R.B. Turnbull, Jr. MD School of WOC Nursing Education

Mini Case Scenarios: Wounds

Cleveland Clinic

Student Name __Nancy Benchley_____ **Date:** ____4/15/2024_____

Reviewed by: _____ **Date:** _____

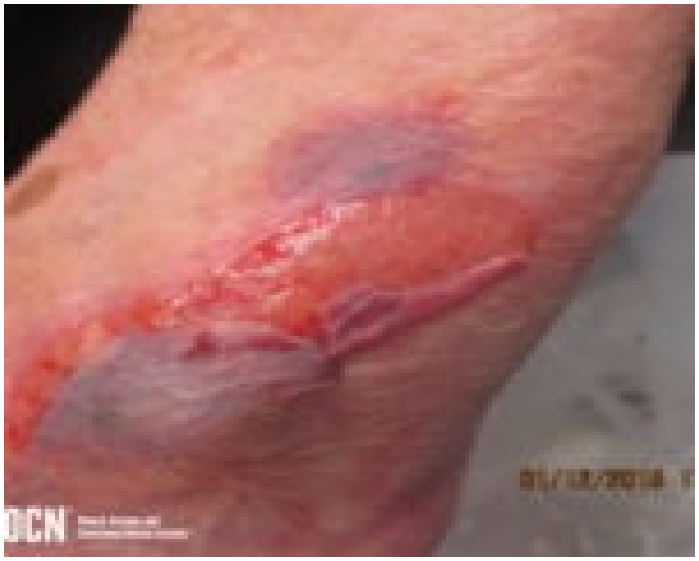
Score: /96

For the following wound case scenarios:

1. Identify the type of wound pictured.
2. Apply wound characteristics provided to identify recommendations/nursing orders for this patient & the wound.
3. Include the following in the recommendations/orders
    a. Dressing
        i. Type of dressing
        ii. Brand name(s)
        iii. Secondary dressing if needed
        iv. Dressing change schedule
    b. Other nursing orders pertinent to successful wound healing or prevention
    c. Rationale for choices
4. Provide an alternative to your initial dressing choice. This should be a product substitution, not simply a brand name substitution.
5. Answer any additional questions.

A case study has been completed for you below as an example.

Scenario Example



85-year-old in an extended care facility has a skin tear on her right forearm after a recent fall. The skin tear has been classified as Type ??? as described by the International Skin Tear Advisory Panel (ISTAP).

Image courtesy of Wound, Ostomy and Continence Nurses Society image library.

Wound type: Skin tear, Type 2
(1 point)

Wound Nurse recommendations/orders:

1. Use no rinse, pH balanced bath wipes at bathtime vs. soap, minimize rubbing at bath time, & gently dry fragile skin
2. Apply mesh contact layer (Hollister Adaptic)
3. Moisturize both arms daily with Medline Remedy moisturizing lotion
4. Wrap with roll gauze (Kerlix).
5. Change dressing on every shower day or if wet or soiled
6. Use long sleeve garments or sleeve covers for patient during waking hours

(3 points)

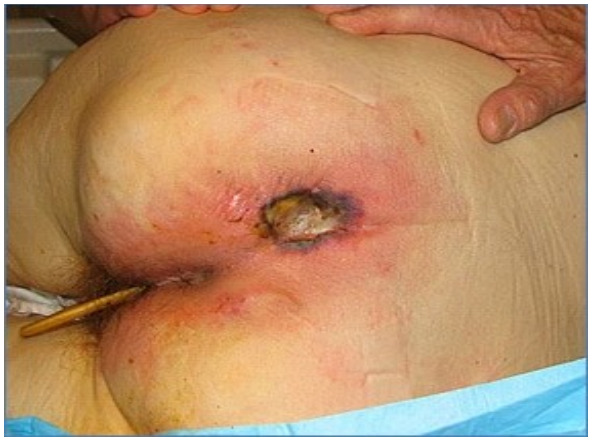
Rationale for choices

1. Bath wipes are pH balanced & soap is usually alkaline & difficult to rinse if person not showering
2. Rubbing creates friction which may cause skin tears
3. Contact layer prevents dressings from sticking to wound
4. Skin moisturizing is a preventive measure for skin tears
5. Roll gauze keeps contact layer in place & patient from touching wound & is non-adhesive
6. Long sleeves protects patient's skin and discourages picking at dressing

(3 points)

1 alternative primary/secondary dressing: Non-adhesive foam dressing, 5 layers, (Allevyn) secured with elastic mesh dressing (Medline elastic retention dressing).
(1 point)

Scenario 1



You are asked to assess a new resident admitted with a sacral wound. Patient is 82-year-old and admitted with dementia. Wound on sacrum with 100% yellow slough and brown necrotic tissue at wound edges. Wound measures approximately 4 cm x 3 cm x 2 cm. Periwound with blanchable erythema.

Image courtesy of Wound, Ostomy and Continence Nurses Society image library.

Wound type:

Unstageable Pressure Injury

(1 point)

Wound Nurse recommendations/orders:

1. Irrigate wound with Normal Saline using 35mL syringe and 19 gauge catheter
2. Apply skin protectant (Cavilon No sting Barrier Spray), allow to dry
3. Apply enzymatic debridement to wound bed (Collagenase)
4. Apply transparent film cover dressing (Tegaderm)
5. Q2 turns right and left side lying keeping patient off wound

(3 points)

Rationale for choices:

1. Irrigation will clean the wound bed and remove debris. This cleansing method may loosen eschar and decrease bacteria if infected
2. Skin protectant will protect peri-wound skin from maceration from transparent film dressing
3. Enzymatic debridement will remove slough and necrotic tissue. It can be used if the wound is infected.
4. Transparent film dressing will act as a cover dressing as well as provide autolytic debridement
5. Q2 turns without putting pressure on the wound will reduce pressure to the wound allowing it to heal more effectively

(3 points)

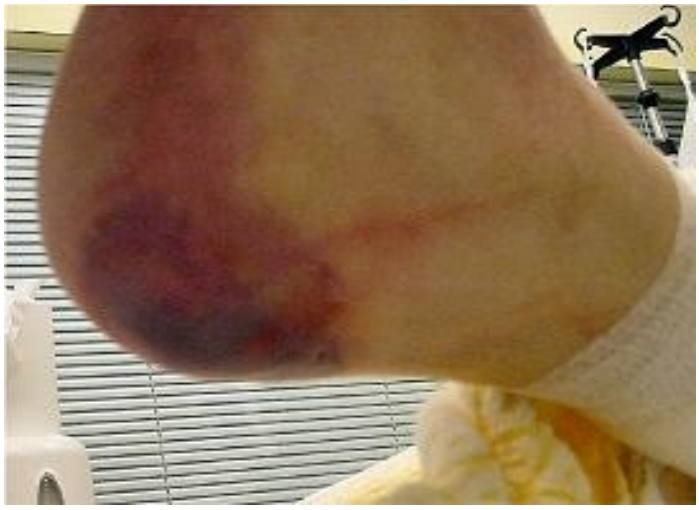
1 alternative primary/secondary dressing

Autolytic debridement by using McKesson Hydrogel Amorphous wound dressing on wound bed and transparent film as secondary (Tegaderm)

(1 point)

/8 points

Scenario 2



The wound care nurse is consulted to see a 54-year-old, post op day 4 after an abdominal surgery. Left heel has non-blanchable purple discoloration.

Image courtesy of Judy Mosier, MSN, RN, CWOCN.

Wound type:
Deep tissue pressure injury
(1 point)

Wound Nurse recommendations/orders:
1. Cleanse skin with pH balanced bath wipes
2. Apply Allevyn foam dressing to heel, change q 3 days
3. Assess daily for skin breakdown
4. Off load heels with either a pillow or foam cushion

(3 points)

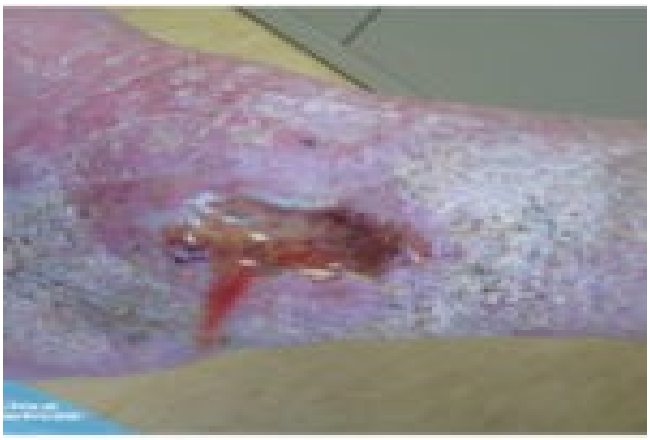
Rationale for choices:
1. Wipes are pH balanced for the skin
2. Allevyn foam dressing will protect the heel from further pressure and friction/shearing when repositioning in bed
3. The deep tissue pressure injury is at risk for further skin breakdown and should be continually assessed for any skin breakdown
4. Off loading heels with a pillow or foam cushion will also protect the heel from further pressure and will also prevent a pressure injury on the other heel

(3 points)

1 alternative primary/secondary dressing
Leave open to air, assess skin daily for breakdown
(1 point)

/8 points

Scenario 3



A 70-year-old arrives at the outpatient wound clinic with a nonhealing wound located on gaiter area of right lower extremity. The wound measures approximately 5 cm x 2.5 cm x 0.5 cm. The wound is a shallow, irregular shaped ulcer with moderate amount of exudate. Periwound is macerated. Hemosiderin staining is noted to BLE. Patient has ABI of 0.85 to RLE and 0.90 to LLE

Image courtesy of Wound, Ostomy and Continence Nurses Society image library.

Wound type:

Mixed venous/arterial ulcer

(1 point)

Wound Nurse recommendations/orders:

1. Irrigate wound with normal saline and 35 mL syringe, with 19 gauge catheter
2. Apply skin protectant to periwound skin (Cavilon Advanced Skin Protectant)
3. Apply Alginate dressing (Algisite M) to wound bed, change q3 days or if wet or soiled
4. Apply foam dressing (Allevyn), change q3 days
5. Aquaphor to bilateral legs daily
6. Apply elastic 2 component compression bandages to right lower extremity q3 days
7. Elevate above heart level 2-4 hours during the day and at night with pillows
8. Compression stocking to left lower extremity during the day

(3 points)

Rationale for choices:

1. Irrigate wound to remove the dressing residue
2. Since peri wound skin is macerated the skin protectant will protect the peri wound skin from exudate
3. Alginate dressing is recommended due to moderate amount of exudate
4. Foam dressing will act as cover dressing to keep alginate in place, will also absorb exudate
5. Aquaphor to bilateral legs to moisturize skin and prevent other ulcers from forming
6. Compression bandages to right lower extremity to help wound to heal and improve blood flow
7. Elevation above heart level to help improve blood flow
8. Compression stocking to left lower extremity to help improve blood flow and prevent ulcer from forming

(3 points)

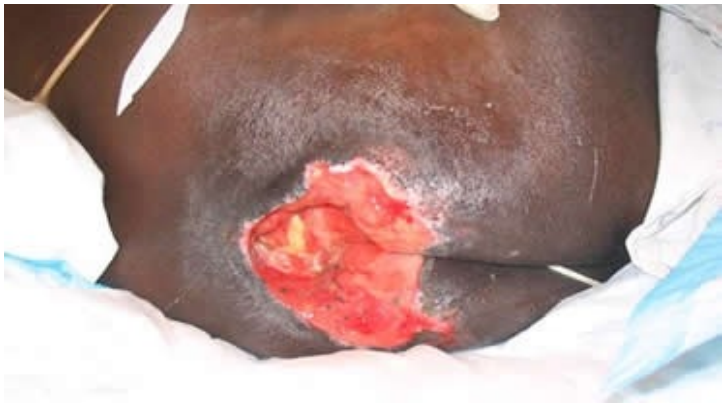
1 alternative primary/secondary dressing:

Hydrofiber dressing (Aquacel), change q 3 days as primary dressing; Composite dressing (Mckesson Island dressing) as secondary, change q3 days

(1 point)

/8 points

Scenario 4



An 85-year-old is admitted to the hospital with a stage ??? pressure injury on sacrum and is bedridden. Full thickness wound measures approximately 8 cm x 10 cm x 0.4 cm. Wound bed pink with small amount of yellow slough. No structures, no bone noted. Wound has moderate serosanguineous drainage.

Image courtesy of Judy Mosier, MSN, RN, CWOCN.

Wound type:
Stage 3 pressure injury
(1 point)

Wound Nurse recommendations/orders:

1. Cleanse wound with wound cleanser
2. Apply periwound skin protectant (Cavilon no sting barrier), allow to dry
3. Apply alginate dressing to wound bed (Algisite M), change q 3 days or when soiled
4. Cover with foam dressing (Allevyn), change q3 days or when soiled
5. Q2 turns with turning from left to right keeping pressure off the wound

(3 points)

Rationale for choices:

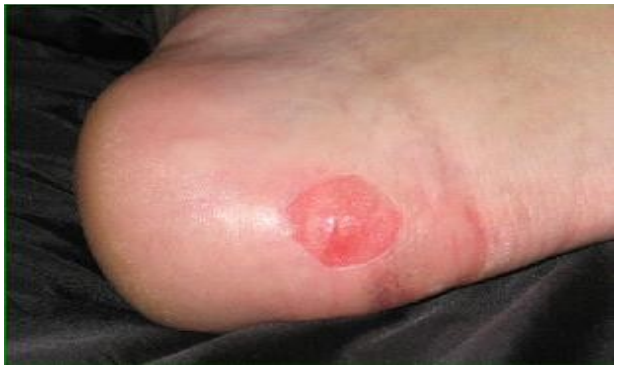
1. Clean wound bed of any debris
2. Will protect the periwound skin from maceration from exudate
3. Alginate dressing will fill the wound bed and absorb any exudate
4. Foam dressing will cover the wound and absorb any more exudate
5. Q2 turns will off load pressure from the wound allowing it to heal

(3 points)

What support surface would you recommend and why?
I would recommend a support surface with alternating pressure combined with low air loss. Since the patient is bedridden an alternating pressure surface will redistribute the pressure for the patient if they are unable to shift their weight and the low air loss will help manage temperature.
(1 point)

/8 points

Scenario 5



56-year-old hospitalized for cardiac surgery. During the hospital stay, developed a blister related to pressure on right heel. The blister has now ruptured.

Image courtesy of Judy Mosier, MSN, RN, CWOCN.

Wound type:

Stage 2 pressure injury

(1 point)

Wound Nurse recommendations/orders:

1. Cleanse wound with wound cleanser or normal saline
2. Apply periwound skin protectant (Cavilon no sting barrier), allow to dry
3. Apply foam dressing (Allevyn), change q3 days or when soiled
4. Float heels with pillows or foam wedge

(3 points)

Rationale for choices:

1. Keep wound clean of debris between dressing changes
2. Protects periwound skin from maceration
3. Foam dressing will protect the heels from pressure and absorb any exudate
4. Floating heels will protect then from further damage from pressure and allow the wound to heal by providing adequate blood supply

(3 points)

1 alternative primary/secondary dressing

Hydrocolloid (Duoderm), change q3 days

(1 point)

/8 points

Scenario 6

82-year-old arrives to the acute care setting with a pressure injury on the right ischium. Patient has been cared for at home by spouse and spends many hours per day in a wheelchair.
The wound measures approximately 6 cm x 8cm x 2 cm. Wound bed 80% pink tissue with bone visible. Small amount of tan drainage noted with assessment. Periwound intact.

Image courtesy of Wound, Ostomy and Continence Nurses Society image library.

Wound type:
Stage 4 Pressure injury
(1 point)

Wound Nurse recommendations/orders:

1. Cleanse wound with wound cleanser or normal saline
2. Obtain wound culture using Levine method (rotate swab while applying pressure in a 1cm area)
3. Apply contact layer (Mepitel Ag Antimicrobial contact layer)
4. Apply Methylene Blue and Gentian Violet foam dressing (Hydrofera Blue), change q3 days or when foam changes color to a lighter blue or white
5. Apply cover dressing (Allevyn), change q3 days or when soiled
6. Q2 turns from supine to left, keeping patient off the wound

(3 points)

Rationale for choices:

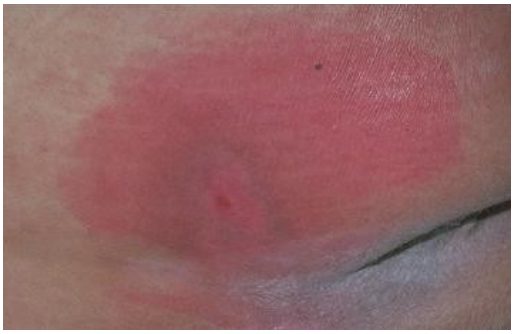
1. Clean wound of debris
2. Tan drainage may be an indication of infection
3. Contact layer will protect the wound surface since bone is visible
4. Hydrofera blue is an antibacterial dressing if the wound is infected
5. Cover dressing will keep Hydrofera Blue in place and absorb any exudate
6. Q2 turns will off load pressure from the wound allowing it to heal

(3 points)

1 alternative primary/secondary dressing:
MediHoney wound paste to fill wound, Cover transparent dressing (Tegaderm)
(1 point)

/8 points

Scenario 7



The wound care nurse is consulted to see a 66-year-old who developed non-blanchable erythema on right sacrum after being on bedrest for the past 24 hours.

Image courtesy of Judy Mosier, MSN, RN, CWOCN.

Wound type:
Stage 1 Pressure Injury
(1 point)

Wound Nurse recommendations/orders:

1. Keep area clean and dry using dimethicone wipes
2. Q2 hr turns; keeping patient off the right sacrum
3. Monitor pressure injury and alert wound care nurse if it worsens

(3 points)

Rationale for choices:

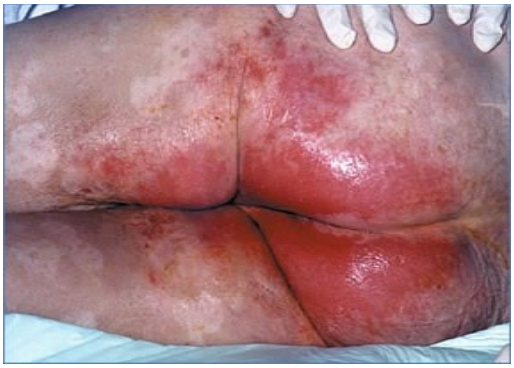
1. Moisture can contribute to developing a pressure injury so it is important to keep the area clean and dry; the dimethicone wipes will cleanse, moisturize, and protect the skin
2. Off loading pressure from the area will allow it to heal
3. If it develops into a stage 2 pressure injury then the plan will need to be revised

(3 points)

1 alternative primary/secondary dressing
Foam dressing (Allevyn) to protect the area from pressure
(1 point)

/8 points

Scenario 8



Wound care nurse consulted to see a 56-year-old with a "sore bottom". Patient has been at your facility for 2 weeks with diagnosis of C-Diff. Today you have been consulted for a treatment plan for damaged skin.

Image courtesy of Wound, Ostomy and Continence Nurses Society image library.

Wound type:
Incontinence-Associated Dermatitis
(1 point)

Wound Nurse recommendations/orders:

1. Cleanse wound with normal saline, pat dry, do not rub
2. Apply external fecal pouching system using stoma powder and no sting barrier spray to perianal skin, change q24hrs or if leaking
3. Apply marathon no sting cyanoacrylate skin protectant to damaged skin q3 days
4. Patient should take full course of antibiotics
5. Make sure isolation protocols and contact precautions are in place

(3 points)

Rationale for choices:

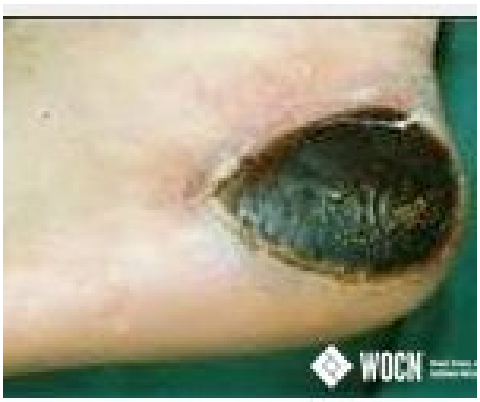
1. Rubbing will create friction and may worsen the wound
2. Pouching system will divert stool away from the wound and will contain it to prevent spreading of infection
3. Cyanoacrylate skin protectant is a film-forming liquid skin protectant that can attach to wet surfaces
4. Since patient has a c-diff infection he should be on a course of antibiotics
5. C-diff is contagious and precautions should be in place to prevent the spread of the disease

(3 points)

1 alternative primary/secondary dressing:
If external pouching system is not working then another fecal management device can be used such as Dignishield; use another skin protectant such as zinc oxide paste skin protectant (Medline Remedy)
(1 point)

/8 points

Scenario 9



An 85-year-old presents to acute care with dry black eschar on left posterior heel. Cared for at home by elderly spouse, he has been bedridden for the past 6 months. The wound measures approximately 6 cm x 10cm x 0 cm. Wound edges are dry and periwound has no erythema.

Image courtesy of Wound, Ostomy and Continence Nurses Society image library.

Wound type:
Unstageable Pressure Injury
(1 point)

Wound Nurse recommendations/orders:
1. Apply povidone-Iodine to eschar
2. Off load heels using a pillow or wedge
3. Monitor wound daily for signs of infection and notify wound care nurse of any changes to the wound

(3 points)

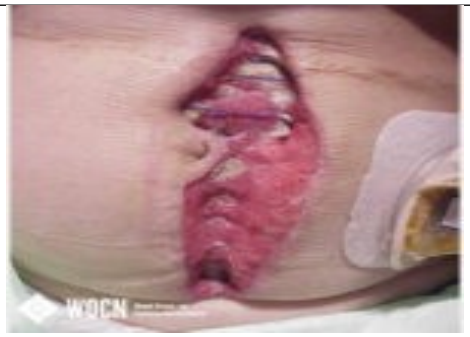
Rationale for choices:
1. Since there are no signs of infection leave the eschar in place to act as a natural band aid
2. Floating heels will protect them from further damage from pressure and allow the wound to heal by providing adequate blood supply
3. If the wound develops signs of infection, then debridement may be considered

(3 points)

1 alternative primary/secondary dressing:
Foam dressing (Allevyn) to protect the heel from pressure
(1 points)

/8 points

Scenario 10



Wound care nurse is consulted to see a 74-year-old for an abdominal wound several days post-surgery for ischemic bowel. Wound measures approximately 10 cm x 4 cm x 3 cm with visible sutures. Wound bed dry, pink with small areas of yellow tissue (less than 10% of wound base). Periwound skin intact. NPWT at 100 mm HG, continuous ordered with change M, W, F.

Image courtesy of Wound, Ostomy and Continence Nurses Society image library.

Wound type:

Wound dehiscence

(1 point)

Wound Nurse recommendations/orders:

1. Cleanse wound with normal saline
2. Apply no sting barrier skin prep (Cavilon) to periwound, allow to dry
3. Apply transparent film to periwound
4. Apply contact layer (Mepitel) to wound bed
5. Fill wound bed with black NPWT foam
6. Apply NPWT drape over foam, make slit into drape, and connect NPWT button
7. Set pressure setting to 100 mmHG, continuous
8. Change first dressing within 48 hours, then every M, W, F
9. If suction is interrupted for more than 2 hours then a new NPWT dressing will need to be applied

(3 points)

Rationale for choices:

1. Keep wound clean of debris between dressing changes
2. Protect periwound skin from maceration
3. Transparent film will keep foam from touching periwound skin
4. Contact layer will protect wound base as it appears to be deep
5. Black foam will aid in wound healing by promoting closure of the wound
6. There should be no air leaks in order for the NPWT machine to work correctly
7. A pressure setting of 100 mmHG was ordered in scenario, may be due to exposed tissues
8. 1st dressing should be changed within 48hr and then 3 times a week after that
9. Leaving the dressing on for more than 2hrs without suction can increase the risk of infection

(3 points)

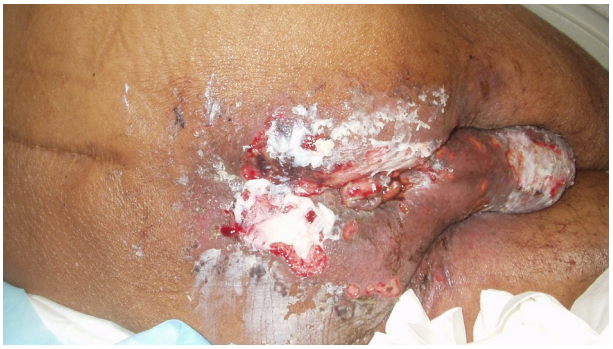
1 alternative primary/secondary dressing:

White foam NPWT dressing

(1 point)

/8 points

Scenario 11



Wound care nurse consulted to see a 45-year-old with a "sore bottom". Patient has been at your facility for 2 weeks with diagnosis of C-Diff. Today you have been consulted for a treatment plan for damaged skin.

Image courtesy of Wound, Ostomy and Continence Nurses Society image library.

Wound type:
Herpes Simplex Virus
(1 point)

Wound Nurse recommendations/orders:

1. Use mineral oil to clean off paste
2. Cleanse wound with normal saline
3. Apply Hydrocolloid dressing (Duoderm) to the larger coccyx lesion, change q3 days or when soiled
4. Apply CeraVe Healing Ointment to the smaller lesions BID
5. Make sure patient is receiving antiviral medication

(3 points)

Rationale for choices:

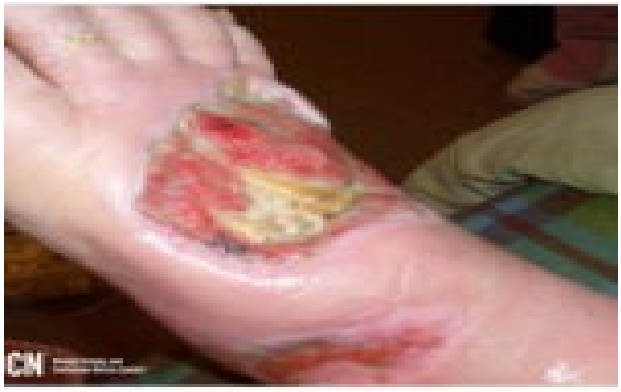
1. Paste is difficult to remove with just bath wipes or soap and water
2. Keep wound clean of debris
3. Hydrogel will maintain a moist environment if the wound is dry
4. Ointment will maintain a moist environment if the wound is dry
5. Antiviral medication should be started if this is Herpes Simplex Virus

(3 points)

1 alternative primary/secondary dressing:
If patient also has c-diff a fecal containment system may also be needed depending on the severity. Instead of CeraVe, Manuka Honey wound gel could also be used
(1 point)

/8 points

Scenario 13



A 75-year-old is admitted to acute care setting from home with pneumonia. They have a history of Raynaud Disease and Diabetes Mellitus. Has been seen at an outpatient wound clinic but is uncertain what the treatment plan is and you have no access to those medical records.
Open wound on dorsum of foot with exposed tendon. Measures approximately 8 cm x 12 cm x 0.2 cm. Wound bed 60% pink tissue and 40% yellow/black, brown tissue. Scant amount of tan drainage. Periwound intact with epibole.
Image courtesy of Wound, Ostomy and Continence Nurses Society image library.

Wound type:
Neuropathic ulcer
(1 point)

Wound Nurse recommendations/orders:

1. Cleanse wound with normal saline
2. Obtain wound culture using Levine method (rotate swab while applying pressure in a 1cm area)
3. Apply no sting barrier skin prep (Cavilon) to periwound, allow to dry
4. Apply contact layer (Mepitel Ag Antimicrobial contact layer)
5. Apply Methylene Blue and Gentian Violet foam dressing (Hydrofera Blue), change q3 days or when foam changes color to a lighter blue or white
6. Cover with transparent dressing (Tegaderm), change q3 days

(3 points)

Rationale for choices:

1. Clean wound of debris
2. Tan drainage and epibole may be an indication of infection
3. Protect wound edges
4. Contact layer will protect the wound bed since tendons is visible
5. Hydrofera blue is an antibacterial dressing if the wound is infected and can flatten epibole
6. Cover dressing will keep Hydrofera Blue in place and transparency will allow for visualization

(3 points)

1 alternative primary/secondary dressing:
Use silver nitrate epibole; Use MediHoney wound paste to fill wound, Tegaderm to cover
(1 point)

/8 points