Development of AN-SNAP V4 to Classify Subacute and Non-acute care

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Introduction
The Australian National Subacute and Non-Acute Patient Classification (AN-SNAP) is a casemix classification designed for four care types designated "subacute" in Australia (rehabilitation, palliative care, geriatric evaluation and management (GEM) and psychogeriatric care) and one non-acute care type. AN-SNAP classifies care across admitted and non-admitted settings. The admitted classes have been used for planning and benchmarking in a number of Australian jurisdictions and the private rehabilitation sector for more than 15 years. In 2012 AN-SNAP was adopted as one of the suite of classifications to be used nationally for funding hospital services. The first version of AN-SNAP was developed in 1996 by the Centre for Health Service Development, University of Wollongong. Three subsequent versions have been developed by the same organisation. This presentation describes the development of the most recent version, AN-SNAP V4. The project was commissioned by the Independent Hospital Pricing Authority and represented an important element in the infrastructure to support the ongoing implementation of a subacute and non-acute ABF model in Australia.

Methods
An iterative approach to the development process was undertaken in which data analyses and clinical consultation processes were combined to ensure that the results were both statistically meaningful and clinically sensible. The project also involved a significant level of consultation with jurisdictions, clinicians and other key stakeholders across the subacute sector to produce a fully revised version of the AN-SNAP classification that reflected current and evolving clinical practice. Clinical, activity and financial data, obtained from a range of sources, were used in the analysis. The primary source of data was the national 2011/12 public sector cost data. Supplementary data were obtained from the Australasian Rehabilitation Outcomes Centre (AROC) and the Palliative Care Outcomes Collaboration (PCOC). Each branch of the classification was reviewed using, primarily, regression tree analysis, with the aim of identifying refinements that improved its performance. This included assessing additional variables where data were available in an effort to incorporate new approaches to the classification.

Results
AN-SNAP V4 comprises 130 classes. The admitted branch of the classification contains 83 classes for overnight subacute episodes/phases, 6 classes for same-day subacute admissions and 6 classes for non-acute care and explained 55% of the variation in cost in the development dataset. The non-admitted branch of AN-SNAP V4 comprises 35 classes. Data were not available to allow the performance of the non-admitted AN-SNAP classes to be calculated.

Conclusions
The classification met the project objectives of being suitable for both funding and clinical management purposes. Overall, the changes incorporated in AN-SNAP V4 can be characterised as modest. They included changes to the structure and to the splitting variables. Paediatric classes were incorporated for the first time. Refinements to the non-admitted classes provided an opportunity for important discussions, such as when the unit of counting for non-admitted activity should be at the level of episode and when it should be service event. One of the limitations of the project was a lack of data with which to assess options for making major structural changes to the classification. Routine collection of the relevant variables remains an important objective for the ongoing refinement of the AN-SNAP classification.

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