Better understanding Penalties on Inpatient Readmissions: the role of Clinically Based Parameters

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Introduction

Like in many other European countries, Belgian authorities cope with budgetary restrictions resulting from the global economical context. Although the health sector was relatively preserved for a while, as from 2014 the federal government adopted several emergency measures to further reduce healthcare cost making hospitals theoretically more responsible for their spending. More recently, a reform in depth of hospital funding is being prepared and will be implemented in the years to come.

One of the emergency measures introduced on January 1st 2014 was the reduction of fees allocated to hospitals in case of inpatient readmission within 10 days or less after discharge from another inpatient stay in the same facility. In a hospital funding system that is still using, until today, the length of stay as the most important factor for distributing resources among acute healthcare facilities, monitoring readmissions would appear logical. However, this measure doesn't make use of the richness of the minimal hospital discharge data set (MHDDS), nor of any other clinically or quality based reasoning. Moreover, the amount of the penalty is fixed arbitrary by the health authority and can be adjusted yearly to meet the planned savings. The goal of this paper is to compare the current administrative measure to other approaches described in literature, such as a different readmission timeframe, PPR chains or quality indicators.

Methods

First, data of AZ Alma were analyzed. AZ Alma is a middle range regional facility counting 451 beds located in a rural area. Medical and administrative data of 2013 and 2014 were taken into account. In a second stage, we will collect similar data from a few other hospitals to validate our findings. Tracing readmitted patients beyond the institution's borders is out of this paper's scope.

Results

At a glance, we see that more than one third of the readmissions that meet the criteria for being penalized, are planned. This ratio doesn't vary over the whole analyzed period. Another interesting finding is that only a few medical disciplines are responsible for these planned readmissions, suggesting there is a solvable organizational problem.

Looking forward to the other 60% unplanned readmissions, we see a significant higher readmission rate on the first day after discharge (DAD); rate that rapidly decreases to stabilize around average values as of the third DAD. Extending this analysis to all readmissions, regardless of the criteria for penalization, we find an analogous significant higher readmission rate on the first DAD.

Using APR-DRG's, we finally apply the 3M€\textsuperscript{*} PPR chain algorithm and some quality indicators to our results to explore the clinical meaning of these unplanned readmissions and help to predict them. International literature and previously performed Belgian studies are reviewed. These results are being discussed.

Conclusions

Belgium is at the beginning of a significant (r)evolution in hospital funding. Monitoring the readmission rate is very important from a financial point of view to avoid misuse of the system as well as from the aspect of quality of care. To realize both objectives, it is essential to take clinically based parameters into account, exploiting in this way the powerfulness of the MHDDS. Doing so should help physicians and other healthcare professionals to better understand the need of readmission management and create a discussion basis to contribute together to a sustainable healthcare system by preventing unplanned readmissions where possible and to avoid planned ones.

As clustering healthcare organizations into networks will be one of the keystones of our new funding system, policy makers should also extend readmission tracking to the network level, or even, to the countrywide...
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