



COVID-19: Making sense of the literature

Face masks for the public during the Covid-19 crisis

Journal Article, Policy review (BMJ Analysis article: *Analysis papers published in BMJ address topical clinical, scientific, ethical, and policy issues that matter to doctors, patients and health policy makers. These articles present a clearly reasoned argument, are backed by an even-handed look at the evidence, and have a clear key message*)

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Summary

- The article raises an ethical question which is stated as: “should policy makers apply the precautionary principle now and encourage people to wear face masks on the grounds that we have little to lose and potentially something to gain from this measure?”
- It cites 5 peer reviewed systematic reviews as evidence base on the effectiveness of wearing of facemasks by public in community setting as a preventive strategy against transmission of infections by respiratory viruses, along with 2 *pre-print* systematic reviews which endorsed lack of evidence.
- It observes that literature on the topic is sparse, heterogenous, conflicting and that there are contested interpretations of the literature even by policy makers including WHO and most recently by CDC (USA) who revised their guideline on 4 April 2020 advising general public to use face masks.
- It challenges the external validity of earlier studies which showed no significant protective effect of wearing of facemasks by public in the current context of covid-19 and argue that, considering the highly contagious and serious nature of covid-19, public is more likely to comply more closely with mask advice and wider infection control measures than the research participants in earlier studies.
- Authors justify their rationale to apply precautionary principle and encourage wearing of masks by public by citing evidence specifically on covid-19 related to:
 - Sustained viability of airborne Sars-CoV-2 for hours
 - Individuals have been shown to be infectious up to 2.5 days before symptom onset
 - 50% of infections seem to occur from presymptomatic individuals
 - Even a small reduction in the transmission could produce major difference in the demands on health care system
- They also put forward a moral argument that public should be given the opportunity to change their behaviour with reference to wearing of masks and other infection control measures in line with the precautionary principle, even when direct, experimental evidence for benefit is not clear cut.

Conclusion

- When worn both in the home by infected individuals and also outside the home by the general public, masks could have a substantial impact on transmission of covid-19 with a relatively small impact on social and economic life, as they are simple, cheap and potentially effective.

Appraisal

- Strength: Analytical review focusing on policy issue with clearly reasoned arguments
- Limitation: Absence of un-equivocal scientific evidence on the effectiveness of wearing of facemasks by public as a preventive strategy against transmission of current pandemic - covid-19. The type of facemasks to be used have not been specified.

Opinion

- The article provides a rationale for wearing of facemasks by general public in a community setting as a preventive strategy against transmission of covid-19 by emphasizing the need to apply “precautionary principle” in the presence of ambiguous scientific evidence supporting the same.

Appraisers

Dinu Chandran, Sarita Mahapatra, KK Deepak, Sidhartha Satpathy, AIIMS New Delhi