

## Some issues to consider when assessing concordance of death certificates with registry reports

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We recently read with interest the article in the August issue of the Journal titled 'Cause of death in patients with end-stage renal disease: assessing concordance of death certificates with registry reports'. While we agree that it is a valuable exercise to examine the concordance of data recorded on death certificates with data recorded in data registries, we have concerns about the approach used and conclusions drawn from the findings. First, we believe a crucial aspect in any comparison of data sources, such as death certificates and data registries, is the examination of the comparability of the data definitions and coding rules for selection of the underlying cause of death. While the Australian Bureau of Statistics uses the international definitions and coding guidelines in accordance with the requirements of the World Health Organization, as published in the International Statistical Classification of Diseases and Related Health Problems (ICD-10),<sup>1</sup> little information is provided in regard to the definitions and coding rules used by the ANZDATA registry. It is unclear whether the ANZDATA coding rules for selection of cause of death are consistent with ICD-10 guidelines. As a result, it is difficult to assess whether the underlying cause of death from the two data sources are comparable at any level of specificity. Second, the authors make reference to the under-utilisation of diabetic renal failure codes for underlying cause of death (E10.23, E11.23, E12.23, and E14.23) in the ABS data. Codes at this level of specificity are not part of the ICD-10 classification system used for mortality coding. They are, however, included in the ICD-10-AM2 classification used for the coding of hospital morbidity records. While these classification systems are comparable at the three-character category level and largely also at the four-character level, greater specificity is afforded by the ICD-10-AM classification system than is available in the ICD-10. The diabetic renal failure codes are examples of the specificity added at the fifth character level to the Australian modification to improve this classification's ability to describe Australian clinical practice. Third, it is not clear from this article the source of the ANZDATA registry's death data. There may be inherent differences in the data pertaining to the causes of death based on documentation differences available from data sources. Researchers have noted differences between the recorded cause of death in the hospital medical record compared with the death certificate because of different definitions, coding rules and documentation issues<sup>3</sup> and we believe this may have a significant impact on the level of concordance that can be expected between data from these two sources.

Finally, assuming that differences were evident in the coding rules for selection of underlying cause of death and documentation issues existed between the two organisations, the researchers need to consider any match (i.e. Level 1 – match between ANZDATA cause of death and ABS underlying cause of death, Level 2 – match between ANZDATA cause of death and ABS associated causes, or Level 3 –

match between ANZDATA primary renal disease and ABS underlying or associated cause of death) a sign of concordance between the two datasets, which results in a high overall concordance of 92% overall. If the level of agreement at the ICD chapter level was considered in this light, it is likely that a considerably higher level of concordance would be evident. We concur with the authors' view of the importance of examining the comparability between data registries and ABS datasets to gain a better illustration of the epidemiology of specific diseases in Australia, and we hope that the points that we have raised in this letter help mortality researchers to better understand some of the issues that need to be considered when performing comparisons of this nature.

### **References**

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