DCCM STRESS ULCER PROPHYLAXIS

1. Purpose of document

To identify patients appropriate for stress ulcer prophylaxis.

2. Responsibility

All DCCM medical and nursing staff.

3. Document management principles and goals

Critically ill patients are at risk of stress related gastrointestinal bleeding. Prophylaxis with a proton pump inhibitor decreases the incidence of clinically significant gastrointestinal bleeding from 4.2% with no prophylaxis to 2.6% with a proton pump inhibitor. Patients who have clinically significant bleeding require more intensive therapy with blood transfusions and possible endoscopy.

4. Inclusion Criteria

The following patients should receive stress ulcer prophylaxis with a proton pump inhibitor.

- Shock – vasopressor/inotrope infusion greater than 1mg/hr Nor Adrenalin or equivalent for a MAP of less than 70 mmHg or lactate greater than 4 mmol per litre.
- Renal replacement therapy – intermittent haemodialysis or continuous renal replacement therapy.
- IPPV expected to last more than 24 hours.
- Coagulopathy – platelet count < 50 $x10^9$/l or an INR > 1.5.
- Full anticoagulation.
- History of chronic liver disease – cirrhosis or portal hypertension.
- Liver transplant – acute or chronic (interaction with Tacrolimus)

5. Exclusion Criteria

If a PPI is a usual medication for the patient then it should be continued even if they don't meet the criteria for instituting it as above.

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6. Process of Treatment

Omeprazole 40 mg IV/NG daily. Document on medication chart.

Duration: a proton pump inhibitor should be continued until the patient no longer meets the above criteria or is fully enterally fed

Overt GI bleeding: one or more of the following without haemodynamic compromise or reduction in haemoglobin.

- Haematemesis or blood in NG aspirate
- Coffee ground emesis/NG aspirate
- Melena or fresh PR blood

Treatment; start Omeprazole 40 mg IV, BD. Check Hb 12 hourly.

Clinically significant GI bleeding: Obvious GI blood and one of more of the following within 24 hours of the bleed.

- Decrease in blood pressure
- Start or increase of vasopressors
- Decrease in Hb by 20g/l.
- Transfusion> 2 units of red blood cells.

Treatment; Omeprazole 40mg IV,BD, correct coagulopathy and consider gastroscopy/colonoscopy. If indicated for active ulcer bleeding a bolus of Omeprazole 80 mg is given followed by an Omeprazole infusion at 8mg/hr.

Patients who are not normally on PPI's should have them discontinued before they leave DCCM

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7. Supporting Evidence

1. DCCM quality audit: October 2018.
2. Pantoprazole in patients at risk for gastrointestinal bleeding in the ICU. Krag,M et al NEJM October 24th 2018.
3. Prophylaxis against upper gastrointestinal bleeding in hospitalised patients. Cook, D et al. NEJM June 28 2018.
4. Prevalence and outcome of gastrointestinal bleeding and use of acid suppressants in acutely ill adult intensive care patients. Krag, M. Et al. Intensive care medicine 2015, 41:833 – 845.
5. Predictors of gastrointestinal bleeding in adult ICU patients: a systematic review and meta-analysis. Granholm A, et al .Intensive Care Medicine 2019, 45:1347-1359.

8. Disclaimer

No document can cover all variations required for specific circumstances. It is the responsibility of the health-care practitioners using this ADHB document to adapt it for safe use within their own institution, recognise the need for specialist help and call for it without delay, when an individual patient falls outside of the boundaries of this document.