Bridge Coding» ICD-9, ICD-10 and effects on mortality statistics

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OBJECTIVE: this study evaluates the impact of the introduction of ICD-10 on mortality statistics in Italy.

DESIGN: «Bridge-Coding» analysis carried out by a working group that has coded a number of death certificates using both ICD-9 and ICD-10 versions. In 2006, a training project was launched in order to allow the group to standardize the coding procedures.

SETTING: the study was carried out by professionals from the following regions: Emilia-Romagna, Veneto, Tuscany, Liguria; and from the towns of Biella and Milan. The analysis included 74,525 Death Certificates produced in the aforementioned areas.

RESULTS: a limited variability was observed for the most important groups of diseases (diseases of the circulatory system and neoplasms), with low impact on mortality statistics. The variability was higher for "minor" diseases like infectious and respiratory diseases, and dementia. The variability was similar but not identical to that observed in other national and international studies. The «Bridge-Coding» analysis has a local impact. Furthermore, changes depending on the variation in the selection rules are impossible to predict or to correct with the trans-coding procedure.

CONCLUSIONS: in some cases, the changes determined by the implementation of ICD-10 are not completely corrected by the transcoding procedure, even applying appropriate Comparability Ratios (CR) from «Bridge Coding» analysis like this. Studies on respiratory diseases, or dementia and some neoplasms require new coding procedures in only one ICD version. Quality and accuracy of the compilation of death certificates have more effect than a correct coding, though more casual and less evaluable by means of comparability studies like this one.

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