

## Survey of stress ulcer prophylaxis

### ABSTRACT

There are wide variations in prescribing practices for stress ulcer prophylaxis. Institutions should consult published literature and use pre-existing guidelines as templates for developing their own guidelines.

### INTRODUCTION

Introduction Stress-induced gastroduodenal erosions are a frequent occurrence in critically ill patients, but it is the incidence of clinically important complications resulting from these erosions that is important in deciding which patients should receive prophylaxis. Clinically important complications include bleeding that requires transfusion, bleeding associated with hemodynamic instability, and gastrointestinal perforations. Failure to document these complications in published studies limits the conclusions that can be drawn from much of the available literature. There have been inconsistent results in those studies that did record clinically important bleeding, depending on severity of illness or injury, and concomitant or underlying disease states. Because the results of clinical investigations have led to different recommendations concerning stress ulcer prophylaxis, Cook et al performed a meta-analysis of randomized trials to resolve the controversies associated with previous research in this area. They concluded that there was no clear agent of choice for prophylaxis based on efficacy considerations (ie ability to prevent clinically important bleeding), but sucralfate might have advantages in terms of adverse effects because it was associated with a lower incidence of pneumonia compared with histamine-blocking medications. Within 2 years of the publication of this meta-analysis, Cook et al reported their findings from the largest randomized study conducted to date concerning stress ulcer prophylaxis. In that study, intravenous ranitidine 50 mg/8 h (with dose decreased for renal dysfunction) was associated with a lower incidence of clinically important bleeding compared with sucralfate 1 g/6 h (relative risk 0.44, 95% confidence interval 0.21–0.92,  $P = 0.02$ ). There were no significant differences between the medications with respect to pneumonia or mortality. Given the recent publication of these important results, the present survey was conducted by members of the Research Committee of the Section of Pharmacy and Pharmacology of the Society of Critical Care Medicine. The survey was mailed to Section members who are well versed in medications used in the critical care area. The purpose of the survey was to determine current prescribing practices in light of recent publications concerning stress ulcer prophylaxis. The survey was also intended to assess institutional evaluations of stress ulcer prophylaxis. It is hoped that the results of this survey will provide clinicians with information as to how their prescribing and evaluation practices compare with those of practitioners in other institutions. Additionally, the survey might uncover institutional practices that are inconsistent with the available literature and that deserve further consideration.

### CONCLUSION

There are wide variations in prescribing practices with regard to stress ulcer prophylaxis, although such prophylaxis is used in the majority of ICU patients. Histamine-2-antagonists, sucralfate, and proton pump inhibitors are commonly used agents, with histamine-2-antagonists being the most commonly preferred agent among the institutions surveyed. Published literature and available guidelines should be used as a template for

institutions that are constructing their own guidelines.