Deriving quality of care indicators from routine data & embed quality in financing, a way towards sustainable health in Belgium.

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Introduction

Rationale:
New regulations, a stormy economic climate, changing patient and workforce demographics, and increased consumer attention are forcing healthcare providers to improve the value of care and achieve better patient outcomes and satisfaction—all for a lower cost.

Everyone agrees that there is an obligation to give quality and patient safety a structural place in the hospital operations. By consequence, it is logical these factors also becomes embed in the hospital financing.

Problems:

Risk adjustment - Comparing caregivers performances is not easy: fair comparisons require appropriate risk adjustment.

Use of administrative data - Monitoring the quality of care requires extensive registration and is time consuming. Administrative data is recorded in most countries, it is readily available but usually set up to collect information related to the resources used. That explains why administrative data is often considered as unreliable to analyze quality of care. Hospitals bias reporting by not reporting complications.

Quality of care indicators - Negative outcome are related to multiple parameters, ranging from provider skills & experience, from resources available, but they are often the result of deficiencies in coordination and communication within a provider system. So we believe that specific outcome indicators can reflect the quality of care: high rate of readmissions, high mortality rates cannot be hidden. This was the starting point to consider the use of routine data to monitor quality of care.

Methods

Since 2000, Belgium uses 3M APR DRGs patient classification to support the hospital financing. APR DRG, the leading methodology, is already understood by the Belgian payers and providers. So we naturally use APRs for risk adjustment.

Looking for indicators able to reflect quality of care, we found available methodologies, tested elsewhere, allowing the analysis of outcomes. They show scientific evidence, are able to process large datasets and are resistant to manipulation. Many countries analyze mortality rates, readmissions or complication rates, but these methods show all their power when one concentrates on negative events that are preventable.

We have identified 3 outcome indicators, extractable from routine administrative data, without any changes to the actual Belgian registration and relying on APR for risk adjustment. We have applied them to the data collected in our benchmarking group and studied the impact.

We present results based on a large benchmark dataset collecting data from 70% of the 100 Belgian hospitals and ~65% of inpatient beds, covering almost 12 million admissions. The sample is highly representative of the national data.

Results

We present hospital ranking and evolution for standardized mortality ratios RoM adjusted. (With the introduction of APRs v30+, and the integration of the Present on Admission flag (PoA), the indirect standardization can even be improved by using the RoM at admission rather than at discharge. We need to evaluate risk of mortality when patients are admitted, rather than at the end of the stay, when complications and nosocomial negative outcomes might have occurred. A comparison between SMR based on admission RoM vs discharge RoM will be presented.)

We present also prevalence & hospital ranking for Potentially Preventable Complications. Knowledge of type & prevalence of PPC, combined with identification of high risk patients makes data actionable: a prevention plan can be implemented.

Finally we present Potentially Preventable Readmissions: hospital ranking and analysis of the most frequent
reasons for readmission in the group. Actionable information: focus on "right care, at the right time, in the right place". Priority #1 is identifying high-risk admissions during the initial admission, so preventive/corrective actions can implemented.

Conclusions
The Maryland state experience confirms that such Pay for Performance Programs produced strong results. Hospital-acquired conditions declined by 15.26% over 2 years, with estimated cost savings of 110.957 million over that period. Several other US states confirmed positive results after integration of outcome indicators (PPR/PPC) into their financing system.

Key principals that you should expect to see and/or want to see in a well thought out payment system reform for Pay for Outcome and use of preventables

1) Elimination of payment incentives that result in increased payment for poor quality outcomes
2) Financial incentives should be substantial enough to induce hospital behavior change
3) Financial incentives should be linked to quality outcomes and not to adherence to externally imposed processes
4) Financial penalties for poor quality outcomes should be rate-based and not applied on an individual case-by-case basis
5) Quality standards should be based on the outcomes consistently achieved by the best performing hospitals

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