

Wound Dressing Guidelines

Reference Number:	747 2007
Author / Manager Responsible:	Kate Purser Tissue Viability Nurse Specialist
Deadline for ratification: (Policy must be ratified within 6 months of review date)	January 2010
Review Date:	September 2009
Ratified by:	Director of Nursing
Date Ratified:	January 2007

Related Policies	Pressure Ulcer Prevention & Management, VAC, Wound Management (to be published 2007), Management of Infected Wounds
------------------	---------------------------------------------------------------------------------------------------------------------

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 1 of 25	Review date: September 2009

INDEX **Section Page** Consultation and Ratification Schedule -3 Introduction -4 Policy -4 **RUH Dressings Formulary** -5 **Dressing Products:** Hydrocolloids (Duoderm Thin & Comfeel Plus) -5 Hydrogen (Purilon) -6 Alginate (Sorbsan) -7 Hydrofibre (Aquacel) 8 Polyurethane Foam (Biatain) 9 Vapour Permeable film (C-View) -10 Perforated Absorbent (Release) -11 Post-Operative (Opsite Post-Op & Primapore) -12 <u>Low-Adherent</u> (Urgotul & Tricotex) 12 Odour Absorbing (Clinisorb) 14 Antibacterial (Aquacel Ag & Inadine) 15 Barrier Cream & film (Cavilon) -16 Appendix 1 RUH Dressing Formulary 2006 19 Appendix 2 Wound Dressing Selection Chart -21 Appendix 3 Characteristics of an ideal dressing -22 24 References -Bibliography -25

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 2 of 25	Review date: September 2009

CONSULTATION AND RATIFICATION SCHEDULE

Name and Title of Individual	Date Consulted
Modern Matrons	February 2006
Deputy Directors of Nursing	February 2006
Consultant Physicians & Surgeons	February 2006
Tissue Viability Link Nurses	February 2006

Name of Committee	Date of Committee

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 3 of 25	Review date: September 2009

INTRODUCTION

The following Wound Dressing Guidelines have been developed by the Trust Formulary group and comprise a list of specific dressings for use in RUH (Appendix 1). The purpose of these guidelines is to promote the safe, effective, appropriate and economic use of dressing products. Dressings *not* on the list can only be used under the guidance of the following Nurse Specialists: Tissue Viability (ext. 1112); Vascular (ext. 1112) and Dermatology (ext. 5658 / 5660).

POLICY

These guidelines are to be used in conjunction with the following Trust documents:

- Wound Assessment form
- Wound Dressing Selection Chart (Appendix 2)
- Wound Management policy (to be published 2007)
- Management of Infected and MRSA Wounds

The information and research used in these guidelines include the British National Formulary, NHS Logistics, analysis of RUH ordering and financial data, national wound care organisations and journals. These guidelines have been developed following consultation with a wide range of practitioners including:

- Staff from BANES & Mendip PCT's
- Pharmacy
- Infection control
- Directorate staff
- Dermatology
- Vascular department

Decisions about the inclusion of specific products were made after considering their clinical efficacy, safety, usage and cost. Treatment recommendations are selected on the basis of current clinical opinion, clinical effectiveness and current research including randomised controlled trials. The specific criteria used to select dressings are shown in Appendix 3. This formulary will be reviewed in 2008 and annually thereafter.

Product Information

Each product will have the following information:

- Product type
- Product name and manufacturer
- · Characteristics of the dressing
- Indications for use
- Method of Application

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 4 of 25	Review date: September 2009

Any feedback on the products within the formulary will be gratefully received. They will be reviewed regularly by the Tissue Viability Product group in order to continually monitor and improve wound management.

This information is issued on the understanding that the accuracy relates to the current available resources at the time of compilation. Please note that wound dressing products are often altered by the manufacturers. Therefore, current product guides or instructions should be followed in all instances.

Any product, to which the patient is known to be sensitive, must not be used

WOUND FORMULARY DRESSINGS

For a complete list of the RUH Formulary see Appendix 1

1. HYDROCOLLOIDS

Characteristics

- A hydrocolloid is an adhesive dressing consisting of various natural or synthetic polymers e.g. gelatine or pectin.
- They are interactive when in contact with wound exudate and will form a gel, which may be cohesive and/or hydrophilic. This gel swells into the cavity.
- The low pH created by the hydrocolloid is effective for the treatment of pseudomonas¹
- Wounds dressed with hydrocolloids are less likely to become infected than non-occlusive dressings.² This is because hydrocolloids are occlusive and provide a bacterial barrier, a reduced pH and create an environment which enables the body's defence mechanism to function efficiently.
- Will re-hydrate necrotic and sloughy wounds thereby facilitating debridement; an initial increase in wound size may be seen³
- Hydrocolloids are waterproof so patients may be able to bath or shower
- Patients should be warned that hydrocolloids have a particular odour
- Available in a variety of shapes and sizes

a) Comfeel Plus

Indications for use

- Wounds with low to medium exudate.
- Chronic wounds such as leg ulcers and pressure ulcers and acute wounds including burns, skin donor sites, traumatic wounds;
- Suitable for necrotic, sloughy, granulating and epithelialising wounds.

Application

- Allow a minimum of a 2-3cm overlap (excluding border) onto surrounding intact skin:
- Warm dressing between palms of hands;

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 5 of 25	Review date: September 2009

- Remove backing and maintain the warmth over the dressing for up to 2 minutes. This will encourage adherence – particularly on hard to dress places i.e. heels, elbows and sacrum;
- Can stay in place for up to 7 days.

- Avoid using on patients with infected or diabetic wounds, as occlusive dressing can encourage the growth of anaerobic bacteria ⁴⁻⁶
- Not suitable for heavily exuding wounds.
- Moisture can build up under an occlusive dressing and may cause maceration and decreased tissue tensile strength ⁶
- May cause over-granulation. If this occurs, a more oxygen permeable dressing should be considered i.e. Biatain.

b) **Duoderm Thin**

Indications for use

This dressing has limited absorbent capacity and should only be used for granulating or epithelialising wounds with light exudate or for protection of at risk / newly healed areas.

Application / Cautions

As for Comfeel

2. HYDROGEL

Hydrogels are amorphous, water based gels or sheets that can re-hydrate dry necrotic tissue or slough to promote debridement and create a moist wound healing environment. They can reduce wound pain by cooling wound surface & bathing nerve endings. Performance varies according to gels constituents but research has shown that Purilon gel has greater absorptive than Intrasite (Thomas 2005).

Purilon Gel

Characteristics:

- Purilon is a hydrogel that contains an alginate, carboxymethylcellulose (CMC) and 90% water
- Primarily used for dry, necrotic wounds that require debriding / de-sloughing
- Hydrates necrotic tissue thereby promoting debridement
- It absorbs debris and small amounts of excess exudate
- Requires a secondary dressing i.e. film or hydrocolloid

Indications for use:

- Debridement of necrotic and sloughy wounds
- Wounds with light to medium exudate
- Any stage of wound healing from necrotic tissue to granulation tissue if there is light exudate
- Suitable for cavity wounds with light exudate; they do not swell into the wound.

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 6 of 25	Review date: September 2009

Application:

- Apply directly into or onto wound surface
- Apply a secondary dressing. For wounds with low exudate apply a film or hydrocolloid; for wounds with moderate exudate a polyurethane foam
- Dressing should be changed every 1-3 days

Cautions:

- Not recommended for heavily exuding wounds as the water in the gel can cause maceration
- May cause maceration if secondary dressing is inadequate for the amount of exudate.
- Do not use prior to Maggot therapy, as the larvae cannot tolerate most hydrogels
- Propylene glycol may cause sensitisation and irritation in a small number of patients.
- Contraindicated where anaerobic infection is suspected hydrogels can support the growth of micro-organisms
- Care is required if applying to a flat / shallow wound as pressure may spread the gel on to healthy skin and cause maceration

3. ALGINATE

Sorbsan

Characteristics

- Composed of alginic acid, which consists of a polymer containing mannuronic and guluronic acid residues
- High in mannuronic acid and therefore forms a soft flexible gel which is soluble with 0.9% sodium chloride and can be easily removed or rinsed away
- Contains calcium alginate which, when in contact with wound exudate converts into a hydrophilic gel that is believed to facilitate healing
- This gel provides a moist wound healing environment and allows pain-free dressing changes. The gel also ensures that the new granulation tissue is not disturbed and does not harm the surrounding skin.
- Effective haemostatic agent so can be used on bleeding wounds i.e. donor sites, fungating wounds

Indications for use

- May be applied to a wide range of moderately exuding lesions
- Can be used on infected and diabetic wounds but will require changing daily so this may not be a cost-effective choice of dressing ⁸
- The flat dressing is suitable for shallow wet wounds and ulcers
- The ribbon can be loosely packed into cavity wounds and sinuses do not pack tightly as this may cause pain and also damage granulation tissue as the alginate will expand when absorbing exudate

Application

- Place onto the surface of the wound and cover with a secondary dressing
- Loosely pack into a cavity and cover with a secondary dressing

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 7 of 25	Review date: September 2009

- Sorbsan is soluble in 0.9% sodium chloride solution and is therefore easily removable from a cavity wound or sinus.
- Change the dressing when it is saturated or if there is any strikethrough on the secondary dressing
- The dressing can be left in the wound for 3 to 7 days.

- Do not apply to dry (or necrotic) wounds or wounds with low exudate as this
 dressing will adhere to the wound surface. If this occurs, warmed 0.9% sodium
 chloride can be applied to soak the dressing off. However the dressing is
 biodegradable and can be left in/on the wound
- If this dressing does adhere to the wound then the exudate is inadequate and an alginate dressing is inappropriate

4. HYDROFIBRE

Aquacel

Aquacel is an expensive dressing and is only to be used when Sorbsan (Alginate) does not provide enough absorbency

Characteristics

- Soft, non-woven flat dressing composed of hydrocolloid fibres (sodium carboxymethycellulose) used in the management of heavily exuding wounds;
- The dressing permits absorption via intimate contact between the fibres and wound fluid, not via the usual mechanism of capillary action.
- A research study indicated that Aquacel is 26% more absorbent than alginates, reducing the number of dressing changes and therefore facilitating a cost saving 9
- Research has shown Aquacel to be a more effective dressing than Sorbsan with a longer wear time, easier application and removal, better exudate management and less wound adhesion and pain ^{10, 11}
- This hydrosorbtive mechanism retains the fluid within the structure of the fibre increasing the quantity of fluid which can be absorbed
- Allows fluid retention under compression and minimises lateral wicking of fluid thus reducing the potential for maceration of peri-wound skin
- As the Aquacel absorbs exudate it converts from a dry dressing to a soft gel sheet
- Maintains a moist wound healing environment for optimal wound healing
- Easily removed and has high tensile strength therefore maintaining its integrity during handling. If wound exudate is inadequate to turn the dry sheet to a gel, moisten the dressing with 0.9% sodium chloride to ease removal and review use of dressing.

Indications for use

 Can be used on cavity, deep or superficial wounds with slough or eschar and medium to heavy exudate e.g. leg ulcers, pressure ulcers;

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 8 of 25	Review date: September 2009

- Soothing for radiotherapy burns if thoroughly moistened with 0.9% sodium chloride and the gel applied to the burns;
- Can be used on clinically infected wounds however as the dressing will require daily dressing this would not be cost effective.

Application

- Apply dry directly to the wound overlapping the surrounding skin by at least 1cm
- This dressing can be loosely packed into a cavity, but with caution to prevent any damage to granulation tissue
- Aquacel can be covered with a foam dressing, surgipads or Comfeel depending on the amount of exudate
- If the dressing adheres to the wound, irrigation with 0.9% sodium chloride will facilitate removal
- The wound should dictate the frequency of dressing changes but maximum duration is 7 days

Cautions

 Should only be used on heavily exuding wounds otherwise the dressing will adhere to the wound

5. POLYURETHANE FOAM DRESSINGS

Polyurethane foams are absorbent dressings with good fluid handling capacity. They come in a variety of shapes and sizes including flat (adhesive and non-adhesive) and cavity dressings.

Biatain

Characteristics

- Flat polyurethane foam dressing with or without an adhesive border
- Biatain adhesive dressings have a hydrocolloid adhesive and a central absorbent pad with a waterproof semi-permeable film backing
- Research had indicated that Biatain is significantly more absorbent, less likely to leak and more cost effective than Allevyn ^{7, 24}

Indications for use

- Granulating or epithelialising wounds with light to heavy exudate
- Can be used for flat, shallow or cavity (as a secondary dressing) wounds

Application

- Apply directly to wound surface and apply the plain surface to the wound
- Allow for a 2cm overlap on each side of the wound
- Non-adhesive dressings will require tape or a bandage to secure
- May be left in place for up to 7 days

Cautions

The adhesive on Biatain dressings may cause reddening (erythema) of the skin on first application. Apply another dressing but check within 24 hours. Erythema beyond the edges of the dressing may indicate an allergic reaction.

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 9 of 25	Review date: September 2009

- Remove prior to radiation treatment (X-rays, ultrasonic treatment, diathermy and microwaves).
- Biatain Adhesive dressings are not recommended for use with oxidising solutions i.e. hydrogen peroxide
- Not suitable for dry necrotic wounds unless used with an appropriate debriding product

Allevyn Cavity

Characteristics

- Hydrophilic polyurethane cavity dressing
- Conformable, absorbent dressing
- Outer membrane is low adherent and perforated to allow exudate to pass into the interior of the dressing where it is absorbed and retained by foam chips
- Available in a range of shapes and sizes

Indications for use

 Highly exuding, full thickness cavity wounds healing by second intention i.e. pressure sores, dehisced surgical wounds

Application

- Gently insert required number of dressings into cavity and secure with an appropriate secondary dressing i.e. Biatain flat sheet or surgipad
- Change every 1 3 days depending on the amount of exudate

Cautions

- Allevyn cavity dressings must not be cut or be used with chemicals as this will degrade their structure
- Not suitable for dry, necrotic or superficial wounds

Allevyn Tracheostomy

Pre-cut dressing for use with tracheostomy tubes and wound drains

6. VAPOUR PERMEABLE FILM

Vapour-permeable films and membranes allow the passage of water vapour and oxygen but not water or micro-organisms. They provide moist wound environment by trapping exudate at wound surface. Different films have varying degrees of vapour permeability but are only suitable for wounds with very low or no exudate as fluid may accumulate under the dressing causing maceration / tissue breakdown.

C-View

Characteristics

 C-View consists of a sterile, thin, vapour permeable, polyurethane, adhesivecoated film that acts as an occlusive dressing;

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 10 of 25	Review date: September 2009

- layer coated with acrylic adhesive;
- Film dressings have the ability to permit the passage of water vapour from beneath the film to the external environment ¹²
- C-View has been designed for ease of application;

Indications for use

- Film dressings are only suitable for superficial wounds with light exudate i.e. epithelialising wounds
- Can be used as a secondary / retention dressing
- Can be used prophylactically to assist with the prevention of pressure ulcers ³

Application

- The skin must be clean and dry prior to application of the film
- Can be left in place for up to seven days;

Cautions

- Film dressings act as an occlusive dressing and therefore should not be used when anaerobic bacteria are suspected (usually discernible from the odour)
- Avoid using on diabetic patients with wounds as they are prone to anaerobic infection.
- If the film is used on a very wet wound, excessive exudate may build up under dressing – consider using another more absorbent dressing if this occurs
- Film dressings must be removed carefully as fragile skin may suffer trauma when the dressing is removed
- As they are vapour permeable, film dressings can cool the surface of the wound

7. PERFORATED ABSORBENT

Melonin

Characteristics:

Melonin consists of a perforated polyester film wound contact layer which is bonded an absorbent pad made of 80% cotton and 20% viscose backed with a layer of non-woven cellulose fabric. The plastic film prevents the dressing adhering to the wound surface and is perforated to allow the passage of exudate from the wound into the dressing.

Indications for use:

- Dry, sutured wounds
- Superficial cuts, abrasions and other lightly exuding lesions

Cautions

 Due to the plastic film, Melonin should not be used on wounds with copious exudate as this may become trapped at the wound surface leading to maceration and inflammation of the surrounding skin ¹³

Application

The dressing is applied with the plastic film (shiny) side next to the wound

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 11 of 25	Review date: September 2009

Apply the dressing by securing it with surgical tape or bandage

8. POST-OPERATIVE

Primapore is a clinically and cost-effective dressing that can be used for most postoperative wounds. Opsite Post-Op is a more expensive dressing that should only be used for high risk post-operative wounds i.e. to help prevent blisters in orthopaedic wounds and for wounds with moderate exudate.

Primapore

- Perforated, absorbent dressing with a low-adherent absorbent pad and an adhesive border
- Suitable for post operative use, cuts, lacerations and sutured wounds with light exudate

Opsite Post-Op

- A vapour permeable, adhesive film dressing combined with a low adherent, absorbent pad
- Has a high moisture vapour transmission rate (MVTR) making it more permeable to moisture vapour than other films
- Waterproof and bacteria-proof allowing patients to bath / shower
- Use for post operative or sutured wounds, cuts and lacerations with moderate exudate
- Conformable, hence can be used for high risk post-operative wounds i.e. orthopaedic wounds, to help prevent blisters

Application:

- Apply to clean, dry wounds
- Change dressing after 4 -5 days or when strikethrough occurs

9. LOW ADHERENTS

Tricotex

Characteristics of the dressing

- Low adherent rather than non-adherent
- Low adherent dressings do not provide a moist wound healing environment. Dry dressings do not provide optimal healing in many situations¹⁴, a moist wound environment has been shown to increase epithelialisation and stimulate proliferation

Indications for use

- Epithelialising wounds, small cuts and lacerations
- To prevent a secondary absorbent dressing (i.e. surgipad) adhering to the surface of wound
- Can be used on dry or lightly exuding wounds

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 12 of 25	Review date: September 2009

Ischaemic wounds that do not benefit from a moist environment i.e. ischaemic digits

Method of application

- Will require a secondary dressing if used on more heavily exuding wounds
- Dressing needs to be secured by bandages or adhesive tape.

Cautions

 If wound has low exudate, Tricotex may stick to the wound, causing trauma on removal; this can be eased by soaking with 0.9% sodium chloride prior to removal.

Urgotul

- A dressing consisting of a fabric net impregnated with hydrocolloid particles, paraffin and petroleum jelly
- On contact with wound exudate, the hydrocolloid particles and petroleum gel form a lipido-colloid interface with the wound
- Easy to apply and allows non-traumatic removal; comfortable, conformable and low-adherent ¹⁵⁻¹⁷
- Several authors have found Urgotul to be a more effective than other nonadherent dressings ^{18, 19, 25}
- May promote dermal fibroblast proliferation ²⁵
- Can be used on venous leg ulcers in combination with compression bandaging ²⁰
- Can be used to help debride wounds with small amounts of slough ²¹

Indications for use

Urgotul is an expensive dressing and is only to be used on patients who have:
 Painful wounds

Friable / fragile skin

Superficial / partial thickness burns

Skin grafts or flaps

Pre-tibial lacerations

- Use for flat or shallow granulating and epithelialising wounds
- Wounds with light moderate exudate; with an exuding wound the open weave allows exudate to pass into a secondary absorbent layer
- Can be used to line a wound being treated with VAC therapy in order to prevent adhesion of the foam ²²

Method of application

- Can be cut to shape of wound
- Requires secondary dressing
- Change every 2 3 days

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 13 of 25	Review date: September 2009

- Urgotul adheres to clinical gloves; pre-moistening gloves with normal saline will prevent this and facilitate easier handling of the dressing.
- Not suitable for clinically infected wounds

10. ODOUR ABSORBING DRESSINGS

Clinisorb

Characteristics of the dressing

- Wound odour, which cannot be immediately resolved, can be absorbed by dressings that contain activated charcoal.
- Clinisorb is an activated charcoal cloth sandwiched between viscose rayon. It can be cut, as it does not come into contact with the wound.
- Use as a secondary dressing only
- Some wounds i.e. leg ulcers, fungating (cancerous) lesions may become malodorous due to the metabolic processes of bacteria within the wound. Charcoal dressings absorb the molecules released from the wound which may be responsible for the smell. Organisms frequently isolated from malodorous wounds include anaerobes such as *Bacteriodes* and *Clostridium* species, and aerobic bacteria including *Proteus*, *Klebsiella* and *Pseudomonas* spp.
- The most effective way of dealing with malodorous wounds is to treat or prevent the infection responsible for the odour.

Indications for use

Malodorous wounds

Method of application

- Clinisorb must not come into contact with the wound and should be applied over an appropriate wound contact layer.
- Can be used either side up or cut to shape. Ensure that it extends 3cm beyond the edge of the wound.
- Can be used for up to one week but will be de-activated if it comes into contact with exudate or become wet.

Cautions

 Clinisorb cannot be applied directly on the wound as fibres may be deposited in the wound.

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 14 of 25	Review date: September 2009

11. ANTIBACTERIAL

Aquacel Ag

Characteristics of the dressing

- Silver impregnated Aquacel dressing which has now been re-classified as a Protease Modulating Matrix
- Soft, sterile non-woven sheet or ribbon composed of hydrocolloid fibres (carboxymethylcellulose) with 1.2% ionic silver which provides up to seven days of broad-spectrum antimicrobial action
- The dressing absorbs wound fluid, creating a soft, cohesive gel that conforms to the wound surface, is comfortable and maintains a moist environment ^{27, 28, 29, 30}
- Sodium ions in the wound exudate bind to the dressing causing the release of silver ions from the dressing ³¹
- Bacteria are locked within the gelled fibres and the silver kills bacteria ³²
- Dressing will remain in one piece when wet
- Is easy to apply, remove and may help reduce wound pain ^{32, 27}

Indications for use

- Suitable for medium to highly exudating acute and chronic wounds
- Critically colonised or infected wounds (including MRSA, VRE & pseudomonas)
- Wounds with slough or necrotic tissue
- Flat or cavity wounds

Method of application

- Apply directly to the wound allowing at least a 1cm overlap onto the skin beyond the wound. This is because the dressing will shrink as it absorbs wound exudate and begins to gel
- Requires a secondary dressing such as a surgipad
- The dressing has a maximum wear time of seven days but should be changed when it becomes saturated
- The dressing should be left in-situ for at least 24 hours as the silver may not be fully effective until then. If strikethrough occurs before this, change the upper layers of the dressing only.
- If the dressing has adhered to the wound bed, it can be soaked off with sterile normal saline

Cautions

Do not use on patients who are allergic to silver or hydrocolloid

Inadine

For the characteristics of an infected wound, see the infection section of the Wound Management policy. The administration of systemic antibiotics may be necessary, the most up to date advice can be found in section 5.1 table of the British National Formulary. However, the use of anti-bacterial agents in a topical preparation is effective in most cases.

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 15 of 25	Review date: September 2009

Characteristics of the dressing

- Sterile, low adherent knitted viscose dressing impregnated with 10% povidone iodine in a water-soluble polyethylene glycol base.
- This medicated tulle is more able to release antimicrobial agent than other medicated tulles

Indications for use

- Use for critically colonised or infected superficial wounds, minor burns and minor traumatic injuries. Do not use on deep ulcerative wounds, burns or large injuries
- Do not use on dry wounds.
- Change the dressing when the orange-brown colour changes to white; this indicates that the povidone iodine has been used up.
- The dressing should be changed at least every 2 3 days in infected wounds because the antimicrobial properties of the dressing, decreases over time.
- Do not use Inadine for longer than one week without consulting a doctor.
- May be used for prophylaxis and treatment of a wide range of bacterial and protozoal fungal organisms in superficial wounds³
- Inadine can be used in diabetic patients with a normal functioning thyroid and who are not on a drug related treatment. It is advised however, to seek a clinician's advice before commencing treatment due to diabetics being susceptible to reduced kidney function and iodine being excreted via the kidneys.

Method of application

- For topical use only, apply directly onto the wound surface.
- Secondary dressing will be required. The nature of the wound will dictate the secondary dressing.

Cautions

- Inadine should not be used where there is a known iodine hypersensitivity;
 before or after the use of radio-iodine; if the patient has any renal problems;
- Consult a clinician prior to applying Inadine to a patient who is having lithium treatment as the Inadine could indirectly affect the serum-lithium levels.
- Do not use iodine on pregnant or breast feeding women or new born children up to the age of 6 months as povidone iodine may be absorbed through unbroken skin
- Inadine should be used under medical supervision if the patient has a thyroid disease; this may involve a thyroid function test before and after treatment.
- There may be some sensitivity to povidone iodine or iodine.
- Not more that 4 dressings should be used at the same time ³

12. BARRIER PRODUCTS

Cavilon No Sting Barrier Film and Cavilon Durable Barrier Cream 3, 26

Cavilon cream and film are products used for the treatment and prevention of skin breakdown. They provide a protective, transparent, barrier layer between the skin and bodily wastes, fluids or adhesive dressings and tapes.

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 16 of 25	Review date: September 2009

Cavilon Durable Barrier Cream

This is a highly concentrated moisturising barrier cream for *intact or at risk skin* and is available as 2g sachets or 28g tubes.

Indications for Use

- Protecting the skin from body fluids e.g. urine and faeces
- Moisturising and conditioning very dry or chafed skin
- Maintain adhesion of tapes and dressings

Application

- The area of skin to be treated must be clean and dry
- The cream is very concentrated and pea-sized amounts (or less) can cover a large area (i.e. one sachet can cover both buttocks).
- Gently smooth in to skin. If too much is applied, the skin will feel oily
- If the skin problem is being caused by incontinence, the barrier cream should be re-applied after every third or fourth episode of incontinence
- Re-apply every other day when treating dry skin

Cautions

- Adhesives will become more adherent after applying Cavilon cream so should not be used on fragile / broken skin under tapes or dressings
- Do not use on infected (i.e. cellulitic) or broken / excoriated skin

Cavilon No Sting Barrier Film

This is a long-lasting skin protection film for *at risk or damaged skin*. It is available in 1ml and 3ml sterile, single use applicators or as a 28ml pump spray.

Indications for Use

• Cavilon can provide protection for:

Grade 1 – 2 pressure ulcers

Incontinence dermatitis / excoriation

Stoma sites

Macerated skin around wet wounds

Adhesion trauma / skin stripping

Application

- The area of skin to be treated must be clean and dry
- Cavilon film is normally applied every 48-72 hours but if there is regular incontinence, re-apply every 24 hours. It does not require removal before reapplication.
- Allow the area one minute to dry

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 17 of 25	Review date: September 2009

- If the film is being used between skin folds, (e.g. groins, under breasts) or where skin touches other skin (e.g. between buttocks), ensure the film is dry before allowing the skin folds to come back together
- Do not use any other ointments, creams or emollients with the film as this will prevent it working
- Only apply one layer of film to prevent skin feeling 'stiff'

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 18 of 25	Review date: September 2009

APPENDIX 1 - RUH DRESSINGS FORMULARY 2006

Category	Dressing	Company	Sizes available
1. Hydrocolloid	Comfeel Plus	Coloplast	Contoured: 6 x 8cm 9 x 11cm Rectangular: 5 x 7cm 5 x 25cm 15 x 20cm Square: 10 x 10cm 15 x 15cm Sacral: 18 x 20cm
1. Hydroconoid	Duoderm Thin	Convatec	Square: 7.5 x 7.5cm 10 x 10cm 15 x 15cm Rectangular: 5x20cm 5 x 10cm Oval spots: 4 x 3cm
2. Hydrogel	Purilon	Coloplast	8g 15g
3. Alginate	Sorbsan	Unomedical	Flat sheet: 5 x 5cm 10 x 10cm 10 x 20cm Packing: 2g Ribbon: 40cm
4. Hydrofibre	Aquacel	Convatec	Rectangular: 4x10cm 4 x 20cm Square: 5 x 5cm 10 x 10cm 15 x 15cm Aquacel ribbon: 2x45cm
5. Foam	Biatain	Coloplast	Non-adhesive Square: 10 x 10cm 15 x 15cm 20 x 20cm Circular: 5cm 8cm Adhesive Square: 12 x 12cm 18 x 18cm Circular: 10 x 10cm Heel Sacral Contour: 17cm
	Allevyn Trache.		9 x 9cm

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 19 of 25	Review date: September 2009

	Allevyn Cavity	Smith & Nephew	Circular: 5cm 10 x 10cm Tubular: 9 x 2.5cm 5 x 6cm 10 x 10cm 15 x 20cm
6. Vapour permeable film	C-View	Unomedical	6 x 7cm 10 x 12cm 15 x 20cm 20 x 30
7. Perforated absorbent	Melonin	Smith & Nephew	10 x 10cm 10 x 20cm
	Primapore		6 x 8cm 8 x 10cm 10 x 35cm 8 x 15cm 10 x 20cm 10 x 25cm
8. Post-Operative	Opsite Post- Op	Smith & Nephew	6 x 5cm 9 x 8cm 15 x 8cm 12 x 10cm 20 x 10cm 30 x 10cm
	Tricotex	Smith & Nephew	9 x 9cm
9. Non-adherent	Urgotul	Urgo	5 x 5cm 10 x 12cm 15 x 20cm
10. Odour Absorbing	Clinisorb	Clinimed	10 x 10cm 10 x 20cm
	Inadine	Johnson & Johnson	5 x 5cm 10 x 10cm
11. Antibacterial	Aquacel Ag	Convatec	5 x 5cm 10 x 10cm 15 x 15cm 20 x 30cm 2 x 45cm ribbon
12. Barrier cream & film	Cavilon	ЗМ	Cream: 2g 28g Film: 1ml 3ml

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 20 of 25	Review date: September 2009

APPENDIX 2 - WOUND DRESSING SELECTION CHART

This chart is a guide to selecting appropriate dressings and will be used in conjunction with RUH Wound Dressing guidelines and clinical judgement. Prior to deciding which dressing to use, the Trust Wound Assessment form will be completed

Wound bed	4: (0		Consi	der using:
description	Aims of Care	Exudate	Primary dressing	Secondary dressing
			Purilon	Comfeel or C-View
NECROTIC	NECROTIC Debride eschar &	Low	Comfeel	
NEGRO 116	promote moisture balance	Moderate	Sorbsan	
		Heavy	Aquacel	Surgipad
		_	Purilon	Comfeel or C-View
SLOUGHY	De-slough & provide healthy bed for	Low	Comfeel	
0.2000	granulation; promote	Moderate	Sorbsan	
	moisture balance	Heavy	Aquacel	Surgipad
	Provide healthy bed		Urgotul	Gauze or surgipad
GRANULATING	GRANULATING for epithelialisation & promote moisture	Low	Comfeel	
balance	Moderate	Biatain		
		Tricotex or Urgotul	Gauze or surgipad	
EPITHELIALISING	Promote maturation	Low	Duoderm	
		Moderate	Comfeel or Biatain	
OVER- GRANULATING	Promote healthy granulation	Low - heavy	Biatain	
	Promote healing by	Low	Primapore	
POST-OP	primary intention	Moderate - heavy	Opsite Post-Op	
CRITICAL			If small, simple wound use Inadine for < 1 week	
COLONISATION / Reduce bacterial burden	Moderate - heavy	Aquacel Ag	Surgipads	
INFECTION				wounds to TVN or LUN*
	Provide healthy wound bed for	Low	Purilon	Comfeel or C-View
CAVITY / SINUS granulation; promote	Moderate	Sorbsan	Allevyn Cavity over	
	moisture balance	Heavy	Aquacel	primary dressing Surgipads
FUNGATING	Manage symptoms i.e. malodour, exudate, infection	Assess wound bed & treat accordingly (i.e. Sorbsan if wet slough). Consider Metronidazole gel if infected (will need to be prescribed) & Clinisorb if malodorous: refer to TVN*		I need to be prescribed) &

Please note:

- 1. Occlusive dressings (C-View, Comfeel or Duoderm) should not be used wounds with medium heavy exudate or on patients with infected wounds or diabetes
- 2. A new type of dressing should be used for at least at least two weeks before being changed. It may take this long before an improvement is seen, especially with chronic wounds. However, a dressing should be discontinued immediately if the patient cannot tolerate it or experiences an allergic reaction
- 3. Urgotul and Aquacel are expensive dressings & should only be used as per RUH Dressing Guidelines
- 4. Refer to Tissue Viability or Leg Ulcer Nurse if wound MRSA+ve, complex, chronic or fails to respond to treatment above
 - *TVN = Tissue Viability Nurse (contact: ext. 1112 or pager via switchboard) LUN = Leg Ulcer Nurse (contact ext. 1987)

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 21 of 25	Review date: September 2009

APPENDIX 3 – CHARACTERISTICS OF AN IDEAL DRESSING

The following characteristics were considered in order to select appropriate dressings for the RUH Wound Dressing formulary

Characteristic	Rationale
Provide an optimum environment for moist wound healing	Research demonstrates that a moist environment encourages wounds to heal more quickly than a dry one. If left to dry, wounds form a scab or eschar which forces migrating epidermal cells to move deeper, prolonging the healing process ^[13]
2. Allow gaseous exchange of oxygen, carbon dioxide and water vapour	Epithelial cells need oxygen to move and divide and to aid healing. This should not be interpreted by leaving wounds exposed to air.
3. Provide thermal insulation	The optimum temperature for cell regeneration is 37°C and this is maintained by preventing the evaporation of exudate. Dressings that achieve this prevent the wound bed from cooling ^[13] . It takes 40 minutes for a freshly cleaned wound to return to normal temperature, and 3 hours for mitotic cell division to start again ^[30] . Cleansing with cold fluids will lengthen this process. This should prompt the practitioner to question the frequency of dressing changes and the need for wound irrigation.
4. Impermeable to micro-organisms	Infected wounds delay healing ^{[14],[15]} , and extend the inflammatory phase ^[13] Therefore where appropriate consider the appropriateness of occlusive dressings to reduce the risk of cross infection.
5. Free from particulate contaminants	Particles from dressing materials may disrupt the healing process by increasing the risk of infection and stimulating an inflammatory response [13].
6. Non-adherent	Removal of an adherent dressing causes pain and may remove areas of newly granulating tissue. Capillary loops are very fragile and any adherence easily damages them. Atraumatic removal is often experienced with dressings such as hydrocolloids which form a gel, and the adhesive softens the longer they are in place. This is not the case for all adhesive dressings and extreme caution on removal is essential where the skin is already damaged and/or fragile. Too frequent removal of adhesive dressings can lead to sensitivity and localised skin damage.
7. Safe to use (non toxic, non sensitizing and non-allergenic)	Dressings that are toxic should not be used. It should be noted that leg ulcer patients in particular develop sensitivities to ingredients within dressings, adhesives and bandages. Dermatology referral may be appropriate.
8. Acceptable to the	Consider ease of application, pain-free application and removal,

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 22 of 25	Review date: September 2009

Royal United Hospital Bath NHS Trust Wound Dressing Guidelines

patient	availability, size of dressing and aesthetics.
9. High absorption properties	Initially wounds may be highly exuding and the dressings used should be able to cope with this to avoid maceration. When 'strike through' occurs with a non -occlusive dressing it must be changed as this acts as a tract for bacteria to pass into and out of the wound i.e. a cross infection risk.
10. Cost effectiveness	Faster healing rates, shorter hospitalization, total material costs, saving in nursing time and wear time, are all considerations to be taken into account when choosing the most appropriate treatment option.
11. Allows monitoring of the wound	It is difficult to monitor wounds without disturbing the wound dressing and therefore the healing process. If low-exuding, the wound may benefit from a transparent dressing to facilitate easy inspection of the wound. Some dressings have visible markers or change colour to help determine when change of dressing is required.
12. Provide mechanical protection	Dressings should protect the wound from further trauma, bacterial invasion, UV light and radiation.
13. Non-inflammable	Caution for those patients (especially the elderly) who may sit close to fires to help keep warm.
14. Sterile	All products should be sterile to protect against secondary infection and cross contamination.
15. Available	Dressings chosen should be in accordance to the formulary, and as a consequence should be readily available (subject to rare delays from the manufacturer). There should be continuity across primary and secondary care, and it is preferred if the products are available on prescription (FP10).
16. Long wear time	A dressing with a long wear time will allow fewer dressing changes, the advantages of which are: a reduced risk of infection; reduced nursing time; maintenance of stable wound bed temperature; and less inconvenience to patient. Longer wear time is not suitable for dressings that may adhere e.g. gauze, Jelonet, Melonin etc.

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 23 of 25	Review date: September 2009

REFERENCES

- 1. Meehan, F. (1993) Hydrocolloid Update Journal of Community Nursing, May issue
- 2. Hutchinson, J.J. and Lawrence, J.C. (1991) Wound infection under occlusive dressings; *Journal of Hospital Infection* 17, 83-94
- 3. Morgan D.A. (2004) Formulary of Wound Management Products, a guide for Healthcare Staff Euromed, Surrey
- 4. Armstrong, D.G., Lavery, L.A., Wunderlick, R.P. (1998) Risk factors for diabetic foot ulceration: a logical approach to treatment. *Journal of Wound Ostomy Continence Nurse* 25, 123-128
- 5. Mayfield, J.A., Reiber, .E., Sanders, L.J., Janisse, D., Pogach, L.M. (1998) Preventative foot care in people with diabetes. *Diabetes Care* 21 (21) 61-77
- 6. Mulder, G.D. (2000) Evaluating and managing the Diabetic Foot: An Overview. *Advances in Skin and Wound Care*, www.hmtl.co.uk
- 7. Thomas, S. et al, (2005). An in-vitro comparison of the physical characteristics of hydrocolloids, hydrogels, foams and alginate / CMC fibrous dressings. World Wide Wounds, 2005
- 8. Jones, V. (1999) Alginate dressings and diabetic foot lesions. *The Diabetic foot*, 2 (1) supplement.
- 9. Robinson, B.J. (2000) The use of a hydrofibre dressing in wound management. *Journal of Wound Care* 9 (1) 32-34
- 10. Harding K. G. et al (2001). Cost and dressing evaluation of hydrofibre and alginate dressings in the management of community-based patients with chronic leg ulceration. Wounds A compendium of clinical research and practice, 13(6): p229-36
- 11. Foster L., Moore P., Clark S. (2000). A comparison of hydrofibre and alginate dressings on open acute surgical wounds. *Journal of Wound Care*, 9 (9)
- 12. Thomas, S. (1996) Vapour-permeable film dressings. *Journal of Wound Care*, 5 (6) 271-274
- 13. Kerstein, M. (1994) Overview of wound healing in a moist environment. *American Journal of Surgery*, 167 (Supp 1a): 25-65
- 14. Letouze A. et al, (2004). Using a new lipidocolloid dressing in paediatric wounds: results of French & German clinical studies. *Journal of Wound Care*, 13 (6)
- 15. Benbow M. & Iosson G., (2004). A clinical evaluation of Urgotul to treat acute and chronic wounds. *British Journal of Nursing*, 13 (2)
- 16. Meaumme S. et al, (2002). Urgotul: a novel non-adherent lipidocolloid dressing, British Journal of Nursing, 11 (16)
- 17. Burton F. (2004). An evaluation of non-adherent wound contact layers for acute traumatic and surgical wounds. *Journal of Wound Care*, 13 (9)
- 18. Benbow M. (2002). Urgotul: alternative to conventional non-adherence dressings. *British Journal of Nursing*, 11 (2)
- 19. Smith J. et al (2004). Evaluation of Urgotul plus K-Four compression for venous leg ulcers. British Journal of Nursing, 13 (6)

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 24 of 25	Review date: September 2009

- 20. Cutting K. F. & Fowler A. (2002). Clinical evaluation of a new lipidocolloid dressing in a case cohort study. Poster presented during 'Wounds 2002' at Harrogate, Nov. 2002
- 21. Lambert (2003)
- 22. Thomas, S. (2000) A structured approach to the selection of dressings. www.smtl.co.uk
- 23. Johnson & Johnson (1996) Data sheet, Inadine.
- 24. Anderson, K.E. at al, (2000) Randomised controlled trial, Biatain non-adhesive dressing versus Allevyn Hydrocellular dressing. *Phase II, European Trial.*
- 25. Bernard F.X. et al (2005). Stimulation of the proliferation of human dermal fibroblasts in vitro by a lipido-colloid dressing. Journal of Wound Care, 14 (5).
- 26.3M Healthcare Cavilon Range product information (2004)
- 27. Caruso, D.M. et al (2004). Aquacel Ag[®] in the Management of Partial Thickness Burns: Results of a Clinical Trial. Journal of Burn Care & Rehabilitation, 25(1)
- 28. Piagessi et al (2001). Carboxymethylcellulose dressings in the management of deep ulcerations of the diabetic foot. Diabetes medicine, 18, 320-324
- 29. Robinson B. J. ((2000). The use of a hydrofibre[®] dressing in wound management. Journal of Wound Care, 9, 32-34
- 30. Armstrong S. H. & Ruckley C. V. (1997). The use of a fibrous dressing in exuding leg ulcers. Journal of Wound Care, 6, 322-324
- 31. Data on file: Convatec
- 32. Harding K. G. et al (2001). Cost and dressing evaluation of Hydrofibre[®] and alginate dressings in the management of community-based patients with chronic leg ulceration

BIBLIOGRAPHY

- Day, A., Dombranski, S., Farkas, C., Foster, C., Godin, J., Moody, M., Morrison, M., Tamer, C., (1995) Managing sacral pressure ulcers with hydrocolloid dressings: Results of a controlled, clinical study Ostomy/Wound Management 42 (2) 52-65
- 2. RCN Clinical Practice Guidelines (1998) *The management of patients with venous leg ulcers* Improving practice, improving care series. RCN, London
- 3. Thomas, S. (1997) A comparative study of the properties of twelve hydrocolloid dressings. www.worldwidewounds.co.uk or www.smtl.co.uk
- 4. Vowden, K. (1998) Leg Ulcer Assessment Wound Care Society

Author : Kate Purser	Date:16.01.07
Job title: Tissue Viability Nurse Specialist	Version:2
Page 25 of 25	Review date: September 2009