James Paget University Hospitals NHS
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Joint Trust Guideline for the Use of Stress Ulcer Prophylaxis in Adult Critically Ill Patients

A clinical guideline recommended for use

In:	Critical Care Complex (CCC)
By:	Critical Care Physicians and Trainees, Nursing Staff
For:	All Adult Critical Care Patients
Division responsible for document:	Surgical Division
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Compliance links: *(is there any NICE related to guidance)*	None
If Yes – does the strategy/policy deviate from the recommendations of NICE? If so, why?	N/A

This guideline has been approved by the Trust's Clinical Guidelines Assessment Panel as an aid to the diagnosis and management of relevant patients and clinical circumstances. Not every patient or situation fits neatly into a standard guideline scenario and the guideline must be interpreted and applied in practice in the light of prevailing clinical circumstances, the diagnostic and treatment options available and the professional judgement, knowledge and expertise of relevant clinicians. It is advised that the rationale for any departure from relevant guidance should be documented in the patient's case notes.

The Trust's guidelines are made publicly available as part of the collective endeavour to continuously improve the quality of healthcare through sharing medical experience and knowledge. The Trust accepts no responsibility for any misunderstanding or misapplication of this document

Joint Trust Guideline for the Use of Stress Ulcer Prophylaxis in Adult Critically Ill Patients

Quick reference guideline for Stress Ulcer Prophylaxis in CCC (not management of active GI bleeding)

Indications

Ventilation anticipated > 48hrs

Coagulopathy

Pre-morbid PPI/H_2 antagonist therapy

Renal or hepatic failure

Burns > 35% BSA

High dose steroids *

Patients on dual antiplatelet

↓

Prescribe

(Select 'prophylaxis' option in Metavision)

- Enteral route whenever possible
- Lansoprazole NG 15mg OD

Or

- Ranitidine i.v. 50mg tds

NB**. Review daily**

Stop if fully fed and IPPV only risk factor

*250mg/day hydrocortisone or equivalent

Glossary

CCC	Critical Care Unit
INR	International Normalised Ratio
PPI	Proton Pump Inhibitors
H_2RA	Histamine $_2$-Receptor Antagonists

Objectives

To provide a standardised prescribing policy for stress ulcer prophylaxis in specified high-risk patient groups only and avoid their injudicious use.

Rationale

Critically ill patients have an increased propensity for developing stress-related mucosal disease. This can lead to significantly greater morbidity, ICU stay and gastrointestinal bleeding is a predictor of increased mortality in this patient group[1,2].

Several risk factors are associated including acute renal or hepatic failure, thermal injury, sepsis syndrome, history of gastrointestinal bleeding. Two risk factors have been found to be independent predictors of clinically important bleeding- respiratory failure requiring mechanical ventilation for more than 48 hours and coagulopathy[3]. The latter includes iatrogenically-induced states ie with anticoagulants.

It is defined as any of:

- Platelet count <50 x 10^9/L
- INR>1.5
- aPTTr >2

Others are listed under indications above. Any one risk factor warrants stress ulcer prophylaxis.

Several regimens have been suggested for the prevention of clinically important gastrointestinal bleeding including the use of antacids, sucralfate, histamine $_2$-receptor antagonists (H_2RA) or proton pump inhibitors (PPI). Antacids are considered too labour-intensive, requiring administration every 1-2 hourly and are associated with increased adverse drug reactions and toxicity due to electrolyte accumulation[2]. Sucralfate can decrease concurrent drug absorption and can lead to aluminium toxicity in patients with significantly impaired renal function[4]. H_2RAs are considered by many as first-line although PPIs are increasingly being used and may suppress acid production more completely. A meta-analysis has found no evidence to support advantages in either H_2RAs or PPIs over one another in bleeding prophylaxis or mortality[5]. H_2RAs and PPIs also have their disadvantages most commonly in the form of drug interactions. PPIs have also been associated with an increased incidence of *Clostridium difficile* diarrhoea.

The use of drugs to raise gastric pH could increase the risk of nosocomial pneumonia[6] and recently the Department of Health have drafted a “care bundle to reduce ventilation-associated pneumonia”[7], which recommends stress ulcer prophylaxis in

high-risk patients only. Although sucralfate should theoretically avoid such problems, no significant differences have been demonstrated[5].

In light of associated risks of stress ulcer prophylaxis, their routine use in all critically ill patients should be avoided. When they are prescribed, daily review should take place with a view to their discontinuation once indications change and/or full enteral feeding is established.

Broad recommendations

Please refer to quick reference guide. For the minority of patients lying outside these broad recommendations, decisions are left to the clinical judgment of the healthcare professional.

Clinical audit standards

Guideline standard for audit: all patients on IPPV without established enteral feed should receive stress ulcer prophylaxis – either H_2RA or PPI. This is subject to continuous assessment as part of Ventilator-Associated Pneumonia guidelines.

Summary of development and consultation process undertaken before registration and dissemination

The authors above drafted this guideline on behalf of Critical Care Directorate who has agreed the final content. During its development it was has been circulated for comment to the Critical Care senior medical and nursing staff, pharmacy and dietetics. In 2019 this became a joint guideline between NNUH, JPUH and QEHKL.

Distribution list/ dissemination method

This guideline will be available on the Intranet as well as through Metavision.

References/ source documents

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