BACKGROUND

Goal
This study is a retrospective chart review that aims to measure the effect of stress ulcer prophylaxis in hospitalized non-ICU level patients to determine the clinical effect of the presence or absence of stress ulcer prophylaxis.

Definition, Pathogenesis, Incidence of Stress Ulcers

Definition
Superficial ulceration, erosion of gastric mucosa
Most commonly in stomach, but can occur in duodenum or esophagus

Pathogenesis
Acid hyper secretion (especially neurologic and thermal injuries) due to excess gastric stimulation of parietal cells
Also stimulated by stress-triggered vagal stimulation
Pro-inflammatory state causes release of mediators: arachidonic acid metabolites, cytokines, oxygen free radicals
Impaired mucosal protection
Decreased perfusion
Increased concentration of refluxed bile salts and uremic toxins
Synthesis decreased due to poor gut perfusion from shock, sepsis, trauma
Start proximally in the acid-secreting portion of stomach, then progresses: over time, become deeper and move distally
Wedge-shaped mucosal hemorrhages with necrosis of superficial mucosal cells; if progresses to submucosa, can cause significant and life-threatening bleeding

Incidence
Range: 0.005% to 7.85%
*Depending on study, definition of clinically important bleeding, or risk factors present

PROTOCOL

Excluded:
- All Hospitalized Patients to General Medical Floor

Included:
- Home regimen includes prophylactic medication
- Initiated on prophylactic medication for therapeutic purpose (GI Bleed, GERD, etc.)

Undersuse: no risk factors
Correct Use: risk factors no prophylaxis
Overuse: risk factors prophylaxis

Analysis: Rates of clinically important bleeding per group?

RESULTS: RATES OF BLEEDING

DISCUSSION

Patients with Clinically Important Bleeding Events

Patient #1
- Underuse of Prophylaxis
- Risk factors: male, NSAID and steroid, AKI, sepsis
- Event: Transfusion, Scope

Patient #2
- Underuse of Prophylaxis
- Risk factors: age, male, anticoagulation
- Event: Overt GI bleeding

Patient #3
- Underuse of Prophylaxis
- Risk factors: age, male, DAPT, AKI
- Event: Transfusion

Patient #4
- Correct use of Prophylaxis
- Risk factors: age, male, AKI, liver disease
- Event: Transfusion, Scope

Patient #5
- Correct use of Prophylaxis
- Risk factors: age, male, anticoagulation
- Event: Scope

Patient #6
- Correct use of Prophylaxis
- Risk factors: AKI
- Event: Transfusion

CONCLUSION

There is no statistically significant difference in clinically important bleeding based on correct or incorrect use of stress ulcer prophylaxis in hospitalized, non-ICU patients. This is consistent with previous literature. Use of stress ulcer prophylaxis on floor patients remains individualized by the clinician, who must give consideration to the specific patient and risk factors present. Further studies are needed to determine if a certain number or combination of risk factors is significant rather than individual risk factors.

REFERENCES