LOST IN AR DRG TRANSLATION - the story from Croatia

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Introduction
With support from the World Bank, Croatia began implementing AR-DRG vers 5.2 in 2007. While the intention of the program was to improve the efficiency of the hospital system, the absence of commitment to reform made this difficult to achieve. The shortcomings of the process were as follows:

1) Insufficient training - DRG training for hospitals was in the main limited to a 3 day program for a restricted number of staff with no follow up provided
2) Only three DRG books were procured and translated - the alphabetical indexes of diagnoses and procedures were not included in the training material
3) There was little follow up to gain a good understanding of the activity based payment system - namely, the need to pay hospitals fairly for their output and yet provide incentives for efficiency gains
4) Ill considered amendments to the classifications and inconsistent setting of the nominal base prices which confused hospitals’ understanding of the potential implications on them.

The outcome was that hospitals had little understanding of the DRG system and relied on the web based DRG grouper as a coding tool. Coders - doctors and nurses, got into a habit of accepting codes that did not necessarily reflect the cases treated. In other words, coding was imprecise and there were few mechanisms to check accuracy.

Between 2007 and 2014 DRG data was used purely for reporting purposes and hospitals were able to view their performance and compare it with their peers. The institutions however, did not seem to pay attention to the comparative results of their performance as there was no impact on their historic budgets. Their only objective was to report data required by the Croatian Health Insurance Fund (HZZO). The result was that over time, the recognition of the rationale behind the implementation of the DRG system was lost. The magnitude of the problems became evident only when the HZZO began to link payments to activity measured by DRG, in 2015.

The failure of DRG implementation during the firsts seven years resulted in serious deficits in knowledge within the system on how to effectively move onto the next phase in which performance based payment which would produce incentives for hospital efficiency gains.
Moreover, as soon as hospital revenue was linked with DRGs, hospital financial managers began to recognise the inequity of a payment system based on average DRG prices. Tertiary and specialist hospitals in particular argued that there was a need to recognise that their long stay cases did not to fit into what they thought was a simplistic payment formula

Methods
Croatia has 33 acute hospitals of which 5 are tertiary hospitals which account for 46% of the national acute inpatient hospital expenditure. We divided hospitals into 2 groups tertiary hospitals and others as we presumed that majority of long admissions and most complex cases will be treated in tertiary hospitals.

We used publicly available data for all acute hospitals in Croatia for the period 2009-2014 including: number of DRG cases, ALOS per DRG, hospital budgets and deficits and number of acute beds. Of particular interest was the calculation of the percentage of cases that exceeded: 18 day ALOS (chosen as it is the accepted average high trim point ALOS used in Australia before additional payments are triggered); and 90 days in AR-DRG AO6Z (mechanical ventilation longer than 96 hours)

We also undertook a coding audit of 500 sample cases in one tertiary hospital
Results
Main findings are:

a) The number of admissions from 2009 to 2014 reduced from 630,893 to 594,707 cases per annum, while waiting lists increased.
b) During this period, the total hospital expenditure increased, both events increased the average cost per case while the casemix remained the same.
c) Number of acute beds remained the same.
d) Tertiary hospitals reported 10% cases in which ALOS was longer than 18 days.
e) ALOS for DRG group A06Z was significantly different for tertiary hospital when compared to other hospitals (33.5 versus 23 days), moreover 8% of A06Z cases stayed more than 90 days (with much of that time spent in ICU), suggesting that tertiary hospitals may be underpaid.
f) Only 16% of sample DRG coding was in accordance with the coding standards.

Conclusions
Eight years of working with DRGs in Croatia had not created a foundation on which the system can build and move into the activity based funding phase. Hospital efficiency seems to have deteriorated, coding accuracy is poor, and the system is encountering difficulties with its payment formula.

The problems have been noted by the HZZO which is taking steps to re-start DRG implementation by: investing in DRG system capacity building; embarking on a comprehensive DRG training program; enhancing the audit function; and reviewing the payment formula. HZZO goal is to build sustainability for the on-going development of activity based funding in Croatia.

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