

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

### Key highlights

- Risk factors associated with surgical site infections
- IPC for TB should be framed as a health systems issue
- High certainty evidence for negative pressure wound therapy to avoid SSIs
- Potential options for catheter coatings to reduce catheter-associated urinary tract infection
- Updated IPC living guidelines for COVID-19 (version 5.0)
- Social media resources on Mpox and Legionella

### Publications from scientific journals

#### Risk factors and surgical site infection in patients with surgical antibiotic prophylaxis in the Indian population: a prospective cohort study

- Prospective cohort study in a tertiary care hospital assessed risk factors of SSI among patients on surgical antibiotic prophylaxis (SAP).
- Concludes that improper use of SAPs heightens the risk for SSI, especially for emergency surgeries, and among patients with underlying conditions, such as diabetes and hypertension.

*Journal of Health Science and Medical Research* | Scientific article | 27 July 2023 | [Online link](#)

#### Time to change the way we think about tuberculosis infection prevention and control in health facilities: insights from recent research

- Three-year modelling study covers *M. tuberculosis* transmission in healthcare facilities and the cost-effectiveness of TB-related IPC interventions.
- Recommends reframing TB-related IPC as a health systems issue rather than as a problem among health care workers not adhering to guidelines.

*Antimicrobial Stewardship & Healthcare Epidemiology* | Commentary | 17 July 2023 | [Online link](#)

#### Incisional negative pressure wound therapy for the prevention of surgical site infection: an up-to-date meta-analysis and trial sequential analysis

- Provides updated evidence on the use of negative pressure wound therapy (iNPWT) for the prevention of surgical site infections (SSI).
- The meta-analysis confirms with high certainty that iNPWT is effective in reducing surgical site infections (SSIs) across wound classifications.

*eClinical Medicine* | Scientific article | 24 July 2023 | [Online link](#)

## **Emerging evidence-based innovative approaches to control catheter-associated urinary tract infection: a review**

- In-depth overview of catheter-associated urinary tract infection (CAUTI) which describes potential options for catheter coatings and modifications that could reduce infection.
- Despite an array of new strategies, little has reached clinical stages; suggests research focus on approaches for which phytochemistry or surface topography can be modified.

*Frontiers in Cellular and Infection Microbiology* | Review article | 25 July 2023 | [Online link](#)

## **Improvement in infection prevention and control compliance at the three tertiary hospitals of Sierra Leone following an operational research study**

- WHO IPC Assessment Framework (IPCAF) tool was used to assess IPC compliances in 3 hospitals.
- Results show improvement in IPC from 'basic' to 'intermediate' levels; and highlights the importance of technical support from the national IPC unit and hospital IPC programs.

*Tropical Medicine and Infectious Disease* | Scientific article | 24 July 2023 | [Online link](#)

## **Examining barriers to implementing a surgical-site infection bundle**

- Qualitative study to investigate the contextual factors influencing the implementation of SSI prevention bundles in hospitals.
- Recommends using multiple strategies to overcome contextual and implementation barriers to continuously adapt prevention bundles according to settings and populations.

*Infection Control & Hospital Epidemiology* | Scientific article | 26 July 2023 | [Online link](#)

## **Effect of an initial specimen diversion device (ISDD) on blood-culture contamination rates and vancomycin usage: a quasi-experimental study**

- Assessed the implementation of ISDD in the emergency department on blood-culture contamination rates and vancomycin usage.
- Findings show that implementing ISDD led to a 25% decrease in blood-culture contamination with no major effect on vancomycin use.

*Infection Control & Hospital Epidemiology* | Scientific article | 3 August 2023 | [Online link](#)

## **Using adenosine triphosphate bioluminescence level monitoring to identify bacterial reservoirs during two consecutive *Enterococcus faecium* and *Staphylococcus capitis* nosocomial infection outbreaks at a neonatal intensive care unit**

- Study finds adenosine triphosphate (ATP) bioluminescence monitoring is an effective tool for detecting pathogens in areas that are difficult to disinfect.
- IPC measures implemented after outbreaks (disinfecting reservoirs, changes to IPC hospital policy, education on hand hygiene among HCWs) led to sustainable changes.

*Antimicrobial Resistance & Infection Control* | Scientific article | 13 July 2023 | [Online link](#)

## **Impact of a new hospital with close to 100% single-occupancy rooms on environmental contamination and incidence of vancomycin-resistant *Enterococcus faecium* colonization or infection: a genomic surveillance study**

- The study finds environmental surveillance a significant and sustainable measure for reduction in transmission of vancomycin-resistant *Enterococcus faecium* (VRE).
- Advocates to study the cost-effectiveness of single-occupancy room hospitals in reducing healthcare-associated infections in the context of operational costs of emerging pandemic and antimicrobial resistance threats.

*The Journal of Hospital Infection* | Scientific article | 11 July 2023 | [Online link](#)

## **Hepatitis C virus transmission between eight high-income countries among men who have sex with men (MSM): a whole-genome analysis**

- Investigates barriers to achieving Hepatitis C virus micro-elimination among MSM using whole genome sequencing.
- Results indicate presence of international transmission after introducing direct-acting antivirals, highlighting the need for both local and global programs on genomic surveillance.

*The Lancet Microbe* | Scientific article | 16 June 2023 | [Online link](#)

## **Guidelines**

### **Infection prevention and control in the context of coronavirus disease (COVID-19): a living guideline**

- Version 5.0 of the COVID-19 IPC guideline provides technical guidance on IPC in health care and community settings.
- Includes seven revised statements related to the prevention, identification and management of SARS-CoV-2 among healthcare workers.

*World Health Organization* | Guideline | 10 August 2023 | [Online link](#)

### **Infection prevention and control guideline for Ebola and Marburg disease**

- Comprehensive IPC guidelines specific for Ebola and Marburg disease – with 11 new recommendations, 10 new “good practice” statements, and 9 recommendations from previously published IPC documents have been carried forward and are included in this new document.
- Up to date recommendations for IPC measures to be implemented in all health facilities when caring for people with, or managing outbreaks of, Ebola or Marburg disease.

*World Health Organization* | Guideline | 11 August 2023 | [Online link](#)

### **Public health resource pack for countries experiencing outbreaks of influenza in animals: revised guidance**

- Key recommendations to guide countries encountering outbreaks of animal influenza or suspected cases of humans infected by zoonotic influenza viruses.
- Addresses the risks to public health from all animal influenza viruses, not only avian influenza; and focuses on emergency preparedness, response and IPC to combat the outbreak.

*World Health Organization* | Guidelines | 9 August 2023 | [Online link](#)

## Training / IEC resources

### Protect yourself from bacteria in your food

- Two-and-a-half-minute video that explains how bacteria in food can make people sick and how to protect themselves.

*European Centre for Disease Prevention and Control* | Video | 6 July 2023 | [Online link](#)

### Learn about Mpox

- Editable poster that includes information on how to prevent infection, common symptoms and management of suspected cases.

*European Centre for Disease Prevention and Control* | Poster | 1 June 2023 | [Online link](#)

### Quotable quote

***Accelerate action together. SAVE LIVES – Clean Your Hands***

– World Hand Hygiene Day 2023

\**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.