Pressure Injury Root Cause Analysis

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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.

A root cause analysis (RCA) is a structured facilitated team process which goes through steps to identify the root causes that triggered a negative outcome to occur. A RCA is an important part of quality improvement with the intention to identify underlying problems that increase the likelihood of errors (Agency for Healthcare Research and Quality, 2019). A RCA, a structured method used to analyze serious adverse events, was initially developed to analyze industrial accidents, and is now widely used as an error analysis tool in healthcare (Agency for Healthcare Research and Quality, 2019). The focus of a RCA should be on the development of corrective actions not to focus on the mistakes individuals made. RCA are one of the core building blocks of an organization's continuous improvement efforts.

The role of RCA in pressure injury prevention would be to identify what happened and recognize changes that need to be made moving forward. A RCA will be beneficial in the role of pressure injury prevention because we will be able to identify what happened and how to prevent that in the future. Furthermore, contributing factors such as the circumstances and working conditions/ environment that increased the likelihood of that event to happen would be identified along with root causes (American Society for Quality, 2023). Important changes would be implemented that will eliminate the root causes to reduce the likelihood to another similar event. A RCA can help us to identify the type of factors that contributed to the pressure injury such as organization/ management, work environment, institutional/ regulatory, work environment, team environment, staffing, task-related, and patient characteristics (Centers for Medicare and Medicaid Services, 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.

There were multiple system failures that were at play in this situation that contributed to the patient developing a pressure injury. The first failure includes the healthcare system that has failed the patient. It appears that the patient's diabetes was uncontrolled (HgA1C 13.2 %), and his coronary artery disease was not treated. These conditions predisposed the patient to microvascular changes that predisposed him to develop a pressure injury. Ideally preoperatively the patient's diabetes mellitus and CAD should have been controlled. Because he had urgent surgery, it was not elective and there was no time preoperatively to get his conditions under control. Another failure would be proper precautions that were not taken preoperatively such as applying barrier cream, support device, or foam dressing applied to his coccyx area. Policies in the OR need to be updated and reevaluated (Centers for Medicare and Medicaid Services, 2023).

Another system failure was the "hand off" protocol on the unit. In other words, was a proper hand off including skin assessment conducted when the patient was transferred to the floor? What measures were taken at that point in time to prevent a pressure injury? What precautions if any does the floor implement to prevent pressure injuries? Proper nursing interventions that could have been performed include utilizing foam dressing on the coccyx region, repositioning every 2 hours, redistributing weight by utilizing foam pads and pillows, and an alternating pressure powered air mattress. Post operatively how was the patient's nutritional status and hydration being managed? It is also important to consider the staffing conditions where during this time of surgery and staffing on the units. This would include finding out if there was adequate staffing

including appropriate nurse to patient ratios and an adequate amount of nursing assistants/ patient care associates helping on the floor. Were the teams, including the surgical teams and teams on the floors supportive of each other? Was proper hand off conducted during shift change that included an assessment and discussion of the skin conditions? (Centers for Medicare and Medicaid Services, 2023). A RCA can help us to identify system failures that contributed to the development of a pressure injury.

3. Based on these findings, develop a comprehensive pressure injury prevention plan for the organization.

Based on the findings a comprehensive pressure injury prevention plan for Acme Hospital would first consist of identifying the event that is being investigated. We would identify a team facilitator, who is appointed by leadership, and team members, who are people "with personal knowledge of the processes and systems involved in the event to be investigated," who will be working on the RCA. The next step would be to collect the data and organize the facts. Next, contributing factors should be identified. Then, we would design and implement change to eliminate the root causes (Centers for Medicare and Medicaid Services, 2023)

Based on the findings the development of a comprehensive pressure injury prevention plan is needed for this organization. The plan would include the implementation of nursing policies which will include utilizing barrier cream, repositioning patients every two hours, and utilizing foam dressing on bony prominences or areas that are susceptible to pressure injuries. Furthermore, the implementation of bedside nurse handoff would be paramount because during this time the nurses could perform a skin assessment for at risk patients and identify any existing pressure injuries. Assessment would identify if the current treatment were helping or not. In addition, a nutrition consult should be placed for patients who were identified as high risk for malnutrition. Staff nurses can perform the initiate assessment and if a patient scored below normal limits on the Braden scale they would be referred. Each staff nurses should complete a skin assessment and implement the use of mattresses that helps to distribute weight for effectively, for patients identified as high risk. Skin assessments should be performed during every transfer and admission. At that moment in time precautions are taken to prevent a pressure injury. Assessments should occur again at every change of shift report and once during the shift. The WOC nurse should hold an in service on each unit to help nurses improve their skills related to skin integrity. The in service would review the proper body mechanism of positioning patients, utilizing the correct dressings, clues for identifying at risk patients, and how to place a referral for a WOC nurse. The policies in the operating room would need to be improved such as utilized foam dressings on the coccyx preoperatively (Centers for Medicare and Medicaid Services, 2023).

4. Propose a plan of care to monitor the results of the organization wide, comprehensive pressure injury prevention plan.

Improvement does not end with implementation. The evaluation process is continuous. We need to review the data and its effectiveness periodically to ensure that patient outcomes have improved, and no recurrent events occurred. We need to ensure that the changes we made were sustained. I would want to obtain quantitative data monthly which would include the incidence of pressure injuries. We would hope to have less hospital acquired pressure injuries or even better none. In addition, if patients had preexisting pressure injuries, we

would want them to be healed by the time they were discharged. For example, if a patient arrived with a stage 3 pressure injury by the time of discharge the pressure injury should be a healed stage 3 pressure injury (Centers for Medicare and Medicaid Services, 2023).

In addition, we need to assess if staff is complying to recommended changes such as if bed side handoff being conducted? Are skin assessments being conducted at every admission transfer, change of shift, and once during the shift? The charge nurse could help with enforcing this policy. We would be constantly reviewing the data and making changes as needed. In addition we should get feedback from nurses directly as they are the ones executing most of the new policies. We should ask the staff nurses what they think is working and what further improvements need to be made. We would want to ensure the changes have made a positive impact (Centers for Medicare and Medicaid Services, 2023).

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

Agency for Healthcare Research and Quality. *Root cause analysis*. Patient Safety Network. (2019, September 7). https://psnet.ahrq.gov/primer/root-cause-analysis

American Society for Quality. *What is Root Cause Analysis (RCA)?* ASQ. (2023). https://asq.org/quality-resources/root-cause-analysis

Centers for Medicare and Medicaid Services. *Guidance for performing root cause analysis (RCA) with pips*. (2023). https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/Downloads/GuidanceforRCA.pdf

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.**