Using ActivHeal® in a traffic light system wound care formulary

Despite recent announcement by the government that the NHS is safe from further budget cuts, there is still a responsibility to streamline purchasing within the NHS. This has resulted in wound care specialists using investigative methods, including prevalence studies, to address how their specific institution can reduce costs without having a negative impact on their patients. East Lancashire NHS Hospitals Trust has looked into how implementing a wound care formulary and having ActivHeal® (Advanced Medical Solutions) as a first-line dressing range can have a positive effect on dressing choice, education and wound care spend.

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KEY WORDS
ActivHeal®
Cost-effectiveness
Quality
Education

Cost-saving is becoming an increasing priority within both the NHS as a whole and individual trusts. Wound management is one area in which it is possible to lower the financial burden of care, as dressing selection can offer an opportunity to reduce expenditure without reducing quality of care. Murphy (2009) said that even simple dressings can make enormous differences to patients, while remaining low cost and suitable for everyday use. These high impact, low cost products will become increasingly important as NHS trusts look to make cost savings (Medical Technology Group [MTG], 2009). The total national expenditure on wound care provision runs at an estimated £2.3– 3.1 billion per year to the NHS (Posnett and Franks, 2007). The Department of Health (DH) document *NHS 2010–2015: from good to great. Preventative, people-centred, productive* (DH, 2009) clearly states that getting more for the public from the NHS needs to be a priority, and sets the cost-effective agenda. Hard choices about priorities and resources must be made, alongside the vision set out in the *High quality care for all: NHS Next Stage Review final report* of maintaining quality at the heart of the NHS (DH, 2008). This presents a significant challenge to reduce both hospital and community dressing budgets by using lower cost advanced wound care products, while also maintaining the best possible patient care.

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There is still no evidence that any one moist wound healing dressing is better than another when considering wound healing (Horkan et al, 2009). Nelson and Bradley's (2003) review of the Cochrane database supports the view that 'there is no evidence to allow any recommendations to be made on the choice of dressing type or topical agent'. Generally, choice of dressings should be based on using the cheapest, effective dressing which is acceptable to both patient and prescriber (National Prescribing Centre, 1999). Lower cost 'generic' wound dressings are available for foams, alginates, hydrogels and hydrocolloids.

Although wound care may not be an integral part of all nurses' daily responsibilities, it is important for all nurses to have an understanding of this specialty, to ensure a holistic approach when treating patients (Ropper, 2006). Currently, there are approximately 600 wound management products to choose from, manufactured and developed by 72 companies (MA Healthcare, 2009). The variety of dressings can make appropriate dressing selection confusing (Miller, 1994). If the most appropriate dressing is not selected, this can lead to delayed wound healing, thereby wasting resources, i.e. nursing time and dressing costs (King, 2000; Keen and James, 2004). Many nurses find selecting dressings 'baffling', because the choice is 'overwhelming', which may result in their choosing dressings with which they feel familiar, rather than basing their decision on the most appropriate treatment available (Smithdale, 2008).

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Nazarko (2005) advised that all dressings have advantages and disadvantages, and the most important aspect of caring for a wound is to choose the correct dressing for the current stage of healing. Formularies can be created that focus on appropriate and cost-effective dressing choices. By selecting dressings that are appropriate for the type and condition of the wound, clinicians will improve patient outcomes.

Upon reviewing the wound care formulary, East Lancashire Hospitals NHS Trust found that ActivHeal® (Advanced Medical Solutions) offered a simple and effective approach to both cost and appropriate care.

ActivHeal®

Launched in 2004, the ActivHeal range of dressings are first-line advanced wound care products that offer the quality and performance of leading brand equivalents, together with significant cost-savings (typically up to 40%) (Lewis, 2009). Independent laboratory tests and 'in use' studies have shown that ActivHeal dressings have comparable properties to branded products (Eaton et al, 2006; Fletcher and Forder, 2006).

The range consists of generic dressings in the advanced wound dressing categories that are priced lower than branded equivalents. They offer the quality and performance necessary to ensure that there is no compromise in patient care and clinical outcomes (Lewis, 2009). The range consists of a foam non-adhesive, foam adhesive, alginate, aquafiber, hydrocolloid, hydrocolloid foam backed and hydrogel. Working closely with tissue viability nurses and other wound care clinicians, the ActivHeal clinical support nurses provide educational support, including generic wound care training and literature to support the range within the NHS. This helps to ensure appropriate usage to facilitate an informed decision about which ActivHeal wound care product to use for optimum treatment outcomes.

East Lancashire NHS Hospitals Trust

East Lancashire NHS Hospitals Trust had a vacancy for a tissue viability nurse for two and a half years. During this time, compliance to guidelines and the formulary had fallen off. General communication with staff highlighted the fact that the knowledge base and confidence surrounding wound care had also declined, due to a lack of wound care focus within the trust.

To improve this situation there needed to be communication between matrons and healthcare assistants (HCAs) to identify issues and help find appropriate solutions. Previous tissue viability link nurses and new link nurses clearly identified areas of wound management where they no longer felt confident, and expressed a need for training starting at a basic level. These areas included education support requirements for a holistic approach to assessing a wound, and ensuring the correct dressing choice for the appropriate wound type.

Action plan

To address the issue of wound care education and dressing choice, a two-week snapshot of wounds being treated within the trust was undertaken. One link nurse from each department was asked to complete a personal needs analysis form to establish their training and support needs. A needs analysis for each ward also took place, looking at resources, training and current product choice. During the audit of product choice, the types of wounds on each ward were also identified.

Procurement were also asked to identify all of the wound care dressings purchased during the last 12 months, and the products were compared with the dressings on the existing formulary.

Results

Objectives

- To introduce a formulary that can evolve with new guidelines, products and requirements to inform practice
- To support decision-making when staff are choosing products based around the generic type that they require before the brand
- To ensure that the products are fit for purpose and cost-effective
- To ensure availability of specialist products to all areas in the trust when they are required
- To improve compliance from those ordering products
- To allow opportunity for clinicians to comment about products as an ongoing process with feedback forms
- To reflect the formularies used within the PCTs in the locality.

Formulary

The aim of the formulary was to provide a clinically appropriate and cost-effective choice of products that could be evaluated and updated to reflect new guidelines, innovations and products. The formulary was produced with a list of products under generic headings using a traffic light system. The traffic light system was produced to assist nurses in making appropriate choices, together with a wound care management algorithm that identified the type of dressing to be used on a particular wound. The nurses would then be directed to the list of products which had the products under the traffic light system. Green products, such as the ActivHeal wound care range of dressings, are those that can be chosen for use by all trained staff. Amber products can be chosen by experienced staff nominated by ward and department managers. Red products should only be used when specialist advice has been given. Initially, the education was given to the link nurses, their department and ward managers, this then enabled them to train other staff. Education is now given at induction of new staff.

The formulary compiled by the PCT and wound care specialists was presented to the matrons, ward managers and department managers for their comment. Each ward and department was given help to assess stock levels to ensure that they had the products needed. Link nurses were used to cascade the information and encourage the use of the supporting information. Teaching sessions were given on the wards and to all groups of staff to introduce the idea of assessing and considering generic dressings before choosing a branded one. By increasing nurses' knowledge

of wounds, products, and appropriate usage, it was felt that there would be a reduction in costs through product wastage and inappropriate usage.

The aim of this project was to improve patient outcomes by promoting effective and appropriate use of dressing products, while also raising standards by implementing wound care education. To ensure that the nurses were using the green products appropriately, the formulary was easily accessible. Each ward and department was given a folder containing information for all of the products listed. For online ordering, a favourites list was compiled to reduce time spent looking through the catalogue for dressings. Reducing the number of products available, will also decrease the wastage as a result of opening incorrect dressings, or products going out of date. A key motivator for the implementation of the formulary was the financial savings which could be achieved for the trust.

Discussion

The introduction of the formulary has been well received by staff who have been happy with the level of supporting information to enable effective and appropriate dressing choices.

Since restricting the formulary to the generic wound care dressing products and rationalising product usage, the trust has saved over £25,000 during the first 12 months, with a compliance of around 60%. The savings have continued into year two with further tightening of the ordering within each ward by ensuring that wards do not continue to order products that are not within the 'green' section of the wound care formulary. Education at ward level has provided insight into the level of knowledge of nurses looking after patients with wounds. Through increased education and support materials, more appropriate dressing selections have been made, thereby ensuring good clinical outcomes for the patients within the trust.

The following case reports demonstrate the use of ActivHeal wound dressings in clinical practice.

Case report one

Mrs EK, a 79-year-old female with a history of hypothyroid and dementia, was admitted to the Royal Blackburn Hospital following a referral from the GP with an infected pressure ulcer to her left hip (*Figure 1*). The GP also queried an abscess.

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Initial presentation

At the initial examination the wound presented as an area of thick necrotic tissue on the left hip. Following assessment by the tissue viability nurse, the pressure ulcer was classed as a category/stage four pressure ulcer (European Pressure Ulcer Advisory Panel/National Pressure Ulcer Advisory Panel [EPUAP/ NPUAP], 2009). The wound was covered with 100% necrotic tissue, exuding offensive exudate with a pseudomonas infection present. The periwound skin was intact, although it did show some redness and irritation.

The assessment also identified that the patient had a low body mass index (BMI) and low serum albumin and protein, as she was unable to feed herself. On admission, the patient's pressure ulcer risk score using the Waterlow scoring system was 29, indicating very high risk. Mrs EK was also incontinent of both urine and faeces and was unable to communicate her needs.

The priority was to debride the wound conservatively, improve the patient's nutritional status and maintain a pressure area care regimen of two-hourly repositioning, while being nursed on a pressure-relieving surface. ActivHeal® Hydrogel was chosen to assist in the rehydration of the wound, to remove the devitalised tissue and facilitate further debridement at dressing changes. The aim was to enable sharp debridement of the necrotic area once autolysis had softened the wound's borders. The ActivHeal Hydrogel was used under ActivHeal® Foam Adhesive.

Other measures

Mrs EK was also referred to a dietician to increase her nutritional intake and started on intravenous (IV) hydration. A poor nutritional status decreases the wound's ability to heal and the patient's ability to fight infection and disease (Gunnewicht and Dunford, 2004). Following consultation with microbiology, Mrs EK was also started on antibiotics for the pseudomonas infection.

Dressing changes took place every 2–3 days. Over a two-week period, the wound continued to debride autolytically with the application of the ActivHeal Hydrogel and ActivHeal Foam Adhesive dressings. Once the necrotic tissue had

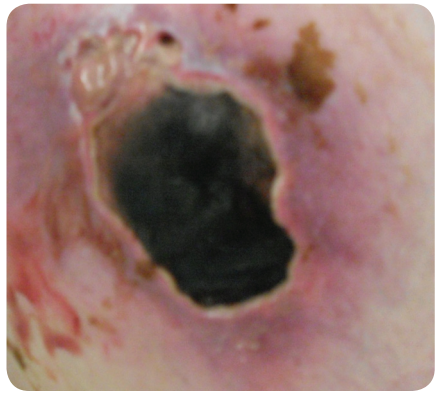

Figure 1. Stage four pressure ulcer to the hip at initial presentation.

Figure 2. Mrs EK's wound post debridement.

been removed and the full extent of the wound was revealed, it was decided to change the dressing regimen (*Figure 2*). The cavity was then lightly packed with ActivHeal® Alginate to enable the healing to progress from the wound bed upwards. ActivHeal Foam Adhesive was chosen as the secondary dressing to maintain a moist wound environment and prevent contamination.

Discussion

In this case, the main challenge was to effectively rehydrate the necrotic tissue. ActivHeal Hydrogel used in conjunction with ActivHeal Foam Adhesive dressing was effective in softening the necrotic tissue to ensure its removal following sharp debridement. Through ActivHeal Hydrogel's viscosity and cohesive gel structure, there was no damage or maceration caused to the periwound area and surrounding skin. ActivHeal Foam Adhesive when used with ActivHeal Hydrogel also maintained a moist wound environment to assist in aiding autolysis and allowed easy dressing removal without causing pain and trauma to the patient. This case report demonstrates that the products offer the clinical outcomes expected by clinicians, while achieving cost-savings for the trust.

Case report two

Miss LB, a 46-year-old female, was admitted following a collapse at home. The patient had a history of spina bifida, non-insulin dependent diabetes, and had suffered an ankle injury six weeks before admission.

Initial presentation

At the initial examination the wound presented as an area of thick necrotic tissue over the sacrum (*Figure 3*). The pressure ulcer was classed as a category/stage 4 pressure ulcer (EPUAP/NPUAP, 2009). The wound was covered with 100% necrotic tissue, exuding offensive exudate with a pseudomonas infection present. Following initial assessment by the medics, the wound was surgically excised down to viable tissue by the surgeons.

The patient was referred to the tissue viability nurse to manage the highly exuding cavity wound which contained both granulating and sloughy tissue. Due to the proximity of the anal sphincter, negative pressure wound therapy (NPWT) was not an option. As part of the assessment, it was also identified that the patient had a low BMI and low serum albumin, protein and haemoglobin. The patient had reduced mobility due to the ankle injury, and partial paralysis of the left leg resulted in the patient becoming lethargic and unmotivated to move. On admission, the pressure ulcer risk score using the Waterlow scoring system was 28, indicating very high risk. The patient also suffered from incontinence of urine and faeces.

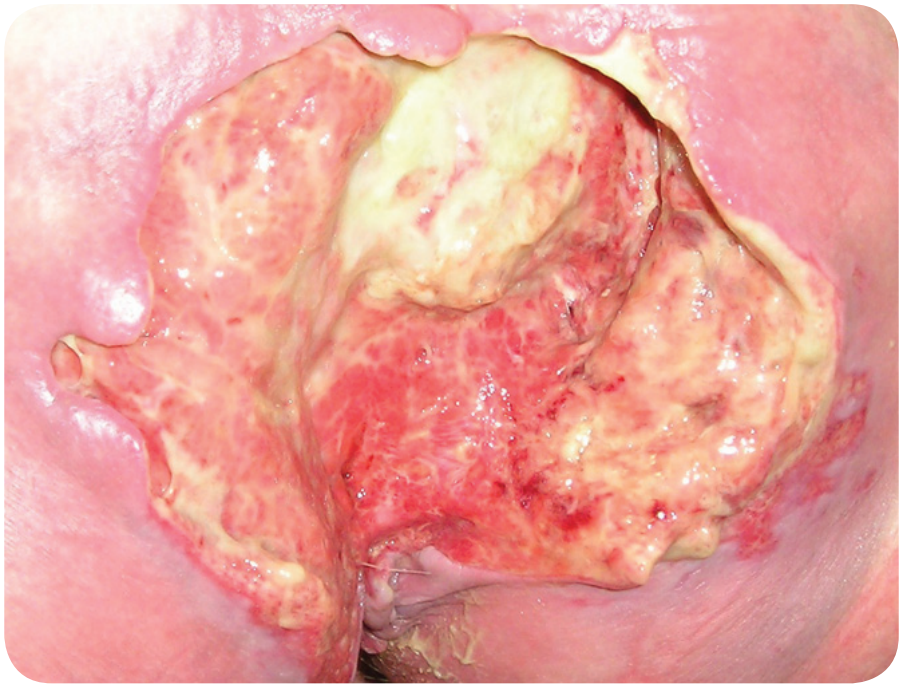

Figure 3. Initial presentation. Sacral pressure ulcer covered with thick necrotic tissue.

Initial wound management plan

The priority was to manage the exudate, promote autolytic debridement of the slough within the wound and promote healing from the base of the cavity. ActivHeal® Aquafiber was selected as it can be used for exudate management and to create an environment to aid autolysis of slough within a wound. ActivHeal Aquafiber was loosely packed within the wound, covered by a super absorbent wound pad, secured by tape.

Other measures

Miss LB was cared for on a pressure-relieving bed and chair. She was repositioned every two hours when in bed and every 30 minutes when sitting in the chair. The patient was referred to the dietician to increase her nutritional intake and the physiotherapist to improve mobility. A course of antibiotics for the pseudomonas infection was also prescribed following consultation with the microbiologist.

Wound progression

Figure 4 shows a reduction in the cavity size, removal of slough and promotion of granulation tissue following the application of ActivHeal Aquafiber. The area of skin where the tape was used to secure the dressings did become red and blistered, largely due to the patient persistently scratching and pulling at the

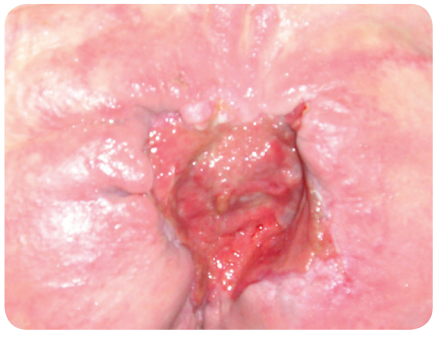

Figure 4. Wound showing a reduction in the cavity size, removal of slough and promotion of granulation tissue following the application of ActivHeal Aquafiber.

dressings. The secondary dressing was therefore changed to ActivHeal Foam Adhesive which enabled the dressings to remain secure, while also improving the condition of the periwound skin. ActivHeal Foam Adhesive assisted in maintaining a moist wound environment and preventing wound contamination. As the wound progressed and the cavity continued to reduce in size, exudate levels also decreased, resulting in dressing changes lessening to alternate days (*Figure 5*).

Discussion

Despite the challenge of the location of this wound, ActivHeal Aquafiber achieved exudate management. The dressing provided an optimal wound environment that created an environment to aid autolysis of slough within the wound. The patient found the dressing comfortable and pain-free on removal. The addition of ActivHeal Foam Adhesive further protected the wound. This dressing also demonstrated effective exudate management, reducing the risk of maceration. This case report demonstrates that the dressings offer the clinical outcomes expected by clinicians, while also achieving cost-savings for the trust.

Conclusion

The ActivHeal range has played an important role within this new wound care formulary system. It has provided a range of clinically-effective dressings that have enabled the trust to reduce costs, while also educating the clinicians in appropriate usage. WUK

Figure 5. After application of ActivHeal Foam Adhesive as a secondary dressing, the wound further reduced in size and exudate levels decreased.

References

Department of Health (2008) *High quality care for all: NHS Next Stage Review final report*. DH, London. Available online at: www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_085825

Department of Health (2009) *NHS 2010–2015. Good to Great, Preventative, people centred, productive*. DH, London. Available online at: www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_109876

Eaton A, Freeman R, Jane D (2005) Results of independent laboratory testing of the ActivHeal range of ' First Choice' advanced wound care products relative to leading brand equivalent. Poster presentation. Wounds UK, Harrogate

European Pressure Ulcer Advisory Panel/ National Pressure Ulcer Advisory Panel (2009) *Prevention and Treatment of Pressure Ulcers: Quick Reference Guide*. NPUAP/ EPUAP, Washington DC

Fletcher D, Forder R (2006) A Summary of UK evaluation of the ActivHeal range of 'first line' dressings. Poster presentation. Wounds UK, Harrogate

Günnewicht B, Dunford C (2004) *Fundamental Aspects of Tissue Viability Nurses*. Quay Books, MA Healthcare Ltd, London

Hamilton C (2005) Speculating to accumulate: reducing the cost of wound care by appropriate dressing selection. *J Wound Care* **17(8)**: 359–63

Horkan L, Stansfield G, Millar M (2009) An analysis of systematic reviews undertaken on standard advanced wound dressings in the last 10 years. *J Wound Care* **18(7)**: 298–304

Keen D, James J (2004) A tool to aid nurses' decision-making in relation to dressing selection. *Br J Nurs* **13(15 Suppl)**: S6–S14

King B (2000) Assessing nurse's knowledge of wound management. *J Wound Care* **9(7)**: 343–6

Lewis S (2009) Using ActivHeal® dressings in a London teaching hospitals: a cost analysis. *Br J Nursing* (Tissue Viability Supplement) **18(20)**

Medical Technology Group (2009) High Impact, low cost, medical technology and chronic wound care. MTG, London. Available online at: www.mtg-org.uk/briefing notes high impact low costdoc.pdf

MA Healthcare (2010) *Wound Care Handbook, 2010–2011* (3rd edition). MA Healthcare, London

Miller M (1994) The ideal healing environment. *Nurs Times* **90(45)**: 62–8

Murphy K (2009) cited in Medical Technology Group (2009) High Impact, low cost, medical technology and chronic wound care. MTG, London. Available online at: www.mtg-org.uk/briefing notes high impact low costdoc.pdf

National Prescribing Centre (1999) *Prescribing Nurse Bull* **1(2)**. NPC, London

Nazarko L (2005) Choosing the right dressings for different wounds. *Nurs Residential Care* **7(10)**: 449–53

Nelson EA, Bradley M (2003) Cochrane Database Systematic Review — Dressings and topical agents for arterial leg ulcers. (1) CD001836

Posnett J, Franks PJ (2007) The costs of skin breakdown and ulceration in the UK. In: Pownall, M, ed. *Skin Breakdown: The Silent Epidemic*. Hull: Smith & Nephew Foundation, Hull

Ropper, R (2006) Principles of wound assessment and management. *Practice Nurse* **31(4)**: 46–8

Smithdale R (2005) Choosing appropriate dressings for leg ulcers. *Practice Nurs* **19(11)**: 552–59

Key points

- Clinicians are looking at new innovative ways to save costs in wound care without compromising patient care.
- A wound care audit is important to identify appropriate usage and highlight possible cost-saving initiatives.
- The development of a traffic light formulary ensured that the needs of the patients and their wounds are met.
- By restricting the formulary to the generic wound care dressing products and rationalising product usage, the trust was able to save over £25,000.
- ActivHeal® provides a range of clinically-effective dressings that have reduced costs. Clinicians have also been educated in appropriate usage.