codingmatters
Newsletter of the National Centre for Classification in Health
Volume 10 Number 2 September 2003
PRINT POST APPROVED PP224709/ 00038

Severe Acute Respiratory Syndrome (SARS)

Severe Acute Respiratory Syndrome (SARS) is a communicable respiratory illness that was first identified in southern China in late 2002. It is caused by a virus and spreads from person to person via contaminated droplets (through coughing or sneezing) from an infected person who is unwell or from contaminated hands or objects. Although now a global phenomenon, facilitated by modern air travel, the greatest numbers of SARS cases have been in mainland China, Hong Kong, Canada, Taiwan and Singapore.

▶▶▶

SARS COVER STORY

History

The first known case of atypical pneumonia was recognised in November 2002 in Foshan City, Guangdong Province China and identified as a SARS case much later in February 2003. The disease was identified and named as Severe Acute Respiratory Syndrome by Dr Carlo Urbani, an infectious disease specialist for the World Health Organization (WHO). Dr Urbani, who was based in Vietnam and treated some of the earlier cases in Hanoi, contracted SARS in early March 2003 and died later that month. The cause of this potentially fatal disease, the coronavirus, was identified by US scientists on 16 April 2003. As at 11 July 2003, the total number of reported probable cases is 8,437 with 813 deaths reported worldwide.

Symptoms

The incubation period, following exposure to the SARS virus, is normally 2 to 7 days. The illness usually starts with a high fever (>38° C) shortness of breath and a dry cough. Other symptoms may include myalgia, headache, poor appetite, confusion, anxiety, diarrhoea and sore throat. One of the difficulties in early detection of SARS is that these symptoms are commonly seen with other types of infections and are not specific to SARS.

The following are the WHO case definitions of SARS as at 1 May 2003:

Suspected case

1. A person presenting after 1 November 2002 with history of:

- high fever (>38°C) and cough or breathing difficulty and one or more of the following exposures during the 10 days prior to onset of symptoms
- close contact with a person who is a suspect or probable case of SARS
- travel to an area with recent local transmission of SARS
- residing in an area with recent local transmission of SARS

2. A person with an unexplained acute respiratory illness resulting in death after 1 November 2002, but on whom no autopsy has been performed and one or more of the following exposures during the 10 days prior to onset of symptoms:

- close contact with a person who is a suspect or probable case of SARS
- history of travel to an area with recent local transmission of SARS
- residing in an area with recent local transmission of SARS

Probable case

1. A suspect case (as defined above) with radiographic evidence of infiltrates consistent with pneumonia or respiratory distress syndrome (RDS) on chest X-ray (CXR)

2. A suspect case of SARS that is positive for SARS coronavirus by one or more assays

3. A suspect case with autopsy findings consistent with the pathology of respiratory distress syndrome without an identifiable cause

Note: a case should be excluded if an alternative diagnosis can fully explain the illness.

SARS in Australia

By 11 July 2003, Australia had notified five probable cases of SARS to WHO. On 25 July 2003, the first confirmed retrospective case of SARS in Australia was reported by the Commonwealth Department of Health and Ageing. It involved a 26 year old German tourist who had stayed in Hong Kong prior to her visit to Australia. She developed mild respiratory symptoms whilst travelling along the east coast of Australia and tested positive to coronavirus since returning to Germany. All contacts close to the case were fully investigated and there is no evidence that any SARS transmission occurred within Australia.

Classification of SARS

As SARS is a newly identified disease, there is no unique code in the WHO *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision* (ICD-10). A proposal has been submitted to the WHO Update Reference Committee for the introduction of a new category and code for Severe Acute Respiratory Syndrome (SARS) in ICD-10, utilising one of the 'empty' U codes. These codes were intentionally left vacant for future additions and changes and for possible interim classifications, such as new disease entities. This proposal will be discussed further at the WHO Heads of Collaborating Centres meeting in Cologne in October 2003, where it is hoped that agreement can be reached for an interim unique code to identify SARS cases.

In the meantime, for both suspected and probable cases of SARS in Australia, the following codes should be assigned:

Probable or confirmed cases:

J12.8 *Other viral pneumonia*

B97.2 *Coronavirus as the cause of diseases classified to other chapters*

Z29.0 *Isolation*

Suspected cases

J12.8 *Other viral pneumonia*

Z29.0 *Isolation*

Codes for additional diagnoses should be assigned in accordance with ACS 0002 *Additional diagnoses*. Interventions such as invasive diagnostic tests and continuous ventilatory support should be classified according to the current Australian Coding Standards.

References

Australian Department of Health and Ageing (2003). Severe Acute Respiratory Syndrome (SARS). Accessed July 2003 http://www.health.gov.au/sars/index.htm

Cameron PA, Rainer TH, De Villiers Smit P. (2003) The SARS epidemic: Lessons for Australia. The Medical Journal of Australia. 178(10): 478-479 April 2003. Accessed July 2003: http://www.mja.com.au/public/rop/cam10220_fm.html

CBC News (2003). INDEPTH: SARS questions and answers. Accessed June 2003 http://www.cbc.ca/news/background/sars/questions.html

Fisher D, Chew M, Lim YT, Tambyah P. (2003) Preventing local transmission of SARS: lessons from Singapore. The Medical Journal of Australia. 178(2): 555-558 June 2003.

Safer Healthier People (CDC) (2003) Severe Acute Respiratory Syndrome (SARS): Accessed July 2003 http://www.cdc.gov/ncidod/sars/.html

World Health Organization (2003) Communicable Disease Surveillance and Response (CSR). Accessed July 2003 http://www.who.int/csr/sars/en/

Acknowledgments:

We'd like to thank the University of Sydney School of Health Information Management student Ashwini Vidwans who did background research for this report during a placement. Cover model is Kathy Markwick.

PICQ 2002

incorporating PICQ for ICD-10-AM Third Edition is out now

Performance Indicators for Coding Quality (PICQ) is a set of predetermined performance indicators which identify records in data sets that may be incorrectly coded, based on Australian Coding Standards and coding conventions.

PICQ 2002 contains a number of enhancements:

- PICQ for ICD-10-AM Third Edition has 13 new indicators
- Upgraded internal data specifications for some indicators in PICQ for ICD-10-AM First and Second editions
- New and improved PICQ user guide

See the new NCCH catalogue enclosed with this edition for more information or contact NCCH Melbourne
phone: + 61 3 9479 1811
e-mail: qed@latrobe.edu.au

How it works – LUNGS

The primary function of the lungs is respiration. About 10,000 litres of air move in and out of adults' lungs every 24 hours. The lungs and their supporting respiratory structures also help to protect the body from environmental, air borne contaminants and infective organisms by filtering and capturing potential infection causing material in mucosa and cilia.

The anatomy of the lungs

The lungs are a pair of cone-shaped spongy organs in the thoracic cavity, enclosed by the diaphragm and rib cage and protected by the pleural membrane. The lungs are made up of lobes – three on the right and two on the left.

The pleural membrane consists of two layers – the parietal (outer) pleura and the visceral (inner) pleura. The pleural cavity is sandwiched between the parietal and visceral pleural layers. The serous fluid in the pleural cavity acts as a lubricant to reduce friction between the pleural surfaces so they move easily during breathing.

Respiration

Respiration is the process of removing carbon dioxide from the blood and replacing it with oxygen taken from the external atmosphere. Respiration is achieved through the mechanisms of breathing – inspiration and expiration.

Inspiration

Inspiration – breathing in, or inhalation – occurs when the air pressure inside the lungs is lower than the atmospheric pressure. The diaphragm and intercostal muscles contract, the ribs move upward and the diaphragm moves downward, expanding the thoracic cavity. Figure 2(A) shows the mechanisms involved in inspiration. The expansion of the thoracic cavity causes the pressure in the lungs to fall below the pressure in the atmosphere. Air flows in from the atmosphere through the airways and inflates the lungs.

Figure 1. Lung anatomy

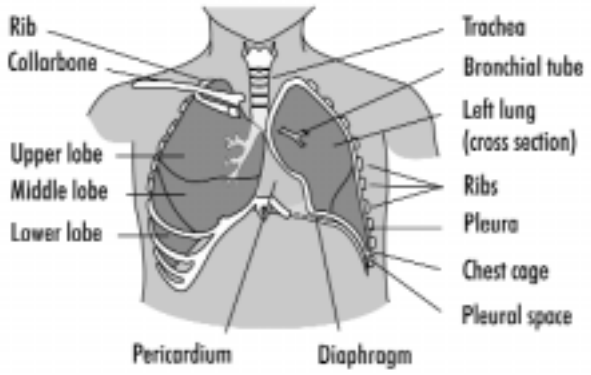
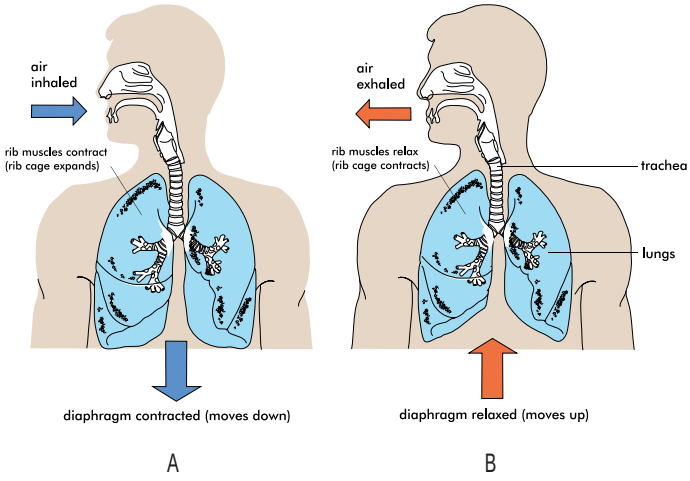


Figure 2. Inspiration and expiration

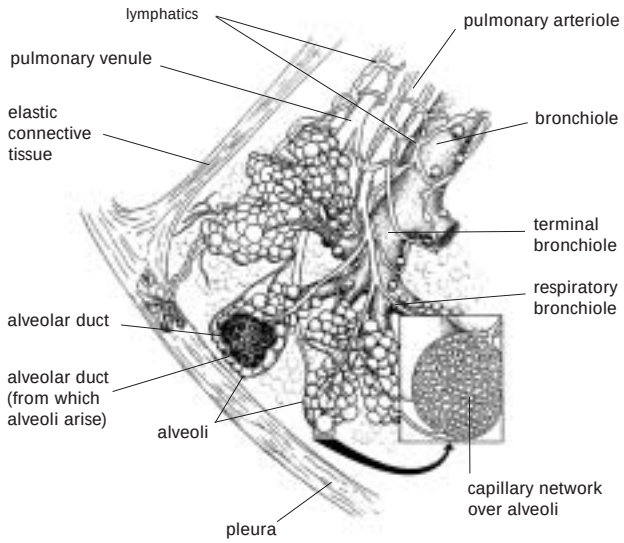


Expiration

Expiration – breathing out or exhalation – occurs when the air pressure inside the lungs is higher than the atmospheric pressure. The diaphragm and intercostal muscles relax the ribs that move downward. The diaphragm moves upward reducing the thoracic cavity. Figure 2(B) indicates the mechanisms involved in expiration. The reduction of the thoracic cavity causes the pressure within the lungs to rise above the pressure in the atmosphere. Air flows out from the lungs through the airways and into the atmosphere.

While air moves in and out of the lungs and airways, respiration continues through the alveoli. Alveoli are tiny air sacs, situated at the end of the bronchiole branches and are surrounded by the pulmonary capillaries. The exchange of oxygen and carbon dioxide occurs through the alveolar-capillary membrane, also known as the respiratory membrane. Oxygen enters the alveoli during inspiration and diffuses through the respiratory membrane to deoxygenated blood in the pulmonary capillaries. Simultaneously, a net diffusion of carbon dioxide from the deoxygenated blood occurs across the respiratory membrane into the alveoli. The lungs then expel carbon dioxide diffused into the alveoli during expiration. Figure 3 illustrates the exchange of oxygen and carbon dioxide across the respiratory membrane.

Figure 3. Respiratory membrane



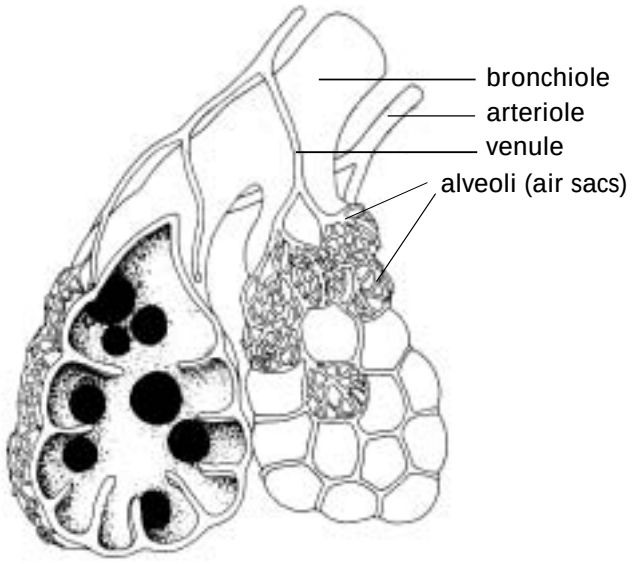
Control of respiration

The autonomic nervous system controls the rhythm of respiration. However, the respiratory muscles are under the voluntary control of the respiratory centre of the brain.

The rhythm of the respiration is controlled by nerve impulses transmitted from three areas within the respiratory centres:

1. The medullary rhythmicity area – controls rhythm of respiration.
2. The pneumotoxic area – controls period of the inspiration.
3. The apneustic area – controls period of the expiration and extends the inspiration period.

Figure 4. Alveoli



Factors affecting respiration

- Blood pH level and carbon dioxide concentration – a high blood pH level and carbon dioxide concentration increases respiration rate and volume.
- Oxygen level – a low blood oxygen level increases respiration rate and depth.
- Stretch receptors – stretched lung tissues stimulate the stretch receptors and shorten the inspiration action and exhalation, preventing overinflation of lungs.
- Emotional state – fear and pain increases respiration rate.
- Body temperature – an increase in body temperature increases the respiration rate and a decrease in body temperature decreases the respiration rate.
- Unwanted substances – unwanted substances such as dust or smoke send a message to the medulla to immediately contract the muscles, resulting in coughing or sneezing.

References

American Lung Association (2002) How our lungs work. Accessed July 2003: http://www.lungusa.org/learn/

Australian Institute of Health and Welfare (2002) *Australia's Health 2002*. Canberra: AIHW

How stuff works (2003) How Your Lungs Work. Accessed July 2003: http://www.howstuffworks.com/

Sheir D, Butler J & Lewis R. (2000) Essentials of Human Anatomy and Physiology. USA: McGraw-Hill.

The Australian Lung Foundation (2002) The lungs – an overview of how they work. Accessed July 2003: http://www.lungnet.org.au/frames/frame_learn-health.htm

Tortora GJ & Grabowski SR (1993) Principles of Anatomy and Physiology. New York USA: HarperCollins.

WebMD (2003) Overview of Lung Function. Accessed July 2003: http://www.my.webmd.com/content/article/

How it works...
stand by for skin in the December edition

The 10-AM Commandments

Gastrectomy

Gastrectomy codes in block [879] *Other gastrectomy* include anastomosis. These may be:

- oesophagojejunal anastomosis (oesophagojejunostomy)
- oesophagoduodenal anastomosis (oesophagoduodenostomy) or
- oesophagoenteral anastomosis (oesophagoenterostomy, unspecified)

Classification

It is not necessary to assign a separate code for anastomosis with:
30523-00 [879] *Subtotal gastrectomy*
30524-00 [879] *Radical gastrectomy* or
30521-00 [879] *Total gastrectomy*
as the anastomosis is inherent in each of these codes.

Repair of Mallory Weiss tear

Oversewing of Mallory Weiss laceration is an inclusional term at 30375-06 [871] *Gastrotomy.*

The repair of the Mallory Weiss tear does not require a separate code when performed as an open procedure.

Clinical advice indicates that a repair of a Mallory Weiss laceration is a minor procedure when performed during an upper gastrointestinal endoscopy and does not warrant a separate code.

Classification

For documentation of repair (clipping) of a Mallory Weiss tear performed endoscopically, assign only the code for the endoscopic procedure, for example:
30473-00 [1005] *Panendoscopy to duodenum.*

Legionella pneumophila pneumonia

A query was received by the NCCH regarding the classification of Legionella pneumophila pneumonia. There are inconsistencies in the Alphabetic Index of Diseases that result in different codes. There is no entry for legionella under the term Pneumonia and in the following index trail:

Infection, infected (opportunistic) B99

– Legionella pneumophila A48.1

only one code is indicated, that is, A48.1 *Legionnaires' disease.*

To code Legionella pneumophila pneumonia the following index trail should be used:

Legionnaires'

– pneumonia A48.1† J17.0*

Therefore, Legionella pneumophila pneumonia is classified as A48.1† *Legionnaires' disease* and J17.0* *Pneumonia in bacterial diseases classified elsewhere.*

Amendments will be made to a future edition of ICD-10-AM to ensure that there is consistency in the Alphabetic Index of Diseases for this condition.

Infected burn

A number of queries have been received regarding the classification of infected burns, particularly when no specific organism has been identified or documented.

Classification

For documentation of infected burn the following codes should be assigned:

- a code for the site of the burn (T20–T30)
- a code from T31 *Burns classified according to extent of body surface area involved,* to indicate the extent of the burn
- T79.3 *Post-traumatic wound infection, NEC,* to indicate the infection
- a code from B95–B97 *Bacterial, viral and other infectious agents,* to indicate the organism, if known

Please note that it is standard clinical practice in managing burns patients to treat infection prophylactically. Therefore, the clinician should always be consulted before an infection code is assigned (see ACS 1911 *Burns*).

The NCCH acknowledges that improvements are required in the indexing of T79.3 *Post-traumatic wound infection, NEC* and T89.02 *Open wound with infection* to reduce ambiguity in the use of these codes.
This task, together with a review of ACS 1911 *Burns* and ACS 1917 *Open wounds* will be noted for a future edition of ICD-10-AM.

Maze procedure

The Maze (Cox-Maze) procedure is a new surgical treatment for atrial fibrillation. Strategically placed incisions in both atria isolate and stop abnormal electrical impulses from forming and direct the impulses down a normal pathway. Alternatively, abnormal pathways may be ablated using radiofrequency, microwave energy or cryoablation.

Classification

The following codes should be assigned for documentation of Maze procedure:

[600] *Incision procedures on atrium* or

[601] *Destruction procedures on atrium*

depending on the technique used.

Arytenoidectomy via tracheostomy stoma

Arytenoidectomy is excision of an arytenoid cartilage, usually in bilateral vocal fold paralysis, to improve breathing.

Microlaryngoscopy is a method used to visualise the larynx, using magnification. The microlaryngoscope can be used orally or via a tracheostomy.

Classification

Where documentation specifies arytenoidectomy performed via a tracheostomy stoma, the correct code to assign is 41867-00 [523] *Microlaryngoscopy with arytenoidectomy.*

Possible errors in the interpretation of pathology results found during routine data analysis at the Australian Institute of Health and Welfare (AIHW)

The AIHW undertakes a data editing process during the compilation of the National Hospital Morbidity Database each year and records are checked for a number of rare and/or notifiable diseases. Any records with these diseases are queried with the relevant state or territory health authority and either confirmed or corrected. In 2000–2001 there were 143 records with diagnoses of a rare and/or notifiable disease queried with the states and territories. Some were confirmed as correct, others were corrected or deleted and others could not be confirmed or corrected.

It is suspected that cases may be incorrectly coded to rare and/or notifiable conditions because of misinterpretation of pathology results by clinical coders for example:

- *Corynebacterium diphtheriae (C. diphtheriae)* is the cause of diphtheria, but can be carried asymptomatically. Identification of *C. diphtheriae* in a pathology result alone does not justify the assignment of a diagnosis from A36 *Diphtheria.* See also ACS 0010 *General abstraction guidelines*
- The name of an organism is documented in two parts – genus and species – for example: *Corynebacterium diphtheriae (C. diphtheriae)*
- A diagnosis code should be assigned based on the organism's full name. Significantly different organisms can have similar names so care should be taken in these circumstances
- The ICD-10-AM Alphabetic Index of Diseases in some cases provides entries for diseases that include the name of an organism, for example: Corynebacterium diphtheriae myocarditis, ICD-10-AM contains the entry:

  Myocarditis (chronic) (fibroid) (interstitial) (old) (progressive) (senile) (with arteriosclerosis) I51.4

  – in (due to)

  – – diphtheria A36.8† I41.0*

The codes A36.8† *Other diphtheria* and I41.0* *Myocarditis in bacterial diseases classified elsewhere* should only be assigned when there is clinical and toxogenic documentation of *Corynebacterium diphtheria.*

Autologous donation of blood

Donation of blood or blood products is usually performed on an outpatient basis. If a patient is admitted to hospital for autologous blood donation, the following guideline should be used:

- Same day episode of care: assign the appropriate code from Z52.0 *Blood donor* as the principal diagnosis
- Multi day episode of care: assign the code for medical condition as the principal diagnosis

Reference

Kearsey I (August 2002) Bring out your dead! Has the black death returned? *ICD Coding Newsletter* Department of Human Services (Victoria), Melbourne.

ICD-10-AM USER SURVEY RESULTS

NCCH recently surveyed our clients to establish their use of and view about the ICD-10-AM browser and eBook. We hoped to get feedback from users about the features and functionality provided in these products, and whether they were easily and regularly used. The NCCH wishes to thank all respondents for their valuable feedback.

There was a healthy response from clinical coders with 532 survey responses received (70% by mail, 30% via fax and the web).

Uses of ICD-10-AM classification and the ICD-10-AM Browser

The majority of respondents used the classification (in either book or browser form) to assign codes (85%); others used the classification as a reference resource, or for study and teaching purposes. Mostly, ICD-10-AM was used on a daily basis. Over 90% of respondents indicated that they had received the ICD-10-AM browser, but only a little over half of these people had actually used the browser.

Among respondents who had used the ICD-10-AM browser, clinical coders with multiple roles were the most proficient users with over three-quarters of this group stating that it took them two hours or less to become proficient users. Proficiency and familiarity seems to be the greatest determinant of use, with the majority of users claiming that it was quicker to work with the ICD-10-AM books, which probably reflects their greater experience with hard copy presentations of the classification.

Respondents indicated whether they believed certain features and functionality would be an advantage of using an electronic version of ICD-10-AM. Nearly three-quarters of respondents indicated that not needing to cut-and-paste errata would be an advantage of an electronic version of ICD-10-AM, and nearly two-thirds of respondents believed up to date information would be provided in a more timely manner by an electronic version.

The features and functionality most often noted as essential to an electronic version of ICD-10-AM were:

- fast and frequent notification of updates and errata
- a user manual and help page/FAQs
- user education workshops
- technical troubleshooting assistance
- links to clinical information and support sites on the Internet.

Many of these features are already available in the eBook, and further enhancements will continue to be made in subsequent versions, in line with user demand and technological innovation.

ICD-10-AM eBook

Fewer respondents were familiar with the ICD-10-AM eBook, and their responses were mostly about the features and functionality they would find most useful in the product – so perhaps more a wish list rather than comments on the existing eBook.

Over one-third of respondents believed that their workplace would use only an electronic version of

ICD-10-AM in the future, less than 20% believed that an electronic version would not be used, and the remainder were uncertain about whether the eBook would be used as the only source for classification information.

Here again, familiarity and experience seem to be the best predictors of whether the eBook was regularly used, with browser users being more acquainted with electronic presentations of the classification being more confident in using the eBook.

ICD-10-AM Fourth Edition eBook

Respondents feedback has helped inform decisions about meeting users needs and preferences for production of ICD-10-AM Fourth Edition. The NCCH will produce both hard copy and eBook versions – the Browser will be discontinued. The eBook is an enhanced version of the Browser – the functions are the same in each – the eBook offers notes and other features not included in the Browser.

Re-visiting how to use the ICD-10-AM electronic versions

A short feature about how to use the ICD-10-AM Browser (the eBook is operated in principally the same way) was published in *Coding Matters* 9(2): 34–35 (September 2002). It's not too late to register copies of the Browser that were distributed with hard copies of ICD-10-AM Third Edition. Take some time to become familiar with the electronic version to help inform your choice before ordering copies of Fourth Edition.

The benefits users identified* about using the electronic versions included:

- that it is convenient to use on the desktop (51%)
- that it is quicker to use than the books (33%)
- that it is portable (22%)
- that it is possible to tab between applications (21%)
- users' personal preference to use electronic applications (18%).

* Respondents could indicate multiple categories in this question, so results do not tally to 100%.

The outcomes

Overall, electronic versions of ICD-10-AM are becoming more frequently used. Increasing familiarity and proficiency are likely to result in greater up-take of electronic ICD-10-AM products.

The NCCH will endeavour to develop and provide further information, demonstration and training modules about the eBook in the future.

Any technical or sales inquiries can be directed to Rodney Bernard, Publications Manager, phone 02 9351 9478 or e-mail r.bernard@fhs.usyd.edu.au.

ICD-10-AM Third Edition eBook

The ICD-10-AM eBook is the interactive, electronic version of ICD-10-AM Third Edition, that looks like the printed manuals on screen

The ICD-10-AM eBook features:

- hyperlinks between volumes
- personalised user notes
- 10-AM Commandments full-text links
- notes marker
- user defined search facility

Errata 4 Update Available Now

NYM WORDS

Acronym	Words made up of the initial letters of phrases that can be pronounced as a word in its own right, such as *laser – light amplification by stimulated emission of radiation.*
Anatonym	A part of the body used as a verb such as *toe the line; face the music; foot the bill*
Anonym	A nameless person
Antonym	A word opposite in meaning to another word such as hot:cold
Cryptonym	A private or secret name such as *Agent 007*
Domunym	A word used to identify people from particular places: Sydneysiders; Brisbanites
Eponym	A person's name given to a place, institution, business, medical procedure, surgical procedure or disease
Exonym	A place name that foreigners use instead of the local name – Cologne: Koln; Florence: Firenze; Morocco: Maroc
Heteronym	A word having the same spelling as another, but a different sound and meaning – lead: a mineral; lead: to guide
Homonym	Same sound but different meaning – to: too: two
Malonym	A humorous sound-alike mistake: *Our menu is guaranteed to wet (whet) your appetite*
Neuronym	Name of a nerve or part of the nervous system
Organonym	The technical name of an organ
Oronym	Phrases or sentences that can be read in two ways with the same sound – I scream: ice cream
Pseudonym	A false or fictitious name – Mark Twain: Samuel Clemens
Synonym	Two or more words having the same general sense, but with unshared meanings or with different shades of meaning or implications – serpent: snake; silent: quiet
Toponym	A personal name derived from a place – Nellie Melba, June Bronhill, John Denver
Typonym	Taxonomic name based on a type of specimen instead of a diagnosis

PICQ FREQUENTLY ASKED QUESTIONS

Q When inverting and linking data, I get the following messages 'Unexpected error encountered (3078)'or 'Run-time error '3051' : The Microsoft Jet database engine cannot open the file…' How do I resolve them?

A These messages are usually encountered when the PICQ program is installed in a different location than your data, such as, PICQ has been installed on your hard drive, and your data is located on a shared drive (network). The PICQ software and your data must be installed in the same location, preferably both on your hard drive, to enable the PICQ software to link your data. The *PICQ 2002 user guide* (pp 12–13) provides more information.

Q PICQ has reported a fatal error but I am sure that it has been coded correctly. What should I do?

A Each PICQ indicator is categorised to the degree of the problem and there are three degrees of error: Fatal, Warning and Relative. Fatal indicators are designed to identify records that have been coded incorrectly in 100% of cases. However, because there is a limit to the amount of testing of indicators against data sets prior to release of the PICQ product, there may be situations where users find that records identified by a fatal indicator are in fact coded correctly. If this occurs, please contact NCCH for advice to enable us to examine the cases in detail and if required, modify the indicator in the next release of the software.

Q What is an indicator threshold?

A Some Warning indicators have a nominated percentage threshold that shows the approximate number of records that are probably coded correctly, for example, indicator 100139 Acute tonsillitis code with tonsillectomy code, has a threshold of 1%. This means that the number of problem records identified by the indicator that are likely to be coded correctly is approximately 1% (these records would be correct if the only documentation is 'acute tonsillitis'). Indicator thresholds are listed in Appendix A of the *PICQ 2002 user guide.*

Q Do I need to have a Patient Administration System interface program to be able to use PICQ?

A No. PICQ requires an extract of coded separations data from your PAS system in a specific format (defined in the *PICQ 2002 user guide*). Your IT support personnel should have a mechanism for querying (or extracting) the data in your PAS system, for example, SQL or Crystal reports. Your data needs to be in an Access® table that is called Separations. A sample database (called Casemix.Example.mdb) is provided in the PICQ product to assist with the process of getting your data into the PICQ format.

Q Who should I contact if I have a problem using PICQ or an issue or comment about a PICQ indicator?

A NCCH welcomes and needs feedback from PICQ users about the PICQ software and the indicators themselves. This feedback is important for the development of the product to meet user needs and the testing and refinement of indicators over time. Contact NCCH Melbourne phone + 61 3 9479 1811 or e-mail qed@latrobe.edu.au.

Q Do I need to know how to use Microsoft Access® to be able to use PICQ?

A No, you don't need to know how to use Access® to be able to use PICQ. All the information and instructions required for you to use PICQ are included in the PICQ 2002 package.

Q Can I get coder specific reports out of PICQ?

A Yes, so long as the information is available in your PAS system. You can use the user defined fields to create a user defined report. For more information on creating user defined reports see section 8.5 of the *PICQ 2002 user guide*.

Q How often should I run PICQ?

A As often as you like! This may depend on your organisation's number of separations, your coding processes, and when your data is available to link to PICQ. Indicators might be run after the coding input, such as every day, week or month, or following data submission. Running indicators following input identifies problem records and allows the user to check the codes and make corrections prior to submission.

Q Why was Diseases Chapter 4 chosen for indicators 100062 and 100081 only?

A As PICQ has a limited number of indicators (due to time constraints between version releases), there was no room to include indicators for all the other chapters in this particular version. If you find a problem relating to Chapter 4, it may suggest the same would apply to other chapters. Chapter 4 was chosen because it is a commonly used chapter that is a reasonable size.

Q When creating analysis definitions using the filtering function, I can't seem to exclude some indicators using the filters? What am I doing wrong?

A Ensure that you select the Clear Grid button on the Indicator Search form, to clear the search form between searches. For more information about PICQ indicator searches using filters see sections 6.2–6.6 in the *PICQ 2002 user guide.*

Q When I try to invert my PICQ data, I get the message 'There is at least one gap in a sequence of Diagnosis codes, before: D05 The inversion process has been aborted'. How do I fix this?

A Diagnosis codes (D02–D99) must not have gaps, that is, no blank columns, between consecutive codes for the one patient record. This error message indicates that for one or more records there is a code missing in field D01, D02, D03 or D04, yet there is a code in D05. It is necessary for you to identify the problem record or records in the separations table and remove the gap between the codes. Please refer to Table 4a Format of input Separations table in the *PICQ 2002 user guide.*

Q How do you print PICQ reports by individual facility?

A To run reports by individual facility, you will need to use the User Defined Numerator Unit Record Report and sort by Hospital. Then export to Word® or Excel® and print in the usual manner. It is important to note that the hospital field is specified as a text field to accommodate both numeric and alpha hospital IDs. If your Hospital IDs are numeric, they will not be presented in numeric order. This is because in Access®, the search for text is all 1s (no matter how big), then all 2s, then 3s and so forth. The sequence would therefore be 19, 249, 49… . The only way around this problem is to find-and-replace with an alpha prefix or of course have separate databases for each hospital.

Q How do you print a list of all PICQ indicators?

A You can find a list of all indicators in Appendix A of the *PICQ 2002 user guide* (Word® or Adobe® pdf). Select the relevant ICD-10-AM edition (First, Second or Third edition) and then print.

PICQ 2002 Indicators under review for next edition

Indicator number	Indicator name	Specification under review
100135	Rejection/failure of corneal graft code without additional diagnosis	Inclusion of code T85.78 *Infections and inflammatory reaction due to other internal prosthetic devices, implants and grafts*
100190	Division of abdominal adhesions code without corresponding diagnosis code	Inclusion of code N99.4 *Postprocedural pelvic peritoneal adhesions*
100253	Delivery, possible, without outcome of delivery or postpartum care and examination code	Review of indicator title and codes
100346	Body surface area (burnt) code without external body surface burn code	Currently being reviewed by NCCH
101418	Appendicitis, acute without appendicectomy	Review of codes included in the indicator to allow for transfers for convalescence and change degree from Fatal (A) to Warning (B)
101424	Premature rupture of membranes without duration of pregnancy code	Inclusion of a threshold to indicate the approximate numbers of correctly coded records identified by indicator
101506	Myelodysplastic syndrome with anaemia code	Review codes and possibly change degree from Fatal (A) to Warning (B)
101895	Paraplegia/quadriplegia with sequela of external cause code but no sequela of spinal cord injury code	Inclusion of code T90.5 *Sequelae of intracranial injury.* Change of indicator title and rationale to include 'intracranial'

NCCH/ACHS CLINICAL INDICATOR PROJECT

The Australian Council on Healthcare Standards (ACHS) is an independent, not-for-profit organisation, dedicated to improving the quality of health care in Australia through continually reviewing performance, assessment and accreditation of health care organisations. Part of this process is the Evaluation and Quality Improvement Program, known as EQuIP. Health care organisations in EQuIP are required to provide evidence of improving or moving towards improving performance by utilising data. One method of measuring this performance is by the use of clinical indicators.

Clinical indicators are tools which allow the objective measurement of the management and outcome of patient care. The ACHS has been involved in the development of clinical indicators in conjunction with the Australian and New Zealand Medical Colleges, Associations and Societies since 1989. As a result, 20 sets of clinical indicators, both hospital-wide and discipline specific, have been developed (refer to Figure1 for a current example). The ACHS, through the Performance and Outcomes Service (POS), develops, collects, collates, analyses and reports the results of these indicators, so that health care organisations may receive benchmarking information relating to clinical care.

The ACHS and the NCCH met earlier this year to discuss the possibility of collaborative work between the two organisations, in relation to both the development and revision of clinical indicator sets. It was felt that in order to lessen the burden of data collection and to make benchmarking more accurate, the 'coding' of clinical indicators was highly desirable. Consequently, the NCCH was invited to join the membership of the working party for each indicator set and be involved in the development and review process (see Figure 2 for further information on this process). In this way, the definition of terms and development of the numerator and denominator may be structured (if possible) to fit within existing or proposed ICD-10-AM parameters. This process will also inform the biennial revision of ICD-10-AM, whereby an existing code may be revised, or a new code introduced, to facilitate data collection.

The NCCH and ACHS have agreed to establish a Memorandum of Understanding (MoU) so that work on this project may begin. So far this year, the NCCH has been involved in three working parties reviewing the clinical indicator sets for ophthalmology, gynaecology and obstetrics, and radiology. Further meetings for the dermatology and hospital-wide indicator sets are planned for later this year.

Figure 1

Internal Medicine – Version 3

INDICATOR AREA 1: CARDIOLOGY 1

Indicator Topic:
Receipt of thrombolytic therapy for acute myocardial infarction (AMI)

Rationale:

Thrombolysis is a life saving treatment, which must be given as soon as possible after AMI.

Definition of

For the purpose of this indicator:

- AMI requiring thrombolysis is defined as:
  - chest pain greater than 30 minutes plus
  - new ST segment elevation or left bundle branch block (LBBB)
- Thrombolytic therapy is defined as intravenous therapy for the purpose of enhancing clot lysis, for example, streptokinase, T-PA

Type of Indicator:

This is a comparative rate based indicator addressing the process of patient care.

INDICATOR DATA FORMAT:

CI. 1.1 Numerator

The number of patients with AMI requiring thrombolysis who receive thrombolytic therapy within one hour of presentation to the hospital.

Denominator

The total number of patients with AMI requiring thrombolysis who receive thrombolytic therapy, during the time period under study.

Figure 2

Development of a clinical indicator set

The ACHS POS collaborate with key stakeholders such as medical colleges, associations, clinicians, consumers, providers and interested parties to develop a set of indicators.

The overall process is outlined below:

- The key personnel meet as a Working Party
- A literature review is undertaken for evidence on performance and current practice
- Indicator topics are discussed and prioritised
- Draft indicators are developed
- Field-testing is undertaken to assess whether the indicator can be easily collected, collated and reported
- Initial analysis of the data is undertaken and disseminated to the Working Party
- Further refinement of the indicator is undertaken
- Following ratification by the Working Party the set is published in the ACHS Clinical Indicator Users' Manual.

The Set is regularly reviewed to ensure:

- it remains reflective of today's health care environment,
- there is consensus of collection and reporting requirements and
- that the indicator set has remained useful for quality improvement.

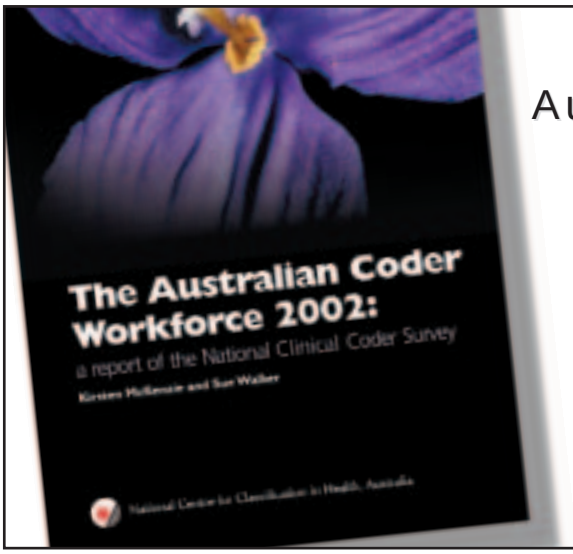
A longer term outcome of this project is the development of a software product similar to the current editing tool, Performance Indicators for Coding Quality (PICQ). Because of the similarity in format between the indicators for coding quality and the ACHS clinical indicators, there is the potential to develop a version of the PICQ software which could streamline clinical indicator data collection and enhance consistency between data provided by various health care organisations. While we appreciate that not all clinical indicators will be amenable to expression in ICD-10-AM, preliminary review has indicated that there are a substantial number of indicators that rely fully, or in part, on ICD-10-AM codes or National Health Data Dictionary (NHDD) fields for data abstraction. In addition, the ongoing review process of ACHS clinical indicators will seek to improve compatibility between definitions and terms in ICD-10-AM and the indicator sets.

The NCCH is pleased to be involved in this collaboration with the ACHS. Through the work of this project, we hope to enhance the efficiency of data collection in the measurement of quality of care in Australian health care organisations.

References

ACHS clinical indicator users' manual. The Australian Council on Healthcare Standards, 2003, ACHS, Sydney.

The Australian Council on Healthcare Standards (2003) Accessed August 2003: http://www.achs.org.au



available now

Australian Coder Workforce 2002:
A report of the national clinical coder survey

The essential tool for coder workforce planning

This comprehensive report provides information about

Who codes
What coders do
Where coding is done
How coding is done *and*
How coders are supported

Feedback is provided by state and territory, and from managers' and coders' perspectives.

The report is presented as and Adobe® Acrobat® file on CD-ROM.
See the enclosed order form for purchasing details,
or contact NCCH Sydney: Ph: 02 9351 9461 e-mail: ncchsales@fhs.usyd.edu.au

The National Hospital Morbidity Database:

Diagnoses, procedures and external causes for national health statistics

Introduction

The Australian Institute of Health and Welfare (AIHW) uses diagnosis, procedure and external cause information from the National Hospital Morbidity Database (NHMD) for national health statistics, such as health service utilisation reports, population health monitoring and for data development.

The National Hospital Morbidity Database

The National Hospital Morbidity Database is a compilation of electronic summary records from admitted patient morbidity data collection systems in Australian hospitals from 1993–1994 to 2001–2002. It includes demographic, administrative and length of stay data, and data on the diagnoses of the patients, the procedures they underwent in hospital and external causes of injury and poisoning (reported using ICD-9-CM and ICD-10-AM). Information about AR-DRGs is also included.

How AIHW use data

Health services utilisation

Data from the National Hospital Morbidity Database are used for reporting health service utilisation.

Australian Hospital Statistics[1]

This publication is an annual summary report describing the characteristics and activity of Australian hospitals and the characteristics and hospital care of people admitted to these hospitals. It includes information on diagnoses, procedures, external causes and AR-DRGs. Additionally, there is information on a number of performance indicators which are derived from hospital morbidity data, including cost per casemix-adjusted separations and separation rates for selected diagnoses and procedures.

Figure 1 demonstrates the interrelationships between a principal diagnosis (S82 *Fracture of lower leg, including ankle*) with other data elements in the National Hospital Morbidity Database.

Mental Health Services in Australia[2]

This annual summary report, which includes data from the National Hospital Morbidity Database describes the characteristics and hospital care of admitted patients who were treated in specialised psychiatric units or hospitals, or who had other mental health-related care. ICD-10-AM is used to define mental health-related care for this report. Attention is given to ensuring that the definition of a mental health-related diagnosis includes all codes that are either clinically or statistically relevant to mental health care.

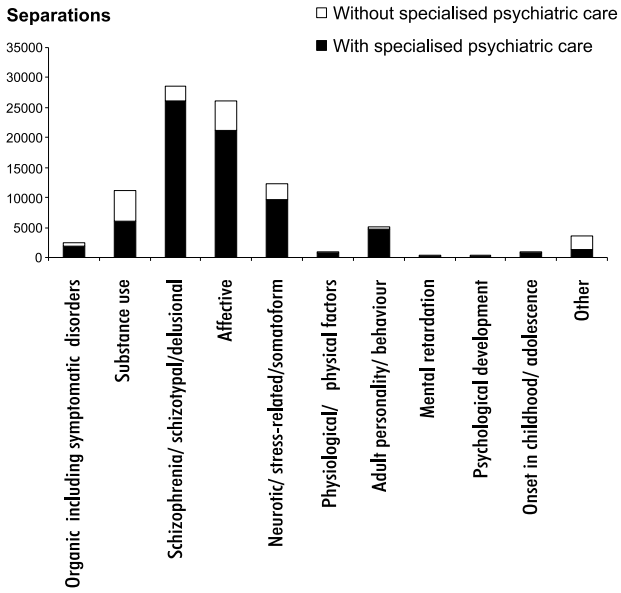


Figure 2: Mental health-related overnight separations with and without specialised psychiatric care by principal diagnosis group, public hospitals, Australia, 2000–01

Figure 2 shows mental health-related separations by principal diagnosis group for public hospitals for 2000–2001, based on the definition of mental health-related care developed using ICD-10-AM.

Population Health

Data from the National Hospital Morbidity Database are also used for population health monitoring.

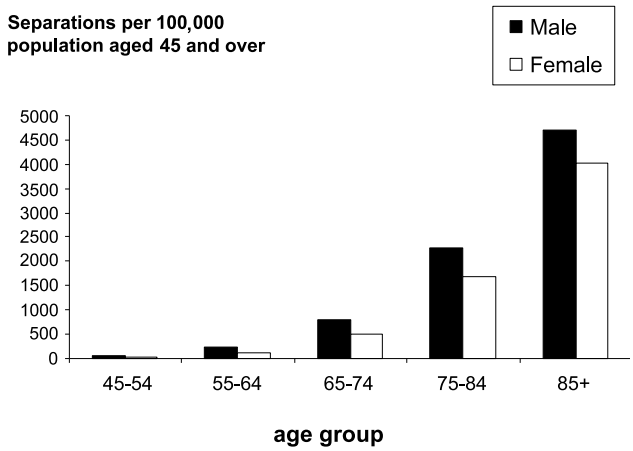
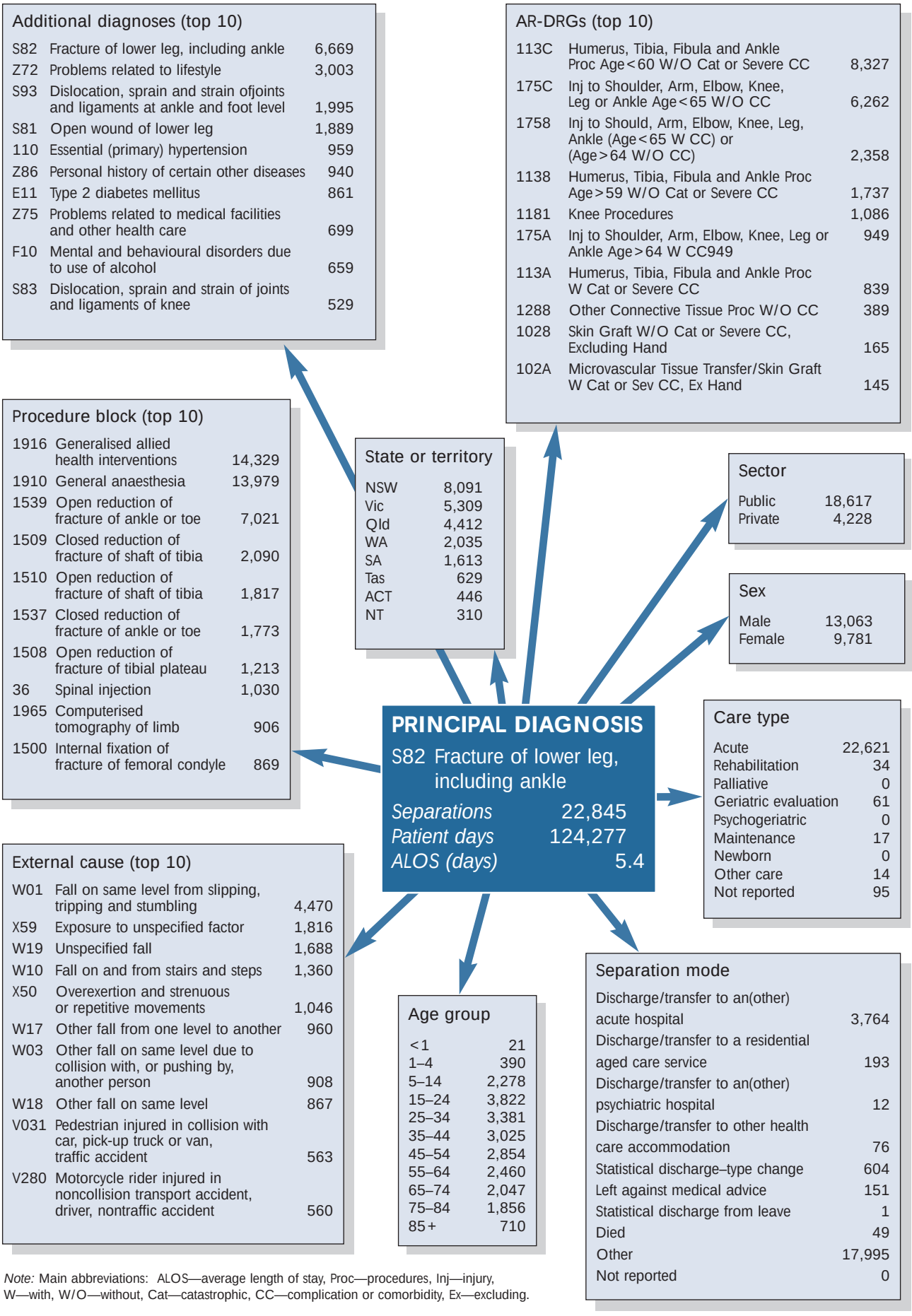


Figure 3: Separations per 100,000 population with a principal diagnosis of heart failure, 2000-01



Note: Main abbreviations: ALOS—average length of stay, Proc—procedures, Inj—injury, W—with, W/O—without, Cat—catastrophic, CC—complication or comorbidity, Ex—excluding.

Figure 1: Interrelationships of a principal diagnosis (S82 Fracture of lower leg, including ankle) with other data elements, all hospitals, Australia, 2001–02

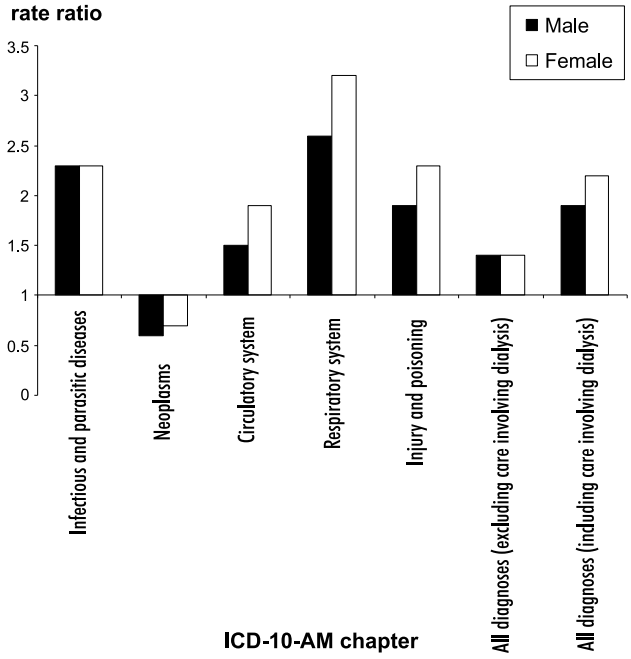


Figure 4: Indigenous separation ratios by principal diagnosis, 1999-00

Cardiovascular disease monitoring

The AIHW routinely includes national hospital morbidity data in a number of reports on cardiovascular disease.

Figure 3 is taken from the Institute's bulletin *Heart failure…what of the future?*[3] and shows, for example, that in 2000–2001, the age specific hospitalisation rate per 100,000 population aged 45 and over, where the principal diagnosis was heart failure increased markedly with increasing age for both males and females. The rate among people aged 75–84 years was three times as high as the rate for people aged 65–74 years.

Indigenous health monitoring

National hospital morbidity data have been included in a recent report on hospitalisations for Aboriginal and Torres Strait Islander Australians[4].

Drawn from this report, Figure 4 presents some of the National Hospital Morbidity Database data as ratios of the actual separation rates for Indigenous people to the rates expected, based on hospital separation rates for the total Australian population. Indigenous persons are not always identified as such in the data, so these data should be interpreted with caution.

The data indicate that overall, Indigenous people have a greater burden of illnesses which result in hospitalisation, particularly for those conditions classified to chapters such as *Infectious and parasitic diseases*. However, for one or two chapters, with Neoplasms as the example here, Indigenous people had separation rates similar to or less than those of the total population.

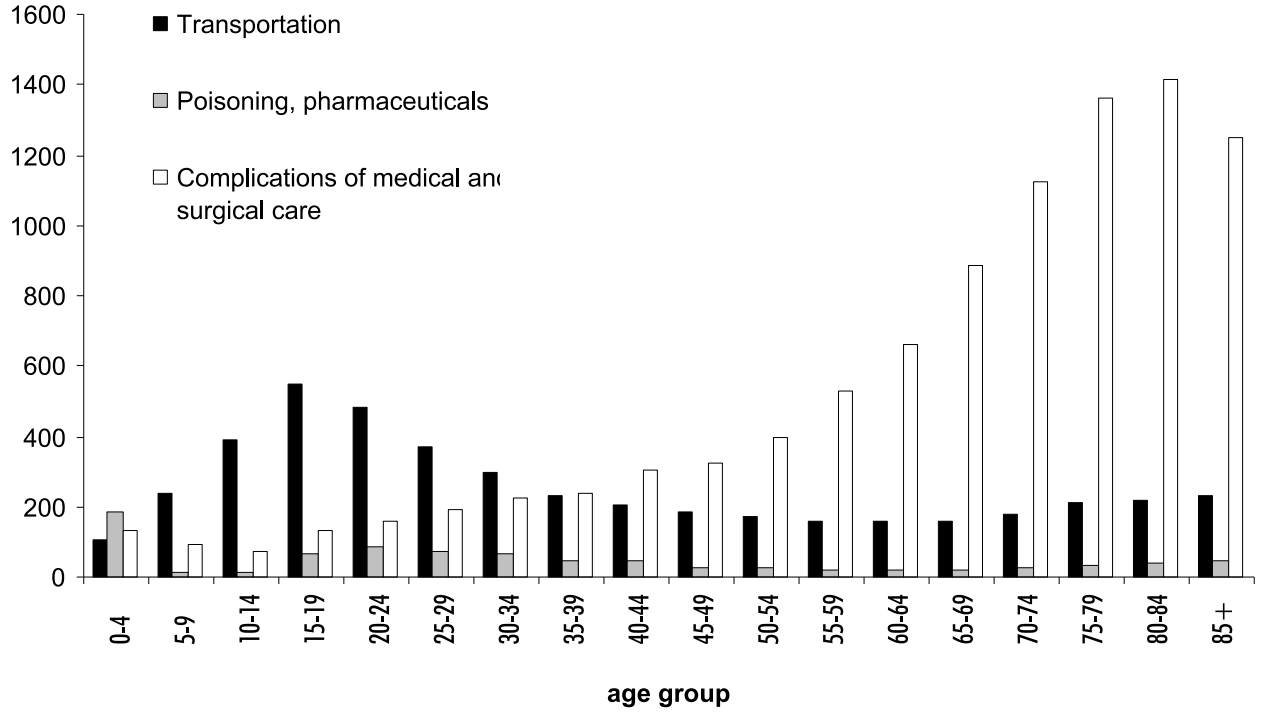


Figure 5: Age specific separation rates for selected external causes, by 5 year age group, 1999-00

Injury surveillance

National hospital morbidity data on external causes are used for injury surveillance.

Data in Figure 5 are taken from the *Hospital separations due to injury and poisoning, Australia, 1999–2005*[5] report and show that the age specific separation rate for the external cause Transportation was highest for the 15–19 year age group.
For *Poisoning, pharmaceuticals*, the age specific separation rate was highest for the 0–4 year age group, and for *Complications of medical and surgical care*, the age specific separation rate was highest for the 80–84 year age group.

Data definition development

The AIHW, in consultation with Commonwealth, State and Territory governments, uses data from the National Hospital Morbidity Database to assist in the development and refinement of data element definitions for the National Health Data Dictionary.

For example, the AIHW is using data on procedures from the National Hospital Morbidity Database to assist in the review of the elective surgery waiting times data element *Indicator procedure*. In addition, Chapter XXI *Factors influencing health status and contact with health services* (Z codes) in ICD-10-AM is being used to inform the development of a data element to identify extended stay patients.

Conclusion

The diagnoses, procedures and external cause data contained in the National Hospital Morbidity Database are used for a broad variety of national health statistics reports, population health monitoring and data development purposes. The efforts that are undertaken to maintain and improve the quality of these data are appreciated.

References

1. Australian Institute of Health and Welfare (2002) Australian hospital statistics 2000–2001. AIHW cat no HSE 20. Canberra: AIHW (Health Services Series no 19).
2. Australian Institute of Health and Welfare (2002) Mental health services in Australia 1999–2000. Canberra: AIHW (Mental Health Series no 3).
3. Australian Institute of Health and Welfare. Field B 2003. Heart failure…what of the future? Bulletin no 6. AIHW cat no AUS 34. Canberra: AIHW.
4. ABS and AIHW 2002/ Occasional Paper. Hospital Statistics Aboriginal and Torres Strait Islander Australians 1999-2000. ABS cat no 4711.0. AIHW cat no IHW 9.
5. Helps Y, Cripps R, Harrison J (2002) Hospital separations due to injury and poisoning, Australia 1999–2000. Injury Research and Statistics Series Number 15. Adelaide: AIHW (AIHW cat no INJCAT 48).

The Good Clinical Documentation guide

Your guide to the best medical records

The ***Good clinical documentation guide*** helps clinicians to recognise critical elements they need to document to reflect the patient care process, to communicate, report and provide clear data for research and quality of care monitoring.

The ***Good clinical documentation guide*** provides general information about the requirements for good documentation, and the relationship between documentation, coding and Diagnosis Related Groups (DRGs). Specific information relevant to 22 clinical specialties helps guide and inform clinicians about important issues in documentation.

The specialty chapters feature:

- a range of clinical topics
- clinical profiles
- the top 5 principal diagnoses, procedures and complications and comorbidities (ICD-10-AM Third Edition) for each relevant specialty
- documentation pointers for each topic
- AR-DRG version 5.0 information where relevant
- examples of the impact documentation has on DRG assignment where DRG variances can be illustrated

The guide is provided as an Adobe® Acrobat® file on CD-ROM and features electronic navigation between topics and concepts. The guide is printer-friendly.

See the enclosed catalogue for purchasing details or contact NCCH Sydney
phone 02 9351 9461
e-mail ncchsales@fhs.usyd.edu.au

Developed by the National Centre for Classification in Health with support from the Clinical Casemix Commitee of Australia

NCCH australia

La Trobe University
Department of Health Information Management

CODING AUDITING – SHORT COURSE

This course is designed to develop skills in auditing coded data, analysing and reporting on the audit outcomes, and developing strategies for dealing with the audit outcomes.

As the emphasis on funding and financial accountability continues to increase in all aspects of health service management, the need for quality auditing of clinical coding also increases.

By undertaking this course, or by sponsoring your Health Information Manager or Clinical Coder to undertake it, you will be ensuring that the skills you need to ensure and maintain quality data will be present in your organisation.

The course consists of five modules:

Module one – clinical coding
Module two – principles of casemix
Module three – theory and principles of auditing
Module four – statistical analysis and methodology
Module five – audit outcomes – reporting and strategic development

Entry to this course is open to anyone who holds a qualification in clinical coding, obtained as part of a degree in Health Information Management or via one of several short courses available.

The course will be run as a distance education course over a period of three months commencing in late 2003, with significant 'time out' for the Christmas-New Year holidays. Students will be required to work through the material in a systematic manner and in a time-frame provided as part of the course material.

For further information, go to our website:

http://www.latrobe.edu.au/publichealth/courses/him/short_courses.html

Students will have two options for certification:

Certificate of completion. This will be awarded to all students who complete all modules of the course and the major assignment(s).

Certificate of achievement – coding auditor. This will be awarded to all students who complete all modules, successfully complete the major assignment(s) and pass a final examination.

Creative coding

Looks like MRD think the've found a solution to the 'insufficient documentation' problem!

The Australian Refined Diagnosis Related Groups

(AR-DRG) version 5.0

Diagnosis Related Groups (DRG) is a patient classification scheme that provides a clinically meaningful way of relating the number and types of patients treated in a hospital to the resources required by the hospital. AR-DRG is developed and maintained by the Commonwealth Department of Health and Ageing.

AR-DRG version 5.0 builds on the foundation of version 4.2 and incorporates ICD-10-AM Third Edition.

AR-DRG version 5.0 consists of 3 volumes and includes a CD-ROM with supplementary tables.

Copies may be purchased from the NCCH. Versions 4.0 and 4.2 are also available.See enclosed order form for details.

For more details about AR-DRG version 5 visit:
www.health.gov.au/casemix

coding matters

Volume 10 Number 2 September 2003
National Centre for Classification in Health

NCCH (Sydney)
Faculty of Health Sciences, The University of Sydney
PO Box 170 ph: 02 9351 9461
Lidcombe NSW 1825 fax: 02 9351 9603
Australia e-mail: r.bernard@fhs.usyd.edu.au

NCCH (Brisbane)
School of Public Health, QUT
Victoria Park Rd ph: 07 3864 5809
Kelvin Grove QLD 4059 fax: 07 3864 5515
Australia e-mail: ncch.brisbane@qut.edu.au

NCCH (Melbourne)
School of Public Health
La Trobe University ph: 03 9479 1811
Bundoora VIC 3086 fax: 03 9479 5657
Australia e-mail: qed@latrobe.edu.au

http://www.fhs.usyd.edu.au/ncch/

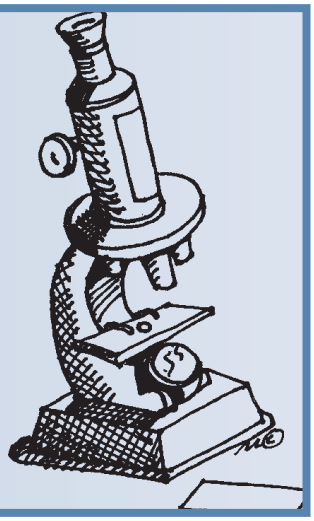
Editor: Ann Jones
Production and layout: Peter Long & Rodney Bernard

ISSN 1322-1922

Coding Matters is the quarterly newsletter of the National Centre for Classification in Health (NCCH). NCCH (Sydney) is funded by the Casemix Program, Commonwealth Department of Health and Ageing. NCCH (Brisbane) is funded by the Australian Institute of Health and Welfare, the Australian Bureau of Statistics and the Queensland University of Technology.

CONFERENCE DIARY

September	28 Sept - 1 Oct	35th Public Health Association of Australia Annual Conference: Essentials, Differentials and Potentials in Health	Brisbane, QLD	www.pha.org.au
October	8 - 11	19th Patient Classification Systems Europe Conference (PCS/E)	Washington DC	www.pcse.org
October	18 - 23	American Health Information Management Association (AHIMA) Annual Convention	Minneapolis, MN, USA	www.ahima.org/convention
November	8 - 12	Annual Symposium of the American Medical Informatics Association (AMIA)	Washington DC USA	www.amia.org
November	17 - 19	QUT Ninth International Health Summer School - Understanding Mortality Data: Reaping the Rewards	Brisbane, QLD	www.hlth.qut.edu.au/ph/summer_school_p2_courses.jsp
December	3 - 6	8th Annual World Conference on the Internet and Medicine - MEDNET	Geneva, Switzerland	www.hon.ch/Mednet2003/
August 2004	29 Aug - 1 Sept	15th National Casemix Conference - 'Health Care in Focus '	Canberra	www.health.gov.au/casemix/conf
September 2004	7 - 11	Medinfo 2004 - Building high performance healthcare organisations	San Francisco, USA	www.medinfo2004.org
October 2004	9 - 14	Annual Symposium of the American Medical Informatics Association (AMIA)	Washington DC USA	www.ahima.org/products/events.calendar.html

Next edition: December 2003

- CATCH: The Australian Classification and Terminology for Community Health
- How stuff works – skin
- ICD–10–AM Fourth Edition forecast