Reply to Karagoz et al

TO THE EDITOR—We read with interest the correspondence by Karagoz et al [1] regarding our article on the prevalence of Middle East respiratory syndrome coronavirus (MERS-CoV) nasal carriage and compliance with the Saudi health recommendations among pilgrims attending the 2013 Hajj [2]. On behalf of all authors of our original article, we would like to respond to their correspondence.

Karagoz et al discuss the possible routes of MERS-CoV transmission, the international concern about its pandemic risk due to aerosol transmission, and its stability in the environment. We believe that none of these points are relevant to our study, which reported the prevalence of nasal carriage of MERS-CoV among Hajj pilgrims at 2 defined time points—arrival and departure from the Hajj—and did not investigate transmission or routes of transmission of the virus. In addition, we believe that the title of the correspondence does not reflect its contents and that alluding to the aerosol-based transmission of MERS-CoV at this stage is premature. Although aerosol-based transmission may well be one of the routes of transmission of the virus, as yet there is no concrete evidence regarding which of the potential routes of transmissions—droplet, airborne, or contact (surface)—is the major route of spread of MERS-CoV [3, 4].

Karagoz et al raised concerns regarding our methods and about the fact that we collected swab specimens from the upper respiratory tract instead of the lower respiratory tract, which may have affected the results. They also raised the possibility that, given the median incubation period and serial interval (defined as the time between the successive onset of symptoms in a chain of transmission) of MERS-CoV were found to be 5.2 and 7.6 days, respectively, it is possible that a small proportion of the Hajj pilgrims might have been infected with MERS-CoV and recovered by the time we tested them at the end of Hajj. Hence, Karagoz et al conclude that it would have been more appropriate to screen the pilgrims during the pilgrimage period, in addition to the periods before and after the Hajj.

Although, theoretically it is possible that some Hajj pilgrims may have been infected with MERS-CoV and recovered during the Hajj, we stress that our study was not a longitudinal study (ie, we did not follow the same pilgrims through the Hajj) and was not designed to investigate transmission of MERS-CoV. Also, because sampling was done on a random basis, we believe that we were equally as likely to detect MERS-CoV carriage among pilgrims if sampling was done during the Hajj or at the end of Hajj. In fact, using the authors’ own argument that the median incubation period and serial interval were up to 7 days, coupled with the fact that most pilgrims complete the Hajj within 3 weeks, we believe that the optimal time to detect MERS-CoV

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carriage in pilgrims in our study was at the end of the Hajj, not during the Hajj. As a consequence, and given the significant operational challenges in sampling pilgrims during Hajj, we believe the latter would not have been of additional value.

Hence, taking the above factors into consideration and notwithstanding our discussion, in the original article, of the limitations of our study, we believe that our methods were appropriate to achieve the aims of our study.

Note

Potential conflicts of interest. All authors: No reported conflicts.

All 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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