FAST TRACK

Onychomycosis appears to be a risk factor for cellulitis, to which diabetes patients are more prone

Onychomycosis is more than a cosmetic concern

In the Clinical Inquiry, "Which oral antifungal is best for toenail onychomycosis?" (*J Fam Pract* 2007; 56:581–582), the authors cite cosmetic concerns and local symptoms as primary reasons to treat. However, onychomycosis appears to be a risk factor for cellulitis,[1] to which diabetes patients are more prone and from which they stand to suffer the worst outcomes. Acknowledging this potential morbidity should discourage a laissez-faire attitude toward this disease for patients with risk factors for cellulitis.

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Stress ulcer prophylaxis: Overuse is understated

Kudos to Saultz and colleagues ("What GI stress ulcer prophylaxis should we provide hospitalized patients?" *J Fam Pract* 2007; 56:51–52), as their question raises a therapeutic dilemma in both the ICU and non-ICU settings. Unfortunately, in many cases, this practice isn't a true dilemma. Rather, it is a "knee-jerk" response to prescribe antisecretory therapy (AST) for stress ulcer prophylaxis that commonly occurs in the absence of evidence-based thought and neglects cost-effective provisions of medical care.

While the authors did an impressive job of highlighting the evidence on this issue, they missed an opportunity to stress the overuse of AST for stress ulcer prophylaxis—especially in the non-ICU setting. The general practice of stress ulcer prophylaxis in the non-ICU setting has been extrapolated from ICU data without evidence to support need or efficacy, leading to an excessive consumption of antisecretory medications and increased cost. Since not all episodes of microscopic GI bleeding are clinically relevant, studies using only this event as an endpoint have artificially inflated the reported frequency of GI bleeding and stress ulceration.[1]

Thus, the real question should be: In which hospitalized patients should we provide stress ulcer prophylaxis?

The best compilation of evidence examining the practice of stress ulcer prophylaxis appears in the guideline from the American Society of Health-System Pharmacists.[1] To summarize, stress ulcer prophylaxis is NOT recommended for adult general medical and surgical patients in non-ICU settings with fewer than 2 risk factors for clinically important bleeding, including severe trauma with spinal cord injury, overt sepsis, hepatic or renal transplantation or failure, or history of gastric ulceration or bleeding during the year prior to admission.

To date, there is no evidence to support the use of proton pump inhibitors (PPIs) in either the ICU or non-ICU setting. As the Clinical Inquiry authors summarized, there are no adequate studies comparing the efficacy of PPIs in this role to either histamine-2 receptor

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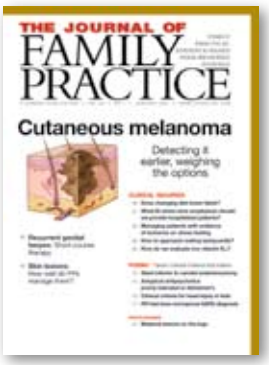
antagonists (H2RAs) or antacids.

What we do know is that in the ICU setting, the number needed to treat (NNT) to prevent a single episode of clinically significant GI bleeding is greater than 900.[2] (There is no current data on the NNT in the non-ICU setting.) Also of note: PPIs are the most frequently used medications for AST in all settings, and are the most expensive.



Why is this so important? Many patients admitted to general medical and family medicine (non-ICU) services are routinely placed on AST for stress ulcer prophylaxis, when neither the admitting nor the comorbid diagnoses support their use for either treatment or GI prophylaxis. Retrospective studies have found an incidence ranging from 22% to 54% for this practice.[3–5] Moreover, these studies determined that 34% to 55% of patients started on AST for stress ulcer prophylaxis were discharged home on these medications. This contributes to significant cost expenditure (that could be easily avoided) and places these patients at an increased risk of adverse side effects including aluminum and magnesium toxicity,[1] vitamin B_{12} deficiency,[1] pneumonia,[6] hip fracture,[7] and *Clostridium difficile* colitis.[8,9]

Expert opinion indicates that it is reasonable to use clinical judgment to determine whether a patient with moderate to severe physiologic stress (ie, the use of chronic or high-dose steroids, sepsis, potential sepsis, etc) in the non-ICU setting may ultimately benefit from AST for stress ulcer prophylaxis, taking into consideration potential risks vs benefits, likelihood of stress ulceration, and cost-effectiveness. A plan for ensuring that patients are not discharged on AST without appropriate symptoms or indication for treatment is key.[1]

A retrospective cohort study from Heidelbaugh and Inadomi[3] suggests that potential interventions to minimize inappropriate use of stress ulcer prophylaxis include:

- the use of ASHP guidelines (potential for update is unknown at this time)
- adaptation of these or similar guidelines that are readily accessible and could be easily referenced
- appropriate instruction of resident and junior attending physicians in this practice as a model for cost-effective care.

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