



# Face masks, respiratory patients and COVID-19

*To the Editor:*

Several countries have applied exemptions of respiratory patients on the compulsory use of face masks indoors and outdoors during the coronavirus disease 2019 (COVID-19) pandemic. It must be strongly stated that such exemption is not evidence-based, and it may carry increased risk of personal infection to the estimated 544.9 million people worldwide suffering a chronic respiratory disease [1].

Beyond hand hygiene and physical distancing, face masks are fundamental for personal and group protection to prevent the spread of infection both in patients and in their caretakers [2].

Ultimately, human behaviour is certainly the main determinant of the spread or containment of the disease. Considering that the virus spreads largely through the respiratory tract, experts are proposing that beyond protecting others, face masks help their wearers. In the new (although not fully demonstrated) COVID-19 inoculum theory, it is proposed that universal masking reduces the inoculum or dose of the virus for the wearer, leading to milder or asymptomatic infection [3, 4].

Many countries have already defined national policies to implement compulsory use of face masks (figure 1) [5]. Further, several countries have instituted penalties for non-compliant individuals. But there are exceptions. In Spain, since 21 May, 2020 [6], face masks must be worn in the “public street, in open-air spaces and any closed space that is for public use or that is open to the public, where it is not possible to maintain [an interpersonal] distance of two meters”. According to the Spanish order, “people with respiratory problems, or those who cannot wear masks for other health reasons or due to a disability, are exempt from wearing them”. In the USA, certain “Face Mask Exemption Cards” are already circulating [7].

At this stage, it is important to address the question: Are there medically justified exemptions for face coverings?

Relieving respiratory patients from the obligation to wear masks could be highly deleterious for them, since by definition those patients with respiratory conditions who cannot tolerate face masks are at higher risk of severe COVID-19.

Although facemasks undoubtedly enhance breathing resistances, the degree of discomfort experienced by some patients is influenced by its affective component.

Dyspnoea is a sensation, and supratentorial affects such as anxiety and claustrophobia might cause the added sensation of “being unable to breathe” with a mask. Indeed, the World Health Organization states that face masks of breathable material, worn properly, will not lead to health problems.

Whether persons not wearing facemasks play a role in the persistence or resurgence of COVID-19 in many countries is not firmly established. We must acknowledge that there is not a body of evidence (yet) to support the proposed approach of universally recommending facemasks in public. Any statement suggesting that all types of face masks have a protective role, needs to be accompanied by the underpinning need to differentiate their diversity.

Similar to “drugs”, the efficacy of face masks depends highly on a number of characteristics, some of which have been formally assessed and some which have not or cannot easily (e.g. comfort, social acceptance). The second waves being experienced globally, despite widespread masking, confirm masks are insufficient interventions. With all likelihood, it is about a large number of issues, not just masks.



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**Exemptions of respiratory patients on the compulsory use of face masks for COVID-19 pandemic are not evidence-based** <https://bit.ly/2DTu7Y0>

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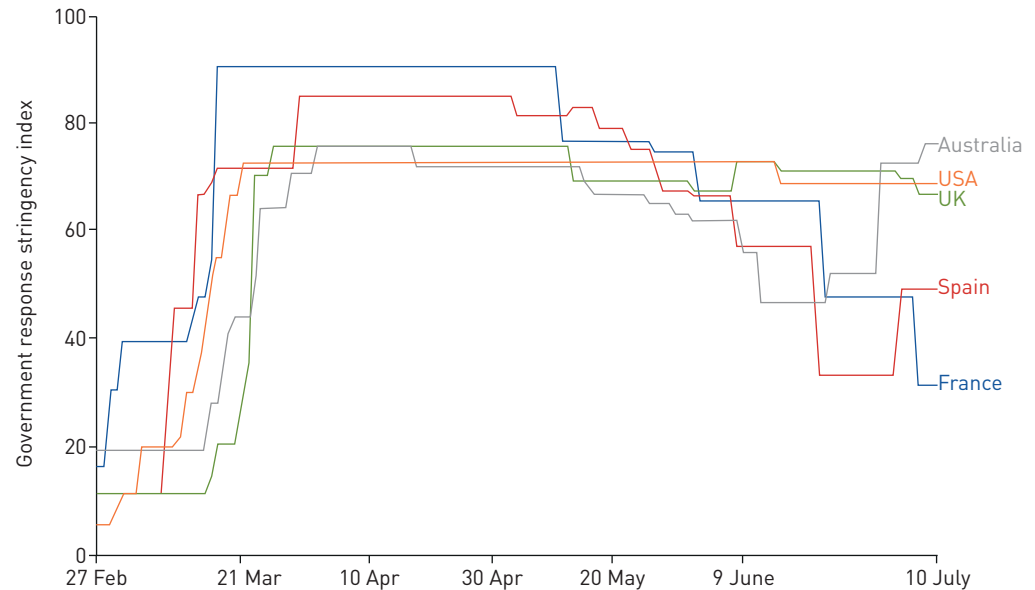


FIGURE 1 Government Response Stringency Index (GCSI) in selected countries, by calendar time. GCSI ranges from 0 to a 100, and includes face mask population coverage.

At this time, professional associations have not provided clear recommendations on exemptions (or lack thereof). Within the Respiratory Effectiveness Group, we do not see asthma, COPD and other respiratory diseases as an impediment to wear a face mask, unless the person is in acute respiratory distress, in which case going out in public is not advised. Therefore, we propose the cautionary step not to exempt respiratory patients from the compulsory use of face masks.

Our duty remains to encourage patients to follow strictly the measures aiming at protecting them from getting or transmitting the disease. Adaptations of their activities (less time spent in public spaces) may be required to decrease the time during which they need to wear a face mask, and whenever possible other protective measures could be utilised (*e.g.* social distancing).

COVID-19 is a new, devastating, but potentially preventable disease, and a key priority is to identify the combination of measures that minimises societal and economic disruption while adequately controlling infection [8]. It is crucial for patients with respiratory conditions to wear face masks when they are in public spaces where social distancing cannot be applied easily [9]. Developing new models of face masks dedicated at patients with impaired lung function could be of help.

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