ICD-10-AM/ACHI/ACS Tenth Edition: development overview

Vera Dimitropoulos and Filippa Pretty

Introduction
Under contract by the Independent Hospital Pricing Authority (IHPA), the Australian Consortium for Classification Development (ACCD) has over the last four years been responsible for the development and refinement of the Australian Refined Diagnosis Related Groups Classification System which has two classification components:

- The International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM), the Australian Classification of Health Interventions (ACHI) and the Australian Coding Standards (ACS)
- Australian Refined Diagnosis Related Groups (AR-DRGs)

This report will provide an overview of the development of the Tenth Edition of ICD-10-AM/ACHI/ACS, which was implemented for use in Australian hospitals for clinical coding of admitted episodes from 1 July 2017.

The development process
ACCD’s work program for Tenth Edition commenced in July 2015 and included tasks that were informed by public submissions received, coding queries, and frequently asked questions from the Ninth Edition online education. The Classification Specialist Team researched and developed Tenth Edition Addenda Proposals, which were internally reviewed before being shared and/or presented to the ICD Technical Group (ITG). The ITG met regularly throughout the two-year development cycle to discuss proposals until they were finalised for incorporation in the Tenth Edition.

Although the public submission process is open all year round, the close of content for the Tenth Edition occurred on 31 May 2016 to allow for analysis and consultation, after which the data entry to the ICD Toolkit commenced. At completion of the data entry there was a revision of the toolkit content for accuracy and consistency across the classification, then the development phase for electronic code lists and maps between Ninth and Tenth Editions occurred, and finally, the production phase where the physical books were produced.

After 31 January 2017, ACCD concentrated on developing education materials (e.g. Reference to Changes document) to support the online education modules developed for Tenth Edition, which were released in May 2017. Between February and May 2017, acceptance testing of coding tool vendor software was undertaken in time for the software to be made available for Clinical Coders (CCs) to undertake Tenth Edition Education.

Other important work undertaken in the lead up to the implementation of Tenth Edition included the incorporation of the Tenth Edition changes into the Chronicle, which provides a history of changes to ICD-10-AM/ACHI/ACS from First to Tenth Edition, and maps were completed between the World Health Organization’s (WHO) ICD-10 (2016) and Tenth Edition of ICD-10-AM.

ICD-10-AM Tenth Edition: overview of major changes

<table>
<thead>
<tr>
<th>CODES</th>
<th>NEW</th>
<th>DELETED</th>
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<td>ICD-10-AM</td>
<td>223</td>
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Obstetrics
There has been an overall revision of the classification within Chapter 15 Pregnancy, Childbirth and the Puerperium to increase the standardisation of Obstetrics coding. This revision has also included major improvements to all ACS in Chapter 15. In summary, changes include:

- Revision of excludes notes and pre-coordinated codes
- Addition of code also instructional notes to enable assignment of multiple codes to classify the clinical concepts

1 The National Centre for Classification in Health, the University of Sydney leads the Australian Consortium for Classification Development which includes Western Sydney University and KPMG

2 Pre-coordination in classification terms means that there is more than one clinical concept contained within the one code.
• Inactivated codes in the area of procedural complications in pregnancy, childbirth and the puerperium where ACS 1904 Procedural Complications can be applied
• Reclassification of Puerperal sepsis/infection
• Change in terminology from “complicating pregnancy” to “in pregnancy”
• Review of the Chapter 15 ACS standards, with content transferred to either other ACS or incorporated into the Tabular List or Alphabetic Index.

**Same day endoscopy**
A revised classification for same-day endoscopy episodes of care has been implemented with consolidation of related ACS to increase coding consistency in this area. ACS 0051 Same Day Endoscopy – Diagnostic and ACS 0052 Same Day Endoscopy – Surveillance have been created to separate instructions for episodes of a diagnostic and surveillance (follow up screening and chronic conditions) nature.

As a result, the following ACS have been deleted:
- ACS 0046 Diagnosis selection for same-day endoscopy
- ACS 2111 Screening for specific disorders
- ACS 2113 Follow-up examinations for specific disorders
- ACS 0246 Familial adenomatous polyposis
- ACS 0247 Hereditary non-polyposis colon cancer.

The content of deleted ACS has been transferred to either the new ACS or incorporated into the Tabular List or Alphabetic Index.

**Procedural complications**
Tenth Edition includes a comprehensive review of ACS 1904 due to anecdotal evidence of inconsistency in the application of ACS 1904 as highlighted in queries and public submissions.

This review resulted in a revised classification of procedural complications within ICD-10-AM and a major revision of ACS 1904 Procedural complications. There has been:
- Expansion of categories and the creation of specific codes for conditions at the end of chapters and within Chapter 19 (T codes)
- Revision of existing code titles
- Revision of the concept of “misadventure” renamed as “unintentional event” (in line with ICD-11)
- Revision of 11 ACS (including ACS 1904).

**Chronic pain**
There has been an impetus both in Australia and internationally to better classify and report the incidence of chronic pain. Therefore, in Tenth Edition the classification of chronic pain has been revised, which also necessitated changes being made to ACS 1807 Pain diagnoses and pain management procedures.

The title and content of ACS 1807 have been amended to allow for the classification of chronic pain as a condition in its own right (i.e. either as principal diagnosis or as an additional diagnosis).

**Health supervision and care of infant and child**
The classification at Z76.2 Health supervision and care of other infant and child has been revised in order to clarify the capture of information on infants awaiting adoption or foster care. This revision has also resulted in the deletion of two ACS including 1608 Adoption and 1609 Newborns affected by maternal causes and birth trauma.

**Abnormal findings of blood chemistry**
The Tenth Edition incorporates an expansion of codes at R79.8 Other specified abnormal findings of blood chemistry to allow for information to be specifically captured on abnormal coagulation profiles. This revision has also required changes to be made to ACS 0303 Abnormal coagulation profile due to anticoagulants.

**Passive smoking**
There has been increasing evidence that exposure to tobacco smoke is associated with adverse health risks. Therefore, Z58.7 Exposure to tobacco smoke is now eligible for assignment. This revision also includes a new ACS 2118 Exposure to tobacco smoke. Amendments to ACS 0503 Drug, alcohol and tobacco use disorders have also been made to support this change in coding practice.

**Place of occurrence – health service area**
With the increased emphasis being placed on patient safety and quality of care, new place of occurrence codes have been created at Y92.2x Health service area to differentiate the health service area as either this facility or not specified as this facility.

**Obesity**
As well as updating the terminology in this area, there has been an expansion of codes at E66.- Obesity and overweight to reflect grades of body mass index (BMI).

A BMI value is now included to add specificity to obesity codes at the fifth character level for adults.
Cachexia
Cachexia is now being recognised as a condition in its own right for both cancer cachexia and cachexia in other conditions. Therefore, the classification of cachexia has been revised. Amendments have been made in the Alphabetic Index as well as the excludes notes to promote the assignment of R64 Cachexia.

Major changes from WHO ICD-10 updates
To maintain parity with the WHO ICD-10 and ensure international comparability of health data, the Australian Modification of ICD-10 endeavours to include the available WHO updates in every edition. Following are the major ICD-10 updates that have been implemented in ICD-10-AM for Tenth Edition:
- Neonatal diarrhoea
- Malignant neoplasms of ectopic tissue
- Intraepithelial lesions
- Multiple system atrophy
- Orthostatic hypotension
- Zoonotic or pandemic influenza
- Death from obstetric causes
- Abdominal compartment syndrome
- Haddad syndrome.

ICD-10-AM conventions
There has been a review of some conventions within the Tabular List of the Tenth Edition of ICD-10-AM to simplify the coding process. These include:
- Excludes notes – the concept of type 1 and type 2 excludes notes has now been removed. Therefore, an Excludes note (found at the chapter, category or code level) is an Excludes note that redirects clinical coders from an incorrect code to a correct code. Some Excludes notes are included to support mortality coding.
- The principle of “translating medical statements into code” has been reviewed to promote consistency in clinical coding. Therefore, the wording has changed to “classifying clinical concepts” as it is unnecessary for conditions to be explicit in a code title or Inclusion term. This change promotes the process of following the Alphabetic Index and then any instructional notes within the Tabular List.
- Additional instructions have been added regarding multiple coding, mortality coding and the application of ACS 0001 Principal diagnosis, Problems and underlying conditions to support assignment of both the condition and the underlying cause.

ACHI Tenth Edition: overview of major changes

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Medicare Benefits Schedule (MBS) updates – Ophthalmology
This is a two part task based upon MBS changes in ophthalmology. Part 1 includes blocks 160 to 220, which were updated for Tenth Edition. Part 2, which includes blocks 221-256, will be undertaken as part of the work plan for Eleventh Edition.

In addition to incorporating the MBS updates into ACHI for ophthalmology, ACHI codes in Chapter 3 Procedures on eye and adnexa have been extensively reviewed. Codes with similar procedural concepts have been combined into a single code. Certain codes have been deleted as the procedural concepts are already present in other codes or the low volume of assignment of some codes as per the national frequencies deemed them to be unnecessarily specific. The code titles of the deleted codes are now classified to codes with similar concepts via the Alphabetic Index.

Mental health interventions
ACCD identified the need for a nationally consistent classification for mental health interventions for use in Australian health care settings. While it is expected that mental health intervention codes will be applied across all mental health care settings as far as practical, some of the new codes will only be applicable to ambulatory and residential health care settings. This has resulted in a new ACS 0534 Specific interventions related to mental health care services.

Tenth Edition now also includes a revised classification for Electroconvulsive Therapy.

Thrombolytic therapy
New ACHI codes for Thrombolytic therapy have been created in Tenth Edition with a revision of code titles and inclusions. A new ACS 0943 Thrombolytic therapy has been included in Tenth Edition.

Destruction procedures
ACCD identified that some blocks within this area of ACHI should be updated to include options for endoscopic, percutaneous and open destruction procedures for Tenth Edition. Diagnostic information in code titles within this area of the
ACHI classification have also been removed to ensure consistency within the classification.

**Cardiac procedures**
New cardiac procedures such as total artificial heart and fractional flow reserve have now been included in the Tenth Edition of ACHI.

**ACS Tenth Edition: overview of major changes**

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<th>New ACS</th>
<th>Deleted ACS</th>
<th>Revised ACS</th>
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<td>10</td>
<td>34</td>
<td>49</td>
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**New ACS**
- 0051 Same-day endoscopy - diagnostic
- 0052 Same-day endoscopy – surveillance
- 0053 Robotic-assisted intervention
- 0054 Specific interventions related to mental health care services
- 0943 Thrombolytic therapy
- 1012 Influenza due to identified influenza virus
- 1500 Diagnosis sequencing in delivery episodes of care
- 1505 Delivery and assisted delivery codes
- 1924 Difficult intubation
- 2118 Exposure to tobacco smoke.

**Deleted ACS**
- 0046 Diagnosis selection for same day endoscopy
- 0246 Familial adenomatous polyposis
- 0247 Hereditary non-polyposis colon cancer
- 0731 Corneal graft rejection or failure
- 1301 Back strain
- 1302 Chronic low back pain syndrome
- 1331 Soft tissue injuries
- 1344 Post laminectomy syndrome
- 1415 Young’s syndrome
- 1417 Percutaneous resection of kidney pelvis tumour via nephrostomy
- 1435 Female genital mutilation
- 1436 Admission for trial of void
- 1501 Definition of puerperium
- 1503 “Complete” and “incomplete” abortion
- 1509 Falling oestriols
- 1510 Pregnancy with abortive outcome
- 1513 Induction and augmentation
- 1519 Delivery prior to admission
- 1520 Multiple births
- 1534 Forceps delivery
- 1537 Decreased fetal movements
- 1538 Postnatal breastfeeding attachment difficulties
- 1539 Suppressed lactation
- 1541 Elective and emergency caesarean section
- 1542 Breech delivery and extraction
- 1546 Fetal heart decelerations
- 1547 Meconium in liquor
- 1608 Adoption

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**Notes:**
- ACS 0051 is the result of the revision of Same Day Endoscopies
- ACS 0052 is the result of the revision of Same Day Endoscopies
- ACS 1500 is the result of the revision of obstetrics
- ACS 1505 is the result of the revision of obstetrics

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16 HIM-INTERCHANGE Vol 7 No 3 2017 ISSN 1838-8620 (PRINT) ISSN 1838-8639 (ONLINE)
Newborns affected by maternal causes and birth trauma
Signs and symptoms
Ataxia
Sprains and strains
Screening for specific disorders
Follow-up examinations for specific disorders.

Revised ACS
0030 Organ, tissue and cell procurement and transplantation
0505 Mental illness in pregnancy, childbirth and the puerperium
1521 Conditions and injuries in pregnancy
1548 Puerperal/postpartum condition or complication
1807 Acute and chronic pain
1908 Open wound with artery, nerve and tendon damage
1916 Superficial and soft tissue injuries.

Next steps
In 2016, IHPA made the decision to develop all Activity Based Funding classification systems in house, and as such taken on board the AR-DRG classification development as of 1 July, 2017. Therefore, from 1 July 2017, ACCD will be responsible for developing and maintaining ICD-10-AM/AHII/ACS. Work has now commenced on the development of the Eleventh Edition. The development cycle repeats itself.

At this stage the ACCD website will maintain all the information related to both ICD-10-AM/AHII/ACS and AR-DRG Version 8.0 and Version 9.0. The public submission process for both ICD-10-AM-AHII/ACS and AR-DRGs will remain as part of the ACCD website. ACCD will continue to keep you up to date in relation to both classifications through our quarterly newsletter Code-It.

Corresponding author:
Vera Dimitropoulos, BAppSci(HIM)
Executive Manager
Australian Consortium for Classification Development
The University of Sydney
email: vera.dimitropoulos@sydney.edu.au

Filippa Pretty, BAppSci(HIM)
Operations Coordinator
Australian Consortium for Classification Development
The University of Sydney

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