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Quality Improvement Activity: High Risk Opioids – Medication Errors

A 69-year-old male presented to the emergency room with severe upper epigastric pain, weight loss, and confusion. The patient stated he received results from another hospital that confirmed pancreatic cancer. To gather a second opinion, the patient requested results and treatment. The doctor ordered an esophagogastroduodenoscopy, EGD, to examine the upper GI tract. During the transition for treatment, the patient was admitted to the surgical ICU. In hopes of good results, the intensivist and surgeon approached the patient with a surgical plan. The surgery would include a pancreaticoduodenectomy, also known as a Whipple. As the results came back, the EGD revealed stage three pancreatic cancer. The impression stated that the cancer intruded the head of the pancreas, around the hepatic artery, and spread to the aorta. In a matter of hours, the medical team presented an approach for surgical intervention to discussing palliative care as the primary treatment plan. As the patient and family decided to go towards the palliative route, the patient had an order for a patient-controlled analgesia pump, PCA pump. The PCA pump was administered on the ICU floor. The nurse and the student nurse were able to assist the patient and family by explaining the necessities of this opioid pain-controlling machine. During the teaching, the nurse stated that the family or the other nurses providing their care could press the button if the patient looked in pain. During the last shift of the week, the nurse was angry that the patient had not been transferred over to the palliative floor. The nurse also stated that the situation was mishandled by giving treatment options before the results. As the nurse and student nurse returned for their shifts the following week, the patient was still admitted onto the surgical ICU floor. The nurse and student nurse were confused about why this patient was still in the ICU and not on the palliative floor. As the nurse hand-off began, the night shift nurse stated that the PCA pump showed the button to be pressed excessively. The patient was receiving primary fluids to correct the metabolic status, but the veins became fragile. The PCA pump and the fluids became discontinued due to the veins and the collected data from the PCA pump. The nurse proceeded to explain all medications the patient was on for pain that correlated with the PCA pump's data. The patient was on three fentanyl patches, hydromorphone, and oxycodone. The pain medications were PRN, as needed, but became routine. The patient is also vomiting the medications by not allowing them to digest. The nurse and the student nurse were appalled that the patient did not receive other medication routes for their pain. The family and the patient wanted other options, but those requests were not obtained. The night the patient received the transfer order to the palliative floor, the patient suddenly declined and passed.

Describe the scenario. In what way did the patient care or environment lack? Is this a common occurrence?

In the scenario, the patient was admitted to the ICU floor for surgical intervention; instead, the outcome from the results lead to palliative care. The first occurrence that lacked patient care was from the medical team by giving false hope to the patient and family. The medical team could have withheld the information until the results were final from the EGD. The second occurrence resulted from a medication error with the use of high-risk opioids. The data received from the PCA pump was inaccurate. The teaching from the nurse resulted into misuse of the PCA pump. The patient pressed the button, and the family was educated to press it too. The teaching received to the patient and family was

invalid. The patient is the only one who can press the button to receive medication from the PCA pump. This resulted into the data of the PCA pump to be incorrect which resulted into a medication error.

What circumstances led to the occurrence?
The circumstances that led to these multiple occurrences were the intensivist and surgeons' mentality. The excessive optimism led to a completely different outcome for the patient and family. The main concern is the lack of teaching provided by the nurse about the PCA pump. This resulted in false data that was collected to formulate a treatment plan for pain medication. Misusing resources leads the patient to a high mortality status resulting in death.

In what way could you measure the frequency of the occurrence? (Interview nurses, examining charts, patient surveys, observation, etc.)
The way to measure the frequency of the occurrence(s) is to individualize the staff members in a 6-month meeting about cancer patients and PCA pumps. The data collection can be achieved in a broader scenario for patients that meet the requirements for the pump. This will allow all the staff members to share their experiences with these patients and the concerns relating to the patients care. PCA pumps are used to give pain medication. When patients are in pain, they have immediate access to the PCA pump to press the button handed to them to administer the pain medication. Over time the pump validates how many times the patient pressed the button even if the medication is dispensed. The medication is set only to be dispensed several times within a set time frame. To reiterate the mentioned interventions, this can be discussed in a meeting or/an added education module on the health stream. While conducting the meeting with the staff members, the most vital data to collect is from the patient and family themselves. As we include into our admissions data, we state if the patient and family are concerned about their treatment. Feedback should be conducted every other day to allow the patient and family to voice their positive and negative experiences during the care plan. This can be a recommendation card handed to the patient or family. The card could be filled with names or be anonymous. The card would be put in a little box inside the room and picked up by the morning staff. The obligation is to put it into the notes inside the chart and be discussed during rounds. The amount of miscommunication or the voices not spoken up during the care can be corrected with a simple piece of paper.

What evidence-based ideas do you have for implementing interventions to address the problem?
Epic should include into the chart by incorporating data validate for the use of the PCA pump. This would give live feedback instead of reading from the machine when needed. Not only this be valuable for cancer patients, but it would extend to all patients that had surgery and so forth. This would be helpful when charts are to be audited for the overuse of a PCA pump. It will decrease the misuse of the pump and decrease medication errors when using high risk opioids. This intervention is evidenced based when it comes to ICU patients. If vital signs and ART-lines, continuous blood pressure monitoring, can be data validated for critical time management then the use of a PCA pump can be achieve too. This will decrease the mortality rate of patients who use the pump. It will also correct the data received by the PCA pump.

How will you measure the efficacy of the interventions?

Measuring the efficiency of the interventions can result from feedback from staff members. This information can be put into the employer's file to reassess the potential and current problems. During the follow-up meeting, the staff members will review their concerns to see if the problem is still active or resolved. This follow-up meeting can introduce new onsets of concerns that can be recognized and allow issues to be resolved. As it comes to the patient and family, the issues and concerns can be addressed when the recommendation card is handed to them and filled out. Every other morning when the card is read by the nurse and put into the chart, it gives access to everyone who is involved in the patients care to read the recommendations stated by the patient and family. The card can be handed to the rounding intensivist on the floor. This allows for further evaluation of each patient specific concerns or positive feedback. When combining these two interventions, the staff and family address the positive and negative aspects within the care plan. Assessment and evaluation can improve patient outcomes by educating the family correctly, withholding false treatment recommendations, and administering the correct dosage of opioid medications.