

The impact of improving the quality of coding within a private healthcare institution: A 10-year experience

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Background

The ABC Medical Center was created after the merger of 2 hospitals in 1941, the American Hospital (founded at the end of 1886), and the Cowdray Sanatorium, also known as the English Hospital (founded in 1926). This union gave place to "The American British Cowdray Medical Center, I.A.P." (Private Assistance Institution) with two campuses in Mexico City; one of them located in Observatorio and the other one in Santa Fe.

Clinical coding is the mechanism through which the clinical care provided to a patient can be assessed. This can be done manually with the help of codebooks or electronically by using clinical coding software.

Through precise clinical coding, DRGs (Diagnosis Related Grouping) can be established; thus, allowing for the analysis and management of the casuistry within a hospital. Standardized GRDs can be used in order to assess services and procedures within a healthcare institution, to improve service line management, and to be part of international benchmarking.

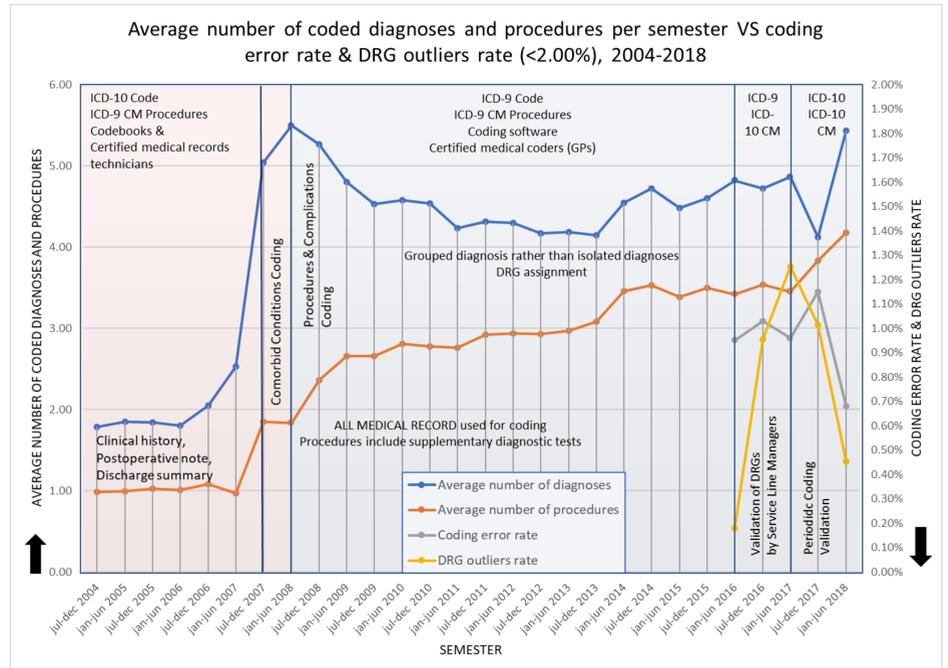
Project Aim

The main objective of this long term project was to gradually improve the quality of statistical clinical data by improving clinical coding procedures. As a result of improving coding procedures within the institution, several outcomes that would directly influence clinical data output were measured, some in terms of productivity and others in terms of quality improvement.

The first indicators used were the increase in the average number of coded diagnoses and procedures, along with the assignment of CMS-DRGs. The later indicators relate directly to quality of information.

The more diagnoses and procedures are coded may automatically translate into more comprehensive clinical data and better quality in coding. However, precision of clinical coding started being systematically measured in two ways: coding error rate (<2% standard) & DRG outliers rate (financial cost, resources used, and/or length of stay). The first could directly be attributed to a coding mistake, whereas the second one could be due to suboptimal medical recording (quality of medical records) and/or variable medical care (clinical practice guidelines).

Outcomes

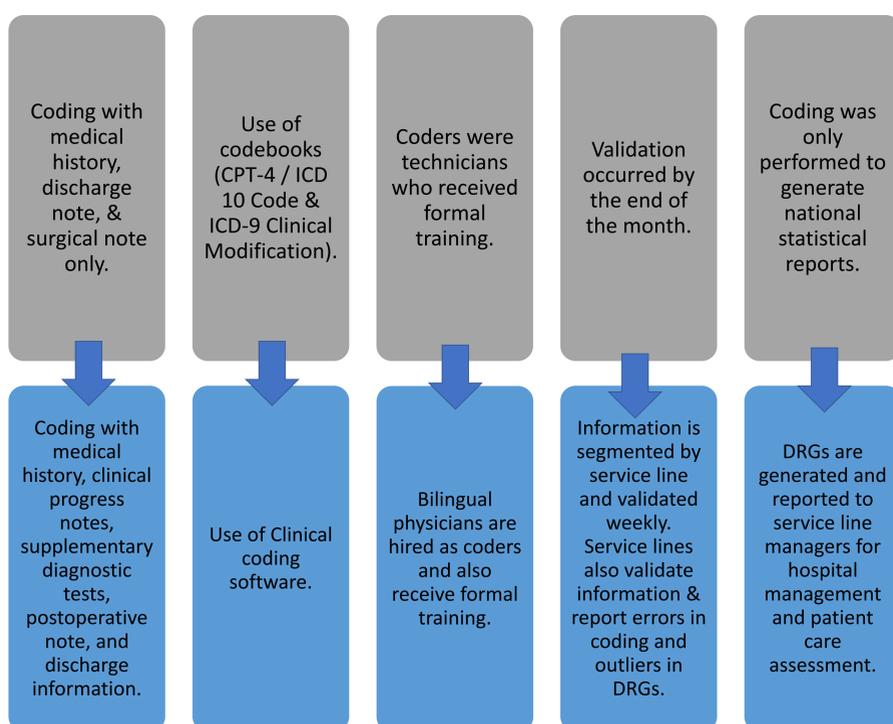


Initially, less than 2 diagnoses and 1 procedure were coded per discharge, using partial medical records for national health statistical purposes only. By the second half of 2007, a different coding procedure was implemented and all of the medical record started being used; also, comorbid conditions were included in coding.

As of 2008, electronic coding was implemented and bilingual physicians replaced technicians as coders. At the same time, diagnoses started being grouped rather than accounting for single diagnoses; and, DRGs were assigned. In 2016 and 2017, minor changes in the ICD coding used occurred. By 2016, errors in coding started to be measured. Also, service line managers started validating DRGs and reporting outliers in order to improve the quality of coding.

Nowadays, the average number of coded diagnoses is 5.4 and the average number of coded procedures is 4.2, with a coding error rate of 0.68% and a GRD outliers rate of 0.45%.

Changes Made



Challenges Faced

The main challenge faced was coding in a language that was not the native one. This was solved by training coders in medical English and by hiring bilingual coders.

Another challenge faced was the use of all medical record. Using other kinds of inputs meant that a physician was required to review and generate more accurate codes.

One challenge that was also identified was the number of possible diagnoses; which can now amount up to 20 or more per discharge. This meant more work with less productivity in terms of medical records reviewed, but more productivity in terms of average number of coded diagnoses and procedures per discharge.

A window of opportunity appeared with the assignation of DRGs that could be used to make decisions on a regular basis.

Impact

Through more efficient coding, DRGs have started to be used within the institution to generate indicators on resources, cost and LOS. Also, statistical information such as associated mortality and hospital readmissions started being assessed.

Our DRGs have a better quality than regular DRGs in our country since our coding procedure is more exhaustive and precise and undergoes several validation processes. Having better quality clinical data has allowed for improved service line management, which has also translated into patient-oriented services.

Next Steps

1. The ABC Medical Center aims to become a national reference in coding procedures throughout spreading the knowledge gained in the experience of clinical coding.
2. DRGs will now be used to assess costs of admissions and to reduce high variability in services and procedures offered within the institution.
3. In a long-term, GRDs will be adapted to the institution in order to not only regulate costs, but also standardize clinical practice.