

Dedicated ward pharmacy

By providing a focused pharmacy support for each ward, rather than spreading pharmacists across several different wards, is it possible to improve patient outcomes in a cost-effective manner? Andrew Monahan looks at how East Lancashire Hospitals NHS Trust explored this question and implemented an innovative service redesign over the past couple of years

The *NHS efficiency map* is designed to help NHS organisations deliver their savings plans. One way is by sharing good practice – in this case, through a different approach to ward pharmacy support.

East Lancashire Hospitals NHS Trust (ELHT) was established in 2013. It is a large integrated healthcare organisation providing acute secondary healthcare and adult community services to the people of East Lancashire and Blackburn with Darwen.

Employing around 8,000 staff, the trust treats more than 700,000 patients each year, in 1,401 beds across five different sites.

In addition to the full range of acute hospital services, ELHT is also a specialist centre for hepatobiliary, head and neck, and urological cancer services. Its accounts for 2017/18 report total income of £495m.

Like most NHS hospitals in recent years, ELHT has experienced increasing hospital admissions, numerous vacancies across both nursing and medical workforces, and an ageing population with ever more complex co-morbidities. And although all suggestions for improvements are very much welcomed, naturally they must be partnered with a robust business case.

A conversation between one of the lead pharmacists and the directorate accountant about the potential impact of increased pharmacy support, led to the setting up of dedicated ward pharmacy (DWP), designed to use the pharmacy team's unique skillset to improve medicines optimisation. The next step was to produce a robust business case.

Phased implementation

The rationale of the project was simple. Rather than covering two or more wards per day, they planned for pharmacists to focus all their time on one single ward, with an appropriate level of pharmacy technician support.

By taking part in consultant ward rounds and remaining on the wards afterwards to assist with discharge planning, counselling and suitable pharmaceutical support, the aim was to reduce prescribing errors and improve patient flow and experience. As a result, it was expected that a more than £1m return on the investment required in pharmacy workforce could be achieved.

After a successful pilot on a single ward, the service was expanded in phases. Phase one started in January 2016 covering four wards, with phase two increasing this to eight wards in November 2016.



A typical ward round at ELHT, including dedicated pharmacy support

The project's phased implementation was essential in convincing the executive board it was a worthwhile investment

Full roll-out across 33 wards would require £1.3m of investment in pharmacy workforce, so the phased implementation was essential in convincing the executive board that it was a worthwhile investment that should be replicated across the trust.

To overcome the challenge of collating the appropriate data to identify that the new arrangements were having an impact, the team used a Power BI application. This produced validated,

easily interpretable reports so that individual ward performance could be analysed and fed back, enabling iterative improvements to be made.

They also developed a tool to capture and analyse their interventions, which revealed hundreds of safety interventions occurring each week.

This provided the evidence to explain why people were getting better faster and not being readmitted, and how harm reduction improved patient flow.

As was hoped, the data was positive. The two phases indicated that savings from pharmacy interventions affecting drug acquisition costs could equate to more than £1.3m savings per annum, if replicated across all wards.

The data also identified significant reductions in readmission rates for the DWP wards compared with similar wards receiving traditional pharmacy support.

As a result, the next phase, involving 24 wards, was given the go-ahead to begin in December 2017.

With phased internal funding secured, an additional challenge was to recruit and train the extra workforce required to provide the additional pharmacy support necessary.

ELHT achieved this by reinvigorating its induction processes, adjusting the pharmacy management structure and introducing a buddying system.

Guidance on evolving the service in an empirical and methodical way was achieved through a year-long course on spread strategy, supported by its local Academic Health Science Network (AHSN).

Using quality improvement science

There have been glowing patient and colleague comments and feedback regarding the updated service

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ensured that the quality of service was not detrimentally affected by the growth in the workforce over the 18-month project implementation.

Benefits of the redesign

In the 18 months since the beginning of the first phase in January 2016, the outcomes on DWP wards have been significant:

- **Medicines reconciliation of 76%**
This has risen from an average of 30% in 2015/16 to 76% in April 2018, with a future target of 90%
- **5% reduction in readmissions**
The reduction has been attributed to better overall care and routinely referring all eligible patients to their community pharmacists for post-discharge pharmaceutical care
- **0.5 day reductions in length of stay**
This compares with an increase of 1.5 days on non-DWP wards, which has mainly been attributable to patient health improving faster and the avoidance of hospital-acquired blood clots
- **A marked shift from afternoon and evening discharges into morning discharges**
This is contributing to 10% fewer people leaving after 5pm from DWP wards.
- **Drug spend rises at a lower rate than the national average**
A rate of 1.7%, compared with a national average of between 5.2% and 11.1%, has been achieved through improved utilisation of patients' own medicines and earlier switches from expensive intravenous medicines to oral equivalents. The lower rate of increase has equated

to approximately £725,000 cost avoidance per annum.

- **6,718 safety interventions recorded in 25 days**
This figure includes 986 patients having unintentionally omitted medicines prescribed, 273 inappropriate medicines stopped, 220 course lengths clarified, and 130 intravenous to oral switches initiated.

Positive feedback

However, it is not just the measurable statistics that have improved. There have also been glowing patient and colleague comments and feedback regarding the service, including the following:

- One of the ward managers described the project as having made 'a significant improvement in service delivery'
- Feedback from a consultant surgeon: 'A fantastic service, provided by very dedicated pharmacists, which has been very interactive and educational for me'
- Comment from a patient: 'I have a better understanding of why I am taking what I am taking'

ELHT has shared its experiences via social media channels and has also received a number of visits from hospitals across the UK.

Additionally, and as part of working with the local AHSN, the trust has produced a short film to demonstrate the service, its outcomes and next steps, which is available to download and view using this link: <http://bit.ly/DedicatedWardPharmacy>. 