

13. Information and practice guidelines for the products included in the formulary

13.1 Alginates (e.g. Sorbsan) and hydrofibre (e.g. Aquacel Extra)

Alginates are dressings derived from alginic acid extracted from seaweed. The gelling characteristics of alginate dressings vary according to the product used. Some products only gel to a limited extent to form a partially gelled sheet that can be lifted off, others form an amorphous gel that can be rinsed off with water. A secondary dressing is needed. They are highly absorbent and are suitable for moderately or heavily exuding wounds, but not for eschars or for dry wounds.

Aquacel dressings are hydrofibre dressings which combine:

- The healing benefits of hydrocolloids
- A fluid handling capacity exceeding that of the alginates
- Reduce microbial transmission by retaining bacteria and minimising airborne dispersal during dressing changes
- A pain free removal
- Aquacel can be applied moist to a dry wound with eschar

Guidelines for use

- Useful for debridging
- Aquacel can be moist when applied to a dry wound
- Highly absorbent, suitable for use on medium to high exudate
- Cover with a secondary dressing
- Can be used on clinically infected wounds but the patient will require systemic antibiotics and daily dressing changes
- May be left in place for a maximum of seven days
- If filling cavities do not pack the dressing tightly
- Alginates are considered to have some haemostatic properties

13.2 Foam dressings (e.g. Allevyn)

Most foam dressings are made out of polyurethane foam or silicone foam. They are low adherent and are suitable for light to moderately exuding wounds. Used as a primary dressing on clean granulating wounds or as a secondary dressing on sloughy wet wounds.

Guidelines for use

- Available with or without adhesive borders
- They can be cut/ shaped to aid application (except Allevyn Cavity). This should be considered before selecting a 'shaped dressing' as it may be more cost-effective e.g. a square Allevyn adhesive can be cut/ shaped to aid application to a heel wound.
- A variety of shapes are available. Consider the full range of shapes and sizes prior to selection e.g. Allevyn heel can be applied to elbow wounds
- Allow at least 2cm overlap around the wound edges

- Can be left in place up to 7 days depending upon exudate levels.
- Do not secure with an occlusive dressing as this may lead to tissue maceration
- Can be used on clinically infected wounds; however the patient may require systemic antibiotics and daily dressing changes (Morgan, 2000).
- May be useful on overgranulation tissue
- Not recommended for dry wounds
- Can be used under compression bandages/ hosiery
- Foam dressings should be used as a wound care product and not a pressure relieving product. Other devices are more suitable for this purpose e.g. Dermal pads.
- Allevyn cavity is a conformable, absorbent, non-adhesive dressing comprised of perforated, low-adherent outer layer with a core of foam chips – suitable for cavity wounds.
- **Do not use for pressure ulcer prevention, in particular heels.**

13.3 Silicone dressings (eg Mepitel, Mepilex XT and Mepilex Border)

13.3a Mepitel

Mepitel is a porous, transparent and flexible wound contact layer with adherent properties. It consists of a flexible polyamide net coated with a soft silicone layer. Mepitel is not absorbent, but contains apertures or pores approximately 1mm in diameter that allows the passage of exudate into a secondary dressing. The secondary dressing must be changed as required by the conditions of the wound and the amount of exudate in order to prevent maceration.

Indications

- Typical use is in the management of wounds where adherence of a dressing to the underlying tissue presents a particular clinical problem.
- Typical applications include skin tears or abrasions, surgical excisions, second-degree burns, blistering conditions such as Epidermolysis bullosa, lacerations, partial and full thickness grafts, and skin damage following radiotherapy or steroid therapy.

Guidelines for use.

- If clinically indicated the wound should be cleansed and the surrounding skin thoroughly dried
- Choose a size of Mepitel that covers the wound and the surrounding skin by 2cm. It can be cut to size if needed before removing the protective outer films. If more than one piece is required, the dressings may be partially overlapped, ensuring that the pores are not blocked.
- Moistening gloves with sterile water or saline will help to stop the dressing from sticking to the fingers and thus facilitate application.
- Smooth the dressing in place ensuring a good seal with the surrounding skin.
- Where clinically indicated, topical steroids or antimicrobial agents can be applied either over or under the Mepitel

- Apply a secondary absorbent dressing pad and a suitable fixation device or bandage.

Frequency of change.

- Mepitel can be left in place for extended periods, up to 7-14 days in some instances. The outer absorbent layer should be changed as frequently as required.
- Warning; If Mepitel is used on burns treated with meshed grafts or after facial resurfacing imprints can occur if excess pressure is placed upon the dressing. As with all types of dressings, wounds should be regularly monitored for signs of infection or deterioration.

Contra-indications

- The manufacturers have identified no absolute contra-indications to the use of Mepitel.

13.3b Mepilex XT and Mepilex Border

Mepilex XT and Mepilex Border are absorbent, atraumatic dressings made from polyurethane foam. The outer surface has a vapour-permeable membrane which acts as a barrier to liquid and microorganisms. The wound contact surface is coated with a soft layer of silicone that does not stick to the surface of the wound or cause trauma to delicate new tissue on removal.

Indications

- Mepilex XT and Mepilex Border are suitable for many types of exuding wounds including leg and pressure ulcers, and traumatic wounds resulting in skin loss. The dressing absorbs exudate and maintains a moist wound-healing environment whilst minimising the risk of maceration.

Guidelines for use

- Available with or without adhesive border
- Allow at least 2cm overlap around the wound edges
- The non-bordered dressing may be held in place with a bandage or other suitable retention aid
- If clinically indicated, the wound should be cleaned and the surrounding skin thoroughly dried before application of the dressing.

Frequency of change

- The interval between changes is determined by the degree of exudate produced. The dressing may be left undisturbed for several days on clean lightly exuding wounds or clean non-infected wounds.

Contra-indications

- Highly exuding wounds

13.4 Hydrocolloids (e.g. Granuflex and DuoDERM, Tegaderm Hydrocolloid)

Hydrocolloids act by autolysis, rehydrating the wound thereby promoting

debridement. The dressing can be used throughout the entire wound healing process and can provide local pain relief by keeping the nerve endings moist. (Morgan 2000)

Some hydrocolloids, including Granuflex and DuoDERM, contain gelatin of porcine origin (of purified pharmaceutical quality), however, the manufacturers have a document written by a Muslim cleric advising on their use in members of the Muslim faith. The Comfeel range of dressings do not contain gelatin, the only hydrocolloid in these products is sodium carboxymethylcellulose.

Guidelines for use

- Hydrocolloids absorb low to medium levels of exudate
- Hydrocolloids form a yellow gel as the exudate is absorbed; this may be malodorous and should not be confused with clinical wound infection
- The dressing is waterproof enabling the patient to shower
- Care should be taken when applying to fragile skin
- Use with caution on diabetic foot ulcers, which require regular evaluation
- The dressing is more flexible and gives better adhesion if warmed in the hands prior to use
- Apply with a minimum of 2 cm beyond the wound edges to aid good adhesion
- Secondary dressings are not required
- Leave dressing on the wound for 3 – 7 days
- Lightly dust with un-perfumed talcum powder to reduce rucking of the edges of the dressing
- In some cases overgranulation may occur, this may resolve spontaneously when the dressing is no longer used

Contra indications

- Highly exuding wounds – consider alginates
- Not suitable for clinically infected wounds
- In the presence of an anaerobic infection, occlusive dressings should not be used

13.5 Hydrogels (e.g. Aquaform or Actiform Cool)

Hydrogel dressings are available as an amorphous gel or in the form of a sheet. A secondary dressing is usually required. These dressings are usually used to donate liquid to dry sloughy/ necrotic wounds and facilitate autolytic debridement. They may also have the ability to absorb limited amounts of exudate.

Guidelines for use

- Can be used throughout the entire wound healing process
- Remove by irrigation if necessary
- Can be used on clinically infected wounds but will require systemic antibiotics and daily dressing changes (Morgan, 2000)
- Change between 1 – 3 days
- For amorphous gels (e.g. Aquaform) apply a minimum of 5mm and cover with a secondary dressing

- Amorphous hydrogels can be introduced into narrow wounds and sinuses if necessary
- Dry or necrotic wounds may require an occlusive secondary dressing e.g. film
- Effectiveness may be compromised if used under compression bandages
- Hydrogels have been found to be useful in the management of moisture excoriation due to incontinence when applied as a lotion after cleansing
- Actiform cool is suitable for painful wounds and skin conditions. It can be used under compression. It should be changed if it becomes discoloured or opaque.

Contraindications

- Unmanageable exudate – consider an alginate or hydrofibre
- Maceration of the surrounding skin – consider skin protection and review primary dressing

13.6 Non/low Adherent Dressings and wound contact materials

These dressings can be made from a variety of materials but the majority of them are made up of silicone and polymide net. These dressings vary in their non adherent properties.

Silicone coated dressings are usually non-adherent, while others are mostly low adherent.

Guidelines for use

- Often used as a primary dressing on granulating/lightly exuding wounds
- Low adherent dressings can cause trauma if care is not taken when removing
- These dressings have limited absorbency and strike-through may occur
- Frequency of dressing changes varies and is required before or when strike-through occurs
- Mepitel is considered to be cost effective only if left in-situ for a minimum of 7 days but will require a secondary dressing change as required
- Apply in single sheets – do not layer

13.7 Film dressings (e.g. Tegaderm)

Provide a moist wound healing environment. They are non absorbent but are vapour permeable. Most are transparent, allowing monitoring of the skin/wound.

Guidelines for use

- Suitable for non exudating wounds, as fluid may accumulate underneath causing maceration
- Can be used prophylactically to reduce risk of trauma from shearing and friction
- Often used for retention of cannula/drains or protection around catheters and peg sites
- Use with caution on fragile skin
- May be used as a secondary dressing over alginates or gels
- To remove – stretch the film at the corners to release the adhesive and reduce trauma

Contra indications

- Not recommended for routine use on infected wounds

13.8 Skin Protectors

Designed to provide a barrier between the skin and body fluids.

- Those products that do not contain alcohol are marked as non sting and are recommended
- It can be useful to protect wound edges from maceration secondary to wound exudate
- May be used as a barrier against irritation from body fluids

Guidelines for use

- Single patient use only
- Will not alter the effectiveness of incontinence products
- MediDerma-S barrier film is available in 1ml applicator, 2G sachet or a pump spray action bottle
- Can be used around a stoma site to protect against skin excoriation and as a protector against radiation tissue damage for oncology patients, or to protect fragile skin from adhesive stripping
- When using MediDerma-S cream as a barrier cream re- application is recommended after three incontinent episodes
- MediDerma-S barrier film is waterproof: reapplication is recommended every 24 – 72 hours under normal use
- Does not contain alcohol and can be used on broken skin with no detriment
- Skin should be clean and dry before application
- Apply a uniform coating over the whole area
- Wash and clean area before reapplication
- When applied to an area where there are skin folds, hold these apart for approximately 30 seconds to allow the skin to dry

13.9 Anti-microbials

Medicated dressings most frequently contain silver or iodine, which are released in an appropriate concentration over time. They assist in infection control by reducing the number of wound pathogens and are effective in the management of both aerobic and anaerobic bacteria. Systemic antibiotics are the preferred choice of treatment for clinical infection but should only be used when absolutely necessary and in accordance with local guidelines. If ischaemia is present and the blood supply to the wound is compromised anti-microbials are particularly useful.

The antimicrobial activity of silver has been known of for many years and its efficacy in preventing secondary infections. The growing threat of antibiotic resistance, and the concerns about safety and toxicity of topical antiseptics, appears to have spurred a surge of interest in silver in wound care products. Investigations into the molecular mechanisms of disinfection support that metal ions such as silver, may inhibit bacterial survival by reacting with the inside or outside of bacterial cells either directly

or indirectly.

The use of antimicrobial products within the Wound Care Formulary is recommended with care, and is restricted. All products must only be used following full assessment of the wound to ensure the product is appropriate.

Guidelines for using antiseptic products (e.g. iodine based)

- Should only be used on wounds that are high risk for bacterial contamination
- Effective against a broad spectrum of bacteria, including MRSA, protozoal and fungal infections
- Iodine is absorbed systemically and when using Iodoflex the amount applied must not exceed more than 50g in a single dose or 150g in one week. A course of treatment should not exceed 3 months in duration
- A maximum of four layers of povidone iodine (Inadine) dressings to be applied at one time
- Free iodine content is low but some iodine sensitivity has been reported
- Iodine products are useful in the management of the patient with diabetic foot ulcers when there is an increased risk of clinical infection and potential risk to the limb's integrity
- Remove with care, change dressing when the colour changes to white
- Dressing requires changing frequently if levels of antibacterial activity are to be maintained
- Requires a secondary dressing

Contra Indications for using iodine based products

- Should not be used on patients with a known iodine sensitivity, thyroid disease, pregnant and breast feeding women, or patients on lithium (Morgan 2000)
- Not recommended for children under 2 years.
- Should be avoided in patients with severe renal impairment

Guidelines for using silver dressing products (e.g. Aquacel AG)

- Effective against bacteria, including MRSA, protozoal and fungal infections
- Most are applied directly to the wound bed, should adherence be a problem apply a non- adherent dressing first
- Some require a secondary dressing
- Change between 1-7 days refer to product guidelines
- Silver sulfadiazine (Flamazine) is available for limited use in certain circumstances
- All silver dressings should be used with caution as the mechanism of action differs between products
- It is essential that a date be set for reassessment of the wound and that any changes in treatment following reassessment should be recorded

Special precautions

- Use with caution in pregnant or lactating women
- Use with caution in patients with hepatic and renal impairment

13.10 PHMB – AMD foam (eg Kendal AMD)

Polyhexamethylene biquanide (PHMB) is an antiseptic agent, which, as with other antiseptics, has multiple targets of action which render bacteria less likely to generate bacterial resistance mechanisms (Gilbert, 2006). Some antiseptics can be removed from bacterial cells using efflux pumping mechanisms in the cell wall, however, PHMB binds to the bacterial cell membrane helping to disengage cell pumping activity. This allows the other targets of PHMB to be reached and the cell killed.

Guidelines for use

- The dressing is recommended for use on acute and chronic wounds which are critically colonised and moderately to heavily exudating.
- The dressings have been designed to promote a wound environment which controls moisture and kills bacteria, within and through the dressing.
- Double sided polyurethane foam film dressing impregnated with an antimicrobial (PHMB) indicated for moderately to heavily exuding wounds. A secondary dressing can be used.

Contra-indications

- Can be used in conjunction with prescribed therapies for the treatment of infections
- Not intended as a primary treatment for infection
- Do not use as a primary treatment for full third-degree burns or on patients with known sensitivity to PHMB.