

To: [redacted] 5.1.2e [redacted] 5.1.2e @rivm.nl; [redacted] 5.1.2e [redacted] 5.1.2e @rivm.nl; [redacted] 5.1.2e [redacted] 5.1.2e @rivm.nl; [redacted] 5.1.2e
 [redacted] 5.1.2e [redacted] 5.1.2e @rivm.nl
From: [redacted] 5.1.2e
Sent: Wed 7/8/2020 9:56:06 AM
Subject: RE: Comment on your article on airborne transmission
Received: Wed 7/8/2020 9:56:07 AM

Ik heb een mapje gemaakt op de R schijf [redacted] 5.1.2h
 [redacted] 5.1.2h op de preprint
 Om dit soort commentaar op de preprint te verzamelen, ter verwerking wanneer we het document gaan revisen.

From: [redacted] 5.1.2e <[redacted] 5.1.2e @rivm.nl>
Sent: woensdag 8 juli 2020 11:13
To: [redacted] 5.1.2e <[redacted] 5.1.2e @rivm.nl>; [redacted] 5.1.2e <[redacted] 5.1.2e @rivm.nl>; [redacted] 5.1.2e <[redacted] 5.1.2e @rivm.nl>;
 [redacted] 5.1.2e <[redacted] 5.1.2e @rivm.nl>
Subject: FW: Comment on your article on airborne transmission

FYI. Kom ik vandaag niet aan toe.

Vriendelijke groeten / kind regards,

[redacted] 5.1.2e

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From: [redacted] 5.1.2e <[redacted] 5.1.2e @gmail.com>
Sent: woensdag 8 juli 2020 10:39
To: [redacted] 5.1.2e <[redacted] 5.1.2e @rivm.nl>
Subject: Comment on your article on airborne transmission

Dear [redacted] 5.1.2e and co-authors,

Many thanks for the great work published on airborne transmission on medrxiv. Although I am not an expert in this field, I would still like to comment on it on 2 points - I hope you will consider these remarks for the final version. On www.medrxiv.org I have submitted this comment on Monday evening but it seems not to be published (yet?), so I hope you don't mind if I share it directly with you in view of time.

Many thanks for your time and for this work - I believe it may help us in avoiding a second wave.

Kind regards,

[redacted] 5.1.2e

Submitted comment:

To me as a non-expert in this field this paper impresses me as a very important and well-done study, with reasonable assumptions and deductions and with well-clarified and understandable limitations. Great work.

Two suggestions I would like to make:

Overall risk analysis:

Figure 3 gives a probability of infection for a group of people in certain situations starting from a certain infectious person with a certain viral load. I believe it would be valuable to add a Figure 4 giving an overall probability of infection in each of these situations, essentially the integral of the infection risk over the probability density of the virus concentration, for each of the 3 virus concentration probability density curves.

Regarding face masks:

The remark in lines 459-462 relating to face masks seems out of place in this aerosol-focused paper, or if in place, too short, incorrect and no longer up-to-date. It refers to “several meta-analyses” (plural) but only refers to the single meta-analysis of Brainard et al, 2020. It incorrectly amplifies the phrase from Brainard that “The evidence is not sufficiently strong to support widespread use of facemasks ..” into “Several meta-analyses [incorrect plural] have shown little protective effect [see below] to support widespread use of ...”. whereas the paper of Brainard only concluded that 3 studies showed only very small protective effect (with low-very low certainty of evidence) of wearing a face mask by either the well person or the infected person, but not in case both persons wear a mask (as is the case with community masks). In situations where both persons wear a mask, in household situations, a 19% reduction was seen. While a limited reduction in transmission risk may not be so valuable on an individual level, it may be extremely relevant on a community level.

If the subject of mask is addressed and a meta-analysis is to be referred to, a later and better meta-analysis would be “Efficacy of face mask in preventing respiratory virus transmission: a systematic review and meta-analysis” by Liang et al, 2020, which suggests that mask use by non-HCWs provides a significant protective effect (OR=0.53 (CI 0.36-0.79)).

The pre-print cites a study by Leung et al. 2020 (which is included in the above-mentioned meta-analysis by Liang et al, 2020), as support that aerosols can arise from breathing and speech. Notably but not mentioned in the pre-print is that this study also states that surgical masks reduce detection of coronavirus RNA in aerosols which is relevant as aerosols are the subject of this pre-print and effectiveness of surgical masks in particular with respect to aerosols is highly relevant in this context.