5.5-fold increase in antimumps IgG antibody concentration to 16,000 IU/mL.

The third case occurred in a 30-year-old male pediatric resident with no history of mumps vaccination who had mumps disease during childhood. He had an antimumps IgG antibody concentration of 33 IU/mL in a serum sample obtained for screening for newly employed health care workers at our institution. One year later, the patient developed acute bilateral parotid swelling. Examination of a serum sample obtained at that time revealed an 8.5-fold increase in IgG antibody concentration to 277 IU/mL; this sample was tested together with the previous sample and was antimumps IgM antibody negative. Neutralizing assays confirmed reinfection, despite pre-existing neutralizing antimumps serum antibodies. Ten days later, the patient’s 26-year-old female partner (with no history of mumps disease or vaccination) developed a primary mumps infection (IgM antibody positive). These cases illustrate that symptomatic mumps reinfection may occur in the presence of pre-existing specific mumps virus serum antibodies.

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Prevention of Traveler’s Diarrhea: A Call to Reconvene

To the Editor—More than 40 years have passed since the initial reports of traveler’s diarrhea (TD), and much has been learned about the epidemiology of this illness, which is most often attributed to colonization of the intestinal track with pathogenic bacteria of a broad variety [1, 2]. Although our understanding has improved and effective treatment has been made available, individuals are still traveling from developed countries to lesser developed countries, and ~1 of 3 will experience an acute illness; some of these individuals will be incapacitated, but most will improve within a few days [3].

In addition, >50 years ago, the initial descriptions of postinfectious functional bowel disorders were reported [4, 5], and in the past decade, a proliferation of studies summarized in 2 recent systematic reviews have concluded that ~1 of 10 people who develop TD will acquire postinfectious irritable bowel syndrome (PI-IBS), despite normal preexisting bowel habits [6, 7]. Although PI-IBS is perhaps not as debilitating as less frequent sequelae of reactive arthritis [8], Guillain Barré syndrome [9], or inflammatory bowel disease [10], the attributable burden of PI-IBS is measurable. A quick calculation reveals that, among the 100 million travelers each year from industrialized countries who are at intermediate to high risk of diarrhea, ~30 million will develop TD, and 3 million new cases of PI-IBS will arise [11]. PI-IBS has been reported to persist in 57% of patients 6 years after its onset in one study, and postinfectious functional bowel disorders (predominantly PI-IBS) persisted in 76% of patients 5 years after its onset in another study [12, 13]. These illnesses not only decrease the quality of life of those afflicted, but the economic impact is considerable. In a review of 18 economic studies conducted in the United States and the United Kingdom, the direct cost per patient-year was estimated to be US$348–8750 (in 2002), the annual number of lost days of work was 9–22 days, and the indirect cost per patient-year was estimated to be $355–3344 [14]. Unquestionably, this represents significant social and economic impact.

In addition to travel-related PI-IBS, the fraction of cases of IBS secondary to domestically acquired foodborne illness needs to be considered. IBS is the most common chronic medical illness, seen in up to 15% of the US population and accounting for nearly one-third of all costs in gastroenterology as a result of investigation, management, and work loss among those seeking care [15–17]. Although the attributable fraction of IBS cases caused by domestic foodborne illness is unknown, it is likely to be large, given the frequency of these illnesses [18]. Thus, the traditional thought of foodborne illness as a self-limited condition also needs serious reconsideration and should inform future food security policy decisions.

Finally, shortly after the first reports of TD 40 years ago, reports of studies evaluating agents for use in prophylaxis followed. A number of effective regimens have been described; however, widespread use of prophylaxis, particularly antimicrobial agents, has been discouraged—a position formalized in a 1985 National Institutes of Health consensus meeting that has been unchallenged [19]. We feel that PI-IBS is a development that challenges this consensus.

The balance of chemoprophylaxis risk, compared with the consequences of TD and sequelae, needs reassessment. Although certain questions remain regarding the natural history of PI-IBS, effective treatment, and consequences of chemoprophylaxis, it is time that the questions regarding what can be done to prevent TD
and who could benefit from preventive interventions are reconsidered.

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