World Health Organization India

sameeksha

IPC for COVID-19 | Volume 16 | 4 September 2021

Sameeksha* – Infection Prevention and Control for COVID-19

* *Sameeksha* is a Hindi word, meaning review. This compilation of recent key IPC resources on COVID-19 includes brief summary of relevant publications from scientific journals; guidelines from WHO, Ministry of Health and Family Welfare and others; training and IEC resources; and links between COVID-19 and AMR. The intended target audience for this includes clinical and public health professionals in both public and private sector in India. Kindly note: inclusion of publications and resources in this review/compilation does not imply an endorsement by WHO.

Key highlights of volume 16

- Analysis of IPC implementation in low-resource settings
- WHO compendium of innovative health technologies for low-resource settings
- MoHFW guidelines for domestic travel
- Options for particulate filter respirators (N95/P2)
- Collaboration of IPC and AMS programs during COVID-19 pandemic

Publications from scientific journals

Infection prevention and control implementation in low-resource settings: a qualitative analysis

- Interviews conducted with IPC experts from 29 low-resource setting countries in six WHO regions were analysed to identify critical actions to achieve the WHO IPC core components.
- Provides important IPC implementation themes for the consideration of IPC professionals.

Antimicrobial Resistance & Infection Control | Research article | 31 July 2021 | Online link

Airborne aerosols particles and COVID-19 transition

- Aerosols particles containing respiratory viruses are easily transported up to several meters from the source.
- Four basic intervention categories to reduce the risk of SARS-CoV-2 airborne transmission include 1) source control; 2) filtration/ventilation; 3) individual protective equipment and social distance; and 4) hygiene.

Environmental Research | Article | 22 July 2021 | Online link

A worldwide assessment of changes in adherence to COVID-19 protective behaviours and hypothesized pandemic fatigue

- The study included a dataset of nationally representative survey responses that included self-reported protective behaviour (physical distancing and mask wearing) from 14 countries, collected on a monthly basis.
- Mask wearing showed a rise in adherence over time; but physical distancing showed a decline.

Nature Human Behaviour | Article | 3 August 2021 | Online link

Co-development of COVID-19 infection prevention and control guidelines in lower-middle-income countries: the 'SPRINT' principles

- The SPRINT principles include i) situational awareness, ii) prioritisation and balance iii) responsive and reflective iv) interdisciplinary teams v) navigating shared responsibilities and vi) transparency.
- Learning in the 'SPRINT principles' are summarized for adapting guidelines in an epidemic context in low and middle income countries (LMICs), emphasizing collaborative or codesign processes and adding value to existing national responses.

BMJ Global Health | Original Research | 27 August 2021 | Online link

Estimating the impact of indoor relative humidity on SARS-CoV-2 airborne transmission risk using a new modification of the Wells-Riley model

- Ventilation plays an important role in controlling the concentrations of SARS-CoV-2 in indoor air.
- Infection risk was calculated at five different relative humidity levels for a specific indoor scenario when an infected person was continuously talking for 120 minutes.
- Humidification to moderate levels of 40–60% had an insufficient impact on risk of infection by SARS-CoV-2 and using humidifiers may not be an efficient solution to reduce the risk of COVID-19 disease in indoor spaces.

Building and Environment | Article | 23 August 2021 | Online link

Impact of essential workers in the context of social distancing for epidemic control

- Risk of infection was evaluated based on contacts amongst essential workers and the public, according to three mathematical models for cashiers, factory employees and healthcare workers.
- Essential workers were found to have a substantially higher risk of infection compared to the rest of the population and should be included in contingency plans for future pandemics.

PLoS ONE | Research article | 4 August 2021 | Online link

Risk factors associated with nursing home COVID-19 outbreaks: a retrospective cohort study

- Relationship between geography, size, design, organizational characteristics, and implementation of IPC measures and the extent of COVID-19 outbreaks were studied in 57 nursing homes in Italy.
- Structural/organizational factors and standard IPC measures may not predict the epidemiology of COVID-19 outbreaks in nursing homes.

Environmental Research and Public Health | Article | 10 August 2021 | Online link

Risk of SARS-CoV-2 transmission following exposure during dental treatment – a national cohort study

- SARS-CoV-2 transmission risk for dental staff and patients was assessed by identifying new positive cases following SARS-CoV-2 exposures in dental practices, during the second wave in Israel.
- The risk of SARS-CoV-2 transmission within the dental setting was found to be low, and results suggest that routine dental care can be provided safely during the pandemic along with adherence to national IPC guidelines, continuous monitoring for new variants and vaccination programs.

Journal of Dentistry | Article | 26 August 2021 | Online link

WHO and other guidelines

WHO compendium of innovative health technologies for low-resource settings

- Focusses on selecting innovative technologies having an immediate or future impact on COVID-19 preparedness and response, by evaluating their appropriateness, quality, and safety, etc.
- IPC related products include a commercially available colourized bleach additive and prototype products like polypropylene based reusable face mask, jute cellulose-based biodegradable PPE, ventilated reusable PPE, etc.

WHO | Technical document | 31 August 2021 | Online link

Holding gatherings during the COVID-19 pandemic

- WHO continues to recommend the following for everyone irrespective of their vaccination status
  1) physical distancing
  2) cover mouth and nose with elbow/tissue when coughing/sneezing; and avoid touching eyes, nose or mouth
  3) washing/cleaning hands regularly and thoroughly
  4) minimizing indoor meetings and avoiding crowded or poorly ventilated areas
  5) use masks as advised by health authorities.

WHO | Policy brief | 2 August 2021 | Online link

Guidance for general laboratory safety practices during the COVID-19 pandemic

- Updated guidance intended for clinical and public health laboratory and support staff working in a laboratory that handles or processes specimens associated with COVID-19.
- Recommends site-specific and activity specific risk assessments, added mask guidance for fully vaccinated staff and in areas of high transmission.

CDC | Guidance | 19 August 2021 | Online link

MoHFW guidelines

Guidelines for domestic travel (flight/train/ship/bus inter-state travel)

- Updated guidelines applicable to all States/UTs to facilitate inter-state travel.
- Includes general advisory to all passengers, advisory to airports/railway stations/ports/bus stations, advisory for airlines/railways/ship/bus operators and during travel, and advisory to States/UTs.

MoHFW | Guidelines | 25 August 2021 | Online link

FAQs on COVID-19 vaccines and vaccination program

- Guidance for the general public using questions-answers covering general aspects, vaccine attributes, efficacy and protection, side-effects, precautions, follow-up and booster, COVID-19 vaccination program, and COVID-19 vaccination in pregnant and lactating women.
- COVID-19 appropriate behaviour is recommended even after vaccination, i.e. masks, physical distancing and hand sanitization to protect oneself and others from spreading the infection.

MoHFW | FAQs | 1 September 2021 | Online link

Training / IEC resources

Particulate filter respirator (N95/P2 respirator) options

- Suggests various standards with filtration efficiency, fluid resistance and fit check among others and also recommends the suitability as relevant to airborne precautions and fluid exposure.

DoH, Govt. of Western Australia | IEC | 14 July 2021 | Online link

Train-the-trainers in hand hygiene for infection preventionists in Japan

- Train-the-trainers (TTT) course on hand hygiene in Japan, trained more than 70 participants over 3 days.
- The TTT hand hygiene programme can be adapted in an international context for improvements in hand hygiene knowledge and best practices.

WHO-CC on Patient Safety, Geneva | Video on TTT | 1 September 2021 | Online link

Personal protective equipment (PPE)

- Illustrated poster with step-by-step guidance for donning and doffing of PPE.

DoH, Gov. of Western Australia | Poster | July 2021 | Online link

COVID-19 and Antimicrobial Resistance

Infection prevention and antimicrobial stewardship program collaboration during the COVID-19 pandemic: a window of opportunity

- Infection prevention programs (IPPs) and antimicrobial stewardship programs (ASPs) despite being separate programs share the goal of improving patient outcomes.
- COVID-19 pandemic has highlighted multiple opportunities for collaboration between IPPs and ASPs due to overlapping goals, strategies, infrastructure and metrics.

Current Infectious Disease Reports | Article | 18 August 2021 | Online link

COVID-19 and antimicrobial resistance: a review

- The COVID-19 pandemic reiterated the need for adequate, strengthened and efficient surveillance and reporting systems.
- While mitigating the threat of COVID-19, it's important that medical, public health, policy, and political stakeholders also focus on curbing AMR and improving antimicrobial stewardship principles since the new antibiotic development pipeline is dry.

Infectious Diseases: Research and Treatment | Review article | 31 July 2021 | Online link

Antimicrobial stewardship in the ICU in COVID-19 times: the known unknowns

- Increase in empirical antibiotic use has been documented despite bacterial infections being rare. As antibiotics are widely used, often inappropriately, there is a need for an ICU-specific antimicrobial stewardship program.
- Infectious and inflammatory causes of respiratory deterioration are difficult to differentiate in critically ill COVID-19 patients, and fungal and viral co-infections further complicate the use of antimicrobials.

International Journal of Antimicrobial Agents | Review | 30 July 2021 | Online link

The pandemic beyond the pandemic: a scoping review on the social relationships between COVID-19 and antimicrobial resistance

- Scoping review on the social relationship between COVID-19 and AMR, which emphasizes that changes in antibiotic prescription behaviour, misinformation, over-burdened health systems, financial hardship, environmental impact and gaps in governance increased improper access and use of antibiotics during the COVID-19 pandemic, thereby increasing AMR.
- Suggested strategies include social engagement and sensitisation, misinformation control, health systems strengthening, improved IPC measures, environmental protection, better antimicrobial stewardship and infectious diseases governance, and inter-disciplinary research to address AMR and COVID-19.

IJERPH | Review | 19 August 2021 | Online link

Impact of a total lockdown for pandemic SARS-CoV-2 (COVID-19) on deep surgical site infections and other complications after orthopaedic surgery: a retrospective analysis

- Retrospective analysis of 5,791 adult orthopaedic surgeries over one year in a tertiary university hospital investigated the impact of COVID-19 lockdown on deep surgical site infection (SSI), wound healing disorders and non-infectious complications following orthopaedic surgery.
- Risks for deep SSI, wound healing disorders, HAI and other complications did not change due to the public health and social measures due to the lockdown.

Antimicrobial Resistance & Infection Control | Research | 31 July 2021 | Online link

The impact of COVID-19 on healthcare-associated infections

- 60% more central line-associated blood stream infections (CLABSI), 43% more catheter-associated urinary tract infections (CAUTI), and 44% more methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia cases were reported, based on predicted HAIs, had there not been COVID-19 cases.
- COVID-19 surges adversely impact HAI rates and clusters of infections within hospitals, highlighting the need for routine hospital IPC practices along with COVID-related demands.

Clinical Infectious Diseases | Article | 9 August 2021 | Online link