

# The changing NHS and the role of new treatments: Using a monofilament fibre pad to aid accurate categorisation of pressure ulcers

**KEY WORDS**

- ▶ Debridement
- ▶ Monofilament fibre pad
- ▶ NHS reform
- ▶ Pressure ulcer

Significant NHS reforms mean tissue viability services need to implement new treatments and ways of working in order to deliver significant cost savings. In this two part article, the changing NHS is discussed, followed by an example of a new treatment, a monofilament fibre pad that can aid in the clinician in accurately assessing pressure ulcers.

## THE CHANGING NHS

*Caroline Dowsett*

The NHS is facing many changes, and tissue viability services are challenged with embracing, leading, and implementing new ways of working to support organisations in moving forward with the quality agenda – often referred to as the Quality, Innovation, Productivity and Prevention (QIPP) agenda. Most services will have strategies in place to support this agenda, and these will, in many cases, include service redesigns and new ways of working.

There is an increase in demand for care. People are living longer and many patients have long-term conditions and complex care needs. These factors are leading to rising costs in care and increasing patient and public expectations (Department of Health [DH], 2012). The quality agenda and the emphasis on increased patient choice (DH, 2011) has led to a drive to provide care that meets patients' expectations and also reduces cost.

### COST SAVINGS

As part of the QIPP agenda, the NHS has a target for cost efficiency savings of £20 billion by 2015 (DH, 2010). This has led to clinicians and organisations looking at innovative ways to deliver high-quality care with reduced resources. Typically, the cost drivers in wound care are the frequency of dressing changes requiring nursing

time, the duration of treatment and managing wound complications (Posnett et al, 2009). Treatments that improve the wound bed, facilitate wound healing and reduce nursing time are high on the agenda of wound care service providers and those who commission services. An example of meeting this agenda is provided in the second part of this article by Joanna Swan and Rommel Orig who use Debrisoft® (Activa Health Care) to better visualise, and so more accurately categorise, pressure ulcers.

### COMMISSIONING SERVICES

Health and social care reforms (DH, 2012) have placed the responsibility for commissioning safe, effective, and personalised care with the NHS Board and Clinical Commissioning Groups (CCGs). They have to ensure that the services they commission are safe and the quality of care can be ascertained from accurate, relevant, and usable information. This requires the provider to generate quality reports on how care is provided, that it is delivered in a safe environment, based on the best available evidence and meets the patients' expectations.

CCGs have a statutory duty to act with a view to securing ongoing improvement to the quality of services. They can incentivise improvements that are designed to enhance the reputation and standing of clinicians and the organisations for which they work. There are national Commissioning for Quality and Innovation

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*“The delivery of safe, effective, and personalised care is high on the agenda of all tissue viability services.”*

(CQUIN) payment targets for providing “harm-free care” and reducing pressure ulcers, as well as targets for positive patient reported outcome measures (PROMS) and patient reported experience measures (PREMS).

Since April 2013, patients have been asked whether they would recommend hospital wards and A&E departments to their friends and family if they needed similar care or treatment. This means every patient is able to give feedback on the quality of the care they receive, giving hospitals a better understanding of the needs of their patients, and enabling improvements. The family-and-friends test is an integral part of the NHS England business plan *Putting Patients First* (NHS England, 2012) and is soon to be rolled out to community services.

#### CARE DELIVERY

The delivery of safe, effective, and personalised care is high on the agenda of all tissue viability services and needs to be embedded in care pathways that guide clinicians on how to achieve the best outcomes for patients. Best outcomes include care that is closer to home, keep people out of hospital, avoiding wound complications, and facilitating wound healing in a timely manner.

It should be remembered that poor quality care costs more, as evidenced by the “High Impact Actions” suggested by the NHS Institute for Innovation and Improvement (2010). When patients suffer wound complications that take them into hospital, it has an impact on wellbeing and is costly for the health service. Examples of this are patients who develop avoidable pressure ulcers or those who have wounds that do not progress to healing in the expected timeframe.

#### CHANGES IN DEBRIDEMENT

There has been a great deal of interest in wound debridement in recent years. Best practice guidelines and decision-making pathways on debridement are useful tools to support clinicians in both determining the most appropriate treatment for the patient and meeting the QIPP agenda (European Wound Management Association [EWMA], 2013; Wounds UK, 2013). It is clear access to debridement as part of a holistic care pathway should be based on the clinical need of the patient, their wound type, and choices, and

not the skill of the clinician (Gray et al, 2011). The competency of the clinician undertaking the debridement is crucial in achieving safe and effective care (Stephen-Haynes and Callaghan, 2012a); gaps in services that prevent the delivery of the range of available debridement techniques should be challenged.

Whatever debridement method is chosen it is important that the patient is included in the decision-making and outcomes are measured and reported. This should include PROMS (e.g. a reduction in wound malodour following debridement) and PREMS (e.g. a positive, pain-free patient experience). It is worth remembering that the clinician can provide a safe and effective treatment such as wound debridement but the patient may report a bad experience, especially if the procedure has been painful for them.

The traditional hierarchy of debridement that placed surgical debridement at the top of the “pecking order” is now under question (Young, 2012), with other methods that are fast, offer a pain-free experience for the patient, and can be carried out in the community becoming widely accepted in clinical practice.

One example of this is the Debrisoft monofilament fibre pad, which – in appropriate wounds – can be used in the community or hospital setting, by clinicians or patients themselves. A range of governmental papers published in recent years highlight the involvement of patients in their own care – delivered close to or in their home – as being a key element of bringing about service improvement, and boosting public confidence, in the NHS (House of Commons Health Committee, 2007). Whitaker (2012) provides an example of the successful community-based management of hyperkeratosis of the lower-limb secondary to compression therapy using the monofilament fibre pad.

The clinical, political, and financial drivers for reducing pressure ulceration have been well established (Stephen-Haynes, 2011), and the correct categorisation of individual ulcers an important element of this process. In the second part of this article, the use of the monofilament fibre pad to mechanically debride slough and debris from pressure ulcers, allowing the clinician to better visualise the wound and, therefore, more accurately categorise it are discussed.

**USING A MONOFILAMENT FIBRE PAD TO AID ACCURATE CATEGORISATION OF PRESSURE ULCERS**

*Joanna Swan, Rommel Orig*

Accurate wound classification is a crucial element of delivering safe and effective pressure ulcer care. With the present focus on pressure ulcer prevention, many UK health organisations have implemented complex documentation processes and mandatory root cause analysis when a category 3 or 4 pressure ulcer is identified.

Debris in the wound may prevent full visualisation of its depth and extent and can contribute to incorrect classification. The European Pressure Ulcer Advisory Panel and National Pressure Ulcer Advisory Panel (EPUAP–NPUAP, 2009) state that category 3 pressure ulcers may contain slough, while category 2 do not.

Less experienced clinicians may incorrectly identify any yellowish material present in pressure

ulcers as slough and, as a result, incorrectly classify these wounds as category 3. Some pressure ulcers containing slough may not be associated with full-thickness dermal loss and, therefore, are not category 3; an experienced clinician will identify such ulcers as being superficial in nature.

Callaghan and Stephen-Haynes (2012) used a monofilament fibre pad (Debrisoft) to reveal the extent of a series of pressure ulcers seen in a community setting. In 11 of the 12 cases, the treating nurses reported that the use of the monofilament fibre pad to remove wound bed debris helped them to more accurately categorise the pressure ulcer.

In a poster presented at the 2013 EPUAP conference, Swan and Orig reported pressure ulcer cases from an acute hospital setting in which it was unclear whether the pressure ulcers were category 2 or 3, and debridement was required to better visualise the wounds for correct categorisation. Mechanical debridement was undertaken using the monofilament fibre pad. The monofilament fibre pad has been reported elsewhere to be a quick,

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Table 1. Product Focus on the monofilament fibre pad Debrisoft\* (Activa Health Care).

<p><b>Background</b></p>	<p><b>Cost effectiveness</b></p>
<p>The monofilament fibre pad is a modern, wound-debriding product designed to mechanically remove slough and devitalised tissue from the wound bed and surrounding skin (Callaghan and Stephen-Haynes, 2012).</p>	<p>The monofilament fibre pad can:</p> <ul style="list-style-type: none"> <li>▶ Reduce specialist nurse, general nurse and equipment costs by assisting in accurate categorisation of pressure ulcers (Swan and Orig, 2013).</li> <li>▶ Reduce costs and time when compared with larvae therapy (Hawkins, 2012).</li> <li>▶ Potentially prevent hospital admission and shorten inpatient stays related to wounds (Hawkins, 2012; Stephen-Haynes and Callaghan, 2012b; Wilson, 2012).</li> <li>▶ Break the cycle of chronic ulceration and move the patient rapidly to healing (Flinton, 2011).</li> <li>▶ Reduce the number of subsequent wound care visits required by patients (Callaghan and Stephen-Haynes, 2012b).</li> </ul>
<p><b>Indications</b></p>	<p><b>Pain</b></p>
<p>The monofilament fibre pad has been indicated for use in:</p> <ul style="list-style-type: none"> <li>▶ A variety of wound types including venous leg ulcers, diabetic foot ulcers, arterial ulcers, pressure ulcers and traumatic wounds (Bahr et al, 2011; Haemmerle et al, 2011).</li> <li>▶ A variety of tissue types including slough, necrosis, and haematoma (Bahr et al, 2011; Haemmerle et al, 2011).</li> <li>▶ The removal of hyperkeratosis (Crook et al, 2013).</li> <li>▶ The removal of debris, for example grit or explosive residue (Sewell, 2012).</li> </ul>	<p>Use of the monofilament fibre pad causes the patient little or no pain (Bahr et al, 2011; Flinton, 2011; Haemmerle et al, 2011; Callaghan and Stephen-Haynes, 2012; Sewell, 2012; Stephen-Haynes and Callaghan, 2012b; Wilson, 2012; Denyer, 2013).</p>
<p><b>Safety</b></p>	<p><b>Using available resources efficiently</b></p>
<p>The monofilament fibre is safe to use for:</p> <ul style="list-style-type: none"> <li>▶ The removal of devitalised tissue leaving healthy granulation tissue intact, including small islands of epithelial tissue (Haemmerle et al, 2011).</li> <li>▶ Infants and young children (Sewell, 2012; Denyer, 2013).</li> </ul>	<p>The monofilament fibre pad can be used by:</p> <ul style="list-style-type: none"> <li>▶ Healthcare assistants (Whiteside and McIntyre, 2013).</li> <li>▶ Generalist hospital and community nurses (Stephen-Haynes and Callaghan, 2012b; Wounds UK, 2013).</li> <li>▶ Patients and carers (Whitaker, 2012).</li> </ul>
<p><b>Speed</b></p>	
<p>The debridement process using the monofilament fibre pad has been found to be the least time-consuming debridement technique by the EWMA (range 2–12 minutes; Strohal et al, 2013).</p>	

*“The monofilament fibre pad (Debrisoft®, Activa Health Care) is a quick and easy-to-use debridement technique.”*

Figure 1a. Patient 4 was an 83-year-old woman admitted with difficulty in breathing and possible heart failure. On admission she was noted to have a lightly sloughy category 3 pressure ulcer to buttock.

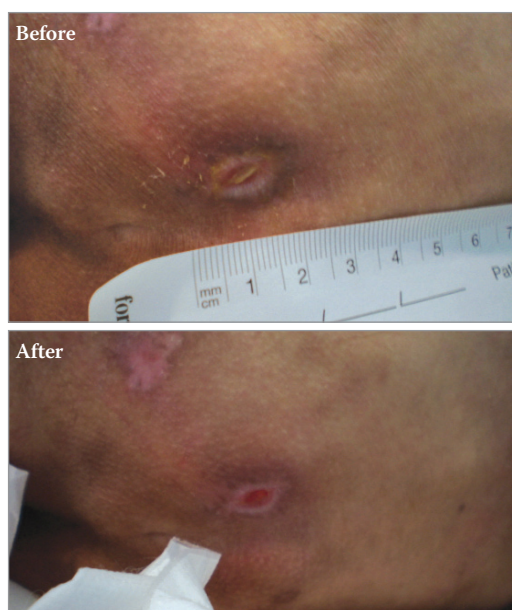
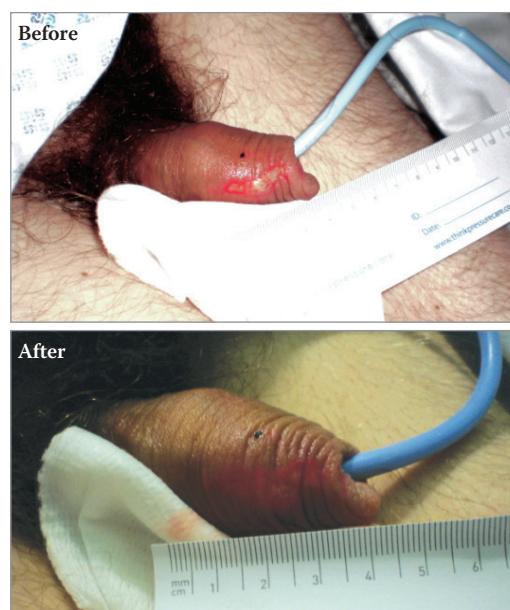


Figure 1b. Patient 6 was a 44-year-old man who had suffered a head injury following an assault. He was an alcoholic and depressed. A category 3 pressure ulcer developed as a result of incorrect catheter positioning.



simple, effective method of debridement that causes virtually no pain to the patient (Bahr et al, 2011; Strohal et al, 2013). A product summary can be found in *Table 1*.

Data on pressure ulcer location, estimated category prior to debridement, actual category

following debridement, and time taken to debride the wound were collected on a specially designed form. Images of the wounds were taken using either a digital camera or the Eykona Wound Measurement System 3D imaging system (Eykona Medical) to add accuracy and objectivity to the measurement process.

Data on 13 patients were collected (*Table 2*). Debridement with the monofilament fibre pad revealed a more superficial pressure ulcer than had been initially estimated in 61.5% (8/13) of cases. No more than 4 minutes of debridement with the monofilament fibre pad was required to reveal the wound bed. *Figure 1* illustrates two cases.

It was not possible to determine whether the wound was category 2 or 3 in two patients due to their experiencing anxiety during debridement and the treatment being discontinued; it is noteworthy that both these patients had previously diagnosed anxiety disorders.

Swan and Orig (2013) found the monofilament fibre pad to be a quick and easy-to-use debridement technique, ideal in assisting the clinician to visually assess and categorise pressure ulcers at the bedside. Their findings reinforce recommendations made by EWMA (Strohal

Table 2. Summary of results. The shaded boxes indicate a reduction in categorisation.

Patient number	Ulcer location	Estimated category before debridement	Actual category after debridement	Time required to debride the wound (min:sec)
1	Panus	3	3	2:00
2	Heel	3	3	1:00
3	Neck	3	2	1:20
4	Buttock	3	2	1:15
5	Hip	3	2	2:00
6	Penis	3	2	1:00
7	Chest	3	2	1:30
8	Sacrum	3	2	0:55
9	Buttock	3	3	2:00
10	Hip	3	3	2:00
11	Penis	3	2	2:30
12	Buttock	3	3	4:00
13	Buttock	3	2	1:00

et al, 2013), which recognises this new form of mechanical debridement as the fastest method available. The authors are not aware of any other product that facilitates such rapid assessment to take place at the bedside.

As the case series presented here suggests, the use of the monofilament fibre pad has considerable potential for cost savings. These include:

- ▶ Effective use of resources, such as pressure relieving equipment, based on pressure ulcer category.
- ▶ Avoiding time-intensive incident reporting activities (and subsequent investigations) for pressure ulcers incorrectly categorised as grade 3 or 4 (Table 3).
- ▶ Faster wound healing progression by rapid removal of devitalised tissue

It should be noted that a quick, one-off debridement session with the monofilament fibre pad on wounds containing thick, tenacious slough is unlikely to completely remove such debris and expose the wound bed. However, wounds with this type of slough may respond to a number of consecutive treatments with the monofilament fibre pad.

It is the view of the authors that pressure ulcer categorisation should be based on an assessment of the depth of damage, and not tissue type. When the wound bed is obscured by devitalised tissue, the process of categorising the wounds is more difficult for the clinician.

The use of the monofilament fibre pad in the debridement of pressure ulcers with superficial slough allows clinicians to clearly view the wound bed. Beyond having removed from the wound debris that may act as a reservoir of infection or a barrier to healing, this process also allows for more accurate categorisation and, therefore, the ability to provide safer and more appropriate patient care.

**CONCLUSION**

The NHS is in the process of adapting to the increasing demand for care, the delivery of which needs to be safe, effective, acceptable to patients, and cost-effective manor. Tissue viability services have a key role to play in achieving the goals of the new NHS. The case series presented here highlights the importance of the correct categorisation of individual ulcers and the role that the monofilament

fibre pad – with its ability to clear debris without pain and delivery by clinicians or patients in a range of settings – can play in this process.



*“Tissue viability services have a key role to play in achieving the goals of the new NHS.”*

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**Table 3. Brief summary of the reporting process for category 3 and 4 pressure ulcers and subsequent reporting arrangements to commissioners.**

- ▶ Category 3 and 4 hospital-acquired pressure ulcer verified by tissue viability service who ensure incident reporting form is completed by ward staff.
- ▶ Commissioners notified and involvement of risk and compliance unit.
- ▶ Root cause analysis completed by matron / unit manager.
- ▶ Duty of candour discussion with patient / family / carer.
- ▶ Documentation sent to assistant director of nursing for approval.
- ▶ Documentation sent to deputy chief nurse for approval.
- ▶ Action plan to the commissioners.
- ▶ Serious incident reporting; incident findings reported to patient / family / carer.