COVID-19 Infection Prevention and Control *Sameeksha*

WHO Country Office for India | *1 December 2020* | Volume 8

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

Publications from scientific journals

Evidences of SARS-CoV-2 virus air transmission indoors using several untouched surfaces: a pilot study

- Transmission of SARS-CoV-2 through the air has been measured using "COVID traps" in this study, which supports the recommendation of frequent disinfection of fomites to prevent transmission of coronavirus in hospital settings.

Science of the Total Environment | Short communication | 14 November 2020 | Online link

Airborne disinfection by dry fogging efficiently inactivates SARS-CoV-2, mycobacteria and bacterial spores and shows the limits of commercial spore carriers for process control

- Airborne disinfection is important for safe operation of laboratories and animal rooms where infectious agents are handled. Besides effectiveness for infection control, assessment of corrosiveness of various chemicals used for disinfection is also needed.
- Quantitative carrier testing procedures were used to compare the sensitivity of commercial spore carriers with that of surrogates for non-enveloped and enveloped viruses including SARS-CoV-2, mycobacteria, and spores to an aerosolized mixture of peroxyacetic acid and hydrogen peroxide (aPAA/HP).
- Dry fogging with aPAA/HP was highly efficient against a broad range of microorganisms for airborne room disinfection, which may be useful in hospital wards, ambulances, public conveyances and indoor community areas.

Applied & Environmental Microbiology | Article | 8 November 2020 | Online link

Protection procedures and preventions against the spread of coronavirus disease 2019 in healthcare settings for nursing personnel: Lessons from Taiwan

- High transmission rate of COVID-19 has resulted in nosocomial infections in healthcare facilities, with nursing personnel accounting for nearly 50% of the affected global health workforce.
- Taiwan's health system rapidly identified suspected cases and laid down prevention policies and strategies along with key protection points for nursing personnel.
- Educating nurses on procedures for infection control, reporting cases, and implementing protective measures to prevent nosocomial infections were identified as critical in preventing outbreaks.

Australian Critical Care | Review paper | 29 November 2020 | Online link

WHO and other guidelines

Mask use in the context of COVID-19

- Includes new scientific evidence relevant to the use of masks for reducing the spread of SARS-CoV-2, and practical advice to decision makers. The main changes, in particular in areas of community or cluster transmission, is more wide use of masks in health care facilities and specifics on using non-medical masks for the general public.
- In areas of known or suspected community or cluster COVID-19 transmission, WHO advises people to wear a mask, in indoor or in outdoor settings, where physical distancing of at least 1 meter cannot be maintained. When indoors with others, people should wear a mask unless ventilation has been assessed to be adequate. At home, people should wear a mask when receiving visitors if they cannot maintain distance or assess that ventilation is good.
- There is also the recommendation not to wear masks during vigorous physical activity, and not to use masks with valves. More detailed guidance provided on what types of fabrics to use in making fabric masks.

WHO | Interim guidance | 1 December 2020 | Online link

Technical specifications of personal protective equipment for COVID-19

- This document provides interim guidance on the quality, performance characteristics and related standards of PPE including WHO Priority Medical Devices, specifically: surgical masks, non-surgical masks, gloves, googles, face shields, gowns and N95 masks to be used for COVID-19.
- It is intended for procurement agencies, occupational health departments, IPC departments or focal points, health facility administrators, biomedical and materials engineering, PPE manufacturers and public health authorities at both national and facility levels.

WHO | Interim guidance | 13 November 2020 | Online link

Prevention, identification and management of health worker infection in the context of COVID-19

- Provides interim guidance on the prevention, identification and management of health worker infection in the context of COVID-19.
- Intended for occupational health departments, IPC departments or focal points, health facility administrators and public health authorities at both the national and facility level.

WHO | Interim Guidance | 30 October 2020 | Online link

Rapid hospital readiness checklist: Interim Guidance

- The guidance primarily assists hospitals in preparing to effectively respond to the pandemic by assessing existing capacities and identifying those areas that need further strengthening. The checklist highlights 12 key components that are essential to managing COVID-19 in a hospital setting, including infection prevention and control.
- An operational IPC programme is critical to minimize the risk of transmission and break the chain of transmission to hospital staff, close contacts, visitors and other patients/or residents.

WHO | Interim guidance | 26 November 2020 | Online link

Heating, ventilation and air-conditioning (HVAC) systems in the context of COVID-19: first update

- This document provides guidance on HVAC systems in closed spaces. In addition to the ventilation itself, air filtration could be another way of reducing the risk of transmission of SARS-CoV-2 compared to only increasing the air exchange rate in closed spaces.
- Non-pharmaceutical intervention are recommended to reduce potential airborne transmission of SARS-CoV-2 in closed spaces – these include engineering controls in mechanically and naturally ventilated closed spaces, as well as personal protective behaviour.

ECDC | Technical report | 11 November 2020 | Online link

Critical preparedness, readiness and response actions for COVID-19

- IPC measures for health care setting and general public are outlined, in addition to preparedness, readiness and response actions for each transmission scenario for COVID-19.
- It also includes links to all WHO technical guidance for COVID-19, including IPC for COVID-19.

WHO | Interim Guidance | 4 November 2020 | Online link

Harmonized health service capacity assessments in the context of the COVID-19 pandemic

- Consists of two sets of modules that can be used to inform the prioritization of actions and decision-making at health facility, subnational and national levels and include IPC capacities – protocols, safety measures, guidelines and the availability of PPE for staff.

WHO | Interim Guidance | 2 November 2020 | Online link

MoHFW/GoI guidelines

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

- Outlines general and specific precautionary measures at marketplaces to prevent COVID spread.
- It promotes COVID appropriate behaviour, maintaining a healthy environment, planning and maintaining healthy operations at marketplaces to prevent COVID-19 infections.

MoHFW | SoP | 30 November 2020 | Online link

Guidelines for International Arrivals

- The new guideline supersedes the guidelines issued on the same subject on 2 August 2020, and includes IPC measures to be followed before boarding, during travel and on arrival.

MoHFW | Guidelines | 5 November 2020 | Online link

Trainings / IEC resources

Science in 5: Antibiotics and COVID-19

- Learn about antibiotics and COVID-19 and what you can do about it from WHO's ADG for AMR – Dr Hanan Balkhy.

WHO | YouTube video | 5 November 2020 Online link

Clinical pointers: COVID-19 in primary care

- This module provides practical support to general practitioners by synthesising key messages from multiple sources of current guidance and information.
- Highlights the importance of working safely in primary care during the pandemic, including appropriate use of PPE, and consideration of the wellbeing of GPs and other practice staff.

BMJ Learning | COVID-19 online courses | Online link

Antimicrobial Resistance and COVID-19

The looming health catastrophe that could be more deadly than COVID-19

- AMR is a top 10 global public health threat. AMR Action Fund has raised $1 billion from major pharmaceutical companies to invest in biotech and plans to bring four new antibiotics by 2030.

World Economic Forum | Agenda | 20 November 2020 | Online link

COVID-19, misinformation, and antimicrobial resistance (AMR)

- Better communication strategies are needed to counter the detrimental effect of misinformation on the use of antimicrobials, and to prevent further deterioration of the global crisis of AMR.

BMJ | Editorial | 24 November 2020 | Online link

Will coronavirus disease (COVID-19) have an impact on antimicrobial resistance?

- Summarises factors that may influence levels of AMR during the COVID-19 pandemic, which include antibiotic use and IPC in hospitals, antibiotic use and hygiene practices in the community, cross-border spread and public health policy making, including One Health.

Eurosurveillance | Editorial | 12 November 2020 | Online link

Crisis of emerging antibiotic resistances mirroring that of the COVID-19 in the age of globalization

- The global spread of emerging antibiotic resistance mirrors that of the SARS-Cov-2 with unapparent (or asymptomatic) carriers, crowding, low hygiene and rapid travel.
- Similar to pandemic crisis, control of emerging drug resistance genes requires comprehensive containment of AMR through early detection, rapid diagnosis and early intervention.

Swiss Medical Weekly | Viewpoint | 18 November 2020 | Online link

A call for antimicrobial stewardship in patients with COVID-19: a nationwide cohort study in Korea

- The insurance claims database of the Health Insurance Review and Assessment Service of Korea (HIRA) found high rates of antibiotic use in patients with COVID-19, and anti-MRSA or anti-pseudomonal antibiotics were frequently prescribed for severe to critical patients.
- Antimicrobial stewardship is recommended to prevent collateral damage related to the overuse of antibiotics during the COVID-19 pandemic.

Clinical Microbiology & Infection | Letter | 30 October 2020 | Online link