

Preventing pressure ulcers: how to implement a change package to improve pressure ulcer management

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This article discusses the work undertaken at one NHS Trust (Medway NHS Foundation Trust) to reduce the incidence of pressure ulcers. It involved designing a comprehensive database and the investigation of all acquired pressure ulcers through Root Cause Analysis (RCA), with accompanying action plans. Tissue Viability Nurses (TVNs) aligned this work to High Impact Actions (HIAs) and used innovative thinking to address and reduce the incidence of pressure ulcers. Staff were trained in the use of the SKIN acronym.

Background

A reduction in avoidable pressure ulcers has become a key goal within the NHS. Pressure ulcers have a detrimental effect on patients' health and wellbeing, and they are a significant economic burden on the provision of healthcare within the NHS. The number of acquired pressure ulcers can be viewed by some as an indicator of the quality of care that is provided by the institution caring for the patient. The reduction of pressure ulceration through effective management is a huge and complex policy area that is of fundamental importance to patient safety, experience, and outcomes.

The national Safety Express programme was created as a workstream within the Department of Health's Quality, Innovation, Productivity and Prevention (QIPP) programme, and was designed to improve health outcomes and quality care in four areas: pressure ulcers; falls; urinary tract infections; and venous thrombosis.¹

The strategy to reduce avoidable harm from pressure ulcers

It was essential to ensure that accurate data was collected, and the Medway Trust's TVNs concluded that it would be more appropriate to collect data on the incidence of pressure ulcers rather than their prevalence, as it would afford a more accurate picture of what was happening within the Trust. This conclusion is

supported by the Tissue Viability Society, which suggests that study of the prevalence does not examine pressure ulcer occurrence and recommends incidence instead.²

The database

In 2008, the TVNs examined ways in which the Trust collected data on pressure ulcers, as the information it received was not reflective of what was happening in practice. In order to improve outcomes and patient safety it was essential to achieve an accurate baseline from which to start the improvement programme, therefore a new database was developed. More recently, however, all the fields from the database were transferred to the Datix reporting system.³ This system enables specific questions about the incidence of pressure ulcers to be asked and answered: eg, how many grade 2 pressure ulcers have been acquired by patients in a particular time period, their anatomical location, and the location of the patient when they were acquired (eg ward, nursing home, patient's own home).

Ward managers and senior staff undertook responsibility for inputting the data and reporting all acquired pressure ulcers to the TVN service. This has enabled the Trust to detect early changes in the incidence of pressure ulcers on a ward-by-ward basis, and to monitor their anatomical location, helping to focus preventive strategies and education.

Staff education

Ward managers and senior staff were given training in the use of the Datix system to record pressure ulcers.

The Trust further supported the reduction of pressure ulcers by making it mandatory for all qualified staff to attend pressure relief study day courses. The TVNs introduced a clinical support worker to act as pressure ulcer champion, involving both theoretical and practical sessions covering the assessment and treatment of pressure ulcers. This is taught at NVQ level 3 and is supported by the NVQ assessor. The TVNs assess all acquired pressure ulcers to ensure correct diagnosis and grading; during this assessment the nurse looking after the patient assists with the examination and is encouraged to grade the pressure ulcer and discuss the rationale for the grade they have given.

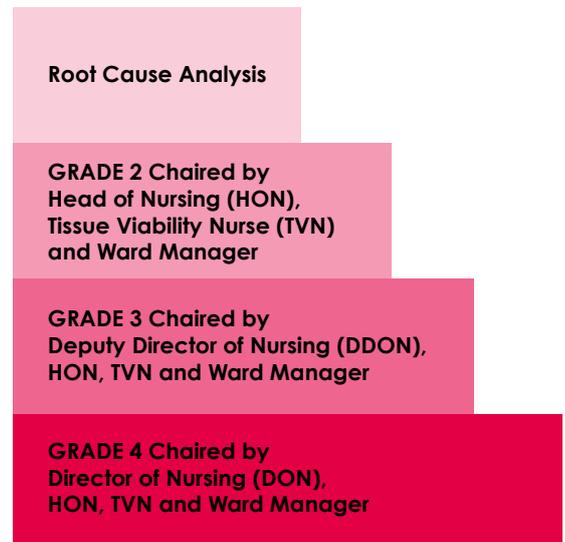
Root Cause Analysis (RCA)

In order to improve practice, Root Cause Analysis (RCA) was initiated for all acquired pressure ulcers graded 3 and 4; and due to the success of the RCA it was soon extended to include grade 2 pressure ulcers. RCA is an effective method of establishing how a pressure ulcer has occurred. RCAs are held in a hierarchical system (see Figure 1). Local factors are identified that might have contributed to the development of the pressure ulcer

(eg lack of staff attendance at study days, or late delivery of equipment). These factors are then highlighted. Organisational issues within the Trust that could have contributed to the development of the pressure ulcer are also discussed and flagged for rectification.

The RCA process looks at the care given in relation to the Trust policy, and guidelines and action plans for the wards are drawn up and monitored by the Head of Nursing for those areas that have not been compliant. The results from the RCA process allow individual, directorate, and Trust-wide learning to take place. The process also provides an opportunity to acknowledge and share good practice.

Figure 1. Root Cause Analysis



High Impact Actions (HIA) and innovative thinking

In 2009, nurses and midwives across the UK were invited to submit to the Department of Health examples of high quality cost effective care that would make a difference to patient care. Known as High Impact Actions (HIAs), they have become an essential collection for innovation and improvement. One of these HIAs, which deals specifically with the reduction of pressure ulcers, is known as “Your Skin Matters”.⁴

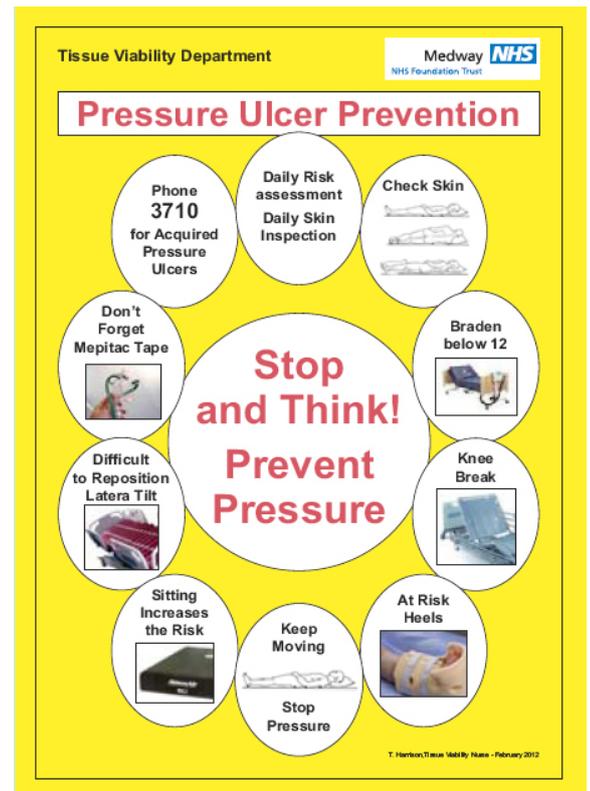
As a result, Medway NHS Foundation Trust’s TVNs devised a number of strategies to reduce the incidence of pressure ulcers; these strategies, and a very supportive management system, have encouraged innovative thinking and multiprofessional working. This attitude and support has led to significant innovations and a reduction in pressure ulcer incidence.

Expectations and innovations

The TVNs adopted the Braden pressure ulcer risk assessment scale⁵ to replace the existing Waterlow scale⁶ when a systematic review⁷ found that only the Braden scale’s predictive validity had been tested in comparison with clinical nursing judgement. All members of staff are aware that there is an expectation that all patients will have their risk assessment completed within six hours of admission to the ward, and daily thereafter, in line with the National Institute of Health and Clinical Excellence (NICE) guidance.⁸ The other expectation is that, as a minimum, every patient (including those who are mobile) will have their vulnerable areas checked daily.

The TVN service designed a poster to be displayed in all clinical areas to act as a reminder to all staff of what is expected of them and what resources are available (see Figure 2).

Figure 2. Chart to remind staff of expectations and available resources



In addition, members of staff are familiar with the SKIN Bundle, a series of documented nursing interventions⁹ put in place following an assessment of high risk. The acronym SKIN refers to Surface (mattresses and cushions), Keep moving (making sure that patients are repositioned at least every two hours), Increased moisture (meeting patients’ continence requirements), and Nutrition (ensuring good nutrition and hydration).

Surface selection

In 2008, the Trust introduced a rolling programme to change all its bed frames to electric profiling beds. The Trust changed the dynamic mattress supply to have both alternating pressure and low air loss systems, and base mattresses were changed to high specification foam.

Keep moving

All staff are aware that, as a minimum, high risk patients must be repositioned every two hours. Data collected from the Datix system indicated that heels were a problem area in the acquisition of pressure ulcers. After a donation of 100 heel lifts by the Trust's League of Friends, a trial was set up, and results showed that the lifts proved to be effective at preventing heel pressure ulcers.

Incontinence

The TVN service felt it prudent to investigate the issue of continence management, as staff were confusing continence lesions with pressure ulcers. The results of the investigation showed that there were high numbers of continence lesions across the Trust, all of which were being managed inconsistently using different pads, all of which were of poor quality. One of the TVNs attended a continence conference to gain more knowledge of the subject; she also spent time with the urology nurse specialist. As a result, the TVNs put forward a business case and carried out teaching on barrier creams; the Trust now uses a high quality pad that has significantly reduced skin damage caused by incontinence lesions.

Nutrition

Good nutrition and hydration are essential for all patients. This element required little input from the TVN service, as the Trust is fortunate to have a nutritional nurse specialist and a very responsive dietician team. There is a good multidisciplinary response to nutrition and pressure ulcer prevention.

Innovative solutions

Pressure ulcers sometimes occur in areas of the body that are difficult to manage. The trust had a fairly high incidence of grade 2 pressure ulcers to ears. A multidisciplinary approach to the problem resolved the issue. The pressure sores were caused by friction; after trying many different methods with poor results, the use of a Safetac tape behind the ears proved to be a great success (see Figure 3).

**Figure 3. An example of an innovative solution:
Safetac tape to relieve pressure ulcers caused by friction**



The impact of the strategies

In the four years between 2009 and 2013, the incidence of acquired pressure ulcers has shown a steady decline, from almost 250 in 2009/10 to 100 in 2012/13.

Conclusion

With support from, and education by, the Trust's TVNs, staff within the Trust have become proficient in the early detection of pressure ulcer damage. Staff are happy to be open and honest about their progress, as they recognise that the RCA process is an opportunity to learn and to move practice forwards for the benefit of their patients. This has resulted not only in improved patient safety but also in savings for the Trust, which can be allocated to other services.

References

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