Long-Term Persistence of Multidrug-Resistant Enterobacteriaceae After Travel

To the Editor—The recent study by Ruppé et al showed a high rate of acquisition of multidrug-resistant Enterobacteriaceae (MRE) after travel [1]. The authors rightly concluded that travel to tropical regions, including Asia, Latin America and sub-Saharan Africa, should be considered a risk factor for MRE carriage during the first 3 months after return.

However, we disagree with their conclusion that it is not a risk factor beyond that period. In a previous study, we showed that 50% of travellers from a low-prevalence country (Australia) acquired resistant *Escherichia coli* during travel [2]. The good news was that the majority of these individuals lost carriage of these resistant organisms during the 6-month follow-up period. However, 18% of those carrying resistant *E. coli* strains were still carrying them at 6 months. Ruppé et al also showed that the majority of individuals lost carriage of these resistant strains within 6 months. However, it is important to note that in their study, 10% of travellers were still positive for an MRE at 3 months after returning home, 5% at 6 months, and 2% at 12 months. Thus, we do not believe that the authors can conclude that travel is not a risk factor for carriage of an MRE 3 months after travel.

Multiresistant bacteria, especially those resistant to fluoroquinolones, are relatively rare in Australia [3]. We have seen numerous patients who had multiresistant bacterial infections associated with prostate biopsies and other procedures in our hospital over many years, as have others [4, 5]. Invariably, a large proportion of these patients have a history of recent travel to a developing country; however, for some, it was as long as 1 or 2 years previously.

We believe, as does Ruppé et al, that travel to countries with a high prevalence of MRE is a major risk factor for acquiring multiresistant organisms. This has now been shown in many studies [1, 3–5]. We believe these resistant bacteria are most likely acquired via food and water [2]. However, we disagree with the conclusion that travel is not a risk factor after 3 months. While these resistant isolates seem to disappear within 3 months in the majority of travellers, there remain sizable proportions who have persistent carriage of resistant bacteria. Therefore, if they develop an invasive infection, there is the risk that it will be with a resistant infection, even 6 months or more after returning home.

Note

Potential conflict of interest. Both authors: No potential conflicts of interest. Both authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

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Clinical Infectious Diseases® 2015;61(11):1766–7
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DOI: 10.1093/cid/civ703