Australian Refined Diagnosis Related Groups (AR-DRGs) and Quality Considerations

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Overview

AR-DRG Grouping

- Data items required to assign an AR-DRG
- DRG assignment: Step by step process

Quality Considerations

- Documentation
- Coding
- DRG


Australian Refined Diagnosis Related Groups
Version 5.1
Definitions Manual
Volume One
1
Australian Refined Diagnosis Related Groups
Version 5.1
Definitions Manual
Volume Two
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Australian Refined Diagnosis Related Groups
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Assigning an AR-DRG: Data Items Required

- ICD-10-AM Codes
  - Principal diagnosis
  - Additional diagnoses, such as complications and comorbidities
  - Procedure/s
- Patient age
  - Or Admission Date and Date of Birth
- Mode of separation (discharge status)
  - National Standard, includes died, transferred
- Sex
- Length Of Stay
  - Or Admission and Separation Dates
- Same-day Status
- Newborn admission weight
  - For age 28 days or less, plus older if less than 2500 grams
- Mental Health Legal Status
  - Voluntary or involuntary

AR-DRG Assignment: Summary

Most episodes are grouped to a DRG by:

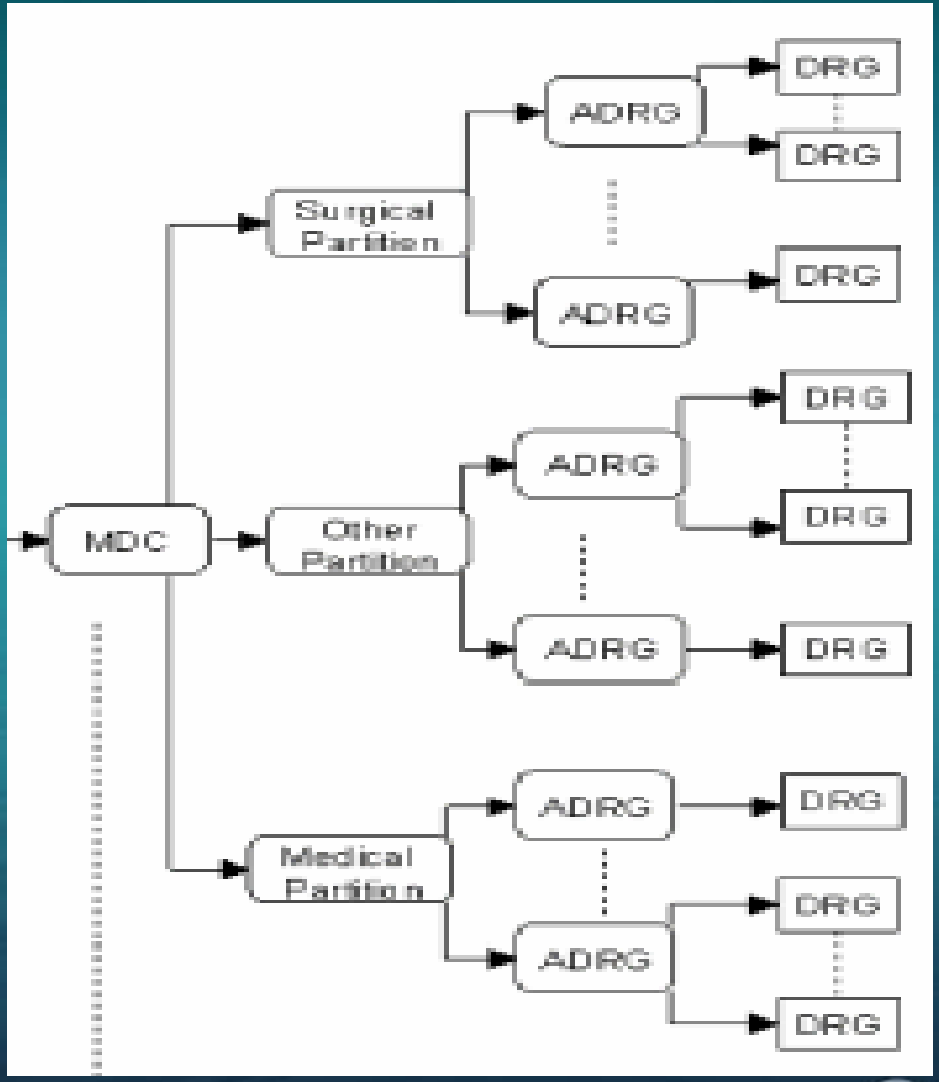
Being allocated to a MDC

- Driven by Principal Diagnosis

Being allocated to a partition

- Driven by ICD-10-AM procedure codes

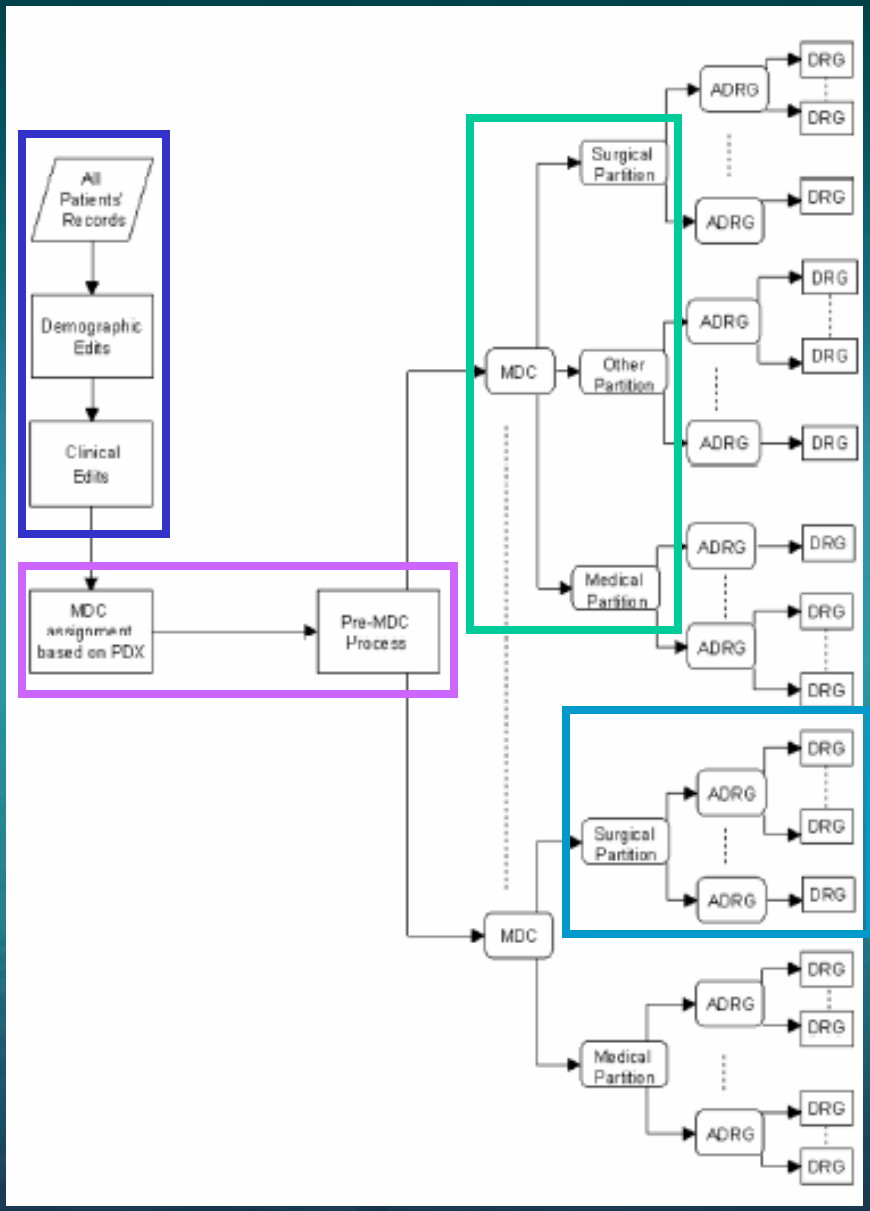
Using codes and other data items to be allocated to an AR-DRG



AR-DRG Assignment: Overview

The process

- Step 1
  - **Preliminary Checks**
- Step 2
  - **Allocation to a MDC (and Pre-MDC DRG allocation)**
- Step 3
  - **Allocation to partitions**
- Step 4
  - **Assign an AR-DRG**



DRG Assignment: Step 1 Preliminary Checks

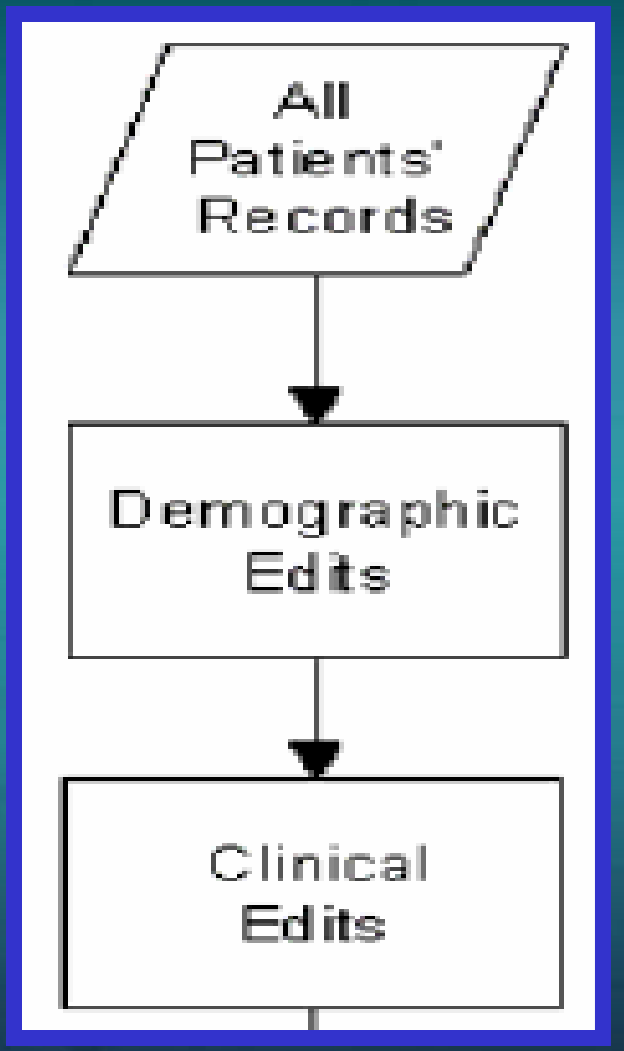
Episodes are checked to ensure that the quality of the information is of a high enough standard to allow grouping to occur

Demographic edit examples

- Presence of data items required, such as either the age, or admission date and birth date

Clinical edits examples

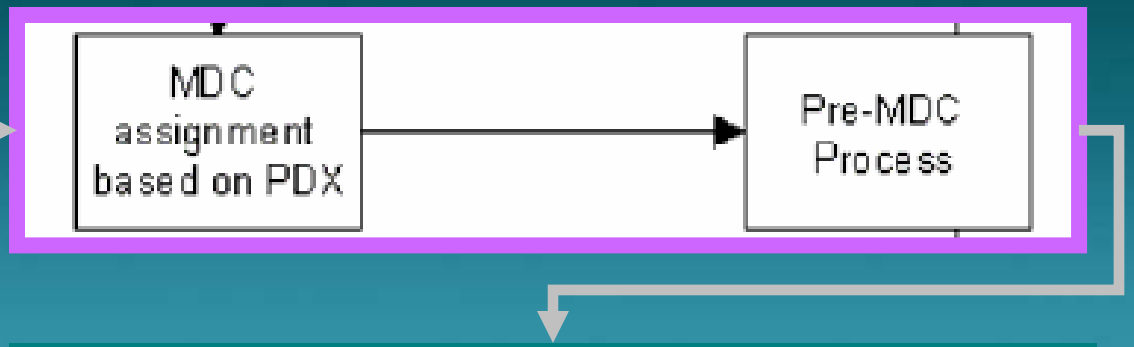
- ICD-10-AM codes are accepted codes
- ICD-10-AM codes are valid in combination with the sex and age of the patient
- Principal Diagnosis meets valid definition



DRG Assignment: Step 2

The **Principal Diagnosis** is used to place the episode into a **Major Diagnostic Category** (MDC)

- There are 23 MDCs
- Most are based on body systems or disease type
- Each diagnosis code leads to one MDC only (some Pre-MDC exceptions)



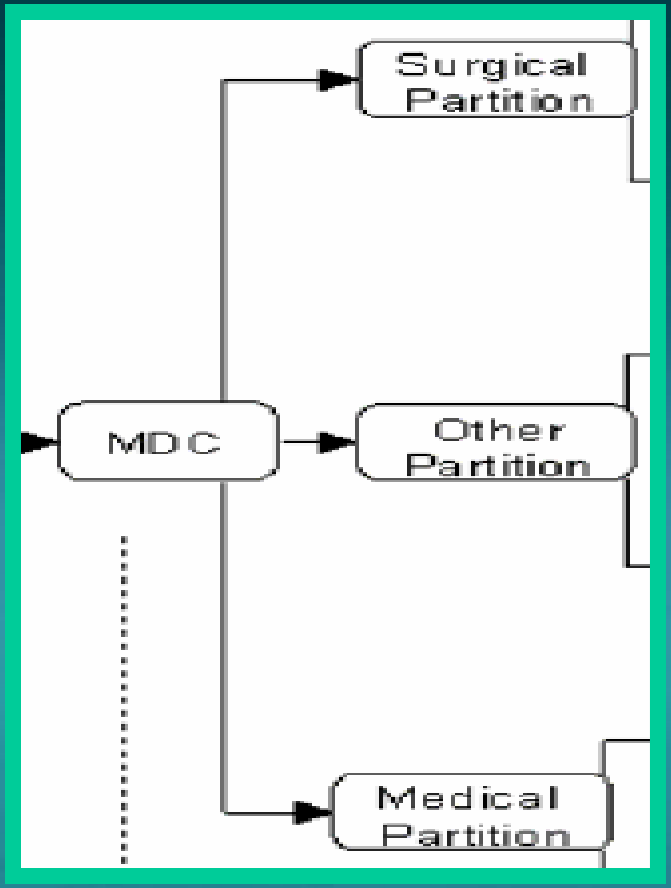
Pre-MDC Process

- Exceptions to the usual MDC allocation for procedures or conditions that are particularly resource intensive
  - Examples: *transplants, tracheostomies, mechanical ventilation, newborns, HIV, multiple major trauma*
- Sometimes allocates the episode to a DRG, other times, redirects to another MDC

DRG Allocation: Step 3

Within an MDC, there are 3 partitions

- Allocation depends on the procedure codes (ICD-10-AM)



Surgical Partition

- Presence of a **significant operating room (OR) procedure**
- Grouped according to type of surgery, for example, major, minor, other, unrelated to principal diagnosis

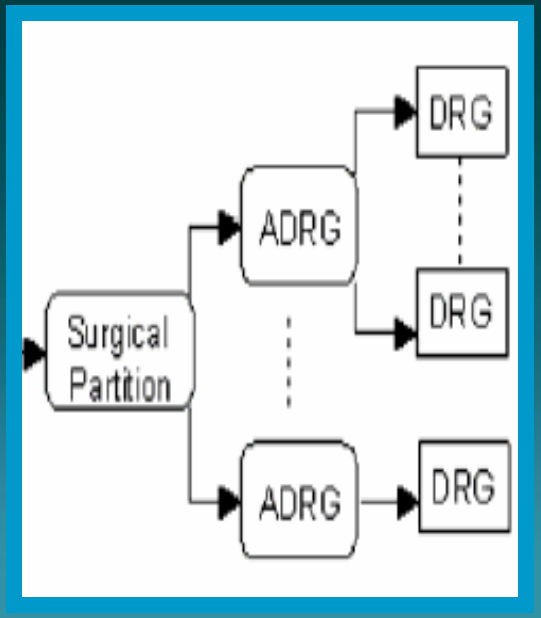
Other Partition

- Presence of a **non-operating room (OR) procedure**
- Grouped according to principal diagnosis and non-OR procedure

Medical Partition

- Grouped according to principal diagnosis, for example neoplasm, specific conditions, symptoms, other

DRG Assignment: Step 4



Grouping within partitions produces **Adjacent DRGs** (ADRG)

- 3 character codes

ADRGs can be split into several AR-DRGs, by **taking into consideration additional variables**, most often:

- Complication and comorbidities (CC), and procedures (ICD-10-AM codes)
- Age (different for each ADRG, can be 16, 50, 60, 70, 75 years)

AR-DRGs are 4 characters codes

Other data items used less frequently:

- Mode of separation, Length Of Stay, Newborn admission weight, Same-day Status, Mental Health Legal Status

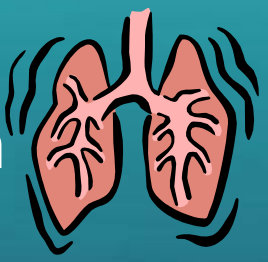
Examples: ADRGs and AR-DRGS

DRGs within ADRG D04 (surgical partition)

D04A Maxillo surgery with complication and/or comorbidity

D04B Maxillo surgery without complication and/or comorbidity

DRGs within ADRG E69 (medical partition)



E69A Bronchitis and asthma age >49 with complication and/or comorbidity

E69B Bronchitis and asthma age >49 or with complication and/or comorbidity

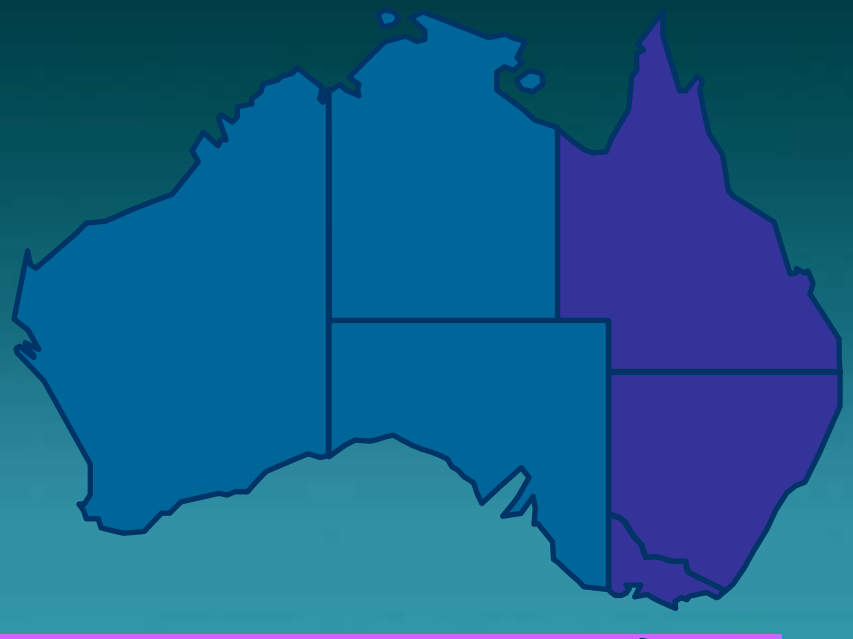
E69C Bronchitis and asthma age <50 without complication and/or comorbidity

Examples: MDC and DRGs

MDC 02 Diseases & Disorders of the Eye

C01Z Procedures for Penetrating Eye Injury
C02Z Enucleations and Orbital Procedures
C03Z Retinal Procedures
C04Z Major Corneal, Scleral and Conjunctival Procedures
C05Z Dacryocystorhinostomy
C10Z Strabismus Procedures
C11Z Eyelid Procedures
C12Z Other Corneal, Scleral and Conjunctival Procedures
C13Z Lacrimal Procedures
C14Z Other Eye Procedures
C15A Glaucoma and Complex Cataract Procedures
C15B Glaucoma and Complex Cataract Procedures, Sameday
C16A Lens Procedures
C16B Lens Procedures, Sameday
C60A Acute and Major Eye Infections Age >54 or W (Catastrophic or Severe CC)
C60B Acute and Major Eye Infections Age <55 W/O Catastrophic or Severe CC
C61Z Neurological and Vascular Disorders of the Eye
C62Z Hyphema and Medically Managed Trauma to the Eye
C63A Other Disorders of the Eye W CC
C63B Other Disorders of the Eye W/O CC

Quality Issues



Documentation Quality

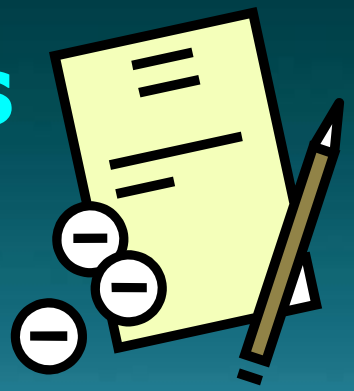
Coding Quality

- Edits
- Audits
- Indicators
- Education and Communication Tools

DRG Quality

- Input Level
- Episode/DRG Level
- Adjacent DRG Level
- MDC Level

Documentation Quality Issues



Completeness of the record (for each admission)

- Includes: admission notes, progress notes, operation reports, pathology & radiology results, discharge summaries, others

Completeness of each form (or screen)

- For example, that the discharge summary contains all the diagnoses (including the complications), procedures and follow-up information

Creation of policies and procedures

- Record Standards
- Documentation Standards

Coding Quality: Edits (validation rules)

What is an edit

- A programmed method of highlighting coding problems
- Example: obstetric codes used for men, or for very young girls

Edit effects and when to apply them

- Rejection, Warning, others
- Time of data input, receiving data from hospitals, later analysis

Areas to apply edits

- Individual codes: rare, such as Anthrax
- Codes in combination with other data items, such as codes in combination with the patients age or sex
- Codes in combination with other codes, such as cancer site code without a morphology code sequenced after it

Coding Quality: Data Audits (Re-coding studies)

Need standard, consistently applied definitions against which to assess data

Approach considerations:

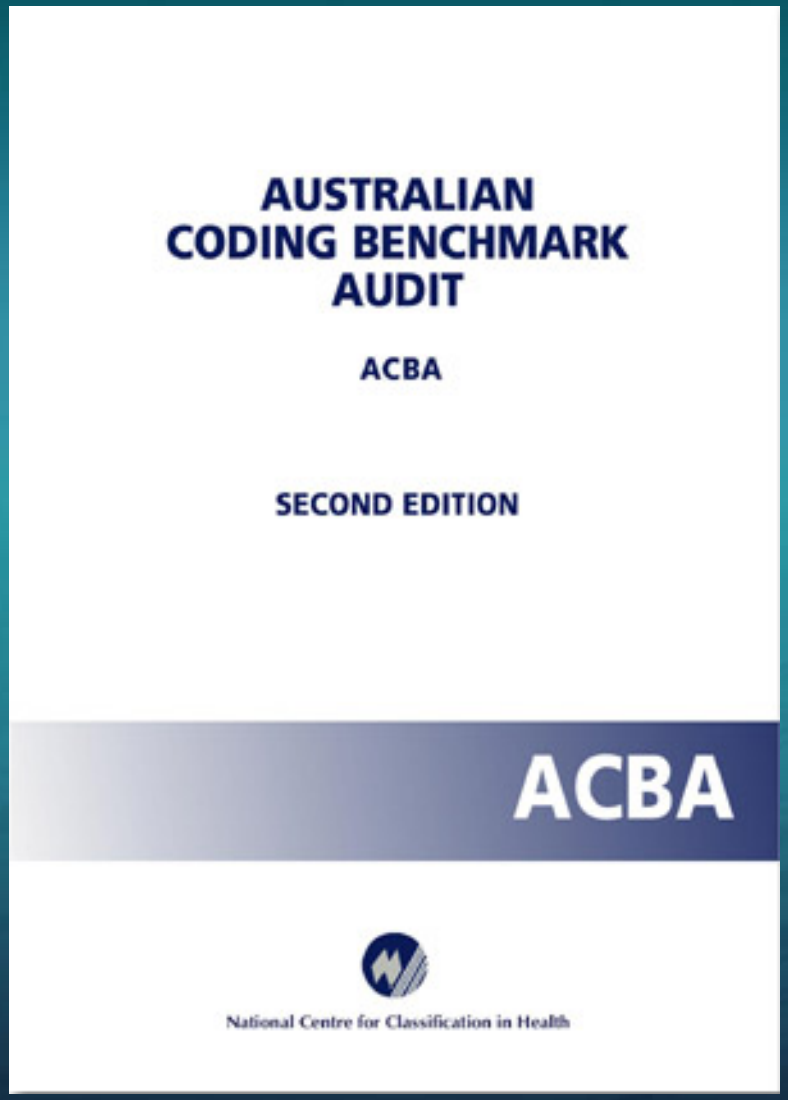
- Educational (supportive process), or
- Disciplinary (application of penalties)

Need education/competence measure for expert coders to verify their skills as auditors

- May need to provide auditors will additional education regarding other data items (for example, data standards relating to Admission Policy, Care Type)

Possibly need legislation to require Health Department or Funders access to hospital records (confidentiality issues)

Coding Quality: Audit Tools



NCCH Tool that provides a consistent method for auditing coding

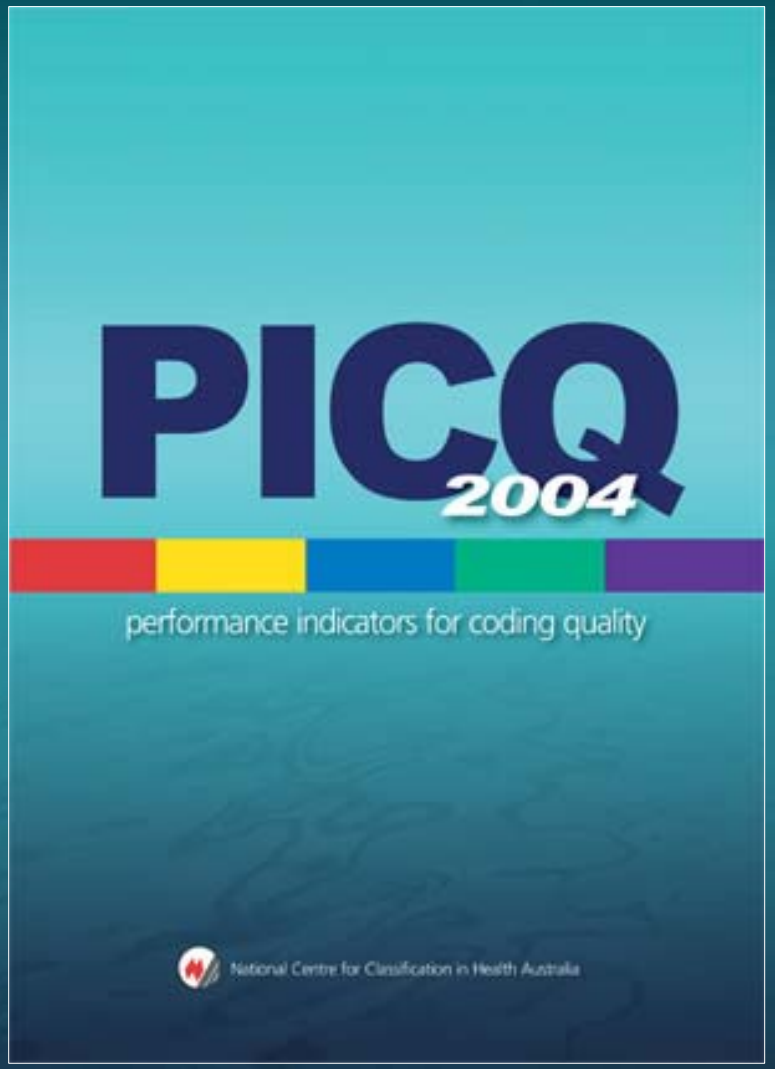
Categories errors into causes:

- Coder errors,
- System errors, and
- Unclear documentation

Provides a framework for consistently comparing results over time

Coding Quality: Coding Indicators

- PICQ is a series of indicators which analyse admitted patient morbidity data coded with ICD-10-AM and is based on ACS and coding conventions
- Users link their coded data to the PICQ database and the records are then compared to the predetermined indicators that test coding quality
- The indicators identify records that contain a coding error (or possible coding error) in diagnosis and procedure codes or a NHDD field, such as age
- The indicators provide measures of aspects of coding quality that are expressed in a standard format so outcomes can be compared between facilities and over time



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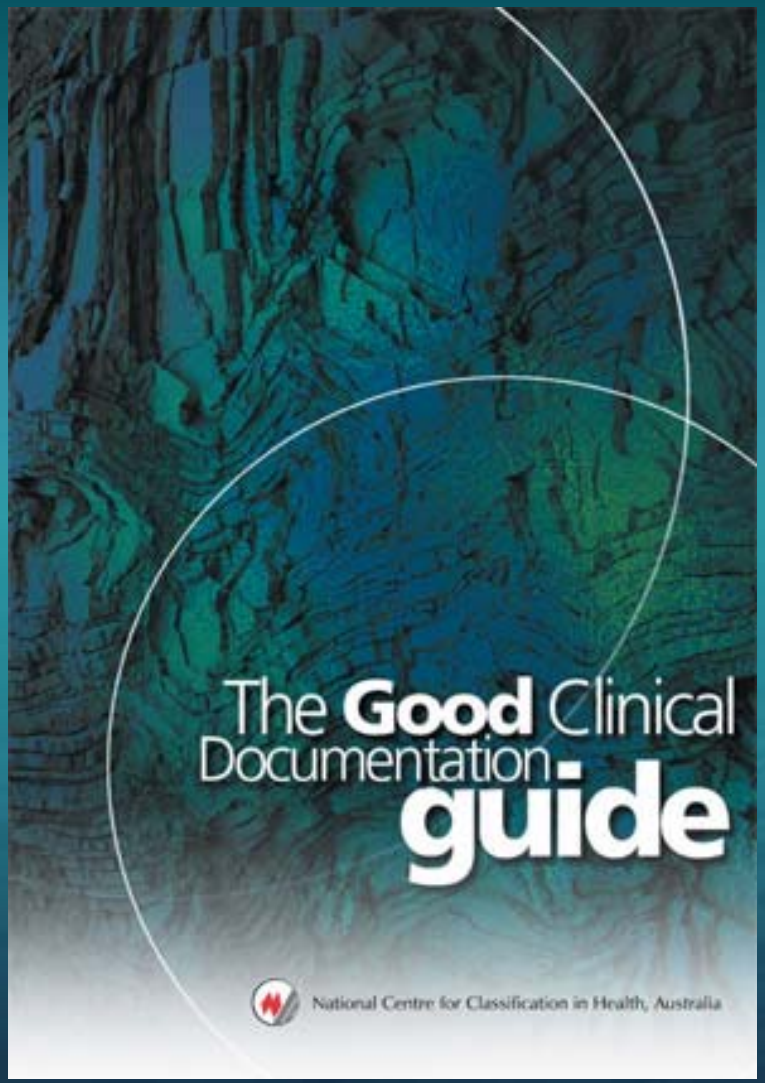
Education and Communication Tools



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DRG Quality: Input Level

Coding

- Pass basic edits
  - Otherwise **DRG 960Z *Ungroupable***
- Accuracy and specificity
- Completeness

Other data items

- Admission Weight, Same Day Status, Separation Mode, others

DRG Quality: Episode/DRG Level

Check individual episodes, especially when the number of episodes are high

- **Episodes grouping to particular DRGs**, such as:
  - 901Z Extensive OR Procedure Unrelated to Principal Diagnosis
  - 902Z Non-Extensive OR Procedure Unrelated to Principal Diagnosis
- **Episodes that are likely to be under-coded**
  - For example, where the episode has grouped to a 'without CC DRG', yet the LOS is greater than the high trim point

There will be times when the AR-DRG is correct. Therefore consider the effectiveness of this approach

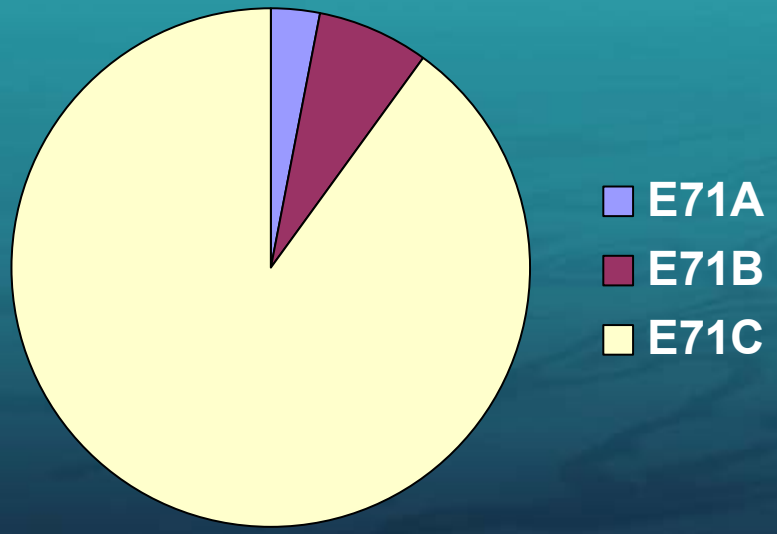
It will be less effective as the documentation and coding quality improves

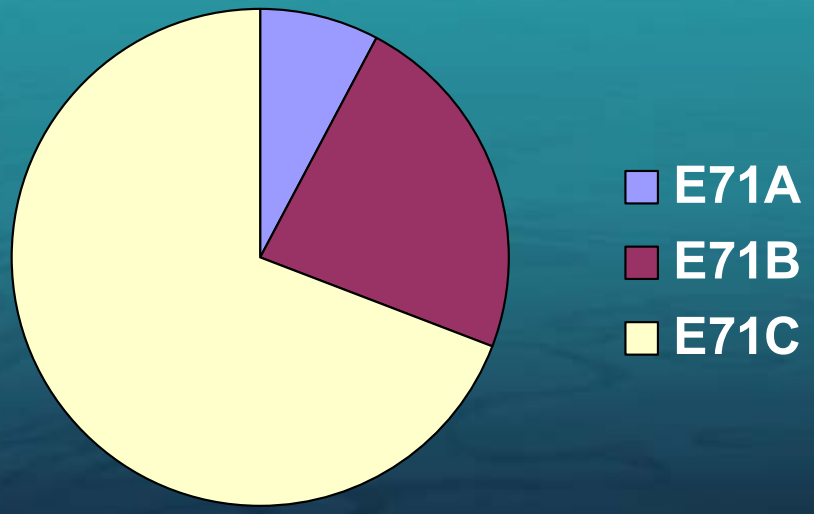
DRG Quality: Adjacent DRG Level

Consider the split of with and without CC DRGs

E71 Respiratory Neoplasms

- **E71A** Respiratory Neoplasms W Catastrophic CC
- **E71B** Respiratory Neoplasms W Severe or Moderate CC
- **E71C** Respiratory Neoplasms W/O CC





DRG Quality: MDC Level

Within an MDC, a specialist area, such as Cardiology Unit, may examine the number of episodes grouping to each DRG within the MDC

May highlight potential documentation or coding issues, if the figures do not reflect what they believe to be their workload

- May also reflect quality of other inputs, especially admission weight for newborns

Significant differences between frequencies for peer hospitals may occur. This could reflect documentation and coding quality issue/differences, rather than clinical differences