

CASE STUDY

Royal Papworth Hospital NHS Foundation Trust - Theatres & Cath Labs Improvement Programme

Background

A world-renowned Cardiothoracic hospital, famous as the hospital that performed the first successful heart transplant in 1979 and, in 1986, alongside a team from Addenbrooke's Hospital, the world's first heart-lung and liver transplant, the Royal Papworth hospital needed to take stock to address poor theatre and cath lab capacity utilization levels and, growing patient waiting lists. It's history and reputation had its positives and its negatives posing a serious barrier to change with mention of the "good old days" being ever present.

In 2019 The Royal Papworth moved from Papworth Everard, a west Cambridgeshire village to a purpose-built Hospital at the Cambridge Biomedical Campus. The Theatres layout in the new hospital, didn't include anaesthesia rooms which meant that pre-knife to skin anaesthesia activity couldn't be taken off-line, adversely extending patient journey times through theatres and impacting theatre utilisation by adding on average, about 30 minutes to each theatre procedure.

Having undertaken a successful outpatients Meridian Improvement Programme in 2019, in February 2022, with the easing of Covid restriction, the Executive team at the Papworth Royal Hospital invited Meridian to submit a Productivity Improvement Programme proposal for its theatres and cardio-catheterization laboratories.

The Proposal

The improvement programme proposed involved a 12 calendar-week Implementation Project to deliver the following:

- Annualised and measurable financial improvements equivalent to £198,900
- Effective 6-4-2 Theatre & Cath Labs Scheduling to increase theatre and cath labs capacity utilisation
- Control!

To deliver this, it was proposed that the following would need to be put into place in theatres and cath labs:

- Daily Weekly Variance and Operating Reports and Daily Huddles
 - Clear definition of operating hours
 - Suitable short interval controls (SIC) implemented on all areas
- Productive Day
 - Realign resources to areas of most need and for theatres including staffing to AfPP Guidelines
- Define, Agree & Install
 - An enhanced 6-4-2 Scheduling Process
 - Planning norms and targets for theatre and cath lab lists, whilst ensuring adherence to contracted job plans
- Productive theatre and cath lab lists

Project

The initial focus in theatres and cath labs was two-fold:

- A review of rosters to ensure that staffing levels were correctly aligned to theatre and cath lab operating hours
- The development and implementation of theatre and cath lab logs to:
 - Capture delays and issues adversely affecting patient flows
 - Provide visibility of utilization and the causes of theatre and cath lab under-utilization
 - Support short interval control by coordinators to minimize delays in patient flow

A review of the 6-4-2 theatres and cath labs scheduling processes highlighted a need to review and where necessary revise the following planning norms:

- Procedure duration
- Pre-surgery anaesthesia duration
- Post-surgery duration
- Changeover times

This was achieved through a mix system data analysis and a programme of observations of non-clinical critical path activities.



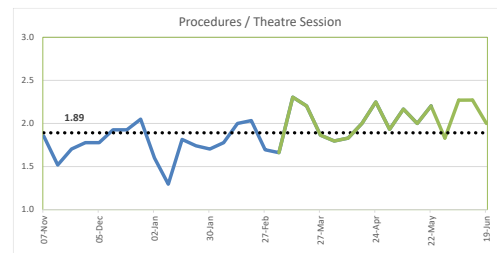
A strong level of engagement with clinicians from nursing and ODPs to surgeons, cardiologists, anaesthetists, radiographers, and physiologists, to the Operations Management and the theatre and cath lab booking teams was required for the sign-off of performance KPIs, modifications to planning norms and enhancements to various management system elements throughout the project.

Throughout the implementation Meridian spent much of their time carrying out one-to-one coaching of theatres and cath labs staff to embed the new practices.

Results

By working closely with all staff in theatres and cath labs meridian were able to break the inertia that had characterised the Royal Papworth's performance since their move in 2019. Theatre and cath lab staff had started to see the benefits that would result from more effective issue logging, a more effective review of issues and more robust and frequent reporting of theatre and cath lab utilization and plan attainment.

There were significant measurable improvements as illustrated below at the end of the project:



- In theatres, procedures per session had increased to 2.07 from a base of 1.89, representing a 9.7% improvement
- In cath labs, procedures per operating day had increased to 34.7 from a base of 32.5, representing a 6.8% improvement

- Financially, by the end of the programme improvements far outweighed the £198,900 costs and was expected deliver benefits valued in the millions of pounds

At the end of the project the COO at the Royal Papworth Hospital confirmed

“The financial benefits for the Trust are significant, with increased activity levels expected to generate millions of pounds of additional income. More importantly I am confident that we will continue to see further reductions in patient waiting times.”

Contact Us

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Meridian Productivity was established 1996 and has been extensively involved in the Healthcare industry across the United Kingdom, Republic of Ireland, Holland, Belgium, Spain, and the Czech Republic. Meridian assists clients across the Healthcare environment (private and public) in achieving improved operating efficiencies and performance, through the development of bespoke management and behavioural processes. These processes are all designed and implemented to ensure that our client organisation can be assured of returning the best performance on the resources applied.

We work with about 20 to 25 organisations a year, both in the public and private sectors, helping them to reduce their operating costs, improve their productivity and provide value for money.

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