

Safeguarding people with mental health needs in an inpatient environment

The challenge

Supporting people with complex mental health needs in a purpose-built inpatient environment can help to inspire recovery as well as making more efficient use of acute services. However some of these patients may be at risk of falls or self-harming, requiring high levels of supervision.

How can technology help to safeguard patients as they receive treatment, reducing the amount of staff time required to monitor their wellbeing?

“ New Haven has changed the way older people with mental health illnesses receive care and treatment in an inpatient environment. However, we found that we were experiencing high levels of patient falls, particularly during the night, and as a result needed to dedicate significant resource to observe patients. The telecare system has been great, it enables us to be there for patients when we're needed to prevent falls, but otherwise nurses can be providing care rather than monitoring patients just in case.

**Paul Stokes, Assistant Clinical Practitioner,
Worcestershire Health and Care NHS
Trust**

What we did

New Haven is a 30 bed, 70 staff mental health unit in Bromsgrove, Worcestershire, which opened in 2013. The unit is fully equipped to meet the complex mental health needs of older adults by providing physical, psychological and emotional care and therapeutic activities which support the individual to manage their illness and ultimately to help them get back into the community.

New Haven has been designed to benefit people with varying degrees of dementia including Alzheimer's, acute depression, acute anxiety and psychosis and is unique for a number of reasons:

- Each patient has their own en-suite bedroom, creating a 'home from home' environment and helping to ensure patients retain independence, privacy and personhood
- Courtyards and an allotment give patients the opportunity to enjoy time outdoors
- The unit has been designed with circulation loops, which allow patients to walk freely around the building reducing agitation, frustration and anxiety
- Art is used to provoke thoughts and to stimulate memory
- Utilising the existing wiring infrastructure, Tunstall installed a telecare system which uses Passive Infrared Sensors (PIRs) to monitor movement in certain areas of the ward. If a PIR senses a patient leaving their bed it immediately alerts staff on a pager, enabling them to attend to the patient and offer them assistance.

The outcome

Prior to the telecare system being installed, the hospital was experiencing a number of patient falls, particularly during the night, due to patients attempting to leave their beds unaided.

Comparison of the number of falls experienced on the ward taking a 9 month period before the PIRs were installed and afterwards showed that, in conjunction with existing falls prevention measures in place on the ward and individualised care planning by the staff, the new system resulted in a significant reduction in the number of falls.

There has been a noticeable reduction in the cost of agency staff needed to sit and closely observe patients overnight. It has allowed the staff to be more proactive in the care of the patient who is at risk of falling.

Using a telecare system at New Haven has proven to be an efficient and cost-effective solution to safeguarding patients.

Case study

A patient had been admitted on to the ward and was immediately placed on one-to-one observation, as although the patient was able to mobilise around the ward they were at constant risk of falling. The patient had a poor sleep pattern and was constantly trying to climb out of bed in the middle of the night; because of this the patient had a member of staff in their room on a one-to-one observation throughout the night shift. After a few weeks the patient had a pressure pad fitted to the edge of the bed so that when they tried to get out of bed, the pressure of their legs on the pads on the edge of the bed would trigger an audible alarm. The patient was then reduced to a Level 2 observation level, meaning that a staff member would check on the patient once every 15 minutes. This was successful for a few days but the patient eventually learnt how to bypass the pressure pads by not putting pressure onto the edge of the bed with their legs.



One night the patient managed to climb over the headboard at the end of the bed and landed face first on the floor. They sustained a cut to their face requiring several stitches and severe bruising to their face and arms; the patient was immediately placed back onto a one-to-one observation through the night.

Paul Stokes, the ward's Assistant Clinical Practitioner liaised with Tunstall, and PIR was fitted in the patient's room which was programmed into the existing Tunstall paging system. The PIR was placed on the opposite wall to the patient's bed. The bed was placed at its lowest position and measured, and the sensor was then set 2 feet above the recorded level of the top of the pillow. This means the alarm is triggered if the patient raises themselves up from the bed, giving staff early warning that they may be trying to get out of the bed. By placing the sensor on the opposite wall it ensured that the patient could not bypass the sensor and would trigger the alarm even if they tried to get out of bed to pull the sensor off the wall.

The sensor was a great success; it triggered every time the patient raised themselves up ready to get out of bed, ensuring that staff were in attendance well before the patient was able to place their feet onto the floor to stand up. It meant that the patient could be placed back on 15 minute ward checks, reducing the need for the ward to employ an agency nurse to carry out a one-to-one observation. As the pager was set to the buzzer setting, the disruption to other patients sleeping on the ward was also eliminated as the original audible alarm on the non-Tunstall system was extremely loud and disturbed the patients in their sleep.