



## Sameeksha\* – Infection Prevention and Control (IPC)

### Key highlights

- Perioperative infection control practices and incidence of surgical site infections in rural India
- Review of carbapenem-resistant *Klebsiella pneumoniae* causing neonatal infections
- Effect of immediate kangaroo mother care on neonatal sepsis
- Global incidence of drug-resistant hospital-associated infections
- SHEA/IDSA/APIC practice recommendations to prevent MRSA transmission and infection in acute-care hospitals

### Publications from scientific journals

#### Exploring the perioperative infection control practices & incidence of surgical site infections in rural India

- Prospective observational cohort study about the burden of surgical site infections (SSIs) from five rural and semi-urban Indian hospitals.
- Provides a comprehensive assessment of SSI prevention practices in resource-constrained settings.

*Antimicrobial Resistance & Infection Control* | Scientific article | 8 July 2023 | [Online link](#)

#### Infection prevention and control in neonatal units: an ethnographic study of social and clinical interactions among healthcare providers and mothers in Ghana

- The study explored how healthcare providers and mothers can join hands to strengthen IPC in hospitals .
- Recommends building stronger, collaborative relationships between providers and mothers to foster motivation for IPC and ultimately improve quality of care.

*PLoS One* | Scientific article | 7 July 2023 | [Online link](#)

#### The role of environmental and healthcare-associated infections in Asia: lessons learned from the coronavirus disease 2019 (COVID-19) pandemic

- Provides a synopsis of the role of a clean and hygienic environment as a core component of IPC programmes to prevent healthcare associated infections (HAIs).
- Outlines disease specific suggestions for disinfecting the environment and describes how to improve air and water quality.

*Antimicrobial Stewardship & Healthcare Epidemiology* | Commentary | 15 June 2023 | [Online link](#)

### **Prevalence and clonal diversity of carbapenem-resistant *Klebsiella pneumoniae* causing neonatal infections: a systematic review of 128 articles across 30 countries**

- Assessed the global burden along with genome-based analysis to assess the prevalence, clonal diversity of carbapenem-resistant *Klebsiella pneumoniae* infection among neonates.
- Recommends surveillance, screening in high-risk cases, treatment and infection control in hospital settings.

*PLoS Medicine* | Scientific article | 20 June 2023 | [Online link](#)

### **Global incidence in hospital-associated infections resistant to antibiotics: an analysis of point prevalence surveys from 99 countries**

- Estimates the global incidence of hospital-associated drug resistant infections to be 136 million per year, with highest burden in China, Pakistan and India.
- Highlights the need for establishing robust and systematic surveillance systems for hospital-associated drug-resistant infections.

*PLoS Medicine* | Scientific article | 13 June 2023 | [Online link](#)

### **Impact of a low-cost bundle of interventions on infection prevention and control during labour and delivery in rural health centres in Zambia: results from a quasi-experimental study**

- Pilot study using a low-cost bundle of interventions focused on education, feedback and reminders to encourage behavioural changes and alcohol-based hand rub provision did not improve infection prevention and control at five rural health centres.
- Recommends focus on improving systemic aspects of IPC including regular training and consistent supply of protective equipment and consumables.

*International Journal of Infection Control* | Scientific article | 12 June 2023 | [Online link](#)

### **Infection prevention and control in the medical imaging environment: a scoping review**

- This scoping review provides insights about the level of knowledge and attitude toward IPC practices among staff working in medical imaging departments.
- Recommends a systems approach linking the five components – person, organisation, tools and technologies, tasks and environment – to strengthen IPC in the medical imaging setting.

*Insights into Imaging* | Review article | 14 July 2023 | [Online link](#)

### **An ethical framework adapted for infection prevention and control**

- An adaptable ethical framework to guide fair and transparent decision-making for IPC professionals in complex situations.
- Takes in account the active involvement of relevant stakeholders in the decision-making process to prioritize transparency and accountability.

*Infection Control & Hospital Epidemiology* | Framework article | 10 July 2023 | [Online link](#)

## **Effect on neonatal sepsis following immediate kangaroo mother care in a newborn intensive care unit: a post-hoc analysis of a multicentre, open-label, randomised controlled trial**

- Assessed whether immediate kangaroo mother care (iKMC) increases neonatal sepsis due to presence of mothers and surrogates in Mother Newborn Care Units.
- The study shows iKMC is effective in preventing and lowering neonatal sepsis related mortality by 37%.

*eClinical Medicine* | Scientific article | 18 May 2023 | [Online link](#)

## **The impact of inpatient bloodstream infections caused by antibiotic-resistant bacteria in low- and middle-income countries: a systematic review and meta-analysis**

- Studied the excess mortality, length of hospital stay, intensive care unit admission, and economic costs associated with antibiotic resistant bacteria causing bloodstream infections (ARB BSI), among adult inpatients in LMICs.
- Highlights the sparsity of data from LMICs and the excess morbidity, mortality and costs due to ARB BSIs, and the need for targeted strategies to improve prevention, detection and treatment of resistant BSIs.

*PLoS Medicine* | Scientific article | 22 June 2023 | [Online link](#)

## **Guidelines**

### **SHEA/IDSA/APIC practice recommendation: strategies to prevent methicillin-resistant *Staphylococcus aureus* transmission and infection in acute-care hospitals: 2022 update**

- Updates 2014 recommendations for detecting and preventing methicillin-resistant *Staphylococcus aureus* (MRSA) based on updated evidence and expert review.
- Outlines recommendations – distinguishing between essential IPC practices and additional approaches.

*Infection Control & Hospital Epidemiology* | Practice recommendation | 29 June 2023 | [Online link](#)

### **Implementing strategies to prevent infections in acute-care settings**

- Provides an overview of IPC implementation that can help in reducing HAIs.
- Introduces and explains common implementation concepts and frameworks relevant to healthcare epidemiology and infection prevention and control practices in acute care settings.

*Infection Control & Hospital Epidemiology* | Practice recommendation | 11 July 2023 | [Online link](#)

### **Generic protocol for COVID-19 vaccine effectiveness in preventing transmission of infection in healthcare settings**

- Outlines a study protocol for a prospective cohort study measuring COVID-19 vaccine effectiveness from healthcare workers to their contacts within clinical settings.
- Describes how to set up the study and undertake data collection and analysis and includes methodological tools – questionnaires and templates for informed consent.

*European Centre for Disease Prevention and Control* | Guidance | 5 July 2023 | [Online link](#)

## Training / IEC resources

### Strategies and tactics to reduce HAIs

- Outlines 4 key strategies used in American hospitals to improve IPC and reduce HAIs.
- Recommends use of CDC tools for infection prevention, assessment and response.

*American Hospital Association* | Resource | 5 July 2023 | [Online link](#)

### Quotable quote

*No country, hospital or clinic can keep its patients safe  
unless it keeps its health workers safe*

– Dr Tedros Adhanom Ghebreyesus,  
WHO Director-General

\* *Sameeksha* is a Hindi word, meaning review. This compilation of recent IPC resources includes a brief summary of relevant publications from scientific journals, guidelines, and training/IEC resources. 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 does not imply an endorsement by WHO.