App drives improvement in theatre use

Inefficient theatre utilisation can have far-reaching consequences for patients, staff and whole organisations. Andrew Monahan looks at how one trust has implemented an innovative solution to improve theatre effectiveness and reporting

The **NHS efficiency map** is designed to help NHS organisations deliver their savings plans. One way is by sharing experience and good practice – in this case, through the in-house development of an app to drive improvements in theatre utilisation.

Wrightington, Wigan and Leigh NHS Foundation Trust (WWL) is a major acute trust serving the Wigan Borough and surrounding areas. The trust has three hospital sites, a state-of-the-art outpatient centre and a dedicated ophthalmology centre. Its total income for 2017/18 was £310m and the trust has 4,670 employees (based on whole-time equivalents).

WWL's theatres have a history of numerous issues stretching back many years. Poor theatre utilisation, a high ratio of cancellations and unmanageable shift patterns were resulting in high levels of agency workforce, low morale among staff and recurring budget overspends.

To remedy the situation, while taking into account the additional challenges of being spread across three sites and a lack of staff engagement, a number of working groups were formed.

These included clinical leads, theatre staff, finance, business intelligence,

Below: Previous theatre reporting at Wrightington, Wigan and Leigh NHS Foundation Trust and (left) the new theatre reporting system

Through the craftsmanship of its in-house business intelligence team, Wrightington Wigan and Leigh NHS FT has transformed its theatre reporting

human resources and the project management office.

The purpose of the working groups was to improve theatre effectiveness and reporting.

Intelligent, real-time reporting
The groups met regularly, with interim updates via social media to ensure engagement and enthusiasm levels remained positive.

Services had been reliant on paper reports, with each geographical site having their own, separate, well established way of doing things. Significant amounts of data were being held in different systems, recorded in different ways and reported via varying methods.

Through the craftsmanship of its in-house business intelligence team, WWL has transformed its theatre reporting from the very manual systems to interactive, real-time systems, as shown in the images on the previous page.

The characteristics and advantages of the new theatre reporting system include the following:

- The apps are available on large, interactive touchscreens positioned within clinical service departments and outside theatres across the three sites
- Information is now updated in real-time and without any manual involvement
- The services can receive far more insight and depth than ever before
- Queries and theories can be explored and answered on the spot
- Presented in this way, the data has been crucial in identifying and highlighting variation.

Focused workstreams

Once reporting was established, the working groups were able to turn their attention to more focused workstreams.

For the Leigh workstream, this meant capacity. In 2016/17, approximately 180 planned theatre sessions were cancelled or unused due to surgeons or

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suitable patients being unavailable.

By reducing capacity to activity levels, shift patterns have improved, the need for agency workforce has been reduced and all patients can still be accommodated, with the 18-week access targets being maintained.

The Wigan workstream was concerned with establishing the correct staffing budget for the revised four rotas (anaesthetics, recovery, scrub and theatre assistants) resulting from the business intelligence work.

Rather than one large budget, individual budgets were created, which enabled greater control. In addition, ownership of the budgets has been delegated to a lower, more hands-on level (a rota co-ordinator).

The final workstream aimed at ensuring that continuous improvement became embedded, with each specialty required to develop and monitor their own individual improvement plans.

What a difference good data makes

The results of the improved utilisation and reporting are impressive. There has been an increase in theatre utilisation of 8.9%; there has been a 31% reduction in cancelled sessions; early starts are down by 44%; late starts are down by 17%; and early finishes have improved, reducing by 20%.

Naturally, these outcomes have made a significant impact on the finances. A total of £269,000 of recurrent budget has been removed as part of the cost improvement programme, with no loss in activity.

Previous overspends have been reduced by £241,000 per annum, and

the increased levels of activity as a result of the improvements in theatres utilisation equate to approximately £870,000 in additional income.

That's not a bad return on investment for an app that cost £20,000 and nine interactive touchscreens costing a total of £45,000.

As the deputy director of operational performance for surgery commented: 'The app is easy to use, delivering clear information and good data to drive improvement programs. It's simply brilliant'. ○