

## **Case Study: Portsmouth Hospitals NHS Trust**

### **Best use of IT to promote patient safety – Hospital at Night**

*Portsmouth Hospitals NHS Trust has reduced out of hours adverse deaths by 100% following implementation of their mobile Hospital @ Night solution.*

This Nervecentre Software mobile solution automates the Hospital at Night processes. Ward requests are entered onto the online software and are electronically sent to the hospital at night coordinators who assign the tasks the relevant doctors or nurses with a single click. The mobile software intuitively contains real-time information of which doctors are present in the hospital, where they are and how busy they are. By using this information to coordinate requests from wards, significant benefits can be achieved in both efficiencies and safety.

Since the implementation of Hospital @ Night at Queen Alexandra Hospital in Portsmouth, results have shown huge improvements to patient care. Notably, the system has significantly reduced wasted time allowing nurses and doctors to spend more time on the wards with the patients. The latest results boldly show that there has been 100% reduction in out of hours adverse deaths and a 50% reduction in red and amber incidents.

#### **Project Scope**

Portsmouth Hospitals are a large Trust with 1000 inpatient beds and have an overnight call volume of 200-300 calls across the Trust. They previously used the traditional bleep/telephone and paper system method that was time consuming and left room for errors in communication, response time and detail. Common themes in incident review at night were errors in communication, patients not being tracked, no escalation and poor recording of intervention.

Therefore, the Trust looked for an effective technology solution that would have immediate impact to staffing and patient safety. The trust identified Nervecentre Software as the supplier that could provide a bespoke mobile IT solution to meet their long-term objectives and would be easily integrated into other important hospital systems. The Nervecentre Software 'Hospital @ Night' provides an electronic task management solution for the out of hours hospital function.

The project was set-up, scoped and implemented by a small team of clinicians and ICT and included a project manager who is the Nurse Consultant for Hospital at Night. The project involved totally changing existing out of hours processes, change control and reviewing staffing roles/ All staff involved

were consulted during the scoping phase for their clinical opinion and feedback. This consultation continued throughout the project to ensure there was smooth transition to the new system and that all processes were covered. Following an initial pilot, and a series of learning and training, the mobile Hospital at Night Solution was rolled out and immediate positive results were seen and staff feedback was very positive.

## **Results**

During a 5 month comparison of the new Hospital @ Night system compared to the same period the previous year highly positive patient safety outcomes were found. 100% reduction in out of hours adverse deaths and a 50% reduction in red and amber incidents.

Through use of the software that can be accessed via mobile devices such as ipads, the time savings from now not needing to chase bleeps, locate clinicians, get data from other sources has ultimately meant that the nursing teams have significantly more amount of time to spend caring for the patient, supervising and learning. In fact, the Hospital at Night Team have estimated that 10,000 hours across the organisation per annum of coordinators/practitioners, ward nurses and doctors is now released for better use to care for the patients.

## **How it works**

The software provides an electronic task management system to automate the Hospital at Night process. All ward requests are entered onto the online system and are processed by the hospital at night co-ordinator. The coordinator can see in real time which doctors are on duty, where they are, their skill set and how much work they each have to do. The software enables them to allocate the most suitable and available person to each task. In the past, they might have called a doctor who was already snowed under, whilst others with the right skills were available and free to help.

Previously the Hospital at Night coordinators, who are highly skilled clinical staff, were desk bound by the need to be near a telephone and had to deal with hundreds of calls per shift. Often they could have up to 10 bleeps waiting, with no visibility of priority. So if one of the bleeps related to a patient whose condition was critical, the implications could potentially be life threatening. Now armed with all the information they need, they can instantly prioritise and process all the messages using a portable tablet or PC, enabling them to spend far more time back on the ward helping patients or supporting junior members of staff.

Additionally, Portsmouth Hospitals use the wide range of data that is collected by the software to plan staffing/workforce more efficiently and for other management information systems/reporting needed by the Trust.

### **Hospital at Night Software in Acute NHS hospitals**

All NHS hospitals in the UK have the same 'out of hours' risks that Portsmouth NHS Hospital originally had. The problems are not niche to Portsmouth Hospitals and these issues have been highlighted many times in the nationwide media. The traditional pager-based system of communicating with medical staff in UK hospitals does not do enough to maintain patient safety and is no longer fit for purpose. Information Technology is essential in transforming a hospitals 'out of hours' care as the efficiencies it can offer is cost-effective in comparison to having to provide additional nursing and clinician staff and also offers a long-term consistent and highly effective solution. Therefore, the mobile Hospital @ Night solution used at Portsmouth can and should be replicated elsewhere.

When considering the problems associated with 'out of hours' care, other NHS Trusts should be aware that to operate the mobile software solution Portsmouth Hospitals Trust had to make sure their w-fi and server capabilities were suitable to be able to support the software and to provide a continuous service. This step was part of the original scoping project the Trust did before implementation.

As the project involved big changes to staff working practices and procedures another key step was to provide comprehensive ward and classroom based education to ensure that all users of the new system understood how it worked, how to use the system, trouble shooting and of course understand what benefits will be achieved by using the system for them and the patients.