codingmatters

ICD-10-AM Fourth Edition education program

The ICD-10-AM Fourth Edition education program is designed to familiarise clinical coders and other users with revisions to ICD-10-AM Fourth Edition which is due for implementation in Australia from 1 July 2004.

Education program

Following positive responses from Third Edition education program participants in 2002, the 2004 program has been developed to incorporate users' preferences and suggestions.

IN THIS EDITION:

Fourth edition EDUCATION PROGRAM

Features retained from the 2002 Third Edition program include:

■ web-based and CD-ROM interactive (Macromedia® Authorware™) education material that you can work through at your own pace. The education material includes disease, procedure and Australian Coding Standards (ACS) sections that addresses both major and simple classification changes. Information is included on the background to the change, the index and tabular and ACS changes

■ optional face-to-face workshops that will be conducted in all capital cities and many regional centres.

Enhancements include:

■ improved user interface

■ better colour contrast

■ refined layouts

■ flexible navigation

■ more printing functions – print by screen

How to access the education program material

The education material can be:

■ used on-line from the NCCH web site www.fhs.usyd.edu.au/ncch **or**

■ downloaded onto a PC or laptop hard drive from the web site **or**

■ used as a self-executing file on a CD-ROM.

Online and download access will be made using a secure user name and password. These will be issued after registering.

What you'll need

Education program participants will need access to:

■ a PC or laptop with a web connection **or**

■ a PC or laptop with CD-ROM facility **and**

■ ICD-10-AM Fourth Edition book set or eBook

ICD-10-AM Fourth Edition workshops

The popular one-day, face-to-face workshops provide valuable opportunities to meet peers from your area and to network, learn and discuss aspects of coding with ICD-10-AM Fourth Edition. The workshops run from 9.00am to 4.30pm. Workshops often fill very fast, so book early to secure your place.

The workshops will focus on particular areas that are more complex or new to the classification system. Topics will include:

■ chemotherapy coding

■ new drug administration codes

■ revised anaesthesia and pain management codes

■ obstetrics

■ diabetes

■ cardiology

■ dermatology

What you'll need to bring to the workshop

■ a set of ICD-10-AM Fourth Edition books **or**

■ eBook installed on your own laptop computer **and**

■ writing equipment

Workshops are operated with the assumption that all participants have completed the education material before attending. Educators are unable to retrospectively review information covered in the education material at workshops

What is provided at workshops

■ Full day workshop with experienced educators. Educators are NCCH staff who have worked on the development of Fourth Edition

■ workshop work book

■ catering

Cost

Users must register to access the Fourth Edition education program. Costs are:

Web	$220.00* per person
Web access **and** workshop	$275.00* per person
CD-ROM	$220.00* per person
CD-ROM **and** workshop	$275.00* per person

* All costs include GST

You must register and complete the education material to be eligible to attend workshops.

Travel and accommodation

Travel and accommodation costs are not included in the registration fee.

Workshop places are limited. To avoid disappointment, register before 23 April 2004

How to register

- Use the form on page 5 to order the education material and register to attend workshops

- Send completed forms to
  Fax: 02 9351 9603

- The form is also available from www.fhs.usyd.edu.au/ncch where it can be completed and e-mailed on line

- Confirmation of registration, user name and password to access education material will be issued after payment has been received. A user license agreement will also be issued when registration is confirmed

- Please send cheques (payable to the National Centre for Classification in Health) or credit card details (MasterCard or VISA) with the registration form to:

  National Centre for Classification in Health
  The University of Sydney
  PO Box 170   Lidcombe   NSW   1825

Workshop schedule

Please note: The NCCH reserves the right to cancel, reschedule or relocate workshops if target numbers are not reached

NSW

Bankstown
    Wednesday 28 April

Penrith
    Thursday 29 April

North Ryde
    Friday 30 April

Albury
    Thursday 6 May

Lismore
    Tuesday 8 June

Newcastle
    Tuesday 8 June

Port Macquarie
    Wednesday 9 June

Tweed Heads
    Wednesday 9 June

Tamworth
    Thursday 10 June

Wollongong
    Wednesday 16 June

Orange
    Tuesday 22 June

Dubbo
    Wednesday 23 June

Victoria

Geelong
    Tuesday 4 May

Bendigo
    Wednesday 5 May

Melbourne
    Wednesday 12 May
    Thursday 13 May

(see also Albury, NSW)

Tasmania

Hobart
    Tuesday 11 May

Northern Territory

Darwin
    Tuesday 11 May

Queensland

Cairns
    Thursday 13 May

Brisbane
    Tuesday 1 June
    Wednesday 2 June

Rockhampton
    Thursday 3 June

Toowoomba
    Thursday 10 June

(see also Tweed Heads, NSW)

South Australia

Adelaide
    Tuesday 18 May
    Wednesday 19 May

Port Augusta
    Thursday 20 May

Western Australia

Perth
    Tuesday 18 May
    Wednesday 19 May

Busselton
    Thursday 20 May

ACT

Canberra
    Wednesday 16 June

More information?

For further information about the education program please contact:

Linda Best
NCCH Project Officer
Phone 02 9351 9461
e-mail l.best@fhs.usyd.edu.au

ICD-10-AM
Fourth Edition

ICD-10-AM Fourth Edition will be available for distribution from February 2004. Orders are now being accepted.

Choose the version that best suits your needs

Hard copy

- ■ five volume book set with or without slipcase
- ■ individual volumes

Electronic

- ■ eBook can now be networked and is also available as a single user/installation option. eBook's features include:
  - electronic updates – no more cutting-and-pasting errata
  - links to relevant 10-AM Commandments advice
  - links to Australian Coding Standards
  - your own notes. Notes can be saved between updates
  - administrator notes (multiple user licenses only). Share important information with all users simultaneously by posting global notes
  - cut-and-paste information in and out of ICD-10-AM
- ■ electronic code list is an ASCII, comma delimited list of codes

Order form enclosed with this edition

The International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM) is developed by the National Centre for Classification in Health with the support of the Commonwealth Department of Health and Ageing, the Coding Standards Advisory Committee and Australian clinical coders and clinicians.

Registration form

ICD-10-AM Fourth Edition education program

This registration form can be used as a Tax Invoice. Please keep a copy
The University of Sydney ABN 15 211 513 464

Registration details
Please print clearly
Business hours contact details only please
One registration per form only. Please copy the form for multiple registrations

Name

Position/title

Department

Hospital/organisation

Address

State   Postcode

Telephone   Mobile phone

Fax   e-mail

Education preference
(please tick one option)

❏ Web $220.00

❏ Web **and** workshop $275.00

❏ CD-ROM $220.00

❏ CD-ROM **and** workshop $275.00

Workshops will be filled on a first-come basis
Workshop location

First preference   Date

Second preference   Date

Books or eBook?
For seating and power allocation planning purposes, please indicate if you will be using
❏ ICD-10-AM Fourth Edition book set **or**
❏ ICD-10-AM Fourth Edition eBook

Catering
Please list any special dietary needs

Payment

Cheques and money orders are payable to: National Centre for Classification in Health

Credit card   ☐ VISA   ☐ Mastercard   Amount $ _____

Card number   ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

Cardholder's name _____   Signature _____

Expiry date   ☐☐ / ☐☐

Direct debit

Payment can be made directly into the NCCH bank account by direct electronics fund transfer (EFT)

Bank details for EFT is:

> Bank: National Australia Bank
> Account name: The University of Sydney NCCH Account
> BSB: 082 369
> Account Number: 54 372 4531

Please e-mail **t.stanhope@fhs.usyd.edu.au** to confirm that you have paid by direct EFT

Post or fax your registration to:

National Centre for Classification in Health
The University of Sydney
PO Box 170
Lidcombe NSW 1825 Australia
Fax: 02 9351 9603
faxed on (date) _____ / _____ / _____

For further information phone **02 9351 9461** or e-mail **ncchadmin@fhs.usyd.edu.au**

This form is also available online **www.fhs.usyd.edu.au/ncch**
Follow the path from 'what's new?' Fourth Edition education program.

The **10-AM** Commandments

Excision of radial head prosthesis

A query was received by the NCCH regarding 'excision of radial head prosthesis'.

The operation report for this procedure described, *'right elbow, lateral incision, capsule divided, excision of excessive intracapsular scar tissue and hypertrophic bone, radial head prosthesis excised'.*

Currently there is no code to classify removal of this type of device in ICD-10-AM. Clinical advice suggests that the procedure is technically similar to excising bone from the radius.

Classification

Following clinical advice, the NCCH suggests that documentation of 'excision of radial head prosthesis' should be coded as 48406-03 **[1426]** *Ostectomy of radius.*

The NCCH will consider the introduction of new codes for 'revision/removal of radial head prosthetic device' for a future edition of ICD-10-AM.

Complex regional pain syndrome (CRPS)

A number of queries have been received regarding classification of this condition and advice was published in *Coding Matters* 10(1) June 2003. Further concern has been expressed relating to the lack of documentation in some medical records specifying CRPS type (I or II), as defined in the earlier article and thus the application of the suggested codes.

In response to these concerns, the NCCH sought clinical advice to determine the suitability of a default code for CRPS, where the type is unspecified.

Classification

Clinical opinion indicates that **CRPS type unspecified** should be classified as CRPS type I. As indicated in Coding Matters 10(1), CRPS type I should be classified as M89.0- *Algoneurodystrophy* in ICD-10-AM Third Edition.

New codes for CRPS types I and II have been created for ICD-10-AM Fourth Edition. A default code for CRPS type unspecified will be indexed as CRPS type I, with a fifth character extension to indicate the site involved.

Australian Coding Standard 1541 Elective and emergency caesarean

The NCCH has been alerted to the fact that some classification users find difficulty with interpreting and applying the definitions in Australian Coding Standard 1541 *Elective and emergency caesarean.*

The most important point separating the two definitions of elective and emergency caesarean section in ICD-10-AM is the timing of the decision to perform the procedure. The urgency to perform the caesarean is not significant when deciding between these two definitions.

With an **elective caesarean** section, the decision to perform the procedure is made during the antenatal period. That is, there is never any intention that the patient will deliver vaginally.

With an **emergency caesarean** section, the intention was for the patient to deliver vaginally (that is, a caesarean was not considered necessary prior to the onset of labour), but an emergency situation has meant that a caesarean has become essential. This definition does not include any patient in whom delivery by caesarean section had previously been planned.

Storage of bone in the abdominal wall

An interesting new procedure is being performed in some hospitals.

An initial operation is performed to excise a **bone flap** from the cranium, which is then preserved/stored in a subcutaneous pocket overlaying the abdomen. The purpose of the surgery is to alleviate the symptoms of severe post-traumatic cerebral oedema. A second operation, performed days or weeks later, involves reopening the abdomen to retrieve the bone flap, followed by cranioplasty.

Classification

Documentation of this new procedure should be classified as 90952-00 **[987]** *Incision of abdominal wall* for the s**torage of bone in abdominal wall** component of the procedure.

The NCCH will consider a new code for this procedure for a future edition of ICD-10-AM.

Helicobacter pylori

The NCCH would like to clarify the use of B96.81 *Helicobacter pylori [H. pylori] as the cause of diseases classified to other chapters.*

Clinical advice suggests that *Helicobacter pylori (H. pylori)* is usually associated with some inflammatory conditions or ulcers of the gastrointestinal tract, but not all. For example, *H. pylori* is not usually associated with oesophagitis.

Australian Coding Standard 1122 *Helicobacter/ Campylobacter* lists the conditions most commonly associated with *H. pylori*.

B96.81 *Helicobacter pylori [H. pylori] as the cause of diseases classified to other chapters* should only be coded when it is found in the presence of the conditions listed in the standard or it is documented in association with another condition. That is, a causal relationship between the organism *(H. pylori)* and any morbid condition not specifically listed in the standard, should not be assumed by the coder, but must be supported by documentation.

Factor V Leiden

Factor V Leiden thrombophilia is a genetic hypercoagulability defect characterised by a poor anticoagulant response to activated protein C (APC) and an increased risk of venous thromboembolism.

ICD-10-AM does not currently contain a specific code or index entry for Factor V Leiden mutation.

Classification

Documentation of this defect should be classified as D68.8 *Other specified coagulation defects*.

The NCCH will consider the addition of this condition to the classification for a future edition of ICD-10-AM.

PICQ 2002 FAQ

Several queries relating to *Performance Indicators for Coding Quality* (PICQ) indicator 101393 *Harmful use of alcohol code* have been received. PICQ indicator 101393 *Harmful use of alcohol code* has a 'Fatal' indicator degree, indicating that there is definitely an error. The rationale for this indicator is that:

> This indicator identifies records containing both a harmful use of alcohol code and a specific alcohol related disorder code. Australian Coding Standard 0503 *Drug, alcohol and tobacco use disorders* states that 'harmful use' of a substance cannot be coded if a specific related disorder is present for that substance.

Queries received indicate that various interpretations of Australian Coding Standard (ACS) 0503 *Drug, alcohol and tobacco use disorders* have occurred.

The PICQ indicator logic is that an F1-.1 should not be used with an F1-.2–9 code (from the same drug group). The harmful use is implicit in these other conditions. The references to F1-.2 and F1-.5 in ACS 0503 are presented as the common examples.

The wording that needs emphasising is '**or another specific form of drug related disorder present for the same substance for the same period**', which is part of the definition of 'harmful use' (ICD-10-AM, Third Edition, Australian Coding Standards, 5:105). The first example given in ACS 0503 applies this logic and includes the common examples of dependence syndrome and psychotic disorders.

A common coding error scenario this indicator highlights is where

> F10.1 *Mental and behavioural disorders due to use of alcohol, harmful use*

is used with

> F10.3 *Mental and behavioural disorders due to use of alcohol, withdrawal state*.

Only the F10.3 *Mental and behavioural disorders due to use of alcohol, withdrawal state* should be coded.

The nervous system acts as a communication network with other parts of the body as it collects information from the internal and external environment.
The nervous system interprets information and interacts with other body systems that control actions and reactions of the body. *Afferent* (in flowing) nerves send messages to the brain and *efferent* (out flowing) nerves send messages from the brain. The nervous system is the most complex of all our body systems.
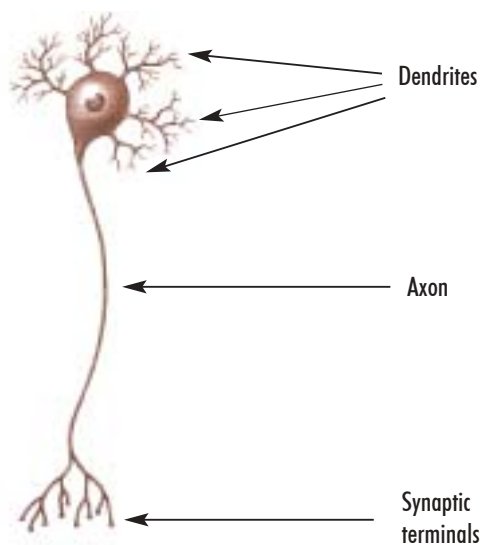

Figure 1 – Presynaptic cell

Nervous system

The nervous system consists of nerve cells, called **neurons**, which are protected and supported by other cells. **Dendrites** are threadlike structures that extend and branch off the cell body of the neuron. An **axon** is a long structure that extends from the cell body producing side branches known as **collaterals**. Collaterals allow neurons to communicate with other cells. A **synapse** is the junction between the axon and dendrite. Cells communicate across the synapse. The cell membrane that transmits information is referred to as the **presynaptic membrane**. The cell that receives the information is the **postsynaptic membrane**.

Communication between cells is achieved by the release of chemicals known as **neurotransmitters**. Neurotransmitters are electrical impulses that transmit between axons, axon to dendrite or between dendrites.

Rapid acting neurotransmitters, such as adrenaline, cause the most acute responses of the nervous system. They transmit signals to the brain and motor signals to the muscles.

Slow acting neurotransmitters, like oxytocin, cause prolonged actions such as long-term changes in numbers of receptors, closure of certain channels or changes in the numbers of synapses.

The three main functions of the nervous system are:

1. Sensory function – orientation
2. Motor control – coordination
3. Integrative process – conceptual thought

Sensory function

Exteroceptors detect stimuli in the external environment in the form of temperature, touch, pressure, light, smell and sound.

Interoceptors monitor the internal systems of the body – digestive, respiratory, cardiovascular and reproductive – and provide the sensation of taste, deep pressure and pain.

Proprioceptors control the movements of muscles of the body detecting stretch and tension of muscles. Proprioceptors also send messages to the spinal cord to adjust the signals to the muscles. Specialised nerve endings in the skin, joints and muscles provide kinaesthetic feedback, a sensory function that detects limb position. Kinaesthesia assists with maintaining the body's upright posture.

Motor function

Information received from internal or external stimuli are processed and the appropriate response to a situation is determined, such as withdrawing your hand from a heat source.

Integrative function

Includes intelligence, creativity, imagination, memory, calculation and abstract reasoning.

Central nervous system (CNS)

The central nervous system consists of the brain and spinal cord. It is responsible for processing and coordinating sensory data and motor commands, which control the actions of skeletal muscles. The main organ of the CNS is the brain whose primary role is to function as the control centre of the body. Organs send information to the brain via the central nervous system, by either electrical or chemical impulses. The brain processes the information and sends back signals to the organs that maintain correct functioning. The spinal cord provides a conduit between the brain and peripheral nerves of the trunk and limbs.

Peripheral nervous system (PNS)

The peripheral nervous system consists of nerves connected to the brain and spinal cord and related peripheral nerves. The PNS conveys sensory information to the CNS and relays motor commands to peripheral tissues and systems. The PNS is divided into two major parts:

1. *Somatic nervous system* (SNS) – composed of peripheral nerve fibres that transmit information to the CNS and motor nerve fibres that extend to skeletal muscle. The SNS controls voluntary skeletal muscle contractions that are under conscious control.

2. *Autonomic nervous system* (ANS) – also known as the visceral motor system – controls smooth muscle, cardiac muscle and glandular secretions at the subconscious level. The ANS has two major components:

Sympathetic nervous system – controls the flight and fight reactions in emergencies. Stimulated reactions include:

- increased heart rate
- dilated pupils
- excessive sweating
- elevated blood pressure
- decreased activity of digestive organs

Parasympathetic nervous system – conserves energy and restores the body's functions to normal. Stimulated reactions include:

- normalising heart rate
- constriction of pupils
- decreased blood pressure
- increased activity of digestive organs

References

ABC Online (2003) Vital Systems Fact Sheet. The control systems – Nervous and Endocrine. Accessed November 2003: http://www.abc.net.au/btn/vitalsys/fact3.htm

American Medical Association (2003) Nervous system – basic. Accessed November 2003: http://www.ama-assn.org

Bartleby.com from The Columbia Encyclopedia (2001) (6th Ed), Nervous system. Accessed November 2003: http://www.bartleby.com/65/ne/nervouss.html

Better Health Channel (1999) Nervous system. Accessed: November 2003: http://www.betterhealth.vic.gov.au

Guyton AC (1991) Basic Neuroscience (2nd Ed). Philadelphia USA: WB Saunders.

Kippers V (1999) Functions of the nervous system. Accessed November 2003: http://www.uq.edu/~anvkippe/an105/pnsans.html

Mackie P (1998) Knowing where your limbs are. Accessed December 2003: http://www.med.unsw.edu.au/Physiology/School/Postgrad/PaulM/Kinaesth.htm

Martini FH (2001) Fundamentals of anatomy and physiology (5th Ed). New Jersey: Prentice Hall.

Figure 2 – Functional overview of the nervous system
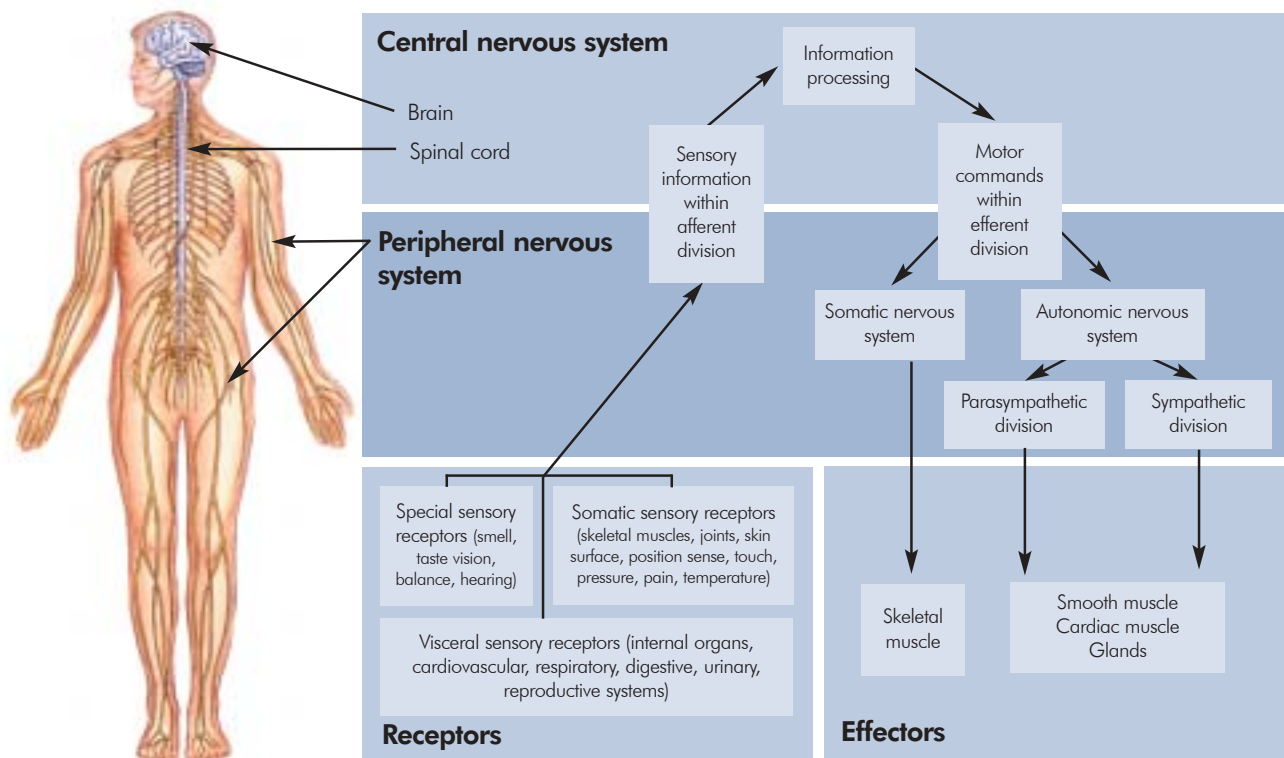
Clinical update
Complex regional pain syndrome (CRPS)

Complex regional pain syndrome (CRPS) is a progressive neurological condition characterised by a number of symptoms, the most notable being chronic pain. CRPS most commonly occurs in the extremities but can occur in any body part. It affects the skin, muscles, joints and bones of affected sites. The cause of CRPS is unknown, but it is believed to be the result of dysfunction in the central or peripheral nervous systems.

Precipitating factors for CRPS include trauma, such as from a sprain, dislocation, fracture, crush injury, laceration or amputation or as a post-surgery complication. CRPS is often associated with other conditions, such as diabetic neuropathy, multiple sclerosis, stroke, ischaemic heart disease, cervical spine/spinal cord disorders, cerebral lesions, repetitive motion disorder or myocardial infarction.

CRPS occurs in all age groups and affects both males and females, but the incidence is highest in young women.

There are two classifiable types of CRPS.

CRPS type I (previously known as reflex sympathetic dystrophy) is usually triggered by tissue injury, but without any underlying nerve damage.

CRPS type II (previously known as causalgia) occurs as the result of an injury associated with nerve damage. There is little differentiation between the symptoms, diagnosis and treatment of both types of CRPS.

Signs and symptoms
Pain
Chronic pain, disproportionate to the injury that has occurred, is the central, characteristic symptom of CRPS. That is, the pain lasts much longer than would be expected normally from the injury sustained. The pain is described as being severe, constant, burning, deep and aching and is continuous and intense. Patients may experience allodynia (pain due to nonpainful stimuli/light touch) and hyperalgesia (extreme sensitivity to stimuli). The pain is exacerbated by environmental temperature changes, movement, pressure and emotional distress. Movement is usually decreased due to pain, stiffness of joints, tremors, and muscle cramps/spasms and may eventually lead to disuse atrophy.

Tissue changes
Initially, the affected area is warm, soft and oedematous, but later becomes erythematous and dry and eventually progresses to cool, cyanotic and moist. Associated skin conditions include rashes, ulcers and pustules. Hair and nails begin to grow rapidly in the early stages with hair loss and brittle nails defining a more advanced stage. Extreme disease is evidenced by muscle spasm and wasting, thickening of joints, bone and muscle atrophy and weakness and flexor tendon contractures.

Other signs and symptoms
Other signs and symptoms include accumulated immune cells in the site, frequent infections, migraine headache, fatigue and dermatitis or eczema. Depression is also associated with chronic, disabling illnesses such as CRPS.

Symptoms are initially localised in one area or limb and then spread to other limbs/areas. Without treatment pain advances proximally. This spread may extend to an entire extremity or anatomic quadrant or to an opposite limb or another, remote body region.

Diagnosis
Diagnosis of CRPS is difficult and misdiagnosis is frequent. Tests may be conducted to help clarify a diagnosis of CRPS after assessment of patient history and clinical examination has been achieved. Simple tests include application of a stimulus (touch, pinprick, heat, and cold) to elicit a pain response. Affected areas are also compared to unaffected areas (for example, opposing limbs) for visible differences. Plain radiographs (x-rays), three-phase radionuclide bone scanning, MRI scans, thermography, nerve conduction studies, CT scans, EPS studies and quantitative sweat autonomic response testing may be performed. Often the purpose of testing is to eliminate the possibility that symptoms may be caused by another condition.

Treatment
Treatment of CRPS involves pain control and minimisation and prevention of long term complications of decreased movement. The following are some of the medical and surgical treatments currently available:

- Drug treatment – NSAIDS for constant pain associated with inflammation, antidepressants (as appropriate), anticonvulsants, oral opioids (for severe disease, but best avoided due to the potential for abuse)

- Psychosocial support – with inclusion in a pain management program, relaxation techniques, assessment of pain coping skills and drug abuse potential

- Physiotherapy/occupational therapy – to promote movement and encourage normal body function for activities of daily living, weight bearing exercises, hydrotherapy, heat applications

- TENS unit – a noninvasive electrical device that stimulates the surface of the skin

- Sympathetic blocks – sympathetic blocks increase the temperature of an extremity without increasing numbness or weakness, provide pain relief and improve range of motion and exercise tolerance. Stellate ganglia blocks affect upper extremities, lumbar sympathetic blocks affect lower extremities

- Sympathectomy – chemical or surgical destruction/excision of a segment of the sympathetic nerve

- Epidural blocks – with infusion of local anaesthetic

- Spinal cord stimulation – uses low intensity, electrical impulses to trigger selected nerve fibres along the spinal cord to stop pain messages transferring to the brain. Temporary or permanent electrodes are implanted

- Intrathecal infusion pump – morphine (or other opioids) or local anaesthetic delivered via an implanted pump.

References

National Institute of Neurological Disorders and Stroke (2003) Complex regional pain syndrome fact sheet. Accessed 15 December 2003: http://ninds.nih.gov/

Pittman DM and Belgrade MJ (1997) Complex regional pain syndrome. American Family Physician Vol 56 No 9. Accessed 15 December 2003: http://www.aafp.org/afp/971200ap/pittman.html

Reflex sympathetic dystrophy (RSD) foundation (2003) Clinical practice guidelines – (3rd ed.) Reflex sympathetic dystrophy/complex regional pain syndrome (RSD/CRPS). Accessed 15 December 2003: http://rsdfoundation.usf.edu/en/en_clinical_practice_guidelines_pf.html

The medical news you probably didn't hear in 2003

- A Viennese man became the world's first recipient of a human tongue transplant.

- Spanish researchers diagnosed an extremely rare disease that makes people smell of fish. Trimethylaminuria, or fish odour syndrome, is caused by a liver abnormality.

- A US study found that people with shorter thighs have an increased risk of diabetes.

- Researchers in the Netherlands brought the world underpants that can detect heart irregularities and call an ambulance if necessary.

http://news.com.au/common/story_page/0,4057,8141245%5E1 3762,00.html
14 Feb 2004

The University of Sydney

National Centre for Classification in Health

CALL FOR SUBMISSIONS

Modifications to ICD-10-AM

The National Centre for Classification in Health (NCCH) invites written submissions from interested members of the public and representatives of relevant agencies or organisations for modifications to the Fifth and subsequent editions of the *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM)*. ICD-10-AM is a classification of diseases and procedures based upon the World Health Organization's statistical classification ICD-10.

The main objectives of the public submission process are to ensure that *ICD-10-AM*
- meets users' needs
- continues to be a comprehensive and clinically meaningful classification.

Written guidelines for making modification submissions are published at the NCCH web site **www.fhs.usyd.edu.au/ncch** and are available from NCCH (Sydney):

The University of Sydney, PO Box 170, Lidcombe NSW 1825
Phone: 02 9351 9461   fax: 02 9351 9603   e-mail: **ncchadmin@fhs.usyd.edu.au**

Submissions must be lodged between 1 March 2004 and 31 May 2004

The NCCH is an Australian centre of expertise in classifications for morbidity, mortality and health interventions and is responsible for the maintenance of *ICD-10-AM*. *ICD-10-AM* is updated and published biennially. NCCH (Sydney) is funded by the Casemix Program, Commonwealth Department of Health and Ageing.

ICD-10-AM Fourth Edition will be published and implemented nationally 1 July 2004

All stings considered

Irukandji *(Carukia barnesi)*

The Irukandji people once lived in the Cairns region. Their name has been given to a species of box jellyfish that is about 2cm in diameter occurring in tropical marine environments, especially northern Australia. Much remains a mystery about the animal and its sting. 'Irukandji syndrome' describes the sting and the potentially fatal after effects.

Irukandji syndrome has been recorded since the mid-1960s following several fatal and near-fatal envenomations by unknown marine creatures. Dr Jack Barnes, a Cairns-based GP searched local waters for the responsible animal. In the course of his study, Dr Barnes exposed himself, his son and a surf lifesaver to irukandji stings. All three were admitted to hospital. Dr Barnes recorded both biological and clinical information about the animal and its health effects, and this information contributes much to the body of knowledge about the jellyfish, which was later named *Carukia barnesi*.

Several reports indicate that the initial sting is usually not very painful. However, a range of symptoms may be reported within 5–45 minutes of being stung including:

- myalgia
- headache
- back pain
- nausea and vomiting
- anxiety
- hypertension
- pulmonary oedema

Late effects can include supraventricular tachycardia and transient dilated cardiomyopathy.

People who have been stung frequently require admission to hospital. A definitive treatment protocol has yet to be developed. Current interventions may include:

- administration of analgesia
- intravenous antihypertensive therapy
- infusions of magnesium
- echocardiography

Research to develop irukandji antivenom is being conducted.

photo: Dr. Jamie Seymour, James Cook University

Coding pointers

Admission with documentation of 'Irukandji jellyfish sting' should be assigned the following codes:

- T63.6 *Toxic effect of contact with other marine animals*
- code(s) for any complications/manifestations of the sting
- X26.01 *Contact with Irukandji jellyfish*
- appropriate activity and place of occurrence codes

References

http://news.bbc.co.uk/2/hi/health/2713211.stm

http://www.barrierreefaustralia.com/the-great-barrier-reef/irukandji.htm

Stapled haemorrhoidectomy is a surgical technique that has been developed for treating haemorrhoids. ASERNIP-S, a program of the Royal Australasian College of Surgeons (RACS) has reviewed the published evidence to compare the safety and effectiveness of this procedure with conventional surgical treatments for this condition.

What are the different types of haemorrhoids?

Haemorrhoids are cushions of swollen blood vessels which push out from the anus (external haemorrhoids) or remain within the anus or rectum (internal haemorrhoids) (see figure 1). By the age of 50, almost half the population will have had haemorrhoids.

Figure 1 - Haemorrhoids
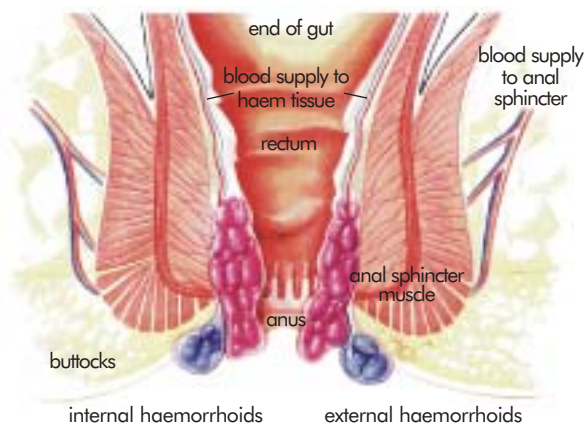
Haemorrhoids may be caused by:

- constipation leading to straining when passing stool
- pregnancy
- being overweight
- heavy lifting
- other factors, such as severe liver disease or tumour in the large intestine

The following symptoms may be experienced if a person has:

- **external haemorrhoids** – pain, itching and/or bleeding when passing stool and difficulty in cleaning the area around the anus after passing stool
- **internal haemorrhoids** – painless bleeding when passing stool. An internal haemorrhoid may protrude from the anal opening, and can cause severe pain if it cannot be pushed back

## Conventional treatments for haemorrhoids

The following treatments are available:

- **dietary advice.** Chance of getting this condition is reduced by eating plenty of high-fibre foods and is helped by drinking a lot of fluids, especially water
- **behaviour therapy.** Exercise reduces pressure on veins and helps reduce any excess weight
- **medication.** Creams or suppositories help reduce the swelling and discomfort
- **surgery** (in order of increasing severity of symptoms)
  - **Elastic band ligation.** Rubber bands are placed around the base of an internal haemorrhoid, causing it to atrophy
  - **Sclerotherapy.** A substance is injected into the internal haemorrhoid to make it atrophy
  - **Haemorrhoidectomy.** Excess tissue causing bleeding and protrusion is removed surgically

## How does the new surgery compare with the conventional surgical technique?

During stapled haemorrhoidectomy a circular stapler is inserted into the rectum via the anus. The stapler removes a ring of the lining of the rectum and thus cuts off the blood supply to the internal haemorrhoids (see figure 2). In contrast, during conventional haemorrhoidectomy the whole haemorrhoid is removed surgically.

Figure 2 - Circular stapler
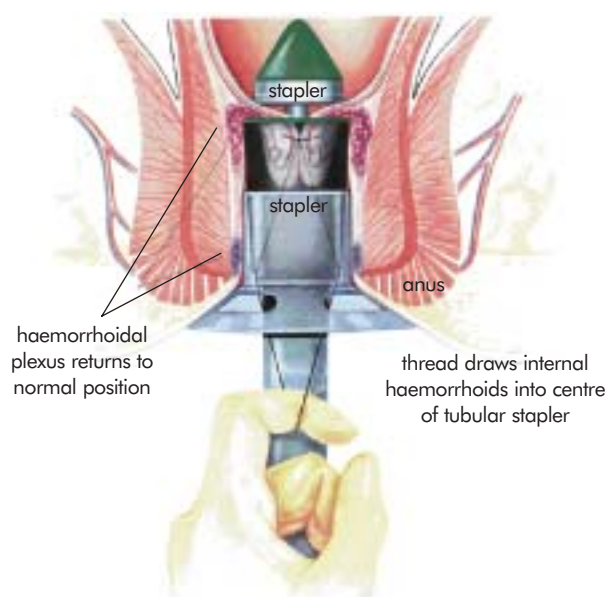
During stapled haemorrhoidectomy, the blood supply to the internal haemorrhoid is cut off, so the haemorrhoid will not grow back (see figure 3). External haemorrhoids can also be removed during the operation.

Figure 3: After surgery
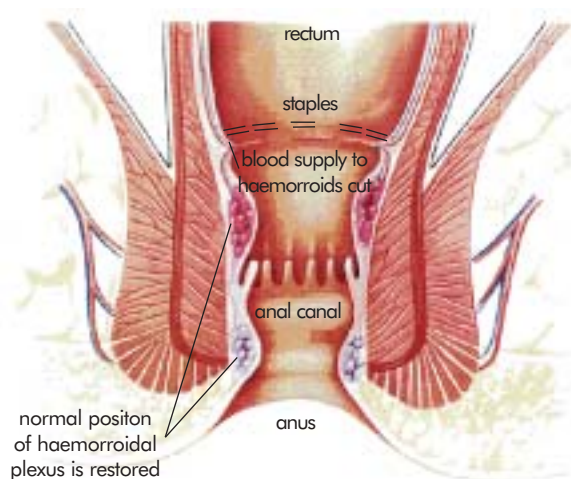
While there is good quality evidence available on the safety and effectiveness of the stapled haemorrhoidectomy procedure, larger and longer-term studies are needed before it can be compared with other surgical techniques, particularly in relation to effectiveness. However, the following may be used as a guide.

In terms of safety, stapled haemorrhoidectomy appears to be as safe as the conventional techniques. However, serious complications following stapled haemorrhoidectomy have been reported, including one case of life threatening infection in the pelvis, another of anal fistula, some cases of severe pain and quite a few cases of an urgent need to pass stool.

It was even more difficult to compare stapled haemorrhoidectomy with the conventional techniques in terms of effectiveness, mainly due to the short time periods measured in the research trials. Studies on the time required to perform the operation were inconclusive. The length of hospital stay was similar after both types of operation. Patients returned to normal activities, including employment, on average earlier after the stapled procedure. Two weeks after surgery, up to 20% of patients undergoing conventional techniques required readmission, with no patients recorded as returning to hospital after the stapled procedure; data pooled from several studies were inconclusive but suggested a trend towards a lower risk of later readmission after the stapled procedure.

One study found patients experienced pain for a shorter period and most studies reported less severe pain in hospital and after discharge following stapled haemorrhoidectomy. In addition, after this surgery the degree of pain recorded for the first bowel motion was significantly lower and normal bowel function returned sooner.

In general, less pain relief was required following stapled haemorrhoidectomy, and several months later fewer patients reported persistent pain after the operation. Reports of discharge from either the anus or the wound were more common following the conventional techniques. Patients were more likely to experience tenderness on rectal examination at six weeks after the conventional operations, but this difference had disappeared by three months. Data concerning factors such as the incidence of gas, fluid or faecal incontinence, or changes in pressure within the anus, was inconclusive.

Although the incidence of haemorrhoidal prolapse was low for both groups, one trial showed rare episodes to be more common at one year after the stapled procedure. Pooled data concerning tags of skin remaining after removal of external haemorrhoids was inconclusive. Fewer patients experienced chronic itching around the anus soon after the stapled operation, although three months later the proportion of patients with this condition in both treatment groups was equal. Several studies showed that patients perceived a higher rate of operative success following the stapled operation than after conventional techniques. Quality of life measures were similar in both treatment groups.

What is recommended?

From the evidence, stapled haemorrhoidectomy appears to be as safe as the conventional surgical techniques for treating haemorrhoids. However, due to the lack of larger and longer-term studies, it is not possible to decide whether the stapled operation is as effective as more conventional techniques. It is important, therefore, for both the patient and the surgeon to weigh up all factors before choosing which operation may offer the best possible outcome for each individual patient. The Royal Australasian College of Surgeons recommends that surgeons practising stapled haemorrhoidectomy should conduct a careful audit of their results with this operation. As this procedure requires proper training and supervision on the part of the surgeon, it was further recommended that the Colorectal Surgical Society of Australasia should develop guidelines for training based on the evidence that is available.

Classification

The NCCH has added a new code

32138-02 **[941]** *Stapled haemorrhoidectomy*

to ICD-10-AM Fourth Edition. Documentation in the clinical record of 'stapled haemorrhoidectomy' or 'haemorrhoidectomy using staples' should be classified to this new code.

Next edition…
Laparoscopic adjustable gastric banding for the treatment of obesity

PICQ 2002

incorporating PICQ for ICD-10-AM Third Edition

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

An order form is enclosed with this edition of *Coding Matters*

For further information:
NCCH Melbourne
phone: + 61 3 9479 1811
e-mail: qed@latrobe.edu.au

Clinical update VERTEBROPLASTY

A common disease in Australia's aged population is osteoporosis of the vertebra – a major cause of compression fractures. Many compression fractures cause extreme pain and significant restriction in activities of daily living. Traditionally, conservative treatments such as bed rest and analgesics have been prescribed for compression fractures.

The escalating incidence of vertebral compression fractures has stimulated development of more effective and efficient treatments such as vertebroplasty. Vertebroplasty is a procedure used to stabilise and reduce the pain of vertebral crush fractures that result from osteoporotic conditions. It is becoming an integral part of the management of patients with osteoporotic vertebral crush fractures. It is also successful in the treatment of malignancies and benign blood vessel tumours (vertebral haemangiomas).

Vertebroplasty was developed in France in the late 1980s for pain relief and spinal stabilisation, but is relatively new to Australia.

Vertebroplasty involves the injection of a cement-like material called polymethylmethacrylate (PMMA) that hardens very quickly. The procedure's goals are to reduce pain, to stabilise and strengthen the collapsed vertebra, and to restore some or all of the lost vertebral body height caused by the compression fracture.

The surgical approach for vertebroplasty is:

- anterolateral with the patient supine for a cervical procedure
- posterolateral or transpedicular with the patient prone for thoracolumbar injections

A needle is inserted through a small skin incision is placed about 1–2cm into the fractured vertebra.

Figure 2: Vertebroplasty
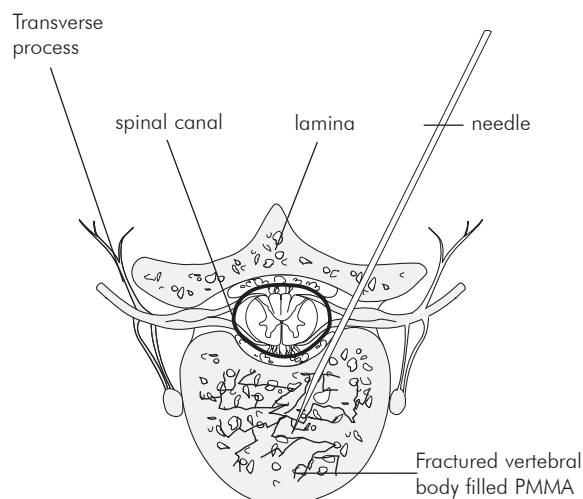
During the procedure, fluoroscopic or CT guidance (and possibly MRI guidance) may be used to direct needle placement and to monitor the injection of cement. Positioning of the needle is continuously monitored with the fluoroscope in both the anterior-posterior and lateral views. It is important to monitor the injection of cement to reduce the event of leakage into the spinal canal or neural foramina.

PMMA is then injected into the bone, acting as an internal cast, stabilising the fracture and preventing further compression.
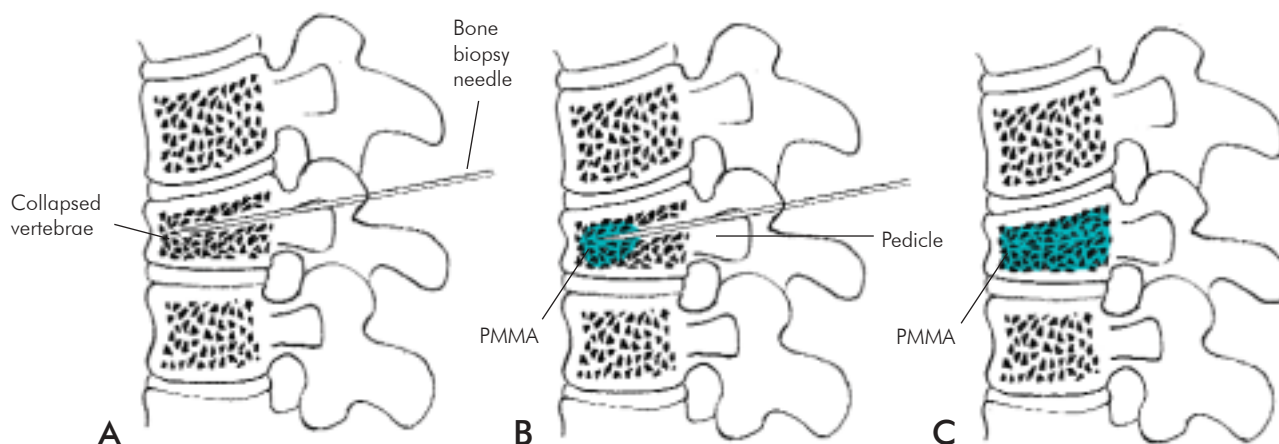
Figure 1: This series shows A: Bone biopsy needle penetrating the pedicle into the vertebra that has compression fracture B: PMMA is introduced anterolaterally C: PMMA is introduced posterolaterally

The treatment of one vertebra may involve unilateral (unipedicular) or bilateral (bipedicular) injections. Usually treatment of one vertebral body will require placement of two separate needles in the right and left side of the vertebral body. Because of the high viscosity of PMMA it is necessary to inject the material via several small syringes, connected to the needles.

Depending on the patient's tolerance, up to two or three vertebral bodies may be treated in the one session. The procedure usually takes between one to two hours to perform, depending on how many bones are treated. Vertebroplasty is usually performed under a local anaesthesia either in an operating room or in specialised x-ray suites.

Complications

Complications of vertebroplasty vary depending on the presenting condition, for example, the ratio of complications treating osteoporotic fractures is lower than vertebroplasty performed for malignancies.

Fracture to the posterior pedicle of the spine can occur during the introduction of the needle, however, this seldom causes problems apart from some additional pain.

Serious complications may result from injection of PMMA into a vein adjacent to the spine instead of into the bone. This can potentially lead to the cement substance entering the lungs, causing a pulmonary embolus. Leakage of cement into other adjacent structures may lead to nerve root or spinal cord damage and potential paralysis.

Kyphoplasty

Kyphoplasty is a technique developed in the late 1990s as a vertebroplasty modification that involves insertion of a balloon that is gently inflated inside the fractured vertebra before injecting PMMA.

As far as it is known, kyphoplasty is not currently being performed in Australia.
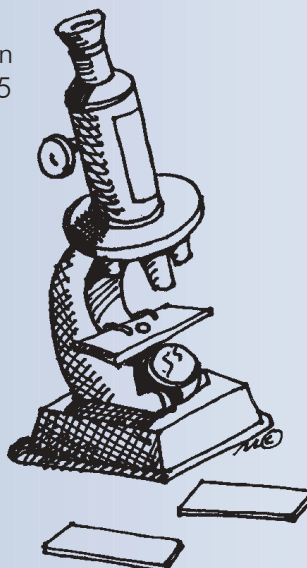
Did you know laughing and coughing put more pressure on the spine than walking or standing?

Next edition:

June 2004

NCCH continuing professional education program 2004x–2005

How it works – gall bladder

Cumulative index, volume 10

coding matters

CONFERENCES 2004

12-13 March	Singapore Casemix Conference	Singapore	casemix2004@ams.edu.sg
24 March	Health e-Nation 2004 Conference and Exhibition	Melbourne	sally.glass@chik.com.au
24-26 March	4th HL7 Australia Conference	Melbourne	www.HL7.org.au/2004_MEL.htm
25-26 March	NSW NGO conference	Wollongong	info@mhcc.org.au
25-26 March	Information Technology: Achieving efficiencies in clinical management	Melbourne	http://www.archi.net.au
20-24 April	International Conference on the reduction of drug related harm	Melbourne	http://www.ihra.net/index.php?Itemid=1
21-23 April	Telemedicine and Telecare International Trade Fair	Luxembourg	http://www.telemedicine.lu
26-30 April	18th World Conference on Health Promotion and Health Education	Melbourne	www.Health2004.com.au
2-7 May	HL7 Working Group Meeting	San Antonio TX USA	meetinginfo@hl7.org
8-11 May	e-Health 2004 Conference	Victoria BC Canada	www.e-healthconference.com
12-14 May	9th European Forum on Quality Improvement in Health Care	Copenhagen, Denmark	www.quality.bmjpg.com
17-21 May	TEPR 2004	Fort Lauderdale, FL USA	http://www.medrecinst.com/conferences/tepr/index.asp
20-22 May	Health e Conference	Washington DC USA	http://www.medrecinst.com/conferences/tepr/index.asp
2-4 June	13th International Conference on Safe Communities	Prague, Czech Republic	safe@cbttravel.cz
2-4 June	International Congress on Medical and Care Compunetics	The Hague, The Netherlands	http://www.icmcc.com/
6-9 June	7th World Conference on Injury Prevention and Safety Promotion	Vienna, Austria	www.safety2004.info
20-22 July	2004 ACHSE National Congress	Darwin	http://www.achse.org.au
25-27 July	HIC 2004	Brisbane	hisa@hisa.org.au
9-11 August	AAQHC Quality in Healthcare Conference	Canberra	http://www.aaqhc.org.au/
7-11 September	Medinfo 2004	San Francisco, CA USA	http://www.medinfo2004.org/
22-24 September	SNOMED International Users Group Meeting	Phoenix AZ USA	http://www.snomed.org/
26 Sept – 1 Oct	HL7 18th Plenary and Annual Working Group Meeting	Atlanta GA USA	meetinginfo@hl7.org
9-14 October	IFHRO/AHIMA Congress	Washington DC USA	http://cop.ahima.org/COP/Public/Events/
10-13 October	Dimensions in Healthcare: information, integration, innovation (incorporating 15th Casemix Conference)	Sydney	www.health.gov.au/casemix/conf.htm
11-12 October	Australian Private Hospitals Association National Congress 2004	Gold Coast	apha@consec.com.au
13-17 October	WONCA 2004	Orlando FL USA	http://www.wonca2004.org/
15-17 October	Trauma Care 2004: Meeting of Trauma Nurses & AIS Coders	Sydney	www.traumacare2004.com
21-23 October	PCS/E – Patient Classification Systems – Europe 2004	Budapest Hungary	http://www.pcse.org/content.asp
13-15 December	International Conference on Knowledge Management	Singapore	http://www.icKM2004.org/
16-18 March 2005	NCCH 9th Biennial Conference	Perth	**Mark your planner for next year**

Stand by for more information as other conferences for 2004 are announced. Conference information is also published at the NCCH web site www.fhs.usyd.edu.au

NCCH congratulates the **ICD-10-AM** Fourth Edition production team