

## **FFP3 Masks With Valves should be avoided to reduce risk to patients during close interactions when a clinician is unknowingly COVID Positive.**

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### **Background**

Completely asymptomatic clinicians can be COVID positive.<sup>1,2</sup> Asymptomatic health care workers therefore represent a risk to both patients and colleagues. Consideration must be given to the risk to patients especially where close proximity is required over an extended period, for example providing surgical care to the face and mouth. The risk to other health care workers can be mitigated by good hand hygiene and social distancing.

Not all masks offer the same protection for patients. We would like to highlight this important detail for our colleagues.

### **Valved FFP3 Masks may represent a risk by directing unfiltered exhaled breath toward a patient**

As clinicians may be COVID positive without any symptoms, the role of PPE for patient protection should be considered when procedures are planned.

FFP3 masks without a valve provides x99% reduction of aerosol for both patient and clinician. FFP3 masks with an exhalation valve may be more comfortable for the user but, by design, they allow unfiltered breath to be directed toward a patient during close contact. How much this risk will be mitigated by a covering surgical mask or full-face visor has not been shown experimentally but it would seem sensible to use both surgical mask and full-face visor if using a valved FFP3.

**We would recommend that clinicians should not use a FFP3 mask with exhalation valve as the sole element of aerosol protection when undertaking any close patient interaction.**

**If your only available FFP3 mask has an exhalation valve, you should consider using a surgical mask to cover it to protect the patient. A full face visor could provide additional protection to the patient and protects the clinician from splashes and droplets. Protecting the FFP3 helps extend its use to a full session.**

The viral aerosol generated by speech, a cough or a sneeze is thought to be very small. Lower amount of viral aerosol and shorter duration of the task may make the x4 reduction of viral exposure provided by a visor and a surgical mask sufficient risk mitigation where there are no additional risk factors.

### **Continuing Advice for the COVID Era**

In our advice on 19 March, 24 March and 22 April 2020 we stressed the importance of using appropriate PPE, Avoiding non-emergency procedures, Restricting those exposed to risk and Abbreviating the duration of any procedure.

We continue to recommend that your patient pathways should be designed to use any PPE efficiently and safely. If a whole session is unlikely to include an AGP, then you should consider the balance of risk/benefit between using a waterproof surgical mask under the visor for short examinations or treatments with low AGE potential. Doffing is one of the higher risk activities

We have stressed before that the mask is a single element of PPE and may not be the most important. Careful patient pathways and excellent infection control behaviours have been shown to reduce transmission in both directions more significantly than use of PPE.

Where close patient contact is expected, masks should be used with eye protection (ideally a full face visor) and as part of an overall infection control plan. This plan should combine PPE, Avoiding unnecessary activity (including unnecessary use of or changes of PPE – donning and doffing), Reducing the number of people exposed to risk, and Abbreviating any procedure by using the most experienced and skilled person to undertake the whole patient pathway (PARA). The most efficient patient pathway should be used to reduce risk to both patient and clinician.

No patient pathway can be considered independent of the risk created to others by inefficient use of all types of PPE. No PPE provides complete protection. There is always a balance between risk and benefit.

1. Treibel TA, Manisty C, Burton M, et.al. COVID-19: PCR screening of asymptomatic healthcare workers at London hospital. The Lancet 2020;May 7, [https://doi.org/10.1016/S0140-6736\(20\)31100-4](https://doi.org/10.1016/S0140-6736(20)31100-4)

2. Rivet L, Sridhar S, Sparkes D, et.al. Screening of healthcare workers for SARS-1 CoV-2 highlights the role of asymptomatic carriage in 2 COVID-19 transmission. The CITIID-NIHR COVID-19 BioResource Collaboration. 2020.