Transformation Partners in Health and Care

Case study
Endoscopy Demand and Capacity Modelling, Epsom and St. Helier University Hospitals NHS Trust

The context:

In 2021 the Transforming Cancer Services Team (TCST) supported system level demand and capacity modelling for endoscopy services across south west London. Following this, colleagues from Epsom and St Helier were keen to refresh the demand and capacity modelling for endoscopy to support with capacity planning, improvement projects and to validate concerns around service pressures.

Our role:

TCST supported a demand and capacity refresh by working closely with colleagues from the trust, offering expertise around the modelling data requirements, analysis of modelling outputs and a detailed report.

The same approach as the original 2021 modelling was applied using the National Demand and Capacity Team's Core Model, which calculates the capacity required for the service against a demand baseline.

The core model includes historical weekly endoscopy requests per urgency (routine, urgent, suspected cancer) including emergency/in-patient and surveillance demand. Specific parameters were applied such as patients who did not attend (DNA) along with the current funded capacity information and any additional capacity provided.

The core model then calculated the required capacity needed for the endoscopy service at Epsom and St Helier to ensure patients are seen within their targeted wait times and are not delayed.

The outcome:

- Summary of outputs including; demand profiles for elective, non-elective, general anaesthesia and respiratory; comparison between capacity position currently and in 2021, patient backlog position; overall endoscopy growth, per procedure and urgent suspected cancer growth; five year capacity forecast; efficiency metrics; and recommendations for improvement.

- Detailed report providing an objective assessment of the capacity position for endoscopy, aligned to the anecdotal concerns raised.

- Evidence from modelling supported improvement plans for the service to retain and grow Colon Capsule Endoscopy capacity, secure additional capacity for Trans Nasal Endoscopy procedures and increase GA capacity to meet the growing ERCP demand. This reduced delays for patients and achieved the faster diagnosis standard for suspected cancer referrals.

- Annual demand and capacity modelling supports long term improvement plans, ensuring the service has the required capacity and maintaining the endoscopy waiting list within the sustainable range. Updating the capacity and demand analysis helped understand the change from the baseline.

For further information about demand and capacity modelling please contact: sarah.cooper57@nhs.net