Stroke has been described as an “earthquake in the brain”: it happens without warning and can result in paralysis, loss of sensation, difficulty speaking and difficulty understanding the environment (Department of Health, 2007). Not surprisingly, the aftermath of stroke is a critical and frightening time for patients.

Rest is essential for humans and normally happens in conjunction with sleep to promote normal neurological and immune function (Brower, 2009). There is a perception that people who are ill should have complete rest to aid their recovery, and that being active increases the risk of adverse incidents or complications. We now know the opposite to be true – bed rest, as well as causing a rapid decline in muscle strength, can cause deep vein thrombosis, pulmonary embolism, delirium, pressure ulcers, infection, reduced confidence and increased dependence (Oliver, 2017).

In the past, bed rest was recommended for patients who were critically unwell because it was thought to prevent complications, conserve scarce metabolic resources and contribute to the patient’s comfort (Brower, 2009). There was also an assumption that physical activity in patients who were critically unwell was impractical or unfeasible (Brower, 2009). Patients admitted with stroke are often paralysed, so this view is understandable, but does this mean physical activity is unachievable?

End ‘PJ paralysis’

As Florence Nightingale famously noted, the first requirement of a hospital is that it should do the sick no harm (Nightingale, 1863); however, as hospitals are far from a risk-free environment, achieving this is far from simple. Despite rapid advances in technology and treatments over the last few decades, the hospital environment and culture has stayed much the same, with little patient activity away from the bedside.

The national #endPJparalysis campaign aimed to get patients out of bed, dressed and moving, to help recovery and ensure

In this article...
- Importance of helping patients who have had an acute stroke dress and mobilise from day one
- Three things that can support and encourage patients to mobilise on the ward
- How increasing patient mobility reduces the risk of falls and hospital-acquired pressure ulcers

Keywords
Stroke/Falls/Patient safety/Patient experience

This article has been double-blind peer reviewed

Up, dressed and mobilised: embedding #endPJparalysis on a stroke ward

Authors
Christine Somerville is senior charge nurse, acute stroke unit; Mary Harper is clinical nurse manager; Angela O’Neill is associate nurse director; all at University Hospital Crosshouse, Kilmarnock.

Abstract
Supporting patients to mobilise early aids their recovery and reduces complications associated with prolonged bed rest. This article describes how the culture change promoted by the #endPJparalysis campaign was embedded in an acute stroke unit. Designing a ‘road to recovery’ wall, encouraging patients to get active, ending the undignified practice of relying on commodes and replacing the bedside nurse call system with a wrist-fob device helped patients to get up, dressed and moving. The changes resulted in measurable improvements that included fewer falls along with reduced risk of hospital-acquired pressure ulcers and infections.

Citation

S

stroke has been described as an “earthquake in the brain”: it happens without warning and can result in paralysis, loss of sensation, difficulty speaking and difficulty understanding the environment (Department of Health, 2007). Not surprisingly, the aftermath of stroke is a critical and frightening time for patients.

Rest is essential for humans and normally happens in conjunction with sleep to promote normal neurological and immune function (Brower, 2009). There is a perception that people who are ill should have complete rest to aid their recovery, and that being active increases the risk of adverse incidents or complications. We now know the opposite to be true – bed rest, as well as causing a rapid decline in muscle strength, can cause deep vein thrombosis, pulmonary embolism, delirium, pressure ulcers, infection, reduced confidence and increased dependence (Oliver, 2017).

In the past, bed rest was recommended for patients who were critically unwell because it was thought to prevent complications, conserve scarce metabolic resources and contribute to the patient’s comfort (Brower, 2009). There was also an assumption that physical activity in patients who were critically unwell was impractical or unfeasible (Brower, 2009). Patients admitted with stroke are often paralysed, so this view is understandable, but does this mean physical activity is unachievable?

End ‘PJ paralysis’

As Florence Nightingale famously noted, the first requirement of a hospital is that it should do the sick no harm (Nightingale, 1863); however, as hospitals are far from a risk-free environment, achieving this is far from simple. Despite rapid advances in technology and treatments over the last few decades, the hospital environment and culture has stayed much the same, with little patient activity away from the bedside.

The national #endPJparalysis campaign aimed to get patients out of bed, dressed and moving, to help recovery and ensure
Barriers to change

What motivates people to get active each day? For some, it is meeting their step priority list (Oliver, 2017). When staff asked residents whether they could say with confidence that #endPJparalysis was embedded, they had to answer “no”. As a team they were totally committed to the aims and principles of the campaign, and so they set out to identify and overcome the obstacles.

Aims

The first aim was to improve the ward environment to encourage patients to leave their beds and walk a little further each day. Other aims were to:

● Remove commodes from the unit and help patients use the toilet;
● Upgrade the nurse call system so patients could call for help from anywhere in the unit.

Ward environment

To encourage patients to move around the unit, work started on transforming the main corridor wall. With funding raised by hospital volunteers, a ‘road to recovery’ wall was commissioned with paintings of famous Ayrshire landmarks (Fig 1). The position of each landmark is shown in metres, encouraging patients to walk a little further each day. Inspirational quotations were also included at each stage, starting with a Chinese proverb from the Tao Te Ching (Book of Tao). “The longest journey starts with a single step” was followed by “Small progress is still progress”, “Don’t be afraid to fail. Be afraid not to try” and “The only time to look back is to see how far you have come”.

Commodes

Commodes have been used as portable bedside toilets in hospitals for decades and, despite advances in care, treatment and equipment, inappropriate use of commodes is still the norm. On average, we go to the toilet five to eight times a day (Colley, 2015), but for many hospital patients this activity is replaced by being transferred onto a commode. Although bedside curtains may give the illusion of privacy, they do not prevent noise from being heard by others (Birrell et al, 2006).

Patients in the ASU are often paralysed and unable to walk and, previously, commodes were used throughout the day and night. The team discussed this and suggested removing commodes. As senior charge nurse, my first instinct was to keep one “just in case”, but staff questioned this and we concluded it was unnecessary, as all patients who can use a commode can also be supported to go to the toilet. It was evident that removing all commodes from the unit was essential to ensure the cultural change.

To encourage staff buy-in, we put up a poster of a commode being used behind closed curtains in a busy six-bed room. We asked staff: “If this was the staff toilet, would you use it?” Their unanimous response was “no”, which begged the question: “Is it reasonable to expect vulnerable patients to use it?” As a result, all commodes were removed from the unit.

When possible, patients are supported to walk to the toilet and, if they cannot walk, they are transferred on a chair. The unit has specialised chairs as well as transfer chairs that fit over the toilet so, even if patients need to be hoisted, they can be supported to go to the toilet.

Patients in hospital often talk about leaving their dignity at the door, but this needs to change. For some clinical areas there will be a need for commodes but, where this is not indicated, hospitals need to promote zero tolerance of their inappropriate use.

Nurse call system

Staff felt it was counterproductive to encourage patients to mobilise if, once away from the bedside, they were unable to alert staff for help, so the next step was to review the nurse call system. As well as being bedside only, it had a cable that could often only reach one side of the bed and the handset was so heavy it risked causing patient injury. A risk assessment confirmed it was unfit for purpose and would cost £30,000 to replace with a
Getting up and moving. Information boards are placed at each bed space giving details of the project and clothes to bring in.

Patients’ enhanced mobility has improved their self-esteem, confidence and recovery, and ensured rapid patient flow. This is reflected with the unit having a high number of discharges within the first 72 hours. Despite most patients being in the high-risk category, there have been no preventable hospital acquired category II pressure ulcers in more than 600 days since the changes were introduced.

For patients who can use the nurse call system, the new device is applied to their wrist on admission so it is accessible at all times. This has given a sustained improvement in patients being able to access the nurse call system, both at the bedside and when mobilising – even when the patient was in bed, the old system did not always reach them or would often drop from the bed table. Access to the nurse call system when in bed, at the bedside or mobilising has gone from 0% to a consistent rate of >95%. Informal patient feedback has shown that the wrist-worn device has improved patients’ feelings of confidence and security by enabling them to call for help.

Falls are the most common and costly complication after stroke (Honeycutt et al, 2016), with studies demonstrating that those who have had a stroke fall more often than age-matched controls (Mansfield et al, 2013). Encouraging patients to be more active can lead to concerns among staff that this will increase the risk of falls. However, data from the hospital’s clinical improvement portal showed a reduction in falls after removing commodes and introducing the wrist-worn nurse call system (Fig 3). Encouraging patients to get more active also increases muscle strength, which can further contribute to a reduction in falls.

There have been no commodes in the unit for more than 22 months, which has improved patients’ dignity, experience and mobility. Although infection control was not the main driver, it has been a secondary benefit; the risk of healthcare-acquired infection has reduced and there have been no cases of acquired MRSA or C. difficile since the removal of commodes.

**Roll-out**

Building on these positive results, other wards and departments across both acute hospital sites are now adopting the changes. Eleven wards now have no commodes and are looking to develop an environment that stimulates patients to be active, while giving continuous access to a nurse call system.

**Conclusion**

Supporting patients who have had a stroke to get up, dressed and moving as early as possible in the ASU promotes recovery and reduces complications associated with prolonged bed rest. We have shown that simple changes to the environment, ending the undignified practice of using commodes and installing a wrist-fob nurse call system are effective and cost-efficient ways of helping to embed the cultural change that truly places the patient in the centre. Patient outcomes and experience have improved as a result and the measures are now being rolled out to other departments and specialties. NT

**References**


---

**Fig 2. Patients’ wrist-fob nurse call system**

“Thanks to all in 3E for excellent care to my husband. Couldn’t ask for more. The artwork was fabulous and was a welcome distraction for us at a real difficult time.”

In addition, nurse compliance in ensuring, where appropriate, patients are in their own clothes by day two has risen from <20% to >80%. Nursing staff ask families to bring in clothes to support patients similar, upgraded system. Although this would have reduced some of the risks, patients would still have been unable to call for assistance when mobilising.

Following a team discussion, the old nurse call system was removed and a wrist-fob nurse call system trialled (Fig 2). When patients press a button, an alarm sounds at the central monitor in each six-bed bay, where nursing staff are based. Patients can wear the device as they move around the ward; it can also be used in the shower and taken into the computerised tomography (CT) scanner. It is comfortable to wear and enhances patient security and confidence. Costing a total of £980, it was a fraction of the cost of replacing the bedside system and immediately reduced risks from high to low.

**Evaluation and outcomes**

Transforming the environment and culture has increased patients’ motivation to be up, dressed and active. The corridor design has made a significant difference in stimulating patients to move around the unit. Informal feedback from patients and relatives has been positive. Examples include:

“Couldn’t walk for the first week and was wheeled along the corridor. The wall motivated me in my road to recovery. The quotes were inspirational. Before going home, I managed to walk around Ayrshire.”

“I was wheeled along the corridor. The artwork was fabulous and was a welcome distraction for us at a real difficult time.”

---

**Fig 3. Incidence of falls in the acute stroke unit**

Source: Information taken from hospital quality improvement portal, May 2017–April 2019

---