Moving towards ICD-10 in Belgium at the expense of ICD-9 coded data?

Authors: André J. ORBAN¹, Luc B. BELMANS²

Introduction
In Belgium, 2015 is the year of the transition from ICD-9-CM to ICD-10-CM and ICD-10-PCS, called ICD-10-BE. Earlier than in the United States, all patients discharged since January 1st are now coded in ICD-10-BE. To achieve this migration in time, the Federal Public Service of Health, responsible for collecting the minimal hospital discharge data set (MHDDS), increased the pressure on the hospitals to meet the deadlines for submitting their data. At the same time, healthcare institutions had to deal with the challenge of training their coders in ICD-10, simultaneously with a higher workload to finalize in time the last periods coded in ICD-9. Moreover, the external audits the ministry usually performs yearly in each facility were obviously reduced due to the preparations for ICD-10's transition. On the other hand, a better theoretical formation of the coding teams with regard to anatomy and physiopathology could yield profit prematurely to the ICD-9 coding.
This study aims to analyze to what extent these factors influenced the coding quality of the last data sets coded in ICD-9-CM.

Methods
Materials: Medical and nursing data of inpatient stays with discharge date in 2013 and 2014 provided on voluntary base by hospitals of different size, in accordance with the typical Belgian MHDDS standard.
Methods: Although reviewing the clinical chart remains the gold standard in auditing the coding quality, we decided to use an automated alternative. First of all, we reused and enhanced earlier developed «coding alerts» - a set of queries based on the existing Belgian coding guidelines for ICD-9-CM version 2011. For the facilities that participated in our first study in 2012, the evolution could be measured. For the new participants, benchmarking with respect to the whole group and with earlier results was achieved. Secondly, we measured the concordance between medical diagnostics and procedures provided versus nursing activity elements. Therefore, we reused the results of our research conducted in 2013. Assuming that the nursing data were not affected by ICD-10's transition as they are registered in most hospitals by a separate coding team, the evolution in congruency between both could be related to the evolution in medical data quality.
Finally, a brief questionnaire was required of the participants to assess the influence of the increased timing pressure, along with the preparation for the migration towards ICD-10-BE.

Results
The results are being discussed. Individual reports and benchmark data are provided to the participants.

Conclusions
On the eve of the major move from ICD-9-CM to ICD-10-BE in Belgium, the related need for a more detailed patient record and coding accuracy, and the increasing use of the MHDDS for quality and outcome purposes, we evaluate the impact on medical coding quality of both external and internal measures taken to achieve ICD-10's transition in time.
While most studies report on coding quality issues immediately after introducing a new coding system, we have a deeper look at the last periods submitted in the old system, suggesting that the effect of a coding system change affects a longer time interval than usually expected.

1. Medical Dept. - Data Registration, AZ Alma, Eeklo, Belgium.
2. Medical Dept. - Direction, RZ Heilig Hart Tienen, Tienen, Belgium.