Consultation Paper on the Development of the Australian Emergency Care Classification

Queensland submission to the Independent Hospital Pricing Authority (IHPA) as at 11 December 2017

Background

IHPA is seeking feedback from stakeholders on the Development of the Australian Emergency Care Classification Public Consultation Paper (the Consultation Paper) which was released on 10 November for public feedback.

The consultation paper describes the work undertaken to date to develop a new classification system for emergency care services, provides details of the statistical data analysis undertaken and consultation processes used. A Technical compendium to the consultation paper (the Technical Compendium) has also been published which provides further information on the classification end classes and the grouping logic, to assist stakeholders in the review of the proposed classification.

IHPA will consider the feedback gathered from the public consultation process to inform their development of the *Australian Emergency Care Classification (AECC).* The Consultation outcomes will be discussed at national stakeholder consultation workshop in February 2018 with the purpose being to agree a final classification structure.

Directorate Position

We have consulted stakeholders within the Queensland Department of Health and Hospital and Health Services (HHS). Feedback was received from Clinical Governance Unit within the Office of Chief Psychiatrist, Statewide Health Information Management Clinical Coder Network, Statistical Services Branch, Metro North HHS and Townsville HHS. Stakeholders were also encouraged to respond directly to IHPA. Note that this feedback is from the Queensland Department of Health (the Department), unless identified as being from a specific Queensland stakeholder.

Overall comment

The Department welcomes the opportunity to give feedback on the proposed new classification system for emergency care.

Comment regarding the Consultation Questions and Sections

Section 3 Development of the AECC

The Department supports the linking of AECC with Diagnosis Related Groups (DRGs) and the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM) codes but recommends that the current version of ICD-10-AM is used.

The Emergency Care Diagnosis Groups (ECDGs) draw on conventions used in the Australian Refined Diagnosis Related Groups (AR-DRGs). However, in the Technical Compendium, we note that ICD-10-AM Ninth Edition short list is being used. This, in combination with the AR-DRG, would need biannual mapping to the most current version. These are also on-going costs to the Department in terms of Emergency Department (ED) System integration. The Department needs to know more about the plan to move Australia to ICD-11, the impact on this classification and its mapping, maintenance and understanding of data over time.

Section 4 Draft AECC

The statement '*The draft AECC presented in this document has been developed for the short-term (i.e. immediate implementation) and uses variables that are collected uniformly nationally*' infers that it will be a simple exercise as the variables to generate the new AECC Classification 'classes' are already collected. That is true, however the Queensland information technology (IT) systems would still need to integrate the "grouping functionality / software" in order to generate the new ED "classes". From an infrastructure perspective, the custodians of the Emergency Department Information System (EDIS) and First-Net (integration electronic Medical Record (ieMR)) IT Systems would need to carry out feasibility testing of those systems to see if it was functionally possible and how quickly it could be 'immediately' implemented throughout the state as proposed by IHPA. The Department would need to know the release cycle for the system enhancements before supporting any such implementation.

With regards to the AECC structure:

- Level 1 - Inter Hospital transfers need a category at level 1 to capture both referrals and receivals. These patients may be time and resource-intensive depending on the subsequent categories, e.g. major trauma transfer compared to a high risk cardiac transfer (cost also needs to cover medical or nursing escort costs).
- Level 2 – The description is complex and difficult to understand. The Department notes that changes may incur cost and have resource implications to ensure systems capture this correctly in a systematic way; change management will also be required at the front line.
- Level 3 – Current capture of comorbidities is not consistent or standard. The importance of capturing this data would need to be well communicated.

1. Are there any categories for level 1 that can be grouped together while remaining clinically meaningful?

The Department notes:

- Overall the categories for level 1 seem reasonable and mutually exclusive and would align with other reporting.

- However, Townsville HHS commented that there are nuances within the category "*Left at own risk*" (AECC Classes A06A & A06B). The healthcare process should be collaborative with the patient and, although the course of action proposed in a strictly medical sense by a doctor might be different to the course chosen in consultation with the patient according to their priorities and values, this is different to the inherent assumption of all the risk by the patient. We should be able to differentiate, from a pricing perspective, patients who have chosen a treatment plan involving discharge versus the small percentage who actually truly do abscond (and therefore probably do leave at their own risk).

2. Are there any ECDGs that can be grouped together while remaining clinically meaningful?

The Department notes that:

- The ECDGs align with the subsequent DRG admissions, however there is the possibility of confusion due to the ECDGs and DRGs having indistinguishable codes. The Department recommends that the ECDGs either begin with "E" or have "E" as the second letter in a 5 character code.
- It is not clear where a chronic obstructive airways disease (COAD) patient on Bilevel Positive Airway Pressure (BiPAP) would be classified as E61A (*major respiratory diagnosis* with mean cost of $1,490) or E65A (*Chronic obstructive airway disease* with mean cost of $1,140). Further clarification is required in relation to the classification of diseases that can be reported under multiple AECC classes. The Department also recommends further investigation due to the step down in mean cost from *Major injury* I01A to I01B ($1,219 to $461 respectively).

3. Are the variables included in the draft AECC relevant to clinicians, health service managers and other stakeholders?

The Department notes:

- Some of the elements lead to no change in the classification and should be removed for simplicity. The Department suggests an analysis of the different patient cohorts and a demonstration of the similarity (or otherwise) of the costs would assist to clarify why they do not lead to a different AECC class.
- In the Technical Compendium section 2 Regression Trees, the variable '*Transmode3*' is used in the regression trees for both Psychosis and Mental and behavioural disorders. However, this variable does not reflect the population of patients who are transported by Queensland Police Service [QPS] (in conjunction with Queensland Ambulance Service [QAS] or in place of QAS) both voluntarily and under the Public Health Act 2005 or Mental Health Act 2016. The proposed trees do not reflect the complexity of these presentations as it only permits access to C-D complexity on level 3 (refer page 29 the Technical Compendium).

4. Are the end classes included in the draft AECC relevant to clinicians, health service managers and other stakeholders?

The Department recommends further review of the end classes based on some of the issues identified below in the Consultation Paper and Technical Compendium and the possible solutions be developed to improve clarity and reduce possible confusion:

- The Level 1 (Split on Visit Type) *Died in ED* results in one end class A05_A. It seems to be a loss of meaningful information not to split on diagnosis group. Statistical Services Branch, Strategy, Policy and Planning Division, both note that for an episode of care where the patient presents to an ED with an evolving stroke, emergency treatment will commence; if the patient dies that event will be classified as *Died in ED.* It is recommended that the rationale for having one class with nil funding attached should be explored. The resources used for these patients in a short time period could be significant; it would be the same for multi trauma or a moribund patient.
- The use of triage categories at Level 3 (split on Complexity) for Level 1 visit types: *Referred to another hospital*, *left at own risk*, and *planned return visit,* is not overly useful or relevant. The complexity and funding need for this zone should probably be diagnosis-based if possible.
- The use of a letter and two number letter system is identical to that in AR-DRGs. However, there are some small but significant differences which will likely result in confusion and error. For example:
  - I01 = “Major Injury” in the AECC
  - I01 = “Bilateral and Multiple major Joint Procedures of Lower Limb” in AR-DRG9
- There are also similar but not identical alignment of some descriptions which should be reviewed. For example:
  - L60 = “Renal Failure” in the AECC
  - L60 = “Kidney Failure” in AR-DRG9
- Some end classes use a three numbering system which further adds to confusion, report layout and parsing complexity as well as confusion when compared with corresponding AR-DRGs. For example
  - L672[1] is ‘Kidney and urinary tract disorder, other’ in the AECC and seems to accept all disorders including those which, when admitted would be in one of the following AR-DRG9 classifications:
    - L61 Haemodialysis
    - L62 Kidney and Urinary Tract Neoplasms
    - L63 Kidney and Urinary Tract Infections
    - L64 Urinary Stones and Obstruction
    - L65 Kidney and Urinary Tract Signs and Symptoms
    - L66 Urethral Stricture
    - L67 Other Kidney and Urinary Tract Disorders

[1] There is no L67 nor L671

5. Are the proposed data items for the future version(s) of the AECC feasible to collect and report nationally?

The Department recommends:

- There be an agreement across jurisdictions regarding which of the 10,000+ SNOMED codes are mapped where, to ensure consistency of data collections both across local hospital networks (LHN) and jurisdictions. HHS are using SNOMED CT for diagnosis collection in ieMR, and there has already been significant workload and challenges experienced in mapping the high volumes of diagnosis codes from this to the ICD-10-AM palette. The Department reiterates the need for IHPA to compare the 3M mapping to the locally used CSIRO mapping of SNOMED CT to ICD-10-AM.

6. What is the feasibility for emergency services to collect an aggregated list of diagnosis codes? If feasible, what level would be appropriate?

The Department recommends that IHPA:

- Limit the scope to public hospitals facilities with Emergency Departments (classification level 3A-6), not facilities with Emergency Services due to the implementation burden for those hospital facilities without Emergency IT systems. In Queensland, there are approximately 20 rural and remote hospital facilities without ED IT systems. These facilities currently submit emergency services level data manually to the Department via a Monthly Aggregate Collection (MAC) Form. The Department plans to roll out the EDIS Rural IT system to some of these sites. However, the timeframe for the EDIS Rural IT roll out has not been finalised and IHPA's timeframe for implementation of the AEC Classification is unknown.

7. What other issues should be considered in the development of the AECC?

The Department recommends that IHPA:

- Consider the feasibility of extending the AECC to replace inpatient admissions to Emergency Department Short Stay Units. This would ensure uniformity in the way that jurisdictions count and classify episodes that start and end in Emergency Units. This would also need a national definition of short stay units in an emergency department.
- Expand the ICD-10 codes for the short list to create additional data that can contribute towards the suicide prevention evidence-base.

  The Clinical Governance Unit, Office of the Chief Psychiatrist, notes that whilst acknowledging the purpose and context for use of the Emergency Department ICD-10-AM (ninth edition) principal diagnosis short list, the use of two codes for *Suicidal ideation* (R4581) and *Attempted self-injury* (R4589) may have the following implications:

  - Over-simplification and limited codes do not allow for the spectrum of behaviours associated with suicide and attempted suicide to be acknowledged, or for recognition that they are typically not linear. This can negatively influence the allocation and direction of funding based on data that is overly-inclusive and reductionist. For example, the limited scope of codes does not reflect the full spectrum of suicidal behaviour and potential presentations which may therefore impact upon an accurate selection of appropriate codes for the complexity of clinical presentation and interventions from multiple departments [e.g. emergency and mental health] and subsequent funding allocated.
  - In addition to the benefits that data can contribute to informing targeted funding, the inclusion of additional ICD-10-AM codes related to suicide and self-harm (e.g. Z codes) may allow for short list data to be integrated with other national datasets, such as the Australian Bureau of

Statistics (ABS). The ABS have indicated they will be including reporting of Z codes for suicide data in preparation for the release of ICD-11 which is likely to include additional contextual factors. The expansion of ICD-10-AM codes for the short list would create additional data that can contribute towards the suicide prevention evidence-base.

- That the convention of using “Z” for those DRGs without an A, B, C split be continued in the AEC Classification for clarity and reducing possible confusion.

Comments on the Technical Compendium

The Regression trees are a useful concept; however, the use of abbreviations such as ‘eddepst2’ make navigation laborious when reference needs to made frequently to the variable names. The Department recommends more descriptive names or abbreviations to assist navigation. If these abbreviations are ultimately those used in a SQL query, they can supplement the more descriptive names used in the official documentation which could then be a useful tool for education of clinicians.

Some of the regressions seem to be illogical and explaining this to clinicians will be challenging and time-consuming:

- For example B63 with a triage category of 1 or 3 is an ‘A’ whereas a triage category of 2, 4 or 5 is a ‘B’ – why would a triage category 3 be higher classification (and presumably cost) than a triage category 2?
- Similarly B70 if triaged as 5 ends up in a Category A – further there is an age split that makes no difference and therefore begs the query as to why it is included.
- B81 has two layers of decision tree for ‘transmode3 = Other’ including ‘eddepst2 = 2’ and then ‘edtriage = 4, 5’ (both “yes” and “no” responses); all three outcomes are the same which as per the previous comments, raises the query as to why they are included