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Primary Care Trust

## **SOUTH EAST ESSEX COMMUNITY HEALTHCARE WOUND CARE FORMULARY**

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**Copies of this formulary and further information can be accessed via  
the Tissue Viability Department;**

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## **Wound Dressing Formulary – South East Essex PCT**

In August 2009 a small multidisciplinary committee was formed to review the wound formulary within South East Essex PCT. The Wounds UK Best Practise Statement was used as the framework for this process. An audit tool, sent to all District Nurses, Practice Nurses and Nursing Homes was used to ascertain which wound products were being used within the PCT. The results enabled the committee to invite representatives from wound care companies to present the evidence for their products by category (eg alginate, foam, silver and so forth). The formulary presented in this document, is the outcome of this process.

### **Formulary Committee members**

Sarah Charlton	Tissue Viability Nurse
Andrea Clay	Leg Ulcer Team Lead
Alison Lloyd	District Nurse, Kent Elms H.C
Kelly Holmes	Paediatric Community Nurse, Suffolk House,
Carole Barnes	Leg Ulcer Nurse
Paula Fish	Podiatry, Warrior House
Gill Goss	Podiatry, Warrior House

The formulary is intended as a practical and educational tool for healthcare professionals to support the appropriate choice of wound care products.

This document has been approved by the Drugs and Therapeutics Committee. Product price is as listed in the Wound Care Handbook 2009 2010.

Special thanks go to the Formulary Committee members without whose hard work and commitment, the formulary would not be a robust and well balanced document.

Special thanks also to Katie Fox (TVN South East Essex), and Sarah Gardener (TVN Clinical Lead Oxfordshire) who have allowed their formulary

Ratified May 2010 renewal date May 2012

documents and photographs to be used as the basis for this document.

Special thanks also go to the following companies whom without their help the formulary would not be possible;  
Activa, Advancis, BSN, Coloplast, Convatec, Covidien,  
Genuspharma, Hartmann, Healthcare, 3M Healthcare,  
M&A Pharmachem, Molnlycke, Smith & Nephew and  
Urgo Medical

## Content Page

### Section 1

Introduction.....	
Traffic light system.....	
Wound management.....	
Functions of a dressing.....	
Wound cleansing.....	
Wound debridement.....	
Wound categories:	
Epithelialising.....	
Clean/granulating.....	
Sloughy.....	
Necrotic.....	
Fungating.....	
Contaminated, Critically Colonised.....	
and Infected Wounds	
Working with Industry Representatives.....	

### Section 2

#### Products:

1. Alginates
2. Hydrofibres
3. Activated Charcoals
4. Foams
5. Hydrocolloids
6. Hydrogels
7. Iodine products
8. Vapour permeable films
9. Absorbants
10. Protease Modulators
11. Cavities
12. Low adherent dressings
13. Antimicrobials
14. Skin care
15. Tapes

## 16. Bandages and compression

### **Section 1**

#### **I. Introduction**

Effective wound management requires an understanding of both the healing process and knowledge of the properties of the dressings available. When these two factors are considered together, the process of dressing selection may be undertaken in a logical and informed manner.

This formulary is designed to act as a guide for professionals to aid their clinical decision making in the area of wound care and should be used alongside the Trust wide guidelines and protocols.

As with any clinical guidelines, recommendations may not be appropriate in all circumstances (NICE 2000).

Practitioners should use their own professional judgement in individual patient circumstances.

This formulary and its recommendations are evidence-linked rather than evidence-based as there is a lack of evidence from well controlled randomised trials evaluating the clinical and cost effectiveness of wound care products. Recommendations are based on expert opinions and clinical evidence.

## Traffic light system



Throughout the formulary, a traffic light system has been adopted. The intention is to ensure both appropriate and clinically effective use of products whilst ensuring cost effectiveness is maintained. The colours indicate the status of each dressing as follows.

**Red** – these products are for specialist use only. They may be prescribed. However, this must be in consultation with either the Tissue Viability Team or the Leg Ulcer Specialist Team.

**Amber** – these are restricted use only and may be prescribed by nurse prescribers.

A dressing request form (Appendix A) must be completed for audit purposes for both the **Red** and **Amber** categories

**Green** – the use of these products is not restricted.

An exemption form should be completed for non-formulary products (Appendix B)

## **Working with Industry Representatives**

Good working relations with Representatives (reps) from the Wound Care Industry are a valuable component of effective wound management. Reps play a significant part in education around the effective, appropriate and cost effective use of products. Whilst Reps are governed by an industry-wide code of conduct ([www.SDMA](http://www.SDMA)), within South East Essex PCT they are also requested to adhere to a protocol introduced by the Tissue Viability Team (available on request). Part of this concerns the meetings that they hold principally at District Nurse bases. They are required to inform the TVN Team which bases they have attended and to whom they have delivered product training. To ensure this system operates smoothly for all parties the following points should be noted:

- Only products on formulary are to be discussed to promote and enable compliance
- Only sample products should be left at the DN bases
- New products should be discussed with the TVN Team in the first instance to ensure product evaluations with the DN bases are properly and effectively co-ordinated
- Cold calling is not permitted as this can be seen as pressurised selling

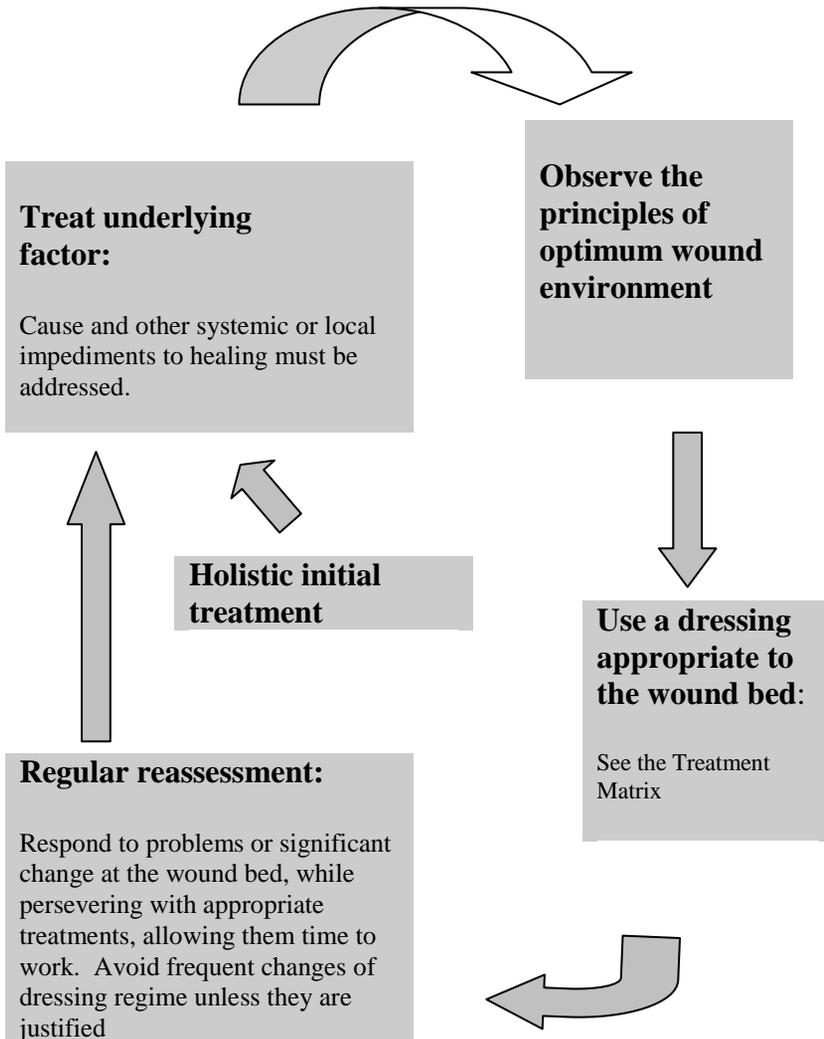
## II. Wound Management

Clinical effectiveness is likely to be promoted by measures that standardise and structure our approach to wound care, to ensure that patients with similar problems are not treated in a random, or wide variety of ways.

Wound care should therefore be planned using basic principles expected to bring successful outcomes (figure 1).

- Identify and address conditions at the wound bed. If there are multiple problems select the most pressing (e.g. infection, necrosis) and use an appropriate dressing. This formulary will facilitate this process.
- Keep it simple. Use one dressing if it will achieve the current wound aims. Two (a primary and a secondary) should be the maximum effective regime. Combinations of greater numbers are likely to be expensive, and ineffective, often resulting from attempting to deal with conflicting problems at the same time. Choose the most appropriate size dressing to fit the wound. Avoid adhesive tapes and retention bandages if possible to reduce skin complications and expense. Many dressings are self-adhesive. These maintain an effective moist environment and obviate the need for further fixative.
- Dressing frequency should be governed by the ability of the dressing to successfully control exudate, and the necessity to treat the wound bed. Dressings should be changed before they leak. Granulating and epithelialising wounds will benefit from long periods left undisturbed. Infected, necrotic and sloughy wounds will benefit from short wear times (e.g. daily) allowing an appropriate dressing to improve the wound bed in the shortest possible time.

# Effective wound healing



## **Functions of a Wound Dressing**

### **Criteria for an ideal dressing**

A dressing should:

- Maintain a high humidity between the wound and the dressing
- Remove excess exudate and toxic components
- Allow gaseous exchange
- Provide thermal insulation to the wound surface
- Be impermeable to bacteria
- Be free from particles and toxic wound contaminants
- Be able to be removed without causing trauma during dressing change  
(Turner 1984)

A dressing should ensure that a wound remains:

- Moist with exudate but not macerated
- Free of clinical infection and excessive slough
- Free of toxic chemicals, particles or fibres released by the dressing
- At the optimal temperature for healing to take place
- Undisturbed by frequent or unnecessary dressing changes
- At an optimal pH value  
(Thomas 1990)

### **III. Wound cleansing**

Wound cleansing should only be undertaken if the objective is to remove visible debris, slough, exudate and residual dressing material from the wound.

Low-pressure irrigation has been demonstrated to effectively remove debris from wounds and reduce infection rates. Sterile normal saline and tap water are the cleansing agents of choice. (Flanagan 1997)

#### **Application**

Warm fluid prior to application to the wound. Microbiologists recommend the running of tap water for a few minutes prior to wound cleansing to flush out any potentially high levels of bacteria. (Flanagan 1997)

#### **Precautions**

Do not irrigate bleeding wounds or wounds with exposed nerve endings. Avoid the use of topical antiseptics to cleanse wounds unless under exceptional circumstances following recommendation from a specialist with rationale for use.

**For further information and advice refer to local guidelines and policies**

#### IV. Wound debridement

The basic purpose of wound debridement is to remove foreign material or devitalised tissue.

There is no Randomised Control Trial (RCT) evidence to support any particular method of debridement. Therefore, in the absence of evidence for or against any particular method of debridement, decisions should be based on patient comfort and acceptability, type and location of wound, and total costs. (NICE 2001)

#### Recommended methods of debriding a wound are:

- **Mechanical/sharp debridement**

**\*Please note** - this should only be attempted by Practitioners who have completed a recognised course and passed the required competencies.

- **Autolytic** – interactive dressings such as:  
Hydrocolloids, hydrogels etc.

- **Bio-surgical techniques**  
Sterile Maggots / Laval Therapy

- **Chemical** - topical agents or enzymes.  
**Please note** - the use of Varidase is no longer recommended due to reported problems associated with the uptake of streptokinase.

## Wound categories

### Epithelialising



The start of epithelialisation is when the wound is showing evidence of a pink margin or isolated pink islands on the wound surface. This usually occurs once the granulation tissue is level with the surrounding skin. The cells at the edges of the wound multiply and begin to migrate into the injured area. Uninjured hair follicles also act as islands of epithelialisation. The colour of the tissue is pink to white with a smooth surface appearance.

The aim of treatment is to complete the healing process and prevent damage to new epithelium. Dressings should therefore be non-adherent and maintain a low level of moisture at body temperature. High levels of moisture kept on epithelial tissue will cause a breakdown of these cells and begin the granulation stage again and could cause over-granulation.

See product list (section 2) for appropriate dressing selection

### Clean/Granulating

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Granulation is the healing phase of repair. New blood vessels are formed in the form of delicate loops of capillaries which have 'budded' away from the damaged blood vessels in the wound. These loops grow into, and fill the wound cavity. Fibroblasts migrate into the wound area and synthesise collagen fibres which, in turn, form a network to support the new capillary loops.

Healthy granulation tissue is bright red in colour and granular in appearance, whilst dull granulation tissue may indicate critical colonisation. Granulation tissue is very delicate being easily damaged and made to bleed.

The aim of treatment is to promote granulation by maintaining a moist wound environment whilst removing excess exudate which is considered a harming agent in chronic wounds. Damage to delicate granulating tissue should also be prevented. Dressings should therefore protect the new capillary loops whilst being able to manage exudate effectively.

### **Over-granulation**

This refers to an abundance of granulation tissue that protrudes from the wound. In many cases the presence of over-granulation is not detrimental to healing and can be left untreated. It can become problematic however, if healing is delayed due to the prevention of re-epithelialisation. Sometimes this tissue increases exudate levels and can cause discomfort in the wound, as well as bleeding easily.

The causes of over-granulation are not clear but it may be due to a failure in the wound to progress from the proliferative stage of healing. The presence of over-granulation can sometimes indicate malignancy within the wound.

Advice should be sought from the Tissue Viability service if the wound management aims are not achieved within a reasonable time.

See product list (section 2) for appropriate dressing selection

## Sloughy



Slough is devitalised tissue. It forms when dead cells and/or bacteria accumulate in the wound exudate. Due to the large numbers of leucocytes slough is yellow or white in colour. It can be dry or wet in nature. The removal of slough can reduce both exudate and odour.

A yellow fibrous layer can appear in the wound bed that is not slough. This tissue can remain in the wound bed and will not be detrimental to wound healing. It is made up of a collagen-rich matrix secreted by fibroblasts and it provides the scaffolding for new blood cells and granulation tissue. Caution should be taken as fascia, tendon or bone can have the appearance of slough to the inexperienced clinician. Unless the causative factor of the dead tissue is identified and removed, necrosis and slough will continue to be present in the wound.

As the treatment aim is to remove the slough, excess exudate and prevent infection, appropriate dressings should be chosen that can achieve this aim. An appropriate dressing should be able to loosen the slough and maintain the moisture balance at the wound bed. A dressing that 'wicks'

the exudate away and prevents maceration can be very effective in speeding up healing.

See product list (section 2) for appropriate dressing selection

### **Necrotic**



Necrotic wounds are black or brown in colour and consist of devitalised tissue. Necrotic tissue will delay healing and can promote infection especially if it becomes moist. Necrotic tissue lacks leucocytes which are required to deal with dead tissue and bacteria. In most wound situations necrotic tissue needs to be removed as quickly as possible. Advice from a specialist clinician should be sought if the necrosis is on a limb where the circulation is arterially compromised.

Unless the causative factor of the dead tissue is identified and removed where possible, necrosis and slough will continue to be present in the wound.

#### **NB**

Patients with necrotic feet should be referred to an appropriate clinician ie either the vascular surgeons or Podiatry (via the GP or Tissue Viability if appropriate).

Diabetic patients with necrotic ulcers should be referred to either Podiatry or the vascular surgeons depending on the severity – acute cases should be referred to the vascular surgeons without delay.

For diabetic patients keep necrotic tissue dry and refer as required to the appropriate clinicians as indicated above.

See product list (section 2) for appropriate dressing selection

### **Fungating malignant wounds**



Fungating malignant wounds affect a significant amount of people who have cancer. There is no exact statistical data on occurrence but estimates vary between 10 - 55% of cancer patients. This type of wound primarily occurs in older patients aged 70 years and older. 62% of fungating wounds are found in the breast although they can develop on different areas of the body as well (Langema, Anderson, Harrison, Hunter & Thompson 2007).

Fungating wounds are a devastating complication of cancer which often indicate poor prognosis. They are caused by infiltration of the skin from a local tumour, haematological malignancy or metastatic spread from a primary tumour. They present as either a crater-like ulcer indicating a destructive process, or as raised nodules.

The aim of treatment is often multi-factorial and clinicians should focus on controlling symptoms, promoting comfort, and enhancing quality of life. Gentle care of the fungating wound will help prevent damage, pain, and/or bleeding.

- **Control bleeding** -fungating lesions are very friable and bleed easily. Bleeding can be minimized by using non-adherent dressings, maintaining a moist wound bed, and providing gentle irrigation with warm tap water. If the wound bleeds, local pressure should be applied immediately with a moist or non-adherent dressing to minimize trauma. Alginates may be useful due to their haemostatic properties. However, care needs to be taken to ensure the wound bed is not too dry as removal may then re-trigger bleeding. Debridement, if needed should be autolytic, to limit bleeding (Langemo et al 2007; Alexander 2009).
- **Skin care**- this will help with comfort, a feeling of cleanliness as well as odour control. A barrier film or skin protectant applied around the periwound area can help control skin maceration from moisture. Non-adherent dressings can also protect sensitive skin.
- **Maintaining a moist wound bed** – this will help prevent exposure of delicate nerve endings. Suitable dressings include hydrogels, hydrocolloids, foams, and alginates when exudate is excessive. The dressing needs to prevent periwound maceration. Dressings should be changed as frequently as is necessary to control exudate and odour
- **Treat or mask odour** – these wounds usually have a large amount of exudate that can be odorous, particularly in the presence of infection. In addition, necrotic tissue and bacteria in the wound may cause malodour to occur. Topical metronidazole, silver impregnated dressings, or activated charcoal may be useful although the evidence on charcoal dressings is debatable (Alexander 2009).
- **Pain management** – pain associated with dressing changes can be so bad that patients require strong analgesia. The dressing of choice should be one that is easily removed without causing pain or trauma. Silicone dressings have been reported as being useful in reducing pain at dressing change (Alexander 2009).

(Langemo et al 2007; Alexander 2009)

See product list (section 2) for appropriate dressing selection

## Contaminated, Critically Colonised and Infected Wounds



Chronic wounds are likely to be colonised with micro-organisms which does not generally delay healing. If the quantities of these organisms overwhelm the local defences, healing will be halted and the wound can be termed infected.

Correct identification of the clinical signs of infection (heat, redness, pain, swelling) are of key importance in wound management.

**Contamination/colonisation** -The presence of microbes in a wound, but with no host response. This is a normal state for a healing wound.

Treatment should promote moist wound healing and does not require the use of antimicrobial dressings

**Critical colonisation** – This occurs when microbes multiply and the wound is unable to maintain a balance. The wound is static despite appropriate treatment.

These wounds do not present with cellulitis but are characterised by:

- thick tenacious slough that does not respond to standard debridement;
- excess exudate and/or purulent exudate
- malodour
- darkened granulation tissue
- friable or bleeding granulation tissue

The aim of treatment is to reduce the bacterial load and to promote healing. Topical antimicrobials may be required (see product list section 2 for details)

**Localised infection** (Figure 2) – This occurs if microbial numbers cause a deterioration of the local wound environment. These wounds are characterised by:

- heat and swelling and erythema (redness) around the wound margins
- thick tenacious slough that does not respond to standard debridement;
- excess exudate and/or purulent exudate
- malodour
- darkened granulation tissue
- friable or bleeding granulation tissue

The aim of treatment is to reduce the bacterial load, manage exudate, malodour and pain, and to promote healing. The wound may require a swab to be taken to isolate pathogens and direct treatment plan - topical antimicrobials may be required (see product list for details) as well as oral antibiotics.

**Systemic Infection** (Figure 2)– microbes have now caused a host response. These are characterised by the above signs as well as:

- heat, swelling and erythema extending beyond 2cm around the wound margins
- the patient will be systemically unwell with possible pyrexia, tachycardia etc

The aim of treatment is to reduce the bacterial load, manage exudate, malodour and pain, and to promote healing. The wound will require a swab to be taken to isolate pathogens and direct treatment plan – oral antibiotics will be required and a topical antimicrobials may be required (see product list for details).

Topical antibiotics are not recommended for routine use in wound management. The risks of toxicity, sensitisation and bacterial resistance far outweigh any potential benefit to the wound. (Flanagan 2000)

Refer to tissue viability guidelines, infection control policies and current evidence-based clinical practice for further advice.

**In cases of wounds infected with MRSA refer to local infection control policies and guidelines.**

## Figure 2 Wound Infection Management

### Is there evidence of acute wound infection?

- Localised pain
- Localised heat
- Localised redness
- Localised swelling
- Increased exudate
- Excessive bleeding
- A typical wound bed colour
- Offensive odour
- Tracking
- A typical exudate colour
- General malaise
- Delayed healing
- Cellulitis
- Tissue bridging
- Pocketing at base of wound
- Wound breakdown

**NO**



Choose appropriate primary/secondary dressings.

See wound formulary.

**YES** ↓

### Take wound swab:

- Irrigate wound with gentle stream of normal saline brought to body temperature.
- Moisten wound swab with normal saline or transport medium.
- Use a zigzag motion across wound, rotating swab between fingers.
- Sample whole surface area or 1cm<sup>2</sup> if the area is large.
- Place swab straight into transport medium.
- Complete laboratory request form and send to laboratory with swab as soon as possible, including recent antibiotic therapy and topical antiseptics.



Discuss swab result and clinical signs with GP.

Ensure systemic antibiotic course is completed once



Choose primary/secondary dressing appropriate to infected wound bed.

See wound formulary.



Document date, time and type of swab taken in nursing care plan.

## Product Information

Products:

1. Alginates
2. Hydrofibres
3. Activated Charcoals
4. Foams
5. Hydrocolloids
6. Hydrogels
7. Iodine products
8. Vapour permeable films
9. Absorbants
10. Protease Modulators
11. Cavity
12. Low adherent dressing
13. Antimicrobials
14. Skin care
15. Tape
16. Bandages and compression

All recommended products are within the nurse prescribing formulary with the exception of Flamazine and Varidase. (NPF 1999-2001)

### **Comprehensive assessment leads to cost effective prescribing.**

When using a dressing for the first time, only prescribe amount required for a maximum of two weeks in order to evaluate the effectiveness and suitability of the product.

Always consult manufacturer's recommendations, contra-indications, precautions and warnings.

Product prices are correct at time of print and reflect the price listed in the Wound Care Handbook 2009-2010.

## 1. Alginates

### Indications

Granulating, sloughy, epithelialising wounds with moderate to heavy exudate. **NOT** indicated for use on dry wounds or wounds covered with hard black eschar as a haemostat.

### Application

Used as a primary dressing, requires a secondary dressing.  
Recommended that the dressing be changed daily at first then once every 2 - 3 days or twice weekly as healing proceeds. Infected wounds should be changed at least once daily.

### Precautions

Some patients may experience a mild burning sensation which is usually transient.

### Recommended

Product	Comments
Kaltostat 5cm x 5cm     £0.87 7.5cm x 12cm £1.91 10cm x 20cm £3.77 15cm x 25cm £ 6.48 30cm x 60cm £3.54	The dressing absorbs laterally, therefore should be cut or folded to shape of wound to avoid maceration of surrounding skin. Forms a viscous gel and can therefore be removed in one piece. Should be used as a haemostat
Sorbsan Flat 5cm x 5cm     £0.78 10cm x 10cm   £1.64 10cm x 20cm   £3.08	Does not absorb laterally, therefore does not need to be cut or folded to shape. Produces a soft amorphous gel which can be rinsed away with normal saline.

## 2 Hydrofibres

### Indications

Primary dressing for medium to highly exuding wounds. Can be used on a range of wounds, sloughy, clean, chronic or acute; may also be used on clinically infected wounds.

### Application

Applied directly to wound, overlapping surrounding skin by at least 1 cm. Cover with a moisture retentive dressing. Can be left for up to 7 days or until it becomes saturated with exudate.

Product	Comments
Aquacel (see cavity section for ribbon)  5cm x 5cm     £1.07 10cm x 10cm   £2.54 15cm x 15cm   £4.78 2cm x 45cm    £2.59	Composed of hydrocolloid fibres. Can absorb up to 30 times its weight, with fluid converting to a soft coherent gel sheet, which retains its integrity.
Versiva XC Non- Adhesive  7.5cm x 7.5cm   £1.35 11cm x 11cm    £2.25 15cm x 15cm    £4.15 20cm x 20cm    £6.20  Verisiva XC Adhesive  10cm x 10cm    £2.30 14cm x 14cm    £3.10 19cm x 19cm    £4.95 22cm x 22 cm   £5.50 21cm x 25cm    £5.90	Gelling Foam Dressing with Hydrofibre Technology for moderate to heavily exuding wounds.  Aids autolytic debridement  Skin friendly adhesive  Dual action to debride and absorb

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### 3 Activated Charcoal Dressings

#### Indications

Used in the management of discharging, purulent and contaminated wounds complicated by bacterial infection and offensive odour e.g. fungating carcinomas, leg ulcers, pressure ulcers, gangrenous lesions.

#### Recommended

Product	Comments
Actisorb Silver 220 9.5 cm x 6.5 cm £1.61 10.5 cm x .5 cm £2.53 19 cm x 10.5 cm £4.60	An activated charcoal dressing that is impregnated with silver. It is therefore suitable as an antimicrobial , deodorising primary dressing. It must not be cut but can be folded to size.
Carboflex 10cm x 10cm £2.95 8cm x15cm oval £3.55 15cm x 20cm £6.72	A sterile, absorbant non-adhesive dressing with activated charcoal. It has a water resistant top layer.

## 4 Foams

### Indications

Foams can be used as a primary dressing for granulating and epithelialising wounds which have light to moderate exudate and as a secondary dressing for sloughy wounds. They provide thermal insulation, do not shed particles, maintain a moist environment, are non-adherent and are easily removed.

### Application

They can be left in place for 2 - 7 days.

Allow a sufficient border to ensure exudate is dispersed sideways, 2 - 3 cm for moderate exudate, 4 - 5 cm for heavy exudate,

### Precautions

Not effective on dry or necrotic wounds.

Do not secure by covering foams with an occlusive dressing e.g. films, since this will prevent evaporation of excess exudate.

### Recommended 1<sup>st</sup> line

Product	Comments
Allevyn – Adhesive	Choose product to suit exudate levels
7.7cm x 7.5cm            £1.39	For medium to heavily exuding wounds. Can be left on a moist wound for up to 7 days depending on exudate production.
10cm x 10cm            £2.04	May reduce overgranulation.
12.5cm x 12.5cm        £2.50	
17.5cm x 17.5cm        £4.93	
22.5cm x 22.5cm        £7.18	
12cm x 22.5cm           £3.89	
17cm x 17cm (sacrum)   £3.70	
22cm x 22cm (sacrum)   £5.32	
Allevyn Non adhesive:	
5cm x 5cm                £1.18	
10cm x 10cm             £2.33	

10cm x 20cm	£3.75	
20cm x 20cm	£6.27	
<b>Biatain Adhesive</b>		Choose product to suit exudates levels For medium to heavily exuding wounds. Can be left on a moist wound for up to 7 days depending on exudate production. May reduce overgranulation.
12cm x 12cm	£2.38	
18cm x 18cm	£4.77	
10cm x 10cm	£1.62	
23cm x 23cm (sacrum)	£4.08	
<b>Biatain Non adhesive</b>		
5cm x 7cm	£1.21	
10cm x 10cm	£2.20	
10cm x 20cm	£3.63	
15cm x 15cm	£3.97	
20cm x 20cm	£6.01	
5cm circular	£1.13	
8cm circular	£1.59	
<b>Tegaderm Foam Adhesive</b>		
10cm x 11 cm (oval)	£2.28	
14cm x 14cm	£3.37	
14cm x 15cm (oval)	£4.05	
19cm x 22.2 cm (oval)	£6.64	

## Silicone Foam Dressings – 2<sup>nd</sup> line

**These dressings are not to be routinely used for first line management of wounds**

### Indications

Non-adherent silicone dressing with an open structure that allows exudate to pass directly into an absorbent secondary dressing. They adhere without causing trauma to surrounding skin.

For use in treatment of split skin grafts, pinch skin grafts, burns or wounds with fragile surrounding skin when dressing changes are painful.

### Application

Apply with wet gloved hand. Surrounding skin must be clean and dry. Can be left for up to 7 days depending on condition of wound.

May be used for low to high exuding wounds.

Product	Comments
Mepilex Border	
7.5cm x7cm    £1.31	
10cm x 12.5cm   £2.59	
10cm x 20cm    £3.47	
10cm x 30cm    £5.21	
15cm x 17.5cm   £4.46	
17cm x 20cm    £5.78	
Mepilex non-bordered	
10cm x 11cm    £2.53	
11cm x 20cm    £4.18	
15cm x 16cm    £4.59	
20cm x 21cm    £6.93	

Ratified May 2010 renewal date May 2012

Allevyn Gentle border	
7.5cm x7.5cm    £1.40	
10cm x10cm     £2.39	
12.5cm x12.5cm £3.08	
17.5cm x 17.5cm £5.99	

## 5 Hydrocolloids

### Indications

Provide a suitable environment for autolysis and are suitable for necrotic, sloughy, granulating and epithelialising wounds. They tend to have limited fluid handling properties which restrict their use to the management of wounds with low to medium exudate.

### Application

Apply directly to wound with a minimum overlap of 2 cm from the wound margin. No secondary dressing is required. Dressing should be changed when the centre changes to white and before leakage occurs.

### Precautions

Hydrocolloid dressings are not suitable for heavily exuding wounds or when tendon and bones are exposed. They can cause maceration to surrounding skin if left in place for too long.

Do not use in the presence of anaerobic infection

### Recommended

Product	Comments
Granuflex non bordered (only	Is an interactive material and changes

Ratified May 2010 renewal date May 2012

<p>for necrotic wounds, excluding heels)</p> <p>10cm x 10cm    £2.56  15cm x 15cm    £4.87  20cm x 20cm    £7.32  15cm x 20cm    £5.27</p> <p>Granuflex Bordered</p> <p>6cm x 6 cm      £1.63  10cm x 10cm     £3.06  10cm x 13cm     £3.61  15cm x 15cm     £5.88  15cm x 18cm     £5.62</p>	<p>to a gel when in contact with wound. It is waterproof and requires no secondary dressing.  Bordered versions are specifically designed to fit sacral and difficult to dress areas.</p>
<p><u>DuoDERM Extra Thin Square</u></p> <p>7.5cm x 7.5cm   £0.73  10cm x 10cm     £1.21  15cm x 15cm     £2.61</p> <p><u>Rectangular</u></p> <p>5cm x 10cm      £0.71  9cm x 15cm      £1.63  9cm x25cm      £2.61  9cm x 35cm      £3.65</p>	<p>Hydrocolloid. Aids autolytic debridement. For use on low to medium exuding wounds such as abraisions, pressure ulcers, minor burns or minor surgical wounds.</p>
<p>Tegaderm hydrocolloid Thin</p> <p>10cm x 12cm (oval)   £1.49  10cm x 10cm            £1.50  13cm x 15cm (oval)   £2.79</p>	

## 6 Hydrogels

### Indications

Used to aid debridement through rehydration and separation of necrotic tissue. Can be used throughout all the stages of the wound healing process and can be used on infected wounds and cavities.

### Application

May require daily application but may be left in place for 3 days. Requires a secondary dressing. Gauze is not recommended as a secondary dressing because it absorbs the gel and sheds fibres into the wound.

### Precautions

Must not be used with Iodine preparations as these will reduce its effectiveness. Contraindicated where anaerobic infection is suspected - can support the growth of micro-organisms.

### Recommended

Product	Comments
Purilon 8g            £1.61 15g           £2.10	Water content 97% Sodium Alginate 3% Maintains its consistency for up to 3 days on the wound.
Actiform Cool 5cm x 6.5cm    £1.65 10cm x 10cm    £2.43 10cm x15cm    £3.49	Pale blue hydrogel sheet which donates fluid to the wound bed. Ideal for dry, sloughy wounds to facilitate debridement. Use with caution with infected wounds. Can be left insitu for up to 7 days. A secondary dressing is required

## 7 Iodine Impregnated Dressings

### Indications

Iodine impregnated dressings are useful in sloughy infected wounds. They help to reduce the bacterial count in wounds and can absorb moderate amounts of exudate. They have broad- spectrum microbial activity.

### Precautions

Treatment duration must not be longer than 3 months. Not recommended for use on dry wounds or in children under 2 years.

Iodine dressings are to be avoided in patients with known iodine sensitivity or thyroid disease, pregnancy or when taking Lithium, Sulphafurazoles and sulphonylureas.

### Recommended

Products	Comments
Inadine 5cm x 5cm            £0.32 9.5 cm x 9.5 cm    £0.47	Contains 10% povidone iodine suitable for wounds with low exudate. Effective on a wide range of bacteria, fungal and protozoal infections. Apply directly to wound. Requires a secondary dressing. Usually changed every 2 -3 days or when dressing changes to white. No more than 4 sheets to be used per dressing.
Iodoflex 5g                    £3.73 10g                  £7.46 17g                  £11.81	Remove carriers and apply to wound. Should be changed 2-3 times per week or when there is a loss of colour. Maximum single application is 50G. Weekly maximum must not exceed 150G. Treatment duration must not exceed 3 months.

## 8 Vapour Permeable Films

### Indications

Suitable for low exuding wounds. They do not have absorbing capabilities and are often used as a secondary dressing, or as a prophylactic dressing to prevent friction and shearing damage.

### Application

Skin around the wound needs to be clean and dry prior to application. Change every 3 - 7 days. Always remove with care, by lifting the edge of the dressing and stretching the film at diagonal corners.

### Precaution

Avoid using in infected wounds. Can cause maceration if there is too much exudate and can tear fragile skin and damage epithelial growth if removed incorrectly.

### Recommended

Product	Comments
IV 3000 6cm x 7cm    £0.51 7cm x 9cm    £0.67 10cm x 12cm £1.28	For use with Hickmann lines, I.V. catheters etc.
Tegaderm IV 7cm x 8.5cm (peripheral line) £0.57 8.5cm x 10.5cm (central line) £1.11 10cm x 15.5cm ( PICC line)	A transparent dressing for IV use. Can be used for up to 7 days. Is hypoallergenic

£1.60	
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## 9 Absorbent Wound Dressings

Product	Comments
<p>Mesorb – Moderate exudate</p> <p>10cm x 10 cm    £0.58  10cm x15cm    £0.75  10cm x20cm    £0.93  15cm x 20cm    £1.32  20cm x 25cm    £2.08  20cm x 30cm    £2.36</p>	<p>A wound pad requiring a primary contact layer eg a non-adherent layer. Can be used as secondary dressing for cavity wounds but may need to be secured with tape depending on the site. Therefore ensure the surrounding skin can cope with tape</p>
<p>Eclipse – Heavy exudate</p> <p>15cm x 15cm    £0.97  20cm x30cm    £2.14</p> <p><b>Eclipse Boot</b></p> <p>Eclipse sacrum</p>	<p>For heavily exuding wounds. Non-adhesive therefore may need to be secured with tape.</p>
<p>Flivisorb – Heavy exudate</p> <p>10cm x 10cm    £2.09  10cm x20cm    £3.50  20cm x 20cm    £6.58</p>	<p>For heavily exuding wounds. Non-adhesive dressing comprises a non-adherent contact layer and a cloth-protecting outer layer</p>
<p>Sorbion Satchet S</p> <p>7.5cm x 7.5cm    £1.75  10 cm x 10cm    £2.22  20cm x 20cm    £6.90</p>	<p>For heavily exuding wounds. It is a hydroactive dressing consisting of a hypoallergenic polypropylene outer coat and an internal cellulose mat. It can be used under compression. It should not be used to pack</p>

12cm x 5cm	£1.86	sinuses
20cm x 10cm	£3.68	
30cm x 10cm	£5.29	
30cm x 20cm	£9.92	

## 10 Protease Modulators

### Red Traffic Light

Product	Comment
UrgoSTART 5cm x 7cm    £2.80 11cm x 11cm   £3.98 16cm x 21cm   £9.50	A non-adherent mesh dressing that promotes healing in wounds that are at risk of delayed healing by using nano-oligosaccharide
Promogram Prisma 28cm <sup>2</sup> £6.19 123cm <sup>2</sup> £17.63	Composed of oxidised regenerated cellulose and collagen. Contains silver. The dressings are hexagonal and can be used under compression. There should be evidence of the dressing in the wound at each dressing change as it is an active dressing and is absorbed into the body

## 11 Cavity Wound Dressings

### Precautions

Do not use in dry wounds, mucous membranes, fistulae or sinuses from which stent cannot be removed.

Do not pack wounds too tightly as the gel will conform to the shape of the wound and will not allow free drainage of exudate.

Products	Comments
Sorbsan Ribbon 40cm £1.99 (and probe)	For packing cavity wounds but not where the opening of the cavity is narrower than the probe provided
Aquacel Ribbon 2cm x 45 cm £2.59	Not to be used on wounds with low exudate as it will adhere to the wound bed.

## 12 Low Adherent Dressings

### Indications

Primary dressings used for low exudating, granulating wounds. Should be considered first line dressing under compression bandages.

### Application

Requires a secondary dressing. Change as required.

### Precaution

Can adhere to wounds if used incorrectly.

### Recommended

Product	Comments
N A 9.5cm x 9.5cm    £0.35 9.5cm x 19cm    £0.66	
NA Ultra 9.5cm x 9.5cms   £0.33 9.5cm x 19cm    £0.62	Good non-adherent properties enhanced by silicone coating. Does not absorb exudate.
Atrauman 5cm x 5 cm        £0.24 7.5cm x 10cm     £0.25 10cm x 20cm      £0.57 20cm x 30cm      £1.57	Knitted polyester dressing impregnated with neutral triglycerides
Mepore Ultra 7cm x 8cm        £0.38 9cm x 20cm       £1.39	

9cm x 25cm	£1.54	
9cm x 30cm	£2.54	
10cm x 11cm	£0.74	
11cm x 15cm	£1.10	

### **13 .Antimicrobials**

**Silver**

**PHMB**

**Honey**

“Antimicrobials are agents that either kill or inhibit the growth and division of micro-organisms” (EWMA Position Document 2006). Their use should be restricted to wounds that are either critically colonised or infected. They should not be used “just in case”. Figure 3 sets out the decision making process for using antimicrobial products.

The choice of antimicrobial should take into account the primary and secondary dressing requirements – the dressing must be able to manage the exudate, debride necrotic or sloughy tissue, manage and reduce malodour, conform to the wound bed, be comfortable to the patient and meet the treatment aims (EWMA 2006).

Antimicrobial use should be limited, ie they should be used for two weeks and the wound should then be reassessed. If the infection has resolved standard treatment should be reinstated. If however infection is still present, the patient may require antibiotics as well as continuing with antimicrobial treatment for a further two weeks.

**Figure 3**

**Decision Tree for Appropriate Use of Antimicrobial Products**

Complete holistic wound assessment

- Record wound aetiology
- Record level of exudate
- Record tissue types present at wound bed (express as a %)

**Is there evidence of clinical wound infection?**

- Localised pain
- Localised heat
- Localised swelling
- Increased exudate
- Excessive bleeding
- Tracking
- Atypical colour of exudate
- General malaise of the patient
- Cellulitis
- Pocketing / Bridging
- Wound deterioration

**Yes**

- Follow protocol for wound swab
- Consider Systemic antibiotics as a first line therapy

Special instructions:  
If patient has a:

- Diabetic Foot Ulcer
- Patient poorly vascularised

Consider use of topical antimicrobials in conjunction with systemic antibiotics  
Review after 2 weeks

**No**

**Is the wound critically colonised?**

- Sudden / unexplained increase in pain
- Thick slough not responding to treatment
- Abnormal odour
- No cellulitis present
- Delayed healing

**Yes**

Consider use of topical antimicrobials

Review after 2 weeks

Reassess current treatment regime

- Appropriate level of compression therapy?
- Appropriate pressure relief?
- Appropriate wound management?

**Annemarie Brown** Tissue Viability Clinical Nurse Specialist. (CPR) – December, 2004.

## Silver

Dressings impregnated with slow-release silver. They are effective against most micro-organisms, and are suitable for use on wounds where critical colonization is suspected (see previous page). They should not be used routinely on clinically infected wounds which will require systemic antibiotics as first line therapy.

Product	Comment
<p>Acticoat</p> <p>5cm x 5cm     £ 3.22            10cm x 10 cm   £ 7.28            10cm x 20cm   £12.28            20cm x 40cm   £42.01</p> <p>Acticoat absorbent            Ribbon            2cm x 30cm     £11.85</p> <p><b>Acticoat 7</b></p> <p>5cm x 5cm        £5.59            10cm x 12.5cm   £16.65            15cm x 15cm     £29.93</p>	<p>For medium/heavy exuding wounds.            To be used for <b>10-14 days</b> and then the wound should be reassessed. A further course of 10-14 days may be prescribed however if there is no improvement within this time the wound should be reassess and an alternative anti-microbial considered. May be used in conjunction with antibiotic therapy</p> <p><b>For specialist use only</b></p>
<p>Atrauman Ag</p> <p>5cm x 5cm   £ 0.47            10cm x 10cm £1.14            10cm x 20cm £ 2.23</p>	<p>A non-adherent contact layer.            To be used for 10-14 days and then the wound should be reassessed. A further course of 10-14 days may be prescribed however if there is no improvement within this time the wound should be reassess and an alternative anti-microbial considered. May be used in conjunction with antibiotic therapy</p>

## PHMB

Product	Comment
Suprasorb X + PHMB  5cm x 5cm     £2.34 9cm x 9cm     £4.66 14cm x 20cm  £10.60 2cm x 21cm    £6.60	For use on light to moderately exuding wounds. The dressing is able to both absorb and donate moisture. A suitable secondary dressing is required depending on the moisture levels at the wound bed.
Kendal AMD Foam  5cm x 5cm     £2.45 10cm x 10cm  £4.62 10cm x 20cm  £8.75 15cm x 15cm  £8.75 20cm x 20cm  £12.82	It is for moderate to heavily exuding wounds

## Honey

Product	Comment
Activon Tulle  5cm x 5cm     £1.78 10cm x 10cm  £3.01	Medical grade manuka honey. Patients with diabetes should have their blood sugars monitored  It is useful for sloughy, necrotic and malodorous wounds. The patient may experience stinging when the dressing is applied
Activon Tube	Medical grade manuka honey. Patients with diabetes should have their blood sugars

25g	£1.99	monitored  It is useful for sloughy, necrotic and malodourous wounds. The patient may experience stinging when the dressing is applied
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## 14 Skin Care

To maintain the integrity of the skin, the use of a cleanser and a barrier cream can help to reduce dryness and loss of skin resilience.

Skin protectors are used to create a barrier to protect skin from maceration and excoriation, caused by moisture from incontinence or exudates from wounds. The use of modern dressings should reduce the need for skin barriers in the majority of wounds. However, frequent changes of adhesive dressings and tapes can cause skin stripping. To reduce risk of tissue damage a barrier film should be used.

### Leg ulcers

Exudate may cause maceration and excoriation, consider zinc formulations.

### Incontinence

Urinary incontinence needs only to be cleaned with pH balanced soap and an emollient applied after. Urofaecal incontinence should be cleaned with a foam cleanser which contains an emollient. Barriers are only necessary if these actions are not sufficient. Due to the nature of the site a barrier film is more appropriate as it does not transfer onto incontinence pads potentially preventing them from absorption.

### Pressure ulcers

Barrier films reduce skin trauma by providing a barrier between the skin and the dressing adhesives.

### Recommended Skin Protectors

Product	Comments
Cavilon 28 ml. pump spray £6.43	A no sting protective barrier film. May be used on broken skin. Used as a protective interface between the skin, bodily wastes and adhesive dressings and tapes.  Always read manufacturers instructions and use

	sparingly.
Applicators 5 x 1 ml. Foam Applicators £0.96 each 5 x 3 ml. Foam Applicators £1.54 each	
Cavilon Durable Barrier Cream 20 x 2 g sachets £0.37 28g tube £3.92 92g tube £7.85	For use on unbroken skin. Re-apply every 78 hours. Will not interfere with effectiveness of continence products.

### **NB**

Cavilon **MUST NOT** be used when any other barrier cream is being used. It must only be used on its own and should not be used if a fungal infection is suspected as this has a tendency to seal it in.

### **Soaps and Bath Additives**

Soaps and cosmetic bath additives should be avoided as they can cause further drying of the skin. In addition they may contain allergens such as lanolin.

### **Recommended**

<b>Soap substitutes</b>  <b>Aqueous Cream BP £1.70 ( 500g)</b>	To be used as a soap substitute in the management of dry skin conditions. Can be applied as frequently as necessary.
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<b>Cetraben Cream Pump Dispense £5.39 ( 500g)</b>  <b>Dermol Cream £6.72 (500g)</b> <b>Dermol 500 Lotion £6.13 (500ml)</b>	
<b>Ointments</b>  <b>50/50 (50% liquid paraffin in White soft paraffin)           £3.94</b>  <b>Epaderm (500g) Ointment £6.26</b> <b>Epaderm ( 500g) Cream £6.55</b>	To be used as emollient therapy in the management of dry skin conditions. Can also be used on very dry skin as a soap substitute. Can be applied as frequently as necessary.

Reference: Morison & Moffatt (1997)

### Adhesive Tapes

Use dressings with a self-adhesive option where possible except beneath bandaging, when adhesion is unnecessary.

### Recommended

Product	Comments
Scanpor 1.25cm x 5m    £0.40 1.25cm x 10m   £0.52 2.5cm x 5m     £0.64 2.5cm x 10m    £0.86 5cm x 5m        £1.11	Suitable for patients with reactions to other plasters.  Is suitable for long term use

## Bandages

Bandages may be simply characterised as to their use into 3 groups : retention, light support and compression.

### Retention Bandages

Product	Comment
Actifast – Activa  Blue Line  1m £1.06 3m £2.99 5m £5.22	
Actifast – Activa  Yellow Line  1m £1.70 3m £4.86 5m £8.36	
Actifast – Activa  Beige Line  1m £2.15	

## Light Weight conforming bandages

Product	Comment
K-lite	
5cm x 4.5 m    £0.51	
7cm x4.5m      £0.71	
10cm x 4.5m    £0.93	

### Compression

Graduated multi-layer compression systems (including short stretch regimens), with adequate padding should be the first line of treatment for uncomplicated venous leg ulcers. (RCN 2006).

### Precautions

Compression therapy should only be applied to those patients who have venous insufficiency and have undergone a holistic assessment including a doppler examination, following local guidelines, undertaken by practitioner who has undergone training and been deemed competent in leg ulcer care. This formulary should be used in conjunction with local trust Leg Ulcer guidelines.

### Multi layer Bandage systems

The K Four system and the Profore system are recommended multi layer options.

The Profore range offers the option of a latex- free version for those with latex allergy.

The table below gives recommended bandage options for achieving 40mm Hg graduated compression at the ankle.

Bandages should be applied as per manufacturers guidelines.

Ratified May 2010 renewal date May 2012

## ANKLE CIRCUMFERENCE

<18cm	18-25cm	25-30cm	>30cm
K Soft or Profore # 1 x 2	K-Soft or Profore # 1	K-Soft or Profore # 1	K-Soft or Profore # 1
K-lite or Profore # 2	K-lite or Profore # 2	-	-
K-Plus or Profore # 3	K-Plus or Profore # 3	-	K-Plus or Profore # 3
-	-	K-Three C or Profore +	K- Three C or Profore +
Ko-flex or Profore #4	Ko-flex or Profore #4	Ko-flex or Profore #4	Ko-flex or Profore #4

### Two Layer Bandage Systems

Coban 2 layer and K Two are an alternative option and should be applied as per manufacturers guidelines.

### Short Stretch Bandages

Actico Short Bandages are the recommended short stretch system and should be applied as per manufacturers guidelines.

Ratified May 2010 renewal date May 2012

Ankle circumference 18-25cm	Ankle circumference greater than 25cm
K-soft or Profore#1 to protect and shape limb	K -soft or Profore #1 to protect and shape limb
Single Actico 10cm bandage	2x Actico 10cm bandages

Comprilan short stretch bandages are an alternative choice.

## Hosiery

Hosiery can be considered as an option for treatment of venous leg ulcers. Hosiery kits that give 40mm Hg with an appropriate dressing beneath can be an effective treatment option e.g Jobst ulcer care, Activa leg ulcer kit and Mediven ulcer kit.

Use of compression stockings reduces venous ulcer recurrence rates and is cost effective. Patients should be encouraged to wear class III compression if it is not contra-indicated and they can tolerate it, or the highest level of compression that they can tolerate (RCN 2006)

Make of hosiery will be dependent upon patient choice and need. Care should be taken to determine classification of hosiery to either European or British classification

### **Wound products not recommended for routine use.**

## Dressing Packs

Patients with chronic wounds such as pressure ulcers and leg ulcers should only require a clean dressing procedure, thus not requiring the use of sterile dressing packs. If there is a need for the use of gauze then toppers are recommended.

However, whether or not a sterile dressing pack is used will depend on individual patient assessment. They should not be used as a matter of routine.

Immuno compromised patients and those who have undergone surgery within the last 48 hours, or have had a prosthesis inserted are considered at high risk of infection (Lawrence 1993) and therefore should always be managed as a sterile procedure.

### **Medicated Tulle Dressings**

Paraffin gauze dressings containing antibiotics such as sodium fucidate and framycetin have the potential to cause sensitivity reactions and the development of resistant strains of micro-organisms. For this reason they should be avoided unless they are specifically indicated following microbiological investigations.

(STML 1997)

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