VERBATIM

'My son and I have a close relationship. …I do take him on rounds with me occasionally when I'm covering call on the weekend. He enjoys going to the hospital and it helps that I'm in pediatrics. I can come into a room with a child patient and it's very reassuring to these young kids to see that I have a "child assistant."'

Boston pediatric rheumatologist Dr. John Whelan on his life as a divorced dad, p. 62

Studies Uncover Adverse Reactions to Probiotics

BY ROBERT FINN
San Francisco Bureau

BEVERLY HILLS, CALIF. — The jury may still be out on whether probiotics are beneficial, but at least they do no harm and can be safely recommended to patients, right? Not so, said Dr. David R. Mack at the International Probiotics Association World Congress. Several recent studies have uncovered some risks associated with probiotic use, in both children and adults. "We [physicians] are always looking for new things, but we're a conservative, skeptical lot, and safety is a primary concern."

One of the most concerning studies is also one of the newest, noted Dr. Mack of the University of Ottawa (Ont.). Investigators randomized 298 patients with predicted acute pancreatitis to receive probiotic prophylaxis or placebo. The probiotic preparation consisted of six live bacterial species: *Lactobacillus acidophilus, L. casei, L. salivarius, Lactococcus lactis, Bifidobacterium bifidum*, and *B. lactis*.

In one study, the mortality rate was 2.5 times higher among the patients receiving probiotics than among those receiving placebo.

Not only did the probiotic preparation fail to reduce the risk of infectious complications, but the mortality rate was 2.5 times higher among the patients receiving probiotics than among those receiving placebo. Twenty-four (16%) of the patients in the probiotics group died, compared with nine (6%) in the placebo group.

Furthermore, nine of the patients in the probiotics group developed bowel ischemia (eight with fatal outcomes), compared with none in the placebo group. The other deaths involved multiorgan failure (Lancet 2008;371:651-9).

According to some studies, probiotics are associated with increased asthma and wheezing in children. In one study, for example, children exposed to *L. rhamnosus GG* at birth had 3.4 times the risk of having asthma at age 7 years as a control group had (J. Allergy Clin. Immunol. 2007;119:1019-21). In another study involving the use of *L. rhamnosus GG* to prevent atopic dermatitis, 26% of the children in the probiotic group versus 9% in the control group developed wheezing bronchitis (Pediatrics 2008;121:e850-6 [Epub doi:10.1542/peds.2007-1492]).

And there is further evidence of possible allergic complications following probiotic use. One study in France demonstrated that two out of three common probiotic preparations contained cow's milk proteins (J. Allergy Clin. Immunol. 2007;119:746-7), and a separate case report described a child who developed anaphylaxis after taking a probiotic containing cow's milk proteins (Allergy 2006;61:507-8). Beyond these known adverse reactions, there are other reasons to be concerned about the possible long-term effects of probiotics in young children. When adults take probiotics, it's rare to see extended colonization by the probiotic bacterial species, but outcomes appear to be different in young children: Some probiotic species have been detected in stool samples years later. ■

Pages 16a—16b