

Using the QUATTRO® PLUS mattress as part of a comprehensive care package to help reduce pressure ulcer incidence

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Introduction

Pressure ulcer incidence is used as a key quality indicator primarily because, given appropriate care (correct support surface, appropriate repositioning schedule, nutrition etc.) these wounds are largely preventable.

When pressure ulcers do occur they can be costly for patients and healthcare providers. Patients can pay a mental, physical and social cost, with healthcare providers typically suffering a financial burden as a result of caring for patients with these wounds. Therefore avoiding pressure ulcers has obvious benefits to patients and providers alike.

As part of its 10 for 2010 programme, the National Patient Safety Agency (NPSA) urged NHS organisations across England and Wales to work towards preventing all pressure ulcers.

In 2007/08, the 650 bedded, Wrightington, Wigan and Leigh NHS Foundation Trust reported 70 hospital acquired pressure ulcers. All Category / Stage 2, 3 and 4 pressure ulcers are reported as clinical incidents within the Trust and all pressure ulcer staging is confirmed and documented by the tissue viability team.

Aim

The aim of the tissue viability team was to reduce the incidence of hospital acquired pressure ulcers. This would benefit patients whilst simultaneously realising a cost saving for the Trust.

Method

In 2008 the Trust set a target to reduce hospital acquired pressure ulcers by 90% over 5 years. The aim was to enhance patient experience, improve safety and ultimately reduce length of stay.

To achieve this goal the tissue viability team implemented the following initiatives:

- Link nurse forum with monthly meetings.
- Risk assessment tool and repositioning chart incorporated into the risk assessment booklet.
- Monthly 'ward to board' reports.
- Root Cause Analysis reviewed by Director of Nursing.
- Mattress management programme ensuring appropriate allocation and product availability.

From 2008/9 onwards the Trust used two dynamic mattress replacement products from Talley, the QUATTRO® ACUTE and QUATTRO® PLUS systems. The QUATTRO® PLUS (see Fig 1) accounted



Fig 1
QUATTRO®
PLUS dynamic
mattress
replacement
system

for 90% (approx. 250 systems) of all dynamic patient support surfaces, the remaining 10% being QUATTRO® ACUTE systems.

The QUATTRO® PLUS offers a one-in-four therapy cycle, which provides the patient with 25% pressure relief and 75% support during the active cycle. This therapy combines optimum pressure relief with patient comfort. Full clinical advice, product training and support were provided by Talley.

Results

As a direct result of the initiatives implemented by the tissue viability team within the Trust there was an 84% reduction in pressure ulcer incidence (from 70 in 2007/8 to 11 in 2009/10). See Fig 2.

The Trust calculated that the reduction in pressure ulcer incidence equated to a cost saving of £408k per annum.

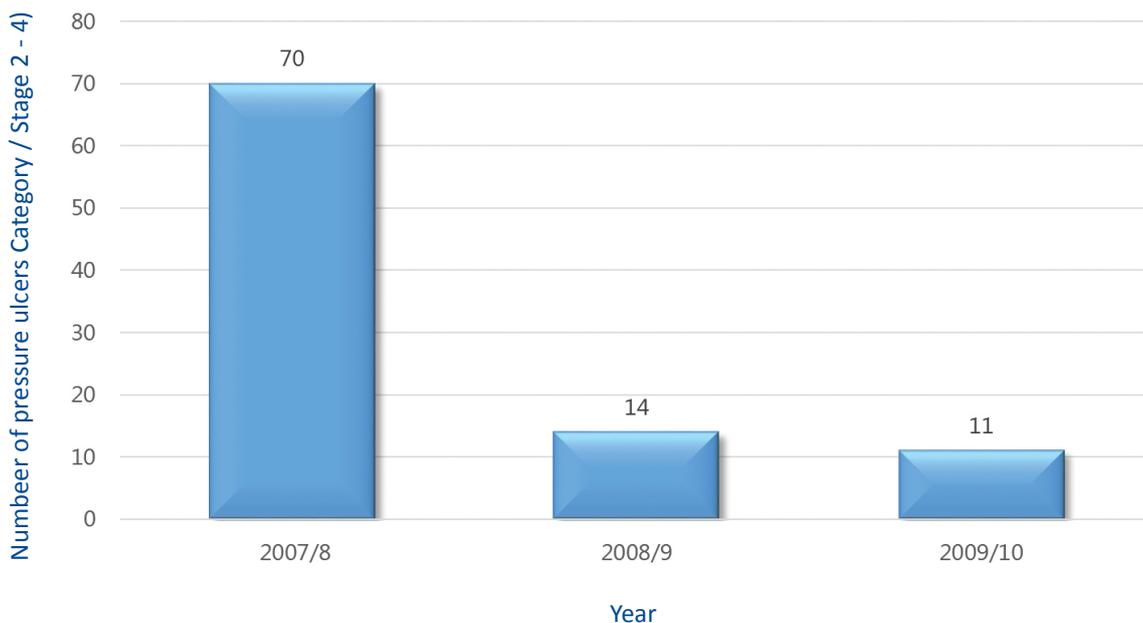


Fig 2
Reduction in pressure ulcer incidence over 3 years

Discussion / Conclusion

It is evident from the above results that the number of hospital acquired pressure ulcers has significantly reduced since the tissue viability team implemented the various initiatives at the start of 2008/9.

When simultaneously changing multiple factors relating to the prevention of pressure ulcers it is impossible to identify the contribution of each individual factor to the overall reduction in pressure ulcer incidence.

The European Pressure Ulcer Advisory Panel define a pressure ulcer as follows:

'A pressure ulcer is localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear. A number of contributing or confounding factors are also associated with pressure ulcers; the significance of these factors is yet to be elucidated.'

If one assumes that pressure with or without shear is the primary cause of pressure ulcers it is a logical progression that support surfaces provided to patients at risk of pressure ulcers must play a significant role in the prevention of pressure ulcers – with more effective support surfaces resulting in fewer pressure ulcers.

Based on the above point it is clear that when used as part of an overall care package the QUATTRO® PLUS dynamic mattress replacement system can help reduce pressure ulcer incidence in the acute care setting and this reduction in incidence will not only benefit patients but also offers significant cost savings for the Trust.



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