A structural review of the AR-DRG Classification – moving towards Version 9.0

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The AR-DRG Classification

Australian Refined Diagnosis Related Groups Classification

- Admitted patient classification grouping episodes into clinically meaningful categories of similar levels of complexity that consume similar amounts of resources (casemix classification)
- Uses information such as the diagnoses and interventions (ICD-10-AM/ACHI) and demographic characteristics of the patient
- AR-DRGs are used for the management, measurement and payment of admitted hospital care

New version generally released every 2 years

Moving towards AR-DRG Version 9.0

What do we do – an overview of ACCD

The Australian Consortium for Classification Development (ACCD) is contracted by the Independent Hospital Pricing Authority (IHPA) to develop and refine the AR-DRG Classification System

- which has two components:

ICD-10-AM/ACHI/ACS

Ninth Edition:

- implemented July 2015

Tenth Edition:

- to be implemented July 2017

AR-DRG classification

Version 8.0:

- released July 2015
- implemented for pricing July 2016

Version 9.0:

- for release July 2017
- to be implemented July 2018

What do we do – an overview of ACCD

Extensive patient and cost data investigation and analysis is pivotal to the AR-DRG development

Data collections used for development:

- **National Hospital Cost Data Collection (NHCDC)** (IHPA)
- **Admitted Patient Care (APC) National Minimum Data Set (NMDS)** (AIHW)

The most recent data available to ACCD is 2013/14

What do we do – an overview of ACCD

Consultation during development cycle:

Class. Clinical Advisory Group	DRG Technical Group (DTG)	Expert advisors	Public consultation
Clinical experts covering a range of clinical specialties, including: • Surgical • Medical • Allied health • Nursing	Representatives from: • all jurisdictions • the Comm. • NZ Ministry of Health • private hospital org. • health funds • IHPA • CCAG • ICD Tech Group	Including Principal Clinical Advisor	During August 2016 via the ACCD website

The final approval of the AR-DRG Classification System rests with the Pricing Authority

What happened in Version 8.0?

Major changes in Version 8.0:

- Revision of the case complexity methodology

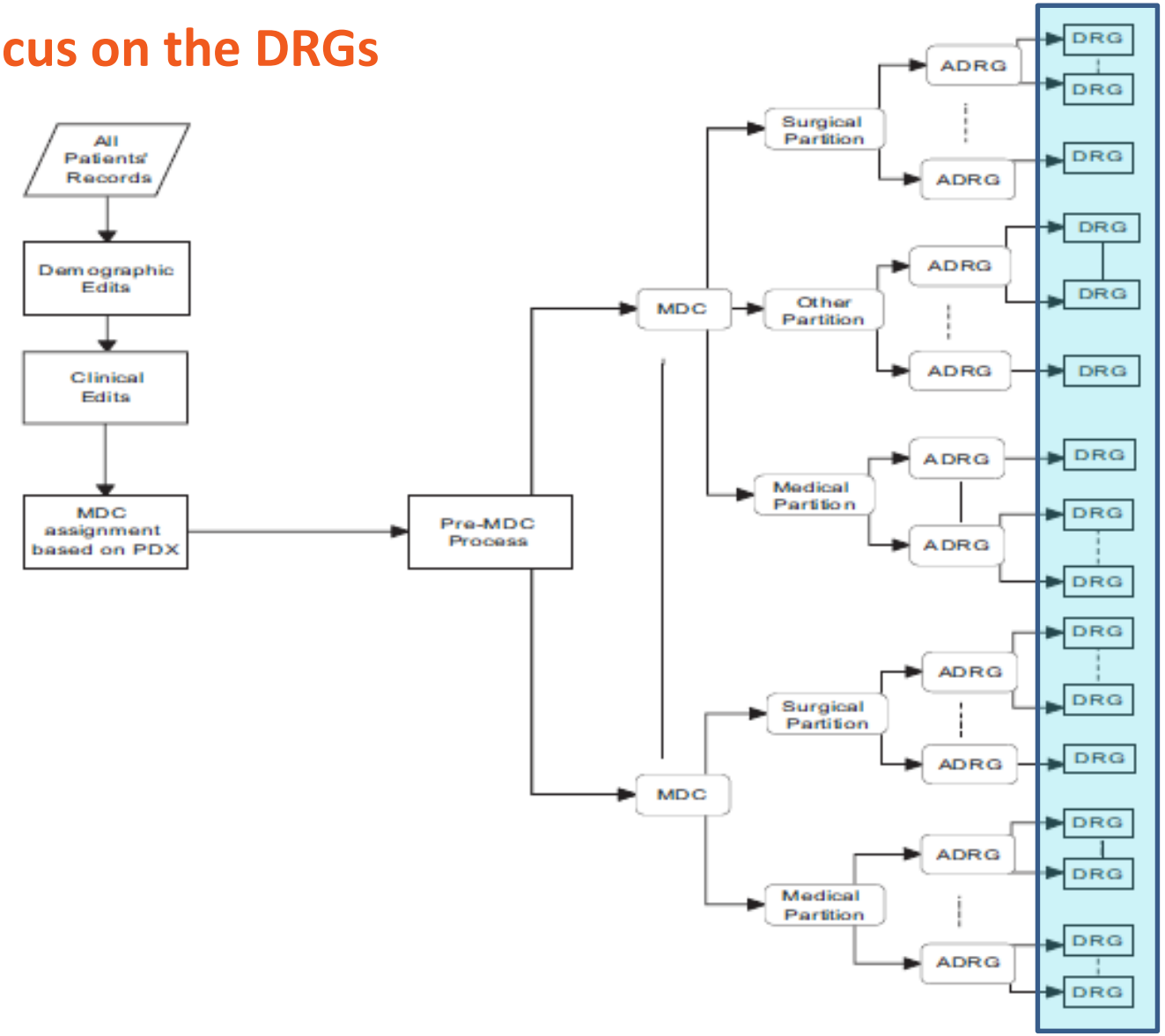
  (the Complication and/or Comorbidity (CC) Model in Version 7.0)

- The **case complexity model** recognises and allows for cost variation within Adjacent Diagnosis Related Groups (ADRG) – which is the end class, or DRG level

- Development and implementation of the Episode Clinical Complexity (ECC) Model

What happened in Version 8.0?

V8.0 – focus on the DRGs



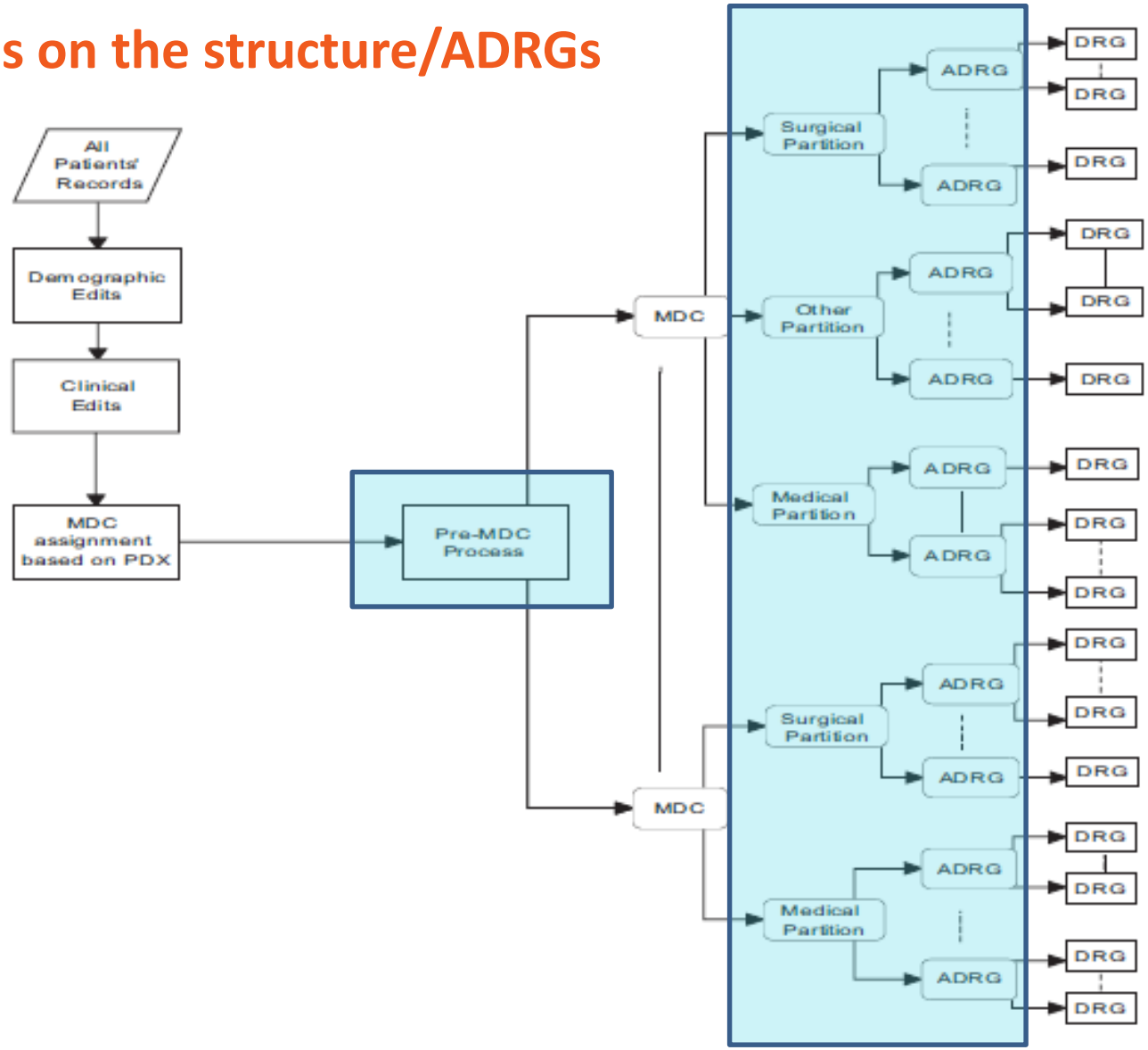
What happened in Version 8.0?

Results of Version 8.0:

- Structure remained largely the same
- Increased regard to clinical attributes using ECC Model - decreased use of administrative splitting variables
- Classification better able to explain the variation in costs occurring in the admitted patient data

What's happening in Version 9.0?

V9.0 - focus on the structure/ADRGs



Version 9.0 – Work program

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Systematic review

Pre Major Diagnostic Categories (Pre MDC)

ADRGs in the 'Other' partition

ADRGs using administrative variables in their definition

ADRGs lacking clinical distinctiveness

Version 9.0 – Work program

Pre MDC ADRGs:

- 11 ADRGs (A01 - A40) are currently Pre MDCs, driven by a small selection of high cost interventions (principal diagnoses (PDx) ignored)

- 4 ADRGs: paraplegia/quadriplegia (B60, B61 and B82) & HIV (S65) currently apply Pre MDC processing where specific diagnoses overwrite the PDx in the logic

Is the Pre MDC logic still appropriate in separating these episodes from their natural MDC given the advances in treatment and management of these conditions?

Version 9.0 – Work program

ADRGs in the 'Other' Partition:

- ADRGs within each Major Diagnostic Category (MDC) are partitioned into 'Surgical', 'Other' and 'Medical'
- These partitions are defined by the presence of OR or NonOR interventions
- No specific guidelines exist to define the type of interventions and the boundaries are blurred

Are there better ways to organise the hierarchy within MDCs?

Version 9.0 – Work program

ADRGs using administrative variables in their definitions:

- Administrative variables (such as length of stay and transfer) form part of the definition in a number of ADRGs
- The ECC Model in AR-DRG Version 8.0 significantly reduced the reliance on administrative variables in DRG assignment

Do these administrative variables continue to be clinical markers of patient classes?

Version 9.0 – Work program

ADRGs lacking clinical distinctiveness:

- ADRG I03 *Hip replacement* contains a mix of different types of care (e.g. traumatic fracture and osteoarthritis/ other bone disease) which are clinically distinctive

- Similarly E65 *Chronic obstructive airways disease* contains episodes for bronchiectasis which is clinically distinct from the other conditions in this ADRG

Should new and clinically distinctive classes be created?

Version 9.0 - Analysis

- For each proposed change, statistics are analysed to answer following questions:
  - What ADRGs have been affected and what episodes are affected?
  - Do the episodes that have moved clinically fit in the hosting ADRGs?
  - Do the movements make resource utilisation homogeneity of the hosting ADRGs better or worse?
  - What is the overall impact on the performance of the classification?

- >60 proposals (including those from public submissions) have been assessed individually during development

Version 9.0 – Outcomes

Results of Version 9.0:

- Proposed changes for new version finalised
- All modifications merged to determine preferred ADRG splitting outcomes (into DRGs)
- 8 newly created ADRGs (some resulting from the combining or splitting of ADRGs)
- 15 deleted ADRGs (some of which were combined or split into new ADRGs)
- 7 Pre MDC ADRGs moving into their natural MDC (renumbered to align with the MDC)

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Version 9.0 – Overview

Number of DRGs in ADRG	Number of ADRGs		Number of DRGs	
	V8.0 implemented	V9.0 recommended	V8.0 implemented	V9.0 recommended
1	85	87	85	87
2	246	225	492	450
3	70	82	210	246
4	5	5	20	20
Total	406	399	807	803

Version 9.0 – Major changes

Major changes proposed for Version 9.0:

- Improvements to clinical coherency, including:
  - removal of HIV and paraplegia/quadriplegia (surgical episodes) as an overriding diagnosis
  - addition of new ADRGs to separate trauma & nontrauma hip replacements, and COAD and bronchiectasis

- Replacement of A06 T*racheostomy and/or Ventilation >=96 hrs* by three new ADRGs, increasing the DRGs from 3 to 8

- Changes to some ADRGs using administrative variables including definition changes and removal

- Restructuring of the MDCs with the removal of the 'Other' partition – reducing the partitions to 'Intervention' and 'Medical'

Version 9.0 – Progress to date

- Final report on Version 9.0 prepared by ACCD
- Currently awaiting approval by the PA (end Nov 16)
- Preparing for release
  - Mapping of ICD/ACHI Tenth Edition
  - Specifications to software developers
  - Print ready files for manuals
  - Testing and Certification of grouper software

Version 9.0 – Conclusion

- Changes primarily at the ADRG level
- Reduction in the number of ADRGs using administrative variables
- Increased granularity in the classification of long term mechanical ventilation
- Updates to align with current clinical practice
- Streamlining of the classification structure
- For release July 2017

Moving towards AR-DRG Version 9.0

Suggested resources:

- ***code it!*** Newsletter (ACCD)
- AR-DRG V8.0 Education tutorial (ACCD)
- Review of the AR-DRG Classification Complexity Process: Final Report (Aug 14)
- Development of the Australian Refined Diagnosis Related Groups V8.0 Final Report (Oct 14)
- AR-DRG Definitions Manual Version 8.0 (available through IHPA)

See ACCD (https://www.accd.net.au) and IHPA (http://www.ihpa.gov.au) websites