Name: _____

Points criteria:

Criteria	Under performance <3 points per criteria	Basic 3 – 3.9 points per criteria	Proficient 4.0 – 4.4 points per criteria	Distinguished 4.5 – 5 points per criteria
Required content objectives	Content objectives are missing or sparsely covered.	Content objectives are not consistently addressed. Demonstrates minimal understanding of content.	Content objectives consistently addressed. Demonstrates understanding of content.	Content objectives consistently addressed. Demonstrates mastery of content.
Academic writing standards	Writing lacks scholarly tone & focus. Sparse content. Multiple grammatical, spelling, & factual errors. Reliance on bullet points rather than effective writing in speaker notes. 4 or more direct quotes per project.	Writing is unclear and/or disorganized. Inconsistent scholarly tone. Inadequate depth of content. Grammatical and spelling errors. No more than 3 direct quote of less than 40 words per project.	Writing demonstrates general exploration of content. Responses are clearly written using scholarly tone. Few grammatical and/or spelling errors. No more than 2 direct quote of less than 40 words per project.	Writing demonstrates comprehensive exploration of content. Responses are clearly written using scholarly tone. Rare grammatical and/or spelling errors. No more than 1 direct quote of less than 40 words per project.
APA formatting	References and citations have multiple errors or are missing.	References and citations have errors.	References and citations have few errors.	References and citations have rare errors.

Carefully review the above rubric on how points are awarded. Select one (not both) of the case studies listed on page three. Then, using academic writing standards and APA formatting of references and citations, respond to each of the learning objectives listed on page two. Each response should be 150-350 words in length, and should be entered below each objective on this document. Save the completed document as the assignment title with your name and submit to the dropbox.

1. Define root cause analysis & its role in pressure injury prevention.

   Medical errors often occur because of a breakdown in the system. This may be related to improper implementation of the process in place, or from the process itself being inappropriate to the situation. In the case of a sentinel event stemming from medical error, the Joint Commission requires a root cause analysis (RCA) to be performed within 45 days of the incident. RCA is a method of evaluating these errors using the interprofessional team approach. It does not aim to assign blame, rather, improve the system which produced the error. The goal is to identify points in the process that may have led to the adverse outcome, utilize best practice in developing new approaches, implement improved methods, and evaluate effectiveness of increased safety measures. A framework for conducting RCA has been developed by the Joint Commission to assists the interdisciplinary team in analyzing process components associated with personnel, environment, equipment, communication, training, technology, process and organizational factors (Singh et al., 2023).

2. Analyze one (not both) of the case studies from page three of this document, and describe the system failures that led to the pressure injury in that situation.
   In this scenario, a 58 year-old male of unknown race was discovered by neighbors unconscious in the yard and 911 was called. The ambulance transported him to the ER and did not report if it was known approximately how long he was down prior to discovery. It was reported that he had uncontrolled diabetes. Blood glucose was 220 and A1C was 13.2%. He regained consciousness on arrival to the hospital. At this time, it would have been important to try to determine how long the patient was down, to assist in further assessment of risk factors. This patient was found unconscious for unknown reasons, and the ER nurse should have completed a full head-to-toe skin assessment, including the front and back side, with palpation on arrival to evaluate for injuries related to fall or trauma (Borchert, 2022). They may have been able to note any reddened, bruised, or open areas that were present on arrival and intervene appropriately at that time. It would have been very useful to complete a Braden at this time based on the patient's current status.
   This patient was admitted after work-up for chest pain and diagnosed with coronary artery disease requiring triple bypass surgery. Braden scale on hospital admission was scored at 20, incorrectly. This score assumes the patient has no sensory impairment, is rarely moist, walks frequently, has no limitation in mobility, and has excellent nutrition. It would have been appropriate to score the patient as "slightly limited" sensory perception related to diabetes with an A1C of 13.2%. Moisture scoring would need to take into account any diaphoresis related to the CAD with acute chest pain and any other factors that increase moisture in this particular patient. "Occasionally moist" would have been a more realistic score. This patient's activity level was likely limited related to chest pain and the presence of medical equipment that impeded frequent ambulation and should have been evaluated as "walks occasionally" on admission. Mobility should have been scored as "slightly limited" for

these same reasons. The most obvious error was scoring the patient as having “excellent” nutritional status. Patients with uncontrolled diabetes and severe hyperglycemia are not able to utilize glucose and cellular starvation exists. It would have been more appropriate to score this patient as “probably Inadequate” for nutrition. Friction and shear should have been scored as “potential problem” related to the overall picture and increased presence of medical devices impeding unobstructed movement. Considering all of these factors, the admission Braden score would have been 14, not 20. Correctly assessing this patient moved them from the “no risk” category to the “moderate risk” category. The Braden scale assumes all scores less than 18 are predictive in development of pressure injury no matter the care setting and in all patient ethnicities (Borchert, 2022). In many facilities, the Braden score is directly linked to specific interventions to prevent skin breakdown and should be completed with any change in patient condition, change in setting such as general care vs operating room (OR), and at specified intervals throughout the hospitalization.

This patient was in the OR for 8 hours in a supine position. If a detailed hand-off describing skin assessment and accurate risk assessment for development of pressure injury were included, the OR nurse would be able to communicate the need for specialized support surfaces and other interventions prior to the long surgery. Support surfaces should address all issues related to pressure redistribution, reduction of shear and friction, temperature and moisture control. The support surface with high immersion and envelopment capability would be optimal for long surgeries (Brienza et al., 2020). Additional interventions for this patient should have included having the patient in a different position prior to and after this long surgical procedure requiring supine position and utilizing prophylactic dressings to the coccyx (Borchert, 2022). Postoperative skin assessment and documentation is necessary and should be included in the hand-off when transferring this patient to the general care unit.

This patient suffered an unfortunate situation that may have been minimized with frequent skin assessment. It is unknown if there was a DPTI present on admission. The resulting wound is full thickness evidenced by the presence of dense slough. Induration, redness, and mild serous drainage should alert the nurse to presence of infection and be reported to the hospitalist. They may wish to culture the wound to determine if antibiotic therapy is needed. The comorbid conditions decrease this patient’s ability to fight infection. Diabetes impairs chemotaxis and results in a decreased ability to draw other cellular components that fight infection (R.B. Turnbull, Jr. School of WOC Nursing, 2021). Early intervention for this infection should follow the Step-Down-Then-Step-Up-Paradigm for treatment, with initiation of aggressive debridement, empirical topical treatments and systemic antibiotics, management of comorbidities, and wound culture (Weir & Schultz, 2022).

Wound healing should include debridement of the nonviable slough in the wound bed through autolytic topical therapies or conservative sharp debridement, or a combination of both. The wound bed first needs to be cleaned, then thoroughly assessed. The depth of the wound bed is unknown until the slough is removed. Negative pressure wound therapy (NPWT) is an option once the wound has been debrided and may improve the outcome for this patient by increasing oxygenation and managing exudate (Netsch, 2022).

3. Based on these findings, develop a comprehensive pressure injury prevention plan for the organization.
   An individual pressure injury prevention plan should be developed for every patient in all care settings, and be reevaluated frequently. This should include a thorough assessment of risk factors, including the use of a validated tool such as the Braden Scale. This organization needs to implement training on the use of the Braden Scale as this is the validated tool already in use in the facility. Teaching all care staff how to score the tool correctly would be important, as it is the responsibility of every professional involved in patient care to prevent injury and promote safety. Assessing for interrater reliability after teaching will allow the educator to analyze data to support the teaching methods or make important modifications to improve this. Braden assessment with thorough head to toe skin assessment should take place on arrival to the ER, transfer to the unit or OR, every time there is a change in patient condition, and every shift in the acute care setting. The risk assessment needs to be specific to the current status of the patient. For example, the patient in surgery is under anesthesia and the Braden score for activity and mobility as well as sensory perception would be very different and require specific prevention interventions (Borchert, 2022). The Braden score and appropriate interventions should be communicated in every patient hand-off and documented.

4. Propose a plan of care to monitor the results of the organization wide, comprehensive pressure injury prevention plan.
   Evaluation of the implementation of this improvement process will require strict and concise documentation. Facility-wide training should be performed with all patient care staff within 30 days of the adverse event and be documented. This should include evaluation of the educational materials. This teaching should take place for all new staff and annually. The final root cause analysis should be submitted to the Joint Commission with all required elements. It should include documented participation of leadership and stakeholders in the process review and a detailed report of all findings, answering all important questions. This should include all relevant literature applied to the process development (Singh, 2023). The ability to document all steps in the process in the EHR would also be very beneficial for data collection and generating reports related to process compliance and incidence and prevalence of pressure injuries within the facility before and after the implementation of the improvement process.

5. List the references used & cited in this assignment.
   a. *See the course syllabus for specific requirements on references for all assignments.*

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

Brienza, D., Tescher, A., & Call, E. (2020). Pressure redistribution: Seating, positioning, and support surfaces. In S. Baranoski, & E. Ayello (Eds.), Wound care essentials: Practice principals (5th ed., pp. 270-305). Wolters Kluwer.

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

R.B. Turnbull, Jr. School of WOC Nursing Education. (2021) *Managing wound infection: Part 1.* [PowerPoint slides]. Vimeo@CCF

Singh, G., Patel, R.H., & Boster, J. (2023). Root cause analysis and medical error prevention. *StatPearls-NCBI Bookshelf*. https://www.ncbi.nlm.nih.gov/books/NBK570638/#:~:text=Root%20cause%20analysis%20(RCA)%20is,result%20in%20a%20sentinel%20event.

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.

Select just one (not both) to respond to the learning objectives listed on page two.

a. A patient is admitted to home care after a cauda equina injury. The injury occurred 2 weeks ago at her home and she was then admitted to the hospital for severe lower back pain and numbness in the lower extremities. During the hospitalization, she developed urinary and fecal incontinence. Surgery was performed to repair the injury and after an unremarkable recovery, she is referred to home health care for physical therapy and skilled nursing care. The surgical site is well approximated without drainage. She has a comorbid condition of diabetes, continues to have numbness in the lower extremities along with urinary and fecal incontinence, and spends most of her day in a recliner chair. On admission to home care she has no skin conditions noted and her blood sugar is 165 mg/dL. After 2 weeks she develops a fever of 100.8 F. After 3 weeks of home care a 2.5cm length x 3.0cm width area of thick, dense eschar is noted over her sacral area, and she is referred to the WOC nurse for evaluation. Explain what risk factors led to the sacral wound and how you would set up her plan of care.

b. A 58 year old patient with a history of uncontrolled diabetes is admitted to the ED. He was discovered unconscious in his back yard by neighbors who called 911. He was transported to the ED of Acme Hospital where he regained consciousness. His blood glucose was 220 mg/dL, and his HbA1c is 13.2%. He is also experiencing mild chest pain, nausea, and tingling in his left arm. He is admitted to the hospital to rule out MI and to gain control of his blood glucose level. On admission, his risk assessment for skin breakdown indicated a 20 or very low risk. After several tests to determine the cause of his chest pain, he is diagnosed with coronary artery disease and is in need of bypass surgery to open three coronary arteries. He goes to surgery on day three of his admission and is in the OR for 8 hours in a supine position. 18 hours after surgery, his nurse notices he has a painful deep purple bruised area in the coccyx region and contacts the WOC nurse to evaluate the lesion. At this point the patient is placed on an active alternating pressure powered air mattress. Five days later the bruised area in the coccyx begins to show evidence of an open wound, with measurements of 4.0 length x 1.0 cm width, and deep in the natal cleft there is dense slough with mild serous drainage. The surrounding skin is indurated with redness and evidence of a resolving bruise. Explain what risk factors led to the sacral injury and how you would set up his plan of care.