

# Embracing change to deliver clinically effective patient care and preventing pressure ulcer development

The prevention of pressure ulcers remains a clinical priority across healthcare settings due to their impact on patient wellbeing and healthcare resources. This paper outlines the implementation of the National Wound Care Strategy Programme Pressure Ulcer Recommendations within a 400-bed NHS hospital in South Yorkshire. Central to this change was the adoption of the Pressure Ulcer Risk Primary or Secondary Evaluation Tool (PURPOSE-T) risk assessment tool, revised categorisation of pressure ulcers, and application of the aSSKING framework to standardise and improve care delivery. Implementation was supported through structured training, organisational change management and close collaboration with clinical teams. The use of hybrid support surfaces, particularly the Dyna-Form Mercury Advance system (Direct Healthcare Group), was optimised with renewed staff training. Results demonstrate a 30% reduction in pressure ulcer incidence over a 12-month period, equating to a potential cost saving of £915,000. The initiative also enhanced clinical confidence, improved triaging, and enabled better resource allocation within the tissue viability service. This case study illustrates that with structured planning, education and leadership, significant improvements in patient safety and care quality can be achieved through evidence-based pressure ulcer prevention strategies

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## Key words

- aSSKING
- Hybrid mattress
- PURPOSE-T
- Quality improvement
- NWCS

Pressure ulcers (PUs) are listed among NHS England's top 10 harms. Investigations into their causes often reveal that deviations from standard, evidence-based practices contribute significantly to their development (National Wound Care Strategy Programme [NWCS], 2023). As highlighted by Gorecki et al (2014), PUs can cause physical, social and psychological harm to patients and reduced quality of life in both patients and family caregivers (Rodrigues et al, 2016).

Furthermore, PUs have significant implications for healthcare providers in terms of treatment expenditure (Demarré et al, 2015), avoidable hospital admission and delayed hospital discharge (Majeed et al, 2012).

A number of initiatives have been developed to review the management of PUs and provide a standardised approach to their prevention and management. These include "React to Red", "Stop the Pressure" campaign, safety thermometer and CQuin targets, to name but a few.

As discussed by Gray et al (2018), the NWCS was initially inspired by a review of the economic burden of wound care on the NHS by Guest et al (2015). It was subsequently commissioned by NHS England to support the work for the prevention and management of

PUs, as well as leg and foot ulcers and surgical wounds. In relation to the prevention and management of PUs, extensive work has been undertaken to provide evidence-informed care for people who have or are at risk of developing pressure ulcers (NWCS, 2023). By implementing the recommendations, it is expected that improved outcomes will be achieved with a more effective use of health and social care resources.

In April 2023, the NWCS consulted on the PU clinical recommendations and a clinical pathway (NWCS, 2023). The outcome was the recommendation of a standardised risk assessment tool (PURPOSE-T), amending the current categorisation system to just four categories (plus mucosal and device-related), and dropping the previous "holding categories" of "unstageable" and "deep tissue injury". The report also suggests using the aSSKING framework to integrate best practices and reduce care variation.

The aim of this paper is to discuss how these recommendations were introduced within an NHS hospital, the process used and impact on the tissue viability service and patient care. The hospital is a 400-bed acute hospital, serving a population of over a quarter of a million people in South Yorkshire.

### Implementation of PU developments

Following the publication of the Pressure Ulcer Recommendations and Clinical Pathway (NWCSP, 2023), work commenced to implement the recommendations. This included the introduction of PURPOSE-T risk assessment tool, the recommended pressure ulcer categorisation and the utilisation of the aSSKING framework.

PU risk assessment is an essential part of PU prevention. It is estimated that approximately 40 tools are available (Kottner and Balzer, 2010). The tools traditionally used checklists and numerical scores to categorise patients into low, medium or high risk (Norton et al, 1975; Waterlow, 1985; Bergstrom et al, 1987). By following a risk assessment process, it encourages a structured approach to assessment whilst also complementing clinical judgement. The National Institute for Health and Care Excellence (2014) recommended considering using a validated scale and, as highlighted by Coleman et al (2018), in clinical practice, structured risk assessment remains a key component of pressure ulcer prevention and treatment.

Prior to the implementation of PURPOSE-T, the organisation was not using a validated tool, and it was felt that an evidence-based tool would be more appropriate.

PURPOSE-T is an evidence-based pressure ulcer risk assessment tool developed by the University of Leeds using robust research methods (CTRU Leeds Research Portal, 2022). The development of the tool included a systematic review of epidemiological literature to identify risk factors associated with an increased probability of developing a PU as

well as a consensus study incorporating an international expert group, evidence review, and service user views to agree on the risk factors, assessment items and structure of the tool.

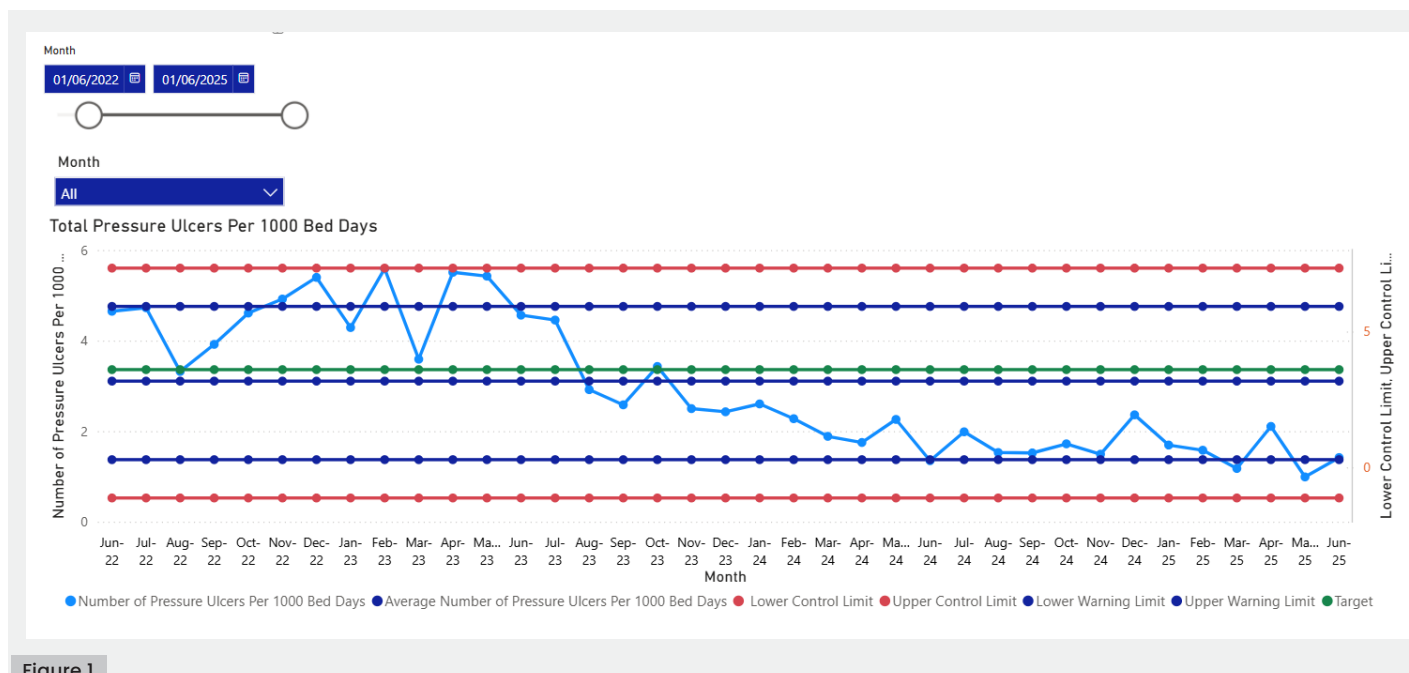
Prior to the implementation of the tool within this organisation, it was important to manage the change in a structured approach to ensure it was received positively and used effectively. The model of “planned change” was first described by Lewin (1947), and its evolution through recent decades is a framework for organisational change. It emphasises the importance of workplace culture in the successful implementation of change within healthcare services and argues that a stronger emphasis on management skills is needed.

Based on previous experience with practice developments and changes, it was clear that nurses’ confidence and knowledge were crucial to successful implementation. The team provided posters and information and arranged training sessions 2 days a week for a period of 2 months. Practice educators supported the sessions and continue to provide the support and training. The “go live” date was effectively communicated.

It was important that the tissue viability service had a clear presence within the clinical areas to provide support and ensure the clinicians were confident in the completion of the tool. Training and support have continued following implementation, and the e-learning modules now includes a section on PURPOSE-T.

Although there were initial concerns about implementing the new guidelines, a positive impact on patient care has been identified. Use of the PURPOSE-T verified tool and the

**Figure 1.** Total pressure ulcers per 1,000 bed days between June 1, 2022 and June 1, 2025.



**Figure 1**

aSKING framework has resulted in more appropriate referrals to the tissue viability service, in relation to a reduction of PUs and a streamlined incident reporting process. The tissue viability service is now able to focus more on the patients at greater risk, the “amber” and “red” patients, which has therefore enabled a positive move in supporting the most vulnerable patients. As recommended, the tool is commenced in the emergency department, which ensures preventative measures are in place at the earliest opportunity.

While introducing PURPOSE-T, it was also decided to follow the recommendations for PU reporting. The National PU Advisory Panel (NPUAP) and European PU Advisory Panel (EPUAP) classify PUs into four levels of injury, from category 1 (intact skin with localised non-blanchable redness) to 4 (full thickness tissue loss with exposed bone, tendon or muscle). They also specify unstageable injuries (full thickness tissue loss where the base of the ulcer is covered by slough and/or eschar) and deep tissue injuries (intact or non-intact skin with localised and persistent non-blanchable deep red, maroon or purple discolouration, where the wound may evolve rapidly to reveal the actual extent of the injury or resolve without tissue loss; EPUAP et al, 2019). In October 2023, the NWCSF released updated guidance that revised the existing categorisation system, reducing it to four categories by removing the former holding categories of “unstageable” and “deep tissue injury”.

Prior to the introduction of the standardised 1–4 categories, the tissue viability service was overpowered in assessing and diagnosing patients who had been diagnosed with a “deep tissue injury” or “unstageable” PU. The service is now streamlined and more proactive, which enables more efficient and effective patient care. As shown in [Figure 1](#), the incidence of PUs has reduced since these changes.

The investigation of PUs has become more targeted within the Trust, following the introduction of the Patient Safety Incident Response Framework (NHS England, 2022). The framework offers guidance on how incidents should be investigated and responded to, emphasising quality improvement through meaningful learning rather than having to keep learning the same lessons.

Following validation by the TVN service, an after action review meeting is arranged. This enables a structured discussion of the incident that provides an opportunity for learning to assist improvement. Investigations are conducted in accordance with the aSKING care bundle. The aSKING care bundle is a tool which guides and documents pressure



Figure 2

ulcer prevention and many associated interventions aimed at reducing the risk of this often preventable patient harm. Education is provided in accordance with this process.

Alongside the implementation of the recommended risk assessment tool and patient management, the provision of the patients’ support surface and correct use were also considered. Support surfaces are an integral component of pressure ulcer prevention and treatment. They are defined as ‘a specialised device for pressure redistribution designed for management of tissue loads, microclimate, and/or other therapeutic functions (NPUAP, 2018). The organisation uses a combination of hybrid systems and dynamic mattresses.

Hybrid support surfaces combine foam and air to maximise the benefits offered by both static and alternating surfaces (Fletcher et al, 2015). By providing one mattress system, the choice is simplified, as well as the correct and appropriate use. Used in conjunction with regular and systematic repositioning, early intervention with a hybrid mattress is a key enabler to securing significant reductions in pressure ulcer numbers (McGrath et al, 2016). They have been clinically proven to support the prevention and treatment of pressure ulcers (Jones and Fletcher, 2014; Fletcher et al, 2016); representing a step-change in care delivery that provides a more cost-effective solution and promotes the best use of resources.

The system used with the organisation is the Dyna-Form Mercury Advance mattress (Direct Healthcare Group) [\[Figure 2\]](#). This has foam in air cells, enabling both non-powered pressure redistribution and powered pressure relief when the control unit is connected. These systems were first introduced to the organisation in 2015 and utilised effectively but, due to the turnover of staff, it was identified that further training and support was required. In conjunction with personnel from the manufacturer and the

**Figure 2.** The Dyna-Form Mercury Advance is a dynamic mattress replacement system combined with the benefits of modern foam technology. It is specifically designed for patients considered to be at ‘Very High Risk’ of pressure ulcer development. Offering high levels of patient comfort, this unique system has the facility to ‘step up’ to that of a dynamic mattress when clinically required. Similarly, the mattress function can be ‘stepped down’ as the patient’s condition improves.

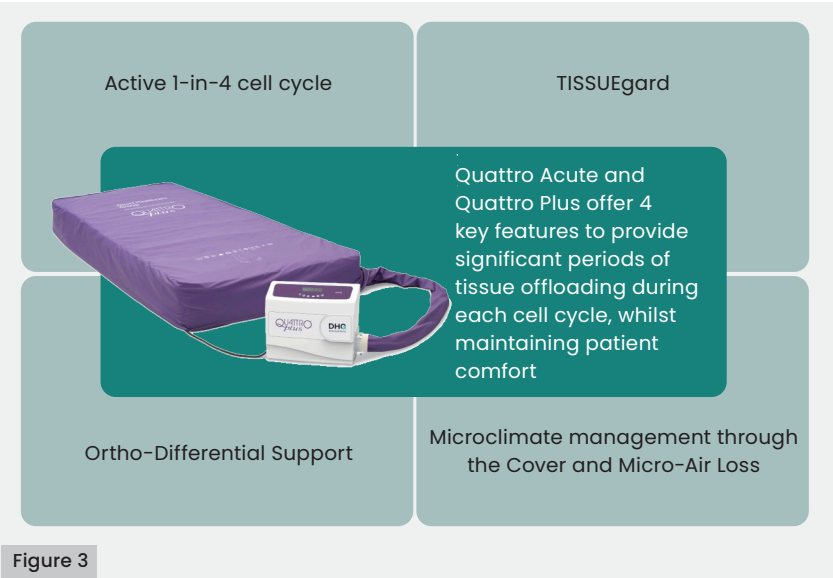


Table 1: Pressure ulcer data.

	April 2023–March 2024	April 2024–March 2024
Category 2	413	288
Category 3	21	12
Category 4	1	2
Total	435	302

30% reduction, potential cost saving of £915k

**Figure 3.** The key features of the Quattro Acute and Quattro Plus mattresses.

tissue viability service, a robust training plan was put into place and delivered. Following this, a reduction in the number of acquired pressure ulcers was observed and acknowledged [Figure 1].

Although the Dyna-Form Mercury Advance mattress is suitable for patients at high to very high risk with/without pressure damage (Rafter, 2011), it was recognised that there are times when a higher specification of mattress is required. This can be in relation to the patient having a number of other comorbidities and not being able to be repositioned as required. The trust initially purchased Air Suresse mattresses but most recently moved to the Quattro Plus system [Figure 3]. They are both alternating mattresses but can also provide continuous low pressure for patients who are unable to tolerate the movement of the cells.

### Results

Since the implementation of the changes and enhanced education, there has been a reduction of 133 PUs over a 12-month period, see [Table 1]. The NHS Improvement Pressure Ulcer

Productivity Calculator (2026/17) was used to demonstrate the potential cost saving of this reduction. The calculator attributes a cost to PU care based on the severity of the ulcer and the accompanying complications that may arise. The projected economic impact of PUs includes consideration for bed occupancy costs, nursing time costs, and treatment costs in both the hospital and community.

The reduction in 133 PUs from 2023/24 to 2024/25 has, therefore, not only resulted in enhanced patient care and outcomes, but also a significant cost saving for the organisation of £915k through reduction in nursing time, product usage, diagnostics and operational costs.

### Limitations

While the implementation of the NWCSP PU recommendations demonstrated measurable improvements in patient outcomes and service delivery, several limitations must be acknowledged. Firstly, this evaluation was conducted within a single NHS acute hospital, which may limit the generalisability of findings to other settings with different infrastructures, staffing levels, or patient demographics. Secondly, although a 30% reduction in PU incidence was observed, causality cannot be definitively established due to the multifactorial nature of pressure ulcer prevention. Other concurrent quality improvement initiatives or external influences may have contributed to this outcome.

Another limitation was the reliance on retrospective data and incident reporting systems, which are subject to variation in documentation practices and clinical interpretation. Despite staff training, some clinicians continued to use outdated terminology, which may have affected the consistency of data collection, risk categorisation, and outcome reporting during the transition period.

Additionally, while qualitative improvements such as increased confidence among clinical teams and improved referral appropriateness were observed, these outcomes were not formally measured or supported by staff feedback surveys, limiting the ability to evaluate the intervention’s full impact on professional practice. Future work could benefit from incorporating mixed-methods evaluation, including qualitative assessments, patient-reported outcomes, and longer-term follow-up to determine sustainability and transferability of these improvements.

### Conclusion

Despite the challenges associated with

implementing change, the author's experience demonstrates that adopting the NWCSP's recommended changes has had a positive impact and improved patient care. Whilst these recommendations were perceived as an added workload to some areas, this was a positive contribution to this area. The guidance provided a standardised approach with reassurance that the care provided was to the appropriate standard.

There has been a significant reduction in pressure ulcer development and a greater confidence in assessment and management within the clinical teams.

Education and support will continue for some time, as there are some clinicians that continue to use past terminology within their medical records and require support in acknowledging the correct diagnosis. ●

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