Title: Recognition of aerosol transmission of infectious agents: a commentary

Reviewer: John Noti

Reviewer's report:

This commentary review by Tellier et al has been a long time coming, excellent attempt at clarifying what constitutes aerosol transmission. In 2010, the CDC convened a meeting of 118 scientists to identify gaps in the understanding of influenza transmission and to determine the relative contributions of contact, droplet, and airborne transmission. At that meeting, the definitions of what one considered a specific mode of transmission often overlapped and the terminology used among these scientists when presenting their research, at times, was confusing. This blurring of the lines among these modes of transmission became even more apparent during workshop meetings of focus groups formed to discuss the gaps in the knowledge of each mode. Over the years, researchers have attempted to clarify their specific findings in the Discussion section of their manuscripts, but still, questions and alternate interpretations of what transmission mode was responsible for their results oftentimes remained. The obstacles/questions and blurred lines regarding modes of influenza transmission that were brought out at the 2010 CDC meeting could have been applied to a number of other infectious diseases. As the authors correctly point out, "our thinking may change with additional studies...and the acceptance of aerosol transmission for different pathogens did not always follow a consistent approach". The authors cite pertinent studies of a number of infectious diseases that support this statement and nicely discuss why lumping all respiratory viruses "as a group" with respect to airborne-transmission is not always correct. As commented by the previous reviewers, an historical approach to how transmission modes for specific viruses were initially concluded would have been interesting. But I agree with the authors that this would have been a very long review and out of the more focused scope of this current review. From what I read, the authors were very responsive to the previous reviewer's comments. Overall, I thought this review was a very refreshing look at what defines aerosol transmission and will be an excellent reference citation for future studies that could be used to support those study's conclusions.

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