

Wound Essay Exam Answers

#1a The pathology of the partial thickness skin tear is an injury caused by the separation of the layers of skin caused by shearing, friction, or force and affecting the separation of the epidermal and dermal from the subcutaneous layer. (Thayer et al., 2022) According to the ISTAP classification system, the skin tear is a type 2 partial flap loss related to the wound being unable to be approximated, leaving part of the wound bed exposed. (Thayer et al., 2022) Several appropriate dressings can be applied to this injury. The application of a thin foam dressing secured with rolled gauze. A thin foam dressing is gentle and non-adherent, providing easy application and removal, decreasing the chance of additional trauma to the injury with dressing changes. The intact peri-wound skin should have a skin protectant applied. (R.B. Turnbull, Jr MD School of WOC Nursing Education, 2022c)

#1b The pathology of Mindy's full-thickness injury resulting due to pressure and shearing repeatedly applied over the bony right trochanter prominence. This results in decreased blood supply, tissue perfusion, limited waste removal, and direct damage to the muscle cells. (Edsberg, 2022) The tolerance of the patient's tissue, including intrinsic and extrinsic factors, requires more assessment to determine a specific pathology. The provided evaluation of the wound bed states that 60% fibrin slough obscures the view, and no measurements reported, no indication if the area blanches this injury is unstageable. (Edsberg, 2022, p. 384) An appropriate dressing application is Hydrofiber. Hydrofiber promotes autolytic debridement and is effective on the slough. (Ramundo, 2022, Tables 10-1) Hydrofiber dressings can overlap, decreasing concern that maceration aids in maintaining an intact peri-wound. (R.B. Turnbull, Jr MD School of WOC Nursing Education, 2022c)

#1c The pathology of Mike's injury located on the LLE resulting from pressure and shearing repeatedly applied over the bony prominence of the lateral malleolus. This results in decreased blood supply, tissue perfusion, limited waste removal, and direct damage to the muscle cells. (Edsberg, 2022) The tolerance of the patient's tissue, including intrinsic and extrinsic factors, requires more assessment to determine a thorough pathology. The provided assessment of the wound bed states there is 70% slough and 30% dark, dry eschar; no measurements reported, and no indication if the area blanches this injury is unstageable. According to Edsberg, 2022, unstageable injuries are often determined to be full-thickness injuries. When determining appropriate dressing applications with this patient, consideration in the presence of comorbidities needs to be addressed. An application of a non-woven gauze to covered with secondary bandage to remove slough, reevaluate if the gauze needs to be moistened if it sticks to wound. Reassessment of wound bed with determine a change in dressing application.

#1d The pathology for the fungating wound is when the skin, blood supply, and lymph vessels are infiltrated by malignant cancer cells. (Emmons et al., 2022) The application of topical metronidazole with antimicrobial dressing is appropriate for this patient.(Emmons et al., 2022) This will assist with the odor and is considered the first-line intervention and will address the patient isolation from friends and family related to the odor.

#1e The pathology for full-thickness injury resulting due to pressure and shearing repeatedly applied over the bony sacral prominence. The elevation of HOB is a large

contributing factor to the increased pressure applied in these types of injuries This results in decreased blood supply, tissue perfusion, limited waste removal, and direct damage to the muscle cells. (Edsberg, 2022) The tolerance of the patient's tissue, including intrinsic and extrinsic factors, requires more assessment to determine a thorough pathology. An appropriate dressing application would consist of a moist saline, non-woven saline gauze, fluffed and applied loosely in the wound, providing a wound filler. Additionally, a silver Hydrofiber dressing could be considered related to the possible infection, which can be confirmed by completing a wound culture. The Hydrofiber is appropriate with heavy amounts of exudate.(R.B. Turnbull, Jr MD School of WOC Nursing Education, 2022c)

#2 The etiology of this wound is determined by the appearance of the wound bed; dusky in color determines that the area is not perfusing, related to the possible presence of infection, determined by the peri-wound indurated, erythematous, and warm to touch. A wound culture can determine the infection present. The presence of pain is an additional indication of infection. The water environment in which the initial injury skin tear occurred contributed to infection from water contaminants. (Bates-Jensen et al., 2022)

#3A Conservative sharp wound debridement is defined as utilizing a sharp, sterile instrument to remove loosely adhered necrotic devitalized tissue. (Ramundo, 2022) Considered to be the most selective and efficient means of removal with minimal to no damage to the healthy tissue. This method can be utilized with infected or non-infected wounds classified as

acute or chronic (*Conservative Sharp Wound Debridement*, n.d., p. 2) and continue if the need to remove the necrotic tissue is assessed. When dry, stable heal ulcers or ischemic wounds are assessed, this intervention is contraindicated. This method is contraindicated when excessive or unexpected bleeding occurs, the facial plane is penetrated, or the formation of an abscess or bones, ligaments, or tendons is observed. (*Conservative Sharp Wound Debridement*, n.d., p. 3)

#3B Autolytic debridement method is defined as the natural process utilized by the body by releasing enzymes that liquefy the devitalized tissue. This debridement occurs when moisture-retentive dressings are applied. (*Conservative Sharp Wound Debridement*, n.d., p. 2) This method is utilized until the therapy goal is met or contraindicated. Acute or chronic wounds that are not infected with minimal to moderate devitalized tissue can be indications for using this type of debridement related to this being a slow process. (Ramundo, 2022) This type of debridement is not suggested when the patient has poor perfusion and intact eschar without signs of infection. Patients that are at severe risk for sepsis, diagnosed with cellulitis, or the presence of an anaerobic wound infection that is treated or untreated are not candidates to utilize autolytic debridement. (*Conservative Sharp Wound Debridement*, n.d., p. 2)

#4 Determining an individual's nutritional health requires height and weight measurements. Additional parameters, mobility, activity level, and gastrointestinal assist in determining effects on wound healing. Utilizing these parameters in conjunction with a nutritional assessment tool, a registered dietician can assist the wound nurse with interpreting the data, determining deficiencies, and developing appropriate interventions. (Friedrich et al., 2022, p. 117) Nutrients help the body differently when the phases of wound healing are considered. The body requires a continuous supply of energy, and when an injury is sustained, energy

consumption increases. Chronic wounds have an extended inflammatory phase associated with poor nutritional intake and malnutrition. Additional nutrition requirements during this phase include an adequate protein supply related to cell proliferation, growth factors, and granulated tissue production. When granulated tissue is produced, the body's need for zinc increases. The proliferation phase requires amino acids for repair, vitamins A, C for collagen and protein matrix synthesis, and vitamin D for proliferation and cellular differentiation. These are just a few considerations when determining nutritional support for chronic wounds and encouraging an enriched, balanced diet and additional dietary support defined by a registered dietician. (R.B. Turnbull, Jr MD School of WOC Nursing Education, 2022a)

#5a The etiology is an arterial leg injury caused by tissue ischemia.(Bates-Jensen et al., 2022, Tables 4-1)

#5b The periwound is white in color indicating that the area is macerated, this is in relation to the application of the hydrogel and gauze pad.

#5c The wound needs to have moisture balanced reestablished and dry the macerated skin. Applying a hydrofiber dressing to remove slough. Assessment of the patient's pain that is associated with LEAD, intermittent claudication.

#5d Educate the patient on new wounds need to be address and new treatment options will need to be established.

References

Bates-Jensen, B. M., Ratliff, C. R., & Yates, S. S. (2022). Assessment of the patient with a wound. In L. L. McNichol (Ed.), *Wound, Ostomy, and Continence Nurses Society, core curriculum: Wound management* (2nd ed.). Wolters Kluwer.

- Beitz, J. M. (2022). Wound healing. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.), *Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management* (2nd ed., pp. 39–52). Wolters Kluwer.
- Conservative sharp wound debridement: best practice for clinicians.* (n.d.). Wound Ostomy and Continence Society.
- 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. 373–390). Wolters Kluwer.
- Emmons, K. R., Dale, B. A., McNichol, L. L., Ratliff, C. R., & Yates, S. S. (2022). Palliative wound care. In *Wound, Ostomy, and Continence Nurses Society, core curriculum: Wound management* (2nd ed., pp. 776–788). 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. 116–132). Wolters Kluwer.
- Jaszarowski, K., Murphree, R. W., McNichol, L. L., Ratliff, C. R., & Yates, S. S. (2022). Wound cleansing and dressing selection. In *Wound, Ostomy, and Continence Nurses Society, core curriculum: Wound management* (2nd ed., pp. 157–168). Wolters Kluwer.
- R.B. Turnbull, Jr MD School of WOC Nursing Education. (2022a). *Nutrition support and wound healing* [PowerPoint slides].
- R.B. Turnbull, Jr MD School of WOC Nursing Education. (2022b). Pressure injury pathology [Powerpoint slides]. Vimeo@CCF.

R.B. Turnbull, Jr MD School of WOC Nursing Education. (2022c). *Topical therapies part 1*
[PowerPoint slides]. Vimeo@CCF.

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. 172–182). Wolters Kluwer.

Thayer, D., Rozenboom, B. J., & LeBlanc, K. (2022). Prevention and management of moisture-associated skin damage (MASD), medical adhesive-related skin injury (MARSI), and skin tears. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.), *Wound, Ostomy, and Continence Nurses Society, core curriculum: Wound management* (2nd ed., pp. 344–348). Wolters Kluwer.