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DRESSING SELECTION SIMPLIFIED

activheal

It must be recognised that no one dressing provides the optimum environment for the healing of all wounds (Mahoney, 2015)

DRESSING SELECTION SIMPLIFIED

Selecting the correct dressing for a wound is a complicated process that requires knowledge of the various wound types and their differing characteristics, the dressing types available and any specific needs of the patient.

A holistic approach to assessment is essential before choosing a wound dressing. Accurate wound assessment depends on the understanding of several key factors:

- Cause of the wound
- Site
- Shape of wound
- Size and depth of wound
- Tissue types/clinical appearance of the wound
- Surrounding skin
- Exudate
- Factors that delay wound healing
- Identification of infected wounds

The aim of wound management is to promote the optimum wound environment for the natural healing process to occur. The goals of wound care should include:

- Promoting wound healing by controlling or eliminating causation
- Preventing or managing infection
- Removal non-viable tissue (debridement)
- Ensuring adequate blood supply
- Providing nutritional and fluid support
- Establishing and maintaining a clean, moist, protected wound bed
- Managing wound exudate and drainage
- Maintaining surrounding skin to ensure that it remains dry and intact (Vuolo, 2009)

Clean and dress the wound using aseptic technique. The cleansing of a wound is to

remove debris any contaminates from the wound, without damaging healthy tissue. The purpose of a dressing is to provide an optimal environment in which the body can heal itself. Principle functions for applying dressings:

- Dressing selection should be based on promoting moist wound healing
- Addressing issues identified within the wound bed and surrounding skin
- Using the least costly dressing to meet the requirements of the wound (Jeffcoate et al, 2009)

Other aspects which may influence application of dressings include: continence status, known sensitivities, fragile skin, washing frequency, social circumstances and the patient's ability or desire to comply with the treatment. Patient preference is important and influences concordance with regards to their treatment. Clinicians should have a flexible approach and select dressings with which the patient is happy.

The categorisation of wound dressings is becoming more complicated, however the main groups of dressings that provide an optimum moist wound healing environment, will when used in the right circumstances, assist with healing and the debridement of wounds.

CHOOSING A WOUND DRESSING

Before applying any dressings the nurses should ask:

- What is the action of the dressing?
- When should it be used?
- What are the limitations/contraindications to its use?
- Do I know the correct method of application and removal?
- Do I have sufficient knowledge about the dressing? (Benbow, 2004)

The patients' needs and wound characteristics will also determine which type of dressing can be used on a wound.

WOUND TYPE	NECROTIC	SLOUGHY	GRANULATING
	Necrotic wounds are typified by black dead tissue.	**Mixture of dead white cells, dead bacteria, rehydrated necrotic tissue and fibrous tissue.**	**Granulating tissue usually deep pink in colour at the base with red 'lumps' over the surface.**
TREATMENT AIM	To soften and remove necrotic tissue by rehydration and debridement to allow granulation. *NB – Do not debride necrosis to feet without checking Vascular status. Refer to appropriate Team*	To soften and remove slough by rehydration and debridement.	To maintain ideal environment for granulation.
NIL/LOW EXUDATE	**Primary:** Hydrogel, Honey Hydrocolloid, SWCL **Secondary:** Hydrocolloid Foam	**Primary:** Low adherence, Hydrogel, Honey, Hydrocolloid, SWCL **Secondary:** Hydrocolloid Foam	**Primary:** Hydrocolloid, Low adherence **Secondary:** Foam
MEDIUM/HIGH EXUDATE	**Primary:** Alginate, Gelling Fiber, Honey **Secondary:** Foam or Absorbent Pad **Potential for Larvae therapy refer to TVN*	**Primary:** Alginate, Gelling Fiber, Honey **Secondary:** Foam or Absorbent Pad	**Primary:** Hydrocolloid Foam

EPITHELIASLING	INFECTED	FUNGATING/ MALODORUSS	CAVITY
Typified by pink/ pale mauve coloured tissue.	**Maybe identified by signs including oedema, swelling, increased exudate, pungent odour, inflammation and pain.**	**Has an offensive odour indicating infection or colonisation of bacteria. Palliative.**	**Wound extends to tissues deep into the epidermis and dermis.**
To protect epithelialising tissue until established. To promote an ideal environment for epithelialisation and contraction.	To control and manage infection. Consider use of Antimicrobials.	To manage odour, bleeding and exudate.	To promote granulation from the base of the wound.
Primary: Low adherence, Film, Hydrocolloid, SWCL **Secondary:** Foam (Unlikely to be high exudates)	**Primary:** Antimicrobial to clean and as dressing (refer to formulary) **Secondary:** Foam	*Odour* **Primary:** Low adherence, SWCL, Honey Secondary: Charcoal Dressing *Bleeding* **Primary:** Low Adherence, SWCL, Alginate **Secondary:** Silicone Foam, Adsorbent Pad *Exudate* **Primary:** Alginate, Gelling fiber, Silicone Foam **Secondary:** Silicone Foam, Adsorbent Pad	**Primary:** Low adherence, Alginate, Alginate & Foam
Unlikely to be high exudate	**Primary:** Antimicrobial (refer to formulary) Alginate, Gelling fiber, Foam **Secondary:** Foam, Absorbent pad.		**Primary:** Alginate, Gelling fiber, **Secondary:** Foam or Absorbent Pad **Potential for Topical Negative Pressure refer to TVN*

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DRESSING PRODUCTS

Wound Contact Layers

Low or non adherent dressing that can be used on lightly exuding granulating wounds that allows exudate to pass through into the secondary dressing. These dressings do not allow the ingrowth of granulation tissue. They also can be used as carriers for other products such as a hydrogels. The contact layer requires a secondary dressing whilst preventing adherence to the wound.

Hydrocolloids

Adhesive and mouldable dressing that consists of Carboxymethyl cellulose with a backing made of foam or film. Hydrocolloids are indicated for low to moderate exudate wounds and are impermeable to oxygen, water and vapour. These dressings turn to a gel as they absorb and assist in supporting rehydration, whilst aiding autolytic debridement of necrotic and sloughy wounds. It also helps to promote a moist wound healing environment.

Films

A transparent dressing, permeable to oxygen and water vapour but not water. They allow visual inspection and helps to provide a moist, warm, clean environment. Films may also be useful to reduce friction aid provide protection.

Superabsorbent

Designed for moderate to high levels of exudate, these dressings have extra fluid handling capacity. Multiple layers with an inner core containing either fibres, powder, gelling agents or crystals to absorb fluid.

Alginate and Fibrous dressings

Soft white dressings, which are available as flat or rope dressings. Indicated for moderate to high exudating wounds, they absorb exudate, promote autolysis, turn into a gel on contact with exudate, keep the wound bed moist and help to promote healing. They maintain their integrity, are easy to remove and can have reduced lateral wicking to prevent damage to surrounding skin. A secondary dressing is required to contain any moisture and aid autolysis.

→ = *Transition to a secondary dressing*

Foam dressings

Made of polyurethane foam and can be either adhesive or non adhesive. They are an absorbent product for moderate to high exuding wounds of any tissue type. They promote a moist wound healing environment and have an MVTR (moisture vapour transmission rate), which assists in reducing skin and wound maceration. Foams can be used in conjunction with other products such as Alginates and Fibrous dressings.

Hydrogel dressings

Water based dressings are available in tubes or sheet form and donate fluid when placed in contact with a dry, necrotic/sloughy wounds, to aid debridement. They can be used throughout the healing process on low exuding, granulating and epithelising wounds. They require a secondary dressing, which can support autolytic debridement.

Silicone based dressings

These are dressings coated with a soft silicone. The silicone minimises tissue adherence and so reduces wound bed trauma and pain on removal. Silicone dressings come in the following formulations of wound contact layers and absorbent foams. These type of dressings should only be used when either the wound bed or surrounding skin is fragile, or the wound is painful particularly at dressing change.

ANTIMICROBIAL DRESSINGS

Honey

Made from medical grade honey, dressings are available in several formats including tubes, alginates and sheets. They have an antimicrobial and deodorising action. Honey promotes wound debridement, assists in maintaining a moist wound environment, whilst also having some anti-inflammatory properties.

Iodine

There are two types of Iodine dressings, povidone and cadexomer. Povidone can be used in the management of infection in minor injuries. Cadexomer has de-sloughing ability and can be used to treat chronic wounds with exudate. Iodine is used to clean and prepare the wound bed, also to manage wound infection.

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Silver

Dressings are available in a variety of forms: alginate, gelling fibres and paste. Silver dressings have a broad spectrum antimicrobial activity, similar to naturally occurring antimicrobial peptides (AMP's) and reduce bioburden.

When moistened, silver dressings can releases small amounts of silver into the wound to inhibit the growth of bacteria.

Polyhexamethylene Biguanide (PHMB)

PHMB is a broad spectrum antimicrobial with sustained release which can be used for infection prevention and treatment. PHMB is available as a gel, wash, foam or cellulose dressing. PHMB is similar to naturally occurring antimicrobial peptides (AMP's) and is used to reduce wound biofilm and/or bioburden.

Debridement pads and cloths

Mechanically remove slough, dead tissue and wound debris when gently used over the wound bed. It assists in preparing the wound bed for healing.

CONCLUSION

Correct dressing selection will create an ideal environment for wound healing.

Wound care products are just tools to help promote healing, a thorough wound and patient assessment is required to make informed choices with regards to the correct product selection.

It is also important to read the manufacturer's instructions to assist in selection and to provide optimum benefit for the patient.

References

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