To the Editor:

I must congratulate Glaser and Rolita on covering an important and challenging area of medication practice in the March 2009 issue of Geriatrics & Aging. However, I do have a couple of questions/comments:

1. The authors mentioned simethicone within the class of antacid medications, but my understanding is that its mechanism of action is to alter the surface tension of gas bubbles produced during the digestion of food. It is safe in older adults but has no impact on gastric acid or heartburn per se.

2. Could you please clarify which drug interactions are similar between proton pump inhibitors and H2-blockers? My understanding was that the latter, particularly older drugs such as cimetidine, had significantly more drug interactions than PPIs.

3. I understood loperamide had anticholinergic properties and might not be very safe in patients with moderate dementia.

4. Among laxatives, lactulose is an osmotic laxative but is it not safe in renal failure? Plus a previous article in Geriatrics & Aging suggested that docusate sodium is not very effective in the treatment of constipation.

Please comment.

Sincerely,
A Physician*

*The author of the letter has requested anonymity.

The authors respond:

In response to the query on Educating the Older Adult in Over-the-Counter Medication Use, simethicone is a surfactant and may modulate gas handling. Simethicone is taken to reduce gas, as it acts in the stomach and intestines to change the surface tension of gas bubbles. Although it is generally considered to be of no specific value in functional dyspepsia, recent trials have shown that it helps with the overall improvements of functional dyspepsia. When compared to cisapride, simethicone was superior in the treatment of patients with functional dyspepsia.1

Proton pump inhibitors are generally well tolerated with few side effects. However, they have the same drug interactions as H2RAs but are less reported. These are listed under H2RAs in Table 4 of Educating the Older Adult in Over-the-Counter Medication Use, and include fluoxetine, chemotherapy drugs, theophylline, warfarin, carbamazepine, phenytoin, isoniazid, ciprofloxacin, ketoconazole, and valproic acid. Cimetidine has been associated with acute liver disease more frequently than other H2RAs.2 The most serious interaction is the risk of parkinsonism with a combination of fluoxetine and cimetidine.3

The nonopioid actions of loperamide contributes to the reduction of acetylcholine release from human cholinergic nerves.4 Older adults are at greater risk for increased cholinergic load when multiple drugs with anticholinergic activity are used.5 Taking other medications with anticholinergic properties or having an underlying cognitive dysfunction, such as moderate dementia, makes an older adult particularly susceptible to these side effects.

Docusate sodium is a surfactant laxative. Controlled clinical trials of docusate sodium are limited. The mechanism of action is to allow penetration of water and fat into feces. It is generally slow to work 6 yet is generally safe and a good first line of therapy, especially for patients who suffer from hard stools as the underlying cause of their constipation. The inquirer is right in pointing out that docusate sodium is not the most effective agent for the treatment of constipation, but it is safe and works well with hard stools. Psyllium has been shown to be superior to docusate sodium in the treatment of chronic constipation, as it results in significant improvement in evacuation completeness.7 Polyethylene glycol is also relatively safe to use and is now available over the counter as Miralax. Lactulose is an established therapy for hepatic encephalopathy and shows effectiveness for constipation. Lactulose can result in electrolyte abnormalities in high doses and more so in patients of renal failure so this should be closely monitored by a physician if the patient takes it regularly.

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References: