R. B. Turnbull Jr. MD WOC Nursing Education Program

Mini Case Scenarios: Wounds

Cleveland Clinic

Student Name ___Regina Averyanova_____ **Date:** 09/02/2025_____

Reviewed by: _____ **Date:** _____

Score: /83

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 *(be specific as to schedule, turning surfaces if applicable, product, etc.)*
    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.
6. *No advanced dressings such as NPWT or CAMPs (formerly called cellular tissue products) unless specifically requested. What would you use if these two dressing types are not available to you?
7. Throughout this assignment you will be applying evidence to treat various wound scenarios. As appropriate, if you use a reference, make sure to cite it correctly.
8. Include at least 3 references *(other than your text book)* used to back your actions at the end of the assignment that assisted you in this assignment. Make sure to use 7th edition APA formatting.

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

Example Scenario

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

(2 points)

Identify 1 alternative primary/secondary dressing from a different dressing category. Write as a nursing order. Non-adhesive foam dressing, 5 layers, (Allevyn) secured with elastic mesh dressing (Medline elastic retention dressing). Change q3d and PRN
(2 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. No exudate noted. 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 (due to 100 % yellow slough covering the wound base and not allowing to assess the true depth/extend of the tissue damage).
(1 point)

Wound Nurse recommendations/orders:

1. Provide pain management as ordered
2. Surgical consult/debridement with possible antibiotic therapy
3. Clean the wound with the normal saline, gently pat dry. Apply 2mm thick application of collagenase (Santyl) to the wound. Pack lightly with gauze dressing that is moistened in normal saline. Cover with the foam dressing (Medline Optifoam) (Ramundo, 2022, p. 177). Change the dressing daily or PRN when soiled.
4. Gently clean the periwound skin with water, pat dry, and apply moisture barrier ointment with zinc (Medline Remedy) to the periwound skin twice daily and PRN.
5. Reposition/offload to decrease the pressure every two hours (Ratliff, 2020, p. 1138)
6. When appropriate maintain head of bead at thirty degrees or less to relieve the pressure (Ratliff, 2020, p. 1138)
7. Provide incontinence care every 2 hours
8. Maintain low air loss with alternating pressure supportive surface
9. Perform complete skin assessment twice daily
10. Consult registered dietician

(3 points)

Rationale for choices:

1. Lack of adequate pain control can cause detrimental effects for overall health of individual including depression, anxiety, stress, limited mobility, and significant costs to healthcare system (Allen, 2023, p. 478).
2. Necrotic tissue poses a risk for infection and results in poor/stalled wound healing (Ramundo, 2022, p. 173). Debridement helps prepare the wound bed for healing. It allows for visualization of the wound bed and properly stage the wound (Ramundo, 2022, p. 173). Debridement lowers the risk of infection (Ramundo, 2022, p. 173).
3. Enzymatic debridement can be an additional or alternative option in this scenario. It is important to use appropriate cleanser when using enzymatic debridement, such as collagenase. Normal saline will not deactivate the enzymatic activity, and it is safe to use with collagenase (Ramundo, 2022, p. 177).

4. Periwound skin has blanchable erythema, it is crucial to control moisture by providing regular incontinence care and by using the moisture barrier products to prevent further skin breakdown (Ratliff, 2020, p. 1138)
5. Regular repositioning of the patient can help reduce the risk of further skin breakdown and protect the skin over the bony prominences from the exerted pressure (Ratliff, 2020, p. 1138)
6. Lowering head of bead to thirty degrees or less (when appropriate) can help lower the chance of patient sliding down, which consequently lowers the risk of friction and shearing (Ratliff, 2020, p. 1138).
7. Prompt incontinence care can prevent skin breakdown that is associated with incontinence associated dermatitis and further complications, such as infection and/or pressure injury formation (Thayer & Nix, 2022, p. 358).
8. Appropriate mattresses can help with the pressure redistribution and moisture control (Ratliff, 2020, p. 1138). Low air loss provides microclimate control and alternating pressure provides pressure redistribution properties (Mackey & Watts, 2022, p. 434).
9. Regular skin assessment and documentation can help identify new issues and it can help monitor healing process.
10. Provides holistic care and helps provide optimal nutrition while considering patient's abilities and needs with the goal of facilitating wound healing (Doenges et al., 2019, p. 770).

(2 points)

Identify 1 alternative primary/secondary dressing from a different dressing category. Write as a nursing order.

Moisten gauze with sodium hypochlorite solution (Dakin). Lightly pack it into the wound and cover with the transparent film dressing (Tegaderm). Change q12 hours and PRN.

(2 points)

/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. Offload heels and reposition every 2 hours. Raise heels off the bed, "float."
2. Maintain alternating pressure redistributing surface
3. Provide pain management as ordered
4. Apply TruVue heel protector boot to b/l feet
5. Avoid friction and shear by lifting patient instead of pulling them.
6. Apply silicone foam dressing (Medline Optifoam Gentle) to bony prominences once a week
7. Wear long-sleeved shirt (if appropriate) and socks
8. Consult dietician
9. Consult vascular specialist/surgeon to consider vascular assessment of the lower extremities
10. Consult physical therapy

(3 points)

Rationale for choices:

1. Continually exerted pressure causes occlusion of blood vessels, lymph vessels, and tissue ischemia. Offloading and regular repositioning can help improve tissue oxygenation, perfusion, and cellular waste removal through lymph vessels (Edsberg, 2022, p. 378).
2. Appropriate mattresses can help with the pressure redistribution and moisture control (Ratliff, 2020, p. 1138).
3. Pressure injuries can cause significant pain to the patient, and pain can cause blood vessel constriction that can further impede wound healing (Ratliff, 2020, p. 1138).
4. Heels are common site of pressure injury and must be protected. TruVue boot is a heel suspension boot that provides pressure redistribution qualities (Borchert, 2022, p. 409).
5. Friction and shear compromise blood flow by exerting force, trauma, pressure, and stretching on the blood vessels (Edsberg, 2022, p. 377). That is why it is important to utilize additional supplies when lifting patients, such as draw sheets. Also, it is important to incorporate frequent repositioning,

decreasing head of bed to thirty degrees or less

6. Silicone foam dressing on bony prominences, socks, and long sleeve shirts might help prevent skin damage from friction (Borchert, 2022, p. 410).
7. Long sleeve shirt and socks can provide additional protection from friction.
8. Adequate nutrition promotes collagen formation, tissue repair, wound healing, and immune support, and registered dietician can evaluate the patient for dietary deficiency (Berlowitz, 2023). This also provides holistic care and helps provide optimal nutrition while considering patient's abilities and needs with the goal of facilitating wound healing (Doenges et al., 2019, p. 770).
9. Foot has limited muscle and subcutaneous tissue, and that is why heel is at risk of pressure injury formation. Patients with pressure injuries in their feet need to be evaluated for lower extremity arterial disease as the possible cause of the injury (Bonham, 2022, p. 499)
10. Physical therapy provides rehabilitation services to the patient which helps improve/maximize functional status of a patient (Ratliff, 2020, p. 1139).

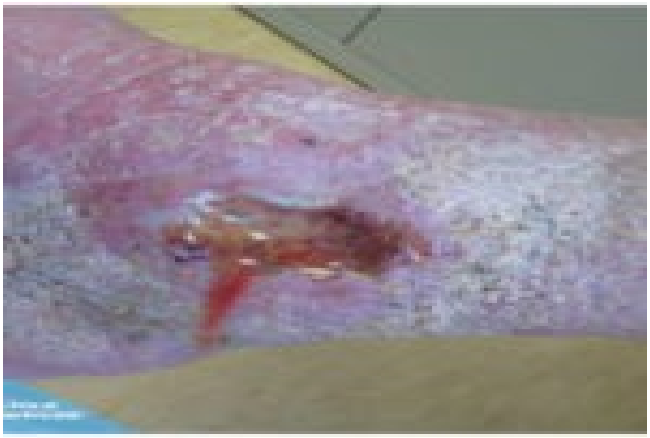
(2 points)

Identify 1 alternative primary/secondary dressing from a different dressing category. Write as a nursing order.

Apply a Cavilon skin barrier film to the left heel every 12 hours.

(2 points)

/8 points



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:

Lower extremity venous ulcer

(1 point)

Wound Nurse recommendations/orders:

1. Provide pain management as ordered.
2. Gently cleanse the wound and periwound skin with pH balanced wound cleanser and pat dry. Apply alginate dressing (Tegaderm) cut to fit to the wound and cover with secondary foam dressing (Medline Optifoam) daily and PRN.
3. Protect the periwound skin with the petrolatum twice daily and PRN
4. Apply modified compression during the day (multicomponent wraps) (don in the morning, doff in the evening)
5. Elevate lower extremities above the level of the heart for thirty minutes four times a day if edema is present
6. Provide education on daily feet inspection, proper shoes, overall foot care, and injury prevention (McNichol et al., 2022, p. 452).
7. Consult registered dietician
8. Consult physical therapy
9. Follow up with the social worker on home health care services.
10. Consult vascular specialist to consider vascular assessment of the lower extremities

(3 points)

Rationale for choices:

1. Lack of adequate pain control can cause detrimental effects for overall health of individual including depression, anxiety, stress, limited mobility, and significant costs to healthcare system (Allen, 2023, p. 478).
2. It is important to provide regular wound care to prevent worsening of the wound and infection. Alginate dressing is highly absorptive and an appropriate choice for moderate amount of exudate (Jaszarowski & Murphree, 2022, p. 163). Also, foam dressing would provide additional absorption of exudate, and it can be used as a secondary dressing (Jaszarowski & Murphree, 2022, p. 164).
3. Periwound skin is macerated and is susceptible to further tissue damage, it is important to protect the perwound skin from further damage.
4. Compression and elevation are the recommended treatment option for a venous ulcer; however, it is important to take into consideration ABI data. When ABI is less than 0.8 but greater than 0.5

compression must be applied lightly, at 23 to 30 mm Hg (McNichol et al., 2022, p. 452). Additionally, this patient has an ulcer, and multicomponent wraps can be appropriate (Kelechi et al., 2022, p. 465).

5. Leg elevation improves venous return, thus decreases swelling, and it is a recommended guideline in the treatment of lower extremity venous disease (LEVD) (Kelechi et al., 2022, p. 466).
6. Education is a primary prevention strategy.
7. Adequate nutrition promotes collagen formation, tissue repair, wound healing, and immune support, and registered dietician can evaluate the patient for dietary deficiency (Berlowitz, 2023). This also provides holistic care and helps provide optimal nutrition while considering patient's abilities and needs with the goal of facilitating wound healing (Doenges et al., 2019, p. 770).
8. Physical therapy can help patient select appropriate exercise therapy, such as calf muscle exercises, which can be beneficial in preventing further ulcer formations (Kelechi et al., 2022, p. 462).
9. This is an elderly patient who might benefit from home health services for wound care, ambulation, activities of daily living, medication administration, etc.
10. If indicated, vascular surgery can repair valve dysfunction in lower extremity, which might prevent further formation of LE ulcers (Kelechi et al., 2022, p. 469).

(2 points)

Identify 1 alternative primary/secondary dressing from a different dressing category. Write as a nursing order.

Apply ABD dressing to the ulcer and secure with the gauze dressing (Kerlix) BID and PRN. Protect periwound skin with the zinc containing moisture barrier (Medline Remedy).

(2 points)

/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 exudate. NPWT is *not* available at this time.

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

Wound type:
Stage 3 pressure injury
(1 point)

Wound Nurse recommendations/orders:

1. Pre-medicate the patient to provide adequate pain management.
2. Clean the wound with normal saline and pat dry. Apply alginate dressing with silver (Medline Maxorb II Ag) and cover with foam dressing (Medline Optifoam Gentle). Change daily and PRN.
3. Cleanse the periwound skin with pH balanced cleanser, avoid rubbing and gently pat dry. Apply the moisture barrier cream with zinc (Medline Remedy) to the periwound area including buttocks twice daily and PRN.
4. Reposition patient every two hours
5. Utilize low air loss with alternating pressure redistributing surface
6. Utilize a full reactive air chair cushion (a waffle cushion) when out of bed. Out of bed to chair no longer than two to four hours a day.
7. Check for any incontinence episode every two hours and provide incontinence care
8. Perform complete skin assessment twice daily
9. Monitor patient for signs and symptoms of infection (local or systemic) every shift.
10. Surgical consult for possible debridement
11. Consult registered dietician
12. Consult physical therapy for a range of motion exercises

(3 points)

Rationale for choices:

1. Lack of adequate pain control can cause detrimental effects for overall health of individual including depression, anxiety, stress, limited mobility, and significant costs to healthcare system (Allen, 2023, p. 478).
2. Wound in this scenario has moderate serosanguineous exudate, and alginate dressing absorb moderate amount of exudate and when combined with the foam dressing, they can maintain moisture balance in the wound. Gel formation in alginate dressing can help in autolytic debridement of slough (Jaszarowski & Murphree, 2022, p. 163). We need more information on this wound, but yellow slough increases patient's chances of infection, and that is why alginate with antimicrobial silver was selected.

3. This patient is bedridden and possibly incontinent, it is crucial to control moisture by providing regular incontinence care and by using the moisture barrier products to prevent further skin breakdown (Ratliff, 2020, p. 1138).
4. Continually exerted pressure causes occlusion of blood vessels, lymph vessels, and tissue ischemia. Offloading and regular repositioning can help improve tissue oxygenation, perfusion, and cellular waste removal through lymph vessels (Edsberg, 2022, p. 378).
5. Appropriate mattresses can help with the pressure redistribution and moisture control (Ratliff, 2020, p. 1138). Low air loss provides microclimate control and alternating pressure provides pressure redistribution properties (Mackey & Watts, 2022, p. 434). Utilizing pressure redistributing surfaces can help provide comprehensive pressure injury prevention; however, it is not a sole component of the prevention plan and should be utilized in combination with other strategies (Mackey & Watts, 2022, p. 427).
6. Pressure redistributing cushions can help relieve the pressure; however, patient with sacral wounds should refrain from being in a sitting position for a long time (Mackey & Watts, 2022, p. 433).
7. Prompt incontinence care can prevent skin breakdown that is associated with incontinence associated dermatitis and further complications, such as infection and/or pressure injury formation (Thayer & Nix, 2022, p. 358).
8. Regular skin assessment and documentation can help identify new issues and it can help monitor healing process.
9. Skin serves a protective function, and when this important barrier is broken and wounds develop, this puts an individual at risk for infection. Wounds have a favorable environment for many pathogens, such as moisture, darkness, warmth, poor circulation, etc. (Weir & Schultz, 2022, p. 188). Timely identification, management, and treatment are imperative in promoting healing and overall positive outcomes for the patient (Weir & Schultz, 2022, p. 188).
10. Necrotic tissue poses a risk for infection and results in poor/stalled wound healing (Ramundo, 2022, p. 173). Debridement helps prepare the wound bed for healing. It allows for visualization of the wound bed and properly stage the wound. Debridement lowers the risk of infection (Ramundo, 2022, p. 173).
11. It is important to follow up with the dietician to ensure patient is receiving optimal nutrition and hydration that will help promote wound healing (Doenges et al., 2019, p. 770).
12. This patient is bedridden and physical therapy consult can be beneficial in selecting range of motion exercises to promote movement and improve perfusion to periphery (Ratliff, 2020, p. 1139).

(2 points)

What support surface would you recommend (1pt) and why? (1pt)

I would recommend active or alternating pressure support surface with low air loss feature. This patient is bedridden and unable to reposition frequently. Alternating pressure system is for high-risk patients, and it provides regular pressure redistribution by routinely inflating and deflating air cells. Low air loss function helps maintain skin moisture by providing regular airflow (Mackey & Watts, 2022, p. 434)

(2 points)

/8 points

Scenario 5

56-year-old alert and oriented male hospitalized for cardiac surgery. During the hospital stay, on day 2 post-op they developed painful open area to sacrum. The patient is incontinent of urine and stool and has not been repositioning in bed due to reported pain.

Image courtesy of Cleveland Clinic.

Wound type:
Stage 2 pressure injury
(1 point)

Wound Nurse recommendations/orders:

1. Assess for pain and provide pain management as ordered
2. Clean the wound with normal saline and apply hydrogel sheet dressing with adhesive to cover the sacral wound. Change the dressing daily and PRN.
3. Cleanse the periwound skin with pH balanced cleanser, avoid rubbing and gently pat dry. Apply the moisture barrier cream with zinc (Medline Remedy) to the periwound area including buttocks twice daily and PRN.
4. Reposition patient every two hours
5. Utilize low air loss with alternating pressure redistributing surface
6. Utilize a full reactive air chair cushion (a waffle cushion) when out of bed. Out of bed to chair no longer than two to four hours a day.
7. Check for any incontinence episode every two hours and provide incontinence care
8. Perform complete skin assessment twice daily.
9. Consult registered dietician
10. Consult physical therapy to assess activity tolerance, ambulation, and the need for any support equipment (walker, cane, etc.)
11. Educate the patient on the importance of timely pain management, proper nutrition, repositioning, and ambulation in overall recovery after cardiac surgery

(3 points)

Rationale for choices:

1. Lack of adequate pain control can cause detrimental effects for overall health of individual including depression, anxiety, stress, limited mobility, and significant costs to healthcare system (Allen, 2023, p. 478). In this scenario, lack of proper pain control prevented patient from timely repositioning and possible incontinence care, which contributed to skin breakdown.
2. Hydrogel dressing provides moisture to the dry wounds or wounds with minimal exudates, and this dressing can help relieve pain due to it's cooling properties (Jaszarowski & Murphree, 2022, p. 166). Even though it is not specified in this scenario, I would assume this wound has no or very minimal exudate.

3. This patient is incontinent of urine and stool, it is crucial to control moisture by providing regular incontinence care and by using the moisture barrier products to prevent further skin breakdown (Ratliff, 2020, p. 1138).
4. Continually exerted pressure causes occlusion of blood vessels, lymph vessels, and tissue ischemia. Offloading and regular repositioning can help improve tissue oxygenation, perfusion, and cellular waste removal through lymph vessels (Edsberg, 2022, p. 378).
5. Appropriate mattresses can help with the pressure redistribution and moisture control (Ratliff, 2020, p. 1138). Low air loss provides microclimate control and alternating pressure provides pressure redistribution properties (Mackey & Watts, 2022, p. 434). Utilizing pressure redistributing surfaces can help provide comprehensive pressure injury prevention; however, it is not a sole component of the prevention plan and should be utilized in combination with other strategies (Mackey & Watts, 2022, p. 427).
6. Pressure redistributing cushions can help relieve the pressure; however, patient with sacral wounds should refrain from being in a sitting position for a long time (Mackey & Watts, 2022, p. 433).
7. Prompt incontinence care can prevent skin breakdown that is associated with incontinence associated dermatitis and further complications, such as infection and/or pressure injury formation (Thayer & Nix, 2022, p. 358).
8. Regular skin assessment and documentation can help identify new issues and it can help monitor healing process.
9. It is important to follow up with the dietician to ensure patient is receiving optimal nutrition, which includes adequate protein, calorie, and vitamin intakes, as well as hydration that will help promote wound healing (Krapfl & Peirce, 2022, p. 96).
10. Mobility and ambulation has many important benefits, such as improved circulation, oxygenation, gastrointestinal functioning, and DVT prevention (Reinholdt, 2020, p. 334). Additionally, it can help in relieving pain, promote comfort, and reduce anxiety (Reinholdt, 2020, p. 335).
11. It is important to involve patient in their care, understand their goals, and possible barriers. Education can help patient make informed decisions and can help them actively participate in their care (Reinholdr, 2023, p. 335).

(2 points)

Identify 1 alternative primary/secondary dressing from a different dressing category. Write as a nursing order.

Apply foam dressing (Medline Optifoam) to cover the sacral wound. Change dressing daily and PRN

(2 points)

/8 points

Scenario 6

The wound care nurse is consulted to the intensive care unit to see a non-verbal 57-year old male respiratory failure patient for a new wound found under the patient's pulse oximeter during routine care. The patient has been admitted to the hospital for 14 days and has no previously documented wounds.

Image courtesy of CCF.

Wound type:
Medical device related stage 4 pressure injury
(1 point)

Wound Nurse recommendations/orders:

1. Use visual analog scale or Wong-Baker FACES tool to address the pain and provide pain management. Also, FLACC pain scale can be used when adults have difficulties seeing.
2. Remove the pulse oximeter from the affected area and do not reapply it on the affected ear. Use an alternate site for a pulse oximeter, such as finger or forehead.
3. Check the skin under the pulse oximeter every two hours and rotate if redness is present.
4. Apply a silicone film under the pulse oximeter probe to relieve the pressure
5. Gently cleanse the wound with normal saline. Apply a layer of hydrogel (amorphous) into the wound bed and cover with the transparent film dressing change daily and PRN
6. Reposition patient every two hours
7. Perform complete skin check twice a day
8. Consult registered dietician.

(3 points)

Rationale for choices:

1. Assessment of pain can help provide comfort to the patient, relieve anxiety, and identify the source of pain. Patient in this scenario is non-verbal, and visual pain scale can be utilized in providing adequate and timely pain control (Lessans, 2020, p. 186). There are other tools that can be used in identifying presence of pain in individuals who cannot communicate or have difficulties seeing, such as FLACC pain scale.
2. Ears are one of the common sites of pressure injuries formation related to medical devices in critical care patients (Borchert, 2022, p. 413). Removing pulse oximeter from the affected site/location is one of the key prevention strategies (Borchert, 2022, p. 413).
3. It is important to be proactive and maintain pressure injury prevention strategies.

4. Prophylactic dressing can help relieve the pressure under medical device (Borchert, 2022, p. 413).
5. Hydrogel dressing provides moisture to the dry wounds or wounds with minimal exudates, and this dressing can help relieve pain due to it's cooling properties (Jaszarowski & Murphree, 2022, p. 166). Transparent film dressing serves as a securement dressing and it provides moisture retention, which can help in controlling moisture balance and facilitating healing (Jaszarowski & Murphree, 2022, p. 167).
6. Even though this wounds related to a medical device, this patient is in ICU with the respiratory failure and he is at risk of developing pressure injuries. It is important to be proactive and provide routine repositioning.
7. Regular skin assessment and documentation can help identify new issues and it can help monitor healing process.
8. Consulting a registered dietician can help select adequate nutrition for the patient. One of the important comprehensive components of wound healing is optimal nutrition, which includes proteins, vitamins, minerals, calories, and hydration (Ratliff, 2020, p. 1138).

(2 points)

Identify 1 alternative primary/secondary dressing from a different dressing category. Write as a nursing order.

Clean the wound with normal saline and cover with the foam dressing (Medline Optifoam)

(2 points)

/8 points

Scenario 7

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. *Do not remove dry/stable eschar*
2. Provide pain management as ordered
3. Offload heels from the bed surface, make them "float."
4. Apply the TruVue heel protecting boot to b/l feet
5. Reposition patient every 2 hours
6. Provide alternating pressure redistributing surface
7. Monitor for signs of infection around the site of pressure injury (warmth, swelling, foul smell, redness, purulent discharge)
8. Consult with dietician
9. Consult with vascular specialist/surgeon
10. Consult physical therapy
11. Consult a social worker

(3 points)

Rationale for choices:

1. Dry/stable eschar that is intact, not boggy, without drainage, or erythema should not be removed because it serves as a protective bandage from the infection (Ratliff, 2020, p. 1130).
2. Lack of adequate pain control can cause detrimental effects for overall health of individual including depression, anxiety, stress, limited mobility, and significant costs to healthcare system (Allen, 2023, p. 478). Pressure that is exerted on the surrounding tissues and edema may cause significant pain and discomfort to affected individuals (Ratliff, 2020, 1138).
3. Continually exerted pressure causes occlusion of blood vessels, lymph vessels, and tissue ischemia. Offloading and regular repositioning can help improve tissue oxygenation, perfusion, and cellular waste removal through lymph vessels (Edsberg, 2022, p. 378).
4. Heels are common site of pressure injury and must be protected. TruVue boot is a heel suspension boot that provides pressure redistribution qualities (Borchert, 2022, p. 409).
5. Repositioning is an important intervention in bedridden patients because it relieves pressure over the

bony prominences; it can take anywhere from two to six hours to develop a skin breakdown due to continuously exerted pressure (Ratliff, 2020, p. 1138)

6. Appropriate mattresses can help with the pressure redistribution and moisture control (Ratliff, 2020, p. 1138). Alternating pressure provides pressure redistribution properties (Mackey & Watts, 2022, p. 434).
7. Infection can cause severe complications and delays wound healing (Ratliff, 2020, p. 1139).
8. Adequate nutrition promotes collagen formation, tissue repair, wound healing, and immune support, and registered dietician can evaluate the patient for dietary deficiency (Berlowitz, 2023). This also provides holistic care and helps provide optimal nutrition while considering patient's abilities and needs with the goal of facilitating wound healing (Doenges et al., 2019, p. 770).
9. Foot has limited muscle and subcutaneous tissue, and that is why heel is at risk of pressure injury formation. Patients with pressure injuries in their feet need to be evaluated for lower extremity arterial disease as the possible cause of the injury (Bonham, 2022, p. 499)
10. Physical therapy provides rehabilitation services to the patient which helps improve/maximize functional status of a patient (Ratliff, 2020, p. 1139).
11. Family can experience stress and tension when caring for a person with chronic health problems and affected individual can experience depression and decrease quality of life (Ratliff, 2020, p. 1139). Social worker can provide resources for a patient and their family.

(2 points)

Identify 1 alternative primary/secondary dressing from a different dressing category. Write as a nursing order.

Cover the left posterior heel with the dry gauze dressing weekly and PRN. Reassess the wound and the dressing every shift.

It is important to keep stable eschar dry, and not to remove it or soften it because it can increase risk of infection (Ratliff, 2020, p. 1130).

(2 points)

/8 points

Scenario 8

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. <u>NPWT ordered by physician who has requested WOC nurse input into dressing instructions and pressure settings</u>

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

Wound type:

Full thickness abdominal wound dehiscence

(1 point)

Wound Nurse recommendations/orders:

Ideally, NPWT should not be used in the area of enterotomy closure

If surgeon requests NPWT specifically:

1. Provide pain management as ordered before the wound care
2. Gently clean the wound with normal saline and pat dry.
3. Cleanse the periwound skin with pH balanced cleanser, avoid rubbing and gently pat dry.
4. Apply no-sting skin sealant (Cavilon) to the wound edges and apply transparent film dressing to the wound edges.
5. Apply silicone contact layer to the wound bed
6. Pre-cut the black foam piece to the desired size and pack lightly into wound bed. Document how many pieces of black foam is packed inside the wound.
7. Secure the foam with the transparent film dressing
8. Apply the TRAC pad
9. Start and maintain NPWT suctioning at -25 mmHg low continuous
10. Change NPWT three times a week on Monday, Wednesday, and Friday
11. Apply abdominal binder as instructed
12. Maintain adequate glycemic control and treat elevated blood glucose as ordered (if applicable)
13. Perform complete skin assessment twice daily
14. Provide alternating pressure redistributing surface bed
15. Consult dietician for optimized nutrition plan to promote wound healing
16. Continue taking medications, such as antibiotics as ordered to manage comorbidities.
17. Follow up with the primary care provider, gastroenterologist, surgeon, wound care nurse, and physical therapist

(3 points)

Rationale for choices:

1. Lack of adequate pain control can cause detrimental effects for overall health of individual including depression, anxiety, stress, limited mobility, and significant costs to healthcare system (Allen, 2023, p. 478). Pressure that is exerted on the surrounding tissues, edema, and exposed nerves may cause significant pain and discomfort to affected individuals (Ratliff, 2020, 1138).
2. Normal saline is a widely available solution and safe because it is not toxic to the cells (Jaszarowski & Murphree, 2022, p. 160). Cleansing wounds decreases risk of infection. Aseptic technique must be maintained.

3. It is important to refrain from rubbing skin to minimize friction and skin breakdown.
4. Skin barrier sealant and transparent film dressing can help protect the periwound skin.
5. Contact layer must be used because it can help prevent trauma to the exposed tissues/organs and it can minimize pain when removing the dressing (Brindle & Creehan, 2022, p. 756). Silicone contact layers are durable and gentle, and they maintain their function (Brindle & Creehan, 2022, p. 756).
6. NPWT foam can increase the formation of granulation tissue (Netsch, 2022, p. 226). It is important not to overpack the wound with the foam because it can increase the damage to the tissues, delay wound healing, and cause complications. Also, it is important to document the amount of black foam used to avoid leaving the pieces inside, which can cause infection and severe complications.
7. Transparent film dressing is an appropriate choice of a secondary dressing for NPWT.
8. TRAC pad is an important element of NPWT because it connects the dressing to the pump.
9. Negative suction at the low settings, such as -25 mmHG can help avoid trauma and further complications to the enterotomy closure site (Brindle & Creehan, 2022, p. 756).
10. NPWT dressing change usually is done every two to three days (Netsch, 2022, p. 226).
11. Abdominal binder can help relieve the tension at the suture site and can also help manage pain (Gallagher, 2022, p 286). For abdominal binder to be effective, it must be sized appropriately, and this could help prevent complications, such as compartment syndrome, breathing difficulties, increased pressure in the abdomen and others (Gallagher, 2022, p. 286).
12. Inadequate glycemic control can impair wound healing and can even increase risk for wound infection (Friedrich et al., 2022, p. 131).
13. Regular skin assessment and documentation can help identify new issues and it can help monitor healing process.
14. Appropriate mattresses can help with the pressure redistribution and moisture control (Ratliff, 2020, p. 1138). Alternating pressure provides pressure redistribution properties (Mackey & Watts, 2022, p. 434).
15. Adequate nutrition promotes collagen formation, tissue repair, wound healing, and immune support, and registered dietician can evaluate the patient for dietary deficiency (Berlowitz, 2023). This also provides holistic care and helps provide optimal nutrition while considering patient's abilities and needs with the goal of facilitating wound healing (Doenges et al., 2019, p. 770).
16. Antibiotics might be prescribed for this patient to avoid serious complications, such as sepsis. Also, if patient has other comorbidities, it is important to provide adequate therapy, so the body has enough resources for wound healing.
17. It is important to consult and follow up with various specialists to provide holistic and comprehensive care to the patient.

(2 points)

Identify 1 alternative primary/secondary dressing from a different dressing category. Write as a nursing order.

Silicone contact layer to the wound bed. Then, hydrogel due to low exudate as a packing layer, and cover with the transparent film dressing.

(2 points)

/8 points

Scenario 9

Wound care nurse consulted to see a 45-year-old male with damaged skin. Patient has been at your facility for 2 weeks with diagnosis of C-Diff. You note some necrotic tissue in the right coccygeal area as well as painful weepy lesions across both buttocks and scrotum.

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

Wound type:
Unstageable pressure injury to the right coccygeal area r/t incontinence associated dermatitis (IAD)
(1 point)

Wound Nurse recommendations/orders:

1. Maintain strict contact precautions with the appropriate use of PPE and hand hygiene
2. Provide pain management as ordered
3. Reposition patient every two hours. Use draw sheets during repositioning.
4. Provide prompt incontinence care every two hours
5. Gently cleanse the skin with pH balanced cleanser and pat dry the skin
6. Apply moisture barrier cream with zinc (Medline Remedy) to the buttocks and perineal area three times daily and PRN
7. Provide low air loss support surface
8. Collect strict input and output
9. Insert fecal management system (Flexi-Seal) (only if indicated, this patient might not need it because it has been two weeks since he has been hospitalized with C-diff).
10. Consult dietician for optimal food intake to minimize diarrhea
11. Consult attending physician, infectious disease, and pharmacy for appropriate medication treatment of C-Diff and diarrhea that is associated with it. Provide treatment as scheduled.

(3 points)

Rationale for choices:

1. C-diff is extremely contagious, and it is important to maintain contact precaution with proper PPE and hand hygiene to prevent spread of infection.
2. Lack of adequate pain control can cause detrimental effects for overall health of individual including depression, anxiety, stress, limited mobility, and significant costs to healthcare system (Allen, 2023, p. 478).
3. Continually exerted pressure causes occlusion of blood vessels, lymph vessels, and tissue ischemia. Offloading and regular repositioning can help improve tissue oxygenation, perfusion, and cellular waste removal through lymph vessels (Edsberg, 2022, p. 378). Draw sheets can help minimize friction during

repositioning and boosting (Ratliff, 2020, 1138).

4. Prompt incontinence care can prevent skin breakdown that is associated with incontinence associated dermatitis and further complications, such as infection and/or pressure injury formation (Thayer & Nix, 2022, p. 358).
5. It is important to gently clean the skin to avoid further skin breakdown, and pH balanced cleanser is less irritating to the skin.
6. Moisture barrier creams provide protection to the skin and further complications that are associated with it, such as pressure injury (Borchert, 2022, p. 414).
7. Appropriate mattresses can help with the pressure redistribution and moisture control (Ratliff, 2020, p. 1138). Low air loss provides microclimate control (Mackey & Watts, 2022, p. 434). Utilizing pressure redistributing surfaces can help provide comprehensive pressure injury prevention; however, it is not a sole component of the prevention plan and should be utilized in combination with other strategies (Mackey & Watts, 2022, p. 427).
8. Information on intake and output can help monitor patient's hydration and prevent electrolyte imbalance
9. Fecal management system can help divert watery stool away from skin (Borchert, 2022, p. 414)
10. Adequate nutrition promotes collagen formation, tissue repair, wound healing, and immune support, and registered dietician can evaluate the patient for dietary deficiency (Berlowitz, 2023). This also provides holistic care and helps provide optimal nutrition while considering patient's abilities and needs with the goal of facilitating wound healing (Doenges et al., 2019, p. 770).
11. It is important to provide adequate treatment for the patient with C-Diff. This patient would require antibiotic treatment. Interdisciplinary approach helps provide patient centered and comprehensive care.

(2 points)

Identify 1 alternative primary/secondary dressing from a different dressing category. Write as a nursing order.

Apply "crusting" technique to the open lesions twice daily and PRN: gently clean the skin, apply Stomahesive powder, remove excess powder, and apply liquid skin barrier (Cavilon). Allow to dry for about 20 seconds. Repeat the above step to create a "crust."

(2 points)

/8 points

Scenario 10

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:
Arterial wound on dorsum of right foot or wound due to lower extremity arterial disease (LEAD)
(1 point)

Wound Nurse recommendations/orders:

1. Obtain ABI and monofilament testing on b/l LE
2. Collect wound culture
3. Complete MRI of affected extremity
4. Consult vascular surgeon for possible revascularization with surgical debridement
5. Offload heels of the bed
6. Provide pain management as ordered.
7. Clean the wound with normal saline, apply contact layer dressing with petrolatum (Xeroform) to the wound. Then, apply the hydrogel sheet dressing (McKesson) and secure with gauze roll (Kerlix). Change daily and PRN
8. Monitor blood glucose and provide treatment as ordered
9. Consult registered dietician
10. Follow diabetic diet
11. Consult pharmacy, attending provider, and cardiologist on proper dosage and selection of statins, antiplatelet, and anticoagulant therapy.
12. Educate patient on the importance to avoid cold temperatures when possible and gradually warm the hands and feet after exposure to cold temperatures.
13. Consult physical therapy and podiatrist

(3 points)

Rationale for choices:

1. ABI is a quick and inexpensive test that can help identify the presence and intensity of arterial occlusion in the legs (Mitchell, 2024). Additionally, it can help identify the risks that are associated with cardiovascular health (Mitchell, 2024). ABI can be helpful in identifying a possibility of wound healing (Mitchell, 2024). Monofilament testing can help determine whether patient has intact sensation in her feet. Sensory loss is common among patients with diabetic neuropathy, and patients with sensory loss might not feel discomfort and pain (Berlowitz, 2023).
2. Even though this wound has a scant drainage, it is tan in color, which can represent infection.

Infections in wounds with LEAD do not present in a typical way due to poor circulation, and presence of necrosis, which we see in this scenario (yellow, black, brown tissue) might indicate the presence of infection (Bonham, 2022, p. 514). Wound culture would help identify specific organisms in the wound, which could help in selecting appropriate antibiotic (Bonham, 2022, p. 514).

3. The duration of this wound is unknown. Since the wound is extensive, and probably chronic, it is important to do MRI of the affected leg to rule out osteomyelitis.
4. This patient has diabetes and Raynaud disease. Both have significant effect on blood vessels especially in extremities, which affects perfusion. The wound in this scenario has necrosis with possible infection. It is important to determine whether revascularization and debridement is an option because that would be a preferred treatment, which will help protect the affected extremity from amputation (Bonham, 2022, p. 515).
5. Offloading a heel is a pressure injury prevention strategy (Bonham, 2022, p. 515).
6. Lack of adequate pain control can cause detrimental effects for overall health of individual including depression, anxiety, stress, limited mobility, and significant costs to healthcare system (Allen, 2023, p. 478).
7. The tendon is this wound is exposed, and that is why I would first apply a contact layer to protect the tissue from further damage during dressing changes. Hydrogel dressing can be a good treatment option because this wound has minimal exudate and hydrogel will provide optimal hydration (Jaszarowski & Murphree, 2022, p. 166). Also, epiboly is present and wound care nurse might apply silver nitrate to help catheterize it, which will promote gradual wound closure.
8. Uncontrolled diabetes can impede wound healing and can cause infection, and that is why it is important to provide adequate monitoring and treatment (Friedrich et al., 2022, p. 131.
9. Provides holistic care and helps provide optimal nutrition and hydration while considering patient's abilities and needs with the goal of facilitating wound healing (Doenges et al., 2019, p. 770).
10. Following a diabetic diet will help support overall treatment plan and control blood glucose
11. Proper medication treatment can help prevent life threatening complications that are associated with LEAD, such as blood clot formation, stroke, myocardial infarction, etc. (Bonham, 2022, p. 516).
12. This patient has Reynaud disease which causes vasoconstriction and leads to poor perfusion in all extremities. This vasoconstriction is triggered by cold temperature and stress, and that is why it is important to teach patients prevention strategies (Beuscher, 2022, p. 619).
13. Physical therapy can help patient select appropriate exercise to improve walking, which can help relieve pain (Bonham, 2022, p. 519). Also, patient might need a special boot or support surface for the affected leg, and physical therapy might provide resources for the patient. Podiatrist would probably order appropriate footwear for the patient and would further guide the treatment plan. Also, this diabetic patient would benefit from routine toenail care by podiatrist.

(2 points)

Identify 1 alternative primary/secondary dressing from a different dressing category. Write as a nursing order.

Apply the contact layer first (Mepitel), then Medi honey sheet dressing, and cover with foam dressing. Change daily and PRN

(2 points)

/8 points

References (3 points)

Allen, J. A. (2023). Pain, temperature regulation, sleep, and sensory function. In J. L. Rogers & V. L. Brashers (Eds.). *McCance & Huether's pathophysiology: The biologic basis for disease in adults and children* (9th ed., pp. 474-508). Elsevier.

Berlowitz, D. (2023). *Clinical staging and general management of pressure-induced skin and soft tissue injury*. UpToDate. https://uptodate.uphs.upenn.edu/contents/clinical-staging-and-general-management-of-pressure-induced-skin-and-soft-tissue-injury?search=deep%20tissue%20pressure%20injury%20treatment&source=search_result&selectedTitle=4~150&usage_type=default&display_rank=4

Beuscher, T. (2022). Foot and nail care. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.). *Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management* (2nd ed., pp. 603-632). Wolters Kluwer.

Bonham, P. (2022). Assessment and management of patients with wounds due to lower extremity arterial disease (LEAD). In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.). *Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management* (2nd ed., pp. 493-538). Wolters Kluwer.

Borchert, K. (2022). Pressure injury prevention: Implementing and maintaining a successful plan and program. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.). *Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management* (2nd ed., pp. 396-424). Wolters Kluwer.

Doenges, M. E., Moorhouse, M. F., & Murr, A. C. (2019). Integumentary disorders: complicated or chronic wounds. In M. E. Doenges, M. F. Moorhouse, & A. C. Murr (Eds.). *Nursing care plans: Guidelines for individualizing client care across the life span* (10 ed., pp. 762-771). F. A. Davis.

Edsberg, L. (2022). Pressure and shear injuries. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.). *Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management* (2nd ed., pp. 373-395). Wolters Kluwer.

Friedrich, E., Posthauer, M. E., & Dorner, B. (2022). Nutritional strategies for wound management. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.). *Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management* (2nd ed., pp. 116-135). Wolters Kluwer.

Galagher, S. (2022). Skin and wound care for the bariatric population. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.). *Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management* (2nd ed., pp. 279-292). Wolters Kluwer.

Jaszarowski, K., & Murphree, R. W. (2022). Wound cleansing and dressing selection. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.). *Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management* (2nd ed., pp. 157-171). Wolters Kluwer.

Kelechi, T. J., Brunette, G., & Burgess, J. J. (2022). Lower extremity venous disease, venous leg ulcer, and lymphedema. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.). *Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management* (2nd ed., pp. 455-492). Wolters Kluwer.

Krapfl, L. A., & Peirce, B. F. (2022). General principles of wound management: goal setting and systemic support. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.). *Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management* (2nd ed., pp. 93-103). Wolters Kluwer.

Lessans, S. (2020). Pain management. In J. J. Hoffman & N. J. Sullivan (Eds.). *Medical-surgical nursing: making connections to practice* (2nd ed., pp. 174-214). F. A. Davis.

Mackey, D., & Watts, C. (2022). Therapeutic surface for bed and chair. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.). *Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management* (2nd ed., pp. 425-445). Wolters Kluwer.

McNichol, L. L., Ratliff, C. R., & Yates, S. S. (2022). Differential assessment of lower extremity wounds. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.). *Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management* (2nd ed., pp. 446-454). Wolters Kluwer.

Mitchell, E. L. (2024). *Noninvasive diagnosis of upper and lower extremity arterial disease*. UpToDate. https://uptodate.uphs.upenn.edu/contents/noninvasive-diagnosis-of-upper-and-lower-extremity-arterial-disease?search=ABI&source=search_result&selectedTitle=1~72&usage_type=default&display_rank=1

Netsch, D. (2022). Refractory wounds: Assessment and management. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.). *Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management* (2nd ed., pp. 214-233). Wolters Kluwer.

Ratliff, C. (2020). Coordinating care for patients with skin disorders. In J. J. Hoffman & N. J. Sullivan (Eds.). *Medical-surgical nursing: making connections to practice* (2nd ed., pp. 1094-1147). F. A. Davis.

Ramundo, J. (2022). Principles and guidelines for wound debridement. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.). *Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management* (2nd ed., pp. 172-186). Woltmers Kluwer.

Reinholdt, M. (2020). Priorities for the postoperative patient. In J. J. Hoffman & N. J. Sullivan (Eds.). Medical-surgical nursing: making connections to practice (2nd ed., pp. 323-337). F. A. Davis.

Thayer, D., & Nix, D. (2022). Incontinence-associated dermatitis. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.). *Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management* (2nd ed., pp. 355-372). Wolters Kluwer.

Weir, D., & Schultz, G. (2022). Assessment and management of wound-related infections. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.). *Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management* (2nd ed., pp. 187-213). Wolters Kluwer.