

Public reporting of hospital outcomes based on administrative data

Kerry Innes, Kirsten McKenzie and Sue Walker

TO THE EDITOR: We recently read with concern the article by Scott and Ward on public reporting of hospital outcomes.¹ While we do not want to enter into the debate about whether the public release of hospital performance reports is beneficial or harmful, we would like to address some issues relating to the accuracy of administrative data. The authors stated that “data are often [our italics] inaccurate, incomplete, or provide insufficient clinical detail” and that the “accuracy of diagnosis coding is variable”. They also mention the potential for “gaming” or “up-coding” by hospitals to make their institutions look better in public reports.

We believe the authors' argument regarding coding inaccuracies is flawed. One of the articles they cited was not about coding accuracy but about mortality differentials between metropolitan and non-metropolitan regions.² Another cited article quoted an example of a 100% miss rate for coding of dementia as a comorbidity that was based on only three cases.³ As the authors later stress in their article, it is important that sample size be considered when interpreting data, to ensure that the effects of random error are minimised.

We agree with the authors' final point that distinguishing complications from presenting diagnoses (or comorbidities) is currently difficult using hospital coded data. However, the Victorian and Queensland hospital data collections now include an “alpha flag”, which is a letter attached to each coded diagnosis to indicate whether the diagnosis was present on admission to hospital or whether it arose during the episode of care. Moves are underway to introduce a minimum national requirement to use the alpha flag as one method of identifying complications arising from medical or surgical care.

There are a number of national and state initiatives that aim to ensure the national morbidity data collection is as accurate as possible and that it provides data directly related to its purpose (and therefore not necessarily useful for other purposes). There is currently a national debate about the purpose of this collection.

It is clear that there are issues surrounding the capture and coding of hospital data that are not well understood by data users.

Because of that misunderstanding, reports such as the one by Scott and Ward paint an unjustifiably bleak picture of the quality of the data.

Kerry Innes, Associate Director¹
Kirsten McKenzie, Research Fellow²
Sue Walker, Associate Director²

¹ National Centre for Classification in Health, University of Sydney, Sydney, NSW.

² National Centre for Classification in Health, Queensland University of Technology, Brisbane, QLD.
k.mckenzie@qut.edu.au

¹ Scott IA, Ward M. Public reporting of hospital outcomes based on administrative data: risks and opportunities. *Med J Aust* 2006; 184: 571-575.

² Vu HD, Heller RF, Lim LL, et al. Mortality after acute myocardial infarction is lower in metropolitan regions than in non-metropolitan regions. *J Epidemiol Community Health* 2000; 54: 590-595.

³ Powell H, Lim LL, Heller RF. Accuracy of administrative data to assess comorbidity in patients with heart disease: an Australian perspective. *J Clin Epidemiol* 2001; 54: 687-693. □

Ian A Scott and Michael Ward

IN REPLY: Innes and colleagues accuse us of overstating the potential inaccuracy of coded administrative data. They refer to state and national initiatives underway to ensure such accuracy, but offer no hard statistics that would reassure us that such data, in their current form, are as accurate as they need to be for purposes of quality monitoring and public disclosure. Until they do, we feel we have good reason to recommend caution in light of the few published Australian reports that are available (which we cited^{1,2}), together with other research³ and feedback from clinical directors, about significant error rates when coded diagnoses are audited by clinicians or compared with independent datasets maintained by clinicians (Professor David

Johnson, Director of Nephrology, and Dr Paul Garrahy, Director of Cardiology, Princess Alexandra Hospital, personal communication).

In Queensland, formal regular audits on coding accuracy were initiated only in October 2005. They involve small numbers of randomly selected charts from each hospital and focus on specific coding issues identified for each hospital (Professor Stephen Duckett, Executive Director of Reform and Development, Queensland Health, personal communication). While we welcome (and were aware of) the introduction of “alpha flags” to distinguish in-hospital complications from pre-existing conditions, these remain a recent development (especially in Queensland), and others with considerable experience in their use express caution in interpreting results in the absence of rigorous validation.^{4,5}

Ian A Scott, Director¹
Michael Ward, Executive Director²

¹ Department of Internal Medicine, Princess Alexandra Hospital, Brisbane, QLD.

² Clinical Practice Improvement Centre, Queensland Health, Brisbane, QLD.
ian_scott@health.qld.gov.au

¹ Vu HD, Heller RF, Lim LL, et al. Mortality after acute myocardial infarction is lower in metropolitan regions than in non-metropolitan regions. *J Epidemiol Community Health* 2000; 54: 590-595.

² Powell H, Lim LL, Heller RF. Accuracy of administrative data to assess comorbidity in patients with heart disease: an Australian perspective. *J Clin Epidemiol* 2001; 54: 687-693.

³ Iezzoni LI. Assessing quality using administrative data. *Ann Intern Med* 1997; 127: 666-674.

⁴ Weingart SN, Iezzoni LI, Davis RB, et al. Use of administrative data to find substandard care: validation of the complications screening program. *Med Care* 2000; 38: 796-806.

⁵ Naessens JM, Huschka TR. Distinguishing hospital complications of care from pre-existing conditions. *Int J Qual Health Care* 2004; 16 Suppl 1: i27-i35. □

Correspondents

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