

Discharge case study **University Hospitals of Leicester NHS Trust**

Improvement to the Medicines Management system for discharge of patients

Overview

University Hospitals Leicester NHS Trust (UHL) provides acute care services to the one million residents of Leicester, Leicestershire and Rutland also providing specialist care in cardio-respiratory diseases, cancer and renal disorders for an even larger population. Care is spread over several sites (the General, Glenfield and the Royal Infirmary) and UHL employs over 12,000 staff.

Background

Prior to 2014 UHL used 2 systems for the discharge of patients.

The Electronic Prescribing and Medications Administration (EPMA) system was used for prescribing and the other was Sunquest's Integrated Care Environment (ICE) system which provides clinicians with an electronic discharge letter used with patients while they are in hospital. Upon completion the letter is sent to the GP's Practice System. ICE discharge allows providers to meet the UK guidelines for an immediate discharge summary to the GP within 24 hours.

It was identified that it would be safer and more expedient if the two systems could be merged and so the integration of EPMA and ICE was set up in August 2014. It was decided that this change would be an improvement through simplifying the discharge process and eliminating transcription errors in the prescribing of drugs to take home (TTOs). It would also save junior doctors' time.

Until 2014 both systems were being used but there was no crossover between them. Doctors had to manually transcribe drugs into the ICE discharge medication section of the letter from the EPMA system which was inherently less safe than an automated system.

Understanding the problem

UHL staff were under increasing pressures to get patients who are medically fit discharged as soon as possible and TTOs were seen as one of the key blockers to this taking place in a timely manner. Discharges were becoming problematic and

solutions to improve the efficiency, but not to compromise patient safety, were needed.

A significant prescribing error rate had been identified with TTOs and this was noticeable with having to manually transcribe the drugs from one place to another. It was felt that the safety of patients would improve if the hospital could find a way to merge the two systems thus reducing or eliminating transcription errors. It was also felt that with the additional pressures to transfer patients that the error rate could increase further if no action was taken.

Solutions

The pharmacists in UHL worked with software manufacturers to develop an interface between the two systems. In order to help make the project work junior doctors, senior clinicians and pharmacists were involved with the aim of developing a user friendly clinically safe system.

To make the system safer, drugs imported from the EPMA system cannot be amended once transferred on to the discharge letter. The doctor has to go back and change the EPMA system again and then transfer if any changes are needed. This acts as a failsafe system to help prevent errors. The EPMA is the true drug chart and the medications have to be the same on both the EPMA and the ICE system.

Impact and outcomes

Patients

- The integration of the two systems has eliminated transcription errors.
- There has been a decrease in the number of clinically significant prescribing errors (although not in the overall number of errors).
- TTOs are dealt with more quickly which has led to quicker discharges and that TTOs are no longer seen as causing delays in discharge

Whole System

- The whole system is slicker and quicker.
- There has been a reduction in frustrations for junior doctors.
- The system is more user friendly as there is only 1 system instead of 2 on the screen at any one time.

Further Quality Improvements and Spread

This improvement has been presented at the national Sunquest user group conference. Several other trusts have visited to look at the improvement. However it is seen as a temporary measure as the hospital is now planning to move to Electronic Patient records (EPR) and a bid is currently at the Department of Health and NHS England for approval.

Top Tips

- Be clear on the desired process.
- Consider integration prior to implementation of new clinical systems.
- Think about evaluation before you start the project.
- Test the new system rigorously before you go live and have a contingency for if things go wrong at first. There were some unexpected errors in coding relating to 1 out of 100 prescriptions and so the new system had to go on hold whilst they were sorted out.

For more information about this project contact:

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Themes

- **Electronic systems and records**
- Medicines reconciliation
- Systems that ensure provision of high quality information