

Essay on root cause analysis

[Sociology](#), [Communication](#)



Abstract

Different factors led to worsening of Carla's condition. Communication lapses contributed to the adverse events as Ana did not call the physician at the dialysis unit to inform him of the importance to monitor Carla's INR. In addition, the inflexible scheduling hindered Carla from getting the ultrasound test done at the right time and receiving timely care. Another factor is the patient's failure to follow the discharge instructions. All parts such as the hospital, dialysis center and laboratory should communicate effectively by mailing discharge summaries and calling respective parts to ensure patients are receiving recommended care and tests. Health professionals should educate patients about the discharge care and lifestyle modification and provide follow-up care to patients. They should ensure flexible scheduling. The laboratory, dialysis centers and the discharge processes can be improved to ensure Carla receives appropriate care and improve the patient outcome. Process measures include the number of patients receiving patient education, having laboratory tests done as scheduled and receiving dialysis based on the discharge instructions. The outcome measures include complications associated with high INR such as subdural hematoa (bleeding on the brain), potassium levels, deep vein thrombosis and international normalized ratio (INR). Hence, data will be gathered to evaluate the change and measure the process and outcome measures. Leaders have to overcome resistance from the workers by addressing their concerns including job insecurity, training among others.

Care Process

The process of care comprises of different steps as shown below.

Factors that Contributed to the Adverse Event

A wide range of internal and external factors contributed to the adverse event. First, poor communication between health professionals involved in Clara's care contributed to the adverse event. A communication lapse at the end of the patient's last hospitalization led to the adverse event. Ana did not call the dialysis unit to inform the doctor regarding checking the patient's international normalized ratio. Lydia and Ana concluded that Carla's international normalized ratio (INR) would be checked at the dialysis unit as it would be convenient for the patient. Carla informed the nurse that it would be hard for her to get the primary care physician check the INR levels besides the dialysis. However, the medical assistant at the dialysis unit did not check her INR as he was not aware of the INR issue. The assistant promised to check on the issue. Hence, failure to check the patient's INR twice or thrice to decrease the risk of clotting led to the adverse event as she was admitted to the emergency department with deep vein thrombosis. Also, ineffective communication between the patient and health professionals caused the problem (Kourkouta & Papathanasiou, 2014). The case worker mailed Carla an appointment slip after she failed to come to the nutrition appointment. However, the case worker was not sure whether the patient received the appointment slip or not. As a result, Carla did not receive the slip and come for the appointment. Second, inflexible scheduling hindered the patient from receiving appropriate care and led to the adverse event. The nephrologists, Jesse ordered an ultrasound of the patient's upper

arm at a local hospital almost eight miles from the dialysis center. Mercedes, a nurse called the radiology department and scheduled the test for 9AM the following day. However, Carla arrived at the facility 30 minutes later because of complex bus schedule and Jona informed her they could not perform the test. Jona claimed that the radiology department had a policy that encouraged rescheduling of patients who were late for more than 15 minutes. He stated the department had a high number of patients who came for the tests late and hence rescheduling ensured they were fair to patients who arrived on time. Thus, the inflexible scheduling prevented patients who arrived late like Carla from having the tests ordered by the physician and nephrologists done and compromised their care and led to poor patient outcome. Third, Carla's inability to follow the discharge instructions contributed to the adverse event. Carla did not see a nutritionist as recommended as she left the written discharge in her friend's car due to fatigue and poor sleep over the past few days in the facility. Consequently, Carla consumed foods that contained large amounts of vitamin K such as spinach and the foods affected Warfarin. The spinach made the anticoagulant levels unstable. Carla was not aware of the foods she should eat and those to avoid as she did not meet the nutritionist. Fourth, inadequate staffing at the dialysis center caused the adverse event as Mercedes' the nurse in charge of Carla failed to call her and remind her to come for the dialysis as she assisted a patient with a sudden decrease in blood pressure during dialysis. Consequently, Carla was admitted to the emergence department because of high potassium levels of 6.7mmol/L.

Rule for the System

The health care system consists of different parts including hospitals, clinics, pharmacies, laboratories among others that are interconnected to fulfill a purpose. The parts are interconnected through patient flow and information flow and focus on improving and maintaining patients' health. Mechanical and adaptive system thinking are critical in redesigning the 21st century health care system. Mechanical thinking involves comprehensive plans and controls (Committee on Quality of Health Care in America and Institute of Medicine, 2001). In this case, health professionals agree on the most suitable actions as the actions of each member are predictable and mechanical. Individuals who behave unpredictably are expelled from the health team. In mechanical thinking, health professionals specify the behavior and decrease variation. Failure to plan and control leads to chaos. Complex adaptive system thinking is used to address issues in the zone of complexity when designing the healthcare system. A collective adaptive system refers to people who act in ways that are not predictable and whose actions are interlinked and change the context for other individuals. The simple rules for human complex adaptive system are of three types (Committee on Quality of Health Care in America and Institute of Medicine, 2001). The first type is "general direction pointing". The second type is "prohibitions" and the third type is "resource or permission providing".

As a result, the following rules are applicable to Carla's health care system. The simple rules are aimed at regulating the health care system and hence fall into the prohibition category. The system consists of different parts including the South West Medical, clinics, dialysis center, and laboratory

among others. The following rules should be implemented in order to improve the functioning of Carla's health care system and patient outcome. First, effective communication between different parts including the hospital, laboratory and dialysis center should be encouraged (Kourkouta & Papathanasiou, 2014). Ineffective communication between the parts has impaired Carla from receive appropriate tests and care and contributed to worsening of the condition (renal failure) and complications such as memory loss and functional disability. The hospital communicates with outside doctor by mailing a discharge summary. However, the communication method is not effective as it leads to communication lapses. In this case, the hospital should effectively communicate with outside physicians and other parts by mailing discharge summary and calling the respective parts. Health professionals at the hospital should call the laboratory, dialysis center and departments such as the radiology department to inform other health professionals about the tests required, the suitable care for the patient after discharge and the role of each part after the patient is discharged. Additionally, health professionals should call the respective parts including laboratory and radiology unit among others after scheduling tests to ensure the patient and health professionals are adhering to the discharge instructions (Kennedy, Fasolino & Gullen, 2014). Second, patient education is key before discharge as it ensures the patient understands the discharge instructions given and enables health professionals address concerns. Health professionals should inform patients about the recommended discharge care, medication and lifestyle modification necessary to improve their outcome. However, they should avoid information overload as it leads to

confusion and makes it hard for the patient to understand and follow the discharge instructions. Third, health professionals should provide follow-up care to enhance the patient's outcome. Follow-up care enables health professionals determine the patient's progress, adherence to treatment plan and discharge instructions and referral of patients due to complications. Fourth, flexible scheduling is imperative in preventing adverse events by ensuring patients have the necessary tests and receive appropriate and timely care (Korgaonkar et al., 2010). All parts including the laboratory, radiology department, dialysis unit and the hospital should have a flexible schedule to ensure patients who are late and require urgent tests and care get suitable tests and care (Williams et al., 2014)

The Ideal Process Map

Improving Part of the System

Different processes in Carla's case can be improved and move Carla's care closer to ideal. The laboratory, dialysis centers and the discharge processes can be improved to ensure Carla receives ideal care and improve her outcome. Professionals including nurses, physicians and technicians working at the dialysis center should ensure patients receive care according to the discharge instructions. The health professionals should ensure patients have the necessary laboratory tests done before and after dialysis to prevent complications. They should ensure effective communication with professionals working in hospitals such south West Medical and laboratory to determine the recommended care for the patient receiving dialysis (Kourkouta & Papathanasiou, 2014).

Additionally, the scheduling of patients requiring laboratory tests at the

radiology department should be modified to ensure flexible scheduling. Flexible scheduling of patients will help accommodate patients who arrive late. For instance, flexible scheduling would have ensured Carla had the recommended laboratory tests done including the ultrasound of the upper arm and received appropriate treatment (Williams et al., 2014). However, inflexible scheduling led to poor patient outcome including deep vein thrombosis as she did not receive treatment to prevent the formation of blood clots. The radiology department should ensure fairness as well as scheduled patients get their tests done. Moreover, the process of discharging patients should be changed to improve Carla's outcome. Health professionals should educate patients about the necessary care after discharge including medications and tests to monitor their condition. Patient education increases the patient's knowledge and skills and promotes treatment adherence. Patients should be informed about the benefits of life style modification including foods they should consume and avoid to prevent complications (Kleinow et al., 2011). The nurse and social worker could have improved Carla's outcome by educating her regarding recommended care including tests and medications and lifestyle modification. They should have informed Carla about the foods to avoid including foods rich in vitamin K to prevent unstable anticoagulant levels (Korgaonkar et al., 2010).

Evaluation of the Change process and outcome measures

The process measures are used to evaluate the activities conducted by health professionals to provide health care services. A wide range of process measures will be used to evaluate the change. First, the number of patients receiving patient education before discharge will be determined to evaluate

the effectiveness of patient education during the discharge process. Second, the number of patients having laboratory tests done as scheduled will be determined to assess the effectiveness of the scheduling process and laboratory process. Third, the number of patients receiving dialysis care as stated in the discharge instructions will be determined to evaluate the effectiveness of the dialysis process/treatment process. Lastly, the communication between health professionals working in the dialysis center, laboratory (radiology department) and hospital will be assessed to evaluate the process of communication.

Measuring health outcomes is important in evaluating the quality of care. Outcomes include different health states including mortality, physiologic measures, and functional status and disease symptoms. Outcome measures are significant in quality improvement by identifying areas that need to be improved. Outcome measures will be used to evaluate the quality of care offered to patients with renal failure. The outcome measures include complications associated with high INR such as subdural hematoma (bleeding on the brain), potassium levels, deep vein thrombosis and international normalized ratio (INR) (Limdi et al., 2009). Outcome measures such as high INR, high potassium levels, deep vein thrombosis and subdural hematoma indicate poor quality care. Therefore, the process changes will be deemed effective if the patient has non subdural hematoma and deep vein thrombosis. Besides, the change will be considered successful if the patient has low INR and potassium levels (Kleinow et al., 2010). Lastly, the cost of the changes will be evaluated by comparing the cost of bringing the process change and

the budgeted cost. The change will be deemed not cost-effective if the cost of bringing change surpasses the budgeted cost.

Changes to be Made

The following changes should be made in the current system. The communication process should be changed to ensure effective communication (Kourkouta & Papathanasiou, 2014). The hospital should not only mail discharge summary to outside physicians, but also call them to inform them about the recommended discharge care for the patient who need dialysis. In addition, the laboratory, hospital and dialysis clinic should develop a new flexible scheduling system (Williams et al., 2014).

In addition to that, the discharge process should be modified to include mandatory patient education to improve patient outcome. Health professionals should educate patients concerning their care after discharge, medications and lifestyle modification to prevent complications and ensure effective management of their conditions (Al-Abri, 2007). New care processes should be added such as follow-up care to enable patients receive follow-up care. Providing follow-up care enables health professionals monitor the patient's condition and identify related complications.

Plan

The plan will be used to evaluate the proposed process changes. The change to the discharge process, scheduling process, communication and the follow-up care will be tested. The discharge process will be tested to determine whether patients receive appropriate discharge care including patient education. The follow-up care provided to patients will be tested to

determine if patient's receiving high quality care which contributes to better outcome. The scheduling process will be tested to determine its effect on the patient's ability to have the necessary tests done and receive suitable and timely care. Finally, the communication process will be tested to determine if the communication between health professionals in and outside the hospital and patients is effective and contributes to high quality care (Kourkouta & Papathanasiou, 2014). The tests will be run by a project manager who will be overseeing the change process. The tests will take place at South West Medical Center, laboratory and dialysis center. The information includes information on communication between health professionals and patients and data on patient scheduling. Data on the number of patients who have benefited from the flexible scheduling and had their tests done and received timely care will be collected. Data on the number of patients getting patient education before discharge, patients and professionals adhering to discharge instructions will be collected. Besides, data on follow-up care offered to patients and the impact of follow-up care on the patient will be gathered. The data will be collected before, during and after implementing the changes.

Collecting data on the scheduling of patients, laboratory tests, follow-up care, communication and the discharge process is key to assessing the care processes. The data is imperative in testing the change to the discharge process, follow-up care, scheduling and communication and determine if the change is successful or not. The project manager will analyze the data before the study to test the effectiveness of the changes (Al-Abri, 2007). Data obtained will be kept in a safe place to prevent unauthorized access by third

parties and ensure it is valid and reliable. Medical records and interviews with patients and health professionals will be used to collect the data.

Medical records will be reviewed to obtain data on number of patients having the laboratory tests ordered done and those receiving follow-up care and patient education before discharge and outcome measures.

The following questions will be asked to collect data to test the changes.

1. How can you describe the communication between health professionals in and outside the hospital and patients?
2. How does communication between health professionals inside and outside the facility and patients influence patient care?
3. Is the current scheduling method effective in ensuring patients get laboratory tests done and quality and timely care?
4. Are there complications associated with high potassium and INR including deep vein thrombosis and subdural hematoa?

Challenges the Leadership Will Face When Implementing Change

Effective change in the organization entails unfreezing old behaviors and introducing new behaviors and re-freezing the behaviors. Change in health care organizations can be sporadic, continuous or occasional. Organizations have time to prepare if the change is predictable. On the other hand, organizations do not have time to prepare if the change is unpredictable. Leaders face numerous challenges when implementing change in the organization (Al-Abri, 2007). Change in the organization leads to anxiety and confusion due to the impact it has on employees. Change can lead to job

insecurity and hence resistance from employees. Hence, leaders are required to get the support and approval of health professionals before implementing the change to avoid resistance. They should address the concerns raised by the health professionals by training workers to equip them with skills and knowledge. Moreover, leaders are supposed to assure workers of their jobs and that the change does not lead to increased workload (Caldwell et al., 2008). Further, leaders have to address issues of motivation and morale to ensure the change is effectively implemented. Leaders should ensure effective communication and provide regular feedback to employees to motivate them to implement and support the change. Besides, leaders find it challenging to prepare the workers and the organization for change (Caldwell et al., 2008). Change models such as Kurt Lewin models are key in implementing, managing change and ensuring the change is sustainable.

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