Root Cause Analysis in a Healthcare organization Academic Level : Bachelor Paper details INTRODUCTION Healthcare organizations accredited by the Joint Commission are required to conduct a root cause analysis (RCA) in response to any sentinel event, such as the one described in the scenario attached below. Once the cause is identified and a plan of action established, it is useful to conduct a failure mode and effects analysis (FMEA) to reduce the likelihood that a process would fail. As a member of the healthcare team in the hospital described in this scenario, you have been selected as a member of the team investigating the incident. SCENARIO It is 3:30 p.m. on a Thursday and Mr. B, a 67-year-old patient, arrives at the six-room emergency department (ED) of a sixty-bed rural hospital. He has been brought to the hospital by his son and neighbor. At this time, Mr. B is moaning and complaining of severe pain to his (L) leg and hip area. He states he lost his balance and fell after tripping over his dog. Mr. B was admitted to the triage room where his vital signs were B/P 120/80, HR-88 (regular), T-98.6, and R-32, and his weight was recorded at 175 pounds. Mr. B. states that he has no known allergies and no previous falls. He states, “My hip area and leg hurt really bad. I have never had anything like this before.” Patient rates pain at 10 out of 10 on the numerical verbal pain scale. He appears to be in moderate distress. His (L) leg appears shortened with swelling (edema in the calf), ecchymosis, and limited range of motion (ROM). Mr. B’s leg is stabilized and then is further evaluated and discharged from triage to the emergency department (ED) patient room. He is admitted by Nurse J. Nurse J finds that Mr. B has a history of impaired glucose tolerance and prostate cancer. At Mr. B’s last visit with his primary care physician, laboratory data revealed elevated cholesterol and lipids. Mr. B’s current medications are atorvastatin and oxycodone for chronic back pain. After Mr. B’s assessment is completed, Nurse J informs Dr. T, the ED physician, of admission findings, and Dr. T proceeds to examine Mr. B. Staffing on this day consists of two nurses (one RN and one LPN), one secretary, and one emergency department physician.

Respiratory therapy is in-house and available as needed. At the time of Mr. B’s arrival, the ED staff is caring for two other patients. One patient is a 43-year-old female complaining of a throbbing headache. The patient rates current pain at 4 out of 10 on numerical verbal pain scale. The patient states that she has a history of migraines. She received treatment, remains stable, and discharge is pending. The second patient is an eight-year-old boy being evaluated for possible appendicitis. Laboratory results are pending for this patient. Both of these patients were examined, evaluated, and cared for by Dr. T and are awaiting further treatment or orders. After evaluation of Mr. B, Dr. T writes the order for Nurse J to administer diazepam 5 mg IVP to Mr. B. The medication diazepam is administered IVP at 4:05 p.m. After five minutes, the diazepam appears to have had no effect on Mr. B, and Dr. T instructs Nurse J to administer hydromorphone 2 mg IVP. The medication hydromorphone is administered IVP at 4:15 p.m. After five minutes, Dr. T is still not satisfied with the level of sedation Mr. B has achieved and instructs Nurse J to administer another 2 mg of hydromorphone IVP and an additional 5 mg of diazepam IVP. The physician’s goal is for the patient to achieve skeletal muscle relaxation from the diazepam, which will aid in the manual manipulation, relocation, and alignment of Mr. B’s hip. The hydromorphone IVP was administered to achieve pain control and sedation. After reviewing the patient’s medical history, Dr. T notes that the patient’s weight and current regular use of oxycodone appear to be making it more difficult to sedate Mr. B.

You must use the rubric to direct the creation of your submission because it provides detailed criteria that will be used to evaluate your work. Each requirement below may be evaluated by more than one rubric aspect. The rubric aspect titles may contain hyperlinks to relevant portions of the course. A. Explain the general purpose of conducting a root cause analysis (RCA). 1. Explain each of the six steps used to conduct an RCA, as defined by IHI. 2. Apply the RCA process to the scenario to describe the causative and contributing factors that led to the sentinel event outcome. B. Propose a process improvement plan that would decrease the likelihood of a reoccurrence of the scenario outcome. 1. Discuss how each phase of Lewin’s change theory on the human side of change could be applied to the proposed improvement plan. C. Explain the general purpose of the failure mode and effects analysis (FMEA) process.

1. Describe the steps of the FMEA process as defined by IHI. 2. Complete the attached FMEA table by appropriately applying the scales of severity, occurrence, and detection to the process improvement plan proposed in part B. Note: You are not expected to carry out the full FMEA. D. Explain how you would test the interventions from the process improvement plan from part B to improve care. E. Explain how a professional nurse can competently demonstrate leadership in each of the following areas: • promoting quality care • improving patient outcomes • influencing quality improvement activities 1. Discuss how the involvement of the professional nurse in the RCA and FMEA processes demonstrates leadership qualities. F. Acknowledge sources, using in-text citations and references, for content that is quoted, paraphrased, or summarized. G. Demonstrate professional communication in the content and presentation of your submission.