
Appendix



ICD-10 Codes

The 'core' disease classification of ICD-10-AM is the three character code, which is the mandatory level of coding for international reporting to the World Health Organisation (WHO) for general international comparisons. This core set of codes has been expanded to four and five character codes so that important specific disease entities can be identified, while also maintaining the ability to present data in broad groups to enable useful and understandable information to be obtained. Its structure is designed principally to facilitate epidemiological analysis.

Table 1. Eurostat 65 Cause of Death Shortlist (+9) accessed via PHIS relevant for Respiratory Disease used in body of report

Description	ICD-10 Codes
All Causes of Death	A00 - Y89
Neoplasms	C00 - D48
Diseases of the Cardiovascular System	I00 - I99
Diseases of the Respiratory System	J00 - J99
Influenza	J10 - J11
Pneumonia	J12 - J18
Chronic Lower Respiratory Disease	J40 - J47
Asthma	J45 - J46
Other Diseases of the Respiratory System	Remainder of J00 - J99
Cancer of the Trachea, Bronchus and Lung	C33, C34

Table 2. ICD-10 codes used for hospitalisation data for respiratory conditions, adapted from the British Lung Foundation.

Classification of respiratory condition	ICD-10code
Abnormalities of breathing	R06
Acute bronchiolitis	J21
Acute bronchitis	J20
Acute lower respiratory infection (unspecified)	J22
Acute URTI	J00, J01, J02, J03, J04, J05, J06
Asthma	J45, J46
COPD	J40, J41, J42, J43, J44, J47
Cough	R05
Cystic fibrosis	E84, P75
Idiopathic pulmonary fibrosis	J84
Influenza	J09, J10, J11
Lung cancer	C33, C34
Lung diseases due to external agents	J60, J61, J62, J63, J64, J66, J67, J68, J70
Mesothelioma	C45
Other diseases of the pleura	J90, J91, J92, J93, J94
Other diseases of the respiratory system	J98, J99
Other diseases of URT	J30, J31, J32, J33, J34, J35, J36, J37, J38, J39
Other respiratory diseases principally affecting the interstitium	J80, J82
Perinatal and congenital respiratory conditions	P22, P23, P24, P25, P26, P27, P28, Q32, Q33, Q34
Pneumonia	J12, J13, J14, J15, J16, J17, J18
Pneumonitis due to solids and liquids	J69
Postprocedural respiratory disorders, not else classified	J95
Pulmonary embolism	I26
Pulmonary vascular diseases (other than pul embolism)	J81, I27, I28
Respiratory failure	J96
Sarcoidosis	D86
Sleep apnoea	G47.3
Suppurative and necrotic conditions of the lower respiratory tract	J85, J86
Tuberculosis	A15, A16, B90, J65

Abbreviations

AATD: Alpha-1 Antitrypsin Deficiency	MMR1: Measles, Mumps and Rubella vaccine (1 dose)
AMAU: Acute Medical Assessment Unit	MOH: Medical Officer of Health
ASIR: Age Specific Incidence Rate per 100,000 population	NHQRS: National Healthcare Quality Reporting System
BCG: Bacille Calmette Guerin vaccine	NIV: Non Invasive Ventilation
BDU: Bed Days Used	NOCA: National Office for Clinical Audit
CF: Cystic Fibrosis	OECD: Organisation for Economic Co-operation and Development
CI: Confidence Interval	OOHs: Out Of Hours
CIDR: Computerised Infectious Disease Reporting	OPD: Out Patients Department
CIR: Crude Incidence Rate	PCRS: Primary Care Re-imburement Scheme
COPD: Chronic Obstructive Pulmonary Disease	PE: Pulmonary Embolus
CSO: Central Statistics Office	PHIS: Public Health Information System
CTD: Connective Tissue Disease	QALY: Quality Adjusted Life Year
D3P3Polio3T3: Diphtheria (3 doses), Pertussis (3 doses), Polio (3 doses), Tetanus (3 doses) vaccines	RSV: Respiratory Syncytial Virus
DALY: Disability-Adjusted Life-Year	SABA: Short Acting B2 agonist
DPS: Payment Scheme	SAMA: Short Acting Muscarinic antagonist
DRG: Diagnostic Related Group (AR)	SARS: Severe Acute Respiratory Syndrome
DVT: Deep Venous Thrombosis (DVT)	SMR: Standardised Mortality Rate
EARSS: European Antimicrobial Surveillance System	TB: Tuberculosis
ED: Emergency Department	WHO: World Health Organisation
ERS: European Respiratory Society	YLD: Years Lived with Disability
EU: European Union	YPLL: Years of Potential Life Lost
GMS: General Medical Services	
Hib3: Haemophilus influenza type b (3 doses) vaccine	
HIPE: Hospital Inpatient Enquiry	
HPO: Health Purchasing Office	
HPSC: Health Protection Surveillance Centre	
ICD: International Classifications of Disease	
ICS: Inhaled Corticosteroids	
ILD: Interstitial Lung Disease	
IPD: Invasive Pneumococcal Disease	
ITS: Irish Thoracic Society	
LABA: Long Acting B2 agonist	
LAMA: Long Acting Muscarinic antagonist	
LOS: Length of Stay	
LTOT: Long Term Oxygen Treatment	
MersCoV: Middle East Respiratory Syndrome due to Corona Virus	

Glossary

Aetiology: The underlying origin or cause(s) of a disease or disorder.

Age-standardised rate: The age-standardised rate for a particular disease or condition is calculated by applying the country's age-specific rates to a standard population. Age standardisation adjusts disease rates to the level they would be if the age distribution of the population was the same either across time, across ethnic or other groups or countries. Age standardisation ensures that comparisons are comparing like with like: using non-standardised rates can make it look like disease rates are different, when in fact the difference lies in what proportion of the population are in the age-group who have the highest or lowest rates of the disease. This enables comparisons to be made between countries with different age-structures and time-periods.

Alveoli: Tiny sacs in the lungs at the furthest end of the airways, where exchange of oxygen and carbon dioxide between air and blood takes place.

Apnoea: Absence of breathing. In the context of sleep apnoea brief periods of apnoea occur during sleep, caused either by an anatomical obstruction in the upper airway or by a failure of respiratory drive.

Cohort study: A longitudinal study in which a population group sharing a common characteristic is followed over time to measure a particular outcome.

Co-morbidity: Conditions that exist alongside another condition, either independently or connectedly.

DALY (disability-adjusted life-year): DALYs represent "the sum of the Years of Life Lost due to premature mortality in the population and the Years Lost due to Disability for incident cases of the health condition" (WHO). DALYs are used to calculate the total disease burden on society.

Dyspnoea: The subjective sensation of difficulty in breathing.

Eosinophils, eosinophilia: A type of white blood cell involved in allergy and some cases of asthma; eosinophilia is the presence of an abnormally large number of eosinophils in the blood or body tissues (e.g. in the lungs).

Herd immunity: The effect whereby vaccination of a significant proportion of individuals in a population has a protective effect on even non-vaccinated individuals because they are less likely to come into contact with an infected person.

Idiopathic: A disease that occurs without a known cause.

Incidence: The incidence of a disease measures the number or rate of new cases of disease occurring in the population, over a specified period such as 12 months. Annual incidence is calculated as the number of new

cases of a disease occurring in 12 months divided by the population who were disease-free at the beginning of the period.

Longitudinal study: A study that tracks the progress of individuals over time.

Median: value or quantity lying at the midpoint of a frequency distribution of observed values or quantities, such that there is an equal probability of falling above or below it.

Obstructive disease: A lung disease in which air flow is limited due to damage to the airways or excessive secretions; asthma and chronic obstructive pulmonary disease (COPD) are obstructive lung diseases.

Oedema: An abnormal accumulation of fluid in tissue.

Particulate matter: A mixture of solid and liquid particles present as pollution in the atmosphere, resulting from processes such as combustion or friction; they are sub-classified by size in μm , e.g. PM10, PM2.5.

Pertussis: Also known as whooping cough; an infectious disease caused by the bacterium *Bordetella pertussis*. Vaccination against the disease is available.

Phenotypes: Observable characteristics (physical, biochemical, etc.) produced by the interaction of genetics and environment.

Prevalence: The prevalence of a disease measures the number of cases of existing disease in the population at a given time, or over a period such as the past 12 months. It is calculated as the number of people with the disease divided by the total population, and is usually expressed as a percentage.

Proteases: Enzymes that catalyse the breakdown of proteins by hydrolysing the bonds between amino acids.

QALY (quality-adjusted life-year): A similar concept to DALY, but expressed in terms of quality of life gained, rather than lost to disease or disability.

Restrictive disease: A respiratory disease in which the lungs cannot be expanded normally, due either to disease of the lungs themselves (e.g. interstitial lung diseases) or of the chest wall (e.g. chest deformity or neuromuscular diseases).

Surfactant: A mixture of protein and lipid that reduces the surface tension of fluids in the lung and thereby prevents the collapse of the airways.

Thrombosis: Clotting of blood within a blood vessel, potentially causing tissue death.

World Health Organisation (WHO) European Region: extends from the Atlantic coast to Central Asia. There are two main sources of Europe-wide data on hospital admissions: the WHO-Europe Hospital Morbidity Database (HMDB) and data from the European commission statistical agency, Eurostat.

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