

Pharmacy & Therapeutics Committee
Pantoprazole (Protonix®) DUE
1/2002

Number of patients: 12
Time Period: 8/30/01 to 11/02/01

Recommendations:

- IV Protonix® should be discontinued when the patient's oral route is available (full liquid diet, PO meds).
- IV Protonix is restricted to patients with a documented upper gastrointestinal tract bleeding who are unable to take oral medicines or patients allergic to H₂ antagonists who are unable to take oral medicines
- Pharmacists will call the physician to change patients to either an oral proton pump inhibitor or IV H₂ antagonists (Pepcid) when patients do not meet the criteria for use of IV Protonix.
- Letters will be sent to the gastroenterologists stating the criteria for use of IV Protonix and to inform them of DUE findings.

Findings:

- 58% (7/12) females
- Average age: 78 years (range 63-96)
 - Females: average 80 years (range 63-96)
 - Males: average 76 years (range 68-87)
- Average length of hospitalization: 12.58 days (range 3-64 days)
- Home medications
 - 42% (5/12) on anti-ulcer medications at home
 - 40% (2/5) H₂ antagonist
 - 60% (3/5) PPI
 - 42% (5/12) on medications related to bleeding (salicylates, NSAIDs, anticoagulants, etc.)
- P&T Approved Uses for Protonix®
 - 42% (5/12)
 - Upper GI bleed: 33% (4/12)
 - 8% (1/12) drug-induced GI bleeding (Vioxx) (UGI bleed)
 - H₂ antagonist allergy and NPO: 8% (1/12)
- Non P&T approved Used for Protonix®
 - Non-UGI bleed: 58% (7/12)
 - GERD: 8% (1/12)
 - PUD: 17% (2/12)
 - Stress Ulcer Prophylaxis: 0% (0/12)
 - No apparent indication for use: 8% (1/12)
 - Other: 25% (3/12)
 - NPO without H₂ antagonist allergy: 42% (5/12)
 - Hemocult positive stool (those without UGI bleeding): 33% (4/12)
- Prescriber
 - 58% (7/12) gastroenterologist
- Protonix® administration
 - Average IV bolus dose: 40 mg
 - 75% (9/12) patients received Protonix® IV bolus
 - Average frequency: 24 hours
 - Average continuous infusion (mg/hr): 5.33 mg/hr (4-8 mg/hr)
 - 25% (3/12) patients received Protonix® continuous infusion
 - Average loading dose: 53.3 mg (range 40-80 mg)
 - Length of therapy: average 3.54 days (range 0.14 - 9.52 days)
 - Patients with UGI bleeding or NPO & H₂ allergy: average 4.93 days (range 1.84-9.52 days)
 - Patients without UGI bleeding: average 2.55 days (range 0.14-4.99 days)
- Cost & length of excessive days of therapy
 - 86% (6/7) of patients with excessive length of therapy were followed by gastroenterologist.
 - Total cost of excessive therapy \$1260
 - Patients with documented UGI bleeding or NPO & H₂ allergy: average 2.26 days (range 0-6 days)
Defined as days of therapy after oral route available
 - Total cost of excessive therapy \$800

- Average per patient cost of excessive therapy: \$160 (range \$0-\$600)
- Patients without UGI bleeding: average 2.55 days (range 0.14-4.99 days)
Defined as all days of therapy as IV proton pump inhibitors were not indicated.
 - Total cost of excessive therapy cost \$460
 - Average per patient cost of excessive therapy: \$51.11 (range \$0-\$120)
- Blood transfusion
 - 75% (3/4) patients with documented UGI bleed received blood transfusions
 - 58% (7/12) received packed RBC
 - Average units of RBC transfused: 3.29 units (range 2-5 units)
 - Average pre-transfusion Hgb: 7.56 (range 5.8-9.1)
 - 8% (1/12) pooled platelet - patient received pooled platelets due to ADR from Lovenox, which was subsequently discontinued
 - Average units of pooled platelet: 10 units