Wound Care Product Selection

ESSENTIAL TO HEALTH

EPITHELIALISING WOUNDS

PARTIAL
- Primary dressing
  - Askina® THINSite
  - Askina® Biofilm® T

COMPLETE
- Primary dressing
  - Askina® Derm
  - Linovera®

Cleansing
- Normal saline
- Sterile water
- Irrigation solution:
  - Prontosan®

GRANULATING WOUNDS

LOW EXUDATE
- Primary dressing
  - Askina® Transorbent®
  - Askina® DresSil

MODERATE TO HIGH EXUDATE
- Secondary dressing
  - Extra absorption
  - Pads / gauze
  - Bandages / tape

Cleansing
- Normal saline
- Sterile water
- Irrigation solution:
  - Prontosan®

NECROTIC WOUNDS

MOIST NECROSIS
- Debridement
  - Autolytic:
    - Askina® Hydro
    - Askina® Biofilm® T
  - Mechanical

Cleansing
- Normal saline
- Sterile water
- Irrigation solution:
  - Prontosan®

DRY NECROSIS
- Secondary dressing
  - Askina® Derm

FIBRINOUS WOUNDS

NON INFECTED MODERATE EXUDATE
- Debridement
  - Prevention of infection
  - Remove fibrin

Debridement
- Prevention of infection
- Remove fibrin

Primary dressing
- Askina® Gel
- Askina® Transorbent®

Primary dressing
- Askina® Sorb
- Askina® Foam

Cleansing
- Normal saline
- Sterile water
- Irrigation solution:
  - Prontosan®

Cleansing
- Normal saline
- Sterile water
- Irrigation solution:
  - Prontosan®

HIGH EXUDATE
- Secondary dressing
  - Extra absorption
  - Pads / gauze
  - Bandages / tape

Cleansing
- Normal saline
- Sterile water
- Irrigation solution:
  - Prontosan®

INFECTED WOUNDS

UNDERMINING SLOUGH
- Primary dressing
  - Askina® Calgitrol® AG
  - Askina® Calgitrol® THIN

Primary dressing
- Askina® Calgitrol® AG
- Askina® Calgitrol® THIN

Secondary dressing
- Askina® Foam
- Askina® Carbosorb
- Secure dressing

Secondary dressing
- Askina® Foam
- Askina® Carbosorb
- Gauze / pads / bandages
- Secure dressing

HEALTHY EDGES
Wound Care

- Optimal wound care addresses every need of the patient in order to maximise their quality of life. Not just the wound but the whole person.

- Wound care should promote the natural healing process.

- Different wounds need different care and to succeed in treating the wound you should have a good knowledge of the healing process.

- It is crucial that the services provided are both clinically efficacious and cost effective.

- Goals:
  - Facilitate the flow of information around wound care products
  - Clinical decisions remain individual care providers choice.

** Please note that this presentation is a generalised shortening of indications for use. Please follow manufacturer guidelines and indications for use.
When we are choosing an appropriate dressing we always have to ensure that we optimise the wound bed environment. Assess the wound using the assessment tools that is agreed upon for your facility and/or practice taking all factors into consideration.

Proper moisture balance is a major part of optimising the wound bed environment as we do not want the wound bed to become too wet or too dry.

It is important that you know the indications for use for all your products to ensure an optimal wound healing environment.
Product Choice

Choosing a Dressing

- What do I want it to do?
- Does it come in the right size(s)?
- What do I need to know about its performance?
  - Ability to absorb exudate
  - Ease of removal
  - Pain on removal
- Have I already tested its performance? If the wound is not improving, don’t keep doing the same thing!
- How often will I need to change it?
- Is it available?
- Possibly, how much does it cost?
  - Unit cost, treatment cost or cost of alternative materials
Product Choice

The Ideal Dressing

- Free from irritants and contamination and does not shed particles or fibres into the wound
- Does not adhere to skin tissue – easy to apply and remove
- Comfortable and conformable
- Cost effective (product, time and resources)
- Evidence based practice
Product Classification

- Wound Bed Preparation:
  - Wound Irrigation

- Peri-wound Protection
  - Barrier Films

- Wound Contact Layers

- Hydrogel Dressings

- Alginate Dressings

- Hydrofibre Dressings

- Foam Dressings

- Absorbent Dressings

- Super Absorbent Dressings

- Film Dressings

- Island Dressings

- Silicone Dressings

- Bandages

- Antimicrobials
Product Action

- Clean
- Protect
- Antimicrobial
- Retain
- Product Choice
- Cover
- Fill & Absorb
Wound bed preparation

Antiseptic Solutions and Cleansing

- Antiseptic use should be restricted to brief (first aid) topical application on superficial wounds rather than long term use on large wounds.
- Drinkable tap water may be as effective as sterile water or saline.
- No evidence tap water on acute wounds increases infection.
- More research is required.

REFERENCES:
Wound bed preparation

Wound Temperature

• Phagocytic and mitotic cellular activity decreases at temps below 28°C when dressing is changed.

• It takes 40 minutes for the wound to regain its original temp.

• It takes 3 hours for mitotic division and leukocytic activity to return to normal.

• The frequent undressing of wounds and use of cold solutions could be detrimental to the wound and needs to be questioned.
Wound bed preparation

**Wound Irrigation Solution**

- **Prontosan - PHMB/Betaine Solution & Gel**
  - Reduction of Chronic Inflammation
  - Removal of surface Biofilm
  - Improved pain control and gentle on skin
  - Absorption of wound odour
  - Ideal preparation for Negative Pressure therapy
  - Compatible with silver dressings
  - Lasts up to 8 weeks after opening

Clean
Product Choice
Moist Wound Healing Products

Hydrogels

- **Properties:**
  Normally clear and viscous. Dependant on wound conditions, it **rehydrates dry necrotic** tissue, to promote debridement in dry wounds, or absorbs wound slough and exudate where a small amount of exudate is present. Gel maintains a moist wound healing environment conducive to natural healing.

- **Wound types:**
  - Low exuding, sloughy or dry necrotic wounds
  - Venous and Arterial leg ulcers, Pressure ulcers, Diabetic foot ulcers
  - Traumatic wounds

- **How to use, when to change:**
  - Cover with an appropriate secondary dressing
    - Necrotic wounds: semi-permeable film dressing
    - Sloughy wounds: absorbent dressing such as foam or low adherent pad
  - Where maximum absorbency is required use a super absorbent dressing
  - Gel may be left in place for up to 3 days
Protect
# Peri-Wound Protection

## Durable Barrier Cream

- **Properties:**
  Barrier Creams are concentrated, pH balanced, fragrance free moisturising barrier creams for intact or at risk skin.
  
- **What is it used for?**
  - For the prevention of skin breakdown from bodily fluids, prevention of skin stripping and for moisturising skin.
  - It is very concentrated, so a little goes a long way.
  - Helps adhesives to adhere.

## Barrier Film Spray or Wipes

- **Properties:**
  Barrier Films are rapid drying, transparent, breathable skin barriers used for the protection of intact or damaged skin. It is completely sting free.
  
- **What is it used for?**
  - Protection from moisture such as urine, faeces, perspiration and oozing from wounds.
  - Protecting broken, tender skin without stinging.
  - Protecting skin from damage caused by rubbing, friction or tape/dressing trauma.
  - Helps adhesives to adhere.
Product Choice

Moist Wound Healing Products

Wound Contact Layers

- **Properties:**
  - Primary dressing on **dry** or **lightly exuding** wounds
  - Allows the wound to drain freely into an absorbent secondary dressing
  - It reduces the risk of granulation tissue growing through the dressing, decreasing trauma on removal.

- **Wound types:**
  - Burns, skin tears, donor sites, skin grafts, lacerations and abrasions
  - Other wounds with superficial skin loss.

- **How to use, when to change:**
  - Apply directly to wound bed
  - 3-14 days depending on the type of layer. Tulle or silicone.
Product Choice

Moist Wound Healing Products

Calcium Alginates

- **Properties:**
  - Forms a soft, protective gel when it comes in contact with wound exudate, providing a moist wound environment to promote rapid healing.
  - Mainly suitable for *haemostasis* but also used for *absorption* of exudate

- **Wound types:**
  - *Moderate* to *heavily exuding* wounds of all types

- **How to use, when to change:**
  - Remove by using forceps/gloved hand or if dry, irrigate first
  - Change dressing every 1 to 7 days, depending on exudate levels and product indications
  - Use secondary dressing

Fill & Absorb
Product Choice

Moist Wound Healing Products

Hydrofibre

• **Properties:**
  Hydrophilic gelling fibrous dressings, with excellent absorption and retention of fluid. It has a high level of structural integrity and wet strength for the management of moderate to highly exuding wounds. Carboxymethylcellulose which vertically wicks fluid into its matrix to form a gel.

• **Wound types:**
  - Chronic and acute full thickness, partial thickness or shallow granulating, exuding wounds, including pressure ulcers, leg ulcers, diabetic ulcers, partial thickness burns, donor sites, surgical and trauma wounds
  - May be useful for infected wounds as “holds” bacteria.

• **How to use, when to change:**
  - Apply directly to the wound and can be left in place 3-7 days
  - Requires a secondary dressing
Product Choice

Moist Wound Healing Products

Foams – adherent and non adherent

- **Properties:**
  - Foams are comfortable, highly absorbent dressings that keep wounds moist and clean. Breathable so allows extra moisture to evaporate away from the skin, while providing a waterproof barrier that prevents bacterial contamination. Absorbs and retains exudate, reducing the risk of maceration and maintaining a moist wound environment ideal for healing.

- **Wound types:**
  - Suitable for light to heavily exuding wounds
  - Stage I–IV Pressure ulcers, Venous and Arterial leg ulcers, Diabetic foot ulcers
  - 1st and 2nd degree burns
  - Traumatic wounds

- **How to use, when to change:**
  - The dressings can remain in place for 3-7 days.
  - Apply Film Dressing to edges of dressing or an appropriate retention bandage to secure in place if non-adherent
Product Choice
Moist Wound Healing Products

Silicone Dressings

- **Properties:**
  - Reduces pain and trauma before, at and after dressing change and has low potential for irritation and allergy.
  - Does not adhere to the moist wound bed but only the dry skin.

- **Wound type:**
  - From no to highly exudating wounds. (depending on type of silicone dressing)
  - Pressure, Venous/Arterial leg ulcers and Diabetic foot ulcers
  - Traumatic/Surgical wounds, Donor sites and Skin Tears
  - 1st and 2nd degree burns

- **How to use, when to change:**
  - Follow Manufacturers instructions for different dressings
  - Repositionable and can be lifted for assessment
Product Choice
Secondary Absorbent Layer

Light exudate
- Low Adherent absorbent pads:
  - Dressings for low to moderately exuding wounds that can be cut to shape without linting.
  - Apply Film Dressing over the top or an appropriate retention bandage to secure in place.
  - Suitable for minor wounds or as a temporary dressing.

Moderate - heavy exudate
- Combine Dressings:
  - Highly absorbent dressings for moderate to heavily exuding wounds.
  - Use appropriate retention bandage to secure in place.
Super absorbents

- **Properties:**
  - A highly absorbing dressing which can retain and lock large amounts of wound exudate and bacteria.
  - It consists of an inner pad made of strong water-retaining polymeric fibres encased in a non-woven outer pouch with or without backing layer.
  - In contact with wound exudate the liquid is converted and retained as a soft and flexible gel, which helps to clean the wound and maintain a moist environment.

- **Wound types:**
  - For use on *moderate* to *highly* exuding wounds.
  - Pressure ulcers, Venous and Arterial leg ulcers, Diabetic foot ulcers
  - First and second degree burns
  - Traumatic wounds and Oncology wounds

- **How to use, when to change:**
  - Can be left 3-5 days depending on exudate levels
  - Use an appropriate retention bandage to secure in place
Semi-permeable films

- **Properties:**
  Moisture vapour permeable adhesive film dressings. Impermeable to liquids and bacteria. Sterile or non-sterile.

- **Wound type:**
  - Suitable for no to low exuding wounds, as they do not absorb exudate.
  - Prevention of friction injury on heels, elbows, sacrum or healed surgical sites.
  - Only suitable for relatively shallow wounds, e.g. dermabrasion, burns and donor sites retention dressings, e.g. for cannulas.

- **How to use, when to change:**
  - Frequency of change depends on nature of wound
  - Skin surrounding wound must be clean and dry
Product Choice

Moist Wound Healing Products

Island Dressings

- **Properties:**
  - Primary dressing on **no** or **low** exuding wounds.
  - Water proof or non-waterproof available.

- **Wound type:**
  - Post-Op
  - Surgical wounds, general cuts, lacerations and abrasions.

- **How to use, when to change:**
  - Film Dressings recommended for moist wound healing and waterproof properties.
  - Depends on wound and protocols Post-Op
Product Choice

Bandages

- **Crepe**
- **Conforming Bandage**
  - Conforming Gauze Bandages are constructed from a blend of polyester yarn and rayon. These bandages are soft, lightweight and porous, giving great comfort and high levels of air circulation.
- **Cohesive Gauze Bandage**
  - This cohesive bandage can be used for all kinds of fixation, including the securing of compresses, cushions or cannula. An absolutely non-slip-fit and suitable as supporting bandage and for skin protection.
- **Coban Cohesive Bandage**
  - Coban self-adherent wrap is a laminate of nonwoven material and elastic fibres placed lengthwise to provide elasticity. The elastic wrap contains a cohesive material that makes it stick to itself but not to other materials or skin.
Antimicrobial
Product Choice

Antimicrobial Dressings

- Calgitrol
- Mepilex Ag™
- Bactigras™
- Acticoat™ Range
- Aquacel Ag™
- Allevyn Ag™
- Silvazine™
- Iodosorb™
- Tegaderm AgMesh™
- Medical Honey
- KerraContact Ag
3 stages of wound infection

Clinically infected wounds can be characterized by 3 stages, usually determined by colony count.

**Clinical Signs:**

**CONTAMINATED COLONISED**
- Non delayed healing
- Normal multiplication of bacteria
- Healthy granulation tissue
- Local host response
- Normal odour

**CRITICALLY COLONISED**
- Delayed healing
- Abnormal bacterial load
- Local host response, abnormal granulation tissue
- Excessive odour
- Increased pain
- Increased exudate level
- No systemic response

**INFECTED**
- Delayed healing
- Bacterial load in excess of 100,000/g tissue
- Abnormal granulation tissue
- Systemic host response
- Periwound edema
- Fever
- Foul odor
- Severe or increased pain
- Excessive, purulent
Antimicrobial dressings should not be used in the absence of indicators of infection, unless there is a clear rationale for their use to prevent infection in high risk patients/wounds.

In general, antimicrobial dressings should be used initially for two weeks only. [Best Practice statement 2011]

Contamination

Colinisation

Localised Infection

Spreading Infection

Systemic Infection

Topical antimicrobial dressings are not indicated because bioburden is not causing clinical problems

Topical antimicrobial dressing

Systemic antibiotics

Plus topical antimicrobial dressing

Prontosan Solution / Irrigation Solution

ANTIMICROBIAL AGENT
Recommendations for the appropriate use of silver dressings

• The two week ‘challenge’

• The initial two week period can be seen as a two week ‘challenge’ period during which the efficacy of the silver dressing is assessed.

• If after two weeks:
  - There is improvement in the wound, but continuing signs of infection, it may be clinically justifiable to continue the silver dressing with further regular reviews
  - The wound has improved and the signs and symptoms of wound infection are no longer present, the silver dressing should be discontinued
  - There is no improvement, the silver dressing should be discontinued and consideration given to changing the dressing containing a different antimicrobial agent and if the patient is unwell using a systemic agent.

• Once the bioburden is under control and the wound is improving, a non-antimicrobial dressing should be considered
References

Center, Houston, TX; and a Dermatology Nursing Editorial Board Member. http://www.medscape.com/viewarticle/493949


Gary Bain and Wayne Naylor.

Woundcare Related Resources

1. Maureen Benbow "Dressing awkward wounds"

2. Jacqui Fletcher "Dressings: cutting and application guide"

