

Developing an Australian Emergency Department (ED) Principal Diagnosis Short List

Anne Elsworthy



IHPA

Classification of Emergency Care Services in Australia

- In 2013 the Independent Hospital Pricing Authority (IHPA) initiated a review to assess long term options for the classification of emergency care services for activity based funding in Australia.



Review

- Highlighted:
 - lack of support for triage
 - strong interest in moving to a more diagnosis based classification
 - nationally consistent approach to principal diagnosis reporting in the ED required.

Key recommendation

- Develop a national ED principal diagnosis short list to underpin a new emergency care classification

Goals of developing a national short list

- Replace current inconsistencies
- Clinically comprehensive
- Meaningful to clinicians
- Reflective of the high volume conditions managed by EDs
- Collection of nationally consistent data to support multiple use cases

Consultation

- IHPA's working groups, committees and other stakeholders



ICD-10-AM

- ICD-10-AM used as the basis for the short list
- Seven of eight jurisdictions now report ED data using ICD-10-AM.
- Three jurisdictions collect ED data using SNOMED CT -AU, but two of the three report their ED data in ICD-10-AM.

Development

- Analysis of data
- Guiding principles
- ICD-10-AM codes reviewed and selected
- Selected codes reviewed by advisory working group



- The full ICD-10-AM code set was mapped to the short list

Structure

ED-ID	Disease /body system group	ICD-10-AM chapter	Level	ICD-10-AM code	ICD-10-AM code descriptor	Term	Included conditions
1-0011	Infectious	1	4	A08.1	Acute gastroenteropathy due to Norwalk agent	Noroviral enteritis	Infection due to Norwalk virus; acute gastroenteropathy due to Norwalk virus; small round structured virus enteritis
4-0012	Endocrine	4	5	E14.11	Unspecified diabetes mellitus with ketoacidosis, without coma	Diabetes mellitus, type not specified, with ketoacidosis, with or without coma	Diabetes mellitus, type not specified, with ketoacidosis, without coma; diabetes mellitus, type not specified, with ketoacidosis, with coma

Public Consultation

- Released for public consultation via the IHPA website
- Sought to engage state and territory health authorities, clinicians and other health sector stakeholders



Outcomes of public consultation

- Greater specificity was needed in some areas
- Review ICD-10-AM terminology
- Semantic interoperability of the short list with SNOMED CT –AU
- Implementation issues

National workshop to address...

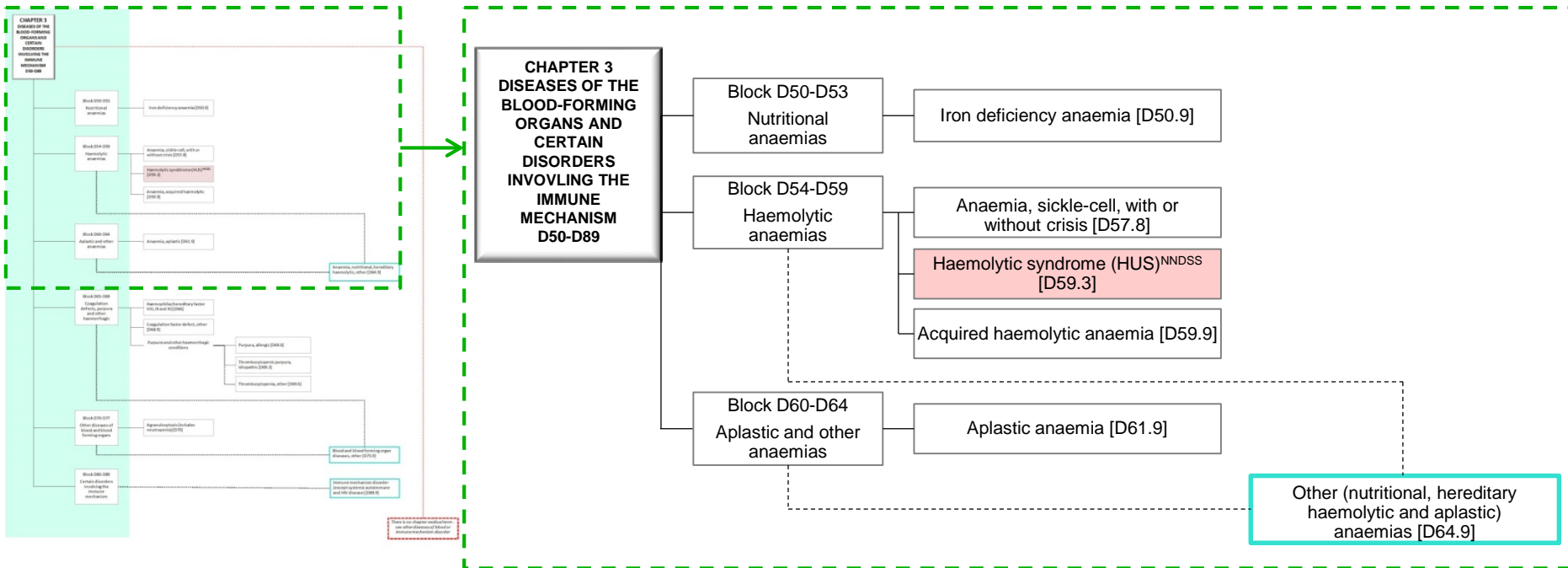
- Feedback from the public consultation
- Broader implementation issues
- Key stakeholders represented

Refinement

- IHPA engaged two health information managers (HIMs) to conduct:
 - gap analysis
 - structural review
 - refinement of terms and inclusions
 - mapping review



Example of hierarchy



Refinement of terminology

- Terms reviewed to reduce ambiguity and ensure:
 - clinical relevance
 - consistency of language
 - coordination of medical concepts
- Natural language
- Conventions for use of terminology

Legacy terminology updated

ED-ID	Disease /body system group	ICD-10-AM chapter	Level	ICD-10-AM code	ICD-10-AM code descriptor	Term	Included conditions
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Conventions for use of terminology

- Standardisation facilitated easy lookup of terms, for example:

ICD-10-AM Code	ICD-10-AM Code Descriptor	ED Short List Term
147.1	Supraventricular tachycardia	Tachycardia, supraventricular
147.2	Ventricular tachycardia	Tachycardia, ventricular
147.9	Paroxysmal tachycardia, unspecified	Tachycardia, paroxysmal other
R00.0	Tachycardia, unspecified	Tachycardia

Additional codes added during refinement

- Injury
 - vessel injury
 - traumatic amputation
 - concussive injury
 - spinal cord injury
- Nationally notifiable diseases
- Babies born in and out of hospital
- Contraceptive management
- Social factors, such as homelessness

Number of codes

- ICD-10-AM > 16,000 codes

Number of short list codes	
Prior to refinement	949 codes
Post refinement	1131 codes
Post final stakeholder review	1134 codes
Final short list	1134 codes

User guides

- ‘Quick reference guide for principal diagnosis reporting’
- ‘User guide’ for data users.



Published

- Published on IHPA's website in May 2017
- Mapping files distributed to jurisdictions



Updated to ICD-10-AM Tenth Edition

- Updated to ICD-10-AM Tenth Edition
- No additional short list codes
- Concepts added or amended within the 'included conditions' of codes
- Code titles amended
- Mapping file updated

Utility of the short list

Diseases/body system group	Short list term
Cardiovascular	Angina pectoris, stable or unspecified
Cardiovascular	Angina pectoris, unstable
Cardiovascular	Atrial fibrillation or atrial flutter
Cardiovascular	Atrioventricular block, complete
Cardiovascular	Bradycardia
Cardiovascular	Cardiac arrest
Cardiovascular	Cardiac arrhythmia, other
Cardiovascular	Cardiomyopathy
Cardiovascular	Conduction disorder (except complete atrioventricular block)
Cardiovascular	Congestive cardiac failure (CCF)
Cardiovascular	Embolism, pulmonary

Utility of the short list

Short list code	Short list term
I00	Rheumatic fever, acute, without heart involvement
I09.9	Rheumatic heart disease
I10	Hypertension, essential, primary (high blood pressure)
I13.9	Hypertensive heart or kidney disease
I15.9	Hypertension, secondary
I20.0	Angina pectoris, unstable
I20.9	Angina pectoris, stable or unspecified
I21.3	Myocardial infarction, transmural, acute (STEMI)
I21.4	Myocardial infarction, subendocardial, acute (NSTEMI)
I21.9	Myocardial infarction, acute, other
I24.9	Ischaemic heart disease, acute
I25.9	Ischaemic heart disease, chronic (atherosclerotic)
I26.9	Embolism, pulmonary
I28.9	Pulmonary vessel disease, other

Conclusion

- Marks a critical milestone in the revision of the emergency care classification in Australia
- Will underpin the new Australian Emergency Care Classification

