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Home Health Wound Care Review

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Learning Outcomes

After this course, participants will be able to:

- Identify at least two characteristics each of all stages of pressure injuries.
- Identify at least two characteristics and standard of care for a given wound type.
- Describe at least three indications for various types of wound dressings.
- Define at least three forms of debridement and indications for each.
- Identify at least four aspects of a wound evaluation.

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Introduction

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Importance of Skin[1]

- Skin is the body's first line of defense against the external environment.
- Skin protects the body from chemicals, ultraviolet rays, and physical harm.
- Skin provides numerous homeostatic functions including fluid regulation, electrolyte balance, thermoregulation, acid base balance, and sensation.

Skin of the Older Adult[1]

- Protective factors will be compromised if:
  - Decreased fluid intake
  - Cognitive changes
  - Poor nutrition
  - Reduced mobility.
  - Chronic conditions may further exacerbate skin concerns for the older adult.
    - Diabetes, obesity, malnutrition, dementia, vascular disease, renal failure, a history of smoking, chronic exposure to air pollution, hormonal changes, and extensive sun exposure.

Structural Changes in Aging Skin[1]

- Decrease in thickness of the epidermis: functionally resulting in impaired barrier function. More prone to dryness
- Decreased number of endocrine glands: resulting in impaired thermoregulation.
- Dermis becomes thinner, acellular, and avascular: resulting in susceptibility to injury and impaired injury response.
- Atrophy of subcutaneous fat: subjecting underlying tissue to injury.

OASIS D and Wound Care[2]

- OASIS-D Integumentary Status (CMS, 2018d)
- M1306 Unhealed Pressure Ulcer/Injury at Stage 2 or Higher
- M1307 Oldest Stage 2 Pressure Ulcer
- M1311 Current Number of Pressure Ulcers/Injuries at Each Stage
- M1322 Current Number of Stage 1 Pressure Injuries
- M1324 Stage of Most Problematic Pressure Ulcer/Injury if Stageable
- M1332 Current Number of Stasis Ulcer(s) that are Observable
- M1334 Status of Most Problematic Stasis Ulcer that is Observable
- M1340 Surgical Wound
- M1342 Status of Most Problematic Surgical Wound that is Observable

Wound Care Examination[3]

- PATIENT HISTORY
- 1. Wound history - onset, etiology
- 2. Symptoms
- 3. Previous treatment
- 4. Medical treatment
- 5. Cultures
- 6. Tests - X-rays, bone scans, vascular testing

Wound Care Examination: Subjective Information[3]

1. Pain
2. Parasthesia
3. Pain changes - elevation, dependent, rest, activity

CONTINUED

Wound Care Examination: Objective Information3

- Location: provides information about etiology.
- Dimensions: Length, Width, Surface Area (Depth)
- Stage if a Pressure Injury
- Classification:
  - By Etiology: Venous, Arterial, pressure, neuropathology, diabetic, surgery
- Wound Base and Edges
- Drainage (Exudate) and Odor
- Periwound Area
- Edema
- Sensation
- Pulses
- Erythema
- Tissue Composition

Q1

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Drainage Desciptions[3]

- **Serous:** (Transudate), clear or amber in color, composed of water an .9% electrolytes.
- **Serosanguineous**: Viscous, contains plasma proteins, neutrophils and dead cells.
- **Purulence:** (Pus), thick, yellow to brown or green in color, associated with odor and localized infection.

Phases of Healing[3]

- Inflammatory/Acute Phase:
  - Characterized by reddened tissue, drainage, warmth, pain and loss of function.
  - Main function of this phase is the removal of debris.
- Proliferative Phase:
  - Function of this phase is tissue repair through the production of granulation tissue.
  - Fibroblasts migrate into the area and produce and secrete collagen.
  - Wound contraction
- Remodeling/Maturation Phase:
  - Process of remodeling the connective tissue matrix and scar formation/maturation.
  - Final phase of wound healing.
  - Healed wound regains approximately 75 – 80% of original tensile strength.

Clinical Signs of Infection[3]

- Malaise
- Pain
- Odor
- Drainage: thick, tan, brown, green or yellow
- Fever

Standard of Care for all Wounds[3]

- Optimized nutritional status
- Debridement by any means to remove devitalized tissue
- Maintenance of a clean, moist dressing
- Necessary treatment to resolve any infection that may be present

Pressure Injuries

Pressure Injury Definition[2]

- Localized damage to the skin and underlying soft tissue usually over a bony prominence or related to a medical or other device.
- Can present as intact skin or an open ulcer and may be painful.
- Occurs as a result of intense and/or prolonged pressure or pressure in combination with shear.
- Tolerance of soft tissue for pressure and shear may also be affected by microclimate, nutrition, perfusion, co-morbidities and condition of the soft tissue.
- Shape: generally round, but with shear may be more elongated.

Pressure Injury Classification: Stage 1[2]

- Intact skin with a localized area of non-blanchable erythema, which may appear differently in darkly pigmented skin.
- Presence of blanchable erythema or changes in sensation, temperature, or firmness may precede visual changes.
- Color changes do not include purple or maroon discoloration; these may indicate deep tissue pressure injury.

Pressure Injury Classification: Stage 2[2]

- Partial-thickness loss of skin with exposed dermis.
- Wound bed is viable, pink or red, moist, and may also present as an intact or ruptured serum-filled blister.
- Adipose (fat) is not visible and deeper tissues are not visible.
- Granulation tissue, slough and eschar are not present.
- Commonly result from adverse microclimate and shear in the skin over the pelvis and shear in the heel.

Pressure Injury Classification: Stage 3[2]

- Full-thickness skin loss in which adipose (fat) is visible in the ulcer and granulation tissue and epibole (rolled wound edges) are often present.
- Slough and/or eschar may be visible.
- The depth of tissue damage varies by anatomical location; areas of significant adiposity can develop deep wounds.
- Undermining and tunneling may occur.
- Fascia, muscle, tendon, ligament, cartilage and/or bone are not exposed.
- If slough or eschar obscures the extent of tissue loss this is an Unstageable Pressure Injury

Q2

Pressure Injury Classification: Stage 4[2]

- Full-thickness skin and tissue loss with exposed or directly palpable fascia, muscle, tendon, ligament, cartilage or bone in the ulcer.
- Slough and/or eschar may be visible.
- Epibole (rolled edges), undermining and/or tunneling often occur.
- Depth varies by anatomical location.
- If slough or eschar obscures the extent of tissue loss this is an Unstageable Pressure Injury.

Pressure Injury Classification: Unstageble[2]

- Full-thickness skin and tissue loss in which the extent of tissue damage within the ulcer cannot be confirmed because it is obscured by slough or eschar.
- If slough or eschar is removed, a Stage 3 or Stage 4 pressure injury will be revealed.
- Stable eschar (i.e. dry, adherent, intact without erythema or fluctuance) on the heel or ischemic limb should not be softened or removed.

Pressure Injury Classification: Deep Tissue Injury[2]

- Intact or non-intact skin with localized area of persistent non-blanchable deep red, maroon, purple discoloration or epidermal separation revealing a dark wound bed or blood filled blister.
- Pain and temperature change often precede skin color changes.
- Discoloration may appear differently in darkly pigmented skin.
- Results from intense and/or prolonged pressure and shear forces at the bone-muscle interface.
- May evolve rapidly to reveal the actual extent of tissue injury, or may resolve without tissue loss.
- If necrotic tissue, subcutaneous tissue, granulation tissue, fascia, muscle or other underlying structures are visible, this indicates a full thickness pressure injury (Unstageable, Stage 3 or Stage 4).

Pressure Injury Classification: Deep Tissue Injury[2]

- Do not use DTPI to describe vascular, traumatic, neuropathic, or dermatologic conditions.

Pressure Injury Causes[3,4]

Extrinsic Factors

- Tissue loading or external pressure is the primary factor
- Friction and shear
- Temperature
- Moisture
- Equipment

Intrinsic Factors

- Muscle atrophy
- Medications: steroids, antiprostaglandins, antineoplastics & anti-inflammatories
- Malnutrition
- Medical Conditions: AIDS, DM, CNS damage

Prevention of Pressure Injuries[3,4]

- Keep skin clean and dry
- Skin checks BID
- Seat cushion that control posture and pressure: Roho or Gel or combination.
- Weight shifts: relieve pressure on skin of buttocks every 15-30 minutes for at least 1 minute.
- Sleeping surfaces: may need a low air-loss mattress if at highest risk
- Good nutrition and hydration
- Controlling moisture
- Avoid sitting on wrinkles or seams in clothing or bedding

Highest Risk for Pressure Injury[3,4]

- Lack of protective sensation: neuropathy, CVA, spinal cord injury, TBI.
- Immobile as a result of neurological deficit, orthopedic injury or coma.
- Poor nutritional state
- Incontinent
- Uncontrolled sweating, moisture
- Muscle and skin atrophy: bony prominences are more prominent.

Pressure Injuries: Standard of Care[3,4]

- Pressure Relief
- Control Moisture
- Nutrition: Protein, vitamin, and mineral intake should be optimized, and albumin and realbumin levels should be checked and trended.
- Wound infection should be diagnosed and treated aggressively to avoid a necrotizing infection.
- Local wound care that clears the wound of debris, absorbs drainage, facilitates the formation of granulation tissue, and stimulates wound contraction.
- Dressings should be chosen based on characteristics of the wound, ease of use, specific function, and cost.

Standard of Care: Pressure Injuries Positioning[3,4]

- Correct sitting posture and support
- Supine: elevate heels off bed or use PRAFOs, hip and knee flexion of 25-30 degrees, limit time in this position as it increases sacral pressure.
- Use ¼ turn back (30 degree side-lying position) using a wedge, gets patient off sacrum
- Use ¼ turn front (150 degree side-lying position) using a wedge or body pillow, gets patient off sacrum.
- Position change every 2 hours may be adequate for some, but not others.

Standard of Care: Pressure Injuries Wound Treatment[3,4]

- Relieve pressure: appropriate positioning in sitting and lying.
- Moist wound environment
- Protein, vitamin, and mineral intake should be optimized, and albumin and prealbumin levels should be checked and trended

Pressure Injury Case Study

- Mr. B is a 60 y/o with a chronic right ischial wound, pain in right side and elbow.
- PMH: Quadriplegic secondary to spinal stenosis, Cx myopathy and spinal stroke, NIDDM, has a suprapubic catheter.
- Social Hx: Sits in his W/C 12 hrs/day.
- Integument: wound size: 2.7cm x 1.3cm x .3cm deep, 2.4cm undermining at 2 o'clock.
- Wound Tx: calcium alginate, periwound barrier and absorbent cover dressing, changed QD.

Pressure Injury Case Study: Intervention

- Custom-contoured backrest: with a deeper and more contoured right thoracic support.
- Lateral hip guide to prevent shifting of the pelvis to the left.
- Center-mounted footplate to improve thigh alignment.
- W/C cushion changed to a powered alternating pressure cushion. Firmness adjusted to level his pelvis.
- Wound dressings remained unchanged.

Pressure Injury Case Study: Results after 10 wks

- Pain has decreased significantly.
- Mr. B is in a more upright position with decreased pressure over right ischium.
- Wound measurement: 1.2cm x .2cm x .2cm deep, undermining 1.6cm.
- Healing attributed to equipment and position changes.

Venous Stasis Ulcers

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Venous Ulcer[5]

- Common vascular condition affecting 1% of the population.
- Prevalence increases with age.
- Definition: a full-thickness defect of skin, most frequently in the ankle region, that fails to heal spontaneously and is sustained by chronic venous disease, based on venous duplex ultrasound testing.
- Economic and social burden of this condition is significant to both the affected individual and the health care system.
- Recurrent in nature

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Venous Ulcer Characteristics[3]

- More shallow and less painful than ischemic ulcers
- Sizes varies greatly, fascia and deep structures are not usually exposed.
- Borders are flat, slopping into a shallow crater.
- Tend to be very moist, periwound area may be wet.
- Develop slowly and can exist for years.
- Repeated episodes of infection and cellulitis
- Subsequent loss of ankle function can occur.

Venous Ulcer Tests[3]

1. Venous Doppler
2. Trendelenburg Test
3. Cuff Test

Venous Ulcer Standards of Care[3,5-9]

- Highly absorbent dressings
- Compression therapy
- Elevation of affected LE
- Ankle ROM
- Walking and stretching program
- Once healed compression stockings to prevent reoccurrence

Q4

Venous Stasis Ulcer Case Study

- 62 y/o with ulcer on left medial ankle. The ulcer has been present for months and patient has had ulcers in the same location in the past.
- Pain 3/10 which increase with prolonged standing.
- Drainage: moderate to heavy, periwound macerated.
- No evidence of DVT, infection or arterial compromise.
- Swelling in left calf, 2cm greater than right.
- ROM: 5 degree plantarflexion contracture.

Venous Stasis Ulcer Case Study: Intervention

- Intermittent pneumatic compression (50mm Hg for 30 minutes).
- Hydrofiber dressing and Unna boot, changed weekly.
- At wound care center: cleansed with pulsed lavage
- Ankle stretching
- Walking program

Venous Stasis Ulcer Case Study: Results

- Within 2 weeks:
  - Drainage reduced considerably
  - Periwound maceration resolving
- After several weeks:
  - Ulcer healed
  - Patient fitted for custom gradient support stockings, to be refit every 6-12 months to prevent ulcer reoccurrence.

Arterial Ulcers

Arterial Ulcer Characteristics[3,10,11]

- More painful than venous wounds: relieved by dependent position, increased with elevation.
- Cold feet or numbness in LEs
- Intermittent claudication
- Location: anterior tibia, lateral leg or distal toes.
- Gangrene may be present
- Pale in color
- Generally dry
- Little drainage or escar
- Deeper than venous wounds
- Decreased pulse
- Decreased distal hair growth
- Pale skin with muscle atrophy

Arterial Ulcer Tests

- 1. Ankle Brachial Index (ABI): <.8
- 2. Rubor of Dependency

Arterial Ulcer: Standards of Care[3,10,11]

- Stable escar should never be debrided until healing potential and perfusion have been confirmed. ABI≤.8.
- Maintain a moist wound environment: hydrogels, hydrocolloids, impregnanted gels.
- Prevent infection
- Protection of the limb: moisturize dry skin, professional nail care by a podiatrist, supportive footwear (adequate width and depth).
- Avoid dress stockings and restrictive clothing that provide compression.
- Bed cradle: keeps sheets and blankets off feet.
- Protective devices for feet that are made of soft material and have ankle support.

Q5

Arterial Ulcer Case Study

- 80 y/o with 7-week hx of nonhealing sore on his left anterior shin that developed after he bumped his leg on a concrete slab.
- PMH: renal insufficiency, HTN, 120-pack year smoking history, carotid endarterectomy
- Integument: B LEs are pale with little hair growth, thick yellow toenails. Wound dimensions: 3cm x 1.4cm x 1cm deep to the anterior tibial tendon. Wound base: adhered fibrin, pale granulation at margins, scant cloudy serosanguineous drainage, foul odor, 2cm ring of erythema, pain 10/10.

Arterial Ulcer Case Study: Recommended Tests and Measures

- Pulse assessment
- ABI
- Rubor of dependency
- Claudication distance
- Blood chemistry include WBC count

Arterial Ulcer Case Study: Intervention

- Vascular consultation
- Antibiotics
- Silver impregnated hydrogel or foam dressing
- Irrigation and sharp debridement to tolerance
- Walking boot to protect exposed tendon
- Walking program with PT
- Education on smoking cessation, nutrition
- If infection or necrosis advance consult vascular surgery.

Diabetic Foot Ulcers

Etiology of Foot Ulcers[3,12,13]

- Sensory loss: loss of protective sensation
- Mechanical Stress: foot deformities, poorly fitting shoes, repetitive stress
- High foot pressures: first metatarsal head and great toe most common areas
- Dry skin, callus formation
- Obesity, visual loss, joint limitations make it difficult to inspect your feet

Prevention of Foot Ulcers[3]

- Foot Screening
- Risk management and identification
- Patient education
- Proper footwear
- Daily self-inspection of the foot
- Management of minor foot problems
- ROM and joint mobilization as needed
- Smoking dangers

Examination of the Foot

- Screening and risk identification
- History
- Sensory testing: Semmes-Weinstein filaments, pt unable to feel 10-g have loss of protective sensation
- Skin inspection: redness, callus, increase in temp, ulcerations, swelling, maceration
- MMT and ROM
- Identify deformities
- Vascular status
- Evaluation of footwear

Wagner Grading System for Diabetic Foot[3]

- 0 Intact skin
- 1 Superficial ulcer
- 2 Deep ulcer
- 3 Deep infected
- 4 Partial-foot gangrene
- 5 Full-foot gangrene

Q10

University of Texas Classification System for Diabetic Foot[3]

- Stages
- Stage A: No infection or ischemia
- Stage B: Infection present
- Stage C: Ischemia present
- Stage D: Infection and ischemia present
- Grading
- Grade 0: Epithelialized wound
- Grade 1: Superficial wound
- Grade 2: Wound penetrates to tendon or capsule
- Grade 3: Wound penetrates to bone or joint

Diabetic Foot Ulcer Characteristics[3,12,13]

- No pain
- Located on plantar surface of the foot
- Periwound callous
- Round, small and deep
- Frequently infected

Diabetic Foot Ulcer Standards of Care[12,13]

- Off loading pressure
- Good BS control

Q3

Devices to Off-Load Stress on the Foot[3,12,13]

- Total Contact Casting
- Walking Splint
- Darco shoe
- Post-Op Shoe
- Wound Healing Shoe

Prevention of Reulceration[3,12,13]

- 61% of foot ulcers reulcerate
- Fit with protective footwear
- Slowly resume ambulation
- Too much walking too soon could result in a neuropathic fracture (Charcot foot) Charcot Restraint Orthotic Walker (CROW)
- Improve joint mobility in the foot to reduce end-range stresses during ambulation

Diabetic Foot Ulcer Case Study

- 58 y/o with pain and swelling in her right ankle for the past two weeks. PMH: NIIDM x 13 yrs, HTN, osteoporosis, hyperlipidemia. Smokes ½ pack of cigarettes for the past 40 yrs.
- Went to ER 10 days ago, x-rays taken negative and dx of cellulitis
- Antalgic gait without AD,
- Right foot warm to the touch with redness around ankle and dorsum of foot unable to feel the 10-g monofilament sensory testing on either foot.
- Dorsalis pedis pulses intact, R> L
- Right foot temp 6-8 degrees warmer over the tarsal region.

Diabetic Foot Ulcer: Diagnosis[3,12,13]

- Suspected early Charcot foot fracture should be evaluated with MRI
- Stronger pulse and elevated temp on R also point to suspected early Charcot foot fracture

Diabetic Foot Ulcer: Intervention[3,12,13]

- PWB with AD (crutches or RW)
- Total Contact Cast (TCC) until temp readings lower to within 3 degrees of L
- Incorrect dx in ER delayed off-loading of affected joint.
- BS control.

Surgical Wounds

Surgical Considerations in Wound Care[3]

- Type of wound closure: sutures, staples, glue
- Measure the length of the incision
- Count the number of staples or describe type of closure
- Verify when staples or sutures should be removed
- Incision should be cleaned daily with saline and redressed per MD orders
- Some surgeons use non-removable dressings

Surgical Wound Status[2]

- Newly epithelialized – Wound bed completely covered with new epithelium, no exudate, no avascular tissue (eschar and/or slough), no signs or symptoms of infection.
- Fully granulating – Wound bed filled with granulation tissue to the level of surrounding skin, no dead space, no avascular tissue (eschar and/or slough), no signs or symptoms of infection, wound edges are open.
- Early/partial granulation – Wound bed is covered with ≥ 25% of granulation tissue, with < 25% of avascular tissue (eschar and/or
- slough), no signs or symptoms of infection, wound edges are open.
- Not healing – Wound with ≥ 25% avascular tissue (eschar and/or slough); or signs/symptoms of infection; or clean but nongranulating wound bed; or closed/hyperkeratotic wound edges; or persistent failure to improve despite appropriate and comprehensive wound management.

Debridement

Types of Debridement[3,14,15]

- **Sharp or surgical**: using scalpels, curettes, scissors, forceps
- **Mechanical:** using mechanic sources
  - Soft abrasion: wiping the wound surface with gauze
  - Wet to dry dressings
  - Hydrotherapy or whirlpool
  - Pulsatile lavage with suction
- **Autolytic:** use of moisture retaining dressings (hydrocolloid) to facilitate the body's own enzymes to breakdown necrotic tissue. If infected and unable to use hydrocolloid, can use saline moistened gauze and a film or a hydrogel if moisture is retained.
- **Enzymatic**: use of ointments
- **Biodebridement:** sterile maggots

Q9

Why Sharp Debride?[3,14,15]

- Dead or unhealthy tissue is a safe harbor for bacteria
- Aids enzymatic debridement
- Least traumatic form of debridement
- Minimize bleeding because it is selective.
- Removal of large amounts of necrotic tissue
- Speeds up healing

Q8

When Not to Sharp Debride[3,14,15]

- Arterial insufficiency: not enough blood flow to heal
- Heel ulcers? If stable/non reactive
- Patient is non cooperative and healing is not the patient's goal
- Risk for infection
- Refer back to MD if exposed bone, artery, or vital structure

Contraindications for Sharp Debridement

- Arterial insufficiency (dependent on severity)
- Gangrene
- Unidentifiable Structures
- Stable Ulcer
- Poor visibility ie tracking

Debridement Case Study

- 80 y/o with chronic venous stasis ulcer medial left ankle. 80% necrotic tissue, heavy drainage that is tan in color. Length 5 cm, width 3 cm, depth .5 cm. 2+ edema on L, 1+ on right. Patient being treated by family MD for the past 3 months with no change in status.

Debridement Case: Intervention

- Referred to wound care center for debridement of necrotic tissue.
- CBC and cultures of wound for suspected infection.
- Alginate dressing with silver (Maxorb) cut to size of the wound, unna boot applied over dressing.
- PT consult for walking program
- Elevate LEs to reduce edema

Dressings

Gauze[3,16,17]

Properties

- Highly permeably to air
- Readily absorbs exudate,
- Allows for rapid moisture evaporation (wound can dry out if dressing is not changed frequently)

Indications

- Wet to dry dressing (not best way to debride)
- Can loosely pack tunneling or undermining

Gauze[3,16,17]

Advantages

- Cost effective
- Readily available
- Can use with infected wound.

Disadvantages

- No visual monitoring of wound
- Permeable to bacteria and can increase risk of infection
- Can stick to wound bed
- Wound can dry out

Non-adherent Dressing[3,16,17]

Properties

- Limits the risk of dressing sticking to the wound
- Can be impregnated or non-impregnated
- Requires a secondary dressing to keep in place
- Minimal absorption properties.

Indications

- Skin tears, donor sites, skin grafts
- When intact skin around the wound is fragile and may tear easily

Non-adherent Dressing[3,16,17]

Advantages

- Does not stick to wound bed so it is not painful when removed

Disadvantages

- Impregnated type contains materials that may not be biocompatible to wound.
- Ex. Petroleum (Vaseline)

Hydrocolloid[3,16,17]

Properties

- Occlusive (not permeable to air, water, or bacteria)
- Absorbs minimal to moderate amounts of exudate
- Provides a moist environment
- Gel becomes pus like in appearance and odor will be present when dressing removed.

Indications

- Stage II to IV wounds
- Chronic wounds
- Wounds with necrotic tissue that require debridement.
- Partial and full thickness wounds.
- High friction areas.
- Commonly used with Unna boot leg ulcers.

Hydrocolloid[3,16,17]

Advantages

- Promotes autolytic debridement of minimal to moderate amounts of necrotic tissue
- Can be highly comfortable and easy to apply
- Body temperature maintained in wound

Disadvantages

- Dressing interacts with wound fluid and leaves a residue in the wound bed or on the margins that is difficult to remove
- Maceration of periwound tissue can occur
- May need to use a skin sealant to prevent maceration
- *** Can not be used with infected wound

Semipermeable Films[3,16,17]

Properties

- Semi occlusive
- Provides moist environment
- Highly elastic and conformable
- Transparent to allow visual of wound
- Water resistant
- Semi permeable to moisture vapor and oxygen and occlusive to bacteria
- Minimal to no absorption

Indications

- Superficial wounds and burns
- Skin tears
- Post op wound site
- Donor graft
- Retention of primary dressing.
- Blisters

Q7

Semipermeable Films[3,16,17]

Advantages

- Optimal visual monitoring of wound
- Provides moist environment
- Facilitates autolytic debridement

Disadvantages

- Moisture accumulation can cause maceration
- Can be difficult to apply.
- Does not hold up in high friction area
- Body temperature is not maintained in the wound.
- Won't absorb exudate.

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Hydrogels: gels and sheets[3,16,17]

Properties

- High water content
- Highly conformable
- Moisture retentive, permeable to oxygen

Indications

- Wounds needing moisture
- Burns
- Superficial abrasions
- Sheets can be used in combination with ultrasound treatments
- Can be used on infected wounds.

CONTINUED

Hydrogels: gels and sheets[3,16,17]

Advantages

- Promotes autolytic debridement
- Effective is assisting with eschar removal
- Non adherent

Disadvantages

- Dehydrates easily
- More difficult to keep in place (requires a secondary dressing)

CONTINUED

Semipermeable Foam[3,16,17]

Properties

- Moisture retentive
- Permeable to moisture vapor and oxygen
- Can also have foam cavity fillers or sheets

Indications

- Partial or full thickness wounds
- Moderate to maximal draining wound (filler dressing)
- Sheet - secondary dressing.

Semipermeable Foam[3,16,17]

Advantages

- Minimal to no irritation of healthy tissue with removal
- Maintains body temperature in wound
- Promotes autolytic debridement
- Moist wound environment

Disadvantages

- Unable to visualize wound bed

Alginate[3,16,17]

Properties

- Autolytic debridement
- Will absorb exudate. Protects healthy tissue.
- Keeps wound moist.
- Turns to gel when in contact with wound exudate
- Derived from seaweed

Indications

- Must be a draining wound to use
- Stage II to IV

Q6

Alginate[3,16,17]

Advantages

- Easy to use
- No irritation with removal
- Can use on infected wound
- No discomfort or maceration

Disadvantages

- Permeable unable to keep bacteria out.
- Must use secondary dressing (can not be occlusive if wound is infected)

Collogen[3,16,17]

Properties

- Derived from bovine hide
- May stimulate new tissue development and wound debridement
- Will absorb exudate

Indications

- Must be a draining wound to use

Collagen

Advantages

- Easy to use
- No irritation with removal

Disadvantages

- Can not use on dry wound
- Can not be used on patient with a sensitivity to bovine products

Biological Dressings[3,16,17]

Properties

- Derived from human or animal sources

Indications

- Large wounds
- Massive burns

Biological Dressings[3,16,17]

Advantages

- Prevents water loss
- Provides a flexible wound covering
- Scaffolding promotes neovascularization and new dermal growth

Disadvantages

- Limited availability.
- High cost
- Graft rejection.

Silver Dressings[3,16,17]

Properties

- Bactericidal effect

Indications

- Infected wounds

Silver Dressings[3,16,17]

Advantages

- Comes in a variety of forms:
  - Paste
  - Alginate
  - Gauzes

Disadvantages

- High cost

Dressings Case Study

- 67 y/o with venous stasis ulcer, 2 years in duration being treated by his podiatrist with wet to dry dressings. Presented to the ER with excessive purulent drainage and suspected infection. Periwound area is macerated for 1.5 cm
- Intervention: CBC and cultures for suspected infection.
- Dressings changed to Aquacel Ag Extra Hydrofiber Dressing (Alginate with Silver) with an unna boot. Referred to wound care center and home health: SN and PT

Summary

Home Health Wound Care[3]

- Should be interdisciplinary.
- PT may not be delivering the wound care treatments, but is part of the wound care team.
- PT should evaluate integumentary system on evaluation of any patient.
- PT should know the type of wound and it's treatment to ensure patient compliance.
- PT should instruct patients and caregivers on prevention of pressure injuries when appropriate.
- PT should report any new integumentary issues to the patient's case manager and MD.

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