Author’s response to reviews

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

Authors:

Raymond Tellier (Raymond.Tellier@albertahealthservices.ca)
Yuguo Li (liyg@hku.hk)
Benjamin Cowling (bcowling@hku.hk)
Julian Wei Tze Tang (jwtang49@hotmail.com;jwtang49@gmail.com)

Version: 2 Date: 25 Jul 2018

Author’s response to reviews:

INFD-D-17-01219R1
Obstacles to the recognition of aerosol transmission of infectious agents: a commentary

Raymond Tellier, MD; Yuguo Li, PhD; Benjamin J Cowling, PhD; Julian Wei Tze Tang, BA MBChB MA PhD MRCP FRCPath FHKCP FHKAM

BMC Infectious Diseases
25 July 2018

Dear Editor,

Thank you for offering us the chance to respond to the Reviewers’ comments.

We have done this, point-by-point, below, as well as making the Editorial changes requested.

We hope that this is now acceptable for publication in your Journal.

Yours sincerely,

Dr Julian W Tang
MA MBChB PhD MRCP FRCPath
Editorial Comments:

Please address the following minor editorial requests:
-move the Disclaimer from the title page to the Acknowledgements section
- done

-Consent to publish section: This section is for manuscripts such as case reports where patient-level data are described and the patient has given consent for publication. Therefore you can state 'not applicable' here.
- done

-Figure: could we please just confirm that the figure is your own/not published elsewhere and that no permission to re-use it is required? If so, no action is required. If not, please could you add the source and any information relating to permission to publish to the figure legend, if applicable.

- no action required. This is our own figure that has not been published elsewhere.

Many thanks.

Reviewer #1: I think that the revision is much improved. My only comment is really about the title. The paper focuses on critical papers that changed the perception of the transmission route, not really the obstacles to the perception of the transmission route. (The major obstacle described in the paper is terminology). As a result, I would suggest the following title: Recognition of aerosol transmission of infectious agents: a commentary"

- Thank you – we have changed the title as suggested to:
- “Recognition of aerosol transmission of infectious agents: a commentary”

Reviewer #2: 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.

- Thank you for your supportive comments.
- No edits recommended/required.