



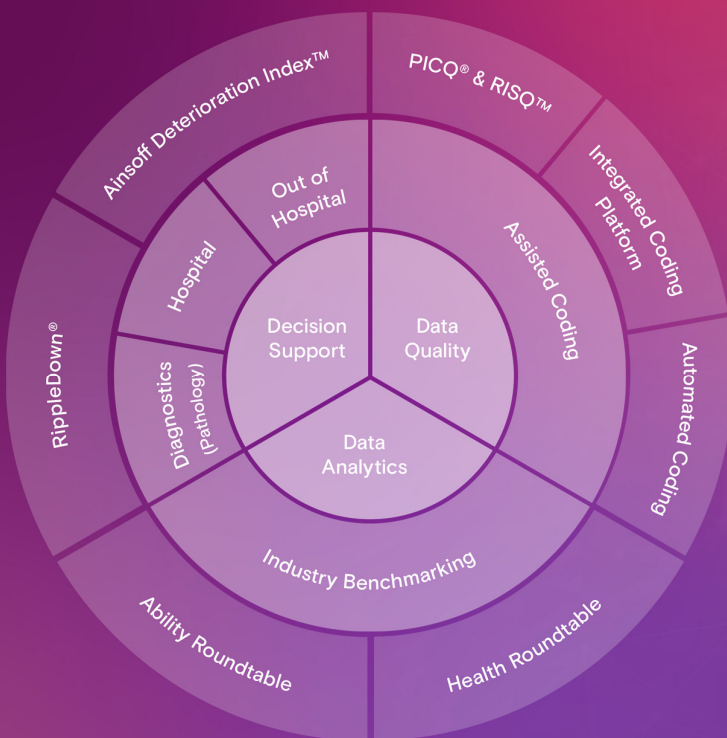
Empowering the Learning Health System

PCSI 2024

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

29 May 2024

Beamtree is committed to supporting learning health systems



Driving continuous improvement by better access to healthcare information – towards safety, quality and efficiency



مركز التميز للترميز
الطبي وحساب التكاليف
CASEMIX CENTER OF EXCELLENCE

مركز التأمين
الصحي الوطني
Center for National Health Insurance



المركز الوطني للمعلومات الصحية
NATIONAL HEALTH INFORMATION CENTER

د. سليمان الحبيب
DR SULAIMAN AL HABIB
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Vision 2030 healthcare transformation

- National reform programme to improve healthcare quality and efficiency, including DRG implementation (AR-DRGs)
- Pathway of reform in KSA starting in the public sector – spearheaded by the **Center for National Health Insurance** and the **Casemix Center of Excellence**
- Now **Council of Health Insurance** is progressing DRG implementation in the private sector
- Critical that all hospitals engage
- **Saudi Health Council/ National Health Information Center** working across all sectors to support this



Recommendations

- Standardise outcome metrics and accurate measurement of resource costs
- Ensure a universal data taxonomy across diseases and population groups
- Ensure inter-operability that allows databases to efficiently communicate with each other
- Integrate outcomes data into the systems clinicians use in their daily work
- Link individual patient data across multiple databases
- Establish robust governance processes, with comprehensive rules for data access, agreements about data sharing and guidelines for managing privacy



TRANSLATE TO ACTION:

1. EXPERT EXTERNAL AUDIT OF CODING QUALITY
2. AUTOMATE AUDIT OF CODING
3. TRAINING
4. STANDARDS

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2023 HIM governance strategy

HIM Governance Project Objectives

Establish national governance and operating models at all levels for clinical coding, documentation, queries and data collection to achieve completeness, accuracy, and quality of health information and its uses.

Establish unifying HIM structures and practices at hospitals, health clusters and at the national level based on international best practice.

Development of a HIM workforce strategy to develop and incentivize the HIM workforce.



2023 proof of concept with NHIC



Beamtree and Lean collaborated with NHIC on a Proof of Concept for data quality improvement



Assess accuracy of activity data in terms of clinical coding and impact of variable data quality on cost allocation and funding beyond MoH services



Engage hospitals in preparation for ongoing data monitoring



Method

Retrospective analysis

12 months acute data

10 hospitals

Public and private sectors



Ensure broad engagement



Assess accuracy, complexity and resource allocation impacts



Understand differences in data quality and varying incentives for different parts of the system



To Australian and Saudi standards



PICQ® CODING QUALITY

Application of PICQ®, Beamtree's proprietary tool to measure compliance with coding standards, accuracy and specificity of coding and DRG reporting



RESOURCE IMPACTS

Assessment of potential resource allocation impacts



WIDER REPORTING IMPACTS

Accuracy of 'myocardial infarction as cause of death' data – a priority area for improving consistency of reporting



SYSTEM PLANNING IMPACTS

Diagnosis reporting trends – where these are used for system planning and funding and may not represent actual care provision

PICQ®: improving coding quality

PICQ is the industry standard for assessing and reporting on the specificity of clinical coded data.

Quality assessment: uses more than 900 indicators to assess and measure coding accuracy against the ICD-10 classification.



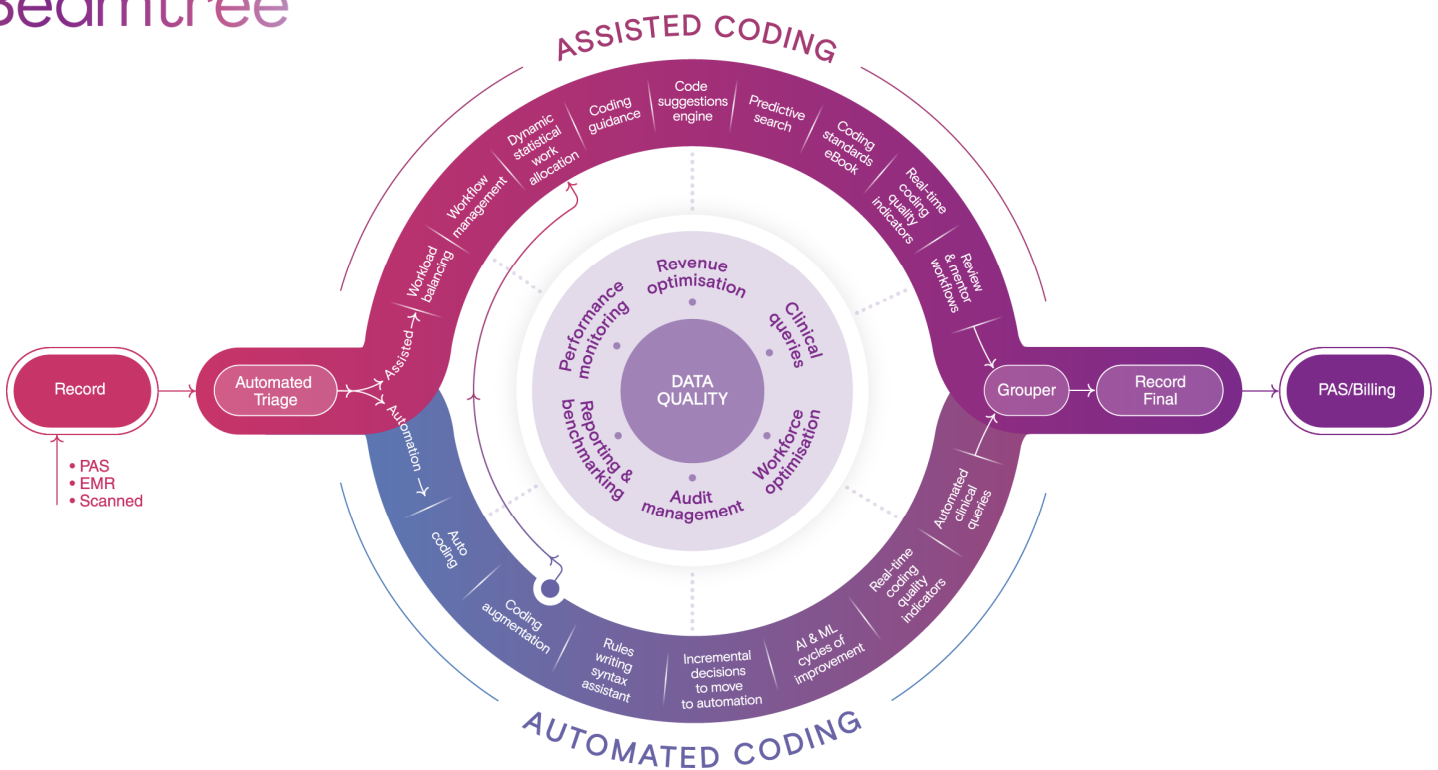
Benchmarking: across hospitals and insights for coders, clinicians, and executives to improve the accuracy and completeness of reported activity.

Education: supports learning and improvement of the coding workforce through continuous feedback.

DRG assurance: monitoring of DRG changes due to resolution of PICQ® indicators, new or modified documentation or internal auditing.

- ✓ Quality assures 100% of an organisations coded data daily
- ✓ ROI of at least 4x to 6x across health systems
- ✓ Cost of re-coding errors and associated time is reduced by up to 30%
- ✓ Embedded education for coding errors allows coders to regain up to 60% of the time they would normally spend on training and education.
- ✓ Implementation of PICQ enables a ROI of 2.5x compared to the costs of manual audits

Beamtree®



Findings and actions



Already a focus on improvement across sectors



CNHI and Casemix's efforts can be seen in Ministry of Health services



Opportunity for further improvements through a focus on



Missing codes



Specificity



Using the data

ACTIONS



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.



New national platform to monitor, verify and measure application of coding across KSA, linking with health entities and national databases.

Supporting hospitals – particularly those outside of the Ministry of Health – to focus on these areas and to monitoring progress



Thank you