CONFERENCE ABSTRACT

National Quality Assurance & Improvement System (NQAIS) – Medicine

17th International Conference on Integrated Care, Dublin, 08-10 May 2017

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Introduction: Length of stay varies by hospital, admission type, diagnosis and clinical team, while waiting lists, emergency department throughput and delayed discharges generate frustration for patients and health professionals.

The National Acute Medical Programme (NAMP) was established in 2010 by the Royal College of Physicians of Ireland and the Health Service Executive (HSE) to enable:

- Swifter access to senior decision makers

- Swifter access to investigations and interventions

- Reduced overnight admissions

- Shorter average length of stay (AvLOS)

- Optimal use of Acute Medical Assessment Unit (AMAU)

NQAIS Medicine: NQAIS Medicine supports NAMP and hospitals to re-engineer care delivery based on interdisciplinary co-operation using timely and relevant data. The system was developed by Health Intelligence, Health & Wellbeing, Health Service Executive, in collaboration with NAMP and OpenApp. It is deployed under the governance framework of the Joint NQAIS (Surgery & Medicine) Steering Group.

NQAIS Medicine is a web-enabled, role-based quality assurance and improvement system providing an evidence base to inform decisions.

Innovative "diamond" plots (simplified box and whisker) and trend plots in easily understood "ribbons" are displayed by hospital (or group), admission category, diagnosis and clinical team. Patient profiles (age, co-morbidity, admission day/time etc.) can be flexibly explored. Selected records can be identified for chart review. The predictive impact of meeting targets are summarised by the novel computation of the potential "number of beds freed per day" which could be made available for other patients.

The Clinical Classification System (CCS) - Agency for Healthcare Research & Quality (AHRQ) - converts the principal (admission) diagnosis into clinically meaningful groups. The Charlson Index is used to convert secondary diagnoses into a "complexity" score.

AvLOS and readmission rates are dynamically analysed in the context of data-driven targets: AvLOS per CCS diagnosis as achieved by top quartile (Irish) teams; 50%+ all acute medical admissions should be routed via the AMAU of whom 25% should be discharged home.

AvLOS is computed for each CCS nationally in the context of its trim point - national 75%ile + 3 X (25% – 75%ile).

If the target AvLOS is achieved and AMAU usage optimised, the potential impact is translated into simple summary metrics - beds used within, close to and off target. These metrics identify and prioritise processes in hospital most likely to reveal potential learning and reengineering opportunities for using beds for other patients.

Implementation: A train-the-trainers approach within hospital groups, guided by a national training team, supports the national deployment of the system.

NQAIS Medicine combines science and art to provide detailed but very understandable feedback to unequivocally identify areas for review. Modest meeting of targets would transform a system struggling to cope with increasing demands. The successful implementation of NAMP, using NQAIS Medicine as a continuous improvement enabler, requires sustained focus and commitment from clinicians and management alike. The system is currently being deployed to all acute hospital in Ireland, and is being extended to encompass surgery and other domains within a single system referred to as NQAIS Clinical.