tablets	antihypertensive
95742990	Verapamil 240mg m/r tablets	antihypertensive
95745992	Verapamil 240mg m/r tablets	antihypertensive
95746992	Verapamil 240mg modified-release capsules	antihypertensive
95753992	Verapamil 240mg modified-release tablets	antihypertensive
95755979	Verapamil 240mg modified-release tablets	antihypertensive
95758994	Verapamil 240mg modified-release tablets	antihypertensive
95759994	Verapamil 240mg modified-release tablets	antihypertensive
95763994	Verapamil 240mg modified-release tablets	antihypertensive

95764994	Verapamil 240mg modified-release tablets	antihypertensive
95767990	Verapamil 40mg tablets	antihypertensive
95771992	Verapamil 40mg tablets	antihypertensive
95771994	Verapamil 40mg tablets	antihypertensive
95773992	Verapamil 40mg tablets	antihypertensive
95779994	Verapamil 40mg tablets	antihypertensive
95785990	Verapamil 40mg tablets	antihypertensive
95788998	Verapamil 40mg tablets	antihypertensive
95796979	Verapamil 40mg tablets	antihypertensive
95798990	Verapamil 40mg/5ml oral solution sugar free	antihypertensive
95801992	Verapamil 40mg/5ml s/f soln	antihypertensive
95809992	Verapamil 5mg/2ml injection	antihypertensive
95811997	Verapamil 5mg/2ml injection	antihypertensive
95811998	Verapamil 5mg/2ml solution for injection ampoules	antihypertensive
95819998	Verapamil 80mg tablets	antihypertensive
95824992	Verapamil 80mg tablets	antihypertensive
95827990	Verapamil 80mg tablets	antihypertensive
95828992	Verapamil 80mg tablets	antihypertensive
95829992	Verapamil 80mg tablets	antihypertensive
95834994	Verapamil 80mg tablets	antihypertensive
95837992	Verapamil 80mg tablets	antihypertensive
95854992	Verapamil 80mg tablets	antihypertensive
95854996	Verapamil 80mg tablets	antihypertensive
95855994	Verapamil 80mg tablets	antihypertensive
95856990	Verapamil 80mg tablets	antihypertensive
95861990	Verapamil hcl 120mg modified release tablets	antihypertensive
95862992	Verapamil s/f 40 mg/5ml sol	antihypertensive
95653992	Verapamil 120mg m/r capsules	antihypertensive

95654994	Verapamil 120mg m/r tablets	antihypertensive
95658990	Verapamil 120mg m/r tablets	antihypertensive
95664992	Verapamil 120mg m/r tablets	antihypertensive
95665992	Verapamil 120mg modified-release capsules	antihypertensive
95668992	Verapamil 120mg modified-release tablets	antihypertensive
95668994	Verapamil 120mg modified-release tablets	antihypertensive
95669998	Verapamil 120mg tablets	antihypertensive
95672998	Verapamil 120mg tablets	antihypertensive
95673979	Verapamil 120mg tablets	antihypertensive
95676998	Verapamil 120mg tablets	antihypertensive
95679998	Verapamil 120mg tablets	antihypertensive
95685990	Verapamil 120mg tablets	antihypertensive
95687990	Verapamil 120mg tablets	antihypertensive
95694998	Verapamil 160mg tablets	antihypertensive
95695992	Verapamil 160mg tablets	antihypertensive
95698992	Verapamil 160mg tablets	antihypertensive
95699992	Verapamil 160mg tablets	antihypertensive
95700992	Verapamil 180mg m/r capsules	antihypertensive
71914994	Nisoldipine 10mg m/r tablets	antihypertensive
71968994	Nisoldipine 10mg modified-release tablets	antihypertensive
72225994	Nisoldipine 20mg m/r tablets	antihypertensive
72443994	Nisoldipine 20mg modified-release tablets	antihypertensive
72997994	Nisoldipine 30mg m/r tablets	antihypertensive
73680979	Nisoldipine 30mg modified-release tablets	antihypertensive
71084979	Nimodipine 30mg tablets	antihypertensive
71238994	Nimodipine 30mg tablets	antihypertensive
97669989	Nifedipine 100mg/5ml oral suspension	antihypertensive
97749998	Nifedipine 10mg capsules	antihypertensive

97797992	Nifedipine 10mg capsules	antihypertensive
97801994	Nifedipine 10mg capsules	antihypertensive
97806990	Nifedipine 10mg capsules	antihypertensive
97813992	Nifedipine 10mg capsules	antihypertensive
97848994	Nifedipine 10mg capsules	antihypertensive
97885992	Nifedipine 10mg capsules	antihypertensive
97904990	Nifedipine 10mg capsules	antihypertensive
97909992	Nifedipine 10mg capsules	antihypertensive
97950992	Nifedipine 10mg capsules	antihypertensive
97960998	Nifedipine 10mg capsules	antihypertensive
97962990	Nifedipine 10mg m/r capsules	antihypertensive
97970990	Nifedipine 10mg m/r tablets	antihypertensive
97992990	Nifedipine 10mg m/r tablets	antihypertensive
98055997	Nifedipine 10mg m/r tablets	antihypertensive
98345990	Nifedipine 10mg m/r tablets	antihypertensive
98348990	Nifedipine 10mg m/r tablets	antihypertensive
98365994	Nifedipine 10mg m/r tablets	antihypertensive
98388992	Nifedipine 10mg m/r tablets	antihypertensive
98394990	Nifedipine 10mg m/r tablets	antihypertensive
98468989	Nifedipine 10mg m/r tablets	antihypertensive
98475992	Nifedipine 10mg m/r tablets	antihypertensive
98480992	Nifedipine 10mg m/r tablets	antihypertensive
98489992	Nifedipine 10mg m/r tablets	antihypertensive
98565998	Nifedipine 10mg m/r tablets	antihypertensive
98569994	Nifedipine 10mg m/r tablets	antihypertensive
98601992	Nifedipine 10mg modified-release capsules	antihypertensive
98613994	Nifedipine 10mg modified-release tablets	antihypertensive
98627992	Nifedipine 10mg modified-release tablets	antihypertensive

98628992	Nifedipine 10mg modified-release tablets	antihypertensive
98646989	Nifedipine 10mg modified-release tablets	antihypertensive
98665992	Nifedipine 10mg modified-release tablets	antihypertensive
98670998	Nifedipine 10mg modified-release tablets	antihypertensive
98685994	Nifedipine 10mg/5ml oral suspension	antihypertensive
98744998	Nifedipine 10mg/5ml oral suspension	antihypertensive
98769992	Nifedipine 12 20mg modified-release tablet	antihypertensive
98786996	Nifedipine 12 20mg modified-release tablet	antihypertensive
98824990	Nifedipine 12 20mg modified-release tablet	antihypertensive
98854990	Nifedipine 2.5mg/5ml oral suspension	antihypertensive
98876998	Nifedipine 20mg capsule	antihypertensive
98926998	Nifedipine 20mg m/r capsules	antihypertensive
98929994	Nifedipine 20mg m/r tablets	antihypertensive
98931994	Nifedipine 20mg m/r tablets	antihypertensive
98969994	Nifedipine 20mg m/r tablets	antihypertensive
98984990	Nifedipine 20mg m/r tablets	antihypertensive
99042989	Nifedipine 20mg m/r tablets	antihypertensive
99086998	Nifedipine 20mg m/r tablets	antihypertensive
99090994	Nifedipine 20mg m/r tablets	antihypertensive
99122990	Nifedipine 20mg m/r tablets	antihypertensive
99185992	Nifedipine 20mg m/r tablets	antihypertensive
99226994	Nifedipine 20mg m/r tablets	antihypertensive
99229992	Nifedipine 20mg m/r tablets	antihypertensive
99264990	Nifedipine 20mg m/r tablets	antihypertensive
99342989	Nifedipine 20mg m/r tablets	antihypertensive
99417988	Nifedipine 20mg m/r tablets	antihypertensive
99436989	Nifedipine 20mg m/r tablets	antihypertensive
99458990	Nifedipine 20mg m/r tablets	antihypertensive

99539997	Nifedipine 20mg m/r tablets	antihypertensive
99553989	Nifedipine 20mg m/r tablets	antihypertensive
99598992	Nifedipine 20mg m/r tablets	antihypertensive
99613994	Nifedipine 20mg m/r tablets	antihypertensive
99635998	Nifedipine 20mg m/r tablets	antihypertensive
99716994	Nifedipine 20mg m/r tablets	antihypertensive
99729994	Nifedipine 20mg m/r tablets	antihypertensive
99729998	Nifedipine 20mg m/r tablets	antihypertensive
99766979	Nifedipine 20mg m/r tablets	antihypertensive
99803990	Nifedipine 20mg modified-release capsules	antihypertensive
99817997	Nifedipine 20mg modified-release tablets	antihypertensive
99861990	Nifedipine 20mg modified-release tablets	antihypertensive
99864990	Nifedipine 20mg modified-release tablets	antihypertensive
99867989	Nifedipine 20mg/ml oral drops	antihypertensive
99871994	Nifedipine 24 20mg modified-release tablet	antihypertensive
99878992	Nifedipine 24 30mg modified-release tablet	antihypertensive
99919990	Nifedipine 24 30mg modified-release tablet	antihypertensive
99938990	Nifedipine 30mg m/r capsules	antihypertensive
52126979	Nifedipine 30mg m/r tablets	antihypertensive
52274979	Nifedipine 30mg m/r tablets	antihypertensive
53072979	Nifedipine 30mg m/r tablets	antihypertensive
53154979	Nifedipine 30mg m/r tablets	antihypertensive
53287979	Nifedipine 30mg m/r tablets	antihypertensive
53368979	Nifedipine 30mg m/r tablets	antihypertensive
53592979	Nifedipine 30mg m/r tablets	antihypertensive
53642979	Nifedipine 30mg m/r tablets	antihypertensive
53756979	Nifedipine 30mg m/r tablets	antihypertensive
54338979	Nifedipine 30mg m/r tablets	antihypertensive

54387979	Nifedipine 30mg m/r tablets	antihypertensive
54477979	Nifedipine 30mg modified-release capsules	antihypertensive
54672979	Nifedipine 30mg modified-release tablets	antihypertensive
54774979	Nifedipine 30mg modified-release tablets	antihypertensive
55014979	Nifedipine 30mg modified-release tablets	antihypertensive
55534979	Nifedipine 30mg modified-release tablets	antihypertensive
56312979	Nifedipine 30mg modified-release tablets	antihypertensive
57661979	Nifedipine 40mg m/r tablets	antihypertensive
57838979	Nifedipine 40mg m/r tablets	antihypertensive
58038979	Nifedipine 40mg modified-release tablets	antihypertensive
58131979	Nifedipine 5mg capsules	antihypertensive
58452979	Nifedipine 5mg capsules	antihypertensive
58491979	Nifedipine 5mg capsules	antihypertensive
58515979	Nifedipine 5mg capsules	antihypertensive
58654979	Nifedipine 5mg capsules	antihypertensive
59259979	Nifedipine 5mg capsules	antihypertensive
59290979	Nifedipine 5mg capsules	antihypertensive
59624979	Nifedipine 5mg capsules	antihypertensive
59632979	Nifedipine 5mg capsules	antihypertensive
59741979	Nifedipine 5mg capsules	antihypertensive
60422979	Nifedipine 5mg/5ml oral suspension	antihypertensive
60434979	Nifedipine 60mg m/r capsules	antihypertensive
61127979	Nifedipine 60mg m/r tablets	antihypertensive
61194979	Nifedipine 60mg m/r tablets	antihypertensive
61636979	Nifedipine 60mg m/r tablets	antihypertensive
61677979	Nifedipine 60mg m/r tablets	antihypertensive
62068979	Nifedipine 60mg m/r tablets	antihypertensive
63071979	Nifedipine 60mg m/r tablets	antihypertensive

63098979	Nifedipine 60mg m/r tablets	antihypertensive
67228979	Nifedipine 60mg modified-release capsules	antihypertensive
67568994	Nifedipine 60mg modified-release tablet	antihypertensive
67718994	Nifedipine 60mg modified-release tablets	antihypertensive
67740994	Nifedipine 60mg modified-release tablets	antihypertensive
67816994	Nifedipine 60mg modified-release tablets	antihypertensive
67847994	Nifedipine 60mg modified-release tablets	antihypertensive
67877994	Nifedipine 60mg modified-release tablets	antihypertensive
68143994	Nifedipine extra 30mg modified-release tablet	antihypertensive
69130994	Nifedipine extra 60mg modified-release tablet	antihypertensive
69847979	Nifedipine tab 5 mg	antihypertensive
70478994	Nifedipine with atenolol 20mg + 50mg capsule	antihypertensive
88593994	Nicardipine 20mg capsules	antihypertensive
88810994	Nicardipine 30mg capsules	antihypertensive
88872998	Nicardipine 30mg capsules	antihypertensive
88942994	Nicardipine 30mg capsules	antihypertensive
88974998	Nicardipine 30mg m/r capsules	antihypertensive
89027998	Nicardipine 30mg modified-release capsules	antihypertensive
89242994	Nicardipine 45mg m/r capsules	antihypertensive
89402998	Nicardipine 45mg modified-release capsules	antihypertensive
82315979	Isradipine 2.5mg tablets	antihypertensive
82914994	Isradipine 2.5mg tablets	antihypertensive
91851979	Lercanidipine 10mg tablets	antihypertensive
91922996	Lercanidipine 10mg tablets	antihypertensive
92167998	Lercanidipine 20mg tablets	antihypertensive
92246990	Lercanidipine 20mg tablets	antihypertensive
92376997	Lercanidipine hcl 10mg tablets	antihypertensive
92610994	Lercanidipine hcl 20mg tablets	antihypertensive

91888994	Lacidipine 2mg tablets	antihypertensive
91941998	Lacidipine 2mg tablets	antihypertensive
92038994	Lacidipine 4mg tablets	antihypertensive
92295994	Lacidipine 4mg tablets	antihypertensive
95535998	Felodipine 10mg m/r tablets	antihypertensive
95567994	Felodipine 10mg m/r tablets	antihypertensive
96025997	Felodipine 10mg m/r tablets	antihypertensive
99500998	Felodipine 10mg m/r tablets	antihypertensive
99918997	Felodipine 10mg m/r tablets	antihypertensive
52113979	Felodipine 10mg m/r tablets	antihypertensive
61922979	Felodipine 10mg m/r tablets	antihypertensive
81934998	Felodipine 10mg m/r tablets	antihypertensive
86751998	Felodipine 10mg m/r tablets	antihypertensive
95241992	Felodipine 10mg modified-release tablets	antihypertensive
95523998	Felodipine 10mg modified-release tablets	antihypertensive
95566998	Felodipine 10mg modified-release tablets	antihypertensive
70643994	Felodipine 10mg modified-release tablets	antihypertensive
82435998	Felodipine 2.5mg m/r tablets	antihypertensive
84308998	Felodipine 2.5mg m/r tablets	antihypertensive
88116994	Felodipine 2.5mg m/r tablets	antihypertensive
91551994	Felodipine 2.5mg m/r tablets	antihypertensive
91758994	Felodipine 2.5mg m/r tablets	antihypertensive
94301994	Felodipine 2.5mg modified-release tablets	antihypertensive
95517990	Felodipine 2.5mg modified-release tablets	antihypertensive
96673997	Felodipine 2.5mg modified-release tablets	antihypertensive
97133994	Felodipine 2.5mg modified-release tablets	antihypertensive
98412998	Felodipine 2.5mg modified-release tablets	antihypertensive
70671994	Felodipine 5mg m/r tablets	antihypertensive

75003994	Felodipine 5mg m/r tablets	antihypertensive
82631994	Felodipine 5mg m/r tablets	antihypertensive
86812998	Felodipine 5mg m/r tablets	antihypertensive
88835994	Felodipine 5mg m/r tablets	antihypertensive
89905998	Felodipine 5mg m/r tablets	antihypertensive
94009997	Felodipine 5mg m/r tablets	antihypertensive
94471994	Felodipine 5mg m/r tablets	antihypertensive
95002998	Felodipine 5mg m/r tablets	antihypertensive
97987994	Felodipine 5mg modified-release tablets	antihypertensive
71852979	Felodipine 5mg modified-release tablets	antihypertensive
84059998	Felodipine 5mg modified-release tablets	antihypertensive
84151994	Felodipine 5mg modified-release tablets	antihypertensive
88793998	Felodipine 5mg modified-release tablets	antihypertensive
98901998	Diltiazem hcl 120mg m/r caps	antihypertensive
58735979	Diltiazem hcl 120mg m/r caps	antihypertensive
95497998	Diltiazem hcl 120mg m/r caps	antihypertensive
58745979	Diltiazem hcl 120mg m/r caps	antihypertensive
81468994	Diltiazem hcl 120mg m/r caps	antihypertensive
87492998	Diltiazem hcl 120mg m/r caps	antihypertensive
88030998	Diltiazem hcl 120mg m/r caps	antihypertensive
91968994	Diltiazem hcl 120mg m/r caps	antihypertensive
83507998	Diltiazem hcl 120mg m/r caps	antihypertensive
89333994	Diltiazem hcl 120mg m/r caps	antihypertensive
89746997	Diltiazem hcl 120mg m/r caps	antihypertensive
94594990	Diltiazem hcl 120mg m/r caps	antihypertensive
95171994	Diltiazem hcl 120mg m/r caps	antihypertensive
97279996	Diltiazem hcl 120mg m/r caps	antihypertensive
98851992	Diltiazem hcl 120mg m/r caps	antihypertensive

94808994	Diltiazem hcl 120mg m/r caps	antihypertensive
96053997	Diltiazem hcl 120mg m/r caps	antihypertensive
56210979	Diltiazem hcl 120mg m/r caps	antihypertensive
87145998	Diltiazem hcl 120mg m/r caps	antihypertensive
90236998	Diltiazem hcl 120mg m/r tabs	antihypertensive
92938998	Diltiazem hcl 120mg m/r tabs	antihypertensive
97698994	Diltiazem hcl 120mg m/r tabs	antihypertensive
99201998	Diltiazem hcl 120mg m/r tabs	antihypertensive
83262998	Diltiazem hcl 120mg m/r tabs	antihypertensive
84586998	Diltiazem hcl 120mg m/r tabs	antihypertensive
99338997	Diltiazem hcl 180mg m/r caps	antihypertensive
99667992	Diltiazem hcl 180mg m/r caps	antihypertensive
88989994	Diltiazem hcl 180mg m/r caps	antihypertensive
95155992	Diltiazem hcl 180mg m/r caps	antihypertensive
96431996	Diltiazem hcl 180mg m/r caps	antihypertensive
97674992	Diltiazem hcl 180mg m/r caps	antihypertensive
89783998	Diltiazem hcl 180mg m/r caps	antihypertensive
90535994	Diltiazem hcl 180mg m/r caps	antihypertensive
98424992	Diltiazem hcl 180mg m/r caps	antihypertensive
55880979	Diltiazem hcl 180mg m/r caps	antihypertensive
87273994	Diltiazem hcl 180mg m/r caps	antihypertensive
91685994	Diltiazem hcl 180mg m/r caps	antihypertensive
81744998	Diltiazem hcl 180mg m/r caps	antihypertensive
83706998	Diltiazem hcl 180mg m/r caps	antihypertensive
85939994	Diltiazem hcl 180mg m/r caps	antihypertensive
93129994	Diltiazem hcl 180mg m/r caps	antihypertensive
77739994	Diltiazem hcl 180mg m/r caps	antihypertensive
85936994	Diltiazem hcl 200mg m/r caps	antihypertensive

91544998	Diltiazem hcl 200mg m/r caps	antihypertensive
98972997	Diltiazem hcl 200mg m/r caps	antihypertensive
81426994	Diltiazem hcl 200mg m/r caps	antihypertensive
82910979	Diltiazem hcl 240mg m/r caps	antihypertensive
82989994	Diltiazem hcl 240mg m/r caps	antihypertensive
84915994	Diltiazem hcl 240mg m/r caps	antihypertensive
88101994	Diltiazem hcl 240mg m/r caps	antihypertensive
89779998	Diltiazem hcl 240mg m/r caps	antihypertensive
93139992	Diltiazem hcl 240mg m/r caps	antihypertensive
95726998	Diltiazem hcl 240mg m/r caps	antihypertensive
95848992	Diltiazem hcl 240mg m/r caps	antihypertensive
97766998	Diltiazem hcl 240mg m/r caps	antihypertensive
99612997	Diltiazem hcl 240mg m/r caps	antihypertensive
86797994	Diltiazem hcl 240mg m/r caps	antihypertensive
90176994	Diltiazem hcl 240mg m/r caps	antihypertensive
94518992	Diltiazem hcl 240mg m/r caps	antihypertensive
98035994	Diltiazem hcl 240mg m/r caps	antihypertensive
98067992	Diltiazem hcl 240mg m/r caps	antihypertensive
84173994	Diltiazem hcl 240mg m/r caps	antihypertensive
86179994	Diltiazem hcl 240mg m/r caps	antihypertensive
87970998	Diltiazem hcl 300mg m/r caps	antihypertensive
92985992	Diltiazem hcl 300mg m/r caps	antihypertensive
96680992	Diltiazem hcl 300mg m/r caps	antihypertensive
99483998	Diltiazem hcl 300mg m/r caps	antihypertensive
72270994	Diltiazem hcl 300mg m/r caps	antihypertensive
82353998	Diltiazem hcl 300mg m/r caps	antihypertensive
87573994	Diltiazem hcl 300mg m/r caps	antihypertensive
88915994	Diltiazem hcl 300mg m/r caps	antihypertensive

90702997	Diltiazem hcl 300mg m/r caps	antihypertensive
91562994	Diltiazem hcl 300mg m/r caps	antihypertensive
93141994	Diltiazem hcl 300mg m/r caps	antihypertensive
96173997	Diltiazem hcl 300mg m/r caps	antihypertensive
99557989	Diltiazem hcl 300mg m/r caps	antihypertensive
99792998	Diltiazem hcl 300mg m/r caps	antihypertensive
86237994	Diltiazem hcl 300mg m/r caps	antihypertensive
93138994	Diltiazem hcl 360mg m/r caps	antihypertensive
95203994	Diltiazem hcl 60mg m/r caps	antihypertensive
71059994	Diltiazem hcl 60mg m/r caps	antihypertensive
84422994	Diltiazem hcl 60mg m/r caps	antihypertensive
90458998	Diltiazem hcl 60mg m/r caps	antihypertensive
91492994	Diltiazem hcl 60mg m/r caps	antihypertensive
91512994	Diltiazem hcl 60mg m/r caps	antihypertensive
89297998	Diltiazem hcl 60mg m/r caps	antihypertensive
95412996	Diltiazem hcl 60mg m/r tablets	antihypertensive
95476994	Diltiazem hcl 60mg m/r tablets	antihypertensive
52040979	Diltiazem hcl 60mg m/r tablets	antihypertensive
55825979	Diltiazem hcl 60mg m/r tablets	antihypertensive
82190994	Diltiazem hcl 60mg m/r tablets	antihypertensive
90715998	Diltiazem hcl 60mg m/r tablets	antihypertensive
95429998	Diltiazem hcl 60mg m/r tablets	antihypertensive
97207989	Diltiazem hcl 60mg m/r tablets	antihypertensive
87491994	Diltiazem hcl 90mg m/r caps	antihypertensive
88759998	Diltiazem hcl 90mg m/r caps	antihypertensive
89497994	Diltiazem hcl 90mg m/r caps	antihypertensive
90219994	Diltiazem hcl 90mg m/r caps	antihypertensive
99113992	Diltiazem hcl 90mg m/r caps	antihypertensive

99954998	Diltiazem hcl 90mg m/r caps	antihypertensive
76902994	Diltiazem hcl 90mg m/r caps	antihypertensive
86314998	Diltiazem hcl 90mg m/r caps	antihypertensive
88433998	Diltiazem hcl 90mg m/r caps	antihypertensive
90524994	Diltiazem hcl 90mg m/r caps	antihypertensive
91175994	Diltiazem hcl 90mg m/r caps	antihypertensive
88827998	Diltiazem hcl 90mg m/r caps	antihypertensive
90049998	Diltiazem hcl 90mg m/r tablets	antihypertensive
90993994	Diltiazem hcl 90mg m/r tablets	antihypertensive
91648994	Diltiazem hcl 90mg m/r tablets	antihypertensive
97376998	Diltiazem hcl s/r 180 cap	antihypertensive
98122994	Diltiazem hcl sr 300 mg cap	antihypertensive
90991994	Diltiazem 200mg modified-release capsules	antihypertensive
95151994	Diltiazem 240mg modified-release capsules	antihypertensive
97710990	Diltiazem 240mg modified-release capsules	antihypertensive
99504990	Diltiazem 24hr 120mg modified-release capsules	antihypertensive
92793998	Diltiazem 24hr 300mg modified-release capsules	antihypertensive
86963998	Diltiazem 300mg modified-release capsules	antihypertensive
91801998	Diltiazem 360mg modified-release capsules	antihypertensive
93170998	Diltiazem 60mg modified-release capsules	antihypertensive
95839998	Diltiazem 60mg modified-release capsules	antihypertensive
99325998	Diltiazem 60mg modified-release capsules	antihypertensive
83513998	Diltiazem 60mg modified-release capsules	antihypertensive
87342994	Diltiazem 60mg modified-release capsules	antihypertensive
88014979	Diltiazem 60mg modified-release capsules	antihypertensive
88423998	Diltiazem 60mg modified-release tablets	antihypertensive
93641990	Diltiazem 60mg modified-release tablets	antihypertensive

99074992	Diltiazem 60mg modified-release tablets	antihypertensive
77349994	Diltiazem 60mg modified-release tablets	antihypertensive
91081998	Diltiazem 60mg modified-release tablets	antihypertensive
93013998	Diltiazem 60mg modified-release tablets	antihypertensive
94779994	Diltiazem 60mg modified-release tablets	antihypertensive
96256992	Diltiazem 60mg modified-release tablets	antihypertensive
82707994	Diltiazem 60mg modified-release tablets	antihypertensive
91068994	Diltiazem 60mg modified-release tablets	antihypertensive
94649994	Diltiazem 60mg modified-release tablets	antihypertensive
98106979	Diltiazem 60mg tablets	antihypertensive
98192998	Diltiazem 60mg/5ml oral solution	antihypertensive
82197998	Diltiazem 60mg/5ml oral suspension	antihypertensive
84429998	Diltiazem 90mg modified-release capsules	antihypertensive
97843992	Diltiazem 90mg modified-release capsules	antihypertensive
98211990	Diltiazem 90mg modified-release capsules	antihypertensive
89587998	Diltiazem 90mg modified-release capsules	antihypertensive
90647998	Diltiazem 90mg modified-release capsules	antihypertensive
91046994	Diltiazem 90mg modified-release capsules	antihypertensive
94066994	Diltiazem 90mg modified-release tablets	antihypertensive
94345994	Diltiazem 90mg modified-release tablets	antihypertensive
95657997	Diltiazem 90mg modified-release tablets	antihypertensive
95953998	Diltiazem 90mg modified-release tablets	antihypertensive
96166998	Diltiazem 90mg modified-release tablets	antihypertensive
97917998	Diltiazem 90mg modified-release tablets	antihypertensive
90445998	Diltiazem 120mg modified-release capsules	antihypertensive
96221998	Diltiazem 120mg modified-release capsules	antihypertensive
70561994	Diltiazem 120mg modified-release capsules	antihypertensive
85646998	Diltiazem 120mg modified-release capsules	antihypertensive

93476994	Diltiazem 120mg modified-release tablets	antihypertensive
94534992	Diltiazem 120mg modified-release tablets	antihypertensive
97704998	Diltiazem 120mg modified-release tablets	antihypertensive
98470990	Diltiazem 120mg modified-release tablets	antihypertensive
98762992	Diltiazem 120mg modified-release tablets	antihypertensive
82861998	Diltiazem 12hr 120mg modified-release capsules	antihypertensive
87363994	Diltiazem 12hr 120mg modified-release capsules	antihypertensive
91991994	Diltiazem 12hr 180mg modified-release capsules	antihypertensive
95657998	Diltiazem 12hr 180mg modified-release capsules	antihypertensive
97033994	Diltiazem 180mg modified-release capsules	antihypertensive
99437997	Amlodipine 5mg tablets	antihypertensive
97939994	Amlodipine 5mg tablets	antihypertensive
97278998	Amlodipine 5mg tablets	antihypertensive
99437998	Amlodipine 5mg tablets	antihypertensive
95614996	Amlodipine 5mg tablets	antihypertensive
94811998	Amlodipine 5mg tablets	antihypertensive
98691997	Amlodipine 5mg tablets	antihypertensive
88736997	Amlodipine 5mg tablets	antihypertensive
97264998	Amlodipine 5mg tablets	antihypertensive
95614998	Amlodipine 5mg tablets	antihypertensive
75896994	Amlodipine 5mg tablets	antihypertensive
99590998	Amlodipine 5mg tablets	antihypertensive
90875997	Amlodipine 5mg/5ml oral solution	antihypertensive
95730998	Amlodipine 5mg/5ml oral suspension	antihypertensive
98216996	Amlodipine besilate 10mg tablets	antihypertensive
86168998	Amlodipine besilate 5mg tablets	antihypertensive

86248998	Amlodipine maleate 10mg tablets	antihypertensive
89957998	Amlodipine maleate 5mg tablets	antihypertensive
91368996	Amlodipine 10mg tablets	antihypertensive
97559998	Amlodipine 10mg tablets	antihypertensive
96855998	Amlodipine 10mg tablets	antihypertensive
92723998	Amlodipine 10mg tablets	antihypertensive
92587998	Amlodipine 10mg tablets	antihypertensive
94914998	Amlodipine 10mg tablets	antihypertensive
98018998	Amlodipine 10mg/5ml oral solution	antihypertensive
98548997	Amlodipine 10mg/5ml oral suspension	antihypertensive
99396996	Amlodipine 10mg/5ml sugar free oral suspension	antihypertensive
92881998	Amlodipine 2.5mg/5ml oral suspension	antihypertensive
73000994	Trandolapril 1mg capsules	antihypertensive
73002979	Trandolapril 1mg capsules	antihypertensive
73003994	Trandolapril 1mg capsules	antihypertensive
73059979	Trandolapril 2mg capsules	antihypertensive
73106979	Trandolapril 2mg capsules	antihypertensive
73142979	Trandolapril 2mg capsules	antihypertensive
73273979	Trandolapril 4mg capsules	antihypertensive
73304979	Trandolapril 4mg capsules	antihypertensive
73333979	Trandolapril 500mcg capsules	antihypertensive
73340979	Trandolapril 500mcg capsules	antihypertensive
73342979	Trandolapril 500microgram capsules	antihypertensive
93764992	Ramipril 5mg/5ml oral solution	antihypertensive
93782992	Ramipril 5mg/5ml oral suspension	antihypertensive
93786994	Ramipril oral solution	antihypertensive
93382992	Ramipril 2.5mg/5ml oral solution sugar free	antihypertensive
93427979	Ramipril 2.5mg/5ml oral suspension	antihypertensive

93428992	Ramipril 5mg capsules	antihypertensive
93443990	Ramipril 5mg capsules	antihypertensive
93454998	Ramipril 5mg capsules	antihypertensive
93484997	Ramipril 5mg capsules	antihypertensive
93497994	Ramipril 5mg capsules	antihypertensive
93528990	Ramipril 5mg capsules	antihypertensive
93591990	Ramipril 5mg capsules	antihypertensive
93601994	Ramipril 5mg capsules	antihypertensive
93618990	Ramipril 5mg capsules	antihypertensive
93647990	Ramipril 5mg capsules	antihypertensive
93652997	Ramipril 5mg capsules	antihypertensive
93663990	Ramipril 5mg capsules	antihypertensive
93667998	Ramipril 5mg tablets	antihypertensive
93669990	Ramipril 5mg tablets	antihypertensive
93671992	Ramipril 5mg tablets	antihypertensive
93737994	Ramipril 5mg tablets	antihypertensive
92242998	Ramipril 1.25mg capsules	antihypertensive
92281994	Ramipril 1.25mg capsules	antihypertensive
92339990	Ramipril 1.25mg capsules	antihypertensive
92341998	Ramipril 1.25mg capsules	antihypertensive
92350979	Ramipril 1.25mg capsules	antihypertensive
92361990	Ramipril 1.25mg capsules	antihypertensive
92426994	Ramipril 1.25mg capsules	antihypertensive
92435997	Ramipril 1.25mg capsules	antihypertensive
92511979	Ramipril 1.25mg tablets	antihypertensive
92522979	Ramipril 1.25mg tablets	antihypertensive
92561998	Ramipril 1.25mg tablets	antihypertensive
92582996	Ramipril 1.25mg tablets	antihypertensive

92603994	Ramipril 1.25mg tablets	antihypertensive
92632994	Ramipril 10mg capsules	antihypertensive
92656998	Ramipril 10mg capsules	antihypertensive
92666990	Ramipril 10mg capsules	antihypertensive
92685990	Ramipril 10mg capsules	antihypertensive
92772998	Ramipril 10mg capsules	antihypertensive
92780990	Ramipril 10mg capsules	antihypertensive
92806998	Ramipril 10mg capsules	antihypertensive
92872994	Ramipril 10mg capsules	antihypertensive
92895979	Ramipril 10mg capsules	antihypertensive
92902979	Ramipril 10mg capsules	antihypertensive
92936998	Ramipril 10mg capsules	antihypertensive
92937994	Ramipril 10mg capsules	antihypertensive
92957990	Ramipril 10mg tablets	antihypertensive
92957998	Ramipril 10mg tablets	antihypertensive
93007992	Ramipril 10mg tablets	antihypertensive
93009992	Ramipril 10mg tablets	antihypertensive
93017990	Ramipril 10mg/5ml oral solution	antihypertensive
93036997	Ramipril 10mg/5ml oral suspension	antihypertensive
93065994	Ramipril 2.5/5mg/10mg capsule	antihypertensive
93080992	Ramipril 2.5/5mg/10mg tablet	antihypertensive
93094992	Ramipril 2.5+5+10mg tabs pack	antihypertensive
93097990	Ramipril 2.5mg capsules	antihypertensive
93128996	Ramipril 2.5mg capsules	antihypertensive
93128997	Ramipril 2.5mg capsules	antihypertensive
93192994	Ramipril 2.5mg capsules	antihypertensive
93243992	Ramipril 2.5mg capsules	antihypertensive
93263994	Ramipril 2.5mg capsules	antihypertensive

93285998	Ramipril 2.5mg capsules	antihypertensive
93289998	Ramipril 2.5mg capsules	antihypertensive
93305994	Ramipril 2.5mg capsules	antihypertensive
93314994	Ramipril 2.5mg capsules	antihypertensive
93315994	Ramipril 2.5mg capsules	antihypertensive
93318998	Ramipril 2.5mg tablets	antihypertensive
93324998	Ramipril 2.5mg tablets	antihypertensive
93356992	Ramipril 2.5mg tablets	antihypertensive
93360992	Ramipril 2.5mg tablets	antihypertensive
93367992	Ramipril 2.5mg tablets	antihypertensive
89511998	Quinapril 10mg tablets	antihypertensive
89519996	Quinapril 10mg tablets	antihypertensive
89527994	Quinapril 20mg tablets	antihypertensive
89528994	Quinapril 20mg tablets	antihypertensive
89543998	Quinapril 20mg/5ml oral solution	antihypertensive
89570994	Quinapril 40mg tablets	antihypertensive
89618994	Quinapril 40mg tablets	antihypertensive
89674997	Quinapril 5mg tablets	antihypertensive
89694998	Quinapril 5mg tablets	antihypertensive
89718998	Quinapril 5mg tablets	antihypertensive
99851996	Captopril 50mg tablets x56	antihypertensive
98877997	Captopril 25mg tablets x56	antihypertensive
98877998	Captopril 12.5mg tablets	antihypertensive
98877996	Captopril 50mg tablets x56	antihypertensive
87064998	Captopril 5mg/5ml oral suspension	antihypertensive
96099992	Captopril 4 mg/ml liq	antihypertensive
90049998	Captopril 2mg tablets	antihypertensive
81937998	Captopril 5mg/ml oral solution sugar free	antihypertensive

87812998	Captopril 3mg/5ml oral solution	antihypertensive
83170998	Captopril 25mg/5ml oral suspension	antihypertensive
89058997	Captopril 25mg tablets	antihypertensive
97820989	Captopril 25mg tablets	antihypertensive
97086992	Captopril 100 mg tab	antihypertensive
89058998	Captopril 12.5mg tablets	antihypertensive
81128998	Captopril 5mg/5ml oral solution	antihypertensive
97833988	Captopril 50mg tablets	antihypertensive
86454998	Captopril 6.25mg/5ml oral suspension	antihypertensive
85460998	Captopril 12.5mg/5ml oral suspension	antihypertensive
97833989	Captopril 25mg tablets	antihypertensive
97793988	Captopril 50mg tablets	antihypertensive
97139990	Captopril 12.5mg tablets	antihypertensive
97831989	Captopril 25mg tablets	antihypertensive
97139989	Captopril 25mg tablets	antihypertensive
85750998	Captopril capsules	antihypertensive
80760979	Captopril 25mg/5ml oral solution	antihypertensive
97832989	Captopril 25mg tablets	antihypertensive
97833990	Captopril 12.5mg tablets	antihypertensive
97040990	Captopril 25mg tablets	antihypertensive
98624979	Captopril 12.5mg tablets	antihypertensive
89058996	Captopril 50mg tablets x56	antihypertensive
89069996	Captopril 50mg tablets x56	antihypertensive
97039990	Captopril 50mg tablets	antihypertensive
97793990	Captopril 12.5mg tablets	antihypertensive
88508996	Captopril 50mg tablets	antihypertensive
97793989	Captopril 25mg tablets	antihypertensive
84572998	Captopril 2mg/5ml oral suspension	antihypertensive

89069997	Captopril 25mg tablets	antihypertensive
80758979	Captopril 25mg/5ml oral suspension	antihypertensive
88508998	Captopril 12.5mg tablets	antihypertensive
97831990	Captopril 12.5mg tablets	antihypertensive
79145979	Captopril 2mg capsules	antihypertensive
78352978	Captopril 5mg/5ml oral solution sugar free	antihypertensive
78354978	Captopril 25mg/5ml oral solution sugar free	antihypertensive
97820990	Captopril 12.5mg tablets	antihypertensive
97832990	Captopril 12.5mg tablets	antihypertensive
97821989	Captopril 25mg tablets	antihypertensive
84568998	Captopril 5mg tablets	antihypertensive
89069998	Captopril 12.5mg tablets	antihypertensive
89102998	Captopril 12.5mg tablets	antihypertensive
89102997	Captopril 25mg tablets x56	antihypertensive
97832988	Captopril 50mg tablets	antihypertensive
96888997	Captopril 25mg tablets	antihypertensive
96888998	Captopril 12.5mg tablets	antihypertensive
96888996	Captopril 50mg tablets	antihypertensive
99851997	Captopril 25mg tablets x56	antihypertensive
99851998	Captopril 12.5mg tablets	antihypertensive
90497994	Enalapril 20mg tablets	antihypertensive
92065994	Enalapril 20mg tablets	antihypertensive
93558998	Enalapril 20mg tablets	antihypertensive
99423988	Enalapril 20mg tablets	antihypertensive
88432997	Enalapril 20mg tablets	antihypertensive
92661994	Enalapril 20mg tablets	antihypertensive
94168994	Enalapril 20mg tablets	antihypertensive
95907992	Enalapril 20mg tablets	antihypertensive

99283996	Enalapril 20mg tablets	antihypertensive
75002994	Enalapril 20mg wafer	antihypertensive
84249998	Enalapril 25mg/5ml oral solution	antihypertensive
88988997	Enalapril 2mg/5ml oral solution	antihypertensive
90287994	Enalapril 2mg/5ml oral suspension	antihypertensive
91577994	Enalapril 4mg/5ml oral suspension	antihypertensive
92703994	Enalapril 5mg tablets	antihypertensive
94618998	Enalapril 5mg tablets	antihypertensive
95159998	Enalapril 5mg tablets	antihypertensive
96516997	Enalapril 5mg tablets	antihypertensive
75722994	Enalapril 5mg tablets	antihypertensive
83832998	Enalapril 5mg tablets	antihypertensive
84669998	Enalapril 5mg tablets	antihypertensive
90640998	Enalapril 5mg tablets	antihypertensive
90707994	Enalapril 5mg tablets	antihypertensive
91171994	Enalapril 5mg tablets	antihypertensive
91275998	Enalapril 5mg wafer	antihypertensive
92800996	Enalapril 5mg/5ml oral solution	antihypertensive
93199998	Enalapril 5mg/5ml oral solution	antihypertensive
95562994	Enalapril 5mg/5ml oral suspension	antihypertensive
52308979	Enalapril mal 10mg tabs x28	antihypertensive
61581979	Enalapril mal 10mg tabs x28	antihypertensive
67492994	Enalapril mal 20mg tabs x28	antihypertensive
89683994	Enalapril mal tabs titre pack	antihypertensive
94573992	Enalapril maleate 10mg wafer	antihypertensive
94607997	Enalapril maleate 2.5mg tabs	antihypertensive
98263998	Enalapril maleate 2.5mg wafer	antihypertensive
99899990	Enalapril maleate 20mg tablets	antihypertensive

83958998	Enalapril maleate 20mg wafer	antihypertensive
87413994	Enalapril maleate 40 mg tab	antihypertensive
89665994	Enalapril maleate 5mg tablets	antihypertensive
90683997	Enalapril maleate 5mg tabs x2	antihypertensive
91937994	Enalapril maleate 5mg wafer	antihypertensive
93958998	Enalapril 10mg tablets	antihypertensive
94005996	Enalapril 10mg tablets	antihypertensive
96217997	Enalapril 10mg tablets	antihypertensive
97678997	Enalapril 10mg tablets	antihypertensive
98601989	Enalapril 10mg tablets	antihypertensive
99459989	Enalapril 10mg tablets	antihypertensive
83537994	Enalapril 10mg tablets	antihypertensive
84081994	Enalapril 10mg tablets	antihypertensive
88879998	Enalapril 10mg tablets	antihypertensive
92178994	Enalapril 10mg tablets	antihypertensive
98345997	Enalapril 10mg wafer	antihypertensive
83413994	Enalapril 2.5mg tablets	antihypertensive
89381997	Enalapril 2.5mg tablets	antihypertensive
92017994	Enalapril 2.5mg tablets	antihypertensive
94494998	Enalapril 2.5mg tablets	antihypertensive
96490992	Enalapril 2.5mg tablets	antihypertensive
98122998	Enalapril 2.5mg wafer	antihypertensive
99542996	Enalapril 2.5mg/5ml oral suspension	antihypertensive
84742994	Fosinopril 10mg tablets	antihypertensive
86265998	Fosinopril 10mg tablets	antihypertensive
89190998	Fosinopril 20mg tablets	antihypertensive
89310994	Fosinopril 20mg tablets	antihypertensive
57719979	Lisinopril 10mg tablets	antihypertensive

59340979	Lisinopril 10mg tablets	antihypertensive
64850979	Lisinopril 10mg tablets	antihypertensive
65002979	Lisinopril 10mg tablets	antihypertensive
67285979	Lisinopril 10mg tablets	antihypertensive
67822994	Lisinopril 10mg tablets	antihypertensive
69183994	Lisinopril 10mg tablets	antihypertensive
70630994	Lisinopril 10mg tablets	antihypertensive
71279979	Lisinopril 10mg tablets	antihypertensive
71358994	Lisinopril 10mg tablets	antihypertensive
72019979	Lisinopril 2.5mg tablets	antihypertensive
72475994	Lisinopril 2.5mg tablets	antihypertensive
74343994	Lisinopril 2.5mg tablets	antihypertensive
75729979	Lisinopril 2.5mg tablets	antihypertensive
75860979	Lisinopril 2.5mg tablets	antihypertensive
76832994	Lisinopril 2.5mg tablets	antihypertensive
76947994	Lisinopril 2.5mg tablets	antihypertensive
78539994	Lisinopril 2.5mg tablets	antihypertensive
78560994	Lisinopril 2.5mg tablets	antihypertensive
78958994	Lisinopril 2.5mg tablets	antihypertensive
78992994	Lisinopril 2.5mg/5ml oral solution	antihypertensive
79020979	Lisinopril 2.5mg/5ml oral suspension	antihypertensive
80648994	Lisinopril 20mg tablets	antihypertensive
80790994	Lisinopril 20mg tablets	antihypertensive
81114994	Lisinopril 20mg tablets	antihypertensive
81249994	Lisinopril 20mg tablets	antihypertensive
81270979	Lisinopril 20mg tablets	antihypertensive
81438998	Lisinopril 20mg tablets	antihypertensive
81658994	Lisinopril 20mg tablets	antihypertensive

81906994	Lisinopril 20mg tablets	antihypertensive
82288998	Lisinopril 20mg tablets	antihypertensive
82684994	Lisinopril 20mg tablets	antihypertensive
82784994	Lisinopril 5mg tablets	antihypertensive
83078998	Lisinopril 5mg tablets	antihypertensive
83139979	Lisinopril 5mg tablets	antihypertensive
83525994	Lisinopril 5mg tablets	antihypertensive
83560994	Lisinopril 5mg tablets	antihypertensive
83944994	Lisinopril 5mg tablets	antihypertensive
84074994	Lisinopril 5mg tablets	antihypertensive
84263994	Lisinopril 5mg tablets	antihypertensive
84411998	Lisinopril 5mg tablets	antihypertensive
84770994	Lisinopril 5mg tablets	antihypertensive
84930994	Lisinopril 5mg tablets	antihypertensive
85107978	Lisinopril 5mg/5ml oral solution	antihypertensive
85173994	Lisinopril 5mg/5ml oral suspension	antihypertensive
85330998	Lisinopril 7.5mg/5ml oral suspension	antihypertensive
85555979	Moexipril 15mg tablets	antihypertensive
85560994	Moexipril 7.5mg tablets	antihypertensive
85605998	Moexipril hcl 15mg tablets	antihypertensive
85763998	Moexipril hcl 7.5mg tablets	antihypertensive
82416998	Perindopril arginine 10mg tablets	antihypertensive
82467994	Perindopril arginine 10mg tabs	antihypertensive
82546994	Perindopril arginine 2.5mg tab	antihypertensive
82559994	Perindopril arginine 2.5mg tablets	antihypertensive
82593994	Perindopril arginine 5mg tablets	antihypertensive
82647998	Perindopril arginine 5mg tabs	antihypertensive
82677978	Perindopril arginine 5mg tabs	antihypertensive

82757994	Perindopril erbumine 2mg tablets	antihypertensive
82851978	Perindopril erbumine 2mg tablets	antihypertensive
82856978	Perindopril erbumine 2mg tablets	antihypertensive
82856998	Perindopril erbumine 2mg tablets	antihypertensive
82867994	Perindopril erbumine 2mg tabs	antihypertensive
82957998	Perindopril erbumine 4mg tablets	antihypertensive
82967998	Perindopril erbumine 4mg tablets	antihypertensive
82996979	Perindopril erbumine 4mg tablets	antihypertensive
83037978	Perindopril erbumine 4mg tablets	antihypertensive
83042998	Perindopril erbumine 4mg tablets	antihypertensive
83054978	Perindopril erbumine 4mg tabs	antihypertensive
83062978	Perindopril erbumine 4mg/5ml oral suspension	antihypertensive
83102979	Perindopril erbumine 8mg tablets	antihypertensive
83109978	Perindopril erbumine 8mg tablets	antihypertensive
83116978	Perindopril erbumine 8mg tablets	antihypertensive
83119979	Perindopril erbumine 8mg tabs	antihypertensive
83185994	Perindopril erbumine 8mg/5ml oral suspension	antihypertensive
83206998	Perindopril erbumine oral solution	antihypertensive
83254994	Perindopril tosilate 10mg tablets	antihypertensive
83257994	Perindopril tosilate 2.5mg tablets	antihypertensive
83468978	Perindopril tosilate 5mg tablets	antihypertensive
97950998	Carvedilol 12.5mg tablets	β-Blockers
94249994	Carvedilol 12.5mg tablets	β-Blockers
96427998	Carvedilol 12.5mg tablets	β-Blockers
93510998	Carvedilol 12.5mg tablets	β-Blockers
91078994	Carvedilol 25mg tablets	β-Blockers
94512997	Carvedilol 25mg tablets	β-Blockers

96123997	Carvedilol 3.125mg tablets	β-Blockers
97239994	Carvedilol 3.125mg tablets	β-Blockers
92363998	Carvedilol 3.125mg tablets	β-Blockers
94108997	Carvedilol 3.125mg tablets	β-Blockers
95867994	Carvedilol 3.125mg tablets	β-Blockers
84124998	Carvedilol 3.125mg/5ml oral suspension	β-Blockers
98908998	Carvedilol 5mg/5ml oral suspension	β-Blockers
95750998	Carvedilol 5mg/5ml oral suspension	β-Blockers
96338998	Carvedilol 6.25mg tablets	β-Blockers
91144998	Carvedilol 6.25mg tablets	β-Blockers
87542998	Carvedilol 6.25mg tablets	β-Blockers
97331994	Carvedilol 6.25mg tablets	β-Blockers
84612994	Labetalol 100mg tablets	β-Blockers
84659994	Labetalol 100mg tablets	β-Blockers
84880994	Labetalol 100mg tablets	β-Blockers
84935994	Labetalol 100mg tablets	β-Blockers
85163979	Labetalol 100mg tablets	β-Blockers
85585998	Labetalol 100mg tablets	β-Blockers
85591994	Labetalol 100mg tablets	β-Blockers
86531994	Labetalol 100mg/20ml injection	β-Blockers
87130994	Labetalol 200mg tablets	β-Blockers
87188979	Labetalol 200mg tablets	β-Blockers
87272979	Labetalol 200mg tablets	β-Blockers
87329994	Labetalol 200mg tablets	β-Blockers
87467998	Labetalol 200mg tablets	β-Blockers
87570998	Labetalol 200mg tablets	β-Blockers
87820979	Labetalol 400mg tablets	β-Blockers
87911994	Labetalol 400mg tablets	β-Blockers

88117998	Labetalol 400mg tablets	β-Blockers
88377979	Labetalol 400mg tablets	β-Blockers
88625998	Labetalol 400mg tablets	β-Blockers
88641994	Labetalol 400mg tablets	β-Blockers
88792994	Labetalol 50mg tablets	β-Blockers
89062996	Labetalol 50mg tablets	β-Blockers
89119998	Labetalol 50mg/10ml solution for injection pre-filled syringes	β-Blockers
89133994	Labetalol tab	β-Blockers
90361997	Acebutolol 100mg capsules	β-Blockers
97695997	Acebutolol 100mg capsules	β-Blockers
98419997	Acebutolol 200mg / hydrochlorothiazide 12.5mg tablets	β-Blockers
94807998	Acebutolol 200mg capsules	β-Blockers
92571998	Acebutolol 200mg capsules	β-Blockers
95255998	Acebutolol 200mg capsules	β-Blockers
99209998	Acebutolol 400mg tablets	β-Blockers
99914998	Acebutolol 400mg tablets	β-Blockers
99927998	Acebutolol 400mg tablets	β-Blockers
82858998	Clopamide 5mg with pindolol 10mg tablets	β-Blockers
67637994	Pindolol 10mg / clopamide 5mg tablets	β-Blockers
67711994	Pindolol 15mg tablets	β-Blockers
67732994	Pindolol 15mg tablets	β-Blockers
67760994	Pindolol 15mg tablets	β-Blockers
67774994	Pindolol 5mg tablets	β-Blockers
67819994	Pindolol 5mg tablets	β-Blockers
67842994	Pindolol 5mg tablets	β-Blockers
67844994	Pindolol 5mg tablets	β-Blockers
67981994	Pindolol+clopamide 10/5mg tabs	β-Blockers

94059994	Furosemide with penbutolol tablet	β-Blockers
91877994	Hydrochlorothiazide with atenolol and amiloride capsule	β-Blockers
99529998	Amiloride with atenolol with hydrochlorothiazide capsules	β-Blockers
94456996	Atenol+co-amiloz 50/2.5/25mg	β-Blockers
79645994	Atenolol 100mg tablets	β-Blockers
88774998	Atenolol 100mg tablets	β-Blockers
92703997	Atenolol 100mg tablets	β-Blockers
98385998	Atenolol 100mg tablets	β-Blockers
93679998	Atenolol 100mg tablets	β-Blockers
90780998	Atenolol 100mg tablets	β-Blockers
94751998	Atenolol 100mg tablets	β-Blockers
93220996	Atenolol 100mg tablets	β-Blockers
97457998	Atenolol 100mg tablets	β-Blockers
95858998	Atenolol 100mg tablets	β-Blockers
90957997	Atenolol 100mg tablets	β-Blockers
90659996	Atenolol 100mg tablets	β-Blockers
99026996	Atenolol 100mg tablets	β-Blockers
98598998	Atenolol 100mg tablets	β-Blockers
94395998	Atenolol 100mg with chlortalidone 25mg tablets	β-Blockers
92829998	Atenolol 25mg / bendroflumethiazide 1.25mg capsules	β-Blockers
94543997	Atenolol 25mg tablets	β-Blockers
93770998	Atenolol 25mg tablets	β-Blockers
86935998	Atenolol 25mg tablets	β-Blockers
90539994	Atenolol 25mg tablets	β-Blockers
98595998	Atenolol 25mg tablets	β-Blockers
96030997	Atenolol 25mg tablets	β-Blockers

95579998	Atenolol 25mg tablets	β-Blockers
87181998	Atenolol 25mg tablets	β-Blockers
99881994	Atenolol 25mg tablets	β-Blockers
91145997	Atenolol 25mg tablets	β-Blockers
81922998	Atenolol 25mg tablets	β-Blockers
99226998	Atenolol 25mg tablets	β-Blockers
94921998	Atenolol 25mg tablets	β-Blockers
79800994	Atenolol 25mg tablets	β-Blockers
95226996	Atenolol 25mg tablets	β-Blockers
92960997	Atenolol 25mg/5ml oral solution sugar free	β-Blockers
93501998	Atenolol 25mg/5ml syrup	β-Blockers
87174998	Atenolol 50mg / nifedipine 20mg modified-release capsules	β-Blockers
92495996	Atenolol 50mg tablets	β-Blockers
96796992	Atenolol 50mg tablets	β-Blockers
98189998	Atenolol 50mg tablets	β-Blockers
91407998	Atenolol 50mg tablets	β-Blockers
93341992	Atenolol 50mg tablets	β-Blockers
95244998	Atenolol 50mg tablets	β-Blockers
96273998	Atenolol 50mg tablets	β-Blockers
94515998	Atenolol 50mg tablets	β-Blockers
89154997	Atenolol 50mg tablets	β-Blockers
93243997	Atenolol 50mg tablets	β-Blockers
99011998	Atenolol 50mg tablets	β-Blockers
98594998	Atenolol 50mg tablets	β-Blockers
94798998	Atenolol 50mg tablets	β-Blockers
91158996	Atenolol 50mg tablets	β-Blockers
93922998	Atenolol 50mg tablets	β-Blockers
94541997	Atenolol 50mg tablets	β-Blockers

98364998	Atenolol 50mg tablets	β-Blockers
97930994	Atenolol 50mg tablets	β-Blockers
91448997	Atenolol 50mg tablets	β-Blockers
98766998	Atenolol 50mg tablets	β-Blockers
82468998	Atenolol 50mg with chlortalidone 12.5mg tablets	β-Blockers
90957998	Atenolol 5mg/10ml injection	β-Blockers
99385996	Atenolol 5mg/10ml solution for injection ampoules	β-Blockers
99101994	Atenolol with amiloride and hydrochlorothiazide capsules	β-Blockers
99767998	Atenolol/chlorthalidone 50 mg tab	β-Blockers
95332997	Atenolol+bendro 25/1.25mg cap	β-Blockers
99395996	Atenolol+nifedip 50/20mg m/r	β-Blockers
81963998	Atenolol+nifedip 50/20mg m/r	β-Blockers
94784998	Betaxolol 20mg tablets	β-Blockers
93499998	Betaxolol hcl 20mg tablets	β-Blockers
87658998	Bisoprolol 0.625mg/5ml oral solution	β-Blockers
98031998	Bisoprolol 1.25mg tablets	β-Blockers
96877992	Bisoprolol 1.25mg tablets	β-Blockers
91009994	Bisoprolol 1.25mg tablets	β-Blockers
80958998	Bisoprolol 1.25mg tablets	β-Blockers
99639998	Bisoprolol 1.25mg tablets	β-Blockers
95777994	Bisoprolol 1.25mg tablets	β-Blockers
98474992	Bisoprolol 1.25mg tablets	β-Blockers
89217998	Bisoprolol 1.25mg tablets	β-Blockers
82510998	Bisoprolol 1.25mg tablets	β-Blockers
90467994	Bisoprolol 1.25mg/5ml oral solution	β-Blockers
90609998	Bisoprolol 1.25mg/5ml oral suspension	β-Blockers
97879998	Bisoprolol 1.5mg/5ml oral suspension	β-Blockers

98006994	Bisoprolol 10mg / hydrochlorothiazide 6.25mg tablets	β-Blockers
90576998	Bisoprolol 10mg tablets	β-Blockers
89230998	Bisoprolol 10mg tablets	β-Blockers
93246997	Bisoprolol 10mg tablets	β-Blockers
86416998	Bisoprolol 10mg tablets	β-Blockers
87603998	Bisoprolol 10mg tablets	β-Blockers
96558997	Bisoprolol 10mg tablets	β-Blockers
90048997	Bisoprolol 10mg tablets	β-Blockers
95787992	Bisoprolol 2.5mg tablets	β-Blockers
94537994	Bisoprolol 2.5mg tablets	β-Blockers
88100998	Bisoprolol 2.5mg tablets	β-Blockers
88501998	Bisoprolol 2.5mg tablets	β-Blockers
84273994	Bisoprolol 2.5mg/5ml oral solution	β-Blockers
97945994	Bisoprolol 2.5mg/5ml oral suspension	β-Blockers
86055998	Bisoprolol 3.75mg tablets	β-Blockers
85427994	Bisoprolol 3.75mg tablets	β-Blockers
94881998	Bisoprolol 5mg tablets	β-Blockers
97962994	Bisoprolol 5mg tablets	β-Blockers
98921998	Bisoprolol 5mg tablets	β-Blockers
99988998	Bisoprolol 5mg tablets	β-Blockers
82874998	Bisoprolol 5mg tablets	β-Blockers
98049998	Bisoprolol 5mg tablets	β-Blockers
98880998	Bisoprolol 5mg tablets	β-Blockers
99766989	Bisoprolol 5mg tablets	β-Blockers
96378997	Bisoprolol 5mg tablets	β-Blockers
99921998	Bisoprolol 5mg/5ml oral suspension	β-Blockers
82642998	Bisoprolol 625micrograms/5ml oral solution	β-Blockers
85518998	Bisoprolol 7.5mg tablets	β-Blockers

91366994	Bisoprolol fumarat 1.25mg tabs	β-Blockers
85911994	Bisoprolol fumarat 1.25mg tabs	β-Blockers
88969994	Bisoprolol fumarat 1.25mg tabs	β-Blockers
88297996	Bisoprolol fumarat 3.75mg tabs	β-Blockers
94236998	Bisoprolol fumarate 10mg tabs	β-Blockers
81105998	Bisoprolol fumarate 10mg tabs	β-Blockers
95581998	Bisoprolol fumarate 10mg tabs	β-Blockers
93014998	Bisoprolol fumarate 10mg tabs	β-Blockers
78842994	Bisoprolol fumarate 10mg tabs	β-Blockers
90897998	Bisoprolol fumarate 2.5mg tabs	β-Blockers
99894998	Bisoprolol fumarate 2.5mg tabs	β-Blockers
82875998	Bisoprolol fumarate 2.5mg tabs	β-Blockers
90898998	Bisoprolol fumarate 2.5mg tabs	β-Blockers
57882979	Bisoprolol fumarate 5mg tabs	β-Blockers
97380992	Bisoprolol fumarate 5mg tabs	β-Blockers
91081996	Bisoprolol fumarate 5mg tabs	β-Blockers
87242998	Bisoprolol fumarate 5mg tabs	β-Blockers
88275997	Bisoprolol fumarate 7.5mg tabs	β-Blockers
99253998	Bisoprolol+hydrochloroth tabs	β-Blockers
97301998	Celiprolol 200mg tablets	β-Blockers
96555997	Celiprolol 200mg tablets	β-Blockers
98166997	Celiprolol 200mg tablets	β-Blockers
99106996	Celiprolol 200mg tablets	β-Blockers
98922994	Celiprolol 200mg tablets	β-Blockers
97124998	Celiprolol 200mg tablets	β-Blockers
99429998	Celiprolol 200mg tablets	β-Blockers
97685998	Celiprolol 400mg tablets	β-Blockers
95215994	Celiprolol 400mg tablets	β-Blockers

91937998	Celiprolol 400mg tablets	β-Blockers
90826994	Celiprolol 400mg tablets	β-Blockers
89243994	Celiprolol 400mg tablets	β-Blockers
88286998	Celiprolol 400mg tablets	β-Blockers
89188994	Hydrochlorothiazide /metoprolol tartrate 25 mg tab	β-Blockers
93188994	Hydrochlorothiazide with metoprolol tartrate 12.5mg with 100mg tablet	β-Blockers
93603997	Hydrochlorothiazide with metoprolol tartrate 25mg with 200mg modified-release tablet	β-Blockers
81192998	Metoprolol 100mg / hydrochlorothiazide 12.5mg tablets	β-Blockers
81255994	Metoprolol 100mg tablets	β-Blockers
81342994	Metoprolol 100mg tablets	β-Blockers
81440994	Metoprolol 100mg tablets	β-Blockers
81552994	Metoprolol 100mg tablets	β-Blockers
81563994	Metoprolol 100mg tablets	β-Blockers
81574994	Metoprolol 100mg tablets	β-Blockers
81691994	Metoprolol 100mg tablets	β-Blockers
81729998	Metoprolol 100mg tablets	β-Blockers
81763994	Metoprolol 100mg tablets	β-Blockers
81846994	Metoprolol 100mg tablets	β-Blockers
81863994	Metoprolol 100mg tablets	β-Blockers
81892998	Metoprolol 12.5mg capsules	β-Blockers
81943994	Metoprolol 12.5mg/5ml oral suspension	β-Blockers
82048994	Metoprolol 200mg m/r tablets	β-Blockers
82123979	Metoprolol 200mg m/r tablets	β-Blockers
82246994	Metoprolol 200mg m/r tablets	β-Blockers
82298979	Metoprolol 200mg modified-release / hydrochlorothiazide 25mg tablets	β-Blockers

82305998	Metoprolol 200mg modified-release tablets	β-Blockers
82351998	Metoprolol 50mg tablets	β-Blockers
82468979	Metoprolol 50mg tablets	β-Blockers
82609978	Metoprolol 50mg tablets	β-Blockers
82620998	Metoprolol 50mg tablets	β-Blockers
82675998	Metoprolol 50mg tablets	β-Blockers
82681994	Metoprolol 50mg tablets	β-Blockers
82726994	Metoprolol 50mg tablets	β-Blockers
82733998	Metoprolol 50mg tablets	β-Blockers
82749994	Metoprolol 50mg tablets	β-Blockers
82858994	Metoprolol 50mg tablets	β-Blockers
82869998	Metoprolol 50mg tablets	β-Blockers
82885994	Metoprolol 50mg tablets	β-Blockers
82936994	Metoprolol 50mg tablets	β-Blockers
82994994	Metoprolol 50mg/5ml oral suspension	β-Blockers
83114998	Metoprolol 5mg/5ml injection	β-Blockers
83125994	Metoprolol 5mg/5ml solution for injection ampoules	β-Blockers
83138998	Metoprolol fumarate 190 mg tab	β-Blockers
83154978	Metoprolol fumarate 95 mg tab	β-Blockers
83159978	Metoprolol fumarate 95mg tabs	β-Blockers
83160994	Metoprolol tartrate 12.5mg/5ml oral suspension	β-Blockers
83240994	Metoprolol tartrate oral solution	β-Blockers
83243994	Metoprolol tartrate with chlortalidone tablet	β-Blockers
83285994	Metoprolol+hydrochl 100/12.5m	β-Blockers
76503994	Nebivolol 10mg tablets	β-Blockers
76752994	Nebivolol 2.5mg tablets	β-Blockers
76829994	Nebivolol 2.5mg tablets	β-Blockers

76834994	Nebivolol 5mg tablets	β-Blockers
76837979	Nebivolol 5mg tablets	β-Blockers
80855994	Sotalol 160mg tablets	β-Blockers
80872979	Sotalol 160mg tablets	β-Blockers
80875994	Sotalol 160mg tablets	β-Blockers
80891994	Sotalol 160mg with hydrochlorothiazide 25mg tablet	β-Blockers
80925979	Sotalol 200mg tablets	β-Blockers
80959994	Sotalol 200mg tablets	β-Blockers
80964998	Sotalol 25mg/5ml oral solution	β-Blockers
80975998	Sotalol 25mg/5ml oral suspension	β-Blockers
80999998	Sotalol 2mg/ml injection	β-Blockers
81002994	Sotalol 40mg tablets	β-Blockers
81003994	Sotalol 40mg tablets	β-Blockers
81010994	Sotalol 40mg tablets	β-Blockers
81014994	Sotalol 40mg tablets	β-Blockers
81040994	Sotalol 40mg tablets	β-Blockers
81047994	Sotalol 40mg tablets	β-Blockers
81048994	Sotalol 40mg/4ml injection	β-Blockers
81062994	Sotalol 40mg/4ml injection	β-Blockers
81092979	Sotalol 80mg tablets	β-Blockers
81100994	Sotalol 80mg tablets	β-Blockers
81103998	Sotalol 80mg tablets	β-Blockers
81110998	Sotalol 80mg tablets	β-Blockers
81133994	Sotalol 80mg tablets	β-Blockers
81140994	Sotalol 80mg tablets	β-Blockers
81225994	Sotalol 80mg tablets	β-Blockers
81258998	Sotalol 80mg tablets	β-Blockers
81273998	Sotalol 80mg with hydrochlorothiazide	β-Blockers

	12.5mg tablet	
81307994	Sotalol hcl 40 mg inj	β-Blockers
81308994	Sotalol hcl s/r 80 mg tab	β-Blockers
99893998	Bendroflumethiazide 5mg with nadolol 40mg tablets	β-Blockers
85281998	Bendroflumethiazide 5mg with nadolol 80mg tablets	β-Blockers
94007996	Nadolol 30mg/5ml oral suspension	β-Blockers
94028992	Nadolol 40mg / bendroflumethiazide 5mg tablets	β-Blockers
94200998	Nadolol 40mg tablets	β-Blockers
94249992	Nadolol 40mg tablets	β-Blockers
94287994	Nadolol 80mg / bendroflumethiazide 5mg tablets	β-Blockers
94488990	Nadolol 80mg tablets	β-Blockers
94571994	Nadolol 80mg tablets	β-Blockers
94634992	Nadolol 80mg/bendrofluazide 5mg mg tab	β-Blockers
94692997	Nadolol+bendroflu 40/5mg tabs	β-Blockers
94751992	Nadolol+bendroflu 80/5mg tabs	β-Blockers
79827994	Propranolol 10 mg sus	β-Blockers
79849994	Propranolol 10mg tablets	β-Blockers
79852994	Propranolol 10mg tablets	β-Blockers
79982994	Propranolol 10mg tablets	β-Blockers
80028978	Propranolol 10mg tablets	β-Blockers
80046994	Propranolol 10mg tablets	β-Blockers
80047994	Propranolol 10mg tablets	β-Blockers
80048979	Propranolol 10mg tablets	β-Blockers
80057994	Propranolol 10mg tablets	β-Blockers
80113994	Propranolol 10mg tablets	β-Blockers
80117994	Propranolol 10mg tablets	β-Blockers

80222979	Propranolol 10mg tablets	β-Blockers
80226994	Propranolol 10mg tablets	β-Blockers
80296994	Propranolol 10mg tablets	β-Blockers
80489994	Propranolol 10mg tablets	β-Blockers
80530994	Propranolol 10mg tablets	β-Blockers
80629994	Propranolol 10mg/5ml oral solution sugar free	β-Blockers
80650994	Propranolol 10mg/5ml oral suspension	β-Blockers
80683978	Propranolol 15 mg syr	β-Blockers
80750979	Propranolol 160mg m/r capsules	β-Blockers
80814994	Propranolol 160mg m/r capsules	β-Blockers
80819994	Propranolol 160mg m/r capsules	β-Blockers
80835994	Propranolol 160mg m/r capsules	β-Blockers
80864994	Propranolol 160mg m/r capsules	β-Blockers
80867994	Propranolol 160mg m/r capsules	β-Blockers
80906994	Propranolol 160mg m/r capsules	β-Blockers
80910994	Propranolol 160mg m/r capsules	β-Blockers
80949998	Propranolol 160mg m/r capsules	β-Blockers
80997998	Propranolol 160mg m/r capsules	β-Blockers
81008994	Propranolol 160mg m/r capsules	β-Blockers
81021994	Propranolol 160mg modified-release / bendroflumethiazide 5mg capsules	β-Blockers
81024994	Propranolol 160mg modified-release capsules	β-Blockers
81033994	Propranolol 160mg modified-release capsules	β-Blockers
81038994	Propranolol 160mg modified-release capsules	β-Blockers
81045994	Propranolol 160mg modified-release capsules	β-Blockers
81054998	Propranolol 160mg modified-release capsules	β-Blockers
81055994	Propranolol 160mg modified-release capsules	β-Blockers
81059994	Propranolol 160mg modified-release capsules	β-Blockers
81061994	Propranolol 160mg modified-release capsules	β-Blockers

81070979	Propranolol 160mg modified-release capsules	β-Blockers
81086994	Propranolol 160mg modified-release capsules	β-Blockers
81087994	Propranolol 160mg modified-release capsules	β-Blockers
81094994	Propranolol 160mg modified-release capsules	β-Blockers
81097994	Propranolol 160mg tablets	β-Blockers
81134994	Propranolol 160mg tablets	β-Blockers
81141994	Propranolol 160mg tablets	β-Blockers
81147998	Propranolol 160mg tablets	β-Blockers
81218994	Propranolol 160mg tablets	β-Blockers
81220994	Propranolol 1mg/1ml injection	β-Blockers
81240994	Propranolol 1mg/1ml solution for injection ampoules	β-Blockers
81304998	Propranolol 20 mg tab	β-Blockers
81309998	Propranolol 30 mg sus	β-Blockers
81333994	Propranolol 40mg tablets	β-Blockers
81348994	Propranolol 40mg tablets	β-Blockers
81385994	Propranolol 40mg tablets	β-Blockers
81400998	Propranolol 40mg tablets	β-Blockers
81427994	Propranolol 40mg tablets	β-Blockers
81439994	Propranolol 40mg tablets	β-Blockers
81446998	Propranolol 40mg tablets	β-Blockers
81467994	Propranolol 40mg tablets	β-Blockers
81482979	Propranolol 40mg tablets	β-Blockers
81495994	Propranolol 40mg tablets	β-Blockers
81505994	Propranolol 40mg tablets	β-Blockers
81550994	Propranolol 40mg tablets	β-Blockers
81588979	Propranolol 40mg/5ml oral solution	β-Blockers
81648994	Propranolol 40mg/5ml oral solution sugar free	β-Blockers
81651994	Propranolol 50mg/5ml oral solution	β-Blockers

81745994	Propranolol 50mg/5ml oral solution	β-Blockers
81769994	Propranolol 50mg/5ml oral solution sugar free	β-Blockers
81780994	Propranolol 5mg/5ml oral solution	β-Blockers
81781998	Propranolol 5mg/5ml oral solution	β-Blockers
81811998	Propranolol 5mg/5ml oral solution sugar free	β-Blockers
81896979	Propranolol 80mg / bendroflumethiazide 2.5mg capsules	β-Blockers
81909994	Propranolol 80mg m/r capsules	β-Blockers
81913998	Propranolol 80mg m/r capsules	β-Blockers
81939994	Propranolol 80mg m/r capsules	β-Blockers
81947979	Propranolol 80mg m/r capsules	β-Blockers
81960994	Propranolol 80mg m/r capsules	β-Blockers
81980994	Propranolol 80mg m/r capsules	β-Blockers
81987998	Propranolol 80mg m/r capsules	β-Blockers
81994994	Propranolol 80mg m/r capsules	β-Blockers
82005994	Propranolol 80mg m/r capsules	β-Blockers
82008998	Propranolol 80mg m/r capsules	β-Blockers
82024978	Propranolol 80mg m/r capsules	β-Blockers
82044994	Propranolol 80mg m/r capsules	β-Blockers
82048998	Propranolol 80mg modified-release capsules	β-Blockers
82074994	Propranolol 80mg modified-release capsules	β-Blockers
82078994	Propranolol 80mg modified-release capsules	β-Blockers
82079978	Propranolol 80mg modified-release capsules	β-Blockers
82099998	Propranolol 80mg modified-release capsules	β-Blockers
82138998	Propranolol 80mg modified-release capsules	β-Blockers
82174998	Propranolol 80mg modified-release capsules	β-Blockers
82183979	Propranolol 80mg modified-release capsules	β-Blockers
82198979	Propranolol 80mg modified-release capsules	β-Blockers
82200979	Propranolol 80mg tablets	β-Blockers

82220979	Propranolol 80mg tablets	β-Blockers
82222979	Propranolol 80mg tablets	β-Blockers
82223998	Propranolol 80mg tablets	β-Blockers
82229979	Propranolol 80mg tablets	β-Blockers
82234998	Propranolol 80mg tablets	β-Blockers
82290994	Propranolol 80mg tablets	β-Blockers
82292994	Propranolol 80mg/5ml oral solution	β-Blockers
83079979	Spironolactone with propranolol tablet	β-Blockers
59964979	Timolol 10mg tablets	β-Blockers
59965979	Timolol 10mg tablets	β-Blockers
59967979	Timolol 10mg tablets	β-Blockers
60016979	Timolol 10mg tablets	β-Blockers
60056979	Timolol 10mg/bendrofluazide 2.5mg tab	β-Blockers
60174979	Timolol maleate with amiloride and hydrochlorothiazide tablet	β-Blockers
60178979	Timolol maleate with bendroflumethiazide 20mg + 5mg tablet	β-Blockers
60200979	Timolol maleate with dorzolamide 0.5% + 2% eye drops	β-Blockers
60278979	Timolol+bendrofl 10/2.5mg tabs	β-Blockers
60287979	Timolol+bendrofl 10/2.5mg tabs	β-Blockers
60291979	Timolol+bendrofl 20/5mg tabs	β-Blockers
60297979	Timolol+co-amiloz 10/2.5/25mg	β-Blockers

9.11 Fall read codes

16D..00	"FALLS"
16D1.00	"RECURRENT FALLS"

16D2.00	"NUMBER OF FALLS IN LAST YEAR"
16D3.00	"DOES NOT FALL"
8BIG.00	"FALLS CAUSED BY MEDICATION"
R200.12	"[D] Geriatric fall"
T04..00	"FALL IN, ON, OR FROM TRAIN"
T040.00	"FALL IN TRAIN"
T040000	"FALL IN TRAIN, RAILWAY EMPLOYEE INJURED"
T040100	"FALL IN TRAIN, PASSENGER INJURED"
T040y00	"FALL IN TRAIN, OTHER SPECIFIED PERSON INJURED"
T040z00	"FALL IN TRAIN, UNSPECIFIED PERSON INJURED"
T041.00	"FALL ON TRAIN"
T041000	"FALL ON TRAIN, RAILWAY EMPLOYEE INJURED"
T041100	"FALL ON TRAIN, PASSENGER INJURED"
T041200	"FALL ON TRAIN, PEDESTRIAN INJURED"
T041300	"FALL ON TRAIN, PEDAL CYCLIST INJURED"
T041y00	"FALL ON TRAIN, OTHER SPECIFIED PERSON INJURED
T041z00	"FALL ON TRAIN, UNSPECIFIED PERSON INJURED"
T042.00	"FALL FROM TRAIN"
T042000	"FALL FROM TRAIN, RAILWAY EMPLOYEE INJURED"
T042100	"FALL FROM TRAIN, PASSENGER INJURED"
T042y00	"FALL FROM TRAIN, OTHER SPECIFIED PERSON INJURED"
T042z00	"FALL FROM TRAIN, UNSPECIFIED PERSON INJURED"
T04z.00	"FALL IN, ON OR FROM TRAIN NOS"
T04z000	"FALL IN, ON OR FROM TRAIN NOS, RAILWAY EMPLOYEE INJURED"
T04z100	"FALL IN, ON OR FROM TRAIN NOS, PASSENGER INJURED"
T04z200	"FALL IN, ON OR FROM TRAIN NOS, PEDESTRIAN INJURED"

T04z300	"FALL IN, ON OR FROM TRAIN NOS, PEDAL CYCLIST INJURED"
T04zy00	"FALL IN, ON OR FROM TRAIN NOS, OTHER SPEC PERSON INJURED"
T04zz00	"FALL IN, ON OR FROM TRAIN NOS, UNSPECIFIED PERSON INJURED"
T420.00	"SUBMERSION OR DROWNING DUE TO FALL FROM GANGPLANK"
T420000	"SUBMERSION-FALL FROM GANGPLANK- OCC SMALL UNPOWERED BOAT INJ"
T420100	"SUBMERSION-FALL FROM GANGPLANK- OCC SMALL POWERED BOAT INJ"
T420200	"SUBMERSION-FALL FROM GANGPLANK- CREW OTHER WATERCRAFT INJ"
T420300	"SUBMERSION-FALL FROM GANGPLANK- PASSENGER OTH WATERCRAFT INJ"
T420400	"SUBMERSION-FALL FROM GANGPLANK- WATER SKIER INJURED"
T420500	"SUBMERSION-FALL FROM GANGPLANK- SWIMMER INJURED"
T420600	"SUBMERSION-FALL FROM GANGPLANK- DOCKER OR STEVEDORE INJURED"
T420y00	"SUBMERSION-FALL FROM GANGPLANK- OTHER SPECIFIED PERSON INJ"
T420z00	"SUBMERSION-FALL FROM GANGPLANK- UNSPECIFIED PERSON INJURED"
T421.00	"SUBMERSION OR DROWNING DUE TO FALL OVERBOARD"
T421000	"SUBMERSION-FALL OVERBOARD - OCC SMALL UNPOWERED BOAT INJ"
T421100	"SUBMERSION-FALL OVERBOARD - OCCUPANT SMALL POWERED BOAT INJ"
T421200	"SUBMERSION-FALL OVERBOARD - CREW OTHER WATERCRAFT INJURED"
T421300	"SUBMERSION-FALL OVERBOARD - PASSENGER OTHER WATERCRAFT INJ"

T421400	"SUBMERSION-FALL OVERBOARD - WATER SKIER INJURED"
T421500	"SUBMERSION-FALL OVERBOARD - SWIMMER INJURED"
T421600	"SUBMERSION-FALL OVERBOARD - DOCKER OR STEVEDORE INJURED"
T421y00	"SUBMERSION-FALL OVERBOARD - OTHER SPECIFIED PERSON INJURED"
T421z00	"SUBMERSION-FALL OVERBOARD - UNSPECIFIED PERSON INJURED"
T43..00	"FALL ON STAIRS OR LADDERS IN WATER TRANSPORT"
T430.00	"FALL ON STAIRS IN WATER TRANSPORT (WT)"
T430000	"FALL-STAIRS WATER TRANSPORT - OCC SMALL UNPOWERED BOAT INJ"
T430100	"FALL-STAIRS WATER TRANSPORT - OCC SMALL POWERED BOAT INJURED"
T430200	"FALL-STAIRS WATER TRANSPORT - CREW OTHER WATERCRAFT INJURED"
T430300	"FALL-STAIRS WATER TRANSPORT - PASSENGER OTHER WATERCRAFT INJ"
T430400	"FALL-STAIRS WATER TRANSPORT - WATER SKIER INJURED"
T430500	"FALL-STAIRS WATER TRANSPORT - SWIMMER INJURED"
T430600	"FALL-STAIRS WATER TRANSPORT - DOCKER OR STEVEDORE INJURED"
T430y00	"FALL-STAIRS WATER TRANSPORT - OTHER SPECIFIED PERSON INJURED"
T430z00	"FALL-STAIRS WATER TRANSPORT - UNSPECIFIED PERSON INJURED"
T431.00	"FALL ON LADDER IN WATER TRANSPORT"
T431000	"FALL-LADDER WATER TRANSPORT - OCC SMALL UNPOWERED BOAT INJ"
T431100	"FALL-LADDER WATER TRANSPORT - OCC SMALL POWERED BOAT INJURED"

T431200	"FALL-LADDER WATER TRANSPORT - CREW OTHER WATERCRAFT INJURED"
T431300	"FALL-LADDER WATER TRANSPORT - PASSENGER OTHER WATERCRAFT INJ"
T431400	"FALL-LADDER WATER TRANSPORT - WATER SKIER INJURED"
T431500	"FALL-LADDER WATER TRANSPORT - SWIMMER INJURED"
T431600	"FALL-LADDER WATER TRANSPORT - DOCKER OR STEVEDORE INJURED"
T431y00	"FALL-LADDER WATER TRANSPORT - OTHER SPECIFIED PERSON INJURED"
T431z00	"FALL-LADDER WATER TRANSPORT - UNSPECIFIED PERSON INJURED"
T43z.00	"FALL ON STAIRS OR LADDERS IN WATER TRANSPORT, NOS "
T43z000	"FALL-STAIRS/LADDERS-WT NOS - OCC SMALL UNPOWERED BOAT INJ"
T43z100	"FALL-STAIRS/LADDERS-WT NOS - OCCUPANT SMALL POWERED BOAT INJ"
T43z200	"FALL-STAIRS/LADDERS-WT NOS - CREW OTHER WATERCRAFT INJURED"
T43z300	"FALL-STAIRS/LADDERS-WT NOS - PASSENGER OTHER WATERCRAFT INJ"
T43z400	"FALL-STAIRS/LADDERS-WT NOS - WATER SKIER INJURED"
T43z500	"FALL-STAIRS/LADDERS-WT NOS - SWIMMER INJURED"
T43z600	"FALL-STAIRS/LADDERS-WT NOS - DOCKER OR STEVEDORE INJURED"
T43zy00	"FALL-STAIRS/LADDERS-WT NOS - OTHER SPECIFIED PERSON INJURED"
T43zz00	"FALL-STAIRS/LADDERS-WT NOS - UNSPECIFIED PERSON INJURED"
T44..00	"OTHER FALLS IN WATER TRANSPORT (WT)"
T440.00	"FALL FROM ONE LEVEL TO ANOTHER NEC IN

	WATER TRANSPORT"
T440000	"FALL TO OTHER LEVEL NEC IN WT - OCC SMALL UNPOWERED BOAT INJ"
T440100	"FALL TO OTHER LEVEL NEC IN WT - OCC SMALL POWERED BOAT INJ"
T440200	"FALL TO OTHER LEVEL NEC IN WT - CREW OTHER WATERCRAFT INJ"
T440300	"FALL TO OTHER LEVEL NEC IN WT - PASSENGER OTH WATERCRAFT INJ"
T440400	"FALL TO OTHER LEVEL NEC IN WT - WATER SKIER INJURED"
T440500	"FALL TO OTHER LEVEL NEC IN WT - SWIMMER INJURED"
T440600	"FALL TO OTHER LEVEL NEC IN WT - DOCKER OR STEVEDORE INJURED"
T440y00	"FALL TO OTHER LEVEL NEC IN WT - OTHER SPECIFIED PERSON INJ"
T440z00	"FALL TO OTHER LEVEL NEC IN WT - UNSPECIFIED PERSON INJURED"
T44z.00	"FALL IN WATER TRANSPORT NOS"
T44z000	"FALL IN WATER TRANSPORT NOS - OCC SMALL UNPOWERED BOAT INJ"
T44z100	"FALL IN WATER TRANSPORT NOS - OCC SMALL POWERED BOAT INJURED"
T44z200	"FALL IN WATER TRANSPORT NOS - CREW OTHER WATERCRAFT INJURED"
T44z300	"FALL IN WATER TRANSPORT NOS - PASSENGER OTHER WATERCRAFT INJ"
T44z400	"FALL IN WATER TRANSPORT NOS - WATER SKIER INJURED"
T44z500	"FALL IN WATER TRANSPORT NOS - SWIMMER INJURED"
T44z600	"FALL IN WATER TRANSPORT NOS - DOCKER OR STEVEDORE INJURED"
T44zy00	"FALL IN WATER TRANSPORT NOS - OTHER SPECIFIED PERSON INJURED"

T44zz00	"FALL IN WATER TRANSPORT NOS - UNSPECIFIED PERSON INJURED"
T475.00	"CRUSHED BY FALLING OBJECT ON SHIP OR WHILE LOADING/UNLOADING"
T475000	"CRUSHED BY FALLING OBJ ON SHIP- OCC SMALL UNPOWERED BOAT INJ"
T475100	"CRUSHED BY FALLING OBJ ON SHIP- OCC SMALL POWERED BOAT INJ"
T475200	"CRUSHED BY FALLING OBJ ON SHIP- CREW OTHER WATERCRAFT INJ"
T475300	"CRUSHED BY FALLING OBJ ON SHIP- PASSENGER OTH WATERCRAFT INJ"
T475400	"CRUSHED BY FALLING OBJ ON SHIP- WATER SKIER INJURED"
T475500	"CRUSHED BY FALLING OBJ ON SHIP- SWIMMER INJURED"
T475600	"CRUSHED BY FALLING OBJ ON SHIP- DOCKER OR STEVEDORE INJURED"
T475y00	"CRUSHED BY FALLING OBJ ON SHIP- OTHER SPECIFIED PERSON INJ"
T475z00	"CRUSHED BY FALLING OBJ ON SHIP- UNSPECIFIED PERSON INJ"
T477.00	"HIT BY BOAT, OR PART THEREOF, AFTER FALL FROM BOAT "
T477000	"HIT BOAT AFTER FALL FROM BOAT- OCC SMALL UNPOWERED BOAT INJ"
T477100	"HIT BOAT AFTER FALL FROM BOAT- OCC SMALL POWERED BOAT INJ"
T477200	"HIT BOAT AFTER FALL FROM BOAT- CREW OTHER WATERCRAFT INJURED"
T477300	"HIT BOAT AFTER FALL FROM BOAT- PASSENGER OTH WATERCRAFT INJ"
T477400	"HIT BOAT AFTER FALL FROM BOAT- WATER SKIER INJURED"
T477500	"HIT BOAT AFTER FALL FROM BOAT- SWIMMER INJURED"

T477600	"HIT BOAT AFTER FALL FROM BOAT- DOCKER OR STEVEDORE INJURED"
T477y00	"HIT BOAT AFTER FALL FROM BOAT- OTHER SPECIFIED PERSON INJ"
T477z00	"HIT BOAT AFTER FALL FROM BOAT- UNSPECIFIED PERSON INJURED"
T53..00	"FALL IN, ON, OR FROM AIRCRAFT "
T532.00	"FALL IN AIRCRAFT"
T532000	"FALL IN AIRCRAFT - OCCUPANT OF SPACECRAFT INJURED"
T532100	"FALL IN AIRCRAFT - OCCUPANT OF MILITARY AIRCRAFT INJURED"
T532200	"FALL IN AIRCRAFT - CREW COMMERCIAL AIRCRAFT SURFACE/SURF INJ"
T532300	"FALL IN AIRCRAFT - OTHER OCC COMM AIRCRAFT SURF/SURF INJURED"
T532400	"FALL IN AIRCRAFT - OCCUPANT COMM SURF/AIR AIRCRAFT INJURED"
T532500	"FALL IN AIRCRAFT - OCCUPANT OTHER POWERED AIRCRAFT INJURED"
T532600	"FALL IN AIRCRAFT - OCCUPANT UNPOWERED AIRCRAFT INJURED"
T532700	"FALL IN AIRCRAFT - PARACHUTIST INJURED"
T532800	"FALL IN AIRCRAFT - GROUND CREW OR AIRLINE EMPLOYEE INJURED"
T532z00	"FALL IN AIRCRAFT - OTHER PERSON INJURED"
T533.00	"FALL ON AIRCRAFT"
T533000	"FALL ON AIRCRAFT - OCCUPANT OF SPACECRAFT INJURED"
T533100	"FALL ON AIRCRAFT - OCCUPANT OF MILITARY AIRCRAFT INJURED"
T533200	"FALL ON AIRCRAFT - CREW COMMERCIAL AIRCRAFT SURFACE/SURF INJ"
T533300	"FALL ON AIRCRAFT - OTHER OCCUPANT COMM AIRCRAFT SURF/S INJ"

T533400	"FALL ON AIRCRAFT - OCCUPANT COMM SURF/AIR AIRCRAFT INJURED"
T533500	"FALL ON AIRCRAFT - OCCUPANT OTHER POWERED AIRCRAFT INJURED"
T533600	"FALL ON AIRCRAFT - OCCUPANT UNPOWERED AIRCRAFT INJURED"
T533700	"FALL ON AIRCRAFT - PARACHUTIST INJURED"
T533800	"FALL ON AIRCRAFT - GROUND CREW/AIRLINE EMPLOYEE INJURED"
T533z00	"FALL ON AIRCRAFT - OTHER PERSON INJURED"
T534.00	"FALL FROM AIRCRAFT"
T534000	"FALL FROM AIRCRAFT - OCCUPANT OF SPACECRAFT INJURED"
T534100	"FALL FROM AIRCRAFT - OCCUPANT OF MILITARY AIRCRAFT INJURED"
T534200	"FALL FROM AIRCRAFT - CREW COMMERCIAL AIRCRAFT SURF/SURF INJ"
T534300	"FALL FROM AIRCRAFT - OTHER OCCUPANT COMM AIRCRAFT SURF/S INJ"
T534400	"FALL FROM AIRCRAFT - OCCUPANT COMM SURF/AIR AIRCRAFT INJURED"
T534500	"FALL FROM AIRCRAFT - OCCUPANT OTHER POWERED AIRCRAFT INJURED"
T534600	"FALL FROM AIRCRAFT - OCCUPANT UNPOWERED AIRCRAFT INJURED"
T534700	"FALL FROM AIRCRAFT - PARACHUTIST INJURED"
T534800	"FALL FROM AIRCRAFT - GROUND CREW OR AIRLINE EMPLOYEE INJURED"
T534z00	"FALL FROM AIRCRAFT - OTHER PERSON INJURED"
T53z.00	"FALL IN, ON OR FROM AIRCRAFT NOS "
T53z000	"AIRCRAFT FALL NOS - OCCUPANT OF SPACECRAFT INJURED"
T53z100	"AIRCRAFT FALL NOS - OCCUPANT OF MILITARY AIRCRAFT INJURED"

T53z200	"AIRCRAFT FALL NOS - CREW COMM AIRCRAFT SURF/SURF INJURED"
T53z300	"AIRCRAFT FALL NOS - OTHER OCC COMM AIRCRAFT SURF/SURF INJ"
T53z400	"AIRCRAFT FALL NOS - OCCUPANT COMM SURF/AIR AIRCRAFT INJURED"
T53z500	"AIRCRAFT FALL NOS - OCCUPANT OTHER POWERED AIRCRAFT INJURED"
T53z600	"AIRCRAFT FALL NOS - OCCUPANT UNPOWERED AIRCRAFT INJURED"
T53z700	"AIRCRAFT FALL NOS - PARACHUTIST INJURED"
T53z800	"AIRCRAFT FALL NOS - GROUND CREW/AIRLINE EMPLOYEE INJURED"
T53zz00	"AIRCRAFT FALL NOS - OTHER PERSON INJURED"
T60E.00	"FALL FROM POWERED VEHICLE, INDUSTRIAL OR COMMERCIAL "
T613.00	"ACCIDENT INVOLVING FALL FROM CABLE CAR, NOT ON RAILS "
TC...00	"ACCIDENTAL FALLS"
TC...11	"FALL - ACCIDENTAL"
TC0..00	"FALL ON OR FROM STAIRS OR STEPS"
TC00.00	"FALL ON OR FROM ESCALATOR"
TC00000	"FALL ON ESCALATOR"
TC00100	"FALL FROM ESCALATOR"
TC00z00	"FALL ON OR FROM ESCALATOR NOS"
TC01.00	"FALL ON OR FROM STAIRS"
TC01000	"FALL ON STAIRS"
TC01100	"FALL FROM STAIRS"
TC01z00	"FALL ON OR FROM STAIRS NOS"
TC02.00	"FALL ON OR FROM STEPS"
TC02000	"FALL ON STEPS"
TC02100	"FALL FROM STEPS"

TC02z00	"FALL ON OR FROM STEPS NOS"
TC0z.00	"FALL ON OR FROM STAIRS OR STEPS NOS"
TC1..00	"FALL ON OR FROM LADDERS OR SCAFFOLDING"
TC10.00	"FALL FROM LADDER"
TC11.00	"FALL FROM SCAFFOLDING"
TC1z.00	"FALL FROM LADDER OR SCAFFOLDING NOS"
TC2..00	"FALL FROM OR OUT OF BUILDING OR OTHER STRUCTURE"
TC20.00	"FALL FROM BALCONY"
TC21.00	"FALL FROM BRIDGE"
TC22.00	"FALL FROM BUILDING"
TC23.00	"FALL FROM FLAGPOLE"
TC24.00	"FALL FROM TOWER"
TC25.00	"FALL FROM TURRET"
TC26.00	"FALL FROM VIADUCT"
TC27.00	"FALL FROM WALL"
TC28.00	"FALL FROM WINDOW"
TC29.00	"FALL THROUGH ROOF"
TC2z.00	"FALL FROM OR OUT OF BUILDING OR OTHER STRUCTURE NOS"
TC3..00	"FALL INTO HOLE OR OTHER OPENING IN SURFACE"
TC30500	"ACCIDENT CAUSED BY FALL INTO SWIMMING POOL"
TC31.00	"ACCIDENTAL FALL INTO WELL"
TC32.00	"ACCIDENTAL FALL INTO MANHOLE"
TC32000	"ACCIDENTAL FALL INTO MANHOLE, UNSPECIFIED "
TC32100	"ACCIDENTAL FALL INTO STORM DRAIN"
TC32z00	"ACCIDENTAL FALL INTO MANHOLE NOS"
TC3y.00	"FALL INTO OTHER HOLE OR OTHER OPENING IN SURFACE"

TC3y000	"FALL INTO CAVITY, UNSPECIFIED "
TC3y100	"FALL INTO DOCK"
TC3y200	"FALL INTO HOLE"
TC3y300	"FALL INTO PIT"
TC3y400	"FALL INTO QUARRY"
TC3y500	"FALL INTO SHAFT"
TC3y600	"FALL INTO TANK"
TC3yz00	"FALL INTO OTHER HOLE, UNSPECIFIED "
TC3z.00	"FALL INTO HOLE NOS"
TC4..00	"OTHER FALL FROM ONE LEVEL TO ANOTHER"
TC40.00	"FALL FROM PLAYGROUND EQUIPMENT"
TC41.00	"FALL FROM CLIFF"
TC42.00	"FALL FROM CHAIR OR BED"
TC42000	"FALL FROM CHAIR"
TC42100	"FALL FROM BED"
TC42z00	"FALL FROM CHAIR OR BED NOS"
TC4y.00	"OTHER FALL FROM ONE LEVEL TO ANOTHER"
TC4y000	"FALL FROM EMBANKMENT"
TC4y100	"FALL FROM HAYSTACK"
TC4y200	"FALL FROM STATIONARY VEHICLE"
TC4y300	"FALL FROM TREE"
TC4yz00	"OTHER FALL FROM ONE LEVEL TO ANOTHER NOS"
TC4z.00	"FALL FROM ONE LEVEL TO ANOTHER NOS"
TC5..00	"FALL ON SAME LEVEL FROM SLIPPING, TRIPPING OR STUMBLING "
TC50.00	"FALL ON SAME LEVEL FROM SLIPPING"
TC51.00	"FALL ON SAME LEVEL FROM TRIPPING"
TC52.00	"FALL ON SAME LEVEL FROM STUMBLING"

TC53.00	"FALL ON MOVING SIDEWALK"
TC5z.00	"FALL ON SAME LEVEL FROM SLIPPING, TRIPPING OR STUMBLING NOS "
TCy..00	"OTHER FALLS"
TCy0.00	"FALL FROM BUMP AGAINST OBJECT"
TCyz.00	"OTHER ACCIDENTAL FALL NOS"
TCz..00	"ACCIDENTAL FALLS NOS"
TG30700	"ACCIDENT CAUSED BY FALL INTO MOVING PART OF MACHINERY"
TG30800	"ACCIDENT CAUSED BY FALL FROM MOVING PART OF MACHINERY"
TH03.00	"LATE EFFECTS OF ACCIDENTAL FALL"
TN7..00	"INJURY ?ACCIDENTAL, FALL FROM HIGH PLACE "
TN70.00	"INJURY ?ACCIDENTAL, FALL FROM RESIDENTIAL PREMISES "
TN71.00	"INJURY ?ACCIDENTAL, FALL FROM OTHER MAN-MADE STRUCTURE "
TN72.00	"INJURY ?ACCIDENTAL, FALL FROM NATURAL SITE "
TN7z.00	"INJURY ?ACCIDENTAL, FALL FROM HIGH PLACE NOS "
U10..00	"[X]FALLS"
U100.00	"[X]FALL ON SAME LEVEL INVOLVING ICE AND SNOW"
U100000	"[X]FALL ON SAME LEVEL INVOLVING ICE AND SNOW OCCURRN HOME"
U100100	"[X]FALL SAME LEVEL INVOLV ICE / SNOW OCCURRN RESID INSTIT'N"
U100200	"[X]FALL SAM LVL INV ICE/SNW OCC SCH OTH INST/PUB ADMIN AREA"
U100300	"[X]FALL SAME LEVL INVOLV ICE/SNOW, OCC SPORT/ATHLET AREA "
U100400	"[X]FALL SAME LEVL INV ICE AND SNOW, OCC

	STREET / HIGHWAY "
U100500	"[X]FALL SAME LEVL INV ICE / SNOW, OCC TRADE / SERVICE AREA "
U100600	"[X]FALL SAME LEVL INV ICE/SNOW, OCC INDUST / CONSTRUCT AREA "
U100700	"[X]FALL ON SAME LEVL INVOLVING ICE AND SNOW OCCURRN ON FARM"
U100y00	"[X]FALL SAME LEVL INV ICE / SNOW, OCC AT OTHER SPECIF PLACE "
U100z00	"[X]FALL SAME LEVL INV ICE / SNOW, OCC AT UNSPECIFIED PLACE "
U101.00	"[X]FALL ON SAME LEVEL FROM SLIPPING, TRIPPING AND STUMBLING "
U101000	"[X]FALL SAME LEVL FRM SLIP TRIP + STUMB, OCCURRENCE AT HOME "
U101100	"[X]FALL SAME LEVEL FROM SLIP TRIP + STUMB OCC RESID INSTIT"
U101200	"[X]FALL SME LEVL SLP TRP+STMB OCC SCH, OTH INST/PUB ADM AREA"
U101300	"[X]FALL SME LEVL FRM SLIP TRIP+STUMB, OCC SPORT/ATHLET AREA "
U101400	"[X]FALL SAME LEVEL FROM SLIP TRIP+STUMB, OCC STREET/HIGHWAY "
U101500	"[X]FALL SME LVL FRM SLIP TRIP+STUMB, OCC TRADE/SERVICE AREA "
U101600	"[X]FALL SAME LEVL, SLIP TRIP+STUMB OCC INDUST/CONSTRUCT AREA"
U101700	"[X]FALL SAME LEVEL FROM SLIP TRIP+STUMBLING, OCCUR ON FARM "
U101y00	"[X]FALL SAME LEVEL, SLIP TRIP+STUMB, OCC OTHER SPECIF PLACE "
U101z00	"[X]FALL SAME LEVL FRM SLIP TRIP+STUMBLING, OCC UNSPEC PLACE "
U102.00	"[X]FALL INVOLV ICE-SKATES SKIS ROLLER-SKATES OR SKATEBOARDS"
U102000	"[X]FALL INV ICE-SKATE SKIS ROLL-

	SKATE/SKATEBOARD, OCC HOME "
U102100	"[X]FALL INV ICE-SKAT SKI ROLL-SKAT/SKATEBOARD OCC RESID INST"
U102200	"[X]FALL, ICE-SKT SKI ROL-SKT/SKBD, SCH OTH INST/PUB ADM AREA"
U102300	"[X]FALL INV ICE-SKT SKI ROL-SKT/SKBRD OCC SPORT/ATHLET AREA"
U102400	"[X]FALL INV ICE-SKAT SKI ROLL-SKAT/SKBRD OCC STREET/HIGHWAY"
U102500	"[X]FALL INV ICE-SKT SKI ROL-SKT/SKBRD OCC TRADE/SERVCE AREA"
U102600	"[X]FALL INV ICE-SKT SKI ROL-SKT/SKBRD INDUST/CONSTRUCT AREA"
U102700	"[X]FALL INV ICE-SKAT SKI ROLL-SKAT/SKATEBRD, OCCUR ON FARM "
U102y00	"[X]FALL INV ICE-SKT SKI ROLL-SKT/SKBRD, OCC OTH SPEC PLACE "
U102z00	"[X]FALL INV ICE-SKAT SKI ROLL-SKAT/SKBRD OCC UNSPECIF PLACE"
U103.00	"[X]OTH FALL SAME LEVL DUE COLLISN/PUSHING BY ANOTHER PERSON"
U103000	"[X]OTH FALL SAME LEVL, COLLISN/PUSH BY ANOTH PERS, OCC HOME "
U103100	"[X]OTH FALL SAME LEVL COLLISN/PUSH ANOTH PERS OCC RESID INST"
U103200	"[X]OTH FALL LVL COL/PUSH ANOTH PER OCC SCH/INST/PUB ADM AREA"
U103300	"[X]OTH FALL SME LEVL COL/PUSH ANOTH PERS OCC SPORT/ATHL AREA"
U103400	"[X]OTH FALL SME LEVL COLL/PUSH ANOTH PERS OCC STREET/H'WAY"
U103500	"[X]OTH FALL SME LEVL COLL/PUSH ANTH PERS OCC TRAD/SERV AREA"
U103600	"[X]OTH FALL SME LVL COL/PUSH ANOTH PER OCC INDUS/CONSTR AREA"
U103700	"[X]OTH FALL SME LEVL, COLLISN/PUSH BY ANOTH

	PERS, OCC FARM "
U103y00	"[X]OTH FALL SME LEVL COLL/PUSH ANOTH PER OCC OTH SPEC PLACE"
U103z00	"[X]OTH FALL SAME LEVL COLL/PUSH ANOTH PERS OCC UNSPEC PLACE"
U104.00	"[X]FALL WHILE BEING CARRIED OR SUPPORTED BY OTHER PERSONS"
U104000	"[X]FALL WHILE CARRIED/SUPPORTED BY OTHER PERSONS, OCC HOME "
U104100	"[X]FALL WHLE CARRIED/SUPPORTED OTH PERSONS OCC RESID INSTIT"
U104200	"[X]FALL WHLE CRD/SPRTD OTH PER OCC SCH OTH INST/PUB ADM AREA"
U104300	"[X]FALL WHLE CARR'D/SUPPORTD OTH PERS OCC SPORT/ATHLET AREA"
U104400	"[X]FALL WHLE CARR'D/SUPPRTD BY OTH PERS OCC ON STREET/H'WAY"
U104500	"[X]FALL WHLE CARR'D/SUPPRTD BY OTH PER OCC TRADE/SERV AREA"
U104600	"[X]FALL WHLE CARR'D/SUPPRTD OTH PERS OCC INDUST/CONSTR AREA"
U104700	"[X]FALL WHLE CARR'D/SUPPORTD BY OTHER PERSONS, OCC ON FARM "
U104y00	"[X]FALL WHLE CARR'D/SUPPORTD OTH PER OCC OTHER SPECIF PLACE"
U104z00	"[X]FALL WHLE CARR'D/SUPPORTD BY OTH PER, OCC UNSPECIF PLACE "
U105.00	"[X]FALL INVOLVING WHEELCHAIR"
U105000	"[X]FALL INVOLVING WHEELCHAIR, OCCURRENCE AT HOME "
U105100	"[X]FALL INVOLVNG WHEELCHAIR OCCURRENCE RESIDENTIAL INSTIT'N"
U105200	"[X]FALL INVLV W'CHAIR OCC SCHOOL OTH INSTIT/PUB ADMIN AREA"
U105300	"[X]FALL INVOLVING WHEELCHAIR, OCCURRN AT SPORT/ATHLET AREA "

U105400	"[X]FALL INVOLVING WHEELCHAIR, OCCURRENCE ON STREET/HIGHWAY "
U105500	"[X]FALL INVOLVNG WHEELCHAIR OCCURRNCE AT TRADE/SERVICE AREA"
U105600	"[X]FALL INVOLV WHEELCHAIR, OCCURRNCE AT INDUST/CONSTR AREA "
U105700	"[X]FALL INVOLVING WHEELCHAIR, OCCURRENCE ON FARM "
U105y00	"[X]FALL INVOLV WHEELCHAIR, OCCURRNCE AT OTHER SPECIF PLACE "
U105z00	"[X]FALL INVOLVING WHEELCHAIR OCCURRNCE AT UNSPECIFIED PLACE"
U106.00	"[X]FALL INVOLVING BED"
U106000	"[X]FALL INVOLVING BED, OCCURRENCE AT HOME "
U106100	"[X]FALL INVOLVING BED OCCURRENCE IN RESIDENTIAL INSTITUTION"
U106200	"[X]FALL INVOLV BED OCCURRN SCHOOL OTH INSTIT/PUB ADMIN AREA"
U106300	"[X]FALL INVOLVING BED OCCURRENCE AT SPORTS / ATHLETICS AREA"
U106400	"[X]FALL INVOLVING BED, OCCURRENCE ON STREET AND HIGHWAY "
U106500	"[X]FALL INVOLVING BED, OCCURRENCE AT TRADE AND SERVICE AREA "
U106600	"[X]FALL INVOLV BED OCCURRN AT INDUSTRIAL/CONSTRUCTION AREA"
U106700	"[X]FALL INVOLVING BED, OCCURRENCE ON FARM "
U106y00	"[X]FALL INVOLVING BED, OCCURRENCE AT OTHER SPECIFIED PLACE "
U106z00	"[X]FALL INVOLVING BED, OCCURRENCE AT UNSPECIFIED PLACE "
U107.00	"[X]FALL INVOLVING CHAIR"
U107000	"[X]FALL INVOLVING CHAIR, OCCURRENCE AT HOME "

U107100	"[X]FALL INVOLVING CHAIR OCCURRENCE IN RESIDENTIAL INSTIT'N"
U107200	"[X]FALL INVLV CHAIR OCC AT SCHOOL OTH INSTIT/PUB ADMIN AREA"
U107300	"[X]FALL INVOLVING CHAIR OCCURRENCE AT SPORTS/ATHLETICS AREA"
U107400	"[X]FALL INVOLVING CHAIR, OCCURRENCE ON STREET AND HIGHWAY "
U107500	"[X]FALL INVOLV CHAIR, OCCURRENCE AT TRADE AND SERVICE AREA "
U107600	"[X]FALL INVOLVING CHAIR OCCURRENCE AT INDUST/CONSTRUCT AREA"
U107700	"[X]FALL INVOLVING CHAIR, OCCURRENCE ON FARM "
U107y00	"[X]FALL INVOLVING CHAIR OCCURRENCE AT OTHER SPECIFIED PLACE"
U107z00	"[X]FALL INVOLVING CHAIR, OCCURRENCE AT UNSPECIFIED PLACE "
U108.00	"[X]FALL INVOLVING OTHER FURNITURE"
U108000	"[X]FALL INVOLVING OTHER FURNITURE, OCCURRENCE AT HOME "
U108100	"[X]FALL INVOLV OTHER FURNITURE OCCURRN RESIDENT INSTITUT'N"
U108200	"[X]FALL INV OTH FURNITUR OCC SCHL OTH INSTIT/PUB ADMIN AREA"
U108300	"[X]FALL INVOLV OTH FURNITURE OCCURRNCE AT SPORT/ATHLET AREA"
U108400	"[X]FALL INVOLV OTHER FURNITURE OCCURRNCE ON STREET/HIGHWAY"
U108500	"[X]FALL INVOLV OTH FURNITURE OCCURRNCE AT TRADE/SERV AREA"
U108600	"[X]FALL INVOLV OTH FURNITRE OCCURRNCE AT INDUST/CONSTR AREA"
U108700	"[X]FALL INVOLVING OTHER FURNITURE, OCCURRENCE ON FARM "
U108y00	"[X]FALL INVOLV OTH FURNITUR OCCURRNCE AT

	OTHER SPECIF PLACE"
U108z00	"[X]FALL INVOLV OTH FURNITURE, OCCURRNCE AT UNSPECIF PLACE "
U109.00	"[X]FALL INVOLVING PLAYGROUND EQUIPMENT"
U109000	"[X]FALL INVOLVING PLAYGROUND EQUIPMENT, OCCURRENCE AT HOME "
U109100	"[X]FALL INVOLV PLAYGRND EQUIPM OCCURR IN RESIDENT INSTIT'N"
U109200	"[X]FALL INV PLAYGRND EQUIP OCC SCH OTH INST/PUB ADMIN AREA"
U109300	"[X]FALL INVOLV PLAYGRND EQUIPM OCCURRN AT SPORT/ATHLET AREA"
U109400	"[X]FALL INVOLV PLAYGRND EQUIPM OCCURRNCE ON STREET/HIGHWAY"
U109500	"[X]FALL INVOLV PLAYGRND EQUIPM OCCURRNCE TRADE/SERVICE AREA"
U109600	"[X]FALL INVOLV PLAYGRND EQUIPM OCCURRNCE INDUST/CONSTR AREA"
U109700	"[X]FALL INVOLVING PLAYGROUND EQUIPMENT, OCCURRENCE ON FARM "
U109y00	"[X]FALL INVOLV PLAYGRND EQUIP OCCURRNCE OTHER SPECIF PLACE"
U109z00	"[X]FALL INVOLV PLAYGRND EQUIPM OCCURRNCE AT UNSPECIF PLACE"
U10A.00	"[X]FALL ON AND FROM STAIRS AND STEPS"
U10A000	"[X]FALL ON AND FROM STAIRS AND STEPS, OCCURRENCE AT HOME "
U10A100	"[X]FALL ON + FROM STAIR + STEP OCCURRNCE RESIDENT INSTIT'N"
U10A200	"[X]FALL ON + FRM STAIR + STEP OCC SCH OTH INST/PUB ADM AREA"
U10A300	"[X]FALL ON + FROM STAIR + STEP OCCURRN AT SPORT/ATHLET AREA"
U10A400	"[X]FALL ON + FROM STAIRS + STEPS OCCURRN ON STREET/HIGHWAY"

U10A500	"[X]FALL ON + FROM STAIR + STEP OCCURRN AT TRADE/SERVCE AREA"
U10A511	"[X]FALL ON OR FROM ESCALATOR"
U10A600	"[X]FALL ON + FROM STAIR + STEP OCCURRNCE INDUST/CONSTR AREA"
U10A700	"[X]FALL ON AND FROM STAIRS AND STEPS, OCCURRENCE ON FARM "
U10Ay00	"[X]FALL ON + FROM STAIR + STEP OCCURRN AT OTH SPECIF PLACE"
U10Az00	"[X]FALL ON + FROM STAIR + STEP OCCURRNCE AT UNSPECIF PLACE"
U10B.00	"[X]FALL ON/FROM LADDER"
U10B000	"[X]FALL ON AND FROM LADDER, OCCURRENCE AT HOME "
U10B100	"[X]FALL ON + FROM LADDER OCCURRN IN RESIDENTIAL INSTITUTION"
U10B200	"[X]FALL ON + FROM LADDER, OCC SCH OTH INST/PUB ADMIN AREA "
U10B300	"[X]FALL ON + FROM LADDER OCCURRNCE AT SPORTS/ATHLETICS AREA"
U10B400	"[X]FALL ON AND FROM LADDER OCCURRENCE ON STREET AND HIGHWAY"
U10B500	"[X]FALL ON AND FROM LADDER OCCURRENCE AT TRADE/SERVICE AREA"
U10B600	"[X]FALL ON + FROM LADDER OCCURRN AT INDUSTR/CONSTRUCTN AREA"
U10B700	"[X]FALL ON AND FROM LADDER, OCCURRENCE ON FARM "
U10By00	"[X]FALL ON+FROM LADDER, OCCURRENCE AT OTHER SPECIFIED PLACE "
U10Bz00	"[X]FALL ON AND FROM LADDER, OCCURRENCE AT UNSPECIFIED PLACE "
U10C.00	"[X]FALL ON AND FROM SCAFFOLDING"
U10C000	"[X]FALL ON AND FROM SCAFFOLDING, OCCURRENCE AT HOME "

U10C100	"[X]FALL ON+FROM SCAFFOLD OCCURRN IN RESIDENTIAL INSTITUTION"
U10C200	"[X]FALL ON + FROM SCAFFOLD OCC SCH, OTH INST/PUB ADMIN AREA "
U10C300	"[X]FALL ON+FROM SCAFFOLD OCCURRNCE AT SPORTS/ATHLETICS AREA"
U10C400	"[X]FALL ON + FROM SCAFFOLDING, OCCURRENCE ON STREET/HIGHWAY "
U10C500	"[X]FALL ON + FROM SCAFFOLD OCCURRENCE AT TRADE/SERVICE AREA"
U10C600	"[X]FALL ON+FROM SCAFFOLD OCCURRN AT INDUSTR/CONSTRUCTN AREA"
U10C700	"[X]FALL ON AND FROM SCAFFOLDING, OCCURRENCE ON FARM "
U10Cy00	"[X]FALL ON+FROM SCAFFOLD OCCURRNCE AT OTHER SPECIFIED PLACE"
U10Cz00	"[X]FALL ON + FROM SCAFFOLD, OCCURRENCE AT UNSPECIFIED PLACE "
U10D.00	"[X]FALL FROM, OUT OF OR THROUGH BUILDING OR STRUCTURE "
U10D000	"[X]FALL FROM OUT OF/THROUGH BUILDING/STRUCTUR OCCURN HOME"
U10D100	"[X]FALL FROM OUT OF/THRO BUILDNG/STRUCT OCC RESID INSTIT'N"
U10D200	"[X]FALL FRM OUT/THR BLDNG/STRCT OCC SCH OTH INS/PUB ADM AREA"
U10D300	"[X]FALL FRM OUT/THRO BLDNG/STRUCT OCC AT SPORT/ATHLET AREA"
U10D400	"[X]FALL FROM OUT/THRO BUILDNG/STRUCT OCC ON STREET/HIGHWAY"
U10D500	"[X]FALL FROM OUT/THRO BUILDNG/STRUCT OCC AT TRADE/SERV AREA"
U10D600	"[X]FALL FROM OUT/THRO BUILDNG/STRUCT OCC INDUST/CONSTR AREA"
U10D700	"[X]FALL FROM OUT OF/THROUGH BUILDING/STRUCTUR OCCURNCE FARM"

U10Dy00	"[X]FALL FROM OUT/THRO BUILDNG/STRUCT OCC OTHER SPECIF PLACE"
U10Dz00	"[X]FALL FROM OUT/THRO BUILDNG/STRUCT OCCURRN UNSPECIF PLACE"
U10E.00	"[X]FALL FROM TREE"
U10E000	"[X]FALL FROM TREE, OCCURRENCE AT HOME "
U10E100	"[X]FALL FROM TREE, OCCURRENCE IN RESIDENTIAL INSTITUTION "
U10E200	"[X]FALL FROM TREE OCCURRN SCHOOL OTH INSTIT/PUB ADMIN AREA"
U10E300	"[X]FALL FROM TREE, OCCURRENCE AT SPORTS AND ATHLETICS AREA "
U10E400	"[X]FALL FROM TREE, OCCURRENCE ON STREET AND HIGHWAY "
U10E500	"[X]FALL FROM TREE, OCCURRENCE AT TRADE AND SERVICE AREA "
U10E600	"[X]FALL FROM TREE OCCURRNCE AT INDUSTRIAL/CONSTRUCTION AREA"
U10E700	"[X]FALL FROM TREE, OCCURRENCE ON FARM "
U10Ey00	"[X]FALL FROM TREE, OCCURRENCE AT OTHER SPECIFIED PLACE "
U10Ez00	"[X]FALL FROM TREE, OCCURRENCE AT UNSPECIFIED PLACE "
U10F.00	"[X]FALL FROM CLIFF"
U10F000	"[X]FALL FROM CLIFF, OCCURRENCE AT HOME "
U10F100	"[X]FALL FROM CLIFF, OCCURRENCE IN RESIDENTIAL INSTITUTION "
U10F200	"[X]FALL FROM CLIFF OCCURRN SCHOOL OTH INSTIT/PUB ADMIN AREA"
U10F300	"[X]FALL FROM CLIFF, OCCURRENCE AT SPORTS AND ATHLETICS AREA "
U10F400	"[X]FALL FROM CLIFF, OCCURRENCE ON STREET AND HIGHWAY "

U10F500	"[X]FALL FROM CLIFF, OCCURRENCE AT TRADE AND SERVICE AREA "
U10F600	"[X]FALL FROM CLIFF OCCURRN AT INDUSTRIAL/CONSTRUCTION AREA"
U10F700	"[X]FALL FROM CLIFF, OCCURRENCE ON FARM "
U10Fy00	"[X]FALL FROM CLIFF, OCCURRENCE AT OTHER SPECIFIED PLACE "
U10Fz00	"[X]FALL FROM CLIFF, OCCURRENCE AT UNSPECIFIED PLACE "
U10H.00	"[X]OTHER FALL FROM ONE LEVEL TO ANOTHER"
U10H000	"[X]OTHER FALL FROM ONE LEVEL TO ANOTHER, OCCURRENCE AT HOME "
U10H100	"[X]OTHR FALL FRM ONE LEVEL TO ANOTHR OCCURRN IN RESID INST"
U10H200	"[X]OTHR FALL FRM ONE LEVEL TO ANOTHR, SCH INST/PUB ADM AREA "
U10H300	"[X]OTHR FALL FROM ONE LEVEL TO ANOTHR OCC SPORT/ATHLET AREA"
U10H400	"[X]OTHR FALL FROM ONE LEVEL TO ANOTHR OCCURRN STREET/H'WAY"
U10H500	"[X]OTHER FALL FRM ONE LEVEL TO ANOTHR OCC AT TRDE/SERV AREA"
U10H600	"[X]OTHER FALL FRM ONE LEVEL TO ANOTH OCC INDUST/CONSTR AREA"
U10H700	"[X]OTHER FALL FROM ONE LEVEL TO ANOTHER, OCCURRENCE ON FARM "
U10Hy00	"[X]OTHER FALL FRM ONE LEVL TO ANOTHR OCC AT OTH SPECIF PLCE"
U10Hz00	"[X]OTHR FALL FRM ONE LEVEL TO ANOTHR OCCURRN AT UNSPEC PLCE"
U10J.00	"[X]OTHER FALL ON SAME LEVEL"
U10J000	"[X]OTHER FALL ON SAME LEVEL, OCCURRENCE AT HOME "
U10J100	"[X]OTHER FALL ON SAME LEVEL, OCCURRNCE IN RESIDENT INSTIT'N "

U10J200	"[X]OTHER FALL ON SAME LEVL OCC SCHL OTH INST/PUB ADMIN AREA"
U10J300	"[X]OTHER FALL ON SAME LEVEL OCCURRN AT SPORTS/ATHLETIC AREA"
U10J400	"[X]OTHER FALL ON SAME LEVEL, OCCURRENCE ON STREET / HIGHWAY "
U10J500	"[X]OTHER FALL ON SAME LEVEL OCCURRNCE AT TRADE/SERVICE AREA"
U10J600	"[X]OTHER FALL ON SAME LEVL, OCCURRN AT INDUST/CONSTUCT AREA "
U10J700	"[X]OTHER FALL ON SAME LEVEL, OCCURRENCE ON FARM "
U10Jy00	"[X]OTHER FALL ON SAME LEVEL OCCURRN AT OTH SPECIFIED PLACE"
U10Jz00	"[X]OTHER FALL ON SAME LEVEL OCCURRENCE AT UNSPECIFIED PLACE"
U10z.00	"[X]UNSPECIFIED FALL"
U10z000	"[X]UNSPECIFIED FALL, OCCURRENCE AT HOME "
U10z100	"[X]UNSPECIFIED FALL, OCCURRENCE IN RESIDENTIAL INSTITUTION "
U10z200	"[X]UNSPECIF FALL OCCURRNCE SCHOOL OTH INSTIT/PUB ADMIN AREA"
U10z300	"[X]UNSPECIFIED FALL, OCCURRENCE AT SPORTS / ATHLETICS AREA "
U10z400	"[X]UNSPECIFIED FALL, OCCURRENCE ON STREET AND HIGHWAY "
U10z500	"[X]UNSPECIFIED FALL, OCCURRENCE AT TRADE AND SERVICE AREA "
U10z600	"[X]UNSPECIFIED FALL OCCURRN AT INDUSTRIAL/CONSTRUCTION AREA"
U10z700	"[X]UNSPECIFIED FALL, OCCURRENCE ON FARM "
U10zy00	"[X]UNSPECIFIED FALL, OCCURRENCE AT OTHER SPECIFIED PLACE "
U10zz00	"[X]UNSPECIFIED FALL, OCCURRENCE AT

	UNSPECIFIED PLACE "
U110.00	"[X]STRUCK BY THROWN PROJECTED OR FALLING OBJECT"
U110000	"[X]STRUCK BY THROWN PROJECTD/FALLING OBJECT OCCURRN AT HOME"
U110100	"[X]STRUCK BY THROWN PROJECTD/FALLING OBJ OCCURRN RESID INST"
U110200	"[X]STRCK BY THR PROJ/FALLNG OBJ OCC SCH OTH INS/PUB ADM AREA"
U110300	"[X]STRCK BY THRWN PROJ/FALLNG OBJ OCC SPORT/ATHLETICS AREA"
U110400	"[X]STRUCK BY THRWN PROJECTD/FALLNG OBJ OCCURRN STREET/H'WAY"
U110500	"[X]STRCK BY THRWN PROJECTD/FALLNG OBJ OCC TRADE/SERVCE AREA"
U110600	"[X]STRCK BY THRWN PROJECTD/FALLNG OBJ OCC INDUST/CONSTR AREA"
U110700	"[X]STRUCK BY THROWN PROJECTD/FALLING OBJECT OCCURRN ON FARM"
U110y00	"[X]STRUCK BY THRWN PROJECTD/FALLNG OBJ OCC OTH SPECIF PLACE"
U110z00	"[X]STRUCK BY THRWN PROJECTD/FALLNG OBJ OCC UNSPECIF PLACE"
U131.00	"[X]DROWNING AND SUBMERSION FOLLOWING FALL INTO BATH-TUB"
U131000	"[X]DROWNING+SUBMERSN FOLLOW FALL INTO BATH-TUB OCC AT HOME"
U131100	"[X]DROWNG+SUBMERSN FOLL FALL INTO BATH-TUB OCC RESID INSTIT"
U131200	"[X]DROWN+SUBM FOLL FALL INTO BATH-TUB SCH INS/PUB ADM AREA"
U131300	"[X]DROWN+SUBM FOLL FALL INTO BATH-TUB OCC SPORT/ATHLET AREA"
U131400	"[X]DROWNG+SUBMERSN FOLL FALL INTO BATH-TUB OCC STREET/H'WAY"
U131500	"[X]DROWN+SUBM FOLL FALL INTO BATH-TUB OCC

	TRADE/SERVCE AREA"
U131600	"[X]DROWN+SUBM FOLL FALL INTO BTH-TUB OCC INDUST/CONSTR AREA"
U131700	"[X]DROWNING+SUBMERSN FOLLOW FALL INTO BATH-TUB OCC ON FARM"
U131y00	"[X]DROWN+SUBM FOLL FALL INTO BATH-TUB OCC OTH SPECIF PLACE"
U131z00	"[X]DROWN+SUBM FOLL FALL INTO BATH-TUB OCC AT UNSPECIF PLACE"
U133.00	"[X]DROWNING + SUBMERSION FOLLOWING FALL INTO SWIMMING-POOL"
U133000	"[X]DROWNING+SUBMER FOLLOW FALL INTO SWIM-POOL OCCURRN HOME"
U133100	"[X]DROWN+SUBMERSN FOLL FALL INTO SWIM-POOL OCC RESID INSTIT"
U133200	"[X]DROWN+SUBM FOLL FALL INTO SWIM-POOL SCH INS/PUB ADM AREA"
U133300	"[X]DROWN+SUBM FOLL FALL INTO SWIM-POOL OCC SPORT AREA"
U133400	"[X]DROWN+SUBMERSN FOLL FALL INTO SWIM-POOL OCC STREET/H'WAY"
U133500	"[X]DROWN+SUBM FOLL FALL INTO SWIM-POOL OCC TRADE/SERV AREA"
U133600	"[X]DROWN+SUB FOLL FALL INTO SWIM-POOL OCC INDUST/CONSTR AREA"
U133700	"[X]DROWNING+SUBMER FOLLOW FALL INTO SWIM-POOL OCCURRN FARM"
U133y00	"[X]DROWN+SUBM FOLL FALL INTO SWIM-POOL OCC OTH SPECIF PLACE"
U133z00	"[X]DROWN+SUBM FOLL FALL INTO SWIM-POOL OCC UNSPECIF PLACE"
U135.00	"[X]DROWNING + SUBMERSION FOLLOWING FALL INTO NATURAL WATER"
U135000	"[X]DROWNG+SUBMERSN FOLLOW FALL INTO NATURAL WATER OCC HOME"
U135100	"[X]DROWN+SUBMR FOLL FALL INTO NATURL

	WATER OCC RESID INSTIT"
U135200	"[X]DROWN+SUBM FOLL FALL INTO NATRL WATR SCH INS/PUB ADM AREA"
U135300	"[X]DROWN+SUBM FOLL FALL INTO NATRL WATR OCC SPORT/ATHL AREA"
U135400	"[X]DROWN+SUBMR FOLL FALL INTO NATURL WATER OCC STREET/H'WAY"
U135500	"[X]DROWN+SUB FOLL FALL INTO NATURL WATR OCC TRADE/SERV AREA"
U135600	"[X]DRWN+SUB FOLL FALL INTO NATRL WATR OCC INDUST/CONSTR AREA"
U135700	"[X]DROWNG+SUBMERSN FOLLOW FALL INTO NATURAL WATER OCC FARM"
U135y00	"[X]DROWN+SUB FOLL FALL INTO NATURL WATR OCC OTH SPECIF PLACE"
U135z00	"[X]DROWN+SUBM FOLL FALL INTO NATURL WATR OCC UNSPECIF PLACE"
U4B..00	"[X]FALLING JUMPING/PUSHED FROM HIGH PLACE UNDETERM INTENT"
U4B0.00	"[X]FALLNG JUMPNG/PUSH FRM HIGH PLACE UNDET INTENT OCC HOME"
U4B1.00	"[X]FALL JUMP/PUSH FRM HIGH PLACE UNDET INTENT OCC RESID INST"
U4B2.00	"[X]FALL JUMP/PUSH HIGH PLCE UNDET INTNT SCH/INS/PUB ADM AREA"
U4B3.00	"[X]FALL JUMP/PUSH FRM HIGH PLCE UNDT INTNT SPORT/ATHLET AREA"
U4B4.00	"[X]FALL JUMP/PUSH FRM HIGH PLACE UNDT INTNT OCC STREET/H'WAY"
U4B5.00	"[X]FALL JUMP/PUSH FRM HIGH PLCE UNDT INTNT TRADE/SERVCE AREA"
U4B6.00	"[X]FALL JUMP/PUSH FRM HIGH PLCE UNDT INTN INDUST/CONSTR AREA"
U4B7.00	"[X]FALLNG JUMPNG/PUSH FRM HIGH PLACE UNDET INTENT OCC FARM"
U4By.00	"[X]FALL JUMP/PUSH FRM HIGH PLCE UNDT INTNT

	OCC OTH SPEC PLCE"
U4Bz.00	"[X]FALL JUMP/PUSH FRM HIGH PLCE UNDT INTNT OCC UNSPECIF PLCE"
U4C..00	"[X]FALLING LYING RUNNING BEFOR/INTO MOVING OBJ UNDET INTENT"
U4C0.00	"[X]FALLNG LYNG RUN BEFR/INTO MOV OBJ UNDET INTENT OCC HOME"
U4C1.00	"[X]FALL LY RUN BEFR/INTO MOV OBJ UNDET INTENT RESID INSTIT'N"
U4C2.00	"[X]FALL LY RUN BEF/INTO MOV OBJ UND INT SCH/INS/PUB ADM AREA"
U4C3.00	"[X]FALL LY RUN BEFR/INTO MOV OBJ UNDET INTENT SPRT/ATHL AREA"
U4C4.00	"[X]FALL LY RUN BEFR/INTO MOV OBJ UNDET INTENT STREET/HIGHWAY"
U4C5.00	"[X]FALL LY RUN BEFR/INTO MOV OBJ UNDET INTENT TRAD/SERV AREA"
U4C6.00	"[X]FALL LY RUN BEFR/INTO MOV OBJ UNDET INTENT INDUSTR AREA"
U4C7.00	"[X]FALLNG LYNG RUN BEFR/INTO MOV OBJ UNDET INTENT OCC FARM"
U4Cy.00	"[X]FALL LY RUN BEFR/INTO MOV OBJ UNDET INTENT OTH SPEC PLACE"
U4Cz.00	"[X]FALL LY RUN BEFR/INTO MOV OBJ UNDET INTENT UNSPECIF PLACE"