

NURSING KNOWLEDGE OF CARDIOVASCULAR MEDICATIONS ON A NON-CARDIAC UNIT AND IMPLICATIONS FOR PATIENT OUTCOMES

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Purpose: The purpose of this Evidenced-based Practice (EBP) project was to decrease adverse patient events related to the use of cardiac medications on a post-operative orthopedic (non-cardiac) units. The purpose was also to determine and implement best nursing practices for safe cardiac medication administration to this patient population. The PICO question was “Will a best practice education program for Nurses about cardiovascular medications for a population of post-operative orthopedic adult patients result in fewer adverse events/inappropriately held meds compared to usual care?”

Background: Post-operative Orthopedic patients have multiple co-morbidities such as hypertension, anemia, diabetes and CHF which require inpatient nurses to be familiar with multiple cardiovascular medications. Adverse patient events have occurred which were associated with held CV meds due to unfamiliarity of drug’s action. Numerous studies were reviewed that demonstrate an association between postoperative ortho/trauma patients and increased cardiovascular risks. Baseline data indicated about 44% of patients on this unit have Hypertension and 37% have other Cardiovascular related diagnosis (i.e. Anemia, CHF, Electrolyte, Vascular & Valvular disorders).

Methods: An education program was developed based on best practices for safe administration of cardiovascular medications and medication cognitive aids were made available to the nursing staff. Baseline data was collected about the number and type of cardiovascular medications administered and ‘holds’ reasons. Nurses knowledge was measured using a pre/post test assessment. Tools consisted of “Clinical guide to administration of cardiovascular meds” and “Nurses guide to common cardiovascular meds”. The post-test was repeated after two weeks to assess knowledge retention.

Results: Almost half of the RNs received the educational in-service. The pretest survey of medication administration practices showed wide inconsistency in practice; specifically ‘nursing action in absence of hold parameters’ and ‘communication of held med’. Post-test scores for 23 RN averaged 92%. Although only 9 RNs completed the repeated post test, they scored a 94% retention rate. The Medication administration re-audits is pending.

Conclusion: This EBP project developed an cardiovascular medication education program for staff nurses that was very well received. Early results and feedback from the nurses are favorable but the patient outcomes audit is still pending so final conclusions can’t be determined yet. Next steps are to continue education for the remaining nursing staff and complete the audits. Major successes were RN verbalizing need for such an intervention. RNs also verbalized increases awareness in recognizing different categories of cardiovascular medications as well as the importance of reviewing the patient’s history.

Key Words: Nursing knowledge, cardiovascular medications, orthopedic patients, surgical patients, adverse events.

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