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 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.

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.