



**IJPPR**

INTERNATIONAL JOURNAL OF PHARMACY & PHARMACEUTICAL RESEARCH  
An official Publication of Human Journals

ISSN 2349-7203




Human Journals

**Review Article**

October 2019 Vol.:16, Issue:3


© All rights are reserved by Shakeeb Akhtar et al.

## Surgical Dressing: Review



**IJPPR**  
INTERNATIONAL JOURNAL OF PHARMACY & PHARMACEUTICAL RESEARCH  
An official Publication of Human Journals

ISSN 2349-7203



**Shakeeb Akhtar\*, Sayyed Shaoib Sayyed Chand,  
Mohammed Awais Iqbal, Md Shaoib Abdul Samad**

*Royal College of Pharmaceutical Education & Research  
Sayne Khurd, Behind Hotel Sahyog, Malegaon, Dist.  
Nashik (423203) Maharashtra, India.*

**Submission:** 25 September 2019  
**Accepted:** 30 September 2019  
**Published:** 30 October 2019

**Keywords:** Wound Healing, Factor Affecting Wound Healing, Materials Used, Nurses responsibilities After Care

### ABSTRACT

Wound healing is a dynamic and complex process that requires a suitable environment to promote the healing process. With the advancement in technology, more than 3000 products have been developed to treat different types of wounds by targeting various aspects of the healing process. The present review traces the history of dressings from its earliest inception to the current status and also discusses the advantage and limitations of the dressing materials. Surgical enrichment/dressings are applications for wounds, burns, and ulcers. They should be regarded as supportive of healing; they are desirable but not essential in an emergency. There are currently hundreds of dressings on the market to aid in wound management. Before selecting a dressing for a particular wound, a practitioner must assess carefully the needs of the wound to understand which dressing would provide maximal benefit. Frequently, there is not one clear best choice, and the pros and cons of each dressing modality must be understood. This article has provided a framework to assist in dressing assessment. This article reviews the measurement of wound healing and the functions of wound dressings. A variety of dressings and their respective details are discussed.



HUMAN JOURNALS

[www.ijppr.humanjournals.com](http://www.ijppr.humanjournals.com)

## INTRODUCTION

A dressing is a sterile pad or compresses applied to wound to promote healing and protect the wound from further harm. The dressing is used to have direct contact with a wound but bandage is used to hold a dressing in place. In other words, we can say that the purpose of this resource is to provide a guide on commonly available wound dressing products. Wound dressings are designed to help to heal by optimizing the local wound environment. There is little evidence that any dressing is superior to another (8, 15).

### Reasons for applying the Dressings:

1. To provide rapid and cosmetically
2. acceptable healing
3. To remove or contain odor
4. To reduce wound-related pain
5. To prevent or treat the infection
6. To contain exudate
7. To cause minimum distress or
8. disturbance to the patient



### Before applying any dressing you should ask yourself these questions:

1. What is the action of the dressing?
2. When should it be used?
3. What are the limitations or contraindications to its use?
4. Do I know the correct method of application and removal?
5. Do I have sufficient knowledge about the dressing and have I been trained to use it?

**Dressings Selection should be based on:**

1. The cause (etiology) of the wound
2. Characteristics of the wound, including:
  - Location
  - The extent of tissue damage (depth)
  - Wound size
  - Phase of healing
  - Level of exudate
  - Pain
  - Odor
  - Infection (1, 12).

**GENERAL INSTRUCTION FOR SURGICAL DRESSING:**

1. Practice strict aseptic technique to prevent cross-infection to the wound and from the wound. Dressing a wound is a surgical procedure that should be carried out with the precision and care of the operation. All materials touching the wound should be sterile.
2. All articles should be disinfected thoroughly to make sure that they are free from pathogens. Special care must be taken when there is any reason to suspect the presence of pathogenic spores particularly those causing the dreaded wound infections of gas gangrene and tetanus. These spores are destroyed only by the sterilization with steam under pressure.
3. Wash hands thoroughly before and after the procedure.
4. Instruments used for one dressing cannot be used for another until they have been re-sterilized.
5. Use masks, sterile gloves and gowns for large dressings to minimize the wound contamination.

6. Dressings are not changed for at least 15 minutes after the room has been swept or cleaned. Sweeping and dusting of the room will raise the dust and the wound will be contaminated.
7. Use individually wrapped sterile dressings and equipment for the greatest safety of the wound. The practice of storing dressings and instruments in large trays and drums and opening them now and then should be condemned.
8. Create a sterile field around the wound by spreading sterile towels.
9. Avoid talking, coughing and sneezing when the wound is opened.
10. During the procedure, the nurse works carefully to avoid contaminating the patient's skin, clothing and bed linen with soiled instruments and dressings. All the soiled dressings and contaminated instruments should be carefully collected and disposed of safely.
11. Cleaning the wound should be done from the cleanest area to a less clean area. Consider the wound area cleaner than the skin area even if the wound is infected. Therefore clean the wound from its center to the periphery. When cleaning a circular wound, start from the center of the wound and go to the periphery. When cleaning a linear wound, the first swab cleanses the wound line; the subsequent swabs cleanse the skin on either side of the wound.
12. If the dressings are adherent to the wound due to the drying of the secretions or blood, wet it with physiologic saline before it is removed from the wound.
13. When dressing the wound, keep the wound edges as near as possible to promote healing.
14. When drains are in place, anticipate drainage and re-enforce the dressing accordingly. The dressings over the drains should not be combined with the dressings on the wound line. This enables the nurse to change the dressings over the drains without disturbing the wound dressings and thereby minimize the wound infections.
15. The amount of discharge from the wound should be accurately measured by recording the number and size of the dressings changed. Note the color, odor, amount and consistency of the drainage.
16. When the wound drainage is diminished the drains are to be shortened. This should be done in consultation with the doctor. Usually, the doctor gives a written order.

17. Before doing the dressing, inspect the wound for any complications such as dehiscence and evisceration. If present, report it immediately to the surgeon and immediate steps are to be taken.

18. Avoid meal timings.

19. Give an analgesic before the painful dressings (6, 13, 14).

#### **NURSE'S RESPONSIBILITY IN THE WOUND DRESSING:**

1. Check the diagnosis and the general condition of the patient.
2. Check the purpose for which the dressing is to be done.
3. Check the condition of the wound – the type of the wound, the types of suturing applied, the type of dressings to be applied, etc.
4. Check the physician's orders for the type of dressing to be applied and the specific instructions, if any, regarding the cleansing solutions, removal of sutures, drains and the application of medications, etc.
5. Check the patient's name, bed number, and other identifications.
6. Check the nurse's records to find out the general condition of the wound.
7. Check the abilities and limitations of the patient.
8. Check the consciousness of the patient and the ability to follow instructions.
9. Check the articles available in the unit (5, 17).

#### **PREPARATION OF THE PATIENT AND THE ENVIRONMENT:**

1. Identify the patient and explain the procedure to win confidence and co-operation. Explain the sequence of the procedure and tell the patient how he can co-operate in the procedure.
2. Provide privacy with curtains and drapes.
3. Apply restraints, in case of children.

4. As far as possible, avoid meal timings; the dressings may be done either one hour before the meals or after meals.
5. Offer bedpan or urinal before the dressing.
6. Give some analgesics if the patient is in pain; e.g., before dressing an extensive burned wound.
7. See that the cleaning of the room is done at least one hour before the expected time of the dressing.
8. Shave the area if necessary to remove the hairs. Removal of the adhesive is more painful if the hair is present. So the shaving should be done before the first dressing is applied.
9. Place the patient in a comfortable and relaxed position depending on the area to be dressed.
10. Give proper support to the body parts if the patient has to raise and hold it in position for a considerable time.
11. See that the patient's room is in order with no unnecessary articles. Clear the bedside table or the over bed table, so that there is sufficient space to set up a sterile field and to arrange needed supplies and equipment.
12. Close the doors and windows to prevent drafts. Put off the fan.
13. Adjust the height of the bed for the comfortable working of the doctor or nurse so that they have neither to stoop nor overreach to do the dressing. Bring the patient to the edge of the bed.
14. Call for assistance if necessary e.g., to do the unsterile procedure, to transfer sterile supplies, etc.
15. Protect the bed with a mackintosh and towel.
16. Fold back the upper bedding towards the foot end of the bed leaving a bath blanket or sheet over the patient. Expose the part as necessary.
17. Untie the bandage or adhesive and remove them. Make sure that the dressing is not removed from its place until the nurse is ready to do dressing (after washing her hands).

18. Turn the head of the patient to one side, so that the patient may not see the wound and get worried about it (2, 1, 6, and 7).

**PROCEDURE:**

**Steps of Procedure:**

1. Tie the mask.

**Reason/Explanations:** to prevent wound contamination with droplets.

2. Wash hands thoroughly.

**Reason/Explanations:** to prevent cross-infection.

3. Put on the gown, gloves, etc. as necessary.

**Reason/Explanations:** to ensure asepsis.

4. Open the sterile tray. Spread the sterile towel around the wound.

**Purpose/Explanations:** to create a sterile field around the wound.

5. Pick up a dissecting forceps and remove the dressings and put it in the paper bag. Discard the dissecting forceps in the bowl of lotion.

**Purpose/Explanations:** to prevent contamination of the hands, with the soiled dressings. (If the dressing is adherent to the wound, pour physiologic saline and wet it before removal).

6. Note the type and the amount of drainage present.

7. Ask the assistant to pour a small amount of cleaning solution into the bowl.

**Purpose/Explanations:** to prevent contaminating the hands of the nurse by the outside of the bottle.8. Clean the wound from the center to the periphery, discarding the used swabs after each stroke.

**Purpose/Explanations:** cleaning should be done from the cleanest area to a less clean area. The wound line is considered cleaner than the surrounding area even if the wound is infected.

9. After thoroughly cleaning the wound, dry the wound with dry swabs using the same precautions. Discard the forceps in the bowl of lotion.

**Reasons/Explanations:** to keep the wound as dry as possible.

10. Apply medications if ordered.

**Reasons/Explanations:** to apply the ointment directly to the wound may be difficult. Apply a small portion of the dressing that goes directly over the wound.

11. Apply the sterile dressings. Apply the gauze pieces first and then the cotton pads. Reinforce the dressing on the dependent parts where the drainage may collect.

**Reasons/Explanations:** cotton placed directly onto the wound may stick on the wound when the discharge dries. Reinforcing the dressing will prevent oozing of the drainage onto the bed of the patient.

12. Remove the gloves and discard them into the bowl with lotion.

**Reasons/Explanations:** gloves worn during the dressing will be highly contaminated.13. Secure the dressings with a bandage or adhesive tapes. (5,2,1,8).

#### **After Care of the Patient:**

1. Help the patient to dress up and to take a comfortable position in the bed.

Change the garments if soiled with drainage.

2. Replace the bed linen.

3. Remove the mackintosh and towel.

4. Take all articles to the utility room. Discard the soiled dressings into a covered container and send for incineration. Remove the instruments and other articles from the disinfectant solution and clean them thoroughly. Dry them. Re-set the tray and send it for autoclaving. Replace all other articles to their proper places. Send the soiled linen to the laundry bag for washing (remove the bloodstains before sending them to washing).

5. Wash hands.



6. Record the procedure on the nurse's record with date and time. Record the condition of the wound, the type and amount of drainage, condition of the sutures, etc. on the nurse record. Report to the surgeon any abnormalities found.

7. Return to the bedside to assess the comfort of the patient. Special instruction in the care of wound care to be communicated to the patient. Tidy up the bed and the unit of the patient (2).

### **FACTORS AFFECTING THE WOUND HEALING:**

- Cost-effectiveness
- Patient-centered concerns
- Many other factors(4)

### **VARIOUS MATERIALS USED FOR DRESSINGS:**

#### **1. ALGINATES:**

##### **➤ WHAT ARE THE PROPERTIES OF ALGINATE DRESSINGS?**

- Alginates are made from seaweed.
- When the dressing comes into contact with wound fluid it absorbs the fluid and turns into a gel-like substance.
- The dressing is highly absorbent - it can absorb up to 20 times its weight.
- Some of the alginate dressings have hemostatic properties and are ideal for bleeding wounds.

##### **➤ IN WHAT FORMS ARE THEY PRODUCED?**

- Ropes
- Sheets in varying sizes

##### **➤ WHEN SHOULD I USE THEM?**

- Filling irregularly shaped wounds such as cavities, abscesses, and sinuses (*see application tips below*).

- Alginate dressings are recommended in infected wounds providing the patient has appropriate antibiotic coverage, chronic wounds for their absorbency and ability to maintain a moist wound environment.

- For moderately to heavily exuding wounds including:

- a. Partial and full-thickness wounds, pressure injuries (stages III and IV)
- b. Leg ulcers
- c. Donor sites
- d. Burn wounds
- e. Dehisced wounds or surgical incisions
- f. Bleeding wounds

➤ **WHEN SHOULD I AVOID USING THEM?**

- Wounds with minimal exudate
- Wounds with dry, hard, necrotic tissue
- Third-degree burns
- Heavy bleeding wounds



➤ **HOW LONG SHOULD I USE THEM FOR?**

If the wound is draining heavily, alginates may need to be changed daily or when there is 70% strikethrough (visible exudate) on the secondary dressing. As drainage decreases, dressing frequency can be reduced to every two to four days or even once weekly. When the drainage stops or the wound bed looks dry, stop using the alginate dressing and re-evaluate the wound.

Dressings Examples:

**Table No. 01: Examples of a wound dressing with the manufacturer**

| Dressings             | Manufacturer          |
|-----------------------|-----------------------|
| Kaltostat             | Convatec              |
| Kaltostat             | Monlycke              |
| ActivHeal<br>Alginate | Sutherland<br>Medical |
| Algisite M            | Smith & Nephew        |



**Figure No. 01: Injury on which Alginate Dressing Used**

**Table No. 02: Advantage & Disadvantage of Alginate Dressing**

| ADVANTAGES   | DISADVANTAGES                               |
|--|---|
| Provides a moist environment   | Can only be used on exuding wounds          |
| Keeps nerve endings moist and can reduce pain                                  | Dressings can sometimes adhere to the wound |
| May be used in sinuses and cavities (if able to see the base of the wound bed) | Requires a secondary dressing               |
| Moderately to highly absorbent   | Sometimes mistaken for slough in the wound  |
| Suitable for bleeding wounds   | Can sometimes sting or cause discomfort     |

**2. GELLING CELLULOSE FIBERS:**

**➤ WHAT ARE THE PROPERTIES OF GELLING CELLULOSE FIBER DRESSINGS?**

- Gelling cellulose fiber dressings are composed of 100% carboxymethylcellulose.

- Gelling cellulose fiber dressings absorb exudate vertically. This aids in preventing the surrounding skin from becoming too wet and causing damage to it.

➤ **IN WHAT FORMS ARE THEY PRODUCED?**

- Packing ribbon
- Sheets in varying sizes

➤ **WHEN SHOULD I USE THEM?**

- Moderate to highly exuding wounds for

Example:

-- Pressure injuries

-- Leg ulcers

- Infected wounds

-- There is gelling cellulose fiber



Dressings which contain silver and are suitable for infected wounds.

➤ **WHEN SHOULD I AVOID USING THEM?**

- Dry wounds
- Wounds with dry, hard, necrotic tissue.

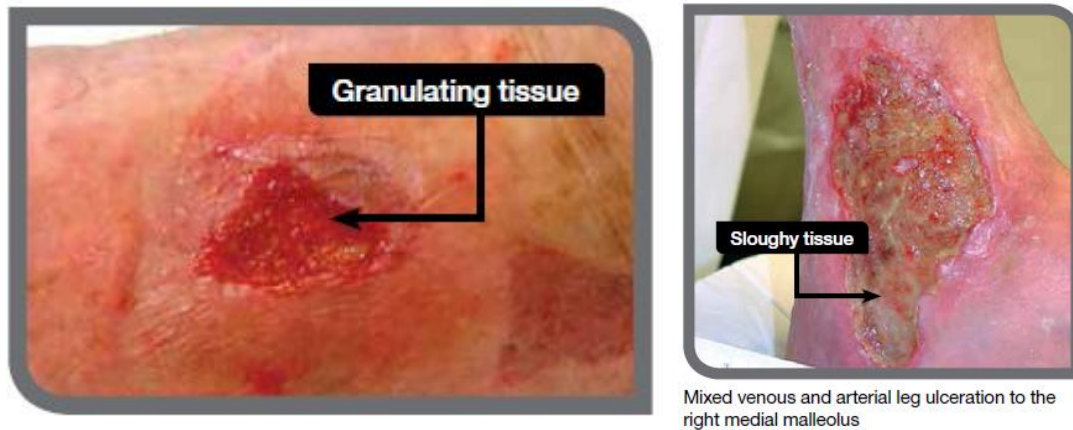
➤ **HOW LONG SHOULD I USE THEM FOR?**

- The dressing may be continued as long as there is enough exudate.
- If there is low or nil exudate then an alternative dressing may be required.
- If the dressing is adhering to the wound surface then an alternative dressing will be required.

Dressings Example:

**Table No. 03: Examples of Gelling Cellulose dressing with manufacturer**

| Dressing      | Manufacturer   |
|---------------|----------------|
| Aquace        | Convatec       |
| Aquacel Extra | Convatec       |
| Durafibre     | Smith & Nephew |
| ActivHeal     | Sutherland     |
| AquaFibre     | Medical        |



**Figure No. 02: Injury on which Gelling Cellulose dressing used**

**Table No. 04: Advantage & Disadvantage of Gelling Cellulose dressing**

| ADVANTAGES  | DISADVANTAGES   |
|---|---|
| Provides a moist wound environment                                    | Can only be used on wounds producing moderate to large amounts of exudate |
| Aids in preventing the breakdown of the surrounding skin              | If there is not enough exudate the dressings can adhere to the wound      |
| Conformable: therefore can be applied to irregularly shaped wounds    | Requires a secondary dressing e.g. multilayered absorbent dressing, foam  |
| The moist environment aids in the Debridement of slough and necrotic. | The dressing may be mistaken for slough in the wound                      |

**FOAMS:**

➤ **WHAT ARE THE PROPERTIES OF FOAM DRESSINGS?**

- Foam dressings are made from a variety of different materials.
- Foam dressings are hydrophilic which means that they attract fluid which aids in absorption.
- Foams are not interactive, rather they are used for exudate absorption, padding and to maintain the thermal temperature in the wound.

➤ **IN WHAT FORMS ARE THEY PRODUCED?**

- Foam dressings are available in a variety of shapes, sizes, and thicknesses.
- They are available in sheets or cavity filling shapes.
- Foams can come with an adhesive boarder or as a non-adhesive.

Application Tip:

- If the foam is non-adhesive the dressing can be held in place with tape, netting, tubular retention bandage or undercast padding.
- If exudate levels are high this can cause the surrounding skin to macerate. To prevent this, skin preparation creams or protective barrier films may aid in protecting the surrounding skin. Alternatively, you could consider a multilayered absorbent dressing.
- Foams can be used in conjunction with other dressings to increase absorption. For example, you could combine alginate or a gelling cellulose fiber with foam.

➤ **WHEN SHOULD I USE THEM?**

- Low to heavily exuding wounds
- Granulating and epithelializing wounds
- Wounds such as:
  - Pressure injuries
  - Leg ulcers
  - Burns
  - Donor sites
  - Skin tears

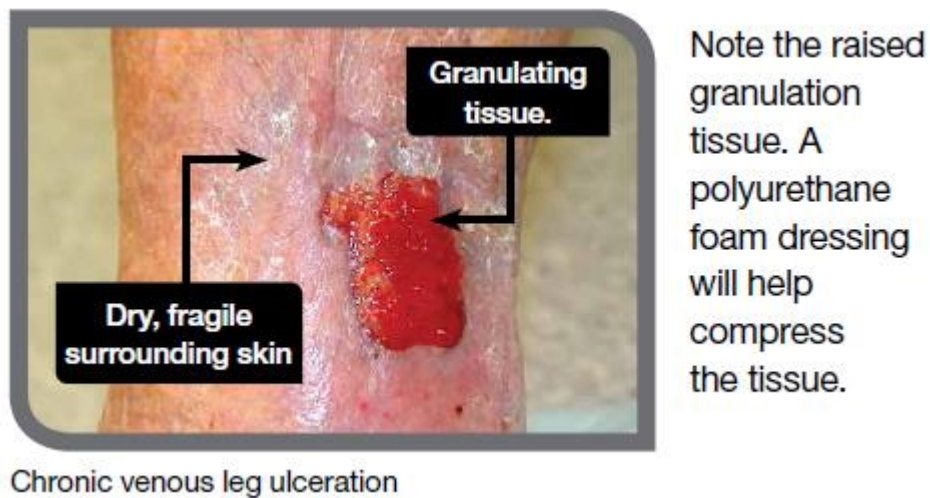
➤ **WHEN SHOULD I AVOID USING THEM?**

- Dry wound.

Dressing Example:

**Table No. 05: Examples of a Foam dressing with manufacturer**

| Dressing       | Manufacturer       |
|----------------|--------------------|
| Allevyn        | Smith & Nephew     |
| Biatain        | Coloplast          |
| Lyof foam      | Monlycke           |
| ActivHeal Foam | Sutherland Medical |



**Figure No. 03: Injury on which Foam dressing used**

**Table No. 06: Advantage & Disadvantage of Foam dressing**

| ADVANTAGES   | DISADVANTAGES   |
|--|---|
| Available in many different shapes and sizes, nonocclusive and semi-occlusive/ water repellent dressings | The moist wound environment may not be enough to allow autolysis to occur |
| Facilitates a moist wound environment  | May macerate the peri-wound skin if it becomes saturated                  |
| Highly absorbent   | Some of the foams e.g. cavity foams will require a secondary dressing     |
| Provides protection  |   |

### 3. HYDROCOLLOIDS:

#### ➤ What are the properties of hydrocolloid dressings?

- Hydrocolloids are a type of dressing containing gel-forming agents, such as sodium carboxymethylcellulose (NaCMC) and gelatin.

- Hydrocolloids are self-adhesive and

Water repellent

- In the presence of wound exudate, hydrocolloids absorb liquid and form a gel.

➤ **IN WHAT FORMS ARE THEY PRODUCED?**

- They are available in all shapes and sizes to accommodate small and large wounds and varying thicknesses are depending on exudate levels.

➤ **WHEN SHOULD I USE THEM?**

Wounds producing low to high levels of exudate including:

-- Pressure injuries

-- Leg ulcers

-- Surgical incisions

May be used as a primary dressing or used as a secondary dressing with a gelling cellulose fiber or alginate against the wound surface.

➤ **WHEN SHOULD I AVOID USING THEM?**

- Hydrocolloids are not recommended for infected wounds.

How long should I use them?

Hydrocolloid dressings only need changing every 3-5 days, if they start leaking or are 70% full of exudate.

Dressing Examples:

**Table No. 07: Examples of hydrocolloid dressing with manufacturer**

| <b>Dressing</b> | <b>Manufacturer</b> |
|-----------------|---------------------|
| Duoderm         | Convatec            |
| Comfeel         | Coloplast           |
| Replicare       | Smith & Nephew      |



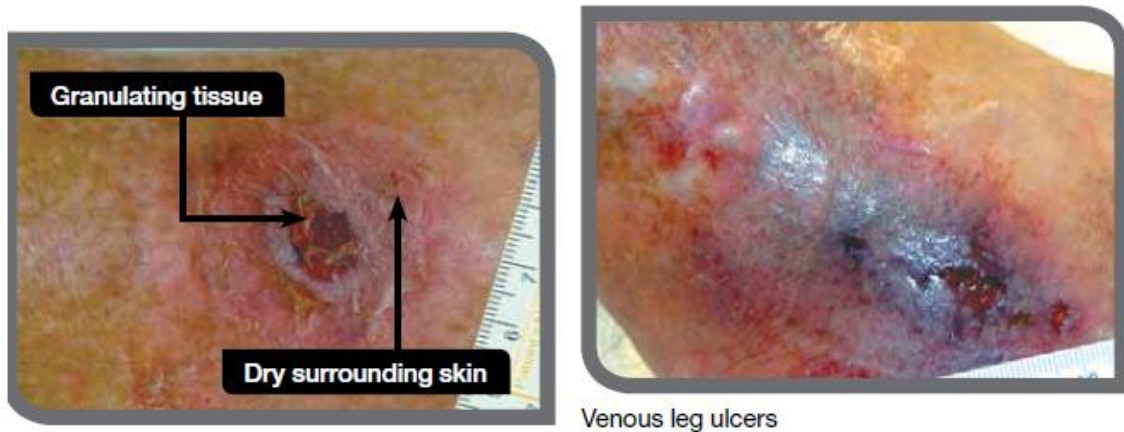


Figure No. 04: Injury on which hydrocolloid dressing used

Table No. 08: Advantage & Disadvantage of hydrocolloid dressing

| ADVANTAGES   | DISADVANTAGES  |
|--|--|
| Waterproof which allows patients to Shower                                 | Care should be taken when using hydrocolloids as they can encourage the growth of anaerobic bacteria |
| Absorbs exudate  | Use with caution on fragile or compromised skin as the adhesive may cause trauma                     |
| The gel that forms from the wound fluid provides a moist wound environment | May be difficult to keep in place  |
| Reduces pain   | Sometimes have a distinctive malodour that is mistaken for pus                                       |
| The moist environment promotes the formation of new tissue                 |  |

#### 4. HYDROGELS:

##### ➤ WHAT ARE THE PROPERTIES OF HYDROGELS?

- Hydrogels have high water content and contain insoluble polymers.
- They are designed to hydrate the wound and promote autolytic debridement.

##### ➤ IN WHAT FORMS ARE THEY PRODUCED?

Hydrogels are available as:

- A gel in a tube (amorphous gel)
- Flexible sheets

- Hydrogel impregnated gauze

➤ **WHEN SHOULD I USE THEM?**

Hydrogels can be used on wounds that

Have minimal to moderate exudate

- Gel sheets can be used on flat wounds including:

-- Pressure injuries

-- Minor burns

-- Traumatic wounds

- The gel in the tube can be used on low to moderately exuding wounds and necrotic sloughy wounds including:

-- Pressure injuries

-- Sinuses

-- Cavity wounds

- Hydrogel impregnated dressings are non-woven gauze that is impregnated with gel. It is good for packing low exuding cavity wounds.

➤ **WHEN SHOULD I AVOID USING THEM?**

- Highly exudating wounds

- Sinuses or cavities where you cannot visualize the entire base of the wound bed.

- Avoid if you are intending to use an absorbent dressing such as a foam dressing.

Reason: The foam will absorb the gel.

Dressings Examples:



**Table No. 09: Examples of hydrogels dressing with manufacturer**

| Dressings          | Manufacturer       |
|--------------------|--------------------|
| SoloSite           | Smith & Nephew     |
| Duoderm gel        | Convatec           |
| Intrasite gel      | Smith & Nephew     |
| Purilon gel        | Coloplast          |
| ActivHeal Hydrogel | Sutherland Medical |
| Normlgel           | Monclycke          |
| Aquaclear          | Hartmann           |



**Figure no.05: Injury on which hydrogels dressing used**

**Table No. 10: Advantage & Disadvantage of hydrogels dressing with manufacturer**

| ADVANTAGES   | DISADVANTAGES  |
|--|--|
| Provides a moist wound environment for cell migration                                  | Cannot be used if you cannot visualize all of the wound base |
| Rehydrates necrotic Escher which helps in its removal without harming good cell growth | Some of the dressings may require a secondary dressing       |
| Some gel sheets allow you to visualize the wound through the dressing                  | Maceration of the surrounding skin                           |

**5. LOW ABSORBENT DRESSINGS:**

➤ **WHAT ARE THE PROPERTIES OF LOW ABSORBENT DRESSINGS?**

- Made from a variety of materials such as cotton/acrylic fibers & knitted viscose

• Some dressings are coated with low adherent materials e.g. aluminum or perforated films. The “plastic film” is present to prevent the dressing adhering to the surface of the wound and is perforated to allow the passage of exudate from the wound into the body of the pad.

➤ **IN WHAT FORMS ARE THEY PRODUCED?**

- With and without adhesive tape.
- Nonocclusive and occlusive dressings.

➤ **WHEN SHOULD I USE THEM?**

- Dry to medium exudating wounds.
- To protect surgical incisions.
- To protect recently healed wounds.

➤ **WHEN SHOULD I AVOID USING THEM?**

- Moderately to highly exudating wounds.

➤ **WHEN SHOULD I STOP?**

- When the dressing is unable to contain the exudate and is requiring frequent dressing changes.
- When the wound is fully healed and there is no risk of wound breakdown.

Dressings Examples:

**Table No. 11: Examples of low absorbent dressings with manufacturer**

| <b>Dressings</b> | <b>Manufacturer</b> |
|------------------|---------------------|
| Melolin          | Smith & Nephew      |
| OpSite Post op   | Smith & Nephew      |
| Primapore        | Smith & Nephew      |
| Interpose        | Multigate           |
| Telfa            | Convidien           |



Abdominal laparoscopy sites

Figure No.06: Injury on which low absorbent dressing used

Table No. 12: Advantage & Disadvantage of low absorbent dressing with manufacturer

| ADVANTAGES  | DISADVANTAGES   |
|-------------|---|
| Cheap       | Must be removed carefully as the dressing is only low adherent not non-adherent |
| Easy to use | Skin maceration   |
|             | Generally not suitable for highly exudating wounds                              |
|             | If fluid dries then the dressing may adhere to wound                            |

## 6. HIGH / SUPER ABSORBENT DRESSINGS

### ➤ WHAT ARE THE PROPERTIES OF HIGH / SUPER ABSORBENT DRESSINGS?

- Made from a variety of materials with an inner absorbent core capable of containing moderate to high amounts of exudate.
- Some dressings are coated with low adherent materials to reduce the risk of adhesion to the wound.
- Some have a hydrophilic wound contact layer to facilitate the transmission of exudate into the dressing away from the wound surface.

### ➤ IN WHAT FORMS ARE THEY PRODUCED?

- Mostly non-adherent.
- Broad range of sizes.

➤ **WHEN SHOULD I USE THEM?**

- Moderately to heavily exudating wounds.

➤ **WHEN SHOULD I AVOID USING THEM?**

- Low levels of exudate.

➤ **WHEN SHOULD I STOP?**

- When exudate levels have reduced and a less absorbent dressing is indicated.

Dressings Examples:

**Table No. 13: Examples of super absorbent dressings with manufacturer**

| Dressings    | Manufacturer     |
|--------------|------------------|
| Exudry       | Smith & Nephew   |
| Mextra       | Monlycke         |
| Relevo       | Reliance Medical |
| Zetuvit Plus | Hartmann         |
| Vliwasorb    | Sentry Medical   |

A high/super absorbent dressing would be used as a secondary dressing to absorb exudate.



Leg ulcer with high levels of exudate



Note the maceration to the surrounding skin. A barrier wipe or zinc barrier cream will also assist in protecting the periwound

**Figure No. 07: Injury on which super absorbent dressing used**

**Table No. 14: Advantage & Disadvantage of Super absorbent dressing with manufacturer**

| ADVANTAGES                               | DISADVANTAGES  |
|--|--|
| Reduce the risk of maceration            | Must be removed carefully as the dressing is only low adherent not nonadherent |
| Promotes moist wound healing Environment | Generally not suitable for dry or low exudating wounds                         |
|  | If fluid dries then the dressing may adhere to the wound                       |
|  | Some require fixation to secure  |

## REFERENCES

1. Australian Wound Management Association (AWMA) Australia, 2010, 30/4/13 [www.awma.com.au/](http://www.awma.com.au/)
2. Australian Wound Management Association (AWMA). *Position Document of the Australian Wound Management Association: Bacterial impact on wound healing – from contamination to infection*. AWMA 2011.
3. Baranoski S. 2008. Choosing a wound dressing, part 1, *Nursing*, 38:10–12.
4. Beele H et al. “Expert consensus on a new enzyme alginogel”, *Wounds 2012 UK*, 8:64–73.
5. Carville K... *Wound Care Manual*, 5th ed. 2007 Osbourne Park: Silver Chain Foundation.
6. Flanagan M.. *Wound Management*, 1997 New York: Churchill Livingstone.
7. Fletcher J... Dressings: cutting and application guide. Accessed 15/1/09 from [www.worldwidewounds.com/2007/may/Fletcher/Fletcher-Dressings-Cutting-Guide.html](http://www.worldwidewounds.com/2007/may/Fletcher/Fletcher-Dressings-Cutting-Guide.html)
8. Hess C... *Clinical Guide: Wound Care*, 3rd ed. Springhouse, Pennsylvania: Springhouse Corporation. Probst A et al. 2012. *Cutimed Sorbact Made Easy*, Wounds International, 3(2).
9. Selim P... The use of Antiseptics in Wound Management: A Community Nursing Focus. *Primary Intention*, 2000 P no 63–66.
10. Sussman C, Bates-Jensen B... *Wound Care: A Collaborative Practice Manual for Physical Therapists & Nurses*, 2000 Maryland: Aspen Publishers, pp. 201-213.
11. Thomas S. A structured approach to the selection of dressings. *J Wound Care*, 2000 6:1-15.
12. Thomas S... Soft silicone dressings: frequently asked questions. Accessed 14/01/09 from [www.worldwidewounds.com/2003/october/Thomas/Soft-Silicone-FAQ.html](http://www.worldwidewounds.com/2003/october/Thomas/Soft-Silicone-FAQ.html)
13. Ulcer and Wound Management Expert Group *Therapeutic Guidelines: Ulcer and Wound Management*, version 1, 2012 Melbourne: Therapeutic Guidelines Limited.
14. World Union of Wound Healing Societies *Principles of Best Practice: minimizing pain at wound dressing-related procedures. A consensus document*. 2004 London: MEP Ltd.
15. World Union of Wound Healing Societies *Principles of Best Practice: Wound exudate and the role of dressings. A consensus document*. 2007 London: MEP Ltd.
16. Wound Healing and Management Node Group Evidence *summary: wound infection: silver products and biofilms*. (2012) Joanna Briggs Institute.
17. Wound Healing and Management Node Group Evidence *summary: wound management: dressings – alginate*. (2012) Joanna Briggs Institute.
18. <http://www.fortunejournals.com/abstract/a-thoroughgoing-detail-of-surgical-dressings-406.html>