Purpose

• To explore the current state of management of postoperative nausea and vomiting (PONV) by anesthesia providers
• To compare the effectiveness of promethazine 6.25 mg to promethazine 12.5 mg in the post procedural patient experiencing nausea in Phase I and Phase II
• To compare the known risk factors that precipitate PONV to the factors that influenced PONV in the study population
• To accurately document nausea and reassessment of nausea after interventions

Goals

• To observe for nausea resolution with differing doses of promethazine
• To examine the current practice for postoperative nausea management
• Research known risk factors causing PONV and compare it to the study population
• Educate staff regarding documentation of nausea after interventions and audit for compliance

Background

• Patients with PONV delay discharge, require more medical interventions, increase healthcare costs and decrease patient satisfaction
• Larger doses of promethazine increase sedation in post operative patients especially in conjunction with opioids
• Promethazine is low cost and has a long elimination half life
• Reassessment of effectiveness of a medication is a JCAHO requirement

Assessment

This study took place in the post surgical area of a 500 bed magnet facility in the Pacific Northwest. There is variation in practice for promethazine dosing. Comparing outcomes of differing doses will allow for recommendations for the smallest effective dose. Side effects associated with the higher dose include: increased recovery time, increased healthcare costs, increased admissions for PONV and decreased patient satisfaction.

Intervention

For a period of 2 months, data was collected on the number of patients that received promethazine 6.25 mg or 12.5 mg intravenously, and whether nausea resolved within 30 minutes. Out of 2200 patients, 85 met inclusion criteria. Compliance of nausea reassessment documentation was assessed by chart audits in June. Staff was educated on proper documentation and re-audited in July.

Evaluation

• 89% of patients with PONV (n=76) received 6.25 mg promethazine. The sample size of promethazine 12.5mg was too small to be statistically significant
• The 6.25mg IV promethazine dose resolved the nausea 86% of the time.
• The sample was comprised of mostly non-smoking females with an average age of 45 which reaffirmed known risk factors for PONV
• The length of stay increased in both Phase 1 and Phase II by 15 min and 50 min respectively for those receiving promethazine
• Documentation of nausea reassessment increased by 14% in the month of July.

Next Steps

Partner with anesthesiologists and pharmacists to begin a controlled clinical trial comparing decreasing doses of promethazine and/or using a preemptive dose vs repeating ondansetron.

Review clinical evidence for other nursing interventions that may relieve nausea in Phase I and Phase II post operative patients.

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