TITLE: A national pathway to data improvement: empowering healthcare services to improve their own data in the Kingdom of Saudi Arabia (KSA)

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Introduction

KSA is undertaking a national reform programme to improve healthcare quality and efficiency, including Diagnosis Related Groups (DRGs) implementation. The Saudi Health Council and National Health Information Center (NHIC) have an overarching role, working with public and private sectors to ensure hospitals operate in adherence to performance and quality standards. High quality coded data is a fundamental requirement to measure health services' clinical and cost-effectiveness. The Center for National Insurance has already undertaken important work to improve data quality at Ministry of Health (MoH) hospitals; however, as DRG implementation expands to other sectors, broader engagement is required.

In 2023 the Australian company Beamtree and Saudi company Lean collaborated with NHIC on a Proof of Concept for data quality improvement to assess accuracy of activity data in terms of clinical coding and impact of variable data quality on cost allocation and funding beyond MoH services; and engage hospitals in preparation for ongoing data monitoring. This presentation will discuss the project's aims, results and conclusions in the context of KSA's data quality strategy.

Method

This involved a retrospective analysis of up to 12 months' admitted acute data from ten hospitals across public and private sectors to ensure broad engagement and understand differences in data quality and varying incentives for different parts of the system; and assess accuracy, complexity and resource allocation impacts of and variation in coded data. Data was analysed to Australian and Saudi standards, including:

- Application of PICQ®, Beamtree's proprietary tool to measure compliance with coding standards, accuracy and specificity of coding and DRG reporting
- Assessment of resource allocation impacts
- Accuracy of 'myocardial infarction as cause of death' data – a priority area for improving consistency of reporting
- Diagnosis reporting trends – where these are used for system planning and funding and may not represent actual care provision

Results

KSA's focus on improving data quality is to be commended. Where there are areas for improvement in data quality impacting DRG assignment and potentially cost of care calculations, these can be addressed through a focus on missing codes and specificity. With increased use of data, including through national reporting, there is a trajectory of further improvement.

Conclusions

Three priority areas are recommended for hospitals to support their continued program of improvement:

- Full data reporting: moving to 100% of admitted acute activity where this is not yet occurring.
- Data formatting and submission: continued identification of missing data fields and standardisation of data submissions for efficiency and to ensure equity in national analysis and decision-making.
- Coding quality: supporting clinical coders with quality assurance and training tools to provide them with education and feedback to address errors prior to submission, and identify priority areas for clinical documentation issues, enabling targeted training and manual audit.

NHIC is developing a new national platform to monitor, verify and measure application of coding across KSA, linking with health entities and national databases. This will provide both an incentive for hospitals – particularly those outside of the Ministry of Health – to focus on the areas above, and to monitoring progress in this.