

Transforming care, transforming lives: National Advisory Board Meeting

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Wounds UK

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KEY WORDS

- ▶▶ Conforming dressing
- ▶▶ Exudate management
- ▶▶ Partnership working
- ▶▶ The gap
- ▶▶ Transformation

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The National Advisory Board Meeting commenced with an open debate on why there is a need to transform wound care from a patient, service and industry perspective. Recent research in wound care has made it clear why transformation is necessary: there is huge variation and lack of consistency in wound care access for patients (Guest et al, 2015; Gray et al, 2018), the financial burden to the NHS is often cited (estimated to be between £4.5 and £5.1 billion; NHS Long Term Plan, 2019), and there is an underuse of evidence-based practices and overuse of practices that are not supported by robust research evidence (Gray et al, 2017).

Strategic transformation of wound care in the UK is needed at all levels – from top-level decision makers and specialists, to non-wound care specialist staff and the patient. The meeting had a strong focus on the impact transforming care can have on the patient, highlighted by the example of Norma's story (*Box 1*).

WHY DO WE NEED TO TRANSFORM WOUND CARE?

1. Resource use and cost associated with wound care

Chronic wounds are estimated to cost 2–3% of healthcare resources in developed countries (Frykberg et al, 2015), although in Wales the estimated cost

Box 1. Disrupting the norm

Transformation can take on many guises in wound care practice. Norma had been in excruciating pain and was unable to drive, which was leaving her isolated. The use of Biatain® with 3DFit Technology® as part of her treatment regimen meant that she was able to move from a 4-layer compression system to a hosiery kit. She was no longer in pain and had the ability to self-care and drive again, socialise and regain her independence.

is higher at 5.5% (Philips et al, 2016). There are also dwindling resources in funding and workforce. Funding to NHS Trusts for community services has fallen by 4% (Scobie and Spencer, 2018), and since 2009, the number of community nurses has fallen by 14% and district nurses by 45% (The Health Foundation, Kings Fund and Nuffield Trust, 2018).

The cost of wound care and wound care products is an important consideration; however, it should be remembered that dressing costs are not the highest cost factor in wound care. More than 52% of costs of surgical wounds have been attributed to community nursing care, while dressings and bandages accounted for up to 17% of the cost of patient management (Guest et al, 2018). In the analysis, if community nurse visits were reduced by 25%, overall costs would be

reduced by 14%. If dressing cost was reduced by 25%, the overall cost would only reduce by 4%. Cost is used as a proxy to measure change and efficiency, however, it should be value of treatment and value to patients that should be the focus, such as reducing time to heal and improving patient quality of life.

2. Excess moisture and exudate

Exudate is a normal part of healing; however, it poses one of the biggest clinical challenges if in the wrong amount, in the wrong place or when of the wrong composition. David Voegeli, Caroline Dowsett and Tonny Karlsmark presented the clinical challenges of exudate in chronic wounds.

In acute wounds, there is normally a balance between proinflammatory cytokines and anti-inflammatory cytokines, which help regulate matrix metalloproteinases (MMPs) and tissue inhibitors of metalloproteinases (TIMPs).

In chronic wounds, there are raised levels of proinflammatory cytokines that interfere with the healing process by starting a chain of events that delay healing and predispose the periwound skin to damage and promote bacterial colonisation of wounds and formation of biofilms (Chauhan et al, 2016; Krishnaswamy et al 2017) (Figure 1).

The periwound skin area is the area extending up to 4cm beyond the wound edge and, if wound

moisture is not properly managed, it can lead to maceration and increased wound size and infection. In total, 60–70% of wounds are affected by moisture, and excessive moisture on the stratum corneum, the top outermost layer of the skin, leads to:

- ▶▶ Disruption to intercellular lipids (Warner et al, 2003)
- ▶▶ Pooling of water in intercellular space (Warner et al, 2003)
- ▶▶ Structural changes to corneocytes – swelling and ‘trapping’ of solutes (Warner et al, 2003)
- ▶▶ Apparent cumulative effects (Warner et al, 2003)
- ▶▶ Additional damage with chronic wound exudate due to presence of proteinases.

3. The wound gap

Nearly 80% of chronic wounds are less than 2 cm deep (Braunwarth et al, 2019). If exudate is poorly managed there is also an increased risk of exudate pooling, which can increase the risk of leakage, maceration or infection (Cutting et al, 2009; Young, 2012) The wound gap or ‘dead space’ is the area between the wound bed and dressing, which occurs when a dressing does not conform fully to the wound bed (Snyder, 2005; Cutting et al, 2009). There is also the potential for inappropriate dressing use; some dressings may not conform fully to the wound bed leading to exudate pooling or leakage.

HOW CAN WE TRANSFORM WOUND CARE?

1. Open collaboration

It was agreed that open collaboration with all stakeholders, including industry, clinicians and patients, is needed to transform care. Public campaigns, such as Stop The Pressure or Legs Matter have, to some extent, promoted a united wound care voice and this has encouraged engagement from non-wound care specialists and patients. Healthcare professionals can be empowered to identify the concerns, choose the right treatment goals and enable patients to self-care. Patients should be involved in decision-making to create an environment that encourages ‘caring with’ rather than ‘caring at’

2. Resource optimisation

The NHS Supply Chain is designed to help the NHS in England and Wales to deliver clinically assured, quality products at the best value. It manages the sourcing, delivery and supply of health care and food

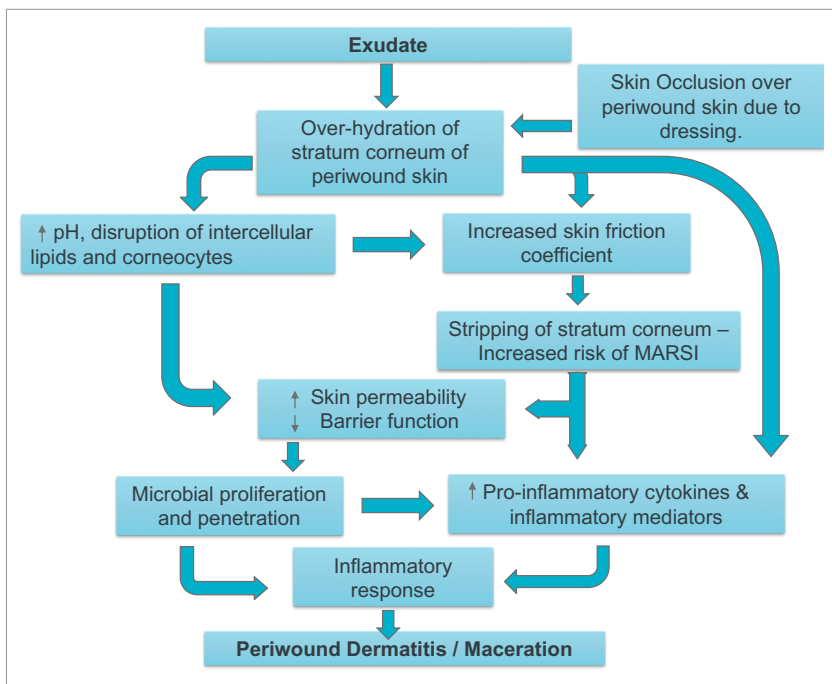


Figure 1. Periwound dermatitis pathway (printed with permission from David Voegeli [2019])

Box 2. The National Wound Care Strategy Programme

The aim of the **National Wound Care Strategy Programme**, set up in 2018, is to scope the development of a wound care strategy for England that focuses on improving care relating to pressure ulcers, lower limb ulcers and surgical wounds. The National Wound Care Strategy Programme is developing recommendations on how to improve the patient journey to reduce variation; the safety and optimise patient experience; the supply and distribution of products and services for wound care; access to education for healthcare practitioners, patients and carers; and how information is gathered and used (Adderley, 2019).

products to the NHS and healthcare organisations. For wound care, the Nationally Contracted Products (NCPs) initiative is designed to reduce unwarranted variation. While in theory this approach would appear to be beneficial, the product range standardisation and resultant rationalisation as seen in the NCP programme schedule has been met with concern as an over-simplification of wound care that could lead to delays in patients receiving appropriate treatment, leading to higher complication rates and further costs (Harding et al, 2019).

It was agreed at the meeting that actions that standardise care delivery with education to ensure compliance to national guidelines, via the National Wound Care Strategy Programme (*Box 2*) in England (Harding et al, 2019) could be a beneficial approach.

3. Partnership working

While more efficient use of resources is critical to improve patient outcomes, simply investing in strategies and initiatives does not guarantee success or improvement. Working in partnership with patients, their families, the wider multidisciplinary team and with the wound care industry is an opportunity to drive forward transformation in practice and to access new technologies, education and innovative purchasing models designed to reduce waste and inefficiency of resource and time. In health and social care, partnership working is increasingly being enabled with not-for-profit organisations and industry.

4. Use of disruptive technology

It is imperative that the cause of excess moisture is controlled by addressing the underlying issues and using a highly absorbent dressing that conforms to the wound bed, absorbs exudate vertically and locks away exudate from at-risk skin. Adoption of a structured skin regimen to protect the periwound skin should also be considered, i.e. a gentle pH

neutral cleanser, skin protectant and moisturiser (if clinically indicated) along with an appropriate dressing choice. The ideal dressing to manage the gap should conform to the wound bed, and absorb and retain wound exudate to help prevent wound complications (Dowsett et al, 2018).

The Coloplast Global team (Christoffer Hoffmann, Senior Manager; Anders Christian Nielsen, Principal Scientist; and Lasse de Fries, Health Economist) presented the case for Biatain® with 3DFit Technology® as a solution to address the wound gap. Biatain with 3DFit Technology has three unique properties: it absorbs moisture vertically, conforms to the wound bed and retains exudate.

The hydrophilic polyurethane foam layer has strong absorption and retention capacities. *In vitro* tests have shown that Biatain with 3DFit Technology had a statistically significant higher 24-hour total fluid handling compared with nine other commercially available wound dressings tested (Andersen, 2013; Nielsen, 2019). Biatain with 3DFit Technology also retains and traps 99.98% of bacteria under compression (Horst and Cecile, 2019). The 2018 NHS Clinical Review of the silicone adhesive foam category rated Biatain Silicone highest for absorbency and fluid capacity management (NHS Clinical Evaluation Team, 2018).

In the clinical setting, in a retrospective case study of 104 patients with varying type, size and depths (1–42 mm) and exudate levels, Biatain with 3DFit Technology conformed to the wound bed with sufficient vertical absorption. Effective management of the gap may reduce exudate-related problems such as maceration and infection as no exudate pooling, maceration of the wound edges and periwound skin nor dead space were observed (Braunwarth and von Hallern, 2018).

Tonny Karlsmark also shared the research that has been conducted at Copenhagen University Hospital, Denmark. Biatain with 3DFit Technology can conform to the wound bed topology up to 2 cm so using packing, filler or a secondary dressing is not required. For chronic, exuding wounds over 2 cm deep, a gelling fiber with Biatain would be more appropriate.

The economic potential of using a wound bed conforming dressing includes the reduction in products required (from two products to one), and nursing time. One dressing instead of two also increases the opportunity for patients to self-care,

all of which can have a positive impact on patient experience and may improve patient quality of life.

Take-home message: The wound gap is a challenge to wound healing. If unmanaged, the gap can result in exudate pooling, increased risk of infection and periwound skin damage, which could delay wound healing.

The body of evidence indicates that the wound gap is a challenge. It seems that in practice the gap is being managed, but not in a structured uniform way. A structured way to manage the gap would be beneficial, especially for nurses who do not manage wounds on a daily basis.

CASE SERIES OF THE POTENTIAL HEALTH ECONOMIC BENEFITS OF BIATAIN WITH 3DFIT TECHNOLOGY

Pauline Wilson, Clinical Specialist Podiatrist, presented real-world data from a clinical case series in Ireland that considered the clinical effectiveness, patient satisfaction and potential health economic benefits of Biatain with 3DFit Technology in the management of wounds (Wilson et al, 2019). The dressing was assessed on comfort, ease of product application and removal, conformability to the wound bed, ability to manage exudate, condition of the wound bed and ability to stay in place.

In total, 49 patients from primary and secondary care were included in the evaluation. Eligibility criteria included any wound treated with a wound contact layer and/or secondary dressing, up to and including 2 cm in depth. Compared to previous dressing used, 77% said it performed better. Biatain with 3DFit Technology was used by specialist and non-specialist staff, as well as patients and family members; patients reported they were easily able to self-care as the 3-part dressing application process was easy to use.

Unit cost analysis from the study comparing the purchase cost of Biatain with 3DFit Technology with 10 case studies that used a filler and secondary dressing showed that Biatain was 49% cheaper than using a filler and secondary dressing (Wilson et al, 2019). Using a filler and secondary dressing averaged at €5.06, while using one dressing that conformed to the wound bed (Biatain with 3DFit Technology) cost only €2.58.

Since this work was published, there are now a total of 137 evaluations completed across Ireland, England and Scotland. The wounds have been of a similar wound aetiology and location as found in Wilson et

al (2019). So far Biatain with 3DFit Technology has showing very similar results in performance versus previous dressing (77% ($n=49$) better than and 79% ($n=123$)).

Take-home message: The adoption of Biatain Foam with 3DFit Technology could simplify and transform clinical practice.

There were anecdotal reports from the Ad Board that Biatain Foam is having a positive effect on wound care as it is easy to use by non-specialists, and only one product is required, rather than two. Education is integral to the use of any new product. Biatain with 3DFit has the potential to simplify wound practice and therefore potentially transform patient lives.

Take-home message: Biatain's unique 3DFit Technology may solve the challenge of the gap by absorbing exudate vertically, conforming to the wound bed and retaining exudate.

At the moment there is no standardised way to evaluate a product, so real life evaluations like Wilson et al (2019) are important. Longer, larger evaluations are required with different centres looking at different outcomes.

OPEN DISCUSSION: EMERGING THEMES

The meeting included workshops, with an opportunity for all attendees to discuss the opportunities to transform wound care services and improve patient care. The following themes were identified from the workshops:

- ▶▶ The Ad Board believes that transformation in wound care practice is required – a reduction in nurses and a growing population of patients with wounds means time for full assessment is limited leading to repetitive and unresponsive wound care.
- ▶▶ There are existing, ongoing good examples of transformation and the Ad Board agree that these need to be shared via a common platform.
- ▶▶ The Ad Board hopes that the National Wound Care Strategy Programme will provide a platform to share good examples of transformation; however, there is some concern that not all voices in the wound care community are being heard.
- ▶▶ The Ad Board believes that the tissue viability nurse community should engage more with non-specialist wound care nurses to educate and improve confidence and competency.
- ▶▶ The Ad Board believes that all healthcare

professionals can work to create an environment to empower patients around self-care. Behaviour change is needed for both patients and clinicians, including transforming the culture from 'nursing at' to 'nursing with' to empower patients. Self-care is not for every patient and considerations for encouraging self-care are required, such as longer initial appointments to support patient independence, invitations to educational days or self-care plans with pictures.

▶ In relation to NHS Supply Chain rationalisation, the Ad Board considered that:

- Changing product supplier may result in a significant increase in cost related to additional training and education to use new products – not all product suppliers will be equipped to deliver this.
- Rationalising access to products challenges the process of clinical evaluation and patient choice.
- Rationalising access to products may lead to less cost-effective treatment options, i.e. increased nursing visits to change dressings more frequently.
- The secondary requirements of wound care products differ significantly depending on the care setting, therefore a 'one-size-fits-all' model may be inappropriate.

CONCLUSION

In the UK, there are significant variations in care provided and patient outcomes. Changing practice requires innovation that needs to start at an individual level and is the responsibility of all. The National Ad Board agreed that transformation in wound care practice is required to reconcile the increasing demand for wound care with reducing resources. Open collaboration with all involved in wound care, including the patient and wider multidisciplinary team, partnership working with industry and use of technology, such as Biatain with 3DFit Technology, can help guide transformation.



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To overcome significant variations in wound care, there needs to be transformation towards:

- ▶ Open collaboration – share best practice to improve patient outcomes
- ▶ Resource optimisation
- ▶ Partnership working with industry who can support education
- ▶ Use of evidence-based clinical practice and technology.

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DECLARATION

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