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Guidelines for Use of NSAIDs and COX-2 Selective Agents

UWAMC Guidelines For Use of Cox-2 Selective Agents

- At UWAMC, Cox-2 agents are not recommended for routine use in patients with acute pain or general musculo-skeletal complaints.
- To balance optimal clinical outcomes and cost-effectiveness, use of Cox-2 agents should be primarily in patients at high risk for a serious GI complication from NSAID therapy, including:
 - Advanced Age (> 65-70 years). (Major determinant)
 - Previous clinical history (within 5 years) of a gastroduodenal ulcer or perforation or GI bleed or current diagnosis of Barrett's esophagus. (Major determinant)
 - Need for long-term treatment of chronic inflammatory conditions (i.e., rheumatoid or severe, persistent, inflammatory osteoarthritis).
 - Presence of serious systemic diseases or disorders (i.e., COPD, diabetes, renal or hepatic impairment). (Lesser Determinant)
 - Concomitant use of anticoagulants in patients requiring chronic anti-inflammatory therapy.
- Utilization of a proton-pump inhibitor (PPI) in combination with a traditional NSAID agent can improve tolerability and prevent serious GI events and can serve as a low-cost* alternative to a Cox-2 agent. (*Based on optimal UWAMC pricing for lansoprazole and pantoprazole. See reverse side.)
- Short-term use during peri-operative or –procedural periods of Cox-2 agents may be advantageous to reduce the risk of bleeding related to these interventions.

Key Clinical & Cost Issues

Analgesic Efficacy

- Cox-2 selective NSAIDs have no advantage over non-selective NSAIDs
- There is a very high degree of inpatient variability in response with all NSAIDs

GI Effects and Safety

- ◆ Minor GI adverse effects, such as dyspepsia, abdominal pain and nausea occur with both non-selective and selective agents and don't necessarily correlate with serious complications.
- Reductions in serious GI outcomes (perforations, ulcers and bleeds) have been demonstrated with the Cox-2 selective agents; however, data to date is limited with mixed results. Clinical data regarding long-term (>12 months) use in high-risk patients is not yet available.
- Stratification of patients by GI risk is generally recommended in selecting an agent.
- Adding a PPI to non-selective NSAID therapy can improve the GI safety profile.

Platelet Effects

- Cox-2 inhibitors do not cause platelet inhibition. This characteristic may be beneficial in peri-procedural settings and in patients with other bleeding risk considerations (i.e., anticoagulant therapy). The NSAID, nabumetone, also has minimal platelet effects.

Cardiovascular Effects and Safety

- Rofecoxib has now been voluntarily withdrawn from the market due to increased risk of serious CV events in some patients with chronic use. There are no data demonstrating this risk with celecoxib.
- Use of low-dose aspirin with Cox-2 agents may diminish the GI benefit. More data is needed.
- All NSAIDs, including Cox-2 agents, can worsen CHF and hypertension in persons with underlying disease. Caution is recommended with all agents in these patients.

Renal Effects

- No clinically significant differences have been demonstrated between traditional NSAIDs and Cox-2 agents. (Note: Data suggest high-dose rofecoxib- > 25mg/day- can be associated with an increased incidence and severity of reno-vascular affects,(i.e., fluid retention, edema and ↑ blood pressure.)

Cost Considerations

- The cost of the Cox-2 agents is significantly higher than the primarily generic NSAIDs.
- Cost outcomes studies to date have indicated that the most cost-effective use of these agents is in patients considered to be at high risks for GI complications.

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