UPDATE ALERTS

Update Alert 6: Masks for Prevention of Respiratory Virus Infections, Including SARS-CoV-2, in Health Care and Community Settings

This is the sixth update alert for a living rapid review on the use of masks for prevention of respiratory virus infections, including SARS-CoV-2, in health care and community settings (1). The first 3 updates were monthly, and the interval was switched to bimonthly for subsequent updates. The prior update search (through April 2) (2) found no eligible studies. Update searches were done from 3 April 2021 to 2 June 2021, using the same search strategies as the original review. The update searches identified 492 citations. Two studies (3,4) on the use of masks and the prevention of SARS-CoV-2 done in a health care setting were added for this update; no new studies done in a community setting were identified through literature searches (**Supplement Tables 1 to 3**).

On the basis of 3 observational studies (5–7) comparing N95 respirators with surgical masks for prevention of SARS-CoV-2 in health care settings, the strength of evidence was previously assessed as insufficient because of inconsistent effects across studies (**Supplement Table 4**). One new cross-sectional study done in the United States found no statistically significant differences in risk for SARS-CoV-2 seropositivity between N95 respirator and surgical mask use (4). The study had methodological limitations, including potential recall bias and a 50% participation rate. In addition, adjusted risk estimates were not reported. Therefore, the strength of evidence for N95 use versus surgical mask use remains insufficient (**Supplement Table 4**). Regarding consistency of mask use, the evidence was previously assessed as insufficient on the basis of 1 study that found that consistent N95 (adjusted odds ratio, 0.83 [95% CI, 0.72 to 0.95]) or surgical mask (adjusted odds ratio, 0.86 [CI, 0.75 to 0.98]) use was associated with reduced risk for SARS-CoV-2 infection relative to inconsistent use (8). New evidence from a cross-sectional study done in France also found that consistent face mask use compared with inconsistent use was associated with a reduced risk for SARS-CoV-2 infection (adjusted odds ratio, 0.07 [CI, 0.003 to 0.56]) (3). Because of inconsistent estimates and few studies, the strength of evidence for consistent mask use and risk for SARS-CoV-2 infection remains insufficient. Other strength of evidence ratings related to mask use in health care settings and risk for SARS-CoV-2 infection also remain insufficient (**Supplement Table 4**).

No new studies evaluated the effects of mask use in a community setting or risk for SARS-CoV-2 infection, Middle East respiratory syndrome–CoV infection, or influenza or influenza-like illness in health care workers. In community settings, the strength of evidence remains low for an association between any mask use versus no mask use or surgical mask use versus no mask use and decreased risk for SARS-CoV-1 infection. As with prior updates, there were no studies on the effectiveness and safety of mask reuse or extended use.

Given few new eligible studies and little change in conclusions after 1 year of monthly or bimonthly updates, we will update and reevaluate the need for continued updates again in 6 months.

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