World Health Organization India

sameeksha

IPC for COVID-19 | Volume 18 | 5 November2021

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 18

- Decontaminating N95/FFP2 masks for reuse during the COVID-19 epidemic: a systematic review
- WHO and partners call for action to better protect health and care workers from COVID-19
- CDC guidelines for collecting and handling of clinical specimens for COVID-19
- Sentinels of the soil: a tribute to frontline and healthcare workers in India's fight against COVID-19
- Bacterial coinfections and secondary infections in COVID-19 patients from an Indian hospital

Publications from scientific journals

Decontaminating N95/FFP2 masks for reuse during the COVID-19 epidemic: a systematic review

- Review including sub-analysis of the results by decontamination methods for N95/FFP2 respirators shows that reprocessing methods offer limited safety and are more expensive than purchasing new masks; and should be considered only in situations of interrupted supply, and not for economic reasons.
- The choice of disinfection or sterilization methods for N95/FFP2 respirators should take into account the availability of effective decontamination methods, achievable local turnover capacity as well as individual characteristics of the masks.

ARIC | Review | 11 October 2021 | Online link

Dissemination interventions to improve healthcare workers' adherence with infection prevention and control guidelines: a systematic review and meta-analysis

- Covers a diverse set of drivers in healthcare workers, that could improve the IPC practices for respiratory infectious diseases.
- In comparison to usual activities, combined strategies improved the influenza vaccination uptake, hand hygiene compliance, and knowledge of IPC, and thereby increase adherence to IPC guidelines and prevent dissemination of infectious disease in the workplace.

Implementation Science | Systematic Review | 24 October 2021 | Online link

The impact of COVID-19 on the profile of hospital-acquired infections in adult intensive care units

- Study showing resistance rates of >80% for most tested antimicrobials with Acinetobacter spp. the dominant cause of hospital associated infections in COVID-19 patients.
- A significant shift in the type of infection, causative agents, and resistance profiles has been seen in HAIs during COVID-19 pandemic, most likely as a result of the inability to fully comply with the standard practices of infection control.

Antibiotics | Article | 23 September 2021 | Online link

Infection control in the era of COVID-19: a narrative review

- Awareness about infection control among healthcare workers is critical to prevent hospital associated infections and controlling epidemics and outbreaks in healthcare facilities.
- Reviews existing guidelines and recommends future efforts to address the gaps between development of IPC guidelines, their introduction and implementation.

Antibiotics | Review | 14 October 2021 | Online link

A pre-pandemic COVID-19 assessment of the costs of prevention and control interventions for healthcare associated infections in medical and surgical wards in Quebec

- Assesses costs of time, materials and products required to undertake IPC practices which serves as a baseline against which to compare future healthcare economic analyses.
- Results provide policy makers and health systems, experts arguments to allocate resources based on evidence to improve the quality and safety of patient care.

ARIC | Research | 21 October 2021 | Online link

Rapid, dose-dependent and efficient inactivation of surface dried SARS-CoV-2 by 254 nm UV-C irradiation

- Complete reduction in viral infectivity was achieved with use of UV-C dose of 20 mJ/cm2 at 254 nm when exposed to aqueous SARS-CoV-2 in a simulated setting of surface disinfection with a moving handheld device.
- Suggests further studies to carefully determine UV-C doses necessary and sufficient for inactivation of SARS-CoV-2 in aerosols before adapting the potential of this technology in a broad range of possible settings such as operating rooms, and public transportation, as well as in research facilities.

Eurosurveillance | Research article | 21 October 2021 | Online link

Environmental and health impacts of spraying COVID-19 disinfectants with associated challenges

- Aggressive use of various chemicals to disinfect different commercial spaces, streets and highways to stop COVID-19 from spreading, can have a detrimental impact on human health and the environment.
- Disinfection is crucial in the prevention and spread of COVID-19, but it should be carried out with sufficient precautions to minimize pollution of water bodies, soil and air.

Environmental Science and Pollution Research | Article | 1 October 2021 | Online link

Nurses' knowledge, concerns, perceived impact and preparedness toward COVID-19 pandemic: a cross-sectional survey

- Half of the surveyed nurses reported that their main sources of information were the websites of Ministry of Health and World Health Organization, and other official pages, with acceptable level of knowledge regarding COVID-19 in majority of the nurses.
- Highlights the need for psychological interventions in the planning stage before any pandemic to enhance the protection of nurses and health care workers along with sustainable awareness programmes keeping them up to date with the most recent information regarding prevention and management methods.

IJNP | Original research | 30 September 2021 | Online link

COVID 19 pandemic: assessment of knowledge and attitudes in biomedical waste management among health care professionals in Tamil Nadu

- Survey found that majority of the respondents follow colour coding while disposing waste, but only few gave correct answers when asked about the exact category.
- Highlights the need for ongoing training on safe handling of waste among healthcare workers.

APJHM | Research article | 29 September 2021 | Online link

A comparative analysis of healthcare-associated infection policy in South Korea and its implications in coronavirus disease 2019

- Study incorporating a qualitative approach of implications in IPC policies by analysing the context, process, and major actors in policy development.
- Lessons learned from the analysis of existing policies in the context of COVID-19 should provide valuable strategic implications for future policies to ensure more efficient and sustainable IPC responses.

HPM | Original article | 30 September 2021 | Online link

High rate of bacterial respiratory tract co-infections upon admission amongst moderate to severe COVID-19 patients

- Bacterial co-infection in COVID-19 patients was found to be common, with 60% and 34% positivity on molecular and conventional microbiological testing, respectively.
- Viral co-infections were rare, and moulds were absent altogether in the early days of hospitalization.

Infectious Diseases | Original article | 4 October 2021 | Online link

WHO and other guidelines

WHO and partners call for action to better protect health and care workers from COVID-19

- Urges political leaders and policy makers to make regulatory, policy and investment decisions that ensure the protection of health and care workers in view of mortality of health and care workers in large numbers from COVID-19, and increasing proportion of the workforce suffering from burnout, stress, anxiety and fatigue.

WHO | News | 21 October 2021 | Online link

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

- Fourth version of this interim guidance document that provides guidance to host governments, health authorities and national or international event organizers on decisions related to mass gatherings in the context of the COVID-19 pandemic, and on decreasing the risks of SARS-CoV-2 transmission and strain on health systems associated with such events, through dedicated precautionary measures.

WHO | Interim guidance | 4 November 2021 | Online link

Interim guidelines for collecting and handling of clinical specimens for COVID-19 testing

- Guidance for healthcare providers or health department staff who are collecting specimens in a healthcare setting or at point-of-care. CDC recommends collecting and testing an upper respiratory specimen for initial diagnostic testing for current SARS-CoV-2 infections.

CDC | Guidelines | 25 October 2021 | Online link

Interim laboratory biosafety guidelines for handling and processing specimens associated with COVID-19

- Site-specific and activity-specific risk assessment should be performed by all laboratories and standard precautions to be followed when handling clinical specimens.
- Cultures of SARS-CoV-2 should be handled in a Biosafety Level 3 (BSL-3) laboratory using BSL-3 practices, and inoculation of animals with infectious wild-type SARS-CoV-2 should be conducted in an Animal Biosafety Level 3 (ABSL-3) facility using ABSL-3 practices and respiratory protection.

CDC | Guidelines | 28 October 2021 | Online link

Rapid risk assessment: assessing SARS-CoV-2 circulation, variants of concern, non-pharmaceutical interventions and vaccine rollout in the EU

- Risk assessment prompted by the forecast modelling undertaken by ECDC and the planned relaxation of non-pharmaceutical and other measures announced by EU/EEA countries.

ECDC | Risk assessment | 30 September 2021 | Online link

Science brief: SARS-CoV-2 infection-induced and vaccine-induced immunity

- The immunity provided by vaccine and prior infection are both high but not complete and the level of protection may not be the same for all viral variants.
- No FDA-authorized test is available that can reliably determine whether a person is protected from infection.

CDC | Scientific brief | 29 October 2021 | Online link

MoHFW guidelines

Guidelines for international arrivals

- Updated guidelines with standard operating procedures to be followed by airlines, points of entry (airports, seaports and land border) for risk profiling of passengers and international travellers.

MoHFW | Guidelines | 20 October 2021 | Online link

Algorithm: guidelines for international arrivals

- Updated algorithm to be followed for international passengers arriving in India.

MoHFW | Guidelines | 20 October 2021 | Online link

Training / IEC resources

Sentinels of the soil: a tribute to frontline and healthcare workers in India's fight against COVID-19

- Photo book by Ministry of Health and Family Welfare capturing the stories of 'COVID warriors'
- Tribute to frontline and healthcare workers who contributed in the India's management of the COVID-19 pandemic.

MoHFW | IEC | 18 October 2021 | Online link

WHO and Psyon games teach players how to stay safe from COVID-19

- Antidote COVID-19 is an online adventure game that provides lifesaving information and urges everyone to play a role in fighting harmful misinformation online and learning and sharing the facts from trusted sources.

WHO | News | 19 October 2021 | Online link

Your guide to masks

- Public information on selecting the right mask along with special considerations on mask use, how to wear and how to clean/store them.

CDC | Information | 25 October 2021 | Online link

COVID-19 and Antimicrobial Resistance

Bacterial coinfections and secondary infections in COVID-19 patients from a tertiary care hospital of northern India: time to adhere to culture-based practices

- Only 17.9% of 814 clinical samples of COVID-19 patients with suspected bacterial coinfections or secondary infections were culture positive and majority of them were gram-negative organisms.
- Suggests a rational culture-based practice of initiating antibiotics to help in restricting unnecessary empirical antimicrobial therapy.

QMJ | Research paper | 25 October 2021 | Online link

COVID-19 and antimicrobial resistance: data from the Greek electronic system for the surveillance of antimicrobial resistance – WHONET-Greece

- Interrupted time-series analysis found significant differences in AMR trends before and after COVID-19.
- AMR surveillance of routine laboratory data can provide useful information for prompt action.

Life | Article | 22 September 2021 | Online link

Change in antimicrobial use during COVID-19 pandemic in South Carolina hospitals: a multicenter observational cohort study

- Reports that broad-spectrum antibacterial agents were given to >70% of patients with COVID-19, despite the low incidence of bacterial co-infections (5.9% in all hospitalised patients to 8.1% in critically ill patients).
- Emphasizes need for antimicrobial stewardship to reduce antimicrobial use and subsequent AMR.

IJAA | Article | 13 October 2021 | Online link

COVID-19 and antimicrobial stewardship: lessons learnt, best practices and future implications

- Empiric antimicrobial use is higher than rates of bacterial co-infection with COVID-19 and antimicrobial stewardship programs are needed to limit unnecessary antimicrobial use.
- Highlights an urgent need for research and investment in infrastructure and personnel to help inform ASP best practices in the context of current pandemic response efforts and to prepare for future pandemics.

IJID | Article | 4 October 2021 | Online link

What happened to microbiological diagnosis in 2020 beyond COVID-19?

- Review of the recent publications related to new diagnostic tests, methods for rapid antimicrobial susceptibility testing and for the detection of resistance genes related to old and emergent pathogens.
- Highlights the activities and research in clinical microbiology laboratories in fields other than those related to SARS-CoV-2 during the pandemic.

SSC | Article | 30 September 2021 | Online link

Bacterial and fungal growth in sputum cultures from 165 COVID-19 pneumonia patients requiring intubation: evidence for AMR development and analysis of risk factors

- Potential pathogens consistent with late pneumonia were grown from cultures ≥1 week following intubation in severe COVID-19 pneumonia whereas most sputum cultures from early intubation had no culture growth or recovered normal oral flora ± yeast.
- Long-term hospitalisation and continuing empiric antibiotics are associated with sputum cultures reflective of hospital-acquired microbes and increasing antimicrobial resistance.

ACMA | Research | 25 September 2021 | Online link

COVID-19: impact on prescribing and antimicrobial resistance

- Increased empirical broad-spectrum antibiotics use in hospitals in early phase of the pandemic along with the breakdown of antimicrobial stewardship and infection control programs led to an increase in infections with high-risk carbapenemase-producing bacteria, due to intense selection and co-selection processes.
- Reaffirms the need to learn about the gaps and maintain antimicrobial stewardship and infection control programs and to avoid breakdown of these activities under similar situations in future.

SSC | Article | 30 September 2021 | Online link