Wound dressings – Guidance for Use

There are several types of dressings in use at Wirral University Teaching Hospitals NHS Foundation Trust (WUTH) and the Wirral community. These are:

1. Interactive dressings
   (a) Hydrocolloid dressings
      (i) DuoDERM dressing (Duoderm extra thin and duoderm signal in primary care only)

Adhesive, occlusive hydrocolloid dressing with a vapour-permeable outer film layer. Forms a gel on contact with exudate. DuoDERM extra thin is transparent. All are waterproof.

Indications. Lightly to moderately exuding necrotic, sloughy or granulating wounds, including pressure ulcers, leg ulcers, diabetic foot ulcers, surgical wounds, partial thickness burns, and abrasions.

Cautions. Do not use in the presence of wound infection unless an appropriate systemic antibiotic is given concurrently. Not appropriate for use on cavity wounds in the absence of a cavity filler.

Dressing change. As the dressing absorbs exudate, a yellowish gel is formed. For the Signal dressing, when the gel reaches the green “indicator line, the dressing should be changed. Maximum wear time 7 days. Any gelled dressing material left on the wound can be irrigated away using warmed sodium chloride 0.9% solution or warmed tap water. When applying the dressing, a 3cm overlap of the wound margin is needed to ensure a seal.

Removal. Press down gently on the skin and carefully lift one corner of the dressing, stretching each edge until free. Avoid applying traction to the wound or surrounding skin.

(ii) Comfeel dressing (secondary care only)

An adhesive, absorbent dressing containing sodium carboxymethylcellulose, which forms a gel on contact with wound exudate; and alginate, which assists in the absorption of exudate. DuoDERM extra thin is transparent. All are waterproof.

Indications. Comfeel Plus Ulcer and Contour dressings are used on low to moderately exuding, necrotic, sloughy or granulating open wounds, including pressure ulcers and leg ulcers. Contour dressing is designed for use on difficult-to-dress areas e.g. heels and elbows. Comfeel Transparent dressing is used on superficial burns, and superficial open wounds including category 2 pressure ulcers, donor sites, postoperative wounds and abrasions.

Cautions. Do not use in the presence of wound infection, unless an appropriate systemic antibiotic is given concurrently. Not appropriate for use on cavity wounds in the absence of a cavity filler. Dressings must be removed prior to radiation treatment (X-rays, ultrasonic treatment, diathermy and microwaves).

Dressing change. When Comfeel Plus dressings absorb exudate, a whitish gel is formed. When the gel reaches the outer film layer, the dressing will appear “marbled” or transparent. Change the dressing when it becomes transparent. Any gel remaining on the wound surface can be irrigated away using warmed sodium...
chloride 0.9% solution or warmed tap water. When applying the dressing, a 2cm overlap of the wound margin is needed to ensure a seal.

**Removal.** Avoid applying traction to the wound or surrounding skin, roll from one corner or edge to remove gently.

**b) Hydrogel dressings**

**Aquaform**

*Aquaform* is a clear, viscous sterile gel containing a modified starch polymer, glycerol, preservatives and water.

**Indications.** Necrotic or sloughy wounds. Facilitates autolysis by rehydrating eschar and slough. *(but see manuka honey dressings)*

**Cautions.** Sensitivity to the gel or its components. Inappropriate for use on heavily exuding wounds. If wound infection develops during treatment, appropriate antimicrobial therapy should be initiated. Treatment with a hydrogel dressing may be continued.

**Dressing change.** Change every 1 to 3 days, depending on the amount of exudate or liquefied eschar. Requires a secondary dressing - a semi-permeable film dressing may be appropriate. Do not use a hydrocolloid product (Comfeel range, DuoDERM range) as a secondary dressing, as these products are unable to manage the increased fluid levels produced by hydrogels.

**Removal.** Remove gel by irrigation with warmed sodium chloride 0.9% solution, or warmed tap water.

**c) Alginate dressings**

(i) **Kaltostat (for secondary care only)**

*Kaltostat* is an 80% calcium alginate/20% sodium alginate dressing. It is an absorbent, haemostatic dressing, which forms a viscous gel on contact with wound exudate. Requires a secondary dressing - a semi-permeable film dressing (e.g. C-View) may be appropriate.

**Indications.** Bleeding wounds - all presentations are haemostatic. All types of exuding wound. Do not moisten prior to use, as this defeats its function as an absorbent dressing.

**Cautions.** Do not use on dry wounds. Reserve for use where haemostasis is required e.g. postoperatively.

**Dressing change.** Change as dictated by the amount of exudate. Maximum ‘wear time’ is 7 days.

**Removal.** Kaltostat maintains its integrity when gelled, allowing one-piece removal. If adherence occurs, assist removal by gently irrigating with warmed sodium chloride 0.9% solution.

(ii) **Sorbsan (alternative to kaltostat for primary care use)**

*Sorbsan* is a sterile, non-woven calcium alginate dressing. It is an absorbent, haemostatic dressing which forms a viscous gel on contact with wound exudate. Requires a secondary dressing - a semi-permeable film dressing (e.g. C-View) may be appropriate.
Indications – as for Kaltostat. Due to the “dissolvable” nature of Sorbsan, it may be a more appropriate option than Kaltostat for narrow, deep wounds where removal of a ‘plug’ is problematic – see Removal below.

Cautions – as for Kaltostat.

Dressing change – as for Kaltostat.

Removal. The gel can be removed from the wound by gentle irrigation with sodium chloride solution (0.9%). This will dissolve the viscous ‘plug’ and allow complete removal.

d) Fibrous absorbent dressings

(i) Aquacel + Extra dressings

An absorbent Hydrofiber® dressing consisting of sodium carboxymethylcellulose, which forms a gel on contact with wound exudate. The dressing absorbs exudate vertically, avoiding lateral wicking, and therefore reducing the risk of peri-wound maceration. Requires a secondary dressing - a semi-permeable film dressing (e.g. C-View) or a thin hydrocolloid dressing (e.g. Comfeel Plus Transparent) may be appropriate.

Indications. Moderately to highly exuding wounds, including sloughy and infected wounds - can assist autolytic debridement. Do not use on dry wounds. Do not moisten prior to application, as this defeats its function as an absorbent dressing.

Cautions. Do not use Aquacel on dry wounds.

Dressing change. Every 5 to 7 days, unless strikethrough of exudate occurs earlier. Requires a secondary dressing - a semi-permeable film dressing or a hydrocolloid dressing may be appropriate.

Removal. Non-traumatic removal of gel "plug". If adherence occurs, moistening the dressing with warmed sodium chloride 0.9% solution will assist removal.

(ii) Aquacel Foam (Adhesive or Non-adhesive)

An absorbent Hydrofiber® composite dressing, consisting of a waterproof/bacteria-proof outer layer, a highly absorbent foam layer and a hydrofiber (Aquacel) contact layer. The outer layer protects the wound from external contaminants and maintains a moist wound environment conducive to healing. The hydrofiber layer absorbs and retains exudate by forming a cohesive gel.

Available in adhesive and non-adhesive presentations. The adhesive version has a hydrocolloid adhesive contact layer, which allows exudate to be rapidly absorbed while holding the dressing securely in place.

Indications. Moderately to highly exuding wounds, including sloughy and infected wounds – can facilitate autolytic debridement. May be combined with Aquacel Extra or Aquacel Ag for the management of heavily exuding wounds (Aquacel), cavity wounds (Aquacel ribbon), heavily colonised or infected wounds (Aquacel Ag or Aquacel Ag ribbon).

Cautions. Do not use on individuals who are sensitive to the dressing or its components. Do not use on dry wounds. May be used on infected wounds if an appropriate antimicrobial is used concurrently.

Dressing change. Change the dressing as exudate levels dictate. Maximum ‘wear time’ is 7 days.

Removal. Press down gently on the skin and carefully lift one corner of the dressing until it is no longer adhered to the skin. Continue until all edges are free. Gently peel
away the dressing. Avoid applying traction to the wound and surrounding skin as this can result in epidermal stripping.

e) Odour management
   (i) Carboflex

A multi-layer absorbent dressing, with a contact layer containing sodium carboxymethylcellulose and alginate bonded to a perforated plastic film. The outer layer contains activated charcoal cloth with the capacity to adsorb odour. Designed for use as a primary dressing.

**Indications.** Moderately exuding malodorous wounds. May be used as a primary or secondary dressing. May be used on more highly exuding wounds in conjunction with an absorbent or cavity wound dressing.

**Dressing change.** Change according to the amount of exudate.

**Removal.** Atraumatic - the contact layer forms a gel on contact with exudate.

**Cautions.** Note that when charcoal dressings become saturated with fluid, they are unable to effectively adsorb odour. Do not use on dry wounds. Do not cut.

(ii) CliniSorb

Activated charcoal cloth, sandwiched between two layers of a nylon viscose rayon blend. Designed for use as a primary or secondary dressing. CliniSorb is a less bulky dressing than Carboflex and is used for wounds producing less exudate.

**Indications.** Low to moderately exuding malodorous wounds.

**Application.** Both sides of the dressing are identical – it may therefore be used either way up. On moderately exuding wounds, it may be used over an absorbent primary dressing. May be cut to size and shape.

**Dressing change.** Change according to the amount of exudate.

**Removal.** If adherence to the wound surface occurs, irrigate with saline to release.

**Cautions.** Note that when charcoal dressings become saturated with fluid, they are unable to effectively adsorb odour. Do not use on dry wounds.

f) Antimicrobial dressings
   (i) Aquacel + Ag Extra

An absorbent Hydrofiber® dressing consisting of sodium carboxymethylcellulose combined with ionic silver. Ionic silver provides broad-spectrum antimicrobial activity and is active against MRSA and VRE. It is made available to the wound ‘on demand’ through the binding of sodium ions in wound exudate with the dressing, causing release of silver ions from the dressing fibres. Provides up to 7 days sustained release of silver.

**Indications.** Acute and chronic critically colonised or infected exuding wounds. Use Aquacel Ag ribbon for cavity wounds.

**Dressing change.** Every 5 to 7 days, unless exudate strikethrough occurs earlier. Requires a secondary dressing e.g. a semi-permeable film dressing (e.g. C-View) or a hydrocolloid (e.g. Comfeel Plus Transparent).

**Removal.** Non-traumatic removal of gel “plug”. If adherence occurs, moistening the dressing with warmed sodium chloride 0.9% solution or warm tap water will assist removal.
Cautions. Known sensitivity to silver. Do not use on dry wounds. Do not moisten prior to application, as this defeats its function as an absorbent dressing.

(ii) Atrauman Ag

A non-adherent polyester mesh dressing containing metallic silver, which can be used for management of critically colonised or contaminated wounds. Kills a range of micro-organisms consistently for up to 7 days without the cytotoxicity and damage to granulation tissue that may be caused by other silver dressings.

Indications. Contaminated or critically colonised wounds including lacerations, abrasions, pressure ulcers, burns, radiation therapy burns, abscesses, skin graft donor and recipient sites.

Dressing change. Depends on the nature of the wound. Maximum wear time 7 days.

Removal. Atraumatic removal of viscous gel ‘plug’. If the dressing has dried out, facilitate removal with saline irrigation and consider the use of an alternative dressing more appropriate for wounds with less exudate.

Cautions. Known sensitivity to silver or any other of the dressing’s constituents.

g) Manuka Honey dressings

(i) Algivon

A soft alginate dressing impregnated with 100% Manuka honey. The alginate fibres enable a sustained, slower release of honey.

Indications. Necrotic, sloughy or malodorous wounds, including pressure ulcers, leg ulcers, diabetic foot ulcers, surgical wounds, burns, infected wounds, cavity wounds and sinuses. Suitable for wetter wounds, as the alginate has some capacity to absorb fluid so that the honey is not washed away with exudate, allowing a longer wear time. The dressing is soft and conformable, making it suitable for use in cavity wounds.

Dressing change. According to the amount of exudate – anticipate an initial increase in exudate as the honey liquefies the slough. May be left in place for up to 7 days. Requires an absorbent secondary dressing.

Cautions. Allergy to bee venom. Initial transitory discomfort may be experienced following dressing application, probably due to the high osmotic pressure. Although Algivon is not absorbed systemically, it may be prudent to monitor blood glucose levels in diabetic patients.

NOTE: Do not combine with Hydrocolloid dressings e.g. Comfeel range

(ii) Actilite

A light viscose net dressing coated with Manuka honey and Manuka oil. The net structure allows the passage of exudate. The antibacterial effect of Actilite has been enhanced by combining high grade antibacterial Manuka oil with Manuka honey. This combination has been demonstrated in vitro to be effective against a number of major wound infecting organisms including MRSA, VRE and Providentia stuartii.
Indications. Granulating or epithelialising wounds where antibacterial protection may be advantageous, including cuts, abrasions, burns, surgical wounds, leg ulcers, pressure ulcers, diabetic foot ulcers and infected wounds.

Dressing change. According to the amount of exudate, although best reserved for use on low-moderately exuding wounds. May be left undisturbed for up to 7 days. Requires an absorbent secondary dressing.

Cautions. Allergy to bee venom. Initial transitory discomfort may be experienced following dressing application, probably due to the high osmotic pressure. Although Algivon is not absorbed systemically, it may be prudent to monitor blood glucose levels in diabetic patients.

2. Non medicated dressings
   a) Vapour Permeable dressings
      (i) C-View


Indications. Wounds with no or minimal exudate, including minor burns; donor sites; superficial (category 2) pressure ulcers; clean, closed, postoperative wounds; cuts and abrasions; epithelialising wounds. Allows observation of the wound without the need to remove the dressing.

Has the advantage that it can be easily cut to dress difficult wound sites. May be used prophylactically over pressure areas (heels, elbows and knees) to reduce friction and shear forces, but does not reduce pressure.

Cautions. Known sensitivity to the dressing or its components. Do not use on full thickness burns, deep cavity wounds or infected wounds. Do not use alone on exuding wounds. Do not use in conjunction with topical medicinal preparations.

Dressing change. Every 7 days, unless lateral strikethrough occurs earlier.

Removal. Gently peel and lift one corner of the dressing. Support the skin whilst peeling the dressing off by stretching parallel with the skin in the direction of hair growth. Avoid applying traction to the wound and surrounding skin.

(ii) Tegaderm film (secondary care only)


Indications. Superficial dry or minimally exuding wounds, including epithelialising wounds, superficial burns and grade 2 pressure ulcers; clean, closed surgical incisions; abrasions; protective eye covering during surgery or for patients with corneal abrasions.

Allows observation of the wound without removing the dressing. May be used prophylactically over pressure areas (heels, elbows, and knees) to reduce friction and shear forces, but does not reduce pressure. Useful as a secondary dressing over hydrogel, alginate or hydrofiber dressings.

Cautions. Do not use alone on exuding wounds.

Dressing change. Every 5 to 7 days, unless lateral strikethrough of exudate occurs earlier.

Removal. The dressing should be stretched parallel with the skin to break the adhesive "tack". Avoid applying traction on the wound or surrounding skin.
b) Foam dressings

(i) Biatain dressings (secondary care only)

An absorbent hydropolymer dressing with a hydrophobic, vapour permeable outer layer, available with or without an adhesive border.
The sacral and heel versions are shaped for easier application to difficult areas.
The Softhold version is indicated for patients with fragile peri-wound skin.

Indications. Low to moderately exuding open wounds. May be appropriate for use on wounds with a shallow cavity, as the hydropolymer “island” expands as it absorbs exudate.

Dressing change. Every 5 to 7 days, unless lateral strikethrough of exudate occurs earlier. A 2cm overlap of the wound margin is required to ensure a seal.

Removal. Avoid applying traction to the wound; roll carefully from one corner or edge to remove gently. The application of a wet, gloved finger under the dressing border may assist removal.

Cautions. Do not use in the presence of infection, unless an appropriate systemic antibiotic is given concurrently.

(ii) Allevyn Gentle, Allevyn Gentle Border, Allevyn Non-adhesive, Allevyn Plus adhesive sacral & heel

Indications. Low to moderately exuding open wounds of all types. Allevyn Gentle, Allevyn Gentle Border and Allevyn Non-adhesive dressings are particularly suitable for use where the patient has fragile skin.

Contraindications. Necrotic or sloughy wounds. Dry wounds. Full thickness burns.

Dressing change. Every 5 to 7 days, unless lateral strikethrough of exudate occurs earlier. A 2cm overlap of the wound margin is required to ensure a seal. Allevyn Non-adhesive requires a secondary retention product – e.g. retention bandage.

Removal. Avoid applying traction to the wound; roll carefully from one corner or edge to remove gently. The application of a wet, gloved finger under the dressing border may assist removal.

c) Low adherent dressings

(i) Atrauman

A non-adherent, non-medicated polyester mesh single layer wound contact dressing.

Indications. Superficial wounds including lacerations, abrasions, pressure ulcers, burns, radiation therapy burns, abscesses, skin graft donor and recipient sites.

Cautions. Secondary dressing required.

Dressing change. Depends on the nature of the wound. Maximum wear time 7 days.

Removal. Atraumatic.

(ii) Telfa (Secondary care only)
A thin absorbent cotton fibrous dressing enclosed in a perforated low-adherent polyethylene film which is sealed along two edges.

**Indications.** Lightly exuding wounds, superficial cuts and abrasions.

**Contraindications.** Heavily exuding wounds.

**Dressing change.** As dictated by the amount of exudate.

**Removal.** Atraumatic removal.

d) Non–adherent wound contact layers

   (i) Silflex soft silicone wound contact layer *(secondary care only)*

A non-adherent contact layer made from polyester mesh coated with hydrophobic soft silicone. Silflex will gently ‘grip’ the peri-wound skin, but will not adhere to the wound surface. This minimises the pain and trauma often associated with dressing changes. The mesh construction allows the free passage of exudate into an absorbent secondary dressing.

**Indications.** Skin tears, abrasions, partial thickness burns, Negative Pressure Wound Therapy.

**Cautions.** Secondary dressing required.

**Application.** Remove the clear liners from each side of the dressing and place directly on the wound. Allow the dressing to overlap the wound edges to secure it against the surrounding skin. Cover with an appropriate secondary dressing. Silflex may be left undisturbed on the wound for up to 14 days, with the secondary dressing being changed according to the amount of exudate. It is not necessary to use a non- or low-adherent secondary dressing.

**Contraindications.** Allergy to silicone.

**Removal.** Atraumatic removal.

e) Atraumatic absorbent dressings

   (i) Eclypse

A highly absorbent exudate management dressing. Incorporates a wicking layer designed for rapid fluid uptake. Exudate is held in a gel state to reduce the risk of peri-wound maceration. The outer blue layer is water resistant to prevent strikethrough, and has a high moisture vapour transfer rate, which prolongs the wear time.

**Indications.** Moderately to highly exuding wounds.

**Contra-indications/cautions.** Not appropriate for use on dry wounds. Do not use over arterial bleeds or on heavily bleeding wounds.

**Dressing change.** Apply with beige side uppermost. Change according to the amount of exudate. Avoid strikethrough of exudate. May be left in place for a maximum of seven days. Secure with a simple retention bandage.

**Removal.** Atraumatic removal.

   (ii) Xupad

Non-adhesive absorbent dressing with strike-through barrier.

**Indications.** Light to moderately exuding wounds and open drains. Not appropriate for use on dry wounds.

**Dressing change.** Change according to the amount of exudate. May be left in place for a maximum of 7 days. Secure with a simple retention bandage.
**Removal.** Atraumatic removal.

**f) Post-operative dressings**

(i) **OpSite Post-Op**

An absorbent, low-adherent dressing with an adhesive border. The outer layer is a transparent, semi-permeable film.

**Indications.** Low to moderately exuding clean wounds, including closed surgical wounds, cuts and grazes.

**Cautions.** Do not apply under tension in order to avoid applying shearing forces to the skin, especially when applying over joints. Failure to do this can result in ‘traction blisters’.

**Dressing change.** Change as dictated by the amount of exudate - avoid strikethrough.

**Removal.** Avoid applying traction to the wound and surrounding skin - peel carefully from one corner or edge.

(ii) **Cosmopor E**

An absorbent, low-adherent dressing with an adhesive border.

**Indications.** Low to moderately exuding clean wounds, including closed surgical wounds.

**Cautions.** Do not apply under tension (this is to avoid applying shearing forces to the skin, especially when applying over joints).

**Dressing change.** Change as dictated by the amount of exudate – avoid strikethrough.

**Removal.** Avoid applying traction to the wound and surrounding skin – peel carefully from one corner.

**g) Hydrocapillary dressings**

(i) **Biatain Super (Adhesive or Non-adhesive)**

A highly absorbent hydrocapillary dressing, available with or without a hydrocolloid adhesive border.

**Indications.** Moderately to highly exuding acute and chronic wounds. Alone non-adhesive dressing is particularly suitable for use on wounds surrounded by fragile skin.

**Dressing change.** Every 5 to 7 days unless strikethrough occurs earlier. Ensure the absorbent pad is larger than the wound.

**Removal.** Gently peel the adhesive dressing off the surrounding skin. Removal of the non-adhesive dressing is non-traumatic.

**Cautions.** Do not cut the dressing. Do not use on dry wounds or dry necrosis, as the dressing will dry the wound further. Do not use in combination with hydrogel dressings, as the Alione will dry out the hydrogel. Dressings must be removed prior to radiation treatment (X-rays, ultrasonic treatment, diathermy and microwaves).

**3. Skin protectants**

(a) **Cavilon "No-Sting" Barrier Film** *(secondary care only)*
A durable, transparent barrier film, containing no irritant solvents.

**Indications.** Protection of "at-risk" skin from body fluids such as urine, faeces and wound exudate. Useful around stoma sites and around PEG sites. Can be applied to excoriated skin. Assists adherence of adhesive dressings and tapes. Facilitates atraumatic dressing removal and reduces "skin stripping". Can be used with continence pads without reducing effectiveness.

**Cautions.** Do not use on infected skin. Do not use any ointments, creams or emollients concurrently, as they will prevent Cavilon barrier film from working effectively.

**Application.** Apply sparingly to dry, clean, intact or excoriated skin. If applying between skin folds (e.g. in the groin), or where skin is in contact with other skin (e.g. between the buttocks) ensure the film coating is completely dry before allowing the skin surfaces to touch. Allow to dry completely before using pads or putting clothing next to the skin.

Applicator - apply an even coat of film to the entire area to be treated.

Spray - hold the spray about 10 to 15cm from the skin. Spray a smooth, even coating in a sweeping motion to the entire area to be treated. Reapply every 48-72 hours. If incontinence is severe, reapply every 24 hours.

**b) Medi Derma S Barrier Cream**

A water-in-oil emulsion which provides long-lasting protection from body fluids, urine and faecal contamination while providing a moisturiser for the skin. Medi Derma S Barrier Cream does not clog or interfere with the absorbency of incontinence pads. It requires infrequent application, as it is resistant to washing off. It allows the use of adhesive tape or dressings, with no decrease in adhesion.

**Indications.** Skin protection in incontinent patients, for intact skin only.

**Cautions.** Known sensitivity to the product or its ingredients. May increase the adherence of some adhesive products. Use with caution under any adhesive products in patients with fragile skin.

**Application.** Cleanse the skin according to normal practice. Apply Medi Derma S Barrier Cream sparingly to cover entire area of susceptible skin. If the feel is oily, too much cream has been used. Repeat as necessary, will resist removal for 4 to 5 washings.