Organizational Systems & Quality Leadership Task 2: RCA and FMEA

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# A: Root Cause Analysis

Root Cause Analysis (RCA) refers to a problem-solving method which seeks to identify the root cause of incidents and problems. RCA bases itself on the premise that all problems can be resolved if their root causes are identified and corrected, compared to other solutions which focus on removing the different symptoms of the problem at hand. The underlying causes leading to the problem are addressed through corrective actions in order to minimize recurrence. That is why RCA is defined to be a process which identifies causal or basic factors which lead to performance variation. It is used to mitigate harm, improve systems and prevent recurring adverse events in a way which avoids putting individual blame (Brook, Kruskal, Eisenberg, & Larson, 2015).

## A1: Steps in RCA

RCAs involve 6 main steps as defined by the IHI. The first step involves identifying what happened. In this process, the investigation team tries to describe the situation in a complete and accurate manner. The next step involves determining what should have happened by identifying ideal conditions. The third step involves determining the causes and factors which may have contributed to the event. Causal steps are subsequently developed in the next step which link the cause to the effects, and then connect them to the incident being investigated. The fifth step involves generating recommendations to prevent event recurrence through applying the suggested changes. The final step involves composing a summary and sharing it with stakeholders for future improvement (IHI, 2018).

## A2: Apply RCA to Scenario

The event described in the scenario relates to respiratory arrest that followed conscious sedation procedure. Applying RCA to the scenario, several root causes can be identified to have played a significant role in the complication. This involves poor staffing, high patient census, the patient being left unmonitored, dismissed alarms by the staff, and lack of supplemental oxygen before initiating the procedure. The identified causative factors include improper adherence to hospital policy, poor patient to staff ratios and miscommunication between coworkers and peers. In addition, the staff’s failure to follow established protocols, a lack of critical thinking, possible fatigue and inability to focus appear to be contributive factors. Moreover, there is no suggestion of equipment problems, however, available equipment was not properly accessed and utilized.

# B: Process Improvement Plan

To avoid the situation described in the scenario, the emergency department staff requires to re-examine its actions, and devise new ways and solutions to treat patients which require monitoring and sedation. The improvement plan requires that the entire team participates in rectifying mistakes and upgrading the process so that each member stays motivated. A change in conscious sedation procedure and its implementation will require the establishment of a committee or a team, in which all members of the staff can serve as participants. The committee will oversee different team factors, individual staff members, patient characteristics, organizational management, task factors and the work environment and subsequently devise causal statements. The effects will be linked to the cause and then to the incident. After identification of the errors, the committee will clearly state what changes have to be enacted, how will the change be achieved, and through which process will the necessary change occur. Finally, the committee will form a list of measurable outcomes and objectives to measure performance.

## B1: Lewin’s Change Theory

The model of change suggested by Lewin consists of 3 main steps to implement change: unfreeze-freeze-refreeze. The first step involves motivation, known as unfreeze in which staff members are empowered through effective communication towards new ways of working (Burgess, Phibbs, & Spetz, 2012). The next step involves freezing, as greater confidence, stability and organization is built, followed by the refreezing process in which the barriers to change have been identified and set for implementation. To implement the process improvement plan according to Lewin’s model, the entire team in the emergency department has to be compelled towards changing the way how sedation procedures and subsequent patient-handling is performed. The unfreezing stage can follow immediately as the staff is possibly fearful and anxious regarding the consequences, which will make the staff believe and act in the direction supporting change and growth. The staff will also have to understand the benefits if the change, and any success as a result of the change has to be celebrated for the final refreezing stage to be successful. The management has to appreciate employees and encourage them to believe that the introduced changes are contributing towards overall success.

# C: FMEA process

The failure modes and effects analysis (FMEA) refers to a step by step process in which all possible failures in a process, service, product, or design are identified. It is a technique to identify, evaluate, and eliminate potential issues, errors, and failures before they begin. In patient care, FMEA offers a continuous quality improvement process and makes use of a multidispline-appproach to assess the service or process for quality improvement.

## C1: Steps in FMEA

The FMEA tool comprises of 7 steps, which involves analyzing, recruitment of a team, description of the process, listing potential failures, assigning values to each point of failure, and improving and evaluating on results. The first step involves analysis of the process under implementation, which may involve identifying a problematic area. Secondly, a multi-disciplinary team is formed of relevant people, who are initially tasked to describe and define the steps of the proposed process. Subsequently, the team assesses possibilities of error when implementing each step. Furthermore, some fixable problems are shortlisted that have the possibility of reoccurrence, to enhance patient safety. The 6th step involved implementing the designed changes from the tasked team (Mikulak, McDermott, & Beauregard, 2008). Finally, the success of the change process will be measured meaningfully to indicate success to the management.

# D: Test Interventions

To test the planned interventions, a team has to be gathered to plan the implementation of the change. The team would be interdisciplinary and include members that would be affected by the implementation of changes. Initially, the intervention would be tested on a smaller scale, possibly one floor or unit of the hospital, such as Emergency. For this purpose, the staff involved in the change has to be educated with regards to their responsibilities and what the change entails. Following the educational phase will require making use of checklists, which would allow the team overseeing the implementation to document and discuss failures and successes, and change plans accordingly. The cycle would continue until the team is satisfied with the results of the intervention. The overall aim would be the prevention of events involving respiratory depression in all patients that receive sedation.

# E: Nursing Leadership

A professional nurse plays a critical role in healthcare by serving as a leader that influences quality improvement in care delivery and activities in a number of ways. They are the first whom people seek when they require services, and offer guidance, care, knowledge and support to different patients. Their involvement in process improvement is vital to improve patient safety within the hospital. Furthermore, nurses exhibit leadership by devising solutions and leading the change for quality improvement. Staying updated with latest evidence-based practices improves their function as a leader (Murray, 2017), allowing them to provide quality care, and contribute towards better patient satisfaction as they save lives. In an inter-disciplinary team, the input of the nurse is important regarding the quality of care, and they assist managers and staff with support and training, which makes them a vital part of the healthcare institution.

## E1: Nurses in RCA and FMEA process

Due to their position in caregiving in healthcare institutions, nurses can participate in quality improvement processes through controlling, measuring and improving all different nursing indicators. For this purpose, an environment has to be provided by nursing leaders in which the staff freely participates in care and service delivery and plays an active role in improving patient outcomes according to expectations. Their involvement in the implementation and design phases of the process is important, as they are the ones that deal directly with the patients most of the times. Therefore, involving them in the change and improvement process such as the FMEA and RCA will help broaden perspectives, and help make the change more effective.

# References

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