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Australian Institute of Health and Welfare

# A potentially preventable hospitalisation indicator for general practice

## **Consultation paper: Appendixes A–I**

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## Abbreviations

AIHW	Australian Institute of Health and Welfare
CIHI	Canadian Institute for Health Information
COPD	chronic obstructive pulmonary disease
HiB	Haemophilus influenzae B
HQSCNZ	Health Quality and Safety Commission New Zealand
ICD-10-AM	International statistical classification of diseases and related health problems (10th revision, Australian modification)
NHA	National Healthcare Agreement
NIP	National Immunisation Program
NHS	National Health Service
PPH	potentially preventable hospitalisation

# **Symbols**

- n.a. not available
- n.p.. not publishable because of small numbers, confidentiality or other concerns about the quality of the data

# Summary

The material in the following appendixes should be read in combination with the associated consultation paper (*A potentially preventable hospitalisation indicator for general practice: consultation paper*) and other supplementary material (including interactive data visualisations) available at <a href="https://www.aihw.gov.au/reports/hospitals/development-hospitalisation-indicator-gp/">https://www.aihw.gov.au/reports/hospitals/development-hospitalisation-indicator-gp/</a>.

## Appendix A: International use of potentially preventable hospitalisation indicators

The concept of using rates of potentially preventable hospitalisation (PPHs) as performance indicators developed out of research in the United States of America in the late 1980s, to identify areas where improvements could be made to the health system. Later work examined the relationship between PPHs and access to primary health care. The use of PPH indicators to monitor the performance of primary health care systems began to be used widely internationally. Research that is more recent suggests the relationship between primary health care and PPHs varies and is complex. Potentially preventable hospitalisations are used in New Zealand, Canada, the United Kingdom and the United States of America (Falster & Jorm 2017).

There are differences between countries in the types of conditions included in their PPH indicators. Some differences arise from technical issues while others are due to varying priorities, such as, a focus on specific diseases. The indicators used in New Zealand, the United Kingdom, and Canada are detailed below. Comparisons with the United States are not included due to differences in health service delivery, and therefore poor comparability with the Australian health system.

## New Zealand

Ambulatory sensitive hospitalisations are mostly acute hospitalisations that are considered potentially reducible through prophylactic or therapeutic interventions deliverable in a primary care setting (Jackson & Tobias 2001).

### Ambulatory sensitive hospitalisations in adults (15–74 years)

Those aged 15–74 who had an acute or arranged hospitalisation type with the exception of dental, where elective hospitalisations are included. Conditions include:

- angina and chest pain
- asthma
- cellulitis
- cervical cancer
- congestive heart failure
- constipation
- dental conditions
- dermatitis and eczema
- diabetes
- epilepsy
- gastroenteritis/dehydration
- gastro-oesophageal reflux disease
- hypertensive disease
- kidney/urinary infection

- myocardial infarction
- nutrition deficiency and anaemia
- other ischaemic heart disease
- peptic ulcer
- respiratory infections
- pneumonia
- rheumatic fever/heart disease
- sexually transmitted Infections
- stroke
- upper respiratory tract and ENT (ears, nose and throat) infections (HQSCNZ 2016a).

# Ambulatory sensitive hospitalisations in children aged 29 days to 14 years

Those aged 29 days to 14 years who had an acute or arranged hospitalisation type with the exception of dental, where elective hospitalisations are included. Conditions include:

- asthma
- bronchiectasis
- cellulitis
- constipation
- dental conditions
- dermatitis and eczema
- gastroenteritis/dehydration
- gastro-oesophageal reflux disease)
- kidney/urinary infection
- nutrition deficiency and anaemia
- respiratory infections pneumonia
- rheumatic fever/Heart disease
- upper respiratory tract and ear, nose and throat infections
- vaccine-preventable disease meningitis, whooping cough, hepatitis B, pneumococcal disease, measles, mumps, rubella (HQSCNZ 2016b).

## Canada

The Canadian Institute for Health Information (CIHI) reports 'age-standardized acute care hospitalization rates for conditions where appropriate ambulatory care prevents or reduces the need for hospitalisation to hospital, per 100,000 population younger than age 75'. The conditions include:

- grand mal status and other epileptic convulsions
- chronic obstructive pulmonary disease
- asthma
- diabetes

- heart failure and pulmonary oedema
- hypertension
- angina (excluding cases with cardiac procedures).

CIHI state that:

'hospitalization for an ambulatory care sensitive condition is considered to be a measure of access to appropriate primary health care. While not all hospitalisations for these conditions are avoidable, it is assumed that appropriate ambulatory care could prevent the onset of this type of illness or condition, control an acute episodic illness or condition, or manage a chronic disease or condition. A disproportionately high rate is presumed to reflect problems in obtaining access to appropriate primary care' (CIHI 2017).

## **United Kingdom**

The National Health Service (NHS) Outcomes Framework (England) includes reporting on:

- unplanned hospitalisation for chronic ambulatory care sensitive conditions (adults)
- unplanned hospitalisation for asthma, diabetes and epilepsy in under 19s
- emergency hospitalisations for acute conditions that should not usually require hospital hospitalisation (DHSC 2010).

In the NHS, where access to care is not linked to the ability to pay, ambulatory care sensitive conditions hospitalisation rates are interpreted as measures of performance in primary and community care (Blunt 2013).

## Appendix B: General practice focused potentially preventable hospitalisation specification

The specification developed through this review and evaluation process has aimed to maintain a strong focus on general practice activity and its relationship with potentially preventable hospitalisations. Through this, overlap between conditions has also been rectified so that clearer understanding about the underlying risk factors may be better evaluated. An example of this is the separate reporting of respiratory infections or complications with, and without, underlying chronic respiratory disease.

This increased detail in reporting of conditions, especially in chronic conditions, may assist in education and training as well as provide better information for performance evaluation.

**Bold** text indicates that the code proposed is new—that is, it is not included in the current National Healthcare Agreement PPH indicator specification <a href="http://meteor.aihw.gov.au/content/index.phtml/itemId/658499">http://meteor.aihw.gov.au/content/index.phtml/itemId/658499</a>>.

- Reporting at a national level is supported for each condition category. State or smaller jurisdiction reporting may require further aggregation into the shaded summary categories.
- At this stage, age-standardised rates will be presented for hospitalisations involving patients aged 0–74 (the main indicator) and 0–84.
  - Reporting of data for 0–74 years will support international comparisons where there is consistency in specifications.
  - Rates for 0–84 years will need to be interpreted with caution due to the increased complexity and likelihood of comorbidity among patients aged 75 and over.
     Depending on the results of analysis, reporting of data for all ages may also occur.

The following exclusions apply:

- Same day admissions
- Admissions involving specific procedures, where appropriate
- Non-acute and sub-acute care types (rehabilitation care, palliative care, geriatric evaluation and management, psychogeriatric care, maintenance care); Newborn care; and care other than admitted care (organ procurement – posthumous, hospital boarders)
- Hospital-in-the-home
- Contiguous hospitalisations; that is, hospitalisations for a new care type, such as rehabilitation, which follow the original hospitalisation, or hospital transfers, on the basis that the original hospitalisation would be included.

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale	
Vaccine-preventable –	bacterial disease			
Pertussis, and total DTAP (diphtheria, tetanus, and pertussis)	A37 Whooping cough	As principal diagnosis Exclude where Chronic Obstructive Pulmonary Disease (COPD) is recorded as an additional diagnosis (J41 Simple and mucopurulent chronic bronchitis, J42 Unspecified chronic bronchitis, J43 Emphysema, J44 Other chronic obstructive pulmonary disease); or Asthma (J45); or Bronchiectasis (J47)	Vaccine included on National Immunisation Program (NIP) Schedule. Infants and children able to access free vaccination—recommended booster sho are available at cost.	
	A33 Tetanus neonatorum	As principal diagnosis	Vaccine included on NIP Schedule.	
	A34 Obstetrical tetanus A35 Other tetanus		Infants and children able to access free vaccination—recommended booster shots are available at cost.	
	A36 Diphtheria	As principal diagnosis	Vaccine included on NIP Schedule.	
			Infants and children are able to access free vaccination—recommended booster shots are available at cost.	
			Cutaneous diphtheria is endemic in Pacific regions and may not be preventable through vaccination. However, the condition was kept as an inclusion for completeness.	
Haemophilus infection and complication	G00.0 <i>Haemophilus</i> meningitis	As principal diagnosis	Vaccine for <i>Haemophilus influenzae</i> B (HiB) included on NIP Schedule.	
Meningococcal infection and complication	A39 Meningococcal infection	As principal diagnosis	The serogroup C vaccine has been provided under the NIP Schedule in conjunction with HiB since July 2013, and had previously been on the National Immunisation Program Schedule since 2003. This vaccine will be replaced by the quadrivalent meningococcal conjugate vaccines (ACYW sero groups) in July 2018 (Department of Health 2017).	
			Note: the quadrivalent has been available to year 10 and 11 students in some states in 2017 and 2018 in July.	
			Serogroup B vaccine is recommended for adolescents but is not funded under NIP.	
			For adults, vaccination using quadrivalent meningococcal conjugate vaccines is only available for at-risk individuals (i.e. those with chronic illnesses) and travellers to at risk regions and is not funded under the NIP schedule.	

### Table B.1: Vaccine-preventable conditions

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
Streptococcal infection and complication	A40.3 Sepsis due to Streptococcus pneumoniae G00.1 Pneumococcal meningitis G00.2 Streptococcal meningitis J13 Pneumonia due to Streptococcus pneumoniae	As principal diagnosis Exclude where COPD is recorded as an additional diagnosis (J41 Simple and mucopurulent chronic bronchitis, J42 Unspecified chronic bronchitis, J43 Emphysema, J44 Other chronic obstructive pulmonary disease) or Bronchiectasis (J47) or Asthma (J45)	Vaccine included on NIP Schedule.
Bacterial meningitis	A39.0 Meningococcal meningitis G00.0 Haemophilus meningitis G00.1 Pneumococcal meningitis G00.2 Streptococcal meningitis	As principal diagnosis	Vaccine included on NIP Schedule.
Bacterial pneumonia	J13 Pneumonia due to Streptococcus pneumoniae	As principal diagnosis Exclude where COPD is recorded as an additional diagnosis (J41 Simple and mucopurulent chronic bronchitis, J42 Unspecified chronic bronchitis, J43 Emphysema, J44 Other chronic obstructive pulmonary disease) or Bronchiectasis (J47) or Asthma (J45)	Vaccine included on NIP Schedule.
Vaccine-preventable –	viral disease		
Influenza	J10 Influenza due to other identified influenza virus J11 Influenza, virus not identified	As principal diagnosis Exclude where COPD is recorded as an additional diagnosis (J41 Simple and mucopurulent chronic bronchitis, J42 Unspecified chronic bronchitis, J43 Emphysema, J44 Other chronic obstructive pulmonary disease) or Bronchiectasis (J47) or Asthma (J45)	The NIP Schedule includes the vaccine for influenza for people with medical risk factors, Indigenous people of all ages, those aged 65+ and pregnant women. However, many public sector and medical care facilities provide vaccination free of charge for employees. General practice also plays an important role in the treatment and management of influenza. Hospitalisations with COPD as an additional diagnosis have been excluded from this section as the efficacy of the influenza vaccination in this population is unclear. Hospitalisations due to influenza in COPD patients are captured in the PPH- category: Chronic respiratory conditions (Chronic conditions), see below.

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
Hepatitis A	B15 Acute hepatitis A	As principal diagnosis	The hepatitis A vaccination is provided to Indigenous children in high risk areas in Queensland, the Northern Territory, Western Australia and South Australia for free, under the NIP Schedule.
			Vaccination is also available at a cost to travellers to areas with high rates of hepatitis A, individuals with chronic liver disease, liver transplant recipients or individuals at increased risk of exposure to bodily fluids.
			Some states and territories (e.g. Victoria) have introduced free hepatitis A vaccination for men who have sex with men and, all people who have injected drugs in the past 12 months.
Hepatitis B	B16 Acute hepatitis B	As principal diagnosis	Vaccine included on NIP Schedule and, antivirals available through PBS to manage chronic hepatitis B.
Rotavirus	A08.0 .0 Rotaviral enteritis	As principal diagnosis	Vaccines included on NIP Schedule.
Varicella	B01 Varicella – chickenpox B02 Zoster [herpes zoster]	As principal diagnosis	Vaccines included on NIP Schedule. Herpes Zoster booster has been available for free for adults aged 70+ from 1 November 2016.
Measles, mumps, and rubella (MMR) and acute poliomyelitis	B05 Measles B26 Mumps B06 Rubella [German measles] A80 Acute poliomyelitis	As principal diagnosis	Vaccines included on NIP Schedule.
Vaccine-preventable -	- Cancer and pre-cancer manag	gement	
Vaccine-preventable sexually transmitted pre-cancerous lesions	A63.0 Anogenital (venereal) warts	As principal diagnosis	An anogenital wart is a common superficial skin lesion in the anogenital area that is caused by human papillomavirus (HPV).
due to HPV			In Australia, a school-based National HPV Vaccination Program has been implemented since 2007. Fully vaccinated children were protected against 4 strains (2007–2017) and 9 strains (from 2018).
			HPV vaccine has been found to be approximately 97%–100% effective at preventing HPV in women, and 85% in males (Giuliano et al. 2011). From 1 December 2017, women aged 25–74 are also offered Cervical Screening tests which look for HPV infection.
			An age restriction could theoretically be applied for this category, <i>Cancer and</i> <i>pre-cancer management</i> (as the vaccination has only been available for younger women). However, it can be argued that hospitalisations for these conditions involving older women could also be potentially preventable through involvement in regular pap smear testing (prior to 2018).

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
Vaccine-preventable pre-cancers due to	N87 Dysplasia of cervix uteri	As principal diagnosis	Cervical dysplasia is a condition in which healthy cells on the cervix undergo some
HPV	N88.0 Leukoplakia of cervix uteri		abnormal changes. HPV causes cervical dysplasia.
			See above also.
	N89.0 Mild vaginal dysplasia	As principal diagnosis	Vaginal dysplasia is a condition in which healthy cells on the vagina undergo some
	N89.1 Moderate vaginal dysplasia		abnormal changes. HPV causes vaginal dysplasia.
	N89.2 Severe vaginal		See rationale for anogenital warts above also.
	dysplasia, not elsewhere classified		aisu.
	N89.3 Dysplasia of vagina, unspecified		
	N89.4 Leukoplakia of vagina		
	N90.0 Mild vulvar dysplasia	As principal diagnosis	Vulvar dysplasia is a condition in which
	N90.1 Moderate vulvar dysplasia		healthy cells on the vulva undergo some abnormal changes. HPV causes vulvar dysplasia.
	N90.2 Severe vulvar dysplasia, not elsewhere classified		See rationale for anogenital warts above also.
	N90.3 Dysplasia of vulva, unspecified		
	N90.4 Leukoplakia of vulva		
Vaccine-preventable perineal cancer due to HPV	C53 Malignant neoplasm of cervix uteri	As principal diagnosis	HPV vaccine has been found to be approximately 90% effective at preventing persistent HPV and cervical pre-cancerous lesions due to HPV (Paavonen et al. 2007).
	C60.0 Malignant neoplasm of penis	As principal diagnosis	Several studied have found that between 30%–42% of cancers of the penis contained HPV DNA (Parkin & Bray 2006).
	C21 Malignant neoplasm of anus	As principal diagnosis	A Scandinavian study by Frish et al. found that 95% and 93% of cancers, in women and men respectively, were positive for cancer-causing HPV (Parkin & Bray 2006).
Vaccine-preventable oropharyngeal cancer due to HPV	C01 Malignant neoplasm of base of tongue C05.1 Soft palate	As principal diagnosis	HPV accounts for 35.6% of oropharyngeal cancers, with 87% of these due to 1 vaccine-preventable strain (HPV16). (Parkin & Bray 2006).
	C05.2 Uvula C09 Malignant neoplasm		Vaccination could potentially prevent some cancers due to HPV.
	of tonsil		General practice teams also have a role in
	C10 Malignant neoplasm of oropharynx		reducing other patient factors that increase the risk of throat cancer, such as, tobacco and alcohol consumption (Ajila et al. 2015).

(a) Additional requirements for the reporting definition, such as whether the condition must be a principal diagnosis, any other diagnoses or procedures which must also be present or excluded, or personal characteristics such as sex or age restrictions.

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
Skin infections			
Cutaneous abscess	L02 Cutaneous abscess, furuncle and carbuncle	As principal diagnosis	General practice team management of skin infections (generally through drainage and use of antibiotics) and wound management can potentially prevent the need for hospitalisation.
Impetigo	L00 Staphylococcal scalded skin syndrome L01 Impetigo	As principal diagnosis	General practice teams can usually manage Impetigo through antibiotics, and good hygiene can potentially prevent the need for hospitalisation.
Cellulitis	<b>I89.1 Lymphangitis</b> L03 Cellulitis <b>A46 Erysipelas</b>	As principal diagnosis Excludes additional diagnosis of diabetic ulcers: E10.69, E10.73, E11.69, E11.73, E13.69, E13.73, E14.69, E14.73	Diabetic ulcers are excluded here as they are included in the category (Diabetes complications) under Chronic conditions.
Lymphadenitis	<b>I88 Nonspecific Iymphadenitis</b> L04 Acute lymphadenitis	As principal diagnosis Excludes additional diagnosis of diabetic ulcers: E10.69, E10.73, E11.69, E11.73, E13.69, E13.73, E14.69, E14.73	Diabetic ulcers are excluded here as they are included in the category (Diabetes complications) under Chronic conditions.
Upper respiratory tract in	nfections		
Pharyngeal abscess	J36 Peritonsillar abscess J39.0 Retropharyngeal and parapharyngeal abscess J39.1 Other abscess of pharynx	As principal diagnosis Exclude cases with following procedures: 309 Myringotomy 412 Tonsillectomy or adenoidectomy 312 (whole block) Excision procedures on eardrum or middle ear 313 Myringoplasty 323 Mastoidectomy 305 Reconstruction procedures on external ear	These abscesses usually begin as a complication of untreated strep throat or tonsillitis. General practice team management of tonsillitis (through hydration, control of pain and fever, and antibiotics (where infection is bacterial) can potentially prevent the need for hospitalisation. Hospitalisations with selected procedures are excluded on the basis that the listed procedures are considered clinically appropriate when alternative first-line treatment have been unsuccessful.
Scarlet fever	A38 Scarlet fever	As principal diagnosis Exclude cases with following procedures: 309 Myringotomy 412 Tonsillectomy or adenoidectomy 312 Excision procedures on eardrum or middle ear 313 Myringoplasty 323 Mastoidectomy 305 Reconstruction procedures on external ear	General practice team treatment with antibiotics can potentially prevent the need for (Health Direct 2017a). Hospitalisations with selected procedures are excluded on the basis that the listed procedures are considered clinically appropriate when alternative first-line treatment have been unsuccessful.

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
Pharyngitis	J02 Acute pharyngitis	As principal diagnosis Exclude cases with following procedures: 309 Myringotomy 412 Tonsillectomy or adenoidectomy 312 Excision procedures on eardrum or middle ear 313 Myringoplasty 323 Mastoidectomy 305 Reconstruction procedures on external ear	Hospitalisations with selected procedures are excluded on the basis that the listed procedures are considered clinically appropriate when alternative first-line treatments have been unsuccessful.
Tonsillitis	J03 Acute tonsillitis	As principal diagnosis Exclude cases with following procedures: 309 Myringotomy 412 Tonsillectomy or adenoidectomy 312 Excision procedures on eardrum or middle ear 313 Myringoplasty 323 Mastoidectomy 305 Reconstruction procedures on external ear	Hospitalisations with selected procedures are excluded on the basis that the listed procedures are considered clinically appropriate when alternative first-line treatments have been unsuccessful.
Otitis media	H66.0 Acute suppurative otitis media H66.4 Suppurative otitis media, unspecified	As principal diagnosis Exclude cases with following procedures: 412 Tonsillectomy or adenoidectomy 312 Excision procedures on eardrum or middle ear 313 Myringoplasty 323 Mastoidectomy 305 Reconstruction procedures on external ear	Hospitalisations with selected procedures are excluded on the basis that the listed procedures are considered clinically appropriate when alternative first-line treatments have been unsuccessful.
Complex otitis media	H70.0 Acute mastoiditis H70.1 Chronic mastoiditis H70.2 Petrositis H73.0 Acute myringitis H70.8 Other mastoiditis and related conditions	As principal diagnosis Exclude cases with following procedures: 309 Myringotomy 412 Tonsillectomy or adenoidectomy 312 Excision procedures on eardrum or middle ear 313 Myringoplasty 323 Mastoidectomy 305 Reconstruction procedures on external ear	Hospitalisations with selected procedures are excluded on the basis that the listed procedures are considered clinically appropriate when alternative first-line treatments have been unsuccessful.

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
Lower respiratory tract infec	tions (without COPD)		
Pneumonia not associated with chronic respiratory condition	J15.3 Pneumonia due to streptococcus, group B J15.4 Pneumonia due to other streptococci J15.9 Bacterial pneumonia, unspecified J15.7 Pneumonia due to <i>Mycoplasma pneumoniae</i> J16.0 Chlamydial pneumonia J18.0 Bronchopneumonia, unspecified J18.1 Lobar pneumonia, unspecified J18.8 Other pneumonia, organism unspecified J18.9 Pneumonia, unspecified	As principal diagnosis <b>without</b> additional diagnoses of: J41 Simple and mucopurulent chronic bronchitis J42 Unspecified chronic bronchitis J43 Emphysema J44 Other chronic obstructive pulmonary disease J45 Asthma J47 Bronchiectasis C33 Malignant neoplasm of trachea C34 Malignant neoplasm of bronchus and lung D02.2 Carcinoma in situ of middle ear and respiratory system: bronchus and lung	General practice team early assessment, diagnosis and intervention (antibiotics) for respiratory infections can potentially prevent the need for hospitalisation. Hospitalisations involving patients with lung cancer, or in situ tumours of bronchus and lung, are excluded because patients with these conditions generally have suppressed immune systems. Therefore, hospitalisations for these patients may not necessarily be preventable through general practice management and care. Hospitalisations with COPD as an additional diagnosis are captured in the Chronic conditions category.
Bronchitis not associated with chronic respiratory condition	J20.0 Acute bronchitis due to Mycoplasma pneumoniae J20.2 Acute bronchitis due to streptococcus J20.9 Acute bronchitis, unspecified	As principal diagnosis without additional diagnoses of: J41 Simple and mucopurulent chronic bronchitis J42 Unspecified chronic bronchitis J43 Emphysema J44 Other chronic obstructive pulmonary disease J45 Asthma J47 Bronchiectasis C33 Malignant neoplasm of trachea C34 Malignant neoplasm of bronchus and lung D02.2 Carcinoma in situ of middle ear and respiratory system: bronchus and lung	
Acute respiratory failure not associated with chronic respiratory condition	J96.0 Acute respiratory failure J96.9 Respiratory failure, unspecified	As principal diagnosis only. <b>With</b> additional diagnoses of: J15.4 Pneumonia due to other streptococci J15.9 Bacterial pneumonia, unspecified J18.0 Bronchopneumonia, unspecified J18.1 Lobar pneumonia, unspecified J18.8 Other pneumonia, organism unspecified J18.9 Pneumonia, unspecified J20.0 <i>Mycoplasma</i> <i>pneumonia</i> J20.9 Acute bronchitis, unspecified J22 Unspecified acute lower respiratory infection	

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
		<ul> <li>Without additional diagnoses of:</li> <li>J41 Simple and mucopurulent chronic bronchitis,</li> <li>J42 Unspecified chronic bronchitis</li> <li>J43 Emphysema,</li> <li>J44 Other chronic obstructive pulmonary disease</li> <li>J45 Asthma</li> <li>J47 Bronchiectasis</li> <li>C33 Malignant neoplasm of trachea</li> <li>C34 Malignant neoplasm of bronchus and lung</li> <li>D02.2 Carcinoma in situ of middle ear and respiratory system: bronchus and lung</li> </ul>	
Urinary tract infections			
Cystitis	N30.0 Acute cystitis N30.9 Cystitis, unspecified	As principal diagnosis	General practice team management of urinary tract infections, through antibiotics, can prevent complications such as sepsis and can potentially prevent the need for hospitalisation. Individual risk factors, however, such as being male, older, or with comorbid conditions may increase risk of complications requiring hospitalisation (Jarvis et al. 2014).
			This condition been limited to cystitis that is likely to follow from an infection (i.e. irradiated cystitis—cystitis as a result of radiation therapy—is excluded).
	N39.0 Urinary tract infection, site not specified	As principal diagnosis	Was previously included in National Health Care Agreement indicator specification, refers to acute infection.
Pyonephrosis	N13.6 Pyonephrosis	As principal diagnosis	General practice team management of urinary tract infections can prevent complications such as sepsis and can potentially prevent the need for hospitalisation. Individual risk factors, however, such as being male, older or with comorbid conditions may increase risk of urinary tract infections complications requiring hospitalisation (Jarvis et al. 2014).

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
Genital infections			
Acute pelvic inflammatory disease	N70.0 Acute salpingitis and oophoritis, N70.9 Salpingitis and oophoritis, unspecified	As principal diagnosis	Salpingitis is infection of the fallopian tubes. If severe, infection can spread to the ovaries (oophoritis). Early recognition of chlamydial and gonococcal infection is important. Treatment is with antibiotics.
Chronic pelvic inflammatory disease	N70.1 Chronic salpingitis and oophoritis	As principal diagnosis	Salpingitis is infection of the fallopian tubes. Early recognition of chlamydial and gonococcal infection is important If severe, infection can spread to the ovaries (oophoritis). Treatment is with antibiotics.
Epididymo-orchitis	N45.0 Orchitis, epididymitis and epididymo-orchitis with abscess N45.9 Orchitis, epididymitis and epididymo-orchitis without abscess	As principal diagnosis	Epididymitis is swelling or pain in the back of the testicle in the coiled tube (epididymis) that stores and carries sperm. Orchitis is swelling or pain in one or both testicles, usually from an infection or virus.
			Early recognition of chlamydial and gonococcal infection is important in young males, urinary pathogens in older males. Treatment is with antibiotics.
Pregnancy, puerperium and	l neonatal		
Eclampsia	O15 Eclampsia	As principal diagnosis	General practice team identification of risk, and referral to specialist and management can potentially prevent the onset of eclampsia.
Congenital malformation	Q05 Spina bifida Q06 Other congenital malformations of spinal cord Q07 Other congenital malformations of nervous system Q00 Anencephaly and	As principal diagnosis	Prenatal care, screening, and advice and assessment regarding a mother's basic nutrition and folate levels will potentially prevent these conditions in some cases through care by a general practice team.
	similar malformation Q01 Encephalocele Q02 Microcephaly Q03 Congenital hydrocephalus Q04 Other congenital malformations of brain		General practice team provided pre pregnancy planning and appropriate referral to an obstetrics specialist/prenatal care clinician potentially prevent the need for hospitalisation.

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
Neonatal conditions associated with maternal health	P35.0 Congenital rubella syndrome	As principal diagnosis	Rubella is vaccine- preventable and thus this complication should also be preventable with general practice team provided pre-pregnancy assessment.
	Q86.0 Fetal alcohol syndrome (dysmorphic)	As principal diagnosis	General practice team prenatal care and support/intervention for risky drinking of mother (including referral to other appropriate services) can potentially prevent the condition.
	P23.3 Congenital pneumonia due to <i>streptococcus</i> , group B P36.0 Sepsis of newborn due to <i>streptococcus</i> , group B	As principal diagnosis	Management of group B infections with antibiotics prior to birth can reduce risk of these post-natal complications.
	P53 Haemorrhagic disease of fetus and newborn	As principal diagnosis	This code relates to Vitamin K deficiency in newborn. A baby's risk is higher if their mother takes certain medications while pregnant. General practice team referral to an obstetrics specialist/ prenatal care clinic following risk assessment of patient and pre-pregnancy planning can potentially prevent the need for hospitalisation.
	P04.2 Fetus and newborn affected by maternal use of tobacco P04.3 Fetus and newborn affected by maternal use of alcohol	In any diagnosis	General practice team prenatal care and intervention into drug taking (illicit and prescription) can potentially prevent the need for hospitalisation.
	P04.4 Fetus and newborn affected by maternal use of drugs of addiction P04.5 Fetus and newborn affected by maternal use of nutritional chemical substances		

(a) Additional requirements for the reporting definition such as whether the condition must be a principal diagnosis, any other diagnoses or procedures which must also be present or excluded, or personal characteristics such as sex or age restrictions. The additional requirements based on procedure codes still need to be reviewed throughout this table.

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
Diabetes complications			
Diabetic hyperosmolality	E10.0 Type 1 diabetes mellitus with hyperosmolarity E11.0 Type 2 diabetes mellitus with hyperosmolarity E13.0 Other specified diabetes mellitus with hyperosmolarity E14.0 Unspecified diabetes mellitus with hyperosmolarity	As principal diagnosis	The current NHA specification reports diabetes as a whole. The proposed specification is based on the same rationale (i.e. a chronic condition with potential to prevent hospitalisations), however, it reports each complication separately where appropriate to better understand where problem areas may occur.
Diabetic ketoacidosis	E10.1 Type 1 diabetes mellitus with acidosis E11.1 Type 2 diabetes mellitus with acidosis	As principal diagnosis	
	E13.1 Other specified diabetes mellitus with acidosis E14.1 Unspecified diabetes		
	mellitus with acidosis		
Diabetic hypoglycaemia	E10.64 Type 1 diabetes mellitus with hypoglycaemia E11.64 Type 2 diabetes	As principal diagnosis	
	mellitus with hypoglycaemia E13.64 Other specified diabetes mellitus with hypoglycaemia		
	E14.64 Unspecified diabetes mellitus with hypoglycaemia		
Poor control of diabetes	E10.65 Type 1 diabetes mellitus with poor control	As principal diagnosis	
	E11.65 Type 2 diabetes mellitus with poor control		
	E13.65 Other specified diabetes mellitus with poor control		
	E14.65 Unspecified diabetes mellitus with poor control		
Angiopathy and angiopathy complications due to diabetes	E10.69 Type 1 diabetes mellitus with other specified complication	As principal diagnosis	
	E11.69 Type 2 diabetes mellitus with other specified complication		
	E13.69 Other specified diabetes mellitus with other specified complication		
	E14.69 Unspecified diabetes mellitus with other specified complication		
	E10.51 Type 1 diabetes mellitus with diabetic peripheral angiopathy, without gangrene,		

#### Table B.3: Chronic conditions

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
	E11.51 Type 2 diabetes mellitus with diabetic peripheral angiopathy, without gangrene		
	E13.51 Other specified diabetes mellitus with peripheral angiopathy,, without gangrene		
	E14.51 Unspecified diabetes mellitus with peripheral angiopathy, without gangrene		
	E10.52 Type 1 diabetes mellitus with diabetic peripheral angiopathy, with gangrene		
	E11.52 Type 2 diabetes mellitus with diabetic peripheral angiopathy, with gangrene		
	E14.52 Unspecified diabetes mellitus with diabetic peripheral angiopathy, with gangrene		
	E13.52 Other diabetes mellitus with diabetic peripheral angiopathy, with gangrene		
Diabetic kidney complications	E10.2 Type 1 diabetes mellitus, with kidney complication	As principal diagnosis	
	E11.2 Type 2 diabetes mellitus, with kidney complication		
	E13.2 Other specified diabetes mellitus, with kidney complication		
	E14.2 Unspecified diabetes mellitus, with kidney complication		
Diabetic ophthalmic complications	E10.3 Type 1 diabetes mellitus, with ophthalmic complication	As principal diagnosis	
	E11.3 Type 2 diabetes mellitus, with ophthalmic complication		
	E13.3 Other specified diabetes mellitus, with ophthalmic complication		
	E14.3 Unspecified diabetes mellitus, with ophthalmic complication		
Diabetic neurological complications	E10.4 Type 1 diabetes mellitus, with neurological complication	As principal diagnosis	
	E11.4 Type 2 diabetes mellitus, with neurological complication		
	E13.4 Other specified diabetes mellitus, with neurological complication		

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup> Rationale	
	E14.4 Unspecified diabetes mellitus, with neurological complication		
Other and multiple diabetic complications	E10.53 Type 1 diabetes mellitus, with diabetic cardiomyopathy	As principal diagnosis	
	E11.53 Type 2 diabetes mellitus, with diabetic cardiomyopathy		
	E13.53 Other specified diabetes mellitus, with diabetic cardiomyopathy		
	E14.53 Unspecified diabetes mellitus, with diabetic cardiomyopathy		
	E10.61 Type 1 diabetes mellitus with specified diabetic musculoskeletal and connective tissue complication	As principal diagnosis	
	E11.61 Type 2 diabetes mellitus with specified diabetic musculoskeletal and connective tissue complication		
	E13.61 Other specified diabetes mellitus with specified diabetic musculoskeletal and connective tissue complication		
	E14.61 Unspecified diabetes mellitus with specified diabetic musculoskeletal and connective tissue complication		
	E10.62 Type 1 diabetes mellitus with specified skin and subcutaneous tissue complication	As principal diagnosis	
	E11.62 Type 2 diabetes mellitus with specified skin and subcutaneous tissue complication		
	E13.62 Other specified diabetes mellitus with specified skin and subcutaneous tissue complication		
	E14.62 Unspecified diabetes mellitus with specified skin and subcutaneous tissue complication		
	E10.7 Type 1 diabetes mellitus with multiple complications	As principal diagnosis	
	E11.7 Type 2 diabetes mellitus with multiple complications		

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
	E13.7 Other specified diabetes mellitus with multiple complications		
	E14.7 Unspecified diabetes mellitus with multiple complications		
Cardiovascular			
Acute rheumatic fever	100 Rheumatic fever without mention of heart involvement	As principal diagnosis	Rheumatic fever is an illness caused by an immunological reaction to infection with the
	I01 Rheumatic fever with heart involvement I02 Rheumatic chorea		bacterium group A streptococcus. General practice team early diagnosis and treatment of group A streptococcus should prevent the subsequent development of ARF (and therefore hospitalisation for ARF).
Rheumatic valvular Heart Disease	I05 Rheumatic mitral valve diseases	As principal diagnosis	Rheumatic valvular heart disease arises from repeated
	106 Rheumatic aortic valve diseases		inflammation of the heart due to acute rheumatic fever. Poor
	I07 Rheumatic tricuspid valve diseases		prevention and management of bacterium group A <i>streptococcus</i> infections can
	108 Multiple valve diseases 109 Other rheumatic heart diseases		result in chronic scarring of the valves of the heart.
Acute myocardial infarction	I21 Acute myocardial infarction	As principal diagnosis	General practice teams play a key role in identifying patients at high risk of Acute myocardial infarction (AMI). Primary prevention interventions, including lifestyle interventions and medication, should be able to prevent the majority of AMIs.
Angina	I20 Angina pectoris	As principal diagnosis	General practice teams may prevent development of
	I24.0 Coronary thrombosis not resulting in myocardial infarction		angina through health interventions such as diet and exercise recommendations,
	I24.8 Other forms of acute ischaemic heart disease		hypertension management and cessation of smoking programs. Management of
	I24.9 Acute ischaemic heart disease, unspecified		angina symptoms through education and appropriate medication prescription should prevent hospital admissions in established angina.

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
Peripheral vascular disease – excluding lower limb amputation	I70.2 Atherosclerosis of arteries of extremities	As principal diagnosis. Exclude separations with the following procedures: 4436700 Amputation above knee 4436702 Amputation below knee Procedure in block 1533 Amputation of ankle or foot	General practice team management including recommendations for lifestyle interventions (e.g. cessation of smoking, reduction of alcohol intake, healthy diet and exercise) can reduce the risk of peripheral arteries becoming hardened and blocked and can potentially prevent the need for hospitalisation (University of Maryland Medical Center 2018).
Peripheral vascular disease – including lower limb amputation	<ul> <li>I70 Atherosclerosis</li> <li>I73 Other peripheral vascular diseases</li> <li>I78 Diseases of capillaries</li> <li>I79 Disorders of arteries, arterioles and capillaries in diseases classified elsewhere</li> </ul>	As principal diagnosis with procedure codes from the following: 4436700 Amputation above knee 4436702 Amputation below knee Procedure in block 1533 Amputation of ankle or foot	The inclusion of leg, foot and toe amputation procedure codes reflects long-term complication of peripheral vascular disease.
Atrial fibrillation and flutter	I48 Atrial fibrillation and flutter	As principal diagnosis	General practice team management of high blood pressure, coronary heart disease, hyperthyroidism and valvular heart disease reduce atrial fibrillation, therefore lifestyle interventions and management of those conditions, as well as the management of atrial fibrillation can potentially prevent the need for hospitalisation (Health Direct 2017b).
Hypertension and hypertension management	I10 Essential (primary) hypertension	As principal diagnosis Exclude cases with the following cardiac procedure codes: Blocks 600–606, 608–650, 653–657, 660–664, 666, 669–682, 684–691, 693, 705–707, 717 and codes 33172–00[715], 33827–01[733], 34800–00[726], 35412–00[11], 38721–01[733], 90217–02[734], 90215–02[732].	General practice teams play a role in preventing and controlling hypertensions, through lifestyle interventions (e.g. diet) and medications. Cardiac procedures which are excluded include procedures involving the atrium and septum, valve procedures, insertion or modification of a cardiac defibrillator or pacemaker, cardiopulmonary transplants, artery and vein procedures.
	I11.9 Hypertensive heart disease without (congestive) heart failure	As principal diagnosis Exclude cases with cardiac procedure codes above	General practice teams play a role in preventing and controlling hypertensions, through lifestyle interventions (e.g. diet) and medications.

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
Chronic heart failure	I25.5 Ischaemic cardiomyopathy I50 Heart failure I11.0 Hypertensive heart disease with (congestive) heart failure	As principal diagnosis Exclude cases with cardiac procedure codes above	General practice team management including assessment of patient's cardiovascular risk (e.g. blood pressure monitoring, blood lipid assessment) lifestyle intervention (i.e. dietary changes and weight loss, exercise regimens) and medications (e.g. statins) to prevent heart failure can potentially prevent the need for hospitalisation (RACGP 2016a). Secondary prevention activities to avoid secondary readmissions include medication, exercise programs, and lifestyle modifications.
Respiratory			
Asthma and complications	J45 Asthma J46 Status asthmaticus	As principal diagnosis Exclude children aged under 4	General practice team management of asthma including interventions involving medication adherence, early diagnosis and referral to specialist can potentially prevent the need for hospitalisation.
Bronchiectasis	J47 Bronchiectasis	As principal diagnosis	General practice team management of chronic respiratory conditions including interventions involving medication adherence, early diagnosis and referral to specialist can potentially prevent the need for hospitalisation.
Infectious complication of chronic respiratory condition	<ul> <li>J10 Influenza due to other identified influenza virus</li> <li>J11 Influenza, virus not identified</li> <li>J14 Pneumonia due to <i>Haemophilus influenzae</i></li> <li>J15.4 Pneumonia due to other streptococci</li> <li>J15.9 Bacterial pneumonia, unspecified</li> <li>J18.0 Bronchopneumonia, unspecified</li> <li>J18.1 Lobar pneumonia, unspecified</li> <li>J18.8 Other pneumonia, organism unspecified</li> <li>J18.9 Pneumonia, unspecified</li> <li>J18.9 Pneumonia, unspecified</li> <li>J20.0 Acute bronchitis due to <i>Mycoplasma pneumoniae</i></li> <li>J20.1 Acute bronchitis due to <i>Haemophilus influenzae</i></li> </ul>	As principal diagnosis with additional diagnosis of J47 (Bronchiectasis) or of J41, J42, J43, J44. (chronic bronchitis and other COPD diagnoses) or J45 (Asthma)	General practice team management of chronic respiratory conditions including interventions involving medication adherence, early diagnosis and referral to specialist can potentially prevent the need for hospitalisation due to infectious complication.

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
	J20.2 Acute bronchitis due to streptococcus		
	J20.9 Acute bronchitis, unspecified		
COPD	J41 Simple and mucopurulent chronic bronchitis	As principal diagnosis	General practice team management of chronic
	J42 Unspecified chronic bronchitis		respiratory conditions including interventions
	J43 Emphysema		involving medication adherence, early diagnosis
	J44 Other chronic obstructive pulmonary disease		and referral to specialist can potentially prevent the need for hospitalisation.
Acute respiratory failure associated with chronic respiratory conditions [Asthma, COPD, Bronchiectasis]	J96.0 Acute respiratory failure J96.9 Respiratory failure, unspecified	As principal diagnosis with additional diagnoses of J41, J42, J43, J44 (chronic bronchitis and other COPD diagnoses) or J47 (Bronchiectasis) or J45 (Asthma)	General practice team management of chronic respiratory conditions including interventions involving medication adherence, early diagnosis and referral to specialist can potentially prevent the need for hospitalisation.
Chronic respiratory failure associated with chronic respiratory conditions [Asthma, COPD, Bronchiectasis]	J96.1 Chronic respiratory failure	As principal diagnosis with additional diagnoses of J41, J42, J43, J44. (chronic bronchitis and other COPD diagnoses) or J47 (Bronchiectasis) or J45 (Asthma)	General practice team management of chronic respiratory conditions including interventions involving medication adherence, early diagnosis and referral to specialist can potentially prevent the need for hospitalisation.
Renal			
Post streptococcal glomerulonephritis	N05 Unspecified nephritic syndrome	As principal diagnosis	Management of streptococcal infections can reduce the likelihood of developing this post-strep complication.
Tubulo-interstitial nephrititis	N10 Acute tubulo-interstitial nephritis N12 Tubulo-interstitial nephritis, not specified as	As principal diagnosis	General practice team judicious use of medication, early diagnosis and treatment/management can
	acute or chronic		potentially prevent the need for hospitalisation.
Hypertensive chronic kidney disease	I12.9 Hypertensive kidney disease without kidney failure	As principal diagnosis	General practice team judicious use of medication, early diagnosis and
	I13.0 Hypertensive heart and kidney disease with (congestive) heart failure)		treatment/management can potentially prevent the need for hospitalisation.
Nervous system dysfunction	n		
Epilepsy and convulsions	G40 Epilepsy	As principal diagnosis	General practice team
	G41 Status epilepticus		management of medications can potentially prevent the
	R56 Convulsions, not elsewhere classified		need for hospitalisation.

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
Migraines	G43 Migraine	As principal diagnosis	Improved preventive strategies, improved acute treatment, and improved therapies for recurrent migraine should all contribute to hospital prevention.
Transient ischaemic attack	G45.3 Amaurosis fugax G45.8 Other transient cerebral ischaemic attacks and related syndromes G45.9 Transient cerebral ischaemic attack, unspecified	As principal diagnosis	General practice team management including lifestyle and physiological interventions (e.g. anticoagulants, lipid lowering and antihypertensive treatments) can reduce the risk of having a transient ischaemic attack (and ischemic stroke) and can potentially prevent the need for hospitalisation (RACGP 2016b).
Stroke	<ul> <li>G46.3 Brain stem stroke syndrome</li> <li>G46.4 Cerebellar stroke syndrome</li> <li>G46.5 Pure motor lacunar syndrome</li> <li>G46.6 Pure sensory lacunar syndrome</li> <li>G46.7 Other lacunar syndromes</li> <li>I63 Cerebral infarction</li> <li>I65 Occlusion and stenosis of precerebral arteries, not resulting in cerebral infarction</li> <li>I66 Occlusion and stenosis of cerebral arteries, not resulting in cerebral infarction</li> <li>I66 Occlusion and stenosis of cerebral arteries, not resulting in cerebral infarction</li> <li>I67.8 Other specified cerebrovascular diseases</li> </ul>	A principal diagnosis	
Gastrointestinal			
Constipation	K59.0 Constipation	As principal diagnosis	General practice team diagnosis of underlying cause and management of this (e.g. medication, dysfunctional bowel syndromes) can potentially prevent the need for hospitalisation.
Gastroduodenal ulcer with haemorrhage	K25.0 Gastric ulcer, acute with haemorrhage K25.2 Gastric ulcer, acute with both haemorrhage and perforation K25.4 Gastric ulcer, chronic or unspecified with haemorrhage K25.6 Gastric ulcer, chronic or unspecified with both haemorrhage and perforation	As principal diagnosis	General practice team diagnosis of underlying cause and management of this (e.g. antibiotics and Proton Pump Inhibitors for H. pylori infections, stopping NSAIDs, assistance in reducing alcohol consumption) can potentially prevent the need for hospitalisation.

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
	K26.0 Duodenal ulcer, acute with haemorrhage		
	K26.2 Duodenal ulcer, acute with both haemorrhage and perforation		
	K26.4 Duodenal ulcer, chronic or unspecified with haemorrhage		
	K26.6 Duodenal ulcer, chronic or unspecified with both haemorrhage and perforation		
	K27.0 Peptic ulcer, site unspecified, acute with haemorrhage		
	K27.2 Peptic ulcer, site unspecified, acute with both haemorrhage and perforation		
	K27.4 Peptic ulcer, site unspecified, chronic or unspecified with both haemorrhage and perforation		
	K27.5 Peptic ulcer, site unspecified, chronic or unspecified with both haemorrhage and perforation		
	K27.6 Peptic ulcer, site unspecified, chronic or unspecified with both haemorrhage and perforation		
	K27.7 Peptic ulcer, site unspecified with both haemorrhage and perforation		
	K28.0 Gastrojejunal ulcer, acute with haemorrhage		
	K28.2 Gastrojejunal ulcer, acute with both haemorrhage and perforation		
	K28.4 Gastrojejunal ulcer, chronic or unspecified with haemorrhage		
	K28.6 Gastrojejunal ulcer, chronic or unspecified with both haemorrhage and perforation		
Gastroduodenal ulcer without haemorrhage	K25.1 Gastric ulcer, acute with perforation	As principal diagnosis	
J	K25.3 Gastric ulcer, acute without haemorrhage or perforation		
	K25.5 Gastric ulcer, chronic or unspecified with perforation		
	K25.7 Gastric ulcer, chronic without haemorrhage or perforation		
	K25.9 Gastric ulcer, unspecified as acute or chronic, without haemorrhage or perforation		

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
	K26.1 Duodenal ulcer, acute with perforation		
	K26.3 Duodenal ulcer, acute without haemorrhage or perforation		
	K26.5 Duodenal ulcer, chronic or unspecified with perforation		
	K26.7 Duodenal ulcer, chronic without haemorrhage or perforation		
	K26.9 Duodenal ulcer, unspecified as acute or chronic, without haemorrhage or perforation		
	K27.1 Peptic ulcer, site unspecified, acute with perforation		
	K27.3 Peptic ulcer, site unspecified, acute without haemorrhage or perforation		
	K27.9 Peptic ulcer, site unspecified as acute or chronic, without haemorrhage or perforation		
	K28.1 Gastrojejunal ulcer, acute with perforation		
	K28.3 Gastrojejunal ulcer, acute without haemorrhage or perforation		
	K28.5 Gastrojejunal ulcer, chronic or unspecified with perforation		
	K28.7 Gastrojejunal ulcer, chronic without haemorrhage or perforation		
	K28.9 Gastrojejunal ulcer, unspecified as acute or chronic, without haemorrhage or perforation		
Complications from chronic hepatitis C	B17.1 Acute hepatitis C – with and without hepatic coma	As principal diagnosis	From 1 January 2018, general practice teams can prescribe antivirals under the PBS
	B18.2 Chronic viral hepatitis C		which are effective at curing hepatitis C. This should potentially prevent most hospitalisations for acute hepatitis C.
Complications from chronic hepatitis B	B18.1 Chronic viral hepatitis B without delta-agent	As principal diagnosis Exclude additional diagnosis of B18.0 Chronic viral hepatitis B with delta-agent	Vaccines are included on NIP Schedule and management of chronic hepatitis by general practice teams should potentially prevent hospitalisations.
Liver cancer due to chronic hepatitis C	C22.0 Liver cell carcinoma	As principal diagnosis	Approximately 80% of hepatocellular carcinomas are believed to be due to chronic hepatitis B or C resulting in liver cirrhosis (Mittal & El-Serag 2013).

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
			If hepatitis B is vaccine-preventable then cancer due to this must also be potentially preventable.
			Hepatitis C can be managed by general practice teams with antivirals to also potentially avoid hospitalisation.
Mental health			
Anxiety	F41.0 Panic disorder [episodic paroxysmal anxiety]	As principal diagnosis Excludes procedures in block 1907 Electroconvulsive	General practice teams can identify, manage and refer patients experiencing mental
	F41.1 Generalised anxiety disorder	therapy	health issues. Hospitalisations with ECT are
	F41.8 Other specified anxiety disorders		excluded on the basis that this is an appropriate treatment which requires hospitalisation.
	F41.9 Anxiety disorder, unspecified		
Depression	F32 Depressive episode	As principal diagnosis	
	F33 Recurrent depressive disorder	Excludes procedures in block 1907 Electroconvulsive therapy	
Bipolar	F31 Bipolar affective	As principal diagnosis	
	disorder	Excludes procedures in block 1907 Electroconvulsive therapy	
Medication management			
Prescription medication misuse or mismanagement	T40.2 Poisoning by narcotics and psychodysleptics [hallucinogens]: Other opioids	As principal diagnosis	Admissions from illicit opioids are excluded from this indicator.
	T40.3 Poisoning by narcotics and psychodysleptics		
	[hallucinogens]: Methadone T40.4 Poisoning by narcotics and psychodysleptics [hallucinogens]: Other synthetic narcotics		
Consequences of alcohol at	ouse		
Dependence and withdrawal from alcohol	F10.2 Mental and behavioural disorders due to use of alcohol, dependence syndrome	As principal diagnosis	General practice teams can identify, manage and refer patients experiencing alcohol abuse issues.
	F10.3 Mental and behavioural disorders due to use of alcohol, withdrawal state		
	F10.4 Mental and behavioural disorders due to use of alcohol, withdrawal state with delirium		

Condition category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
Psychosis and amnesia from alcohol abuse	F10.5 Mental and behavioural disorders due to use of alcohol, psychotic disorder	As principal diagnosis	
	F10.6 Mental and behavioural disorders due to use of alcohol, amnesic syndrome incl. Korsakov's psychosis/syndrome	As principal diagnosis (excludes Wernicke's encephalopathy)	
	F10.6 Mental and behavioural disorders due to use of alcohol, amnesic syndrome incl. Korsakov's psychosis/syndrome	As principal diagnosis with additional diagnosis of E51.2 (Wernicke's encephalopathy)	
Residual mental and behavioural damage resulting from alcohol abuse	F10.7 Mental and behavioural disorders due to use of alcohol, residual and late-onset psychotic disorder	As principal diagnosis	
Alcohol induced conditions of pancreas	K85.2 Alcohol-induced acute pancreatitis K86.0 Alcohol-induced chronic pancreatitis	As principal diagnosis	
Alcohol induced conditions of stomach	K29.2 Alcoholic gastritis	As principal diagnosis	
Alcohol induced conditions of liver	K70 Alcoholic liver disease	As principal diagnosis	
Alcohol induced conditions of neurological disorders	G62.1 Alcoholic polyneuropathy G72.1 Alcoholic myopathy	As principal diagnosis	
Alcohol induced conditions of heart	I42.6 Alcoholic cardiomyopathy	As principal diagnosis	

(a) Additional requirements for the reporting definition such as whether the condition must be a principal diagnosis, any other diagnoses or procedures which must also be present or excluded, or personal characteristics such as sex or age restrictions. The additional requirements based on procedure codes still need to be reviewed throughout this table. Table B.4 categorises the chronic conditions (in Table B.3 above) according to whether they represent short-, medium- or long-term complications of a chronic disease. Broadly speaking, hospitalisations for conditions in the short-term category may have been potentially preventable if appropriate general practice management and/or care was provided in the 3 years prior, the 10 years prior (medium-term), and up to 30 years prior (long-term).

Category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
Short-term			
Cardiovascular	I00 Rheumatic fever without mention of heart involvement I01 Rheumatic fever with heart involvement I02 Rheumatic chorea	As principal diagnosis	General practice team early diagnosis and treatment of strep can potentially prevent the need for hospitalisation.
	I10 Essential (primary) hypertension	As principal diagnosis Exclude cases with the following cardiac procedure codes: Blocks 600–606, 608–650, 653–657, 660–664, 666, 669–682, 684–691, 693, 705–707, 717 and codes 33172–00[715], 33827–01[733], 34800–00[726], 35412–00[11], 35721–01[733], 90217–02[734], 90215–02[732]	Hypertension can be prevented and/or managed by general practice teams through lifestyle interventions and antihypertensive medication. Cardiac procedures which are excluded include procedures involving the atrium and septum, valve procedures, insertion or modification of a cardiac defibrillator or pacemaker, cardiopulmonary transplants, artery and vein procedures.
Nervous system dysfunction	G40 Epilepsy G41 Status epilepticus R56 Convulsions, not elsewhere classified	As principal diagnosis	General practice team management of medications can potentially prevent the need for hospitalisation.
	G43 Migraine	As principal diagnosis	Improved preventive strategies, improved acute treatment, and improved therapies for recurrent migraine should all contribute to hospital prevention.
Gastrointestinal	<ul> <li>K25.0 Gastric ulcer, acute with haemorrhage</li> <li>K25.2 Gastric ulcer, acute with both haemorrhage and perforation</li> <li>K25.4 Gastric ulcer, chronic or unspecified with haemorrhage</li> <li>K25.6 Gastric ulcer, chronic or unspecified with both haemorrhage and perforation</li> <li>K26.0 Duodenal ulcer, acute with haemorrhage</li> <li>K26.2 Duodenal ulcer, acute with both haemorrhage and perforation</li> <li>K26.4 Duodenal ulcer, chronic or unspecified with haemorrhage</li> </ul>		

#### Table B.4: Chronic conditions—short-, medium- or long-term complications

Category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
	K26.6 Duodenal ulcer, chronic or unspecified with both haemorrhage and perforation		
	K27.0 Peptic ulcer, site unspecified, acute with haemorrhage		
	K27.2 Peptic ulcer, site unspecified, acute with both haemorrhage and perforation		
	K27.4 Peptic ulcer, site unspecified, chronic or unspecified with both haemorrhage and perforation		
	K27.5 Peptic ulcer, site unspecified, chronic or unspecified with both haemorrhage and perforation		
	K27.6 Peptic ulcer, site unspecified, chronic or unspecified with both haemorrhage and perforation		
	K27.7 Peptic ulcer, site unspecified with both haemorrhage and perforation		
	K28.0 Gastrojejunal ulcer, acute with haemorrhage		
	K28.2 Gastrojejunal ulcer, acute with both haemorrhage and perforation		
	K28.4 Gastrojejunal ulcer, chronic or unspecified with haemorrhage		
	K28.6 Gastrojejunal ulcer, chronic or unspecified with both haemorrhage and perforation		
	K25.1 Gastric ulcer, acute with perforation		
	K25.3 Gastric ulcer, acute without haemorrhage or perforation		
	K25.5 Gastric ulcer, chronic or unspecified with perforation		
	K25.7 Gastric ulcer, chronic without haemorrhage or perforation		
	K25.9 Gastric ulcer, unspecified as acute or chronic, without		
	haemorrhage or perforation K26.1 Duodenal ulcer, acute with perforation		
	K26.3 Duodenal ulcer, acute without haemorrhage or perforation		

Category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
	K26.5 Duodenal ulcer, chronic or unspecified with perforation		
	K26.7 Duodenal ulcer, chronic without haemorrhage or perforation		
	K26.9 Duodenal ulcer, unspecified as acute or chronic, without		
	haemorrhage or perforation K27.1 Peptic ulcer, site unspecified, acute with perforation		
	K27.3 Peptic ulcer, site unspecified, acute without haemorrhage or perforation		
	K27.9 Peptic ulcer, site unspecified as acute or chronic, without haemorrhage or perforation K28.1 Gastrojejunal ulcer, acute with perforation		
	K28.3 Gastrojejunal ulcer, acute without haemorrhage or perforation		
	K28.5 Gastrojejunal ulcer, chronic or unspecified with perforation		
	K28.7 Gastrojejunal ulcer, chronic without haemorrhage or perforation		
	K28.9 Gastrojejunal ulcer, unspecified as acute or chronic, without haemorrhage or perforation		
	K59.0 Constipation	As principal diagnosis	
Diabetes complications	E10.64 Type 1 diabetes mellitus with hypoglycaemia	As principal diagnosis	
	E11.64 Type 2 diabetes mellitus with hypoglycaemia		
	E13.64 Other specified diabetes mellitus with hypoglycaemia		
	E14.64 Unspecified diabetes mellitus with hypoglycaemia		
	E10.0 Type 1 diabetes mellitus with hyperosmolarity	As principal diagnosis	
	E10.1 Type 1 diabetes mellitus with acidosis		
	E11.0 Type 2 diabetes mellitus with hyperosmolarity		
	E11.1 Type 2 diabetes mellitus with acidosis		
	E13.0 Other specified diabetes mellitus with hyperosmolarity		

Category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
	E13.1 Other specified diabetes mellitus with acidosis		
	E14.0 Unspecified diabetes mellitus with hyperosmolarity		
	E14.1 Unspecified diabetes mellitus with acidosis		
	E10.65 Type 1 diabetes mellitus with poor control	As principal diagnosis	
	E11.65 Type 2 diabetes mellitus with poor control		
	E13.65 Other specified diabetes mellitus with poor control		
	E14.65 Unspecified diabetes mellitus with poor control		
Respiratory	J45 Asthma	As principal diagnosis	General practice team management of
	J46 Status asthmaticus	Exclude children aged under 4	asthma including interventions involving medication adherence, early diagnosis and referral to specialist can potentially prevent the need for hospitalisation.
Renal	N05 Unspecified nephritic syndrome	As principal diagnosis	Management of streptococcal infections can reduce the likelihood of developing this post-strep complication.
	N10 Acute tubulo-interstitial nephritis N12 Tubulo-interstitial nephritis, not specified as acute or chronic	As principal diagnosis	General practice team diagnosis and treatment/management of drug usage can potentially prevent the need for hospitalisation.
Substance misuse	T40.2 Poisoning by narcotics and psychodysleptics [hallucinogens]: Other opioids	As principal diagnosis	
	T40.3 Poisoning by narcotics and psychodysleptics [hallucinogens]: Methadone		
	T40.4 Poisoning by narcotics and psychodysleptics [hallucinogens]: Other synthetic narcotics		
Consequences of alcohol abuse	K29.2 Alcoholic gastritis	As principal diagnosis	
Medium-term			
Cardiovascular	I48 Atrial fibrillation and flutter	As principal diagnosis	General practice team management of high blood pressure, coronary heart disease, hyperthyroidism and valvular heart disease reduce atrial fibrillation, therefore lifestyle interventions and management of those conditions, as well as the management of atrial fibrillation can potentially prevent the need for hospitalisation.

Category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
		Exclude cases with the following cardiac procedure codes: Blocks 600–606, 608–650, 653–657, 660–664, 666, 669–682, 684–691, 693, 705–707, 717 and codes 33172–00[715], 33827–01[733], 34800–00[726], 35412–00[11], 38721–01[733], 90217–02[734], 90215–02[732]	
	I11.9 Hypertensive heart disease without (congestive) heart failure	As principal diagnosis Exclude cases with the following cardiac procedure codes: Blocks 600–606, 608–650, 653–657, 660–664, 666, 669–682, 684–691, 693, 705–707, 717 and codes 33172–00[715], 33827–01[733], 34800–00[726], 35412–00[11], 38721–01[733], 90217–02[734], 90215–02[732]	
	I21 Acute myocardial infarction	As principal diagnosis	
	<ul> <li>I20 Angina pectoris</li> <li>I24.0 Coronary thrombosis not resulting in myocardial infarction</li> <li>I24.8 Other forms of acute ischaemic heart disease</li> <li>I24.9 Acute ischaemic heart disease, unspecified</li> </ul>	As principal diagnosis Exclude cases with the following cardiac procedure codes: Blocks 600–606, 608–650, 653–657, 660–664, 666, 669–682, 684–691, 693, 705–707, 717 and codes 33172–00[715], 33827–01[733], 34800–00[726], 35412–00[11], 38721–01[733], 90217–02[734], 90215–02[732]	Angina can be prevented and/or managed by general practice team teams through lifestyle interventions (e.g. exercise) and vasodilator medication.
	I70.2 Atherosclerosis of arteries of extremities	As principal diagnosis Exclude separations with the following procedures: 4436700 Amputation above knee 4436702 Amputation below knee Procedure in block 1533 Amputation of ankle or foot	General practice team management such as recommendations for lifestyle interventions (e.g. cessation of smoking, reduction of alcohol intake, healthy diet and exercise) can reduce the risk of peripheral arteries becoming hardened and blocked and can potentially prevent the need for hospitalisation.

Category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
Nervous system	G45.3 Amaurosis fugax G45.8 Other transient cerebral ischaemic attacks and related syndromes G45.9 Transient cerebral ischaemic attack.	As principal diagnosis	General practice team management such as lifestyle and physiological interventions (e.g. anticoagulants, lipid lowering and antihypertensive treatments) can reduce the risk of having a transient ischaemic attack and can potentially prevent the
	unspecified I67.8 Other specified		need for hospitalisation.
	G46.3 Brain stem stroke	As principal diagnosis	
	syndrome <i>(l60–l67+)</i> G46.4 Cerebellar stroke syndrome <i>(l60–l</i> 67+)		
	G46.5 Pure motor lacunar syndrome ( <i>I60–I67+</i> )		
	G46.6 Pure sensory lacunar syndrome (160–167+)		
	G46.7 Other lacunar syndromes ( <i>160–167+</i> )		
	I63 Cerebral infarction I65 Occlusion and stenosis of precerebral arteries, not resulting in cerebral infarction		
	I66 Occlusion and stenosis of cerebral arteries, not resulting in cerebral infarction		
Diabetes complications	E10.2 Type 1 diabetes mellitus with kidney complication	As principal diagnosis	
	E11.2 Type 2 diabetes mellitus with kidney complication		
	E13.2 Other specified diabetes mellitus with kidney complication		
	E14.2 Unspecified diabetes mellitus with kidney complication		
	E10.3 Type 1 diabetes mellitus with ophthalmic complication	As principal diagnosis	
	E11.3 Type 2 diabetes mellitus with ophthalmic complication		
	E13.3 Other specified diabetes mellitus with ophthalmic complication		
	E14.3 Unspecified diabetes mellitus with ophthalmic complication		

Category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
	E10.4 Type 1 diabetes mellitus with neurological complication	As principal diagnosis	
	E11.4 Type 2 diabetes mellitus with neurological complication		
	E13.4 Other specified diabetes mellitus with neurological complication		
	E14.4 Unspecified diabetes mellitus with neurological complication		
Respiratory	J47 Bronchiectasis	As principal diagnosis	
	J10 Influenza due to other identified influenza virus	As principal diagnosis	
	J11 Influenza, virus not identified	with additional diagnosis of J47 (Bronchiectasis) or of J41, J42, J43, J44	
	PJ14 Pneumonia due to Haemophilus influenzae	(chronic bronchitis and other COPD diagnoses) or of J45 (Asthma)	
	J15.4 Pneumonia due to other streptococci		
	J15.9 Bacterial pneumonia, unspecified		
	J18.0 Bronchopneumonia, unspecified	ified obar pneumonia,	
	J18.1 Lobar pneumonia, unspecified		
	J18.8 Other pneumonia, organism unspecified		
	J18.9 Pneumonia, unspecified		
	J20.0 Acute bronchitis due to <i>Mycoplasma pneumonia</i> e	due	
	J20.1 Acute bronchitis due to Haemophilus influenzae		
	J20.2 Acute bronchitis due to streptococcus		
	J20.9 Acute bronchitis, unspecified		
	J41 Simple and mucopurulent chronic bronchitis	As principal diagnosis	
	J42 Unspecified chronic bronchitis		
	J43 Emphysema		
	J44 Other chronic obstructive pulmonary disease		
	J96.0 Acute respiratory failure	As principal diagnosis with additional	
	J96.9 Respiratory failure, unspecified	diagnoses of J41, J42, J43, J44 (chronic bronchitis and other COPD diagnoses) or J47 (Bronchiectasis) or J45 (Asthma)	

Category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
Mental health	F41.0 Panic disorder [episodic paroxysmal anxiety]	As principal diagnosis Excludes procedures in block 1907	General practice teams can identify, manage and refer patients experiencing mental health issues.
	F41.1 Generalised anxiety disorder	Electroconvulsive therapy	
	F41.8 Other specified anxiety disorders		
	F41.9 Anxiety disorder, unspecified		
	F32 Depressive episode	As principal diagnosis	
	F33 Recurrent depressive disorder	Excludes procedures in block 1907 Electroconvulsive therapy	
	F31 Bipolar affective disorder	As principal diagnosis	
		Excludes procedures in block 1907 Electroconvulsive therapy	
Gastrointestinal	B17.1 Acute hepatitis C – with and without hepatic coma	As principal diagnosis	From 1 January 2018, general practice teams can prescribe antivirals under PBS, thus potentially preventing hospitalisations
	B18.2 Chronic viral hepatitis C		for acute hepatitis C.
	B18.1 Chronic viral hepatitis B without delta-agent	As principal diagnosis Exclude hospitalisations with chronic hepatitus B as additional diagnosis	Vaccines are included on NIP Schedule and management of chronic hepatitis by general practice teams should potentially prevent hospitalisations.
	C22.0 Liver cell carcinoma	As principal diagnosis	Approximately 80% of hepatocellular carcinomas are believed to be due to chronic hepatitis B or C resulting in liver cirrhosis (Mittal & El-Serag 2013).
			If hepatitis B is vaccine-preventable then cancer due to this must also be potentially preventable.
			Hepatitis C can be managed by general practice teams with antivirals to also potentially avoid hospitalisation.
Renal	I12.9 Hypertensive kidney disease without kidney failure	As principal diagnosis	
	I13.0 Hypertensive heart and kidney disease with (congestive) heart failure)		
Consequences of alcohol abuse	F10.2 Mental and behavioural disorders due to use of alcohol – dependence syndrome	As principal diagnosis	
	F10.3 Mental and behavioural disorders due to use of alcohol – withdrawal state		
	F10.4 Mental and behavioural disorders due to use of alcohol – withdrawal state with delirium		

Category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
	K85.2 Alcohol-induced acute pancreatitis	As principal diagnosis	
	K86.0 Alcohol-induced chronic pancreatitis		
	G62.1 Alcoholic polyneuropathy	As principal diagnosis	
	G72.1 Alcoholic myopathy		
	I42.6 Alcoholic cardiomyopathy	As principal diagnosis	
	K70 Alcoholic liver disease	As principal diagnosis	
Long-term			
Cardiovascular	I05 Rheumatic mitral valve diseases	As principal diagnosis	General practice team prophylactic treatment following acute rheumatic fever
	I06 Rheumatic aortic valve diseases		can potentially prevent the need for hospitalisation.
	I07 Rheumatic tricuspid valve diseases		
	108 Multiple valve diseases		
	109 Other rheumatic heart diseases		
	I25.5 Ischaemic cardiomyopathy I50 Heart failure	As principal diagnosis Exclude cases with the	
		following cardiac	
	I11.0 Hypertensive heart disease with (congestive) heart failure	procedure codes: Blocks 600–606, 608–650, 653–657, 660–664, 666, 669–682, 684–691, 693, 705–707, 717 and codes 33172–00[715], 33827–01[733], 34800–00[726], 35412–00[11], 38721–01[733], 90217–02[734], 90215–02[732]	
	I70.2 Atherosclerosis of arteries of extremities	As principal diagnosis Exclude amputation	
		codes listed below.	
	I70 Atherosclerosis I73 Other peripheral vascular diseases	As principal diagnosis with procedure codes from the following: 4436700 Amputation	
	I78 Diseases of capillaries I79 Disorders of arteries, arterioles and capillaries in diseases classified elsewhere	above knee 4436702 Amputation below knee Block 1533 Amputation of ankle or foot.	
Diabetes complications	E10.69 Type 1 diabetes mellitus with other specified complication E11.69 Type 2 diabetes mellitus with other specified	As principal diagnosis	

Category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
	E13.69 Other specified diabetes mellitus with other specified complication E14.69 Unspecified diabetes mellitus with other specified complication		
	E10.53 Type 1 diabetes mellitus, with diabetic cardiomyopathy	As principal diagnosis	
	E11.53 Type 2 diabetes mellitus, with diabetic cardiomyopathy		
	E13.53 Other specified diabetes mellitus, with diabetic cardiomyopathy		
	E14.53 Unspecified diabetes mellitus, with diabetic cardiomyopathy		
	E10.52 Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene E11.52 Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene E14.52 unspecified diabetes	As principal diagnosis	
	mellitus with diabetic peripheral angiopathy with gangrene		
	E13.52 Other diabetes mellitus with diabetic peripheral angiopathy with gangrene		
	E10.51 Type 1 diabetes mellitus, with peripheral angiopathy, without gangrene	As principal diagnosis	
	E11.51 Type 2 diabetes mellitus, with peripheral angiopathy, without gangrene		
	E13.51 Other specified diabetes mellitus, with peripheral angiopathy, without gangrene		
	E14.51 Unspecified diabetes mellitus, with peripheral angiopathy, without gangrene		
	E10.61 Type 1 diabetes mellitus, with specified diabetic musculoskeletal and connective tissue complication	As principal diagnosis	
	E11.61 Type 2 diabetes mellitus, with specified diabetic musculoskeletal and connective tissue complication		

Category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
	E13.61 Other specified diabetes mellitus, with specified diabetic musculoskeletal and connective tissue complication		
	E14.61 Unspecified diabetes mellitus, with specified diabetic musculoskeletal and connective tissue complication		
	E10.62 Type 1 diabetes mellitus, with specified skin and subcutaneous tissue complication E11.62 Type 2 diabetes	As principal diagnosis	
	mellitus, with specified skin and subcutaneous tissue complication E13.62 Other specified		
	diabetes mellitus, with specified skin and subcutaneous tissue complication		
	E14.62 Unspecified diabetes mellitus, with specified skin and subcutaneous tissue complication		
	E10.7 Type 1 diabetes mellitus, with multiple complications	As principal diagnosis	
	E11.7 Type 2 diabetes mellitus, with multiple complications		
	E13.7 Other specified diabetes mellitus, with multiple complications		
	E14.7 Unspecified diabetes mellitus, with multiple complications		
Respiratory	J96.1 Chronic respiratory failure	As principal diagnosis with additional diagnoses of J41, J42, J43, J44. (chronic bronchitis and other COPD diagnoses) or J47 (Bronchiectasis) or J45 (Asthma)	
Consequences of alcohol abuse	F10.5 Mental and behavioural disorders due to use of alcohol, psychotic disorder	As principal diagnosis	
	F10.6 Mental and behavioural disorders due to use of alcohol – amnesic syndrome incl. Korsakov's psychosis/syndrome	As principal diagnosis (excludes Wernicke's encephalopathy)	

Category	ICD-10-AM code	Additional requirements <sup>(a)</sup>	Rationale
	F10.6 Mental and behavioural disorders due to use of alcohol – amnesic syndrome incl. Korsakov's psychosis/syndrome	As principal diagnosis with additional diagnosis of E51.2 (Wernicke's encephalopathy)	
	F10.7 Mental and behavioural disorders due to use of alcohol – residual and late-onset psychotic disorder	As principal diagnosis	

(a) Additional requirements for the reporting definition such as whether the condition must be a principal diagnosis, any other diagnoses or procedures which must also be present or excluded, or personal characteristics, such as, sex or age restrictions. The additional requirements based on procedure codes still need to be reviewed throughout this table.

# Appendix C: Differences between existing and proposed PPH specification

#### Table C.1: Summary of new conditions

Category <sup>(a)</sup>	ICD-10-AM code	Additional requirements
Vaccine-preventable – bacteria	al disease	
Tetanus (combined in Pertussis, and total DTAP [Diphtheria, Tetanus, and Pertussis])	A33 Tetanus neonatorum A34 Obstetrical tetanus	As principal diagnosis
Haemophilus infection and	G00.0 Haemophilus meningitis	As principal diagnosis
complication		Exclude where Chronic Obstructive Pulmonary Disease (COPD) is recorded as an additional diagnosis (J41 Simple and mucopurulent chronic bronchitis, J42 Unspecified chronic bronchitis, J43 Emphysema, J44 Other chronic obstructive pulmonary disease); or Bronchiectasis (J47) or Asthma (J45).
Meningococcal infection and complication	A39 Meningococcal infection	As principal diagnosis
Streptococcal infection and	A40.3 Sepsis due to Streptococcus	As principal diagnosis
complication	pneumonia G00.1 Pneumococcal meningitis G00.2 Streptococcal meningitis	Exclude where Chronic Obstructive Pulmonary Disease (COPD) is recorded as an additional diagnosis (J41 Simple and mucopurulent chronic bronchitis, J42 Unspecified chronic bronchitis, J43 Emphysema, J44 Other chronic obstructive pulmonary disease) or Bronchiectasis (J47) or Asthma (J45).
Vaccine-preventable – viral dis	ease	
Hepatitis A	B15 Acute hepatitis A	As principal diagnosis
Varicella	B02 Zostar [barnes zostar]	

Varicella	B02 Zoster [herpes zoster]	
Vaccine-preventable sexually transmitted pre-cancerous lesions due to HPV	A63.0 Anogenital (venereal) warts	As principal diagnosis
Vaccine-preventable perineal	N87 Dysplasia of cervix uteri	
cancer and pre-cancers due to HPV	N88.0 Leukoplakia of cervix uteri	
HEV	N89.0 Mild vaginal dysplasia,	
	N89.1 Moderate vaginal dysplasia	
	N89.2 Severe vaginal dysplasia, not elsewhere classified	
	N89.3 Dysplasia of vagina, unspecified	
	N89.4 Leukoplakia of vagina	
	N90.0 Mild vulvar dysplasia	
	N90.1 Moderate vulvar dysplasia	
	N90.2 Severe vulvar dysplasia, not elsewhere classified	
	N90.3 Dysplasia of vulva, unspecified	
	N90.4 Leukoplakia of vulva	
	C53 Malignant neoplasm of cervix uteri	
	C60 Malignant neoplasm of penis	
	C21 Malignant neoplasm of anus and anal canal	

Category <sup>(a)</sup>	ICD-10-AM code	Additional requirements
Vaccine-preventable oropharyngeal cancer due to HPV	C01 Malignant neoplasm of base of tongue C05.1 Soft palate	As principal diagnosis
	C05.2 Uvula	
	C09 Malignant neoplasm of tonsil	
	C10 Malignant neoplasm of oropharynx	
Skin infections		
Impetigo	L00 Staphylococcal scalded skin syndrome	As principal diagnosis
	L01 Impetigo	
Cellulitis	189.1 Lymphangitis	As principal diagnosis
	A46 Erysipelas	Excludes additional diagnosis of diabetic ulcers: E10.69, E10.73, E11.69, E11.73, E13.69, E13.73, E14.69, E14.73
Lymphadenitis	188 Nonspecific lymphadenitis	As principal diagnosis
		Excludes additional diagnosis of diabetic ulcers: E10.69, E10.73, E11.69, E11.73, E13.69, E13.73, E14.69, E14.73
Upper respiratory tract infect	ions	
Pharyngeal abscess	J36 Peritonsillar abscess	As principal diagnosis
	J39.0 Retropharyngeal and parapharyngeal abscess	Exclude cases with following procedures: 309 Myringotomy
	J39.1 Other abscess of pharynx	<ul> <li>412 Tonsillectomy or adenoidectomy</li> <li>312 (whole block) Excision procedures on eardrum or middle ear</li> <li>313 Myringoplasty</li> <li>323 Mastoidectomy</li> <li>305 Reconstruction procedures on external ear</li> </ul>
Scarlet fever	A38 Scarlet fever	As principal diagnosis
		Exclude cases with following procedures: 309 Myringotomy 412 Tonsillectomy or adenoidectomy 312 Excision procedures on eardrum or middle ear 313 Myringoplasty 323 Mastoidectomy 305 Reconstruction procedures on external ear
Otitis media	H66.0 Acute suppurative otitis media	As principal diagnosis
	H66.4 Suppurative otitis media, unspecified	Exclude cases with following procedures: 412 Tonsillectomy or adenoidectomy 312 Excision procedures on eardrum or middle ear 313 Myringoplasty 323 Mastoidectomy 305 Reconstruction procedures on external ear
Complex otitis media	H70.0 Acute mastoiditis	As principal diagnosis
	H70.1 Chronic mastoiditis	Exclude cases with following procedures:
	H70.2 Petrositis	309 Myringotomy
	H73.0 Acute myringitis	412 Tonsillectomy or adenoidectomy 312 Excision procedures on eardrum or middle ear
	H70.8 Other mastoiditis and related conditions	<ul> <li>313 Myringoplasty</li> <li>323 Mastoidectomy</li> <li>305 Reconstruction procedures on external ear</li> </ul>

Category <sup>(a)</sup>	ICD-10-AM code	Additional requirements
Lower respiratory tract infection	ons (without COPD)	
Pneumonia not associated with chronic respiratory condition	J15.9 Bacterial pneumonia, unspecified J18.0 Bronchopneumonia, unspecified J18.1 Lobar pneumonia, unspecified J18.8 Other pneumonia, organism unspecified J18.9 Pneumonia, unspecified	As principal diagnosis only <b>without</b> additional diagnoses of: J41 Simple and mucopurulent chronic bronchitis J42 Unspecified chronic bronchitis J43 Emphysema J44 Other chronic obstructive pulmonary disease J47 Bronchiectasis C33 Malignant neoplasm of trachea C34 Malignant neoplasm of bronchus and lung D02.2 Carcinoma in situ of middle ear and respiratory system: bronchus and lung
Bronchitis not associated with chronic respiratory condition	J20.0 Acute bronchitis due to <i>Mycoplasma pneumonia</i> J20.2 Acute bronchitis due to <i>streptococcus</i> J20.9 Acute bronchitis, unspecified	As principal diagnosis only <b>without</b> additional diagnoses of: J41 Simple and mucopurulent chronic bronchitis J42 Unspecified chronic bronchitis J43 Emphysema J44 Other chronic obstructive pulmonary disease J47 Bronchiectasis C33 Malignant neoplasm of trachea C34 Malignant neoplasm of bronchus and lung D02.2 Carcinoma in situ of middle ear and respiratory system: bronchus and lung
Acute respiratory failure not associated with chronic respiratory condition	J96.0 Acute respiratory failure J96.9 Respiratory failure, unspecified	As principal diagnosis only. <b>With</b> additional diagnoses of: J15.4 Pneumonia due to other streptococci J15.9 Bacterial pneumonia, unspecified J18.0 Bronchopneumonia, unspecified J18.1 Lobar pneumonia, unspecified J18.8 Other pneumonia, organism unspecified J20.0 <i>Mycoplasma pneumonia</i> J20.9 Acute bronchitis, unspecified J22 Unspecified acute lower respiratory infection <b>Without</b> additional diagnoses of: J41 Simple and mucopurulent chronic bronchitis J42 Unspecified chronic bronchitis J43 Emphysema J44 Other chronic obstructive pulmonary disease J47 Bronchiectasis C33 Malignant neoplasm of bronchus and lung D02.2 Carcinoma in situ of middle ear and respiratory system: bronchus and lung
Urinary tract infections		
Cystitis	N30.0 Acute cystitis N30.9 Cystitis, unspecified	As principal diagnosis
Genital infections		
Epididymo-orchitis	N45.0 Orchitis, epididymitis and epididymo-orchitis with abscess N45.9 Orchitis, epididymitis and epididymo-orchitis without abscess	As principal diagnosis

Category <sup>(a)</sup>	ICD-10-AM code	Additional requirements		
Congenital malformation	Q05 Spina bifida	As principal diagnosis		
	Q06 Other congenital malformations of spinal cord			
	Q07 Other congenital malformations of nervous system			
	Q00 Anencephaly and similar malformations			
	Q01 Encephalocele			
	Q02 Microcephaly			
	Q03 Congenital hydrocephalus			
	Q04 Other congenital malformations of brain			
Pregnancy, puerperium and ne	eonatal			
Neonatal conditions associated with maternal health	P35.0 Congenital rubella syndrome	As principal diagnosis		
	Q86.0 Fetal alcohol syndrome (dysmorphic)	As principal diagnosis		
	P23.3 Congenital pneumonia due to streptococcus, group B	As principal diagnosis		
	P36.0 Sepsis of newborn due to streptococcus, group B			
	P53 Haemorrhagic disease of fetus and newborn	As principal diagnosis		
	P04.2 Fetus and newborn affected by maternal use of tobacco	In any diagnosis		
	P04.3 Fetus and newborn affected by maternal use of alcohol			
	P04.4 Fetus and newborn affected by maternal use of drugs of addiction			
	P04.5 Fetus and newborn affected by maternal use of nutritional chemical substances			
Cardiovascular				
Acute myocardial infarction	I21 Acute myocardial infarction	As principal diagnosis		
Peripheral vascular disease	I70.2 Atherosclerosis of arteries of extremities	As principal diagnosis		
	I70 Atherosclerosis	As principal diagnosis with procedure codes from		
	I73 Other peripheral vascular diseases	the following:		
	I78 Diseases of capillaries	4436700 Amputation above knee		
	I79 Disorders of arteries, arterioles and capillaries in diseases classified elsewhere	4436702 Amputation below knee Procedure bock 1533 Amputation of ankle or foot		
Atrial fibrillation and flutter	148 Atrial fibrillation and flutter	As principal diagnosis		
Angina	I24.0 Coronary thrombosis not resulting in myocardial infarction	As principal diagnosis		
	I24.8 Other forms of acute ischaemic heart disease			
	I24.9 Acute ischaemic heart disease, unspecified			

Category <sup>(a)</sup>	ICD-10-AM code	Additional requirements		
Hypertension and hypertension	I10 Essential (primary) hypertension	As principal diagnosis		
management		Exclude cases with the following cardiac procedure codes:		
		Blocks 600–606, 608–650, 653–657, 660–664, 666, 669–682, 684–691, 693, 705–707, 717 and codes 33172–00[715], 33827–01[733], 34800– 00[726], 35412–00[11], 38721–01[733], 90217– 02[734], 90215–02[732]		
Heart failure	125.5 Ischaemic cardiomyopathy	As principal diagnosis		
	· · · · · · · · · · · · · · · · · · ·	Exclude cases with cardiac procedure codes above.		
Chronic respiratory conditions	5			
Infectious complication of chronic respiratory condition	J15.9 Bacterial pneumonia, unspecified	As principal diagnosis with additional diagnosis of J47 (Bronchiectasis) or of J41, J42, J43, J44		
	J18.0 Bronchopneumonia, unspecified	(chronic bronchitis and other COPD diagnoses) or		
	J18.1 Lobar pneumonia, unspecified	J45 (Asthma)		
	J18.8 Other pneumonia, organism unspecified			
	J18.9 Pneumonia, unspecified			
	J20.0 Acute bronchitis due to Mycoplasma pneumoniae			
	J20.1 Acute bronchitis due to Haemophilus influenzae			
	J20.2 Acute bronchitis due to streptococcus			
	J20.9 Acute bronchitis, unspecified			
Acute respiratory failure as result of chronic respiratory condition	J96.0 Acute respiratory failure J96.9 Respiratory failure, unspecified	As principal diagnosis with additional diagnoses of J41, J42, J43, J44 (chronic bronchitis and oth COPD diagnoses) or J47 (Bronchiectasis) or J45 (Asthma)		
Chronic respiratory failure as result of chronic respiratory condition	J96.1 Chronic respiratory failure	As principal diagnosis with additional diagnoses of J41, J42, J43, J44 (chronic bronchitis and other COPD diagnoses) or J47 (Bronchiectasis) or J45 (Asthma)		
Chronic renal				
Post streptococcal glomerulonephritis	N05 Unspecified nephritic syndrome	As principal diagnosis		
Hypertensive chronic kidney	I12.9 Hypertensive kidney disease without kidney failure	As principal diagnosis		
	I13.0 Hypertensive heart and kidney disease with (congestive) heart failure			
Nervous system dysfunction				
Migraines	G43 Migraine	As principal diagnosis		
Transient ischaemic attack	G45.3 Amaurosis fugax	As principal diagnosis		
	G45.8 Other transient cerebral ischaemic attacks and related syndromes			
	G45.9 Transient cerebral ischaemic attack, unspecified			
Stroke	G46.3 Brain stem stroke syndrome	As principal diagnosis		
	G46.4 Cerebellar stroke syndrome			
	G46.5 Pure motor lacunar syndrome			

Category <sup>(a)</sup>	ICD-10-AM code	Additional requirements
	G46.6 Pure sensory lacunar syndrome	
	G46.7 Other lacunar syndromes	
	163 Cerebral infarction	
	I65 Occlusion and stenosis of precerebral arteries, not resulting in cerebral infarction	
	I66 Occlusion and stenosis of cerebral arteries, not resulting in cerebral infarction	
	I67.8 Other specified cerebrovascular diseases	

#### Chronic gastrointestinal conditions

Constipation	K59.0 Constipation	As principal diagnosis
Gastroduodenal ulcer	K25.3 Gastric ulcer, acute without haemorrhage or perforation	As principal diagnosis
	K25.7 Gastric ulcer, chronic without haemorrhage or perforation	
	K25.9 Gastric ulcer, unspecified as acute or chronic, without haemorrhage or perforation	
	K26.3 Duodenal ulcer, acute without haemorrhage or perforation	
	K26.7 Duodenal ulcer, chronic without haemorrhage or perforation	
	K26.9 Duodenal ulcer, unspecified as acute or chronic, without haemorrhage or perforation	
	K27.3 Peptic ulcer, site unspecified, acute without haemorrhage or perforation	
	K27.7 Peptic ulcer, site unspecified without haemorrhage or perforation	
	K27.9 Peptic ulcer, site unspecified as acute or chronic, without haemorrhage or perforation	
	K28.3 Gastrojejunal ulcer, acute without haemorrhage or perforation	
	K28.7 Gastrojejunal ulcer, chronic without haemorrhage or perforation	
	K28.9 Gastrojejunal ulcer, unspecified as acute or chronic, without haemorrhage or perforation	
Complications from chronic	B17.1 Acute hepatitis C	As principal diagnosis
hepatitis C	B18.2 Chronic viral hepatitis C	
Complications from chronic	B18.1 Chronic viral hepatitis B without	As principal diagnosis
hepatitis B	delta-agent	Exclude additional diagnosis of B18.0 Chronic viral hepatitis B with delta-agent
Liver cancer due to chronic hepatitis C	C22.0 Liver cell carcinoma	As principal diagnosis
Mental health		
Anxiety	F41.0 Panic disorder	As principal diagnosis
	[episodic paroxysmal anxiety]	Excludes procedures in block 1907
	F41.1 Generalised anxiety disorder	Electroconvulsive therapy
	F41.8 Other specified anxiety disorders	
	F41.9 Anxiety disorder, unspecified	

Category <sup>(a)</sup>	ICD-10-AM code	Additional requirements		
Depression	F32 Depressive episode	As principal diagnosis		
	F33 Recurrent depressive disorder	Excludes procedures in block 1907 Electroconvulsive therapy		
Bipolar	F31 Bipolar affective disorder	As principal diagnosis		
		Excludes procedures in block 1907 Electroconvulsive therapy		
Medication management				
Medication misuse or	T40.2 Poisoning by narcotics and	As principal diagnosis		
mismanagement	psychodysleptics [hallucinogens]: Other opioids	Synthetic narcotics include oxycodone, fentanyl, hydromorphone		
	T40.3 Poisoning by narcotics and psychodysleptics [hallucinogens]: Methadone			
	T40.4 Poisoning by narcotics and psychodysleptics [hallucinogens]: Other synthetic narcotics			
Consequences of alcohol abu	ISE			
Dependence and withdrawal from alcohol	F10.2 Mental and behavioural disorders due to use of alcohol, dependence syndrome	As principal diagnosis		
	F10.3 Mental and behavioural disorders due to use of alcohol, withdrawal state			
	F10.4 Mental and behavioural disorders due to use of alcohol, withdrawal state with delirium			
Psychosis and amnesia from alcohol abuse	F10.5 Mental and behavioural disorders due to use of alcohol, psychotic disorder	As principal diagnosis		
	F10.6 Mental and behavioural disorders due to use of alcohol, amnesic syndrome incl. Korsakov's psychosis/syndrome	As principal diagnosis (excludes Wernicke's encephalopathy)		
	F10.6 Mental and behavioural disorders due to use of alcohol, amnesic syndrome incl. Korsakov's psychosis/syndrome	As principal diagnosis with additional diagnosis o E51.2 (Wernicke's encephalopathy)		
Residual mental and behavioural damage resulting from alcohol abuse	F10.7 Mental and behavioural disorders due to use of alcohol, residual and late-onset psychotic disorder	As principal diagnosis		
Alcohol induced conditions of pancreas	K85.2 Alcohol-induced acute pancreatitis	As principal diagnosis		
	K86.0 Alcohol-induced chronic pancreatitis			
Alcohol induced conditions of stomach	K29.2 Alcoholic gastritis	As principal diagnosis		
Alcohol induced conditions of iver	K70 Alcoholic liver disease	As principal diagnosis		
Alcohol induced conditions of	G62.1 Alcoholic polyneuropathy	As principal diagnosis		
neurological disorders	G72.1 Alcoholic myopathy			
Alcohol induced conditions of	142.6 Alcoholic cardiomyopathy	As principal diagnosis		

(a) This table details only the new conditions. For full category listing, please see Appendix 2.

## Appendix D: Principal diagnoses for vaccine-preventable conditions

#### Table D.1: Top 5 principal diagnoses for vaccine-preventable conditions (2015–16)

Rank		Condition	% of principal
Tetanus (A	(35, A33)		
	1	A35 Other tetanus	77.0
	2	M10.07 Idiopathic gout, ankle and foot	6.9
	3	K59.0 Constipation	5.6
	4	E84 Cystic fibrosis	4.6
	5	I70.23 Atherosclerosis of arteries of extremities with ulceration and P07.32 Other preterm infant, 32 or more completed weeks but less than 37 completed weeks	Both 2.3
Pertussis (	A37)*		
	1	A37.0 Whooping cough due to Bordetella pertussis	15.3
	2	A37.9 Whooping cough, unspecified	12.7
	3	Z86.43 Personal history of tobacco use disorder	3.6
	4	J17.0 Pneumonia in bacterial diseases classified elsewhere	2.7
	5	E86 Volume depletion	1.6
Diphtheria			
	1	T84.5 Infection and inflammatory reaction due to internal joint prosthesis	75.0
	2	A36.9 Diphtheria, unspecified	7.1
	3	A36.0 Pharyngeal diphtheria	3.6
	4	B50.9 Plasmodium falciparum malaria, unspecified	3.6
	5	J36 Peritonsillar abscess, L0314 Cellulitis of foot, T814 Wound infection following a procedure, not elsewhere classified	All 3.6
Haemophi	lus		
	1	J14 Pneumonia due to Haemophilus influenzae	12.3
	2	Z86.43 Personal history of tobacco use disorder	5.0
	3	N17.9 Acute kidney failure, unspecified	2.0
	4	J05.1 Acute epiglottitis	2.0
	5	Z72.0 Tobacco use, current	2.0
Meningoco	occal		
	1	A39.0 Meningococcal meningitis	61.1
	2	A39.2 Acute meningococcemia	25.6
	3	I21.4 Acute subendocardial myocardial infarction	2.4
	4	H44.1 Other endophthalmitis	2.0
	5	G06.0 Intracranial abscess and granuloma	1.4

Rank		Condition	% of principal
Streptococ	cal		
	1	A40.3 Sepsis due to Streptococcus pneumoniae	48.3
	2	G00.1 Haemophilus meningitis	22.1
	3	G00.2 Streptococcal meningitis	12.0
	4	P36.0 Sepsis of newborn due to streptococcus, group B	2.0
	5	C910.0 Acute lymphoblastic leukaemia without mention of remission	1.3
Influenza*			
	1	J10.1 Influenza with other respiratory manifestations, other influenza virus identified	26.0
	2	J10.0 Influenza with pneumonia, other influenza virus identified	15.4
	3	Z864.3 Personal history of tobacco use disorder	2.8
	4	E86 Volume depletion	2.0
	5	N17.9 Acute kidney failure, unspecified	2.0
Hepatitis A			
	1	B15.9 Acute hepatitis A without hepatic coma	9.8
	2	K85.9 Acute pancreatitis, unspecified	4.2
	3	O81 Single delivery by forceps and vacuum extractor	3.7
	4	I251.1 Atherosclerotic heart disease of native coronary artery	3.0
	5	M17.1 Other primary gonarthrosis	3.0
Hepatitis B	*		
·	1	B18.1 Chronic viral hepatitis B without delta-agent	55.7
	2	B16.9 Acute hepatitis B without delta-agent and without hepatic coma	38.6
	3	B16.2 Acute hepatitis B without delta-agent with hepatic coma	5.7
	4	NA	
	5	NA	
Measles			
	1	B05.9 Measles without complication	49.2
	2	A08.0 .3 Other viral enteritis	23.0
	3	B05.2 Measles complicated by pneumonia	13.1
	4	J84.8 Other specified interstitial pulmonary diseases	3.3
	5	B05.1 Measles complicated by meningitis	1.6
Mumps			
	1	B26.9 Mumps without complication	46.5
	2	A490.1 Staphylococcus aureus infection, unspecified site	7.6
	3	M10.07 Idiopathic gout, ankle and foot	5.1
	4	B26.8 Mumps with other complications	4.5
	5	O83 Other assisted single delivery, R55 Syncope and collapse	Both 4.5
Rubella	•		2011 4.0
abona	1	O36.5 Maternal care for poor fetal growth	33.3
	2	B06.9 Rubella without complication	16.7
	4		10.7
	3	O82 Single delivery by caesarean section	16.7

Rank		Condition	% of principal
	5	O81 Single delivery by forceps and vacuum extractor	11.1
Acute polic	)		
	1	R298.8 Other and unspecified symptoms and signs involving the nervous system	54.0
	2	S724.1 Fracture of femoral condyle	15.9
	3	A80.9 Acute poliomyelitis, unspecified	12.7
	4	A09.9 Gastroenteritis and colitis of unspecified origin	4.8
	5	S720.1 Fracture of intracapsular section of femur	4.8
Varicella			
	1	B02.9 Zoster without complication	9.0
	2	B02.2 Zoster with other nervous system involvement	6.8
	3	B02.3 Zoster ocular disease	4.6
	4	G53.0 Postzoster neuralgia	2.7
	5	B02.8 Zoster with other complications	2.0
Cancer and	d pre-ca	ncer lesions	
	1	Z51.1 Pharmacotherapy session for neoplasm	10.0
	2	C53.9 Malignant neoplasm of cervix uteri, unspecified	8.4
	3	C01 Malignant neoplasm of base of tongue	7.1
	4	C09.9 Malignant neoplasm of Tonsil, unspecified	5.3
	5	D06. 9 Carcinoma in situ of cervix, unspecified	3.0

\* Indicates that principal diagnosis used to form definition so listed conditions are additional diagnoses present. *Source:* Admitted patient care NHMD 2015–16.

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	Principal diagnosis only		Principal and addition	% change from all diagnosis	
	Separations	Rate	Separations	Rate	to principal only <sup>(a)</sup>
Pertussis	319	1.3	468	1.9	-31.8
Diphtheria, tetanus, and pertussis [DTaP]	329	1.4	483	2.0	-31.9
Haemophilus infection and complication	n.p.	n.p.	n.p.	n.p.	n.p.
Meningococcal infection and complication	138	0.6	165	0.7	-16.4
Streptococcal infection and complication	1,152	4.6	1,625	6.5	-29.1
Total vaccine preventable bacterial meningitis	176	0.7	957	3.8	-81.6
Total vaccine preventable bacterial pneumonia	928	3.8	1,322	5.3	-29.8
Total vaccine preventable bacterial conditions	1,632	6.7	2,286	9.3	-28.6
Vaccine preventable influenza	5,496	22.7	5,496	22.7	0.0
Hepatitis A	63	0.3	201	0.8	-68.7
Hepatitis B	63	0.3	63	0.3	0.0
Rotavirus	730	3.1	1,134	4.8	-35.6
Varicella	1,161	4.6	2,643	10.1	-56.1
Measles	27	0.1	32	0.1	-15.6
Mumps	60	0.3	73	0.3	-17.8
Rubella	n.p.	n.p.	n.p.	n.p.	n.p.
Polio	n.p.	n.p.	n.p.	n.p.	n.p.
Total measles, mumps, and rubella[MMR] and vaccine preventable polio	87	0.4	111	0.5	-21.6
Vaccine preventable oropharyngeal cancer due to HPV	1,321	4.9	2,176	8.1	-39.3
Vaccine preventable pre-cancers due to HPV [Cervical, vaginal, penile, and peri- anal lesions]	538	2.2	1,197	4.9	-55.1
Vaccine preventable cancer due to HPV [Cervical, vaginal, penile, and peri-anal cancers]	1,216	4.9	2,229	8.9	-45.4
Total vaccine preventable cancer and precancers	3,075	12	5,594	21.8	-45.0
Total vaccine preventable viral conditions	10,675	43.3	15,213	60.9	-29.8

### Table D.2: Difference in separations for vaccine-preventable conditions based on standard for inclusion, 2015–16

Note: Additional diagnosis of chronic respiratory conditions and chronic hepatitis B are excluded to ensure consistent comparison with principal only data.

49.9

12,307

Source: Admitted patient care NHMD 2015-16.

Total vaccine preventable conditions

17,453

70.0

-29.5

### **Appendix E: Restriction of care type**

Table E.1: Comparison of PPH separations with current NHA definition of care type inclusions, and acute and mental health care types only

	NHA definitio	n excl. 75	Acute and mental h only exe	
Condition	Separations Rate		Separations	Rate
Pertussis	319	1.3	319	1.:
Diphtheria, tetanus, and pertussis [DTaP]	329	1.4	329	1.4
Haemophilus infection and complication	n.p.	n.p.	n.p.	n.p
Meningococcal infection and complication	138	0.6	138	0.0
Streptococcal infection and complication	1,158	4.7	1,152	4.0
Total vaccine preventable bacterial meningitis	181	0.7	176	0.
Total vaccine preventable bacterial pneumonia	929	3.8	928	3.5
Total vaccine preventable bacterial conditions	1,638	6.7	1,632	6.
Vaccine preventable influenza	5,498	22.7	5,496	22.
Hepatitis A	63	0.3	63	0.
Hepatitis B	63	0.3	63	0.
Rotavirus	731	3.1	730	3.
Varicella	1,163	4.6	1,161	4.
Measles	27	0.1	27	0.
Mumps	60	0.3	60	0.
Rubella	n.p.	n.p.	n.p.	n.ŗ
Polio	n.p.	n.p.	n.p.	n.ŗ
Total measles, mumps, and rubella[MMR] and vaccine preventable polio	87	0.4	87	0.
Vaccine preventable oropharyngeal cancer due to HPV	1,393	5.2	1,321	4.
Vaccine preventable pre-cancers due to HPV [Cervical, vaginal, penile, and peri-anal lesions]	538	2.2	538	2.
Vaccine preventable cancer due to HPV [Cervical, vaginal, penile, and peri-anal cancers]	1,310	5.3	1,216	4.
Total vaccine preventable cancer and precancers	3,241	12.7	3,075	12.
Total vaccine preventable viral conditions	10,846	44.0	10,675	43.
Total vaccine preventable conditions	12,484	50.6	12,307	49.
Cutaneous abscess	15,922	68.3	15,915	68.
Impetigo	638	2.8	615	2.
Cellulitis	25,995	105.0	25,940	104.
Lymphadenitis	3,947	17.8	3,945	17.8

	NHA definitio	n excl. 75	Acute and mental health care types only excl. 75	
Condition	Separations Rate		Separations	Rate
Total skin infections	46,502	193.8	46,415	193.
Pharyngeal abscess	2,837	12.2	2,837	12.
Pharyngitis	1,300	5.6	1,300	5.
Tonsillitis	7,582	33.1	7,581	33.
Scarlet fever	115	0.5	115	0.
Otitis media	120	0.5	120	0.
Complex otitis media [mastoiditis / petrositis]	111	0.5	111	0.
Total upper respiratory tract infections	12,065	52.4	12,064	52.
Pneumonia not associated with chronic respiratory condition	27,450	110.1	27,378	109.
Acute respiratory failure not associated with chronic respiratory condition	269	1.0	267	1.
Bronchitis not associated with chronic respiratory condition	541	2.2	538	2
Total lower respiratory tract infections	28,260	113.3	28,183	113
Cystitis	18,931	74.5	18,877	74
Pyonephrosis	197	0.8	196	0
Total urinary tract infections	19,128	75.3	19,073	75
Pelvic inflammatory disease	389	1.7	389	1
Epididymo-orchitis	2,314	9.5	2,314	9
Chronic pelvic inflammatory disease	435	1.9	435	1
Total genital infections	3,138	13.1	3,138	13
Eclampsia	51	0.2	51	0
Congenital malformation	712	3.1	637	2
Neonatal conditions associated with maternal health	295	1.3	21	0
Total pregnancy, puerperium and neonatal conditions	1,058	4.6	709	3.
Total acute conditions	110,151	452.4	109,582	450
Acute rheumatic fever	352	1.6	351	1.
Primary hypertension	3,409	13.1	3,408	13
Short term chronic cardiovascular conditions	3,761	14.7	3,759	14
Atrial fibrillation	21,696	79.2	21,692	79.
Hypertensive heart disease without heart failure	59	0.2	59	0
Acute myocardial infarction	20,182	75.0	20,169	75
Angina	17,160	62.7	17,158	62.
Peripheral vascular disease excluding lower limb amputation	6,549	23.4	6,515	23

	NHA definitio	n excl. 75		Acute and mental health care types only excl. 75	
Condition	Separations	Rate	Separations	Rate	
Medium term chronic cardiovascular conditions	65,646	240.6	65,593	240.4	
Rheumatic valvular heart disease	1,149	4.4	1,148	4.4	
Chronic heart failure	14,291	52.1	14,219	51.8	
Peripheral vascular disease including lower limb amputation	338	1.2	338	1.2	
Long term chronic cardiovascular conditions	15,778	57.7	15,705	57.4	
Total chronic cardiovascular conditions	85,185	312.9	85,057	312.4	
Epilepsy	21,120	89.1	21,071	88.9	
Migraine	7,794	32.9	7,782	32.9	
Short term chronic nervous system conditions	28,914	122.0	28,853	121.8	
Transient ischaemic attack	5,128	18.9	5,127	18.9	
Stroke	9,862	36.1	9,734	35.6	
Medium term chronic nervous system conditions	14,990	55.0	14,861	54.5	
Total chronic nervous system conditions	43,904	177.0	43,714	176.3	
Constipation	9,260	37.6	9,184	37.3	
Gastroduodenal ulcer with haemorrhage	1,951	7.4	1,950	7.4	
Gastroduodenal ulcer without haemorrhage	1,482	6.0	1,482	6.0	
Short term chronic gastrointestinal conditions	12,693	50.9	12,616	50.7	
Complications from chronic hepatitis C	167	0.7	166	0.7	
Complications from chronic hepatitis B	54	0.2	53	0.2	
Liver cancer due to chronic hepatitis B and C	2,151	7.7	2,003	7.2	
Medium term chronic gastrointestinal conditions	2,372	8.6	2,222	8.1	
Total chronic gastrointestinal conditions	15,065	59.6	14,838	58.7	
Diabetic hyperosmolar states	551	2.1	550	2.1	
Diabetic ketoacidosis	6,112	26.4	6,110	26.4	
Diabetic hypoglycaemia	1,947	7.6	1,942	7.6	
Poor control of diabetes	3,942	15.8	3,932	15.8	
Short term chronic diabetes complications	12,552	52.0	12,534	51.9	
Diabetic kidney complications	295	1.1	287	1.1	
Diabetic ophthalmic complications	127	0.5	127	0.5	
Diabetic neurological complications	526	2.0	520	2.0	
Medium term chronic diabetes complications	948	3.6	934	3.6	

	NHA definitio	n excl. 75	Acute and mental health care types only excl. 75		
Condition	Separations	Rate	Separations	Rate	
Angiopathy and angiopathy complications due to diabetes	1,868	6.6	1,812	6.4	
Other and multiple diabetic complications	4,461	16.9	4,421	16.8	
Long term chronic diabetes complications	6,329	23.6	6,233	23.2	
Total diabetic conditions	19,829	79.1	19,701	78.7	
Asthma	18,335	78.9	18,332	78.9	
Short term chronic respiratory conditions	18,335	78.9	18,332	78.9	
Bronchiectasis	2,641	10.1	2,631	10.0	
COPD	30,225	108.9	30,001	108.	
Infectious conditions with underlying chronic respiratory conditions[Asthma, COPD, Bronchiectasis]	6,642	25.0	6,614	24.	
Acute respiratory failure associated with chronic respiratory conditions [Asthma, COPD, Bronchiectasis]	1,118	4.0	1,114	4.	
Medium term chronic respiratory conditions	40,626	148.0	40,360	147.	
Chronic respiratory failure associated with chronic respiratory conditions[Asthma, COPD, Bronchiectasis]	78	0.3	77	0.	
Long term chronic respiratory conditions	78	0.3	77	0.	
Total chronic respiratory conditions	59,039	227.2	58,769	226.	
Post streptococcal glomerulonephritis	289	1.2	289	1.	
Tubulo-interstitial nephrititis	9,936	41.5	9,928	41.	
Short term chronic renal conditions	10,225	42.7	10,217	42.	
Hypertensive chronic kidney disease	119	0.5	119	0.	
Medium term chronic renal conditions	119	0.5	119	0.	
Total chronic renal conditions	10,344	43.1	10,336	43.	
Anxiety	5,391	22.6	5,332	22.	
Depression	24,686	103.5	24,229	102.	
Bipolar	10,598	44.3	10,458	43.	
Medium term chronic mental health conditions	40,675	170.3	40,019	168.	
Total chronic mental health conditions	40,675	170.3	40,019	168.	
Prescription opioid overdose or adverse event	1,937	8.2	1,929	8.	
Short term chronic substance misuse	1,937	8.2	1,929	8.	
Alcohol-induced conditions of stomach	1,105	4.7	1,105	4.	
Short term conditions due to chronic alcohol abuse	1,105	4.7	1,105	4.	

	NHA definitio	n excl. 75	Acute and mental health care types only excl. 75		
Condition	Separations	Rate	Separations	Rate	
Alcohol dependence	14,358	60.4	14,234	59.9	
Alcohol-induced conditions of pancreas	3,639	15.4	3,637	15.4	
Alcohol-induced conditions of neurological system	69	0.3	68	0.3	
Alcohol-induced conditions of heart	93	0.4	93	0.4	
Alcohol-induced conditions of liver Medium term conditions due to chronic alcohol abuse	3,792	15.0	3,724	14.8	
	21,951	91.5	21,756	90.8	
Psychosis and amnesia due to alcohol abuse	313	1.3	310	1.3	
Residual behavioural and mental impacts of alcohol abuse	120	0.4	118	0.4	
Long term conditions due to chronic alcohol abuse	433	1.7	428	1.7	
Total conditions caused by alcohol abuse	23,489	97.9	23,289	97.2	
Total short term chronic conditions	89,522	374.0	89,345	373.3	
Total medium term chronic conditions	187,327	718.1	185,864	713.0	
Total long term chronic conditions	22,618	83.2	22,443	82.6	
Total chronic conditions	299,467	1,175.3	297,652	1,168.9	
Total PPH admissions	422,102	1,678.3	419,541	1,668.9	

Note: Where rates are based on less than 20 separations, or populations less than 1000 individual in geographic region, these have been suppressed. Source: Admitted patient care NHMD 2015–16.

### Appendix F: Difference in admissions between those aged under 75 and those aged 75 and over

Table F.1: Comparison of separations and age-standardised rates where ages 75 and over are included or excluded (2015–16)

	Ages 0 to	o 74	Ages 0 to	9 84	% of admissions 75 years and
	Separations	Rate	Separations	Rate	over
Pertussis	319	1.3	350	1.4	8.9
Diphtheria, tetanus, and pertussis [DTaP]	329	1.4	362	1.5	9.1
Haemophilus infection and complication	n.p.	n.p.	n.p.	n.p.	n.p
Meningococcal infection and complication	138	0.6	148	0.6	6.8
Streptococcal infection and complication	1,152	4.6	1,503	5.9	23.4
Total vaccine preventable bacterial meningitis	176	0.7	185	0.8	4.9
Total vaccine preventable bacterial pneumonia	928	3.8	1,223	4.8	24.
Total vaccine preventable bacterial conditions	1,632	6.7	2,027	8.1	19.
Vaccine preventable influenza	5,496	22.7	7,365	29.3	25.4
Hepatitis A	63	0.3	68	0.3	7.4
Hepatitis B	63	0.3	65	0.3	3.
Rotavirus	730	3.1	798	3.3	8.9
Varicella	1,161	4.6	2,103	7.9	44.8
Measles	27	0.1	27	0.1	
Mumps	60	0.3	62	0.3	3.
Rubella	n.p.	n.p.	n.p.	n.p.	n.p
Polio	n.p.	n.p.	n.p.	n.p.	n.p
Total measles, mumps, and rubella[MMR] and vaccine preventable polio	87	0.4	89	0.4	2.2
Vaccine preventable oropharyngeal cancer due to HPV Vaccine preventable pre-cancers due to	1,321	4.9	1,472	5.5	10.
HPV [Cervical, vaginal, penile, and peri-anal lesions] Vaccine preventable cancer due to HPV [Cervical, vaginal, penile, and peri-anal	538	2.2	588	2.4	8.
cancers]	1,216	4.9	1,476	5.9	17.0
Total vaccine preventable cancer and precancers	3,075	12.0	3,536	13.8	13.0

	Ages 0 to	o 74	Ages 0 to	o 84	% o admissions 75 years and
	Separations	Rate	Separations	Rate	ove
Total vaccine preventable viral conditions	10,675	43.3	14,024	55.3	23.9
Total vaccine preventable conditions	12,307	49.9	16,051	63.4	23.3
Cutaneous abscess	15,915	68.3	16,550	70.6	3.8
Impetigo	615	2.7	630	2.7	2.4
Cellulitis	25,940	104.8	36,397	141.3	28.
Lymphadenitis	3,945	17.8	3,984	17.9	1.0
Total skin infections	46,415	193.5	57,561	232.6	19.4
Pharyngeal abscess	2,837	12.2	2,873	12.4	1.3
Pharyngitis	1,300	5.6	1,368	5.8	5.0
Tonsillitis	7,581	33.1	7,604	33.2	0.:
Scarlet fever	115	0.5	117	0.5	1.
Otitis media	120	0.5	124	0.5	3.
Complex otitis media [mastoiditis / petrositis]	111	0.5	127	0.5	12.
Total upper respiratory tract infections	12,064	52.4	12,213	52.9	1.
Pneumonia not associated with chronic respiratory condition	27,378	109.8	46,498	175.6	41.
Acute respiratory failure not associated with chronic respiratory condition	267	1.0	472	1.8	43.
Bronchitis not associated with chronic respiratory condition	538	2.2	844	3.2	36.
Total lower respiratory tract infections	28,183	113.1	47,814	180.6	41.
Cystitis	18,877	74.3	38,041	140.4	50.
Pyonephrosis	196	0.8	266	1.0	26.
Total urinary tract infections	19,073	75.0	38,307	141.4	50.
Pelvic inflammatory disease	389	1.7	391	1.7	0.
Epididymo-orchitis	2,314	9.5	2,735	11.1	15.
Chronic pelvic inflammatory disease	435	1.9	438	1.9	0.
Total genital infections	3,138	13.1	3,564	14.7	12.
Eclampsia	51	0.2	51	0.2	
Congenital malformation	637	2.8	649	2.8	1.
Neonatal conditions associated with maternal health	21	0.1	21	0.1	

	Ages 0 te	o 74	Ages 0 to	9 84	% c admission 75 years an
	Separations	Rate	Separations	Rate	ove
Total pregnancy, puerperium and neonatal conditions	709	3.1	721	3.1	1.
Total acute conditions	109,582	450.1	160,180	625.3	31.
Acute rheumatic fever	351	1.6	356	1.6	1.
Primary hypertension	3,408	13.0	6,475	23.9	47.
Short term chronic cardiovascular conditions	3,759	14.6	6,831	25.5	45.
Atrial fibrillation	21,692	79.2	37,805	137.6	42
Hypertensive heart disease without heart ailure	59	0.2	90	0.3	34
Acute myocardial infarction	20,169	75.0	32,932	120.3	38
Angina	17,158	62.7	26,395	96.8	35
Peripheral vascular disease excluding lower imb amputation	6,515	23.3	13,204	47.3	50
Medium term chronic cardiovascular conditions	65,593	240.4	110,426	402.2	40
Rheumatic valvular heart disease	1,148	4.4	1,813	6.9	36
Chronic heart failure	14,219	51.8	46,586	162.8	69
Peripheral vascular disease including lower imb amputation	338	1.2	767	2.7	55
Long term chronic cardiovascular conditions	15,705	57.4	49,166	172.4	68
Fotal chronic cardiovascular conditions	85,057	312.4	166,423	600.1	48
Epilepsy	21,071	88.9	23,644	98.3	10
Aigraine	7,782	32.9	8,189	34.4	5
Short term chronic nervous system conditions	28,853	121.8	31,833	132.7	9
Fransient ischaemic attack	5,127	18.9	10,716	38.6	52
Stroke	9,734	35.6	20,267	73.1	52
Aedium term chronic nervous system conditions	14,861	54.5	30,983	111.7	52
Total chronic nervous system conditions	43,714	176.3	62,816	244.3	30
Constipation	9,184	37.3	15,864	60.5	42
Sastroduodenal ulcer with haemorrhage	1,950	7.4	3,378	12.5	42
Gastroduodenal ulcer without haemorrhage	1,482	6.0	1,975	7.7	25
Short term chronic gastrointestinal conditions	12,616	50.7	21,217	80.8	40
Complications from chronic hepatitis C	166	0.7	171	0.7	2

	Ages 0 t	o 74	Ages 0 to	o 84	% c admission 75 years an
	Separations	Rate	Separations	Rate	ove
Complications from chronic hepatitis B	53	0.2	55	0.2	3.
Liver cancer due to chronic hepatitis B and C Medium term chronic gastrointestinal	2,003	7.2	2,511	9.2	20.
conditions	2,222	8.1	2,737	10.1	18.
Total chronic gastrointestinal conditions	14,838	58.7	23,954	90.9	38.
Diabetic hyperosmolar states	550	2.1	860	3.2	36.
Diabetic ketoacidosis	6,110	26.4	6,410	27.5	4.
Diabetic hypoglycaemia	1,942	7.6	3,198	12.1	39.
Poor control of diabetes	3,932	15.8	5,221	20.5	24.
Short term chronic diabetes complications	12,534	51.9	15,689	63.4	20.
Diabetic kidney complications	287	1.1	465	1.7	38.
Diabetic ophthalmic complications	127	0.5	167	0.7	24.
Diabetic neurological complications	520	2.0	770	2.9	32
Medium term chronic diabetes complications	934	3.6	1,402	5.3	33.
Angiopathy and angiopathy complications due to diabetes	1,812	6.4	3,203	11.6	43
Other and multiple diabetic complications	4,421	16.8	5,945	22.4	25
Long term chronic diabetes complications	6,233	23.2	9,148	33.9	31
Total diabetic conditions	19,701	78.7	26,239	102.6	24
Asthma	18,332	78.9	20,027	85.1	8
Short term chronic respiratory conditions	18,332	78.9	20,027	85.1	8
Bronchiectasis	2,631	10.0	4,484	16.9	41
COPD Infectious conditions with underlying chronic	30,001	108.1	55,399	201.2	45
respiratory conditions[Asthma, COPD, Bronchiectasis] Acute respiratory failure associated with	6,614	24.9	13,986	51.1	52
chronic respiratory conditions [Asthma, COPD, Bronchiectasis]	1,114	4.0	1,741	6.4	36
Medium term chronic respiratory conditions Chronic respiratory failure associated with	40,360	147.1	75,610	275.5	46
chronic respiratory conditions[Asthma, COPD, Bronchiectasis]	77	0.3	118	0.4	34
Long term chronic respiratory conditions	77	0.3	118	0.4	34.
Total chronic respiratory conditions	58,769	226.2	95,755	360.9	38.

	Ages 0 t	o 74	Ages 0 to	o 84	% o admission 75 years an	
	Separations	Rate	Separations	Rate	ove	
Post streptococcal glomerulonephritis	289	1.2	305	1.3	5.	
Tubulo-interstitial nephrititis	9,928	41.4	10,925	45.1	9.	
Short term chronic renal conditions	10,217	42.7	11,230	46.4	9.	
Hypertensive chronic kidney disease	119	0.5	203	0.8	41.	
Medium term chronic renal conditions	119	0.5	203	0.8	41.	
Total chronic renal conditions	10,336	43.1	11,433	47.2	9.	
Anxiety	5,332	22.4	6,353	26.0	16.	
Depression	24,229	102.0	25,703	107.5	5.	
Bipolar	10,458	43.8	10,731	44.9	2.	
Medium term chronic mental health conditions	40,019	168.1	42,787	178.4	6.	
Total chronic mental health conditions	40,019	168.1	42,787	178.4	6	
Prescription opioid overdose or adverse event	1,929	8.1	2,114	8.8	8	
Short term chronic substance misuse	1,929	8.1	2,114	8.8	8	
Alcohol-induced conditions of stomach	1,105	4.7	1,114	4.7	0	
Short term conditions due to chronic alcohol abuse	1,105	4.7	1,114	4.7	0	
Alcohol dependence	14,234	59.9	14,382	60.5	1	
Alcohol-induced conditions of pancreas	3,637	15.4	3,695	15.7	1	
Alcohol-induced conditions of neurological system	68	0.3	76	0.3	10	
Alcohol-induced conditions of heart	93	0.4	97	0.4	4	
Alcohol-induced conditions of liver	3,724	14.8	3,874	15.3	3	
Medium term conditions due to chronic alcohol abuse	21,756	90.8	22,124	92.2	1	
Psychosis and amnesia due to alcohol abuse	310	1.3	318	1.3	2	
Residual behavioural and mental impacts of alcohol abuse	118	0.4	162	0.6	27	
Long term conditions due to chronic alcohol abuse	428	1.7	480	1.9	10	
Total conditions caused by alcohol abuse	23,289	97.2	23,718	98.8	1	
Total short term chronic conditions	89,345	373.3	110,055	447.3	18	
Total medium term chronic conditions	185,864	713.0	286,272	1,076.1	35	
Total long term chronic conditions	22,443	82.6	58,912	208.6	61.	

	Ages 0 to 74		Ages 0 to	% of admissions 75 years and	
	Separations	Rate	Separations	Rate	over
Total chronic conditions	297,652	1,168.9	455,239	1,732.0	34.6
Total PPH admissions	419,541	1,668.9	631,470	2,420.7	33.6

Note: Where rates are based on less than 20 separations, or populations less than 1000 individual in geographic region, these have been suppressed.

Source: Admitted patient care NHMD 2015-16.

# Appendix G: Comparison with and without same day and hospital-in-the-home

Table G.1: Comparison of PPH separations with and without same day and hospital-in-thehome included

	Same day and H home exclu		Same day ex and Hospital i include	in home	Same day Hospital in include	home
Condition	Separations	Rate	Separations	Rate	Separations	Rate
Pertussis	319	1.3	326	1.4	401	1.7
Diphtheria, tetanus, and pertussis [DTaP]	329	1.4	336	1.4	414	1.7
Haemophilus infection and complication	n.p.	n.p.	n.p.	n.p.	20	0.1
Meningococcal infection and complication	138	0.6	158	0.7	174	0.7
Streptococcal infection and complication	1,152	4.6	1,223	4.9	1,278	5.2
Total vaccine preventable bacterial meningitis	176	0.7	228	0.9	244	1.0
Total vaccine preventable bacterial pneumonia	928	3.8	952	3.9	993	4.0
Total vaccine preventable bacterial conditions	1,632	6.7	1,735	7.1	1,886	7.7
Vaccine preventable influenza	5,496	22.7	5,566	23.0	6,647	27.6
Hepatitis A	63	0.3	64	0.3	70	0.3
Hepatitis B	63	0.3	64	0.3	70	0.3
Rotavirus	730	3.1	743	3.2	794	3.4
Varicella	1,161	4.6	1,189	4.7	1,583	6.2
Measles	27	0.1	27	0.1	34	0.2
Mumps	60	0.3	61	0.3	82	0.4
Rubella	n.p.	n.p.	n.p.	n.p.	n.p.	n.p
Polio Total measles, mumps, and	n.p.	n.p.	n.p.	n.p.	n.p.	n.p
rubella[MMR] and vaccine preventable polio Vaccine preventable	87	0.4	88	0.4	119	0.5
oropharyngeal cancer due to HPV Vaccine preventable pre- cancers due to HPV	1,321	4.9	1,335	5.0	2,094	7.8
[Cervical, vaginal, penile, and peri-anal lesions] Vaccine preventable cancer due to HPV [Cervical,	538	2.2	540	2.2	7,771	32.7
vaginal, penile, and peri-anal cancers]	1,216	4.9	1,224	4.9	2,279	9.2
Total vaccine preventable cancer and precancers	3,075	12.0	3,099	12.1	12,144	49.6

	Same day and F home excl		Same day ex and Hospital include	in home	Same day Hospital in include	home
Condition	Separations	Rate	Separations	Rate	Separations	Rate
Total vaccine preventable viral conditions	10,675	43.3	10,813	43.9	21,427	87.9
Total vaccine preventable conditions	12,307	49.9	12,548	50.9	23,313	95.6
Cutaneous abscess	15,915	68.3	17,178	73.6	21,375	91.5
Impetigo	615	2.7	653	2.8	747	3.2
Cellulitis	25,940	104.8	32,855	132.5	38,836	156.8
Lymphadenitis	3,945	17.8	3,999	18.0	5,214	23.4
Total skin infections	46,415	193.5	54,685	226.9	66,172	275.0
Pharyngeal abscess	2,837	12.2	2,845	12.3	3,562	15.4
Pharyngitis	1,300	5.6	1,314	5.6	2,294	9.8
Tonsillitis	7,581	33.1	7,701	33.6	12,249	53.4
Scarlet fever	115	0.5	117	0.5	146	0.7
Otitis media	120	0.5	127	0.5	187	0.8
Complex otitis media [mastoiditis / petrositis]	111	0.5	120	0.5	170	0.7
Total upper respiratory tract infections Pneumonia not associated	12,064	52.4	12,224	53.1	18,608	80.8
with chronic respiratory condition Acute respiratory failure not associated with chronic	27,378	109.8	28,366	113.9	32,791	131.8
respiratory condition Bronchitis not associated with chronic respiratory	267	1.0	270	1.0	291	1.1
condition	538	2.2	545	2.2	778	3.2
Total lower respiratory tract infections	28,183	113.1	29,181	117.2	33,860	136.1
Cystitis	18,877	74.3	19,518	76.8	31,033	122.6
Pyonephrosis	196	0.8	202	0.8	224	0.9
Total urinary tract infections	19,073	75.0	19,720	77.6	31,257	123.4
Pelvic inflammatory disease	389	1.7	395	1.7	434	1.9
Epididymo-orchitis	2,314	9.5	2,350	9.6	3,750	15.6
Chronic pelvic inflammatory disease	435	1.9	437	1.9	689	3.0
Total genital infections	3,138	13.1	3,182	13.2	4,873	20.5
Eclampsia	51	0.2	51	0.2	62	0.3
Congenital malformation	637	2.8	641	2.8	1,077	4.7

	Same day and H home exclu		Same day ex and Hospital include	in home	Same day Hospital in include	home
Condition	Separations	Rate	Separations	Rate	Separations	Rate
Neonatal conditions associated with maternal health Total pregnancy,	21	0.1	22	0.1	26	0.1
puerperium and neonatal conditions	709	3.1	714	3.1	1,165	5.1
Total acute conditions	109,582	450.1	119,706	491.0	155,935	640.8
Acute rheumatic fever	351	1.6	364	1.7	427	1.9
Primary hypertension	3,408	13.0	3,468	13.3	5,233	20.2
Short term chronic cardiovascular conditions	3,759	14.6	3,832	15.0	5,660	22.1
Atrial fibrillation	21,692	79.2	21,860	79.8	38,470	140.3
Hypertensive heart disease without heart failure	59	0.2	59	0.2	81	0.3
Acute myocardial infarction	20,169	75.0	20,299	75.5	24,197	90.0
Angina Peripheral vascular disease excluding lower limb	17,158	62.7	17,245	63.0	26,355	96.6
amputation	6,515	23.3	6,580	23.5	8,934	32.0
Medium term chronic cardiovascular conditions	65,593	240.4	66,043	242.0	98,037	359.3
Rheumatic valvular heart disease	1,148	4.4	1,215	4.6	1,797	6.8
Chronic heart failure Peripheral vascular disease including lower limb	14,219	51.8	14,520	52.9	16,412	59.8
amputation	338	1.2	348	1.3	351	1.3
Long term chronic cardiovascular conditions	15,705	57.4	16,083	58.8	18,560	67.9
Total chronic cardiovascular conditions	85,057	312.4	85,958	315.8	122,257	449.3
Epilepsy	21,071	88.9	21,167	89.3	32,329	137.2
Migraine	7,782	32.9	7,795	33.0	17,285	73.6
Short term chronic nervous system conditions	28,853	121.8	28,962	122.2	49,614	210.8
Transient ischaemic attack	5,127	18.9	5,150	19.0	7,209	26.7
Stroke	9,734	35.6	9,793	35.9	10,716	39.3
Medium term chronic nervous system conditions	14,861	54.5	14,943	54.8	17,925	66.0
Total chronic nervous system conditions	43,714	176.3	43,905	177.0	67,539	276.9
Constipation	9,184	37.3	9,212	37.4	22,645	91.0
Gastroduodenal ulcer with haemorrhage	1,950	7.4	1,965	7.5	2,309	8.8
Gastroduodenal ulcer without haemorrhage	1,482	6.0	1,499	6.0	4,206	16.5

	Same day and H home exclu		Same day ex and Hospital i include	n home		ne day and bital in home ncluded	
Condition	Separations	Rate	Separations	Rate	Separations	Rate	
Short term chronic gastrointestinal conditions	12,616	50.7	12,676	50.9	29,160	116.	
Complications from chronic hepatitis C	166	0.7	169	0.7	326	1.3	
Complications from chronic hepatitis B	53	0.2	54	0.2	97	0.	
Liver cancer due to chronic hepatitis B and C	2,003	7.2	2,006	7.2	2,344	8.	
Medium term chronic gastrointestinal conditions	2,222	8.1	2,229	8.1	2,767	10.	
Total chronic gastrointestinal conditions	14,838	58.7	14,905	59.0	31,927	126.	
Diabetic hyperosmolar states	550	2.1	557	2.1	595	2.	
Diabetic ketoacidosis	6,110	26.4	6,169	26.6	7,042	30.	
Diabetic hypoglycaemia	1,942	7.6	1,961	7.7	2,950	11.	
Poor control of diabetes	3,932	15.8	3,987	16.0	5,282	21.	
Short term chronic diabetes complications	12,534	51.9	12,674	52.5	15,869	65.	
Diabetic kidney complications	287	1.1	299	1.1	406	1	
Diabetic ophthalmic complications	127	0.5	127	0.5	2,301	8	
Diabetic neurological complications	520	2.0	526	2.0	1,135	4	
Medium term chronic diabetes complications Angiopathy and angiopathy complications due to	934	3.6	952	3.7	3,842	14	
diabetes	1,812	6.4	1,863	6.6	2,568	9	
Other and multiple diabetic complications	4,421	16.8	4,824	18.3	6,768	25.	
Long term chronic diabetes complications	6,233	23.2	6,687	25.0	9,336	34.	
Total diabetic conditions	19,701	78.7	20,313	81.1	29,047	114.	
Asthma	18,332	78.9	18,413	79.2	27,925	120.	
Short term chronic respiratory conditions	18,332	78.9	18,413	79.2	27,925	120	
Bronchiectasis	2,631	10.0	3,048	11.7	4,105	15.	
COPD Infectious conditions with underlying chronic	30,001	108.1	30,466	109.8	34,375	124	
respiratory conditions[Asthma, COPD, Bronchiectasis] Acute respiratory failure associated with chronic respiratory conditions	6,614	24.9	6,801	25.6	7,313	27	
[Asthma, COPD, Bronchiectasis]	1,114	4.0	1,122	4.1	1,207	4.	

Condition	Same day and Hospital in home excluded		Same day excluded and Hospital in home included		Same day and Hospital in home included	
	Separations	Rate	Separations	Rate	Separations	Rate
Medium term chronic respiratory conditions Chronic respiratory failure associated with chronic respiratory conditions[Asthma, COPD, Bronchiectasis]	40,360	<b>147.1</b> 0.3	<b>41,437</b> 79	<b>151.1</b> 0.3	<b>47,000</b> 81	<b>171.7</b> 0.3
Long term chronic respiratory conditions	77	0.3 0.3	79 79	0.3	81	0.3
Total chronic respiratory conditions	58,769	226.2	59,929	230.7	75,006	292.2
Post streptococcal glomerulonephritis	289	1.2	297	1.3	771	3.2
Tubulo-interstitial nephrititis	9,928	41.4	10,658	44.5	13,676	57.3
Short term chronic renal conditions	10,217	42.7	10,955	45.8	14,447	60.4
Hypertensive chronic kidney disease	119	0.5	125	0.5	188	0.7
Medium term chronic renal conditions	119	0.5	125	0.5	188	0.7
Total chronic renal conditions	10,336	43.1	11,080	46.2	14,635	61.1
Anxiety	5,332	22.4	5,371	22.5	16,559	69.3
Depression	24,229	102.0	24,586	103.5	74,163	307.2
Bipolar	10,458	43.8	10,628	44.5	21,200	88.6
Medium term chronic mental health conditions	40,019	168.1	40,585	170.5	111,922	465.1
Total chronic mental health conditions	40,019	168.1	40,585	170.5	111,922	465.1
Prescription opioid overdose or adverse event	1,929	8.1	1,930	8.1	2,751	11.7
Short term chronic substance misuse	1,929	8.1	1,930	8.1	2,751	11.7
Alcohol-induced conditions of stomach	1,105	4.7	1,108	4.7	2,002	8.5
Short term conditions due to chronic alcohol abuse	1,105	4.7	1,108	4.7	2,002	8.5
Alcohol dependence	14,234	59.9	14,272	60.1	33,606	139.0
Alcohol-induced conditions of pancreas	3,637	15.4	3,648	15.5	3,954	16.8
Alcohol-induced conditions of neurological system	68	0.3	68	0.3	76	0.3
Alcohol-induced conditions of heart	93	0.4	95	0.4	107	0.4
Alcohol-induced conditions of liver Medium term conditions due to chronic alcohol	3,724	14.8	3,767	14.9	4,356	17.2
abuse	21,756	90.8	21,850	91.2	42,099	173.7
Psychosis and amnesia due to alcohol abuse	310	1.3	312	1.3	389	1.6

Condition	Same day and Hospital in home excluded		Same day excluded and Hospital in home included		Same day and Hospital in home included	
	Separations	Rate	Separations	Rate	Separations	Rate
Residual behavioural and mental impacts of alcohol abuse	118	0.4	119	0.4	125	0.5
Long term conditions due to chronic alcohol abuse	428	1.7	431	1.7	514	2.1
Total conditions caused by alcohol abuse	23,289	97.2	23,389	97.6	44,615	184.3
Total short term chronic conditions	89,345	373.3	90,550	378.4	147,428	615.8
Total medium term chronic conditions	185,864	713.0	188,164	721.8	323,780	1,260.7
Total long term chronic conditions	22,443	82.6	23,280	85.8	28,491	105.1
Total chronic conditions	297,652	1,168.9	301,994	1,186.0	499,699	1,981.7
Total PPH admissions	419,541	1,668.9	434,248	1,727.9	678,947	2,718.1

Note: Where rates are based on less than 20 separations, or populations less than 1000 individual in geographic region, these have been suppressed.

Source: Admitted patient care NHMD 2015-16.

# Appendix H: Procedures associated with potentially preventable hospitalisations

## Table H.1: Top 10 procedures associated with potentially preventable hospitalisations for conditions with exclusions under NHA, or identified as potentially requiring exclusion under proposed specification, 2015–16

Condition	Procedure code	Procedure name	Count	% o admissions <sup>(a</sup>
Abscess	3022301	3022301 Incision and drainage of abscess of skin and 2 subcutaneous tissue		44.1
	9555009	Allied health intervention, pharmacy	764	16.0
	3021601	Aspiration of abscess of skin and subcutaneous tissue	407	8.5
	9555001	Allied health intervention, social work	332	7.0
	9555003	Allied health intervention, physiotherapy	197	4.1
	9602700	Prescribed/self-selected medication assessment	124	2.6
	1310000	Haemodialysis	89	1.9
	9555014	Allied health intervention, diabetes education	85	1.8
	9066500	Excisional debridement of skin and subcutaneous tissue	81	1.7
	9555000	Allied health intervention, dietetics	78	1.6
Impetigo	9555001	Allied health intervention, social work	159	31.:
	9555009	Allied health intervention, pharmacy	159	31.
	9555003	Allied health intervention, physiotherapy	37	7.
	9602700	Prescribed/self-selected medication assessment	30	5.
	9555011	Allied health intervention, other	17	3.
	9555014	Allied health intervention, diabetes education	16	3.
	9619902	Intravenous administration of pharmacological agent, anti-infective agent	14	2.8
	9555000	Allied health intervention, dietetics	13	2.0
	9555005	Allied health intervention, speech pathology	12	2
	3007100	Biopsy of skin and subcutaneous tissue	11	2.2
Cellulitis	9555003	Allied health intervention, physiotherapy	11,346	33.
	9555009	Allied health intervention, pharmacy	8,119	24.:
	9555001	Allied health intervention, social work	2,527	7.
	9555000	Allied health intervention, dietetics	1,613	4.
	9602700	Prescribed/self-selected medication assessment	1,454	4.
	9555002	Allied health intervention, occupational therapy	1,428	4.
	9555012	Allied health intervention, pastoral care	720	2.
	3022301	Incision and drainage of abscess of skin and subcutaneous tissue	672	2.0
	9555014	Allied health intervention, diabetes education	630	1.9
	1370602	Administration of packed cells	448	1.:
Lymphadenitis	9555009	Allied health intervention, pharmacy	240	35.

Condition	Procedure code	Procedure name	Count	% o admissions <sup>(a</sup>
	9555001	Allied health intervention, social work	108	16.
	9555000	Allied health intervention, dietetics	73	10.8
	9555003	Allied health intervention, physiotherapy	52	7.
	9602700	Prescribed/self-selected medication assessment	44	6.
	3007500	Biopsy of lymph node	30	4.
	9614800	Play/leisure/recreation therapy	20	3.0
	3021601	Aspiration of abscess of skin and subcutaneous tissue	13	1.9
	9555012	Allied health intervention, pastoral care	9	1.:
	4176400	Nasendoscopy	8	1.:
Pharyngeal	4180700	Incision and drainage of peritonsillar abscess	1,179	69.
abscess	9555009	Allied health intervention, pharmacy	260	15.
	9555001	Allied health intervention, social work	62	3.
	9602700	Prescribed/self-selected medication assessment	29	1.
	9555000	Allied health intervention, dietetics	26	1.
	9555003	Allied health intervention, physiotherapy	23	1.
	4176400	Nasendoscopy	18	1.
	9555005	Allied health intervention, speech pathology	12	0.
	9621500	Incision and drainage of lesion in oral cavity	12	0.
	3021601	Aspiration of abscess of skin and subcutaneous tissue	7	0.
Scarlet fever	9555009	Allied health intervention, pharmacy	6	60.
	9555003	Allied health intervention, physiotherapy	3	30.
	9614800	Play/leisure/recreation therapy	1	10.
Pharyngitis	9555009	Allied health intervention, pharmacy	125	25.
	9555003	Allied health intervention, physiotherapy	71	14.
	9602700	Prescribed/self-selected medication assessment	50	10.
	3900000	Lumbar puncture	49	10.
	9555001	Allied health intervention, social work	37	7.
	4176400	Nasendoscopy	22	4.
	9555000	Allied health intervention, dietetics	22	4.
	9555005	Allied health intervention, speech pathology	20	4.
	9555012	Allied health intervention, pastoral care	14	2.
	9555002	Allied health intervention, occupational therapy	13	2.
Tonsillitis	9555009	Allied health intervention, pharmacy	479	35.
	9555001	Allied health intervention, social work	172	12.
	9555000	Allied health intervention, dietetics	115	8.
	9555003	Allied health intervention, physiotherapy	99	7.
	9602700	Prescribed/self-selected medication assessment	80	5.
	4180700	Incision and drainage of peritonsillar abscess	62	4.
	3900000	Lumbar puncture	53	3.

Condition	Procedure code	Procedure name	Count	% of admissions <sup>(a</sup>
	4176400	Nasendoscopy	42	3.1
	9555012	Allied health intervention, pastoral care	36	2.7
	1370602	Administration of packed cells	25	1.8
Otitis media	9555009	Allied health intervention, pharmacy	18	26.9
	4164700	Ear toilet, unilateral	12	17.9
	4164701	Ear toilet, bilateral	6	9.0
	9555005	Allied health intervention, speech pathology	6	9.0
	9011900	Otoscopy	5	7.5
	9610400	Music therapy	5	7.5
	3900000	Lumbar puncture	4	6.0
	9555003	Allied health intervention, physiotherapy	3	4.5
	3022301	Incision and drainage of abscess of skin and subcutaneous tissue	2	3.0
	9555000	Allied health intervention, dietetics	2	3.0
Complex otitis media	9555003	Allied health intervention, physiotherapy	48	55.8
	9555009	Allied health intervention, pharmacy	17	19.8
	1310000	Haemodialysis	11	12.8
	9555001	Allied health intervention, social work	5	5.8
	9555002	Allied health intervention, occupational therapy	3	3.5
	4164701	Ear toilet, bilateral	1	1.2
	9011900	Otoscopy	1	1.2
Acute rheumatic	9555009	Allied health intervention, pharmacy	66	25.2
fever	9555003	Allied health intervention, physiotherapy	60	22.9
	9555001	Allied health intervention, social work	32	12.2
	5012400	Aspiration of joint or other synovial cavity, not elsewhere classified	27	10.3
	2200700	Endotracheal intubation, single lumen	18	6.9
	9555011	Allied health intervention, other	13	5.0
	9555014	Allied health intervention, diabetes education	12	4.6
	9555000	Allied health intervention, dietetics	11	4.2
	9602700	Prescribed/self-selected medication assessment	10	3.8
	9731102	Removal of 2 teeth or part(s) thereof	5	1.9
Rheumatic	9555009	Allied health intervention, pharmacy	94	28.
valvular heart disease	9555003	Allied health intervention, physiotherapy	83	24.9
	5511800	2 dimensional real time transoesophageal ultrasound of heart	19	5.7
	3821800	Coronary angiography with left heart catheterisation	18	5.4
	9555001	Allied health intervention, social work	16	4.8
	3880600	Insertion of intercostal catheter for drainage	14	4.2
	9602700	Prescribed/self-selected medication assessment	14	4.2

Condition	Procedure code	Procedure name	Count	o % admissions <sup>(a</sup>
	3821500	Coronary angiography	11	3.3
	9555005	Allied health intervention, speech pathology	10	3.0
	3821802	Coronary angiography with left and right heart catheterisation	9	2.7
Angina	9555009	Allied health intervention, pharmacy	4,389	32.1
	9602700	Prescribed/self-selected medication assessment	1,888	13.8
	9555003	Allied health intervention, physiotherapy	1,732	12.7
	3821500	Coronary angiography	773	5.7
	9555001	Allied health intervention, social work	765	5.6
	3821800	Coronary angiography with left heart catheterisation	694	5.7
	3830600	Percutaneous insertion of 1 transluminal stent into single coronary artery	411	3.0
	9555000	Allied health intervention, dietetics	373	2.7
	1370602	Administration of packed cells	341	2.5
	9555014	Allied health intervention, diabetes education	300	2.2
Peripheral	3530306	Percutaneous transluminal balloon angioplasty	1,339	25.8
vascular disease	3530906	Percutaneous transluminal balloon angioplasty with stenting, single stent	952	18.4
	9555003	Allied health intervention, physiotherapy	609	11.
	9555009	Allied health intervention, pharmacy	462	8.
	3530907	Percutaneous transluminal balloon angioplasty with stenting, multiple stents	411	7.9
	9555001	Allied health intervention, social work	154	3.
	9602700	Prescribed/self-selected medication assessment	122	2.4
	9555000	Allied health intervention, dietetics	118	2.5
	5997003	Peripheral arteriography	93	1.3
	9555004	Allied health intervention, podiatry	87	1.
Acute myocardial	9555009	Allied health intervention, pharmacy	4,003	23.
infarction	9555003	Allied health intervention, physiotherapy	3,446	19.9
	9602700	Prescribed/self-selected medication assessment	1,315	7.0
	9555001	Allied health intervention, social work	1,193	6.9
	3821500	Coronary angiography	1,111	6.
	3821800	Coronary angiography with left heart catheterisation	740	4.3
	1370602	Administration of packed cells	655	3.
	9220900	Management of non-invasive ventilatory support, 24 hours	572	3.3
	9555000	Allied health intervention, dietetics	571	3.:
	9555002	Allied health intervention, occupational therapy	492	2.5
Atrial fibrillation	9555009	Allied health intervention, pharmacy	6,716	32.3
	9555003	Allied health intervention, physiotherapy	4,588	22
	9602700	Prescribed/self-selected medication assessment	1,889	9.1

Condition	Procedure code	Procedure name	Count	% of admissions <sup>(a)</sup>
	9555001	Allied health intervention, social work	1,022	5.0
	9555000	Allied health intervention, dietetics	802	3.9
	9555012	Allied health intervention, pastoral care	707	3.4
	9555002	Allied health intervention, occupational therapy	671	3.3
	1340000	Cardioversion	437	2.1
	1171800	Testing of other cardiac pacemaker	388	1.9
	1310000	Haemodialysis	286	1.4
Primary	9555009	Allied health intervention, pharmacy	1,172	25.9
hypertension	9555003	Allied health intervention, physiotherapy	1,141	25.3
	9602700	Prescribed/self-selected medication assessment	311	6.9
	9555001	Allied health intervention, social work	259	5.7
	9555000	Allied health intervention, dietetics	240	5.3
	9555012	Allied health intervention, pastoral care	220	4.9
	1310000	Haemodialysis	200	4.4
	9555002	Allied health intervention, occupational therapy	165	3.7
	1220300	Polysomnography	87	1.9
	9555014	Allied health intervention, diabetes education	74	1.6
Hypertensive	9555009	Allied health intervention, pharmacy	37	53.6
heart disease without heart	9555012	Allied health intervention, pastoral care	14	20.3
failure	9555003	Allied health intervention, physiotherapy	6	8.7
	3821500	Coronary angiography	5	7.2
	9220900	Management of non-invasive ventilatory support, 24 hours	4	5.8
	9200100	Other physiological assessment	2	2.9
	9602700	Prescribed/self-selected medication assessment	1	1.4
Heart failure	9555003	Allied health intervention, physiotherapy	19,406	34.7
	9555009	Allied health intervention, pharmacy	13,164	23.6
	9555001	Allied health intervention, social work	3,234	5.8
	9555000	Allied health intervention, dietetics	2,356	4.2
	9220900	Management of non-invasive ventilatory support, 24 hours	2,354	4.2
	9602700	Prescribed/self-selected medication assessment	2,224	4.0
	9555002	Allied health intervention, occupational therapy	1,792	3.2
	1370602	Administration of packed cells	1,461	2.6
	9555012	Allied health intervention, pastoral care	1,151	2.1
	9555005	Allied health intervention, speech pathology	1,098	2.0

(a) Per cent of separations with procedure listed.

Source: Admitted patient care NHMD 2015-16.

## **Appendix I: Condition descriptions**

Category	ICD-10-AM code	Condition description
Vaccine-preventable-bacter	ial disease	
Pertussis	A37 Whooping cough	Pertussis (also known as whooping cough) is a highly contagious bacterial disease. Initially, symptoms are usually similar to those of the common cold with a runny nose, fever, and mild cough. This is then followed by weeks of severe coughing fits. Following a fit of coughing a high-pitched whoop sound or gasp may occur as the person breathes in.
Tetanus	A33 Tetanus neonatorum A34 Obstetrical tetanus A35 Other tetanus	Tetanus is a serious infection that causes painful muscle contractions, particularly of the neck and jaw. Tetanus is caused by infection with a bacterium called <i>Clostridium tetani</i> . The bacteria produce a toxin, which attacks the nervous system.
Diphtheria	A36 Diphtheria	Diphtheria is a contagious and potentially life-threatening bacterial infection caused by toxin-producing strains of <i>Corynebacterium diphtheriae</i> and <i>Corynebacterium</i> <i>ulcerans</i> . Symptoms will depend on the site of infection but the most severe form of diphtheria affects the throat and tonsils.
Haemophilus infection and complication	J14 Pneumonia due to Haemophilus influenzae	Haemophilus influenzae is a type of bacterium that grows in the upper airways of adults and children, normally without causing any disease. When Haemophilus influenzae type B invades the body from the throat or nose, this infection can cause pneumonia (lung infection).
	G00.0 <i>Haemophilus</i> meningitis	Haemophilus influenzae is a type of bacterium that grows in the upper airways of adults and children, normally without causing any disease. When Haemophilus influenzae type B invades the body from the throat or nose, this infection can cause meningitis.
Meningococcal infection and complication	A39 Meningococcal infection	Meningococcal disease is a severe but uncommon infection that occurs when meningococcal bacteria invade the body from the throat or nose. Meningococcal disease occurs in two main forms (or a combination of these two forms):
		meningococcal meningitis – when the bacteria infect the lining around the brain and spinal cord
		meningococcal septicaemia – when the bacteria invade the bloodstream and cause blood poisoning.
Streptococcal infection and complication	A40.3 Sepsis due to Streptococcus pneumoniae	Streptococcus pneumoniae or Pneumococcal disease Streptococcus pneumoniae causes an acute bacterial infection. Infection can result in infection of the blood (sepsis).
	G001 Pneumococcal meningitis G002 Streptococcal meningitis	Pneumococcal meningitis can occur when the <i>Streptococcus pneumoniae</i> bacteria invade the bloodstream, cross the blood-brain barrier and multiply within the fluid surrounding the spine and brain.
	J13 Pneumonia due to Streptococcus pneumoniae	Pneumonia (lung infection) due to <i>Streptococcus</i> pneumoniae

#### Table I.1: Vaccine-preventable condition descriptions

Category	ICD-10-AM code	Condition description
Vaccine-preventable-vi	ral disease	
Influenza	J11 Influenza, virus not identified	Influenza is a highly contagious, acute viral infection that spreads easily from person to person. Viruses that infect the upper airways and lungs cause it. The most common symptoms include a high fever, runny nose, sore throat, muscle pains, headache, coughing, and fatigue.
Hepatitis A	B15 Acute hepatitis A	Hepatitis A is an infectious disease of the liver caused by the hepatitis A virus. Symptoms may include nausea, vomiting, diarrhoea, jaundice, fever, abdominal pain and in rare cases acute liver failure.
Hepatitis B	B16 Acute hepatitis B	Hepatitis B is a virus that affects the liver. It is usually transmitted by injectable drug abuse, transfusion of infected blood, unhygienic tattooing practices, coming into contact with infected blood, or by unprotected sex. Most people are asymptomatic however those that do develop symptoms such as jaundice, abdominal pain, tiredness, nausea, and vomiting.
Rotavirus	A08.0 .0 Rotavirus	Rotavirus causes severe viral gastroenteritis. Symptoms include fever, vomiting, abdominal pain and watery diarrhoea.
Varicella	B01 Varicella [chickenpox] B02 Zoster [herpes zoster]	Chickenpox (varicella) is a highly contagious disease caused by the initial infection with varicella zoster virus. The disease results in a characteristic skin rash that forms small, itchy blisters, which eventually scab over. Other symptoms may include fever, tiredness, and headaches. Complications may occasionally include pneumonia, inflammation of the brain, and bacterial skin infections.
Measles	B05 Measles	Measles is a contagious viral illness that causes a skin rash and fever. Serious and sometimes fatal complications include pneumonia and encephalitis (brain inflammation).
Mumps	B26 Mumps	Mumps is a viral illness that causes fever and swollen salivary glands. Serious and potentially lethal complications include inflammation of the brain (encephalitis) or heart muscle (myocarditis).
Rubella	B06 Rubella [German measles]	Rubella is a viral infection and is sometimes called German measles, although it is not related to measles. Most people with rubella experience a mild illness involving fever and rash. Rubella illness during pregnancy may significantly affect the developing foetus.
Acute poliomyelitis	A80 Acute poliomyelitis	Acute poliomyelitis is a disease of the motor neurons of the spinal cord and brain stem caused by poliovirus. Symptoms include muscle atrophy and denervation of skeletal muscles.

Category	ICD-10-AM code	Condition description
Vaccine-preventable—Cancer	and precancer management	
Vaccine-preventable sexually transmitted cancer and precancers due to HPV	A630 Anogenital [venereal] warts	An anogenital wart is a common superficial skin lesion in the anogenital area that is caused by human papillomavirus (HPV).
Vaccine-preventable perineal cancer and precancers due to HPV	N87 Dysplasia of cervix uteri N88.0 Leukoplakia of cervix uteri	Cervical dysplasia is a condition in which healthy cells on the cervix undergo some abnormal changes caused by HPV.
	N89.0 Mild vaginal dysplasia N89.1 Moderate vaginal dysplasia N89.2 Severe vaginal dysplasia, not elsewhere classified N89.3 Dysplasia of vagina, unspecified N89.4 Leukoplakia of vagina	Vaginal dysplasia is a condition in which healthy cells on the vagina undergo some abnormal changes caused by HPV. Leukoplakia is a precancerous lesion.
	N90.0 Mild vulvar dysplasia N90.1 Moderate vulvar dysplasia N90.2 Severe vulvar dysplasia, not elsewhere classified N90.3 Dysplasia of vulva, unspecified N90.4 Leukoplakia of vulva	Vulvar dysplasia is a condition in which healthy cells on the vulva undergo some abnormal changes caused by HPV. Leukoplakia is a precancerous lesion.
	C53 Malignant neoplasm of cervix uteri	Malignant neoplasm of cervix uteri (cervical cancer) is the growth of abnormal cells in the lining of the cervix.
	C60 Malignant neoplasm of penis	Malignant neoplasm of glans and body of penis (penile cancer) is a malignant growth found on the skin or in the tissues of the penis.
	C21 Malignant neoplasm of anus and anal canal	Malignant neoplasm of anus (anal cancer) is a disease in which malignant cells form in the tissues of the anus.
Vaccine-preventable oropharyngeal cancer due to HPV	C01 Malignant neoplasm of base of tongue	Malignant neoplasms are cancerous growths. The soft palate is the soft tissue constituting the back of the roof of the mouth.
	C05.1 Soft palate C05.2 Uvula C09 Malignant neoplasm of tonsil	The roof of the mouth. The uvula is a fleshy piece of tissue hanging down over the tongue toward the back of the mouth. It is part of the soft palate.
	C10 Malignant neoplasm of oropharynx	Tonsils are two lymph nodes located on each side of the back of the throat.
	F	The oropharynx is the middle part of the throat that includes the base of the tongue, the tonsils, the soft palate, and the walls of the pharynx.

Category	ICD-10-AM code	Condition description
Skin infections		
Cutaneous abscess	L02 Cutaneous abscess, furuncle and carbuncle	A carbuncle is a red, swollen, and painful cluster of boils that are connected to each other under the skin. A boil (or furuncle) is an infection of a hair follicle that has a sma collection of pus (called an abscess) under the skin.
Impetigo	L00 Staphylococcal scalded skin syndrome L01 Impetigo	Staphylococcal scalded skin syndrome is a serious skin infection caused by the bacterium <i>Staphylococcus aureus</i> The bacterium produces an exfoliative toxin that causes the outer layers of skin to blister and peel. Impetigo is a common, highly contagious bacterial skin infection. It mostly affects young children and infants. But people of any age can get it from contact with someone who is infected. Most impetigo is caused by <i>Staphylococcus aureus</i> bacteria. The infection is not usually serious, but sometimes complications may develop.
Cellulitis	I891 Lymphangitis L03 Cellulitis	Lymphangitis is an inflammation of the lymphatic system. Organs that make up the lymphatic system include tonsils, spleen (an organ in under the ribcage that purifies blood, among other functions) and the thymus, an organ in the upper chest that helps white blood cells develop. Cellulitis is a bacterial infection of the skin and tissues beneath the skin. <i>Staphylococcus</i> and <i>Streptococcus</i> are the types of bacteria that are usually responsible for cellulitis, although many types of bacteria can cause the condition. Sometimes cellulitis appears in areas where the skin has broken open, such as the skin near ulcers or surgical wounds. Symptoms and signs of cellulitis include, redness, pain and tenderness, swelling, and warmth of the affected area.
Lymphadenitis	I88 Nonspecific Iymphadenitis L04 Acute lymphadenitis	Lymphadenitis is the enlargement in one or more lymph nodes, usually due to infection. Lymph nodes are filled with white blood cells that help the body fight infections.
Upper respiratory tract in	fections	
Pharyngeal abscess	J36 Peritonsillar abscess J39.0 Retropharyngeal and parapharyngeal abscess J39.1 Other abscess of pharynx	An abscess is a collection of pus that has built up within the tissue of the body. Signs and symptoms of abscesses include redness, pain, warmth, and swelling. A peritonsillar abscess is a bacterial infection that usually begins as a complication of untreated strep throat or tonsillitis. It generally involves a pus-filled pocket that forms near the tonsils. A retropharyngeal abscess is a collection of pus in the lymph nodes at the back of the throat caused by a bacterial infection. Symptoms include difficulty and pain when swallowing, a fever, stiff neck, and noisy breathing. A parapharyngeal abscess is a deep neck abscess. Symptoms include fever, sore throat, odynophagia, and swelling in the neck down to the hyoid bone. The pharynx is the part of the throat that is behind the mouth and nasal cavity and above the oesophagus and the larynx, or the tubes going down to the stomach and the lungs.
Scarlet fever	A38 Scarlet fever	Scarlet fever is a type of bacterial throat infection that also features a red (scarlet) rash. Scarlet fever is caused by a group A streptococcal (bacterial) infection. Symptoms include sore throat, swollen glands, fever and rash.

Table I.2:	Acute	condition	descriptions
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Category	ICD-10-AM code	Condition description
Tonsillitis	J03 Acute tonsillitis	Tonsillitis is an infection of the tonsils, usually caused by a virus. Tonsils are two lymph nodes located on each side o the back of the throat.
Pharyngitis	J02 Acute pharyngitis	Acute pharyngitis is an inflammatory syndrome of the pharynx and/or tonsils caused by several different groups of microorganisms.
Simple otitis media	H66.0 Acute suppurative otitis media	Otitis media is a group of inflammatory diseases of the middle ear.
		Suppurative otitis media refers to inflammatory diseases o the middle ear producing, or causing the production of, pus.
	H66.1 Chronic tubotympanic suppurative otitis media H66.2 Chronic atticoantral suppurative otitis media H66.3 Other chronic suppurative otitis media H66.4 Suppurative otitis media, unspecified	Tubotympanic relates to Eustachian tube (the auditory tube) dysfunction and decreased pressure in the tympanic cavity.
Complex otitis media	<ul> <li>H70.0 Acute mastoiditis</li> <li>H70.2 Petrositis</li> <li>Inflammation of petrous</li> <li>bone (acute and chronic)</li> <li>H70.8 Other mastoiditis and</li> <li>related conditions</li> </ul>	Mastoiditis is inflammation and infection of the mast cells in the mastoid bone. The mastoid bone is located behind the ear, and is part of the skull. The most common cause of acute and chronic mastoiditis is an ear infection. Mastoiditis symptoms include swelling, redness, and pain behind the ear.
		Petrositis most often refers to infection of the temporal bone, the bone in the skull that surrounds the ear. This infection goes deep to the inner ear.
	H73.0 Acute myringitis	Myringitis is a form of acute otitis media in which vesicles develop on the tympanic membrane. The tympanic membrane is the first component of the middle ear conductive system Myringitis can develop with viral, bacterial (particularly <i>Streptococcus pneumoniae</i> ), or mycoplasmal otitis media.
	H701 Chronic mastoiditis	
	H70.2 Petrositis	

Category	ICD-10-AM code	Condition description
Lower respiratory tract infect	tions (without COPD)	
Pneumonia Infection (without COPD)	Pneumonia due to: J15.3 Pneumonia due to <i>streptococcus</i> , group B J154 Pneumonia due to other streptococci J15.9 Bacterial pneumonia, unspecified J180 Bronchopneumonia, unspecified	Pneumonia is a lung infection. In this context, this infection occurs without underlying chronic respiratory conditions, and not due to vaccine-preventable pathogens.
	J18.1 Lobar pneumonia, unspecified J18.8 Other pneumonia, organism unspecified J189 Pneumonia, unspecified	
Acute bronchitis (without COPD)	J20.0 Acute bronchitis due to <i>Mycoplasma pneumoniae</i> J20.2 Acute bronchitis due to <i>streptococcus</i>	Bronchitis is inflammation of the bronchi (large and medium-sized airways) in the lungs. Symptoms include coughing up mucus, wheezing, shortness of breath, and chest discomfort.
	J20.9 Acute bronchitis, unspecified	<i>Mycoplasma pneumoniae</i> is a common respiratory pathogen that produces diseases of varied severity ranging from mild upper respiratory tract infection to severe atypical pneumonia.
Urinary tract infections		
Cystitis	N30.0 Acute cystitis N30.9 Cystitis, unspecified	Cystitis is inflammation of the bladder. Most of the time, the inflammation is caused by a bacterial infection.
	N39.0 Urinary tract infection, site not specified	A urinary tract infection affects part of the urinary system; kidneys, bladder, ureters (tubes that connect the kidneys to the bladder) and the urethra (tube that allows drainage of urine from the bladder)
Pyonephrosis	N13.6 Pyonephrosis	Pyonephrosis is an infection of the kidney that leads to pus in the upper collecting system that can progress to obstruction. Pus collects in the renal pelvis and causes distension of the kidney. It can cause kidney failure.
Genital infections		
Acute pelvic inflammatory disease	N70.0 Acute salpingitis and oophoritis	Salpingitis is an infection of the fallopian tubes. If severe, infection can spread to the ovaries (oophoritis).
	N70.9 Salpingitis and oophoritis, unspecified	
Chronic pelvic inflammatory disease	N701 Chronic salpingitis and oophoritis	
Epididymo-orchitis	N45.0 Orchitis, epididymitis and epididymo-orchitis with abscess	Epididymitis is swelling or pain in the back of the testicle(s) in the coiled tube (epididymis) that stores and carries sperm.
	N45.9 Orchitis, epididymitis and epididymo-orchitis without abscess	Orchitis is swelling or pain in one or both testicles, usually from an infection or virus. Treatment is with antibiotics.
Pregnancy and puerperium a	and neonatal	
Eclampsia	O15 Eclampsia	Eclampsia is the onset of seizures (convulsions) in a woman with pre-eclampsia. Pre-eclampsia is a disorder of pregnancy in which there is high blood pressure and either large amounts of protein in the urine or other organ dysfunction. Onset may be before, during, or after delivery.

Category	ICD-10-AM code	Condition description
Congenital malformation	Q05 Spina bifida Q06 Other congenital malformations of spinal cord Q07 Other congenital malformations of nervous system	Spina bifida is a birth defect where there is incomplete closing of the backbone and membranes around the spinal cord. Congenital means existing at or dating from birth.
	Q00 Anencephaly and similar malformation Q01 Encephalocele Q02 Microcephaly Q03 Congenital hydrocephalus Q04 Other congenital malformations of brain	Anencephaly is the absence of a major portion of the brain, skull, and scalp that occurs during embryonic development. It results from a neural tube defect that occurs when the head end of the neural tube fails to close, usually between the 23rd and 26th day following conception.
		Encephalocele, sometimes known as cranium bifidum, is a neural tube defect characterized by sac-like protrusions of the brain and the membranes that cover it through openings in the skull. These defects are caused by failure of the neural tube to close completely during fetal development.
		Hydrocephalus is a condition in which there is an accumulation of cerebrospinal fluid (CSF) within the brain. This typically causes increased pressure inside the skull.
		Congenital means existing at or dating from birth.
Neonatal conditions associated with maternal health and congenital conditions	P35.0 Congenital rubella syndrome	Congenital rubella syndrome occurs when the rubella virus in the mother affects the developing baby, usually in the first three months of pregnancy. Symptoms in the baby include hearing impairment, heart defects, cataracts/glaucoma, pigmentary retinopathy (includes constricted visual field).
	Q86.0 Fetal alcohol syndrome (dysmorphic)	Physical and mental damage in a child due to alcohol exposure while in the womb. Symptoms include distinctive facial features, learning disabilities, bone and joint deformities, heart defects and hyperactivity.
	Pneumonia is a lung infection.	
	Sepsis is a potentially life-threatening complication of an infection.	
	P53 Haemorrhagic disease of fetus and newborn	Haemorrhagic disease of the newborn, also known as vitamin K deficiency bleeding, is a coagulation disturbance in newborn infants due to vitamin K deficiency.
	P04 Fetus and newborn affected by noxious influences transmitted via placenta or breast milk	Fetal or neonatal disorder caused by maternal transmission of substance to the developing fetus.

Category	ICD-10-AM code	Condition description
Diabetes		
Diabetes complications	E10 Type 1 diabetes mellitus E11 Type 2 diabetes mellitus E13 Other specified diabetes mellitus	Diabetes mellitus type 1 is a form of diabetes mellitus in which not enough insulin is produced. This results in high blood sugar levels in the body. The classical symptoms are frequent urination, increased thirst, increased hunger, and weight loss.
		Type 2 diabetes is a progressive condition in which the body becomes resistant to the normal effects of insulin and/or gradually loses the capacity to produce enough insulin in the pancreas.
	E14 Unspecified diabetes mellitus	
Cardiovascular		
Rheumatic heart diseases	I00 Rheumatic fever without mention of heart involvement	Rheumatic fever is an inflammatory disease that can involve the heart, joints, skin, and brain caused by an immunological reaction to infection with the bacterium group A <i>streptococcus</i> .
	I01 Rheumatic fever with heart involvement	Rheumatic fever is an inflammatory disease that can involve the heart, joints, skin, and brain caused by an immunological reaction to infection with the bacterium group A <i>streptococcus</i> .
	I02 Rheumatic chorea	Sydenham chorea, or rheumatic chorea, is one of the major clinical manifestations of acute rheumatic fever. It is a movement disorder characterized by chorea (involuntar brief, random and irregular movements of the limbs and face), emotional lability, and hypotonia (low muscle tone).
	I05 Rheumatic mitral valve diseases	When rheumatic fever affects the heart valves, these can become inflamed. The heart valves may retain damage
	I06 Rheumatic aortic valve diseases	such as scarring or loss of function, increasing risk of further cardiac dysfunction.
	I07 Rheumatic tricuspid valve diseases	
	108 Multiple valve diseases	
	diseases	
Acute myocardial infarction (without diabetes)	I21.0 Acute transmural myocardial infarction of anterior wall	A transmural myocardial infarction refers to a myocardial infarction that involves the full thickness of the myocardium (heart muscle).
	I21.1 Acute transmural myocardial infarction of inferior wall	
	I21.2 Acute transmural myocardial infarction of other sites	
	I21.3 Acute transmural myocardial infarction of unspecified site	
	I21.4 Acute subendocardial myocardial infarction	
Angina	I20 Angina pectoris	Angina pectoris, is chest pain or pressure, usually due to not enough blood flow to the heart muscle.
	I24.0 Coronary thrombosis not resulting in myocardial infarction	Coronary thrombosis is the formation of a blood clot inside a blood vessel of the heart. This blood clot restricts blood flow within the heart. It is associated with narrowing of blood vessels subsequent to clotting.

#### Table I.3: Chronic condition descriptions

Category	ICD-10-AM code	Condition description
	I24.8 Other forms of acute ischaemic heart disease	Ischemic heart disease, refers to a group of diseases which includes stable angina (chest discomfort or pain, a symptom of coronary artery disease) unstable angina, myocardial infarction (commonly known as a heart attack, occurs when blood flow decreases or stops to a part of the heart, causing damage to the heart muscle), and sudden cardiac death.
	I24.9 Acute ischaemic heart disease, unspecified	Ischemic heart disease, refers to a group of diseases which includes stable angina (chest discomfort or pain, a symptom of coronary artery disease) unstable angina, myocardial infarction (commonly known as a heart attack, occurs when blood flow decreases or stops to a part of the heart, causing damage to the heart muscle), and sudden cardiac death.
Peripheral vascular disease	I70.2 Atherosclerosis of arteries of extremities	Atherosclerosis is a disease in which plaques that are made up of fat, cholesterol, calcium and other substances, build up in artery walls. Over time, the plaques harden, narrow the opening of the arteries and restrict the blood flow.
	170 Atherosclerosis	
	173 Other peripheral vascular diseases	
	178 Diseases of capillaries	
	I79 Disorders of arteries, arterioles and capillaries in diseases classified elsewhere	
Transient ischemic attack	G45.3 Amaurosis fugax	Amaurosis fugax is a painless temporary loss of vision in
	G45.8 Other transient cerebral ischaemic attacks and related syndromes	one or both eyes. It is usually due to embolism from the carotid artery to the retinal artery but may be associated with other causes of a transient ischaemic attack.
	G45.9 Transient cerebral ischaemic attack, unspecified I67.8 Other specified	A transient ischemic attack is a brief episode of neurological dysfunction caused by loss of blood flow (ischemia) in the brain, spinal cord, or retina, without tissue death (infarction). Both are caused by a disruption in blood flow to the brain, or cerebral blood flow.
	cerebrovascular diseases	Cerebrovascular disease includes a variety of medical conditions that affect the blood vessels of the brain and the cerebral circulation.
Stroke	G46.3 Brain stem stroke syndrome	A brainstem stroke syndrome is a condition involving a stroke of the brainstem. Symptoms include have vertigo,
	G46.4 Cerebellar stroke syndrome (160–167+)	dizziness and severe imbalance without the hallmark of most strokes — weakness on one side of the body.
	G46.5 Pure motor lacunar syndrome (160–167+)	Cerebellar stroke syndrome is a condition in which the circulation to the cerebellum (part of the brain extremely
	G46.6 Pure sensory lacunar syndrome ( <i>I60–I67+)</i>	important for performing voluntary tasks) is impaired. Symptoms include vertigo, headache, vomiting, and ataxia.
	G46.7 Other lacunar syndromes <i>(I60–I6</i> 7+) I63 Cerebral infarction	Lacunar stroke results from the occlusion of small penetrating arteries that provide blood to the brain's deep structures.
	I65 Occlusion and stenosis of precerebral arteries, not resulting in cerebral	A cerebral infarction, or stroke, is a brain lesion in which a cluster of brain cells die when they do not get enough blood.
	infarction	Occlusion is a complete blockage of blood flow.
	I66 Occlusion and stenosis of cerebral arteries, not resulting in cerebral infarction	Stenosis is a narrowing in the arteries usually results from atherosclerosis, or a build-up of plaque on the inside of the arteries.

Category	ICD-10-AM code	Condition description
Hypertension and hypertension management	I48 Atrial fibrillation and flutter	Atrial fibrillation and flutter are types of abnormal heart rhythms.
	I10 Essential (primary) hypertension	Essential hypertension (primary) is the form of hypertension that by definition has no identifiable cause.
	I11.9 Hypertensive heart disease without (congestive)	Hypertensive heart disease damages the kidney due to chronic high blood pressure.
	heart failure	Congestive heart failure is a chronic progressive condition that affects the pumping power of the heart muscles, ofter referred to as 'heart failure'.
Heart failure	I255 Ischaemic cardiomyopathy I50 Heart failure	Ischemic cardiomyopathy is a condition when the heart muscle is weakened because of a heart attack or coronary artery disease. In coronary artery disease, the arteries tha
	111.0 Hypertensive heart	supply blood to the heart muscle become narrowed.
	disease with (congestive) heart failure	Heart failure, often referred to as 'congestive heart failure' is when the heart is unable to pump sufficiently to maintain blood flow to meet the body's needs.
	J81 Pulmonary oedema	Pulmonary oedema is fluid accumulation in the tissue and air spaces of the lungs. It leads to impaired gas exchange and may cause respiratory failure.
Respiratory		
Asthma	J45 Asthma	Asthma is a common long-term inflammatory disease of the airways of the lungs. It is characterized by variable and recurring symptoms, reversible airflow obstruction, and bronchospasm. Symptoms include episodes of wheezing, coughing, chest tightness, and shortness of breath.
	J46 Status asthmaticus	Status asthmaticus is a severe condition in which asthma attacks follow one another without pause.
	J96.0 Acute respiratory failure J96.9 Respiratory failure, unspecified	Respiratory failure is a disease of the lungs. The respiratory system consists of a gas-exchanging organ (the lungs) and a ventilatory pump (respiratory muscles and the thorax). Either or both of these can fail and cause respiratory failure.
Chronic respiratory conditions	J47 Bronchiectasis	Bronchiectasis is a lung disease characterised by chronic infection in small airways that results in some parts of the lung becoming damaged, scarred and dilated, allowing infected mucus to build up in pockets.
	J10 Influenza due to other identified influenza virus	Influenza is a highly contagious, acute viral infection that spreads easily from person to person and infect the upper
	J11 Influenza, virus not identified	airways and lungs. The most common symptoms include a high fever, runny nose, sore throat, muscle pains,
	PJ14 Pneumonia due to Haemophilus influenzae	headache, coughing, and feeling tired. Pneumonia is a lung infection.
	J15.4 Pneumonia due to other streptococci	Haemophilus influenzae is a type of bacterium that grows in the upper airways of adults and children, normally without causing any disease.
	J15.9 Bacterial pneumonia, unspecified	Bronchitis is the inflammation of the larger airways in your lungs, causing an ongoing cough. Bronchitis can be
	J18.0 Bronchopneumonia, unspecified	caused by viruses, bacteria, or breathing in smoke or dust
	J18.1 Lobar pneumonia, unspecified	
	J18.8 Other pneumonia, organism unspecified	
	J18.9 Pneumonia, unspecified J20.0 Acute bronchitis due to <i>Mycoplasma pneumoniae</i>	

Category	ICD-10-AM code	Condition description
	J20.1 Acute bronchitis due to Haemophilus influenzae	
	J20.2 Acute bronchitis due	
	to streptococcus	
	J20.9 Acute bronchitis, unspecified	
	J20 Acute bronchitis	Bronchitis is the inflammation of the larger airways in your lungs, causing an ongoing cough. Bronchitis can be caused by viruses, bacteria, or breathing in smoke or dus
	J41 Simple and mucopurulent chronic bronchitis	Bronchitis is the inflammation of the larger airways in you lungs, causing an ongoing cough. Bronchitis can be caused by viruses, bacteria, or breathing in smoke or dus
		Mucopurulent means containing both mucus and pus.
	J42 Unspecified chronic bronchitis	Bronchitis is the inflammation of the larger airways in your lungs, causing an ongoing cough. Bronchitis can be caused by viruses, bacteria, or breathing in smoke or dus
	J43 Emphysema	Emphysema is a long-term, progressive disease of the lungs that primarily causes shortness of breath due to over-inflation of the alveoli (air sacs in the lung). In people with emphysema, the lung tissue involved in exchange of gases (oxygen and carbon dioxide) is impaired or destroyed.
	J44 Other chronic obstructive pulmonary disease	Chronic obstructive pulmonary disease is a collective terr for a number of lung diseases that prevent proper breathing.
	J96.1 Chronic respiratory failure	Respiratory failure is a disease of the lungs. The respiratory system consists of a gas-exchanging organ (the lungs) and a ventilatory pump (respiratory muscles and the thorax). Either or both of these can fail and cause respiratory failure.
	J15.4 Pneumonia due to other streptococci	Pneumonia is a lung infection.
	J15.9 Bacterial pneumonia, unspecified	
	J18.0 Bronchopneumonia, unspecified	
	J18.1 Lobar pneumonia, unspecified	
	J18.8 Other pneumonia, organism unspecified	
	J18.9 Pneumonia, unspecified J20.0 Acute bronchitis due to Mycoplasma pneumoniae	
	J20.1 Acute bronchitis due to Haemophilus influenzae	
	J20.2 Acute bronchitis due to streptococcus	
	J20.9 Acute bronchitis, unspecified	

Category	ICD-10-AM code	Condition description
	J960 Acute respiratory failure J969 Respiratory failure, unspecified	Respiratory failure is a disease of the lungs. The respiratory system consists of a gas-exchanging organ (the lungs) and a ventilatory pump (respiratory muscles and the thorax). Either or both of these can fail and cause respiratory failure.
Renal		
	N05 Unspecified nephritic syndrome	Nephrotic syndrome is often caused by damage to small blood vessels in the kidneys that filter waste and excess water from the blood. An underlying health condition usually plays a role. Symptoms include swelling around the eyes and in the feet and ankles, foamy urine and weight gain due to excess fluid retention.
	N10 Acute tubulo-interstitial	Nephritis is inflammation of the kidneys.
	nephritis	Interstitial nephritis is a kidney condition characterized by swelling in between the kidney tubulos.
	N12 Tubulo-interstitial	Nephritis is inflammation of the kidneys.
	nephritis, not specified as acute or chronic	Interstitial nephritis is a kidney condition characterized by swelling in between the kidney tubulos.
	N17 Acute kidney failure	Acute kidney failure occurs when the kidneys suddenly become unable to filter waste products from the blood. Dangerous levels of wastes may accumulate. Acute kidney failure can be fatal and requires intensive treatment.
	N05 Unspecified nephritic syndrome	Nephrotic syndrome is often caused by damage to small blood vessels in the kidneys that filter waste and excess water from the blood. An underlying health condition usually plays a role. Symptoms include swelling around the eyes and in the feet and ankles, foamy urine and weight gain due to excess fluid retention.
	I12.9 Hypertensive kidney disease without kidney	Hypertensive kidney disease is damage to the kidney due to chronic high blood pressure.
	failure I13.0 Hypertensive heart and kidney disease with (congestive) heart failure	Congestive heart failure is a chronic progressive condition that affects the pumping power of the heart muscles, often referred to as 'heart failure'.
Nervous system dysfunction		
	G40 Epilepsy	Epilepsy is a group of neurological disorders characterized by epileptic seizures. Epileptic seizures are episodes that can vary from brief and nearly undetectable periods to long periods of vigorous shaking.
	G41 Status epilepticus	Status epilepticus is a condition in which epileptic fits follow one another without recovery of consciousness between them.
	R56 Convulsions, not elsewhere classified	Convulsions are sudden, violent, irregular movement of the body, caused by involuntary contraction of muscles.
	G43 Migraines	A migraine is a headache disorder characterized by recurrent headaches that are moderate to severe. Typically, the headaches affect one-half of the head, are pulsating in nature, and last from two to 72 hours. Associated symptoms may include nausea, vomiting, and sensitivity to light, sound, or smell.

#### Gastrointestinal

K59.0 Constipation	Constipation refers to bowel movements that are infrequent or hard to pass. The stool is often hard and dry. Other symptoms may include abdominal pain, bloating, and feeling as if one has not completely passed the bowel movement. Complications from constipation may include haemorrhoids, anal fissure or faecal impaction.
K25.0 Gastric ulcer, acute with haemorrhage	Gastric ulcers are a type of peptic ulcer which occurs in the inside of the stomach lining. A peptic ulcer is a break in the lining of the stomach, first part of the small intestine or occasionally the lower oesophagus. Haemorrhage refers to heavy bleeding from these ulcers.
K25.1 Gastric ulcer, acute with perforation	A perforated ulcer refers to an ulcer which has burnt through the wall of the gastrointestinal tract, allowing digestive juices and food to leak into the abdominal cavity.
K25.2 Gastric ulcer, acute with both haemorrhage and perforation	
K25.4 Gastric ulcer, chronic or unspecified with haemorrhage	
K25.5 Gastric ulcer, chronic or unspecified with perforation	
K25.6 Gastric ulcer, chronic or unspecified with both haemorrhage and perforation	
K26.0 Duodenal ulcer, acute with haemorrhage	
K26.1 Duodenal ulcer, acute with perforation	
K26.2 Duodenal ulcer, acute with both haemorrhage and perforation	Duodenal ulcers are a type of peptic ulcer which occurs in the duodenum.
K26.4 Duodenal ulcer, chronic or unspecified with haemorrhage	
K26.5 Duodenal ulcer, chronic or unspecified with perforation	
K26.6 Duodenal ulcer, chronic or unspecified with both haemorrhage and perforation	
K27.0 Peptic ulcer, site unspecified, acute with haemorrhage	
K27.1 Peptic ulcer, site unspecified, acute with perforation	
K27.2 Peptic ulcer, site unspecified, acute with both haemorrhage and perforation	

K27.4 Peptic ulcer, site unspecified, chronic or unspecified with haemorrhage

K27.5 Peptic ulcer, site unspecified, chronic or unspecified with perforation

K27.6 Peptic ulcer, site unspecified, chronic or unspecified with both haemorrhage and perforation

K28.0 Gastrojejunal ulcer, acute with haemorrhage

K28.1 Gastrojejunal ulcer, acute with perforation

K28.2 Gastrojejunal ulcer, acute with both haemorrhage and perforation

K28.4 Gastrojejunal ulcer, chronic or unspecified with haemorrhage

K28.5 Gastrojejunal ulcer, chronic or unspecified with perforation

K28.6 Gastrojejunal ulcer, chronic or unspecified with both haemorrhage and perforation

K28.7 Gastrojejunal ulcer, chronic without haemorrhage or perforation K28.9 Gastrojejunal ulcer, unspecified as acute or chronic, without haemorrhage or perforation Gastrojejunal ulcer is an ulcer occurring in the jejunum (the middle third section of the small intestine). These are often a by-product of the surgical treatment of peptic ulcer

Hepatitis infection complications B17.1 Acute hepatitis C B18.2 Chronic viral hepatitis C

B18.1 Chronic viral hepatitis B without delta-agent

Hepatitis C is a liver disease caused by the hepatitis C virus: the virus can cause both acute and chronic hepatitis infection, ranging in severity from a mild illness lasting a few weeks to a serious, lifelong illness.

Hepatitis B is an infectious disease caused by the hepatitis B virus that affects the liver. It can cause both acute and chronic infections. Many people have no symptoms during the initial infection. Some develop a rapid onset of sickness with vomiting, yellowish skin, tiredness, dark urine and abdominal pain.

Delta agent is a viral agent that occurs only in association with hepatitis B infection. It causes chronic hepatitis and progressive liver damage. The delta agent is able to induce infection only when it is a coinfection present along with hepatitis B.

	Primary liver cancer is a malignant tumour that begins in the liver. There are different types: hepatocellular carcinoma or hepatoma is the most common type of primary liver cancer and it starts in the main cell type in the liver.
F41.0 Panic disorder [episodic paroxysmal anxiety] F41.1 Generalised anxiety disorder F41.8 Other specified	Panic disorder is an anxiety disorder characterized by reoccurring unexpected panic attacks. Panic attacks are sudden periods of intense fear that may include palpitations, sweating, shaking, shortness of breath, numbness, or a feeling that something bad is going to happen.
anxiety disorders F41.9 Anxiety disorder, unspecified	Generalised Anxiety Disorder (GAD) is characterised by persistent and excessive worry about a number of different things. People with GAD may anticipate disaster and may be overly concerned about money, health, family, work, or other issues. Individuals with GAD find it difficult to control their worry.
	An anxiety disorder is a medical condition characterised by persistent, excessive worry and can interfere with a person's ability to carry out, or take pleasure in, day-to-day life.
F32 Depressive episode F33 Recurrent depressive disorder	The persistent feeling of sadness or loss of interest that characterises major depression can lead to a range of behavioural and physical symptoms. These may include changes in sleep, appetite, energy level, concentration, daily behaviour or self-esteem. Depression can also be associated with thoughts of suicide.
F31 Bipolar affective disorder	Bipolar affective disorder is characterized by periods of deep, prolonged, and profound depression that alternates with periods of an excessively elevated or irritable mood known as mania.
T40.2 Poisoning by narcotics and psychodysleptics [hallucinogens]: Other opioids	Poisoning here refers to overdose of these substances, wrong substance given or taken in error.
T40.3 Poisoning by narcotics and psychodysleptics [hallucinogens]: Methadone	
T40.4 Poisoning by narcotics and psychodysleptics [hallucinogens]: Other synthetic narcotics	
se	
K70 Alcoholic liver disease	Alcoholic liver disease is a term that encompasses the liver manifestations of alcohol overconsumption, including fatty liver, alcoholic hepatitis, and chronic hepatitis with liver fibrosis or cirrhosis. These factors cause inflammation, apoptosis and eventually fibrosis of liver cells.
F10.6 Mental and behavioural disorders due to use of alcohol – amnesic syndrome including Korsakov's psychosis/syndrome	Alcohol amnestic disorder is mental disorder associated with chronic ethanol abuse and nutritional deficiencies characterized by short-term memory loss, confabulations, and disturbances of attention.
	[episodic paroxysmal anxiety] F41.1 Generalised anxiety disorder F41.8 Other specified anxiety disorders F41.9 Anxiety disorder, unspecified F32 Depressive episode F33 Recurrent depressive disorder F31 Bipolar affective disorder F31 Bipolar affective disorder T40.2 Poisoning by narcotics and psychodysleptics [hallucinogens]: Other opioids T40.3 Poisoning by narcotics and psychodysleptics [hallucinogens]: Methadone T40.4 Poisoning by narcotics and psychodysleptics [hallucinogens]: Other Set K70 Alcoholic liver disease F10.6 Mental and behavioural disorders due to use of alcohol – amnesic syndrome including Korsakov's

Korsakov's psychosis is observed during the last stages of severe chronic alcoholism and involves loss of memory for recent events although long-term memory is intact.

F10.6 Mental and behavioural disorders due to use of alcohol – amnesic syndrome including Korsakov's psychosis/syndrome with additional diagnosis of E51.2 (Wernicke's encephalopathy) Wernicke's encephalopathy the presence of neurological symptoms caused by biochemical lesions of the central nervous system after exhaustion of B-vitamin reserves, in particular thiamine (vitamin B1). In this context, chronic alcohol abuse can deplete B-vitamin reserves in the liver and impair absorption thiamine uptake in the gastrointestinal tract.

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