

Achieving effective outcomes using a soft silicone shaped foam dressing in clinical practice

In today's healthcare environment it is important to focus on clinical, financial and practical solutions to treating patients who have wounds that are located in challenging anatomical areas such as the neck, trachea, sternum, axilla, elbow, hands, peristomal region, breast, inner thigh, knee, forefoot and heels. This article discusses the problems of dealing with complex chronic wounds and the author reviews the versatility of a soft silicone bordered heel dressing which, through its ability to conform without the need for a secondary dressing, can be applied to a variety of difficult anatomical locations.

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KEY WORDS

Difficult to dress areas
Silicone foam
Heel-shaped dressing
Wound assessment

The incidence of wounds in the UK is estimated to be 3.5 per 1,000 (Vowden et al, 2009) and wound care represents 3% of the NHS's annual healthcare budget (Drew et al, 2007). The time spent on treating patients with wounds should also be considered as a high percentage of wounds are chronic in nature and are managed by primary care staff including GPs, podiatrists, and specialist and community nurses. Estimates of the amount of community nursing time spent on wound care vary, however, a Productivity Improvement

Programme in the author's locality indicated that 40% of clinical time was spent on face-to-face contact with wound care patients.

The wide range of healthcare professionals involved in wound care can lead to variations in practice and Harding (2000) suggests that this can

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also influence clinical and financial outcomes. Posnett and Franks (2008) highlight that a high proportion of wounds remain chronic for longer than necessary and suggest that the financial burden of wounds could be reduced with proper diagnosis and the delivery of optimal wound care treatment.

All areas of health care are under increasing levels of scrutiny in relation to both the financial cost of service delivery and the maintenance of the highest standards of care. This is demonstrated in the NHS White Paper *Equity and Excellence: Liberating the NHS* (Department of Health [DH], 2010), which outlines a number of essential

care delivery aspects including putting patients first in consultations, the ability to measure efficiency and improvement, and effective outcomes. This White Paper is accompanied by the document *From Good to Great* (DH, 2009), which sets out a cost-effectiveness agenda and identifies the need to maximise the impact of tax revenues.

Achieving improvements in wound management services will be dependent upon effective practice allied to the appropriate use of relevant wound care interventions

Wound management

Successful wound management requires a flexible approach to the selection and use of wound dressings based upon:

- ▶▶ The clinician's assessment
- ▶▶ Treatment objectives
- ▶▶ Understanding the healing process
- ▶▶ Awareness of the supporting evidence
- ▶▶ Awareness of a dressing's properties.

Without such knowledge and a careful consideration of the treatment objectives, dressing selection is likely to be arbitrary, potentially ineffective and wasteful, both in terms of time and physical resources (Thomas, 1997; Best Practice, 2008).

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presence of pain and the type of tissue in the wound bed (Fletcher, 2005). In addition, patients with chronic wounds have identified malodour, exudate management, leakage and pain as symptoms that cause the most distress. (Franks and Moffatt, 2006).

In a clinical survey of 59 randomly selected healthcare practitioners, White (2010) identified wound location and exudate as the main reasons why some wounds are difficult to dress. White (2010) concludes that clinical and financial outcomes can be improved through education and training in conjunction with wound care product development.

Wound assessment

Several studies have indicated that optimal care is compromised by a lack of knowledge, specific wound assessment and poor management plans (Ashton and Price, 2006; Dowsett, 2009; Beldon, 2010).

The patient history, wound aetiology and a holistic assessment that identifies any underlying differential diagnosis will assist clinicians in the identification of factors that may delay healing. The World Union of Wound Healing Societies (WUWHS, 2008) identifies the need to apply a framework that considers the following:

- ▶▶ Patient history
- ▶▶ Physical examination of the patient and wound
- ▶▶ Wound aetiology
- ▶▶ Comorbidities
- ▶▶ Current status of the wound.

The Nurse Prescribing Bulletin (1999) suggests that wound assessment should include:

- ▶▶ Location
- ▶▶ History
- ▶▶ Causes
- ▶▶ Form (i.e. the presentation of the wound)
- ▶▶ Superficial break (i.e. an abrasion)
- ▶▶ Is there a sinus

- ▶▶ Is there a cavity
- ▶▶ Aetiology, e.g. venous/arterial leg ulcer, pressure ulcer, surgical wound, dehisced wound, diabetic foot lesion, burn
- ▶▶ Tissue type, e.g. granulating, epithelialising, sloughy, necrotic, clinically infected?
- ▶▶ Size, e.g. length, width, depth, surface area
- ▶▶ Is the exudate low, medium, heavy
- ▶▶ Pain assessment
- ▶▶ Periwound skin condition
- ▶▶ General skin condition.

Any assessment should be used to develop an appropriate management plan which should be time bound and applied and agreed in collaboration with the patient, carers and family (DH, 2010). Additionally, the WUWHS (2008) state the importance of the healthcare professional's skills in developing a management plan that can influence outcomes, including tackling the following problems:

- ▶▶ Unrelieved pressure
- ▶▶ Poorly fitting footwear
- ▶▶ Poor glycaemic control
- ▶▶ Malnourishment
- ▶▶ Smoking
- ▶▶ Excess alcohol intake.

Objectives

Fletcher (2008) states that the properties of wound dressings are important and acknowledges that they are not only a passive wound covering but can also provide the optimal wound bed environment for healing. Thomas (1997) identifies several principal reasons for using a dressing:

- ▶▶ To produce rapid and cosmetically acceptable healing
- ▶▶ To remove or contain odour
- ▶▶ To reduce pain
- ▶▶ To prevent or combat infection/cross-infection
- ▶▶ To contain exudate
- ▶▶ To cause minimum distress or disturbance to the patient
- ▶▶ To hide or cover a wound for cosmetic reasons.

Thomas (2008) also describes the primary requirements of the 'ideal dressing', which are essential for healing in most wounds:



Figure 1. Allevyn™ Gentle Border dressing *in situ* in challenging anatomical locations.

- ▶ Maintains the wound and the surrounding skin in an optimum state of hydration
- ▶ Forms an effective water-resistant seal on the periwound skin and is easily removed without causing trauma or skin-stripping
- ▶ Forms a bacterial barrier; effectively containing exudate or cellular debris to prevent the transmission of micro-organisms into or out of the wound
- ▶ Does not release particles or non-biodegradable fibres into the wound
- ▶ Provides protection to the peri-wound skin from potentially irritant wound exudate and excess moisture
- ▶ Is non-toxic and maintains the optimum wound temperature and pH level
- ▶ Requires minimal disturbance or replacement.

Secondary requirements of the 'ideal dressing' describe the action of the dressing within the wound bed, including debridement, antimicrobial action and the ability to absorb odour.

However, wound dressings can also have a negative impact on the healing trajectory when they become displaced and fail to provide a barrier against infection. It is essential, therefore, that clinicians have an understanding of how wound care products work, as well as understanding their personal limitations and accountability (Nursing and Midwifery Council [NMC], 2010).

Managing difficult to dress areas

For many years, healthcare professionals have had to be creative when managing difficult to dress areas such as the neck, trachea, sternum, axilla, elbow, hands, peristomal areas, breast, inner thigh, knee, forefoot and heels. While there is some literature relating to the dressing of awkward areas (Hampton, 1996; Hampton, 1999; Fletcher, 2005; White, 2010), there remains a paucity in the available research.

These areas may be difficult to dress due to the age of the patient (older patients will have more fragile skin), frequent movement, the size of the area to be dressed, the presence of a joint,

uneven bodily curves and contours, and continual friction, such as on the heel.

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have had to use multiple dressings or cut dressings to fit. This creates a clinical challenge, particularly in relation to infection prevention, where the availability of a clean preparation area for shaping dressings, the use of sterile/disposable scissors and the need to retain the newly-cut and shaped dressing on the patient, all present significant difficulties.

Additionally, the financial burden should be considered, including the unit cost *versus* dressing wear time and costs associated with the time it takes to create a conformable dressing that is acceptable to the patient.

Importantly, the patient's views should be considered, and the chosen dressing should allow for personal hygiene needs, offer a secure fit, be easy to apply and remove, and eliminate the need for frequent changes.

When dressing awkward anatomical areas one significant factor is the maintenance of an adequate seal. This can be achieved by using an absorbent dressing that wicks fluid up and away from the wound, conforms well and holds itself in place, thus reducing any possible leakage. This helps to protect the periwound skin from potentially irritant wound exudate and excess moisture (Wicks and Stephen-Haynes, 2008). The application of a barrier film can also aid adhesion and increase the dressing's longevity, as the film's high moisture vapour transmission rates (MVTR) remove excess moisture and

prevent the dressing becoming heavy and falling off.

The challenge in any dressing application, along with conformability to the wound bed and the ability of the dressing to remain in place, is to provide pain- and trauma-free dressing removal. This is a priority for most patients, but a major factor in those with a damaged or friable periwound area, or friable skin. A soft silicone foam dressing, Allevyn™ Gentle Border™ (Smith & Nephew), has been found not to adhere to the wounded areas, and can be removed gently without causing trauma to the wound bed and periwound tissue (Grothier, 2009; Hampton, 2010). The Allevyn Gentle Border dressing is a shaped soft silicone foam dressing that provides active fluid management with a silicone adhesive wound contact layer that aids easy dressing removal while providing a secure and comfortable fit (Hampton, 2010). The flexibility of this wound dressing gives a secure fit, conforming well to the wound bed. It provides active fluid management in its control of exudate and prevents leakage (Grothier, 2009; Hampton, 2010). Additionally, it may be applied to patients with fragile skin, thereby avoiding the need for secondary retention. It offers versatility in application, thereby optimising healing for patients with wounds in difficult to dress areas.

The Allevyn Gentle Border dressing fulfils several of the primary requirements of the 'ideal dressing', as identified by Thomas (2008), in that it:

- ▶ Promotes an ideal wound environment
- ▶ Is water resistant
- ▶ Offers a conformable and mouldable dressing that is easily applied and removed
- ▶ Protects the periwound skin
- ▶ Forms a bacterial barrier
- ▶ Is non-toxic
- ▶ Does not release particles or non-biodegradable fibres into the wound
- ▶ Requires minimal dressing changes.

Discussion

This paper recognises the issues of dressing wounds in awkward anatomical areas on the neck, trachea, sternum,

axilla, elbow, hands, peristomal region, breast, inner thigh, knee, forefoot and heels. Clinicians need to be explicit about the objectives of wound management in a language the patient understands. It is important to impart their knowledge of the aims of the wound dressing and overall treatment outcomes to the patient. Patients should be aware of the expected wear time and any indicators for change on the dressing exterior. Comfort, lifestyle and work must underpin any decisions, with consideration to any dressing movement that may occur from joint mobility and functionality, particularly in locations that remain a challenge to dress.

Meeting the patient's wound-related objectives may also lead to greater acceptability and concordance (Fletcher, 2008). Failure to address assessment will result in escalating costs, a failure to meet government targets and increasingly demoralised staff (Posnett and Franks, 2008). **WUK**

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Key points

- ▶ All areas of health care are under increasing levels of scrutiny in relation to both the financial cost of service delivery and the maintenance of the highest standards of care.
- ▶ Some patients' wounds are challenging in terms of anatomical location, chronicity, aetiology, the presence of pain and exudate.
- ▶ It is important to focus on clinical, financial and practical solutions to treating patients who have wounds located in challenging anatomical areas.
- ▶ Several studies have indicated that optimal care is compromised by a lack of knowledge, specific wound assessment and poor management plans.
- ▶ The patient history, wound aetiology and a holistic assessment that identifies any underlying differential diagnosis will assist clinicians in the identification of factors that may delay healing.
- ▶ Properties of wound dressings are important and acknowledge that they are not only passive wound coverings, but also provide the optimal wound bed environment for healing.
- ▶ A soft silicone foam dressing, Alleevyn™ Gentle Border™ (Smith & Nephew), has been found not to adhere to the wounded areas, and can be removed gently without causing trauma to the wound bed and periwound tissue (Grothier, 2009; Hampton, 2010).