

## Targeting use of acid-suppressants in hospital patients

### Study identifies those most at risk for gastrointestinal bleeds in the hospital

Gastrointestinal bleeds which occur in the hospital, although rare, are a significant source of morbidity and mortality when they occur. Currently, the prophylactic use of acid-suppressive medication in non-critically ill patients in the hospital is not widely recommended. Despite this, these medications continue to be widely utilized for this purpose.

Shoshana Herzig from the Beth Israel Deaconess Medical Center in Massachusetts, USA, and her colleagues believe that there is a group of patients whose risk of gastrointestinal bleeds is high enough to warrant the routine prescription of acid-suppressive medication, and a larger group in whom these medications can be safely withheld. The new study<sup>1</sup>, which has developed a risk scoring system to identify these patients, appears online in the *Journal of General Internal Medicine*<sup>2</sup>, published by Springer.

Recent studies have found that the risk of gastrointestinal bleeding in hospitalized, non-critically ill patients is fairly low. However, some patients will be at greater risk for this complication than others and there is currently no method available to medical staff to help identify those most likely to have a gastrointestinal bleed. The authors therefore set out to find any potential factors which might identify which patients were most at risk to help target the use of prophylactic acid-suppressive medication where it is necessary, and withhold such medication in the rest.

Herzig and her colleagues studied 75,723 admissions to a large academic medical center over a three-year period. Patients were excluded from analysis if they were admitted with gastrointestinal bleeding, developed a bleed within one day of admission, or were due to have cardiac catheterization. There were gastrointestinal bleeds in a total of 203 patients.

From their analysis, Herzig and her colleagues identified independent risk factors which increased the likelihood of a gastrointestinal bleed. These were being over 60 years of age; being male; having liver disease, acute renal failure, or sepsis; being on a medicine service; already taking prophylactic anticoagulants; and having clotting disorders. This information then enabled the authors to develop a risk scoring system to identify high-risk groups. They found that risk of bleeding increased directly in line with these clinical risk factors.

The authors emphasize the need for further studies to reproduce this data. However, their scoring system allows identification of a sub-set of patients who may benefit from prophylactic use of acid-suppressive medication, as well as a larger group in whom these medications can safely be avoided. They conclude that “with further validation at other medical centers, this scoring system may help clinicians individualize the decision to prescribe acid-suppressive medication as prophylaxis.”

#### References

1. Herzig SJ et al (2013). Risk factors for nosocomial gastrointestinal bleeding and use of acid-suppressive medication in non-critically ill patients. *Journal of General Internal Medicine*; DOI 10.1007/s11606-012-2296-x
2. The *Journal of General Internal Medicine* is the official journal of the Society of General Internal Medicine.

**The full-text article is available to journalists on request.**

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