

## COVID-19 Infection Prevention and Control Sameeksha

WHO Country Office for India | 30 June 2020 | Volume 4

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

### Publications/journal articles

#### Coronavirus Disease 2019 (COVID-19)

- This review addresses epidemiological, diagnostic, clinical, and therapeutic aspects, including perspectives of vaccines and preventive measures.
- Although COVID-19 is suspected to have a zoonotic origin, followed by human-to-human transmission, the possibility of other routes should not be ruled out.
- Compared to diseases caused by previously known human CoVs, COVID-19 shows less severe pathogenesis but higher transmission competence – evident from the continuously increasing number of confirmed cases globally.
- Compared to other emerging viruses, SARS-CoV-2 has shown relatively low pathogenicity and moderate transmissibility. Codon usage studies suggest that this novel virus has been transferred from an animal source, such as bats.
- Early diagnosis by real-time PCR and next-generation sequencing has facilitated the identification of the pathogen at an early stage. Since no antiviral drug or vaccine exists to treat or prevent SARS CoV-2, potential therapeutic strategies that are currently being evaluated predominantly stem from previous experience with treating SARS-CoV, MERS-CoV, and other emerging viral diseases.

*Clin Microbiol Rev* | Review | October 2020 | Volume 33 Issue 4 e00028-20 | [Online link](#)

#### Infection prevention and control and preparedness for COVID-19 in healthcare settings

- Provides guidance to EU/EEA healthcare facilities and healthcare providers on infection prevention and control (IPC) measures for the management of suspected and confirmed cases of COVID-19 infection in healthcare settings, including long-term care facilities.
- Also offers guidance on the management of specimens at laboratories in the EU/EEA

*ECDC* | Technical report | May 2020 | [Online link](#)

#### Challenges of “Return to Work” in an Ongoing Pandemic

- The “general duty” clause of the Occupational Safety and Health Act (OSHA) requires all employers to take reasonable steps to reduce risk to employees, and establishments have common-law obligations to ensure that their premises that are open to the public are maintained in a safe condition without concealed, reasonably avoidable hazards.
- The article seeks to identify the major public health challenges faced by private entities in resuming on-site operations and explore ways in which this might be done most effectively, consistent with applicable regulations.

*NEJM* | Special report | 18 June 2020 | [Online link](#)

## Heating, ventilation and air-conditioning systems in the context of COVID-19

- Heating, ventilation and air-conditioning (HVAC) systems are important in the context of COVID-19.
- Several outbreak investigation reports have shown that COVID-19 transmission can be particularly effective in crowded, confined indoor spaces such as workplaces (offices, factories) and during indoor events e.g. churches, restaurants, gatherings at ski resorts, parties, shopping centres, worker dormitories, dance classes, cruise ships and vehicles.
- There is currently no evidence of human infection with SARS-CoV-2 caused by infectious aerosols distributed through the ventilation system ducts of HVACs. The risk is rated as very low.

ECDC | Technical report | 22 June 2020 | [Online link](#)

## WHO guidelines

### Infection prevention and control during healthcare when coronavirus disease (COVID-19) is suspected or confirmed

- This third edition of WHO IPC guidance is intended for health workers, including healthcare managers and IPC teams at the facility level, but is also relevant for officials at national and district/provincial levels.
- Expanded scope and structure of earlier guidance, bringing together other interim recommendations as well as considerations and advice from international experts.
- Main differences/additions include the following:
  - Section on “Principles of IPC strategies associated with health care for suspected or confirmed cases of COVID-19” has been expanded to include clarifications and additional recommendations;
  - New guidance and practical advice for management of visitors especially in areas with COVID-19 community transmission;
  - Sub-section included on ventilation in “Environmental and engineering controls”;
  - New guidance on IPC considerations for surgical procedures for patients with suspected or confirmed COVID-19, as well as those patients whose COVID-19 status is unknown;
  - Considerations for dead body management in healthcare facilities;
  - Practical advice and available tools to assess healthcare facility IPC readiness and to monitor and evaluate IPC measures for COVID-19.

WHO | Interim guidance | 29 June 2020 | [Online link](#)

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

- Updates the interim guidance document – *Critical preparedness, readiness and response actions for COVID-19*, published on 22 March 2020.
- Provides recommendations for critical preparedness, readiness and response actions for each transmission scenario for COVID-19 and an update of WHO technical guidance for COVID-19.

WHO | Interim guidance | 24 June 2020 | [Online link](#)

### Breastfeeding and COVID-19

- WHO recommends that mothers with suspected or confirmed COVID-19 should be encouraged to initiate or continue to breastfeed

- Mothers should be counselled that the benefits of breastfeeding substantially outweigh the potential risks for transmission.
- Mother and infant should be enabled to remain together while rooming-in throughout the day and night and to practice skin-to-skin contact, including kangaroo mother care, especially immediately after birth and during establishment of breastfeeding, whether they or their infants have suspected or confirmed COVID-19.

*WHO* | Scientific brief | 23 June 2020 | [Online link](#)

### **Use of chest imaging in COVID-19**

- This rapid advice guide examines the evidence and makes recommendations for the use of chest imaging in acute care of adult patients with suspected, probable or confirmed COVID-19, including chest radiography, computed tomography (CT) and lung ultrasound.
- It is intended to be a practical guide for health care professionals involved in the care pathway of COVID-19, from the time of presentation to a health facility to home discharge.
- The guidance is relevant to patients with different levels of disease severity, from asymptomatic individuals to critically ill patients.

*WHO* | Rapid advice guide | 11 June 2020 | [Online link](#)

### **Advice on the use of masks in the context of COVID-19**

- Provides information and guidance on the use of masks in healthcare settings, for the general public, and during home care.
- This guidance is for decision makers, public health and IPC professionals, healthcare managers, and health workers on the use of medical and non-medical masks.
- Update of guidance published on 6 April 2020 and includes recent scientific evidence relevant to the use of masks for preventing transmission of COVID-19, including practical considerations.

*WHO* | Interim guidance | 5 June 2020 | [Online link](#)

### **‘Asks’ to the private sector in the response to COVID-19**

- The private sector has a critical role to play locally, nationally and globally.
- This publication focuses on various “Asks” for businesses to take concrete actions as regards to protecting stakeholders, protecting your business, producing and making available essential supplies, providing financial support and supporting NGO & community needs.

*WHO* | Document | 11 June 2020 | [Online link](#)

### **COVID-19 Strategic Preparedness and Response (SPRP) Monitoring and Evaluation Framework**

- The COVID-19 Strategic Preparedness and Response Plan (SPRP) Monitoring and Evaluation Framework (COVID-19 M&E Framework) lists key public health and essential health services and systems indicators to monitor preparedness, response, and situations during the COVID-19 pandemic.
- The main objective is to establish and maintain a set of global and country indicators to support strategic thinking, operational tracking, real-time evidence-based decision-making, and to ensure advocacy and transparency between donors, UN agencies, and partners involved in the response.

*WHO* | Interim guidance | 05 June 2020 | [Online link](#)

**Maintaining essential health services: operational guidance for the COVID-19 context**

- Operational guidance intended for decision-makers and managers at the national and subnational levels.
- Recommends practical actions that countries can take at national, sub regional and local levels to reorganize and safely maintain access to high-quality, essential health services in the pandemic context.
- Also outlines sample indicators for monitoring essential health services and describes considerations on when to stop and restart services as COVID-19 transmission recedes and surges.

*WHO* | Interim guidance | 1 June 2020 | [Online link](#)

**Key planning recommendations for mass gatherings in the context of COVID-19**

- Provides guidance to host governments, health authorities and national or international organizers of mass gatherings on containing risks of COVID-19 transmission.
- Outlines general considerations and advice applicable to the organization of mass gatherings, and addressing risks of any origin that should also be considered when planning an event

*WHO* | Interim guidance | 29 May 2020 | [Online link](#)

**Controlling the spread of COVID-19 at ground crossings**

- Advises countries how to reduce the spread of COVID-19 resulting from travel, transportation, and trade on and around ground crossings by identifying priority ground crossings and communities; and scaling up preparedness and control measures at these locations.
- Target audience of this guidance includes the IHR national focal point; authorities responsible for implementing the IHR at ground crossings; representatives of government and nongovernmental organizations and their partners at ground crossings; and public health professionals involved in disease surveillance, communication, emergency preparedness and response, animal health and environmental health at ground crossings and in nearby communities.

*WHO* | Interim guidance | 28 May 2020 | [Online link](#)

**Surveillance protocol for SARS-CoV-2 infection among health workers**

- Technical tool and service that WHO is providing to countries who want to better understand the characteristics and exposure of health workers infected with COVID-19.
- It is the global adaptation of a tool WHO HQ and WHO EURO has helped develop in March 2020 in Italy for surveillance and epidemiological investigation on COVID-19 positive health workers.

*WHO* | Protocol | 28 May 2020 | [Online link](#)

**Ethical considerations to guide the use of digital proximity tracking technologies for COVID-19 contact tracing**

- Digital proximity tracking technologies have been identified as a potential tool to support contact tracing for COVID-19. However, these technologies raise ethical and privacy concerns.
- This document is intended to provide policy-makers and other stakeholders with guidance as to the ethical and appropriate use of digital proximity tracking technologies for COVID-19.

*WHO* | Interim guidance | 28 May 2020 | [Online link](#)

**Clinical management of COVID-19**

- Intended for clinicians caring for COVID-19 patients during all phases of their disease.
- This update has been expanded to meet the needs of front-line clinicians and promotes a multi-disciplinary approach to care for patients with COVID-19, including those with mild, moderate, severe, and critical disease.

*WHO* | Interim guidance | 27 May 2020 | [Online link](#)

**Smoking and COVID-19**

- Reviews available peer-reviewed literature on association between smoking and COVID-19, including risk of infection by SARS-CoV-2; hospitalization with COVID-19; and severity of COVID-19 outcomes amongst hospitalized patients such as admission into intensive care units, use of ventilators and death.

*WHO* | Scientific brief | 26 May 2020 | [Online link](#)

**MoHFW/Gol guidelines****Updated advisory for managing healthcare workers working in COVID and Non-COVID areas of the hospital**

- Provides guidance on preventive measures, isolation and quarantine of healthcare functionaries.
- A nodal officer (infection control officer) shall be identified by each hospital to address all matters related to healthcare associated infections (HAIs).

*MoHFW* | Advisory | 18 June 2020 | [Online link](#)

**Guidelines for Handling, Treatment and Disposal of Waste Generated during Treatment/Diagnosis/ Quarantine of COVID-19 Patients (Revision 3)**

- Revised guideline with guidance on segregation of general solid waste and biomedical waste.
- Addresses safety of waste handlers/sanitation workers associated with healthcare facilities, urban local bodies (ULBs) and common biomedical waste treatment facility (CBWTFs) in handling of biomedical waste and solid waste generated from quarantine centres/home-care/healthcare facilities treating COVID-19 patients.

*CPCB, MoEFCC* | Guideline | 10 June 2020 | [Online link](#)

**Clinical Management Protocol: COVID-19**

- Stresses the importance of universal application of standard precautions, which should always be routinely applied in all areas of healthcare facilities.
- Details laboratory diagnosis, management of COVID-19: symptomatic treatment, investigational therapies, repurposed or off-label therapies and prevention of complications.

*MoHFW* | Guideline | 13 June 2020 | [Online link](#)

**SOP on preventive measures to contain spread of COVID-19 in offices**

- Outlines preventive and response measures to contain the spread of COVID-19 in office settings.
- Includes generic preventive measures, measures specific to offices, measures to be taken on occurrence of case(s) & disinfection procedures in case of occurrence of suspect/confirmed case.

- Offices in containment zones shall remain closed except for medical & essential services. Only those outside containment zones will be allowed to open.

*MoHFW* | SOP | 4 June 2020 | [Online link](#)

### **Guidelines for international arrivals**

- Travellers shall sign an undertaking to undergo mandatory quarantine for 14 days – 7 days paid institutional quarantine at own cost followed by 7 days home isolation with self-monitoring.
- While on board the flight/ship, precautions such as wearing of masks, environmental hygiene, respiratory hygiene, hand hygiene etc. are to be observed by staff, crew and all passengers.

*MoHFW* | Guideline | 4 June 2020 | [Online link](#)

### **Guidelines for domestic travel (air/train/inter-state bus travel)**

- All passengers shall use face covers/mask.
- They will also follow hand hygiene, respiratory hygiene and maintain environmental hygiene.

*MoHFW* | Guideline | 4 June 2020 | [Online link](#)

### **SOP on preventive measures to contain spread of COVID-19**

- These SOPs cover basic IPC for
  - [Religious places/places of worship](#)
  - [Restaurants](#)
  - [Shopping malls](#)
  - [Hotels and other hospitality units](#)

*MoHFW* | SOP | 4 June 2020 | [Online link](#)

### **Minimum standard requirements for 50 / 100 / 150 / 200 / 250 MBBS admissions annually (amendment) regulations, 2020**

- Virology laboratory in medical colleges should be a BSL-2 level facility, and include the following:
  - Sample receiving area;
  - Handwashing & PPE donning/doffing zone;
  - Designated area for biosafety cabinet & sample handling;
  - Designated pre-PCR, PCR and post PCR rooms; and
  - Space for handling bio-medical waste.

*MCI* | Notification | 02 June 2020 | [Online link](#)

### **Guidelines for domestic travel (air/train/inter-state bus travel)**

- The States/UTs shall ensure that all passengers shall undergo thermal screening at the point of departure and only asymptomatic passengers can board the flight/train/bus.
- Asymptomatic passengers will be permitted to go with the advice that they shall self-monitor their health for 14 days. In case, they develop any symptoms, they shall inform the district surveillance officer or the state/national call centre (1075).
- Those having mild symptoms will be given the option of home isolation or isolated in the Covid Care Centre (both public & private facilities) as appropriate and tested as per ICMR protocol.

*MoHFW* | Guideline | 24 May 2020 | [Online link](#)

### **Revised advisory on use of Hydroxychloroquine (HCQ) as prophylaxis for SARS-CoV-2 infection**

- Based on the Joint Monitoring Group/NTF recommendation on prophylactic use of HCQ in specific categories.

*MoHFW* | Advisory | 22 May 2020 | [Online link](#)

### Guidelines for safe ENT practice in COVID 19

- Aim to prevent infection in ENT practice and includes protocols/SOPs for OPD, ward and OT.

*MoHFW* | Guideline | 3 June 2020 | [Online link](#)

### Advisory on reprocessing and reuse of eye-protection goggles

- Enables reuse of goggles, allowing their extended use without the risk of contracting infection.

*MoHFW* | Advisory | 27 May 2020 | [Online link](#)

### Guidelines for Dental Professionals in Covid-19 pandemic situation

- Address dental services in government and private sector across the country.

*MoHFW* | Guideline | 19 May 2020 | [Online link](#)

## Trainings / IEC resources

### COVID-19! How can I protect myself and others?

- Rapid-response guide for youth ages 8–17 has been developed by the Smithsonian Science Education Center, in collaboration with the WHO and Inter Academy Partnership.
- Based on the UN SDGs and aims to help young people understand the science and social science of COVID-19 as well as help them take actions to keep themselves, their families and communities safe. Available in [English](#), [Hindi](#), [Tamil](#) and [Bengali](#)

*WHO* | Joint News Release | 21 May 2020 | [Online link](#)

### Video on COVID appropriate behaviours

- [Physical distancing at bus stop](#)
- [Offering to wearing mask](#)
- [Riding in lift](#)
- [Physical distancing while seating](#)
- [Not wearing mask](#)

*MoHFW* | Video | 22 June 2020 | [Online link](#)

### Audio Interview: A Look at SARS-CoV-2 Transmission

- Discusses transmission of SARS-CoV-2 based on evidence from Iceland and the Diamond Princess.

*NEJM* | audio interview | 18 June 2020 | [Online link](#)

### An illustrative guide on COVID appropriate behaviours

- Outlines 15 preventive behavioural practices which are critical to winning the fight against COVID.

*MoHFW* | Illustrative guide | 18 June 2020 | [Online link](#)

### Quit spitting, as it can increase the risk of spread of COVID-19

- AV guide to promote the ban on spitting in [English](#) and [Hindi](#)

*MoHFW* | Video | 18 June 2020 | [Online link](#)

### Specific guidelines for various settings

- Preventive measures to contain spread, COVID appropriate behaviour, and protocol for attending suspect or confirmed cases in [Shopping malls](#), [Restaurants](#), [Religious places](#), [Offices](#) and [Hotels](#)

*MoHFW* | Guidelines | 12 June 2020 | [Online link](#)

### Video on caring and sharing, the new normal

- Key message – North, West, East or South, we all are together in this fight against #COVID19.

*MoHFW* | Video | 8 June 2020 | [Online link](#)

### Advisories for professionals and public

- [Precautions while doing Aerosol Generating Procedures \(excluding Intubation\)](#)
- [Postoperative Care in Covid-19 Patients](#)
- [Protocol for Patient Receiving at ICU](#)
- [Protocol for PAC of Patients in COVID Pandemic](#)
- [Protect yourself and others from covid-19](#)
- [Airway Management Protocols during COVID-19](#)

*AI/MSI* | Advisories | 01 June 2020 | [Online link](#)

### RAP video to advocate no spitting

- Key message – थोड़ा तो सोचो, कोरोना को रोकें।

*MoHFW* | Video | 28 May 2020 | [Online link](#)

## Antimicrobial Resistance and COVID-19

### Tripartite technical brief on water, sanitation, hygiene and wastewater management to prevent infections and reduce the spread of antimicrobial resistance

- Provides information to inform water, sanitation and hygiene (WASH) and wastewater elements within multi-sectoral antimicrobial resistance (AMR) national action plans (NAPs)
- Includes a summary of evidence and the co-benefits rationale for action in each sector and presents a menu of actions for consideration and refinement in each country context
- Also identifies sector specific policy options and additional information, including knowledge gaps and research needs, as well as additional technical resources for planning and implementation

*Tripartite FAO-OIE-WHO* | Technical brief | 2020 | [Online link](#)

### Antimicrobial use, drug-resistant infections and COVID-19

- Short and longer-term consequences that COVID-19 on antimicrobial use and drug-resistant infections need to be considered.
- A concerning potential consequence of the COVID-19 pandemic is the long-term propagation of antimicrobial resistance (AMR) in the acute care setting, resulting from increased patient exposure to antimicrobials, often sub optimally or inappropriately used.
- Combined with a lack of rapid diagnostic and decision support tools to support the clinical management of COVID-19, leading to increased unnecessary antimicrobial use.



*Nature Reviews Microbiology* | Comment | 2 June 2020 | [Online link](#)

### Record number of countries contribute data revealing disturbing rates of antimicrobial resistance

- Many countries are now monitoring and reporting on antibiotic resistance – marking a major step forward in the global fight against drug resistance.
- WHO is concerned that the trend will further be fuelled by the inappropriate use of antibiotics during the COVID-19 pandemic
- Evidence shows that only small proportion of COVID-19 patients need antibiotics to treat subsequent bacterial infections.

*WHO* | news release | 1 June 2020 | [Online link](#)

### The Novel Coronavirus COVID-19 Outbreak: Global Implications for Antimicrobial Resistance

- Potential implications, both good and bad, have been discussed of some of the current management practices and practicalities of managing the COVID pandemic in relation to AMR
- Global issue of AMR will persist beyond the COVID-19 outbreak and understanding some of the impacts the management strategies employed globally had, or will have, on AMR in the clinic, the environment and regarding public awareness should be investigated, when the time is right.
- In the meantime, everyone should wash their hands!

*Front. Microbiol.* | Opinion | 13 May 2020 | [Online link](#)

### Is antimicrobial resistance exacerbating the COVID-19 pandemic?

- Growing concern around the world about the increased use of antibiotics during this pandemic.
- Secondary infection with bacteria like *Streptococcus pneumoniae* and *Haemophilus influenzae* can lead to complications and death in people with flu, particularly during pandemics.
- Vaccines that we already have at our disposal could protect those infected with the virus from deadly secondary bacterial and viral infections.

*GAVI* | Comment | May 2020 | [Online link](#)