

Advice to OMT regarding Respiratory protection masks for COVID-19

Date: 18-03-20 version 3

Reason:

At the beginning of the SARS-CoV 2 outbreak, much was still unclear about the transmission route and is opted for an FFP2 mask in patient care to also be protected against possible aerogenic transmission.

Due to impending shortages of respiratory protection masks with increasing use, there is a need to reconsider the utility and necessity of FFP2 masks for COVID-19.

The starting point for the choice of mask is that a mask should provide adequate safety for health workers should provide in the care / treatment of a patient with COVID-19 taking the choice should be portable and functional and no unnecessary additional security measures taken turn into.

Considerations:

SARS-CoV-2 is a respiratory virus transmitted according to currently available data via drip contact. There are currently no indications for aerogenic transmission. The infection has a serious morbidity of 20% and mortality of 1-2.5%. In addition, a large population is at risk and no antiviral or vaccination available making COVID-19 serious categorized and therefore a notifiable group A disease.

For other respiratory viruses transmitted through contaminated droplets, droplet contact isolation used with an FFP1 mask as respiratory protection mask is considered to be sufficiently protective for the transmission via drops.

Working Method:

3 groups of content experts were consulted from the following sections:

- MM Professors & heads IP
- Members of WG Curative care of the Platform Preparation group A + diseases (LCI)
- DB WG HIP NVMM & DB VHIG & BVF

De volgende vragen zijn geïnteriseerd:

1. Do you subscribe to the starting point or do you have another proposal?
2. Does the FFP2 mask meet the basic principle or is the degree of protection unnecessarily high?
 - a. If unnecessarily high: from which (research results) can this be deduced?
3. Is an FFP1 mask sufficiently protective during drip transfer to ensure optimal employee offer security?
 - a. If so, what research results support this?
 - b. If FFP1 offers adequate protection, in which interventions is an FFP2 indicated?

4. How do we guarantee the safety and sense of safety of health care workers upscaling / shortages of respiratory protection masks?

ADVICE 3/9/2020:

Based on the current knowledge regarding the transmission route of SARS-CoV-2 via drops and (in) direct contact provides an FFP1 mask with adequate protection for health workers who care for patients with COVID-19.

An exception to this are actions in which it is known that many aerosols can arise, such as bronchoscopy, cardiopulmonary resuscitation, tracheal intubation, non-invasive ventilation, manual ventilation, optiflow, tracheostomy, tracheostomy procedures and suction 6.13 . An FFP2 mask is recommended for this.

Addendum 03-18-2020 :

*Based on current knowledge regarding the transmission route of COVID-19 via drops and (in) direct contact, **surgical mouth nose makers offer** sufficient protection for health professionals required to care for patients with COVID-19 (WHO, NVMM Guide). Previously, in the Netherlands, a view was taken of sufficient stocks for maximum safety. However, we are now in the first phase of shortage, where it has started is now necessary to adapt the use to the actual risks. Additionally, so to deal with shortage for as long as possible, we must also take into account “extended and long-term use of masks and adjustments of the workflow to avoid risk moments to combine.*

From now on, the use must correspond to the tasks and functions of the various Staff members. High risk includes actions where it is known that large amounts of aerosols such as bronchoscopy, cardiopulmonary resuscitation , tracheal intubation, non-invasive ventilation, manual ventilation, optiflow, tracheostomy, tracheostomy procedures and suctioning ^{6,13} . For this, one FFP2 mask advised and if not present an FFP1.

Rules regarding extended use of an FFP / surgical mask

- 1. The mask may be worn in one piece until breathing resistance (more difficult to breathe) gets too high (**3-4 hours**) or the mask gets very wet.*
- 2. Masks do not need to be changed when gloves are taken care of several patients in a row.*

Reuse of the FFP / surgical mask

Hospitals and other users should use FFP and surgical masks that have been used store for (re) sterilization and later reuse. Methods are being investigated.

Substantiation:

FFP1 and FFP2 respiratory protection masks have a resp. filtering effect of 80 and 95%, when worn properly attached to the face, and provide protection against transmission via (larger and smaller) drops. Surgical masks (IIR) provide good protection against splashes and drops, but have a more limited filtering effect. Or the technical measurable differences in the filtering effect between surgical masks and FFP1 masks in the Practice leading to differences in safety for the wearer has not yet been proven.

It is unclear to what extent the aerosols that can arise during coughing and sneezing are substantial (in terms of number, load and distance) contribute to the transmission of COVID-2019. To date, however, there are no evidence of aerogenic transmission. This indicates that my (larger) drops are responsible for the transmission of SARS-CoV-2. In addition, it is important to note, that transmission of SARS-CoV-2 via contact with throat mucosa is very likely. It correct wearing and taking it off is important, while it is important to prevent oneself (via contaminated hands).

Content experts who have been consulted and involved in the creation of this advice:

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