

Reducing the incidence of hospital acquired pressure ulcers

Royal United Hospitals Bath NHS Foundation Trust

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Introduction and Aims

A project was undertaken to further reduce the incidence of ‘avoidable’¹ hospital acquired pressure ulcers (PU) and thereby reduce the number of patient harm events.

The aim of this trust wide project was to reduce avoidable hospital acquired PU incidence by implementing trust wide strategies into clinical practice. One element of this project was providing appropriate support surfaces to patients admitted into hospital (see Figure 1). By avoiding PU the project aimed to improve patient health related quality of life and also reduce the significant financial burden of PU.²

Methods

A ‘Rapid Spread’³ methodology was used to identify several changes to practice that could reduce the number of avoidable pressure ulcers.

Mattress provision - An internal audit highlighted an opportunity to improve the time taken to get a dynamic mattress in use.

Risk assessment - A modified Braden pressure ulcer risk assessment tool replaced a local tool and resulted in an increased percentage of inpatients being classified as high risk of pressure ulceration.

PU prevention pathways - The hospital PU prevention pathways, devised and implemented by the tissue viability team guided nurses to allocate a dynamic mattress as early as possible after admission i.e. in the Emergency Department (see Figures 2 and 3).



FIGURE 1. QUATTRO® PLUS active mattress replacement system

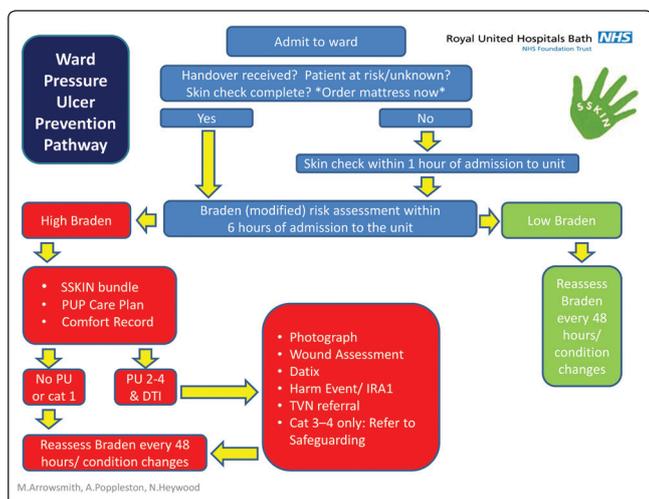


FIGURE 2. Ward PU prevention pathway

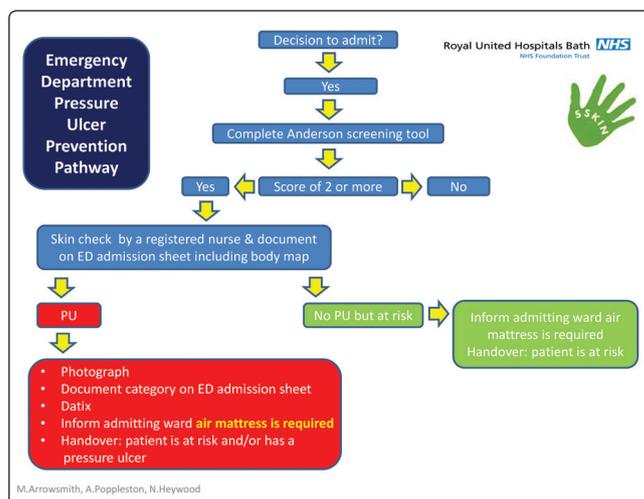


FIGURE 3. Emergency Department PU prevention pathway

Results

Data collected in the 12 months post adoption of the care bundle demonstrates a 94% reduction in monthly pressure ulcer incidence (see Figure 4). There is also a correlation between PU incidence and dynamic mattress use (see Figure 5).

Lead Tissue Viability CNS Michaela Arrowsmith states;

'the Talley QUATTRO® PLUS mattress has been an integral part of this project. Patients regularly report increased comfort on the Talley QUATTRO® PLUS and a reduction in noise level, compared to the dynamic mattress previously used. Patient satisfaction has also increased since the introduction of the Talley QUATTRO® PLUS as patients' report that they can easily move around on this surface.'

Staff feedback collated by Talley regarding the Talley QUATTRO® PLUS suggests:

- 93% stated that the mattress was 'effective/very effective' at maintaining patients skin integrity
- 79% said the mattress was 'easy/very easy' to set up on a bed frame and connect ready for use
- 71% said the system was 'easy/very easy' to use
- 93% rated patient comfort, concordance with treatment and product reliability as 'good/very good'
- 86% rated the mattress overall as 'good/excellent/exceptional'

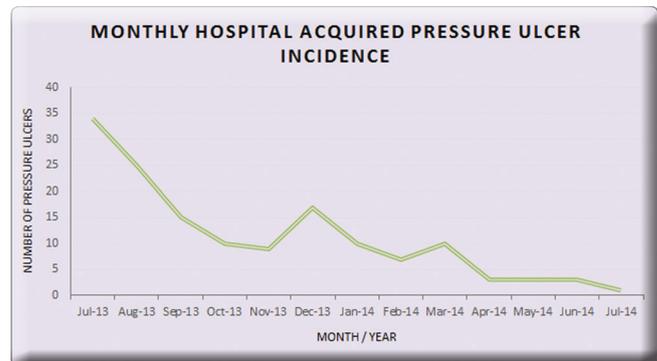


FIGURE 4. Monthly hospital acquired pressure ulcer incidence

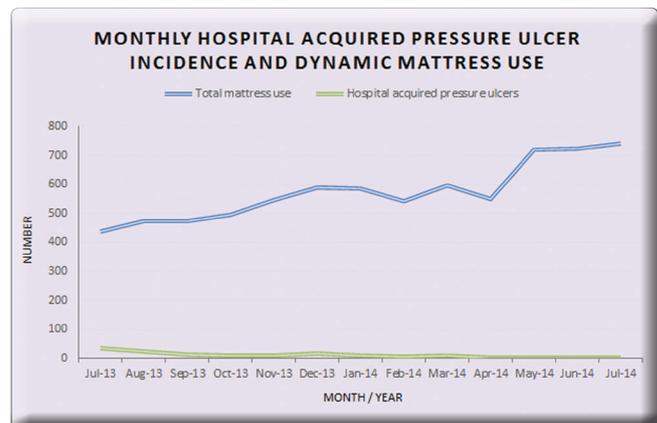


FIGURE 5. Hospital acquired pressure ulcer incidence and dynamic mattress use

Discussion / Conclusion

Data collected from July 2013 until July 2014 demonstrates a 94% reduction in monthly pressure ulcer incidence. The Rapid Spread project implemented the changes in April 2014. There may be a correlation between dynamic mattress use and pressure ulcer incidence. However, as the implementation of the pressure ulcer prevention pathways and new risk assessment tool occurred concurrently, this association is not certain.

Effective pressure ulcer prevention requires a holistic approach to patient care. When combined with other elements of an effective pressure ulcer prevention programme (see Figures 2 and 3), the timely provision of appropriate support surfaces appears to play an important role in helping to reduce pressure ulcer incidence. The dynamic support surfaces used at this trust offer a high level of staff acceptability.

References

1. National Patient Safety Agency. Defining avoidable and unavoidable pressure ulcers. 2010 [Online]. Available from: <http://www.patientsafetyfirst.nhs.uk/ashx/Asset.ashx?path=/PressureUlcers/Defining%20avoidable%20and%20unavoidable%20pressure%20ulcers.pdf>
2. Posnett J, Gottrup F, Lundgren H, Saal G. The resource impact of wounds on health-care providers in Europe. *J Wound Care*. 2009 Apr;18(4):154-161.
3. Stevens J Edwards G. Using Rapid Spread to achieve change in practice. *Nurs Times* 2012; 108 (37): 28-9