**National Quality Assurance and Improvement System (NQAIS) Clinical**

**Background**

NQAIS Clinical is an online interactive application that analyses hospitals’ own HIPE data to provide detailed feedback to clinicians and managers. The primary focus of NQAIS Clinical is to optimise length of stay (LOS) for safe patient care in all publicly funded Irish hospitals.

NQAIS Surgery and Medicine have been integrated into a single system called NQAIS Clinical. Maternity, new-born, non-operative surgical cases and medical elective day cases are also included.

**Development**

The evolution of NQAIS Clinical was led by Health Intelligence (Health & Wellbeing HSE) in partnership with the National Clinical Programme in Surgery, National Acute Medicine Programme, National Obstetrics and Gynaecology Programme, National Clinical Programme in Trauma & Orthopaedics, Integrated Care programme for Older Persons, Emergency Medicine Programme, the Children’s Hospital Group, hospital group representatives and the Acute Hospitals Directorate. The application was developed by OpenApp, Dublin.

**Aim**

The overall aim of NQAIS Clinical is to provide interquartile comparisons of average length of stay (AvLOS) for teams providing similar care.

In addition the metrics can be used by clinical and management leads to re-engineer delivery of care based on interdisciplinary co-operation using their own data.

**Functionality**

The application enables the dynamic processing of data online to inform decision making. The driver of analysis is the admission/principal diagnosis or the principal procedure performed.

The user dynamically controls the content of the displays and reports using the gold filter buttons in the application. Results can be displayed by diagnosis, procedure or specialty. Patterns of interest can be explored easily and in detail.

It identifies which healthcare teams are in the top quartile in terms of achieving optimal inpatient lengths of stay, day case rates and day of surgery admission rates. Important variances from the top quartile patterns of AvLOS summarised in the indicative metric referred to as red bed days are displayed in a visually attractive, simple and impactful way.

This information, together with local knowledge, allows the processes and approaches of top quartile teams to be identified and shared with other teams delivering similar care.

**Understanding the concept of “red bed days” in the application**

The primary focus of NQAIS Clinical is to optimise length of stay (LOS) for safe patient care in all publicly funded Irish hospitals.

It is important that the “red bed days” metric is interpreted as an optimistic (indicative) estimate of the potential for improvement in bed use.

The intended purpose of the metric is to help prioritise areas in a hospital(s) for potential quality improvement initiatives to optimise length of stay in any hospital domain. The metric should be interpreted in light of the following considerations:

1. It is a summary metric derived from peer averages
2. It is retrospective - based on HIPE (discharge) data
3. It can be influenced by sudden and marked variations in discharge processes in the period of interest such as ward closures or discharge initiatives
4. It assumes that bed occupancy is constant in the period of interest
5. It assumes beds used in the admission streams are available seven days a week
6. It should not be used as an indicator of the number of beds that are required or not required in the system
7. It should be interpreted in the context that not all teams in all hospitals can be in the top quartiles (i.e. 100% cannot be in the top 25%)
8. It should be interpreted as a way of prioritising bed usage to manage additional patients e.g. waiting lists and patients awaiting admission from the ED

*NQAIS Clinical is a key enabler for quality improvement initiatives in the delivery of safe patient care.*

**Implementation**

The NQAIS Clinical Steering Group oversees the application on behalf of the Acute Hospitals Directorate, HSE. Users can be assigned access to the data at national, hospital group or individual hospital level.

The application is hosted within the Health Atlas Ireland technical and security infrastructure which is managed by the Health Intelligence Unit (HIU), Health and Wellbeing, HSE.

NQAIS Clinical is being implemented in all hospitals and hospital groups. It will enable healthcare staff to review and prioritise areas of hospital practice in an open, evidence-based and clinically appropriate manner so that available beds can be used in the best possible way for all patients.

The application is designed for use by senior clinicians and managers including healthcare teams, clinical directors, business managers, national clinical leads, the Acute Hospitals Division, quality and patient safety teams and individual clinicians.