



IHPA

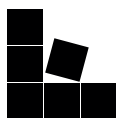
INDEPENDENT HOSPITAL PRICING AUTHORITY

**AUSTRALIAN REFINED
DIAGNOSIS RELATED GROUPS**

Version 8.0

**Document of changes, rationale
for changes and consultations
undertaken**

1 JULY 2015



Australian Consortium for Classification Development

ACCD consortium partners



3.3 Classification soundness

- statistically robust
- reasonably balanced branches
- sufficient volume and cost variances in new splitting
- stable over time, with changes only made in response to significant clinical changes (often caused by technology advancement) or cost variations

3.4 Operationally acceptable and robust

- understandable by and acceptable to a wide range of users involved in the planning and delivery of care
- reasonably robust with respect to changes in management and organisational arrangements of the health system
- not encouraging inappropriate behaviours in patient treatment and management practices within the health system

4. AR-DRG Version 8.0

4.1 Changes in Version 8.0

The highlight of Version 8.0 is a complete revision of the case complexity methodology within the DRG classification. The case complexity methodology had not been revised since its introduction in 1998. For Version 8.0, more extensive patient level data and improved cost information from the National Hospital Cost data Collection (NHCDC) was available. Further, the computing capacity to analyse the available data is now far more superior than it was in the 1990s. During the revision it was found that the existing case complexity system demonstrated little relationship to episode cost variations.

Table 2 below provides a comparison of terminology between AR-DRG V7.0 and V8.0

TABLE 2: Case complexity terminology comparison between AR-DRG V7.0 and V8.0

AR-DRG V7.0	AR-DRG V8.0
N/A	Episode Clinical Complexity (ECC) Model assigns a score to each episode. These scores quantify relative levels of resource utilisation within each ADRG and are used to split ADRGs into DRGs on the basis of resource homogeneity.
Complication and/or Comorbidity (CC) codes are the 2,439 diagnosis codes that may contribute to the calculation of PCCL (i.e. the diagnoses that may affect the calculation of episode level complexity).	Complex Diagnoses (CDs) in a particular ADRG are the set (or list) of diagnoses that may affect the calculation of episode clinical complexity in that ADRG. CDs differ across ADRGs.
Complication and Comorbidity Levels (CCLs) are integer values between 0 and 4 assigned to diagnosis codes as complexity weights, specific to the ADRG of the episode. Only CC codes receive nonzero CCLs.	Diagnosis Complexity Levels (DCLs) are integer values between 0 and 5 assigned to diagnosis codes as complexity weights, specific to the ADRG of the episode. The CDs of an ADRG are those diagnoses assigned a nonzero DCL.
Patient Clinical Complexity Level (PCCL) is an integer between 0 and 4 assigned to episodes as the measure of the cumulative effect of a patient's CCs.	Episode Clinical Complexity Score (ECCS) is a value between 0 and 31.25 assigned as the measure of the cumulative effect of DCLs for a specific episode. ¹
Mild, moderate, severe and catastrophic CCs are descriptive terms used in the naming of DRGs where PCCL has been used as a splitting variable.	Minor, Intermediate, Major and Extreme Complexity are descriptive terms used in the naming of DRGs where ECCS has been used as a splitting variable. ²

¹ Although the maximum ECCS value is 31.25, less than 0.5 per cent of episodes have an ECCS above 10. This is an overall percentage estimate, which differs by ADRG.

² The descriptors Minor and Major are used where an ADRG has been split into two DRGs using ECCS; Minor, Intermediate and Major are used where the ADRG has been split into three DRGs; and Minor, Intermediate, Major and Extreme are used where the ADRG has been split into four DRGs.

Version 8.0 also incorporates the Ninth Edition of ICD-10-AM/ACHI, as well as a small number of Version 7.0 modifications that were proposed through the public submission process and endorsed by ACCD's technical and advisory groups and IHPA. The Major Diagnostic Category (MDC) names and ADRG numbering convention are the same as for Version 7.0. Table 3 shows the changes in the number of DRGs per MDC for V8.0 compared to previous versions.

Other changes between AR-DRG V7.0 to V8.0 are summarised below.

- The hierarchy order of MDC assignments in Pre-MDC and ADRGs in all partitions has been reviewed with one change in MDC 08 *Diseases and Disorders of the Musculoskeletal System and Connective Tissue*, placing I27 *Soft Tissue Procedures* ahead of I30 *Hand Procedures* in the surgical hierarchy.
- All ADRG splits have been revised using the ECC Model. As a result, ADRGs that are the same as in V7.0 may now have different DRGs or end classes given the incorporation of revised splitting logic.
- A number of variables are no longer used in splitting ADRGs. These variables are:
 - sameday field,
 - LOS <2 day stay,
 - urgency of admission and
 - Mental Health Legal Status.
- Use of the EEC Model to replace the major problem, other problem and complicating procedures lists from MDC 15 *Newborns and other Neonates*.
- Age has been used for splitting in only two ADRGs namely:
 - A07 *Allogeneic Bone Marrow Transplant* and
 - A09 *Kidney Transplant*.
- Transfer to Acute Hospital < 5 days has been included for splitting in four ADRGs:
 - B70 *Stroke and Other Cerebrovascular Disorders*;
 - B78 *Intracranial Injuries*;
 - F60 *Circulatory Disorders, Admitted for AMI W/O Invasive Cardiac Investigative Procedures* and
 - F62 *Heart Failure and Shock*.

A number of changes were made due to public submissions. These included:

- Some OR procedures (previously grouping to ADRG 801 *OR Procedures Unrelated to Principal Diagnosis*) were included in the non-specific surgical ADRG at the end of the surgical hierarchy within an MDC:
 - 37387-00 *Insertion of artificial urinary sphincter* was included in ADRG M06 *Other Male Reproductive System OR Procedures* in MDC 12 *Diseases and Disorders of the Male Reproductive System*;
 - 90580-00 *Debridement of open fracture site* was included in ADRG B07 *Cranial or Peripheral Nerve and Other Nervous System Procedures* in MDC 01 *Diseases and Disorders of the Nervous System* and in ADRG D12 *Other Ear, Nose, Mouth and Throat Procedures* in MDC 03 *Diseases and Disorders of the Ear, Nose, Mouth and Throat*.
- Relocate intervention 32060-00 *Restorative proctectomy* from ADRG G05 *Minor Small and Large Bowel Procedures* to ADRG G01 *Rectal Resection*.
- Relocate PDx Q89.31 *Dextrocardia with situs invertus* from MDC 06 *Diseases and Disorders of the Digestive System* (ADRG G70 *Other Digestive System Disorders*) to MDC 05 *Diseases and Disorders of the Circulatory System* (ADRG F75 *Other Circulatory Disorders*).

Table 3 next page provides the number of DRGs by MDC in the AR-DRG classification for the most recent versions.

TABLE 3: Number of Diagnosis Related Groups by Major Diagnostic Category in the Australian DRG classification Versions 6.0, 7.0 and 8.0

Major Diagnostic Category		AR-DRG		
		Version 6.0	Version 7.0	Version 8.0
Pre	Pre MDC – Major procedures with a principal diagnosis associated with any MDC	17	18	18
01	Diseases and Disorders of the Nervous System	61	68	69
02	Diseases and Disorders of the Eye	19	20	25
03	Diseases and Disorders of the Ear, Nose, Mouth and Throat	27	35	34
04	Diseases and Disorders of the Respiratory System	47	49	46
05	Diseases and Disorders of the Circulatory System	80	82	87
06	Diseases and Disorders of the Digestive System	46	46	45
07	Diseases and Disorders of the Hepatobiliary System and Pancreas	28	31	33
08	Diseases and Disorders of the Musculoskeletal System and Connective Tissue	83	88	97
09	Diseases and Disorders of the Skin, Subcutaneous Tissue and Breast	34	38	37
10	Endocrine, Nutritional and Metabolic Diseases and Disorders	28	34	33
11	Diseases and Disorders of the Kidney and Urinary Tract	37	40	40
12	Diseases and Disorders of the Male Reproductive System	16	18	20
13	Diseases and Disorders of the Female Reproductive System	18	19	24
14	Pregnancy, Childbirth and the Puerperium	14	19	19
15	Newborns and Other Neonates	25	36	37
16	Diseases and Disorders of the Blood and Blood Forming Organs and Immunological Disorders	9	12	11
17	Neoplastic Disorders (Haematological and Solid Neoplasms)	18	19	18
18	Infectious and Parasitic Diseases	18	19	19
19	Mental Diseases and Disorders	11	13	19
20	Alcohol /Drug Use and Alcohol /Drug Induced Organic Mental Disorders	6	8	10
21	Injuries, Poisoning and Toxic Effects of Drugs	29	31	36
22	Burns	8	10	10
23	Factors Influencing Health Status and Other Contacts with Health Services	13	12	14
	Unrelated OR Procedures	3	3	3
	Error DRGs	3	3	3
Total		698	771	807