Letter to the Editor

On the use of administrative databases to support planning activities: a comment

Sir,

The paper by Fantini *et al.*[1] rightly stresses the importance in health care planning of identifying centres that treat more severe (complex) cases. However, in their evaluation of the ability of two software packages, Medicare Diagnosis Related Groups (Medicare DRG) and All Patient Refined Diagnosis Related Groups (APR-DRG), to achieve this objective, they omit to mention that the APR-DRG software incorporates into its risk adjustment modules discharge diagnosis codes representing all conditions treated during the hospitalization, regardless of when they occurred, and including late, 'near death' events.[2] This approach may be understandable, since the APR-DRG software, similar to most discharge abstract-based software, relies on the ICD-9 CM coding of these data, which fails to distinguish co-morbidities from complications.[3] Nevertheless, in our opinion the authors should have addressed the issue of incorporating complications into the risk-adjustment modules. Indeed, if there are complications that evolve in the natural course of a disease, there are also complications that occur as a result of suboptimal care.[4] Although it may be argued that most of the complications are non-iatrogenic in nature,[5] the fact remains that the inclusion of all complications occurring during a single hospital stay into the risk adjustment leads to an over-adjustment, which, in the case of iatrogenic complications, rewards both suboptimal care and the unnecessary use of resources. Unfortunately, we do not have the perfect adjustment tool that is suitable for all medical specialities and hospital services at our disposal, and we have to rely on existing tools, such as the APR-DRG software. This leads us to conclude that when reporting results of a study that compares the relative efficiency of Medicare DRG with APR-DRG in describing neonatal case mix, the failure of APR-DRG to distinguish between iatrogenic and non-iatrogenic complications should at least have been mentioned. A sensitivity analysis of the performance of APR-DRG with and without its 'Severity of Illness' and 'Risk of Mortality' modules,[3] if possible taking into account only diagnoses present at admission, and comparing this results with those obtained by co-morbidity measures without APR-DRGs,[5] would allow a better understanding of both the qualities and the limitations of the APR-DRG software.

Apart from the adjustment issue, the article does not mention the problems of the quality of data, especially those of 'under-coding', or the incomplete recording of all secondary diagnoses present in the medical file, and 'up-coding' or 'creep', i.e. the deliberate administrative manipulation of discharge abstract data to classify patients into higher paying DRGs.[6–8] It is obvious that the introduction of a prospective payment system (PPS) favours an increase of 'creep', which in turn will hamper the identification of centres that treat more severe cases.[6,7,9,10]

Given the perspective of allocative efficiency in health care and the research objective of measuring the models' performance with continuous (e.g. length of stay) and dichotomous (e.g. mortality) outcomes,[1] the authors really should have discussed the limitations of the risk adjustment in an APR-DRG setting as well as the quality of data in a PPS environment.

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