



# INTEGRATED DIGITAL CARE RECORD

## Success Story

## Safer Hospitals, Safer Wards Technology Fund

Nottingham University Hospitals NHS Trust

May 2015

# THE CHALLENGE

The early identification of signs that warn of a patient's deteriorating condition is crucial to improving patient outcomes, recovery time and their resulting experience. Recognise and Rescue, a hospital-wide programme at Nottingham University Hospitals NHS Trust (NUH), highlighted the shortcomings of an early warning system (EWS) that relied on the manual calculation of observation-to-score conversions and the use of phone calls to communicate escalations to the relevant clinician. Incident analysis also identified handover as a potential safety risk. As such, NUH introduced an innovative mobile solution that would address both EWS and handover.

Following a successful bid for 'Safer Hospitals, Safer Wards' Technology funding, NUH selected a solution from Nervecentre to make improvements.

This e-Observations and escalation system identifies abnormal observations and triggers a text-message-style alert that is sent to the relevant clinician when scores indicate that a patient's condition is deteriorating. eHandover allows medical and nursing handover notes to be available to all team members at all times, reducing duplication and the risk of information degradation.

# IMPLEMENTATION OVERVIEW

Once Nervecentre had been identified as the provider of choice, work began on setting the parameters and algorithms that would calculate scores, prompt alerts and make contact with the appropriate clinicians.

As every member of the medical and nursing staff required a new mobile device in order to receive the alerts, Technology Funding was used to procure 3,500 Apple devices, including iPhones, iPod Touches, iPads and iPad Minis, as well as shared devices that are available on wards for use by other members of the wider multi-disciplinary team, including physiotherapists and dieticians.

The system was piloted on an Adult Medical, Respiratory Assessment and a Children's Assessment ward between May and June 2014, during which time training requirements were identified for the roll-out to other areas of the Trust. The staged whole-hospital implementation averaged 3 wards every week and was supported by a team of dedicated Band 6 nurses who successfully cemented the positive perception of the project as a clinically-led, rather than an ICT-led, system.

# RESULTING BENEFITS TO PATIENTS AND STAFF

It is hoped that more efficient escalation and communication will lead to improved outcomes for patients, but it will clearly take time for this to be measurable. Process measures (such as completed full observation sets and accuracy of score calculations) have already been observed.

Surveys have highlighted a distinct improvement in staff satisfaction levels in part due to the noticeable time savings created by having patient notes immediately to hand and the capacity to phone doctors directly from the mobile.

"By implementing the e-Observations and eHandover system, we have made great strides towards becoming a paper-light Trust. This has also been an excellent opportunity to re-educate and refresh our clinical staff's knowledge and understanding of EWS." **Andrew Fearn, Director of ICT Services**

"The fact that you don't need to leave the bedside of a child you are concerned about still delights me on a daily basis." **Di Mabbs, Band 6 Ward Junior Sister**

# LESSONS LEARNED

NUH's e-Observations and e-Handover project has been an outstanding success but, as with all major implementations, there have been challenges; not least in the apprehension felt by many staff before the programme got underway. Concerns about the potential volume of escalations have proven unfounded and doctors have not been overwhelmed by additional referrals as they initially anticipated.

The general reticence felt when moving from a manual process to a digital solution was overcome by the peer-to-peer nature of the implementation and the critical role of the team of nurses championing the system amongst colleagues and engaging with those affected by this positive change.

# IN A NUTSHELL

## SOLUTION:

e-Observations, eHandover and eTasks completed using handheld devices

## IMPLEMENTATION:

May/June 2014 – ongoing

## FUNDING:

Safer Hospitals, Safer Wards

## PATIENT BENEFITS:

Improved patient outcomes and patient safety, due to the speedy and accurate identification of deteriorating conditions

## STAFF BENEFITS:

Faster and more accurate observation process using handheld devices, automated handover process and improved communications between clinical staff

## TRUST BENEFITS:

Improved completion rates of observation notes and higher accuracy levels, resulting in improved patient outcomes

## RESULT:

Live in over 60 wards and over 1 million e-Observations taken by May 2015. First hospital to roll out to Maternity, neurosciences, Children's Hospital and Obstetrics wards

# FUTURE

The Trust is exploring using the generated data in ever new and exciting ways, including Trust-wide patient status at a glance, and has plans to develop the opportunity that a handheld device for every doctor and nurse brings, such as mobile access to clinical guidelines at the patient's bedside, thus improving patient experience and outcomes yet further.

# CONTACT

**NAME:** Caron Swinscoe  
**JOB TITLE:** Chief Nurse Health Informatics and Head of Clinical Engagement  
**EMAIL:** caron.swinscoe@nuh.nhs.uk  
**WEB:** www.nuh.nhs.uk  
**TWITTER:** @nottmhospitals

