Pressure Injury Root Cause Analysis

Name: Jennifer Lemert

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.

The American Society for Quality (ASQ) defines a root cause analysis as a "collective term that describes a wide range of approaches, tools, and techniques used to uncover causes of problems" (American Society for Quality, n.d.). Furthermore, they define a root cause as "a factor that caused a nonconformance and should be permanently eliminated through process improvement" (American Society for Quality, n.d.). Pressure injuries are common, expensive, and life changing for patients, who suffer delayed recovery, pain, and increased morbidity and mortality. Currently it is well known that prevention of all pressure injuries is not possible. Reducing the impact of PI on the patient, the healthcare system and the community is necessary (Borchert, 2022). By evaluating a PI with a RCA, a system can identify where a system fails and how these failures contributed to PI. This understanding clarifies what is needed for a pressure injury prevention plan (PIPP) (Borchert, 2022).

The ideal root cause analysis (RCA) of a pressure injury (PI) is an inquiry by a multidisciplinary team. Chart review, system audits, and interviews are some of the variables reviewed for the purpose of detailing the injury. Included are the system environment at the time of the injury, and the preventive interventions that were in place. The initial goal is to identify a failure in the current preventive injury program. Once identified, the team can determine how to address the failure of the preventive plan. At this time, evidence can be reviewed to ensure the plan is based in current science and complies with regulatory agencies. The team involved in the RCA can then move forward. Changes in the current prevention plan are created. Implementation across the system is planned and carried out. Involvement of direct care staff, ancillary staff and management is necessary for any RCA initiation and completion (Borchert, 2022).

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.

A pressure injury (PI) occurs, is identified by direct care staff, and a root cause analysis (RCA), is initiated. A standardized form is provided in the Wound, Ostomy, and Continence core curriculum: Wound management (Borchert, 2022). The following narrative was created using this tool. Nursing assessment of an inpatient (hospital day four) in the cardiac care unit revealed a deep tissue pressure injury (DTPI) in the coccyx region. The skin was intact, the injury was not stageable. On admission to the hospital, PI risk was assessed as very low. This implies that patient was able to adequately off load pressure from their own bony prominences pre operatively. On day three, surgery was 8 hours in one position. It is not known if PI prevention in the OR was followed, chart review would uncover any incongruencies. On day four, 18 hours after surgery, the DTPI is recognized. After the injury is recognized, an active alternating pressure powered air mattress is put in place. It is not clear if an immediate post operative PI risk assessment occurred, when skin assessments were completed, if repositioning was appropriate, and what the patient's medical stability was. The system failure risk is highest during surgery if appropriate positioning and

surface supports were not used. The lack of a repeated PI risk assessment immediately after surgery contributed to the delay in providing an active support surface immediately after surgery.

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

In 2017, The Agency for Healthcare Research and Quality (AHRQ) published: the Pressure Injury Prevention Implementation Guide. This guide is available for download and will be used to develop a PIPP. The timeline for development and implementation is 1-2 years (AFYA, Inc., 2017). This process cannot be described in 350 words. However, with some assumptions, a general modification of a PIPP can be briefly described. The assumptions are, first, a PIPP is already in place in this organization, as the patient did have a pressure injury risk assessment. Second, a WOC nurse is employed and available for quality improvement initiatives. Third, the hospital is aware of and trying to follow national standards for pressure injury prevention. Fourth, incidence and prevalence of PI for this facility is known and available. Developing a PIPP from the ground up is not necessary. Re-evaluating and possibly adjusting the PIPP is necessary. If we assume that the only nonconformance to standards occurred because the pressure injury risk assessments were not completed at the appropriate interval, resulting in preventative strategies not being put into place; then we could move forward with modifying the current PIPP.

The effectiveness of any injury prevention project depends on system support from all levels of affected personnel. Administrative support and staff support are crucial. Having a multidisciplinary team whose members come from administration, nursing, medicine, informatics, physical therapy, surgical services and/or nutrition is necessary to ensure the success of any change in the PIPP (Borchert, 2022). Once a team is in place, the risk assessment tool can be reviewed to ensure is it evidenced based. Abbreviated tools, poor use of tools, lack of communication or lack of awareness of the existing tools, are all common causes of risk assessment failure (Borchert, 2022). The tool would be reviewed, tool use issues identified, and interventions, such as staff education, that support better use of the tool, would be planned, and carried out. The staff education would include when to use the tool, how often, and how to document it. Additionally, instruction on how to use the tool data to initiate preventive strategies would be provided. In this case, preventive surface support options, orders, and timely placement of patient on surface would be included in staff education. Once all policies are amended, the education is complete and communication across departments is complete, then the change in PIPP can be implemented.

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

Once an organization adopts and implements a change in a pressure injury prevention program, that change must be monitored for success or failure. In the Pressure Injury Prevention Implementation Guide (AFYA, Inc., 2017), this is referred to as the “sustainment phase” (AFYA, Inc., 2017, p. 17). During this phase, staff will not only follow through with interventions, but they will also accept and believe in the effectiveness of those interventions. This acceptance takes time and with system changes, such as new staff, acceptance levels can vary. Management will monitor to see if the changes are happening, if staff are responding positively, if there are barriers to implementing the

changes, and if the changes are reducing pressure injuries. Clear communications about the PIPP can occur in staff meetings, at the bedside during spot checks, reminders about changes made can be distributed through flyers, posters, and email blasts. The multidisciplinary team that developed the PIPP will provide management with a "scorecard" for evaluating the implementation of the PIPP. This scorecard should be used monthly for at least the first 6-12 months of implementation. Quality assurance monitoring for outcomes will occur quarterly through the quality assurance department (AFYA, Inc., 2017).

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

AFYA, Inc. (2017). *Pressure Injury Prevention Program Implementation Guide.* Retrieved from www.arqh.gov: https://www.ahrq.gov/patient-safety/settings/hospital/resource/pressure-injury/guide.html

American Society for Quality. (n.d.). *What is a root cause analysis*. Retrieved June 6, 2023, from https://asq.org/quality-resources/root-cause-analysis

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.

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.