

COVID-19 Infection Prevention and Control Sameeksha

Volume 12 | WHO Country Office for India | 14 April 2021

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

Publications from scientific journals

Surveillance of the infection prevention and control practices of healthcare workers by an infection control surveillance-working group and a team of infection control coordinators during the COVID-19 pandemic

- Adherence to proper hand and respiratory hygiene was inadequate at the early stage of the COVID-19 pandemic, and results showed that more attention and further training are needed for the management of medical waste, particularly medical waste collection.
- Continuous upgrading of the strategies for patient screening is essential, and these results will be useful in helping other healthcare facilities to establish their IPC strategies.

Journal of Infection & Public Health | Article | April 2021 | [Online link](#)

How do the general population behave with facemasks to prevent COVID-19 in the community? A multi-site observational study

- During the initial phase of the COVID-19 pandemic, the frequency and quality of facemask wearing remained low in the community setting. Young people in general, and men in particular, represent the priority targets for information campaigns.
- Simplifying the rules to require universal mandatory face-masking seemed to be the best approach for health authorities.

Antimicrobial Resistance & Infection Control | Research | 29 March 2021 | [Online link](#)

Is it possible to decontaminate N95 masks in pandemic times? Integrative literature review

- Out of 12 studies, 3 used UV germicidal irradiation and indicated mask deterioration between 2 and 10 cycles, 4 used hydrogen peroxide vapor, and seal loss varied from 5 to 20 cycles, 4 evaluated the structural integrity of the N95 mask through visual inspection and 6, its filtration efficiency.
- Reuse strategies to overcome a shortage of devices in the face of the pandemic challenge the current concept for good practices in health-product processing; since, to date, the maintenance of safe characteristics, such as functionality, filtration capacity, integrity and sealing, together, for their reuse, have not been demonstrated.

Revista Gaucha de Enfermagem | Article | 26 March 2021 | [Online link](#)

Risk of dispersion or aerosol generation and infection transmission with nasopharyngeal and oropharyngeal swabs for detection of COVID-19: a systematic review

- The risk of aerosolization and transmission with swab testing remains unclear, particularly in the context of COVID19.
- Given a theoretical risk of cough-related aerosolization during testing and limited to no data available in this regard, field experiments to quantify the risk of aerosol generation and transmission associated with swab testing are needed. These warrant vigilance in adhering to current standards for infection prevention and control measures.

BMJ Open | Original Research | 17 March 2021 | [Online link](#)

COVID-19: A systematic evaluation of personal protective equipment (PPE) performance during restraint

- Restraint is widely practised within inpatient mental health services and is considered a higher-risk procedure for patients and staff.
- All three sets of PPEs showed similar protection against contamination transfer, and hands and upper torso appeared to be higher-risk areas. The restraint-related contamination was 23 times higher than that observed for physical observations.

Medicine, Science and the Law | Research Article | 9 March 2021 | [Online link](#)

Safety of air medical transport of patients with COVID-19 by personnel using routine personal protective equipment

- Air medical transport of patients with known or suspected COVID-19 using routine PPE is considered effective for protecting medical crew members.
- The Air Medical Physician Association Position Statement on COVID-19 considers mask oxygenation, high-flow nasal cannula oxygenation, and non-invasive positive pressure ventilation (NIPPV) to be aerosol-generating procedures, which should all be avoided in confined spaces.

Journal of the American College of Emergency Physicians | Article | 5 March 2021 | [Online link](#)

Ten scientific reasons in support of airborne transmission of SARS-CoV-2

- Lack of direct evidence of SARS-CoV-2 in some air samples, casts doubt on airborne transmission while overlooking the quality and strength of the overall evidence base.
- The authors hypothesize airborne transmission based on (i) transmission dynamics during super-spreading events; (ii) long-range transmission of SARS-CoV-2; (iii) asymptomatic or pre-symptomatic transmission of SARS-CoV-2 from people who are not coughing or sneezing; (iv) higher transmission of SARS-CoV-2 indoors than outdoors, which is substantially reduced by indoor ventilation; (v) documentation of nosocomial transmission in health-care facilities with strict contact-and-droplet precautions and use of PPE; (vi) detection of viable SARS-CoV-2 in air; (vii) presence of SARS-CoV-2 in air filters and building ducts in COVID-19 hospitals; (viii) animal studies on infected and infected animals connected with an air duct; (ix) lack of strong or consistent evidence to refute the hypothesis of airborne SARS-CoV-2 transmission; and (x) limited evidence to support other dominant routes of transmission – respiratory droplet or fomite.

The Lancet | Comment | 15 April 2021 | [Online link](#)

WHO and other guidelines

WHO COVID-19 infection prevention and control (IPC) pillar achievements. February 2020 – January 2021

- Infection prevention and control (IPC) is one of the pillars of the WHO COVID-19 R&D Blueprint, which is supported by a group of international experts convened by WHO in the COVID-19 IPC R&D Expert Group
- Three primary objectives identified for IPC research were: i) to understand the effectiveness of public health and social measures (movement control, mask-wearing, physical distancing and so on) and IPC strategies to prevent secondary transmission in healthcare and community settings ii) to optimize the effectiveness of PPE and its usefulness in reducing the risk of transmission iii) to minimize the role of the environment in transmission.

WHO | Meeting Report | 6 April 2021 | [Online link](#)

Safe Ramadan practices in the context of COVID-19

- This updated document has key messages for policy makers and general public.
- Apart from general precautionary measures (physical distancing, respiratory etiquettes and hand hygiene) various precautionary measure like advice to high risk groups, use of masks by general population, ensuring adequate ventilation of indoor spaces, encouraging healthy hygiene, frequent cleaning of worship spaces, sites and buildings have been advocated.

WHO | Interim guidance | 7 April 2021 | [Online link](#)

Risk of SARS-CoV-2 transmission from newly infected individuals with documented previous infection or vaccination

- Outlines the review of evidence on natural immunity and possibilities for transmission from previously infected to susceptible contacts, and immunity and possibilities for transmission from infected, previously vaccinated individuals to susceptible contacts.
- Cohort studies confirm that protective effect of previous SARS-CoV-2 infection ranges from 81% to 100% from Day 14 following initial infection, for a follow-up period of five to seven months. Evidence suggests that vaccination significantly reduces viral load and symptomatic or asymptomatic infections in vaccinated individuals, which could translate into reduced transmission, although vaccine efficacy varies by vaccine product and target group.

ECDC | Technical report | 29 March 2021 | [Online link](#)

MoHFW Guidelines

Guidance on COVID-19 vaccination at workplaces (government & private)

- COVID-19 vaccination sessions may be organized at workplaces having about 100 eligible and willing beneficiaries to facilitate optimal utilization of vaccine dosage and reduce wastage.
- The waiting and vaccination room should have adequate facility for hand washing/sanitization, availability of masks, hub cutter/needle destroyer and colour-coded bags for waste segregation among others and display IEC material on COVID appropriate behaviour.

MoHFW | Guideline | 7 April 2021 | [Online link](#)

Trainings / IEC resources

Jan Andolan

- IEC campaign with the hashtag #Unite2FightCorona.
- Set of 4 hoarding designs with the tagline “*Safai, Dawai aur Karai, Jeetenge Corona se Ladai*”

MoHFW | IEC | 12 April 2021 | [Online link](#)

Coronavirus disease (COVID-19) advice for the public – Myth buster

- Evidence from studies on hydroxychloroquine or chloroquine, a common treatment for malaria and certain autoimmune diseases, as a preventive treatment of Covid-19 has shown little or no impact on illness, hospitalization or death.

WHO | Myth busters | 17 March 2021 | [Online link](#)

Antimicrobial Resistance and COVID-19

The silent pandemic: Emergent antibiotic resistances following the global response to SARS-CoV-2

- The increased use of antibacterial cleaning products, including quaternary ammonium compound disinfectants and therapeutics during this pandemic are expected to lead to emergence of novel AMR pathogens.

iScience | Review | 23 April 2021 | [Online link](#)

Key considerations on the potential impacts of the COVID-19 pandemic on antimicrobial resistance research and surveillance

- Antibiotic usage in SARS-CoV-2 patients, suggest inappropriate and excessive prescribing, including settings with established antimicrobial stewardship programmes. Long-term global surveillance of clinical and societal antibiotic use and resistance trends, and diagnostic stewardship are needed to prepare for subsequent changes in AMR epidemiology, while ensuring uninterrupted supply chains and preventing drug shortages and stock outs.

Transactions of the RSTMH | Review Article | 27 March 2021 | [Online link](#)

Acinetobacter baumannii Antibiotic Resistance Mechanisms

- *A. baumannii* causes severe, invasive and nosocomial infections with high mortality, and is a public health threat and challenge due to emerging and constantly increasing resistance. Reports show COVID-19 coinfection with *A. baumannii* with multi-drug resistant profiles and MDR genes.

Pathogens | Review | 19 March 2021 | [Online link](#)

Evaluating the Antimicrobial Properties of Commercial Hand Sanitizers

- Performance of 46 commercially available hand sanitizers were assessed for antibacterial activity toward Gram-positive (*Staphylococcus aureus*) and Gram-negative (*Escherichia coli*) bacterial pathogens, which suggest that not all hand sanitizers are equally effective anti-bactericidal agents.

American Society for Microbiology | Research Article | 3 March 2021 | [Online link](#)