

# COVID-19 Infection Prevention and Control *Sameeksha*

WHO Country Office for India | Volume 14 | 27 June 2021

A compilation of recent publications on COVID-19 relevant for IPC and containment of antimicrobial resistance in India

## Publications from scientific journals

### **Safer primary healthcare facilities are needed to protect healthcare workers and maintain essential services: lessons learned from a multi-country COVID-19 emergency response initiative**

- Despite the critical need, IPC measures are suboptimal around the world, especially in resource-limited settings with inadequate health systems, where barriers to effective IPC include, limited workforce of trained IPC professionals, paucity of PPE, and limited clinical infrastructure at the primary health facility level for required environmental controls and water and sanitation for safe health service delivery.
- Comprehensive, sustainable IPC programmes are needed; IPC needs to be incorporated into all HCW training programmes and combined with supportive supervision and mentorship.
- Strengthened data systems on IPC are needed to guide improvements at the health facility level and to inform policy development at the national level, along with investments in infrastructure and sustainable supplies of PPE.
- Multimodal strategies to improve IPC are critical to make health facilities safer and to protect HCWs and the communities they serve. Comprehensive, funded IPC policies need to be adopted and implemented to protect HCWs and the patients they serve and ultimately to contribute to safe health services delivery.

*BMJ Global Health* | Article | 3 June 2021 | [Online link](#)

### **Slight reduction in SARS-CoV-2 exposure viral load due to masking results in a significant reduction in transmission with widespread implementation**

- Modelling used in the study quantitatively links mask efficacy to reduction in viral load and subsequent transmission risk.
- This reinforces that mask usage by both a potential transmitter and exposed person substantially reduces the probability of successful transmission, even if masks only lower exposure viral load by ~50%.

*Scientific Reports* | Article | 4 June 2021 | [Online link](#)

### **The use of cleaning products and its relationship with the increasing health risks during the COVID-19 pandemic**

- During the pandemic, frequency of cleaning and amount of cleaning product usage have increased significantly.
- Problems with cleaning products – mostly skin disturbances and shortness of breath – are higher in persons with high-risk perception, history of contact and risky cleaning practices.
- Trainings in primary healthcare services as well as general education for the community are suggested to reduce the negative effects on human and environmental health.

*The International Journal of Clinical Practice* | Original Article | 15 June 2021 | [Online link](#)

## Modeling of aerosol transmission of airborne pathogens in ICU rooms of COVID-19 patients with acute respiratory failure

- Virus-laden aerosols produced by infected patients can propagate throughout ventilated rooms and put medical personnel entering them at risk. Proper bed orientation and positioning of the air treatment unit can increase the number of particles extracted (by 40%) and reduce the number of particles deposited (by 25%) on surfaces 45 seconds after shedding.
- The model can be seen as a proof of concept and can be adapted to any room configuration for a more comprehensive approach to tackle contamination risks in hospitals.

*Scientific Reports* | Article | 3 June 2021 | [Online link](#)

## Face masks, public policies and slowing the spread of COVID-19: Evidence from Canada

- Researchers estimated the impact of indoor face mask mandates and other non-pharmaceutical interventions on COVID-19 case growth in Canada. Mask mandates were found to be associated with a 22 percent weekly reduction in new COVID-19 cases, relative to the trend in absence of the mandate.
- Mandating mask wearing in indoor public places can be a powerful policy tool to slow the spread of COVID-19.

*Journal of Health Economics* | Article | 3 June 2021 | [Online link](#)

## WHO and other guidelines

### Considerations for implementing and adjusting public health and social measures in the context of COVID-19

- Guides Member States to assess the situation at national/sub-national levels and provides recommendations about implementing key public health and social measures (PHSMs).
- Updates the interim guidance on considerations in adjusting public health and social measures in the context of COVID-19, published on 4 November 2020; and introduces considerations for relaxation of some PHSM for individuals with natural or vaccine-induced immunity.

*WHO* | Interim Guidance | 14 June 2021 | [Online link](#)

### Considerations for quarantine of contacts of COVID-19 cases

- WHO continues to recommend quarantine of all contacts of persons with confirmed or probable SARS-CoV-2 infection for a duration of 14 days from the last contact with the confirmed or probable case.
- Provides updated guidance for the implementation of quarantine, including considerations for health authorities considering shortening the quarantine period, and updates on the care of children in quarantine.
- Adequate ventilation and implementation of infection prevention and control measures are recommended. IPC measures focus on a) early recognition and control b) engineering and environmental controls, including estimation of airflow/ventilation rates c) administrative controls and d) personal protective equipment

*WHO* | Interim guidance | 25 June 2021 | [Online link](#)

### Critical preparedness, readiness and response actions for COVID-19

- Updated version provides guidance on infection prevention and control, contact tracing, laboratory testing, public health and social measures and health services, in the context of COVID-19 vaccination implementation.
- Critical preparedness, readiness and response actions are recommended depending on the SARS-CoV-2 transmission scenarios.

*WHO* | Interim Guidance | 27 May 2021 | [Online link](#)

## **COVID-19 aviation health safety protocol: operational guidelines for the management of air passengers and aviation personnel in relation to the COVID-19 pandemic**

- Recommends non-pharmaceutical interventions, customised measures and risk-based recommendations for entry measures for the three categories of people i) persons fully vaccinated according to manufacturers' recommendations; ii) persons who recovered from COVID-19 within the previous 180 days; and iii) persons who were not vaccinated and who did not recover from COVID-19 in the previous 180 days.
- Emphasises the use of 'one-stop' principles and the importance of risk-based approaches in accordance with safety management system principles.

*EASA and ECDC* | Technical Guidance | 17 June 2021 | [Online link](#)

## **Use of medical and non-medical/fabric masks for community outreach activities during the COVID-19 pandemic, based on current WHO guidance**

- Health workers carrying out community outreach activities in areas where SARS-CoV-2 is circulating should wear a medical mask
- Health workers providing care to suspected or confirmed COVID-19 patients should wear appropriate PPE for droplet and contact precautions (medical mask, eye protection, gown, and gloves)
- Non-health professionals involved in community outreach activities who are at higher risk of potential exposure to SARS-CoV-2 should wear a medical mask
- Non-health professionals involved in community outreach activities who are at lower risk of potential exposure to SARS-CoV-2 should wear a non-medical/fabric mask
- Any professional aged ≥ 60 years or who has underlying conditions should wear a medical mask

*WHO* | Aide Memoire | 1 June 2021 | [Online link](#)

## **Assessing SARS-CoV-2 circulation, variants of concern, non-pharmaceutical interventions and vaccine rollout in the EU/EEA, 15th update**

- Estimates across the region show that a large proportion of the population across Europe still remains susceptible to SARS-CoV-2 and that population immunity is far from being achieved.
- The assessment of the risk posed by the current SARS-CoV-2 pandemic is stratified by four population groups – the vaccinated and unvaccinated general population and the vaccinated and unvaccinated vulnerable population.
- The assessment is based on the following elements:
  - i) the vaccinated group has a lower probability of infection and ii) a lower impact of such infection than the unvaccinated, while iii) the vulnerable population suffers a higher impact of such infection when compared with the general population.

*ECDC* | Risk assessment | 10 June 2021 | [Online link](#)

## **MoHFW and other guidelines**

### **Guidelines for management of COVID-19 in children (below 18 years)**

- Outlines evidence based recommendations for management of COVID-19 infection in children under 18 years.
- Highlights key components of infection prevention and control strategies, appropriate use of antimicrobials and use of masks for children in various age groups.

*MoHFW* | Guidelines | 18 June 2021 | [Online link](#)

## Guidelines on operationalization of COVID care services for children & adolescents

- Outlines the operationalization of COVID care services for children & adolescents, based on the MoHFW guidelines.
- Recommends the constitution of hospital infection control committee (HICC) for overseeing reorientation training of staff, adherence to IPC protocols, ensuring availability of sanitizers, disinfectants and cleaning agents, facilitating access to PPE, appropriate segregation and collection of BMW, reinforcing IPC related IEC, ensuring adequate ventilation and air-exchanges in patient care and visitors' areas, and measures for laboratory biosafety.

*MoHFW* | Guidelines | June 2021 | [Online link](#)

## Training / IEC resources

### Young people leading the way

- Designed to encourage young citizens above 18 years of age to become youth champions in the fight against COVID-19 by reinforcing COVID appropriate behaviour and making COVID vaccination a cool thing to do.
- Provides tips regarding what they can do to support COVID appropriate behaviour based on the time they are willing to spend.

*MoHFW* | Toolkit | 22 June 2021 | [Online link](#)

### How the COVID-19 virus is transmitted

- Animated video explains on how COVID-19 virus spreads mainly between people in close contact, in crowded settings, closed spaces with poor ventilation or through prolonged contact with an infected person.

*WHO* | Video | 2 June 2021 | [Online link](#)

### Find a mask that fits your face the best

- Animated video explains the importance of a well-fitting mask to avoid any gap between face and the mask, as well as following COVID appropriate behaviour.

*WHO* | Video | 2 June 2021 | [Online link](#)

### A family toolbox for managing health and happiness during COVID-19

- Promoting individual and joint responsibilities for the safety of the family, this toolbox aims to bring families and households together to manage shared risks and agree to safe behaviours critical for their safety and the safety of their community.
- Outlines various fun learning activities like mapping, games, event, action, story cards etc. to help family members learn the essentials on virus transmission and taking COVID appropriate precautions.

*WHO* | Toolbox | 18 June 2021 | [Online link](#)

### Managing family risk: A facilitator's toolbox for empowering families to manage risks during COVID-19

- Aims to bring families and households together to manage shared risks and agree to safe behaviours critical for their safety and the safety of their community through best practice approaches for community engagement.

*WHO* | Toolbox | 18 June 2021 | [Online link](#)

## Infection prevention in the era of COVID-19: 2021 basic procedure review

- Donning and doffing PPE, disinfecting the care area, and complying with robust hand hygiene takes time and requires training.

*Journal of Nuclear Medicine Technology* | Continuing Education | June 2021 | [Online link](#)

## Science in 5 on COVID-19: transmission indoors and outdoors

- Explains how SARS-CoV-2 spreads from one person to another, and how to keep oneself safe indoors and outdoors.

*WHO* | Video | 27 May 2021 | [Online link](#)

## Antimicrobial Resistance and COVID-19

### Co-infections, secondary infections, and antimicrobial use in patients hospitalized with COVID-19 during the first pandemic wave from the ISARIC WHO CCP-UK study

- Antimicrobial use was high during the first wave of COVID-19 despite bacterial co-infections being rare.
- Antimicrobial stewardship is needed to prevent unnecessary use of antimicrobials to prevent long term rise of drug resistant infections.

*The Lancet Microbe* | Article | 2 June 2021 | [Online link](#)

### Antibacterial agents used in COVID-19: A systematic review and meta-analysis

- Systematic review and meta-analysis done for articles in English published between January 2019 and October 2020 to assess antibiotic use in COVID-19 patients.
- The review showed that among the COVID-19 patients, azithromycin and cephalosporins have been used mostly on empirical basis in hospitals.
- Presumptive antibacterial treatment for suspected bacterial co-infections was the commonest indication for use, but microbiological evidence of bacterial co-infections was not documented in majority of the studies.

*Environmental Sustainability* | Review Article | 7 June 2021 | [Online link](#)

### The spectrum of antibiotic prescribing during COVID-19 pandemic: a systematic literature review

- During the COVID-19 pandemic, there has been a significant and wide range of antibiotic prescribing in patients affected by the disease, particularly in adults with underlying comorbidities, despite the lack of enough evidence of associated bacterial infections.
- Current practices might increase patients' immediate and long-term risks of adverse events, susceptibility to secondary infections as well as aggravating AMR.

*Microbial Drug Resistance* | Article | 1 June 2021 | [Online link](#)

### Azithromycin use in COVID-19 patients: implications on the antimicrobial resistance

- Macrolide resistance rates have substantially increased in many countries, since the introduction of long-acting macrolides like azithromycin for treating community acquired respiratory tract infections in the 1990s.
- Overuse of azithromycin in COVID-19 may seriously increase the prevalence of antimicrobial resistance.

*Current Topics in Medicinal Chemistry* | Article | May 2021 | [Online link](#)

### **The use of antibiotics in COVID-19 management: a rapid review of national treatment guidelines in 10 African countries**

- Various antibiotics, such as azithromycin, doxycycline, clarithromycin, ceftriaxone, erythromycin, amoxicillin, amoxicillin-clavulanic acid, ampicillin, gentamicin, benzylpenicillin, piperacillin/tazobactam, ciprofloxacin, ceftazidime, cefepime, vancomycin, meropenem, and cefuroxime among others, were recommended for use in the management of COVID-19.
- The study highlighted the need to emphasize prudent and judicious use of antibiotics in the management of COVID-19 in Africa.

*Tropical Medicine & Health* | Letter to the editor | 23 June 2021 | [Online link](#)

### **The potential impact of the COVID-19 pandemic on antimicrobial resistance and antibiotic stewardship**

- Although the impact of COVID-19 on AMR is global, the adverse effect is likely to be worse in LMICs.
- Continuous epidemiological, clinical, and microbiological studies on antimicrobial resistance and nosocomial infections are essential to agree on mitigation strategies and treatment guidelines for COVID-19 patients.

*VirusDisease* | Short Communication | 25 May 2021 | [Online link](#)