



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 interested in IPC at both public and private sector in India. Kindly note: inclusion of publications/resources in this review/compilation does not imply an endorsement by WHO.

Key highlights of volume 29

- KAP study about COVID-19 amongst pregnant women and healthcare staff in Haryana
- Perceptions about COVID-19 vaccination and appropriate behavior among adolescents
- Guidance on operational microplanning for COVID-19 vaccination
- Bacterial coinfection and antibiotic resistance in hospitalized COVID-19 patients
- A pandemic within a pandemic – higher AMR in COVID-19 patients

Publications from scientific journals

A cross-sectional study to assess knowledge, attitude, and practices towards COVID-19 pandemic amongst pregnant women and healthcare staff at a periurban teaching hospital in Haryana

- Details knowledge, attitude and practices among pregnant women for COVID-19 pandemic including awareness and precautions to prevent infection.
- Appropriate knowledge and positive attitudes were estimated to be present in 68% and 73% women respectively, with a need to focus on handwashing and breastfeeding practices.

Cureus | Research article | 21 March 2023 | [Online link](#)

Narrative review of the evolution of COVID-19 vaccination recommendations in countries in Latin America, Africa and the Middle East, and Asia

- Summarizes evolving COVID-19 vaccine recommendations across various vaccine platforms, age groups, specific subpopulations and countries, along with effectiveness of different vaccination strategies.
- Highlights the importance of effective vaccination programs to reduce burden of disease, overcome vaccine inequity, hesitancy and misinformation.

Infectious Diseases and Therapy | Review | 25 April 2023 | [Online link](#)

The role of children in transmission of SARS-CoV-2 variants of concern within households: an updated systematic review and meta-analysis (as at 30 June 2022)

- Provides an understanding about the possible causes of increased transmission of SARS-CoV-2 variants of concern (VOC) among children relative to the ancestral virus.
- The increased role of children in the transmission of VOC within households highlights the importance of COVID-19 vaccination in children.

Eurosurveillance | Research article | 4 May 2023 | [Online link](#)

Probable aerosol transmission of SARS-CoV-2 through floors and walls of quarantine hotel, Taiwan, 2021

- Assessed transmission of SARS-CoV2 in a quarantine hotel with three patients with no direct contact, in non-adjacent rooms on different floors.
- Shows high transmissibility of Omicron variants through structural defects, even across rooms and floors, highlighting the importance of ventilation and appropriate building structure in quarantine facilities.

CDC | Research article | 28 December 2022 | [Online link](#)

Perception regarding COVID-19 vaccine and COVID appropriate behavior among adolescents at a tertiary hospital, West Bengal: a longitudinal survey

- In the backdrop of the adolescent COVID-19 vaccination programme, the study assesses adolescents' perception of vaccination, compliance and behaviours.
- Most (99.3%) of them had willingly taken the vaccinations on their own, showing good perception of COVID-19.

Clinical Epidemiology and Global Health | Research article | 29 March 2023 | [Online link](#)

Compliance with hand hygiene practices and its appropriateness among healthcare workers during COVID-19 pandemic in public health facilities of Tamil Nadu, India

- Cross-sectional evaluation of hand hygiene (HH) compliance and adequacy among health care workers (HCWs).
- Hand washing was performed in one-fifth of observations and <10% HCWs complied with five moments of HH.

Heliyon | Research article | 14 April 2023 | [Online link](#)

Global knowledge, attitude, and practice towards COVID-19 among pregnant women: a systematic review and meta-analysis

- Good knowledge, positive attitudes and proper practices were present in 59%, 57% and 53% women, respectively. Highlights the need for targeted awareness programs for COVID-19 prevention.

BMC Pregnancy and Childbirth | Systematic review | 22 April 2023 | [Online link](#)

Guidelines

Guidance on operational microplanning for COVID-19 vaccination

- Updated guideline on the eight steps of COVID -19 vaccination microplanning.
- Targeted at planners and immunization programme managers national and subnational level.

WHO | Guideline | 2 May 2023 | [Online link](#)

Update of ESCMID COVID-19 guidelines: diagnostic testing for SARS-CoV-2

- Updated guideline on best diagnostic approach for SARS-CoV-2, based on latest evidence from expert panel and literature review.
- Targeted at clinicians, microbiologists and decision-makers.

Clinical Microbiology and Infection | Guideline | 21 April 2023 | [Online link](#)

Drugs to prevent COVID-19: living guideline

- Updated advice on use of drugs to prevent COVID-19 based on new evidence – strong recommendation against the use of hydroxychloroquine prophylaxis and conditional recommendation against the use of tixagevimab-cilgavimab.

WHO | Guideline | 24 March 2023 | [Online link](#)

COVID-19 and Antimicrobial Resistance

A pandemic within a pandemic? admission to COVID-19 wards in hospitals is associated with increased prevalence of antimicrobial resistance in two African settings

- Compares prevalence and resistance patterns of bacterial hospital acquired infections(HAI) between COVID and non-COVID wards.
- Significantly more multi-drug resistant isolates and healthcare associated infections were found among patients in COVID wards, indicating the need for uniform implementation of policies on infection prevention and control and antimicrobial stewardship.

Annals of Clinical Microbiology and Antimicrobials | Research article | 13 April 2023 | [Online link](#)

Bacterial coinfection and antibiotic resistance in hospitalized COVID-19 patients: a systematic review and meta-analysis

- Estimates the pooled prevalence of bacterial coinfections and antibiotic resistance in hospitalized COVID-19 patients globally.
- While the pooled prevalence of bacterial coinfections was reported to be 26.8%, it also reports pathogen wise prevalence estimates.

PeerJ Microbiology | Research article | 26 April 2023 | [Online link](#)

The emergence of multidrug-resistant bacteria causing healthcare-associated infections in COVID-19 patients - a retrospective multi-centre study

- Evaluates the prevalence and antibiotic resistance patterns of bacterial infections in hospitalized COVID-19 patients in Serbia.
- Prevalence of bacterial infections was 12.9% most of which were hospital acquired, with bloodstream (37.7%) and respiratory tract infections (25.6%) being the most common.

The Journal of Hospital Infection | Research article | 27 April 2023 | [Online link](#)

A retrospective assessment of sputum samples and antimicrobial resistance in COVID-19 patients

- Determines prevalence of bacterial and fungal co- and superinfections in adults with COVID-19 in Western Romania.
- High prevalence of bacterial and fungal co-infections and superinfection was observed, with more than 80% of all positive samples showed multidrug resistance, calling for effective antimicrobial stewardship and infection control policies.

Pathogens | Research article | 19 April 2023 | [Online link](#)

Sales of antibiotics without a prescription in pharmacies, 2017 and 2021, China

- Assesses prevalence of non-prescription antibiotic sales before and after stricter regulations during COVID-19.
- Despite stricter regulations non-prescription antibiotic sale was found to be rampant, indicating the need for stricter enforcement and increasing awareness on antibiotic misuse and AMR.

WHO Bulletin | Research article | 1 May 2023 | [Online link](#)

COVID-19 association with multidrug-resistant bacteria superinfections: lessons for future challenges

- Evaluates superinfections and their correlation with multi-drug resistant bacteria and serum procalcitonin, in adults with COVID-19 in Romania.
- Found that MDR bacteria were involved in 73.2% of COVID-19 patients with bacterial superinfections.

Experimental and Therapeutic Medicine | Research article | 18 April 2023 | [Online link](#)