

## ■ Managing diarrhea in infants

### TO THE EDITOR:

Banks and Sullo's review of management of diarrhea in children ("What is the best way to evaluate and manage diarrhea in the febrile infant?," *J Fam Pract* 2004; 53:996–999) overlooked 1 therapy of demonstrated effectiveness. Two well-designed South American studies<sup>1,2</sup> both found that bismuth subsalicylate (Pepto-Bismol) at a dose of 1.14 mL/kg every 4 hours decreased stool output and duration of symptoms.

Moreover, results of 1 of these, a placebo-controlled, randomized trial<sup>1</sup> involving 275 infants (mean age 13.5 mo) revealed that stool output, duration of diarrhea, and length of hospital stay were significantly decreased in patients treated with bismuth subsalicylate, with no observed adverse reactions. That study concluded that bismuth subsalicylate is "a safe adjunct to oral rehydration therapy for infants and young children with watery diarrhea." I have found this therapy useful during rotavirus outbreaks.

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### DR BANKS RESPONDS:

Dr. Devitt brings up an excellent point. Some studies suggest that bismuth subsalicylate (BSS) is a safe and useful adjunct in the treatment of diarrhea in children, particularly during rotavirus outbreaks. Both studies he mentioned demonstrate decreased fluid requirements, duration of acute symptoms, improved stool frequency and consistency, and decreased length of hospital stay, when treated with BSS compared with placebo.

However, 1 of the treatment regimens routinely utilizes intravenous fluids, followed by oral rehydrating solution or diluted milk, which does not reflect the current standard of care.<sup>2</sup> The second study utilizes a more accepted approach, with oral rehydrating solution in mild to moderate dehydra-

tion (intravenous fluids if dehydration is severe), followed by rapid refeeding; however, in this study, lactose-free formula is used in the refeeding phase, rather than standard formula.<sup>1</sup>

A larger randomized control trial involving hospitalized Bangladeshi children receiving standard therapy with oral rehydrating solution (or IV fluids, if severely dehydrated) followed with rapid refeeding, showed reduced stool losses and greater weight gain when receiving adjunctive BSS, but failed to show a significant improvement in fluid requirements or duration of acute diarrheal symptoms (except in confirmed rotavirus infection, which improved significantly with BSS). There was no difference in persistent diarrhea at 2 weeks in those receiving BSS compared with placebo.<sup>3</sup>

As documented in my article, most of the recommendations against the use of antidiarrheal agents in children are based on consensus reports or reviews rather than well-designed studies or meta-analyses. The 3 studies on BSS demonstrated no adverse reactions to BSS, and wide-scale use of BSS suggests that fears about inducing Reye's syndrome are largely theoretical.<sup>1-3</sup> Thus, in clinical situations where the child with nonbloody diarrhea is extremely uncomfortable despite adequate fluid replacement, or when the parents are distraught from the overwhelming symptoms, a trial of BSS might be reasonable, although the effects may be minimal. However, routine use of BSS cannot be recommended without further studies.

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### REFERENCES

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