



World Health  
Organization  
India

इसमईकेशा

INFECTION PREVENTION AND CONTROL (IPC) | Volume 20 | June 2025

## IPC Sameeksha\*

### Highlights

- WHO's practical guidance on developing & implementing national action plans for IPC
- Role of gowns in preventing nosocomial transmission of respiratory viruses
- Digital feedback to improve hand hygiene compliance
- Multiple determinants influencing infection prevention and control
- Future of HAI surveillance – automated surveillance and using artificial intelligence
- SHEA white paper on IPC and healthcare epidemiology curriculum for ID fellows

### Publications from scientific journals

#### The role of gowns in preventing nosocomial transmission of respiratory viruses: a systematic review

- Evaluates current knowledge regarding the use of gowns during care of patients with COVID-19 and other respiratory viruses.
- Although viral RNA could be found on gowns, it's unclear whether they prevented infection transmission to patients or health workers; recommends well-controlled laboratory transmission experiments to generate evidence on protective efficacy of gowns.

*The Journal of Hospital Infection* | Review article | 16 June 2025 | [Online link](#)

#### Digital feedback to improve adherence to hand hygiene: a longitudinal study on the effects of an electronic monitoring system

- Studies the impact of digital monitoring and feedback system on adherence to hand hygiene by health workers.
- Finds significant improvement in hand hygiene adherence over the nine-month follow-up period.

*American Journal of Infection Control* | Major article | 22 June 2025 | [Online link](#)

#### The multiple determinants of infection prevention and control practices in nursing homes: a scoping review

- Maps barriers and facilitators influencing IPC practices in nursing homes from a behaviour change perspective.
- Identifies 101 determinants as barriers and facilitators of IPC – 25 for capability, 46 for opportunity and 30 for motivation – categorized into 36 categories and 16 themes.

*Journal of the Post-Acute and Long-term Care Medical Association* | Review article | 19 April 2025 | [Online link](#)

### **Assessment of surgical site infections with antimicrobial resistance among cancer patients at a tertiary care hospital: a prospective study**

- Evaluates SSI incidence, AMR patterns and clinical outcomes in patients at a cancer hospital in Bihar.
- Finds a high incidence of SSI in cancer patients with significant AMR – emphasizing the need for better IPC and antimicrobial stewardship in cancer patients.

*Clinical Epidemiology and Global Health* | Original article | 17 June 2025 | [Online link](#)

### **Improving medical students' knowledge in biomedical waste management in a tertiary care hospital in West Bengal: a pre-post intervention study**

- Assesses the impact of a structured training program on knowledge and awareness of biomedical waste management among undergraduate medical students at a tertiary care hospital in West Bengal.
- The training significantly improved medical students' knowledge of BMW management, and recommends integrating regular, targeted educational interventions into medical curricula for safe BMW management.

*European Journal of Cardiovascular Medicine* | Research article | 23 June 2025 | [Online link](#)

### **A comprehensive review of progress in preventing urinary infections associated with the use of urinary catheters: a dual analysis of publications and patents**

- Reviews current scientific literature and patent landscape for last ten years on strategies to prevent catheter-associated urinary tract infections (CAUTIs).
- Highlights emerging technologies, key actors, and potential gaps, providing valuable insights for researchers, clinicians, and other key stakeholders in overcoming barriers to treat CAUTIs.

*Infectious Disease Reports* | Review | 4 June 2025 | [Online link](#)

### **Risk factors for surgical site infection in patients after hysterectomy: a systematic review and meta-analysis**

- Meta analysis identifies abdominal hysterectomy, vaginal hysterectomy, obesity, gynaecological cancer, operative time, diabetes, and smoking as significant risk factors for post-hysterectomy infection.
- Provides good insights into identifying patients at higher risk of post-hysterectomy infection to guide implementation of suitable measures to improve their prognoses.

*Journal of Hospital Infection* | Review article | 17 June 2025 | [Online link](#)

### **The status of infection prevention and control structures in secondary and tertiary hospitals in Northwest China: findings from WHO Infection Prevention and Control Assessment Framework (IPCAF)**

- Assesses IPC practices in secondary and tertiary hospitals in China, using WHO's IPC Assessment Framework (IPCAF), to evaluate IPC implementation, identify deficiencies and establish an evidence base for targeted IPC improvement strategies.
- Identifies relatively high levels of IPC with a need to enhance resource allocation and facility upgrades in secondary hospitals.

*Antimicrobial Resistance & Infection Control* | Research | 9 July 2025 | [Online link](#)

---

## **The future of healthcare-associated infection surveillance: automated surveillance and using the potential of artificial intelligence**

- Reviews automated HAI surveillance and the use of artificial intelligence, early identification and prediction of HAI and severe infections, requirements for successful automated surveillance, and monitoring the quality of automated surveillance or prediction systems.
- Concludes that AI-based methods can potentially improve prediction and screening of patients at risk for HAI.

*Journal of Internal Medicine* | Review | 5 June 2025 | [Online link](#)

---

## **A meta-analysis of the efficacy of topical antibiotics in spinal surgery for the prevention of surgical site infection (SSI)**

- Reviews current literature on the use of antibiotics in wound care and evaluate their effectiveness to prevent postoperative SSIs.
- Concludes that using topical antibiotics after spinal surgery prevents SSIs, decreasing the need for systemic antibiotics, and reducing the chances of adverse reactions and antibiotic resistance.

*Medicine* | Systematic review and meta-analysis | 6 June 2025 | [Online link](#)

---

## **Prophylactic negative pressure wound therapy (NPWT) reduces superficial surgical site infection risk of emergency surgery patients: results of a multicenter randomised prospective clinical trial**

- Evaluates the potential benefit of closed system vacuum therapy in high-risk general surgery patients.
- Demonstrates the efficacy of closed incisional NPWT in preventing superficial and overall surgical site infections (SSI), although there was no impact on deep SSI rates.

*International Wound Journal* | Clinical investigative study | 2 July 2025 | [Online link](#)

---

## **Prioritizing isolation precautions: a patient-centered approach to infection prevention and control**

- Proposes a patient-centred framework for optimizing isolation strategies by integrating pathogen-related factors, individual patient risks, and healthcare facility resources to optimize isolation precautions.
- Highlights evidence-based, adaptable and sustainable patient-centred strategies to ensure isolation precautions.

*Antimicrobial Stewardship & Healthcare Epidemiology* | Review | 3 June 2025 | [Online link](#)

---

## **Nursing students' knowledge and effectiveness of teaching in infection prevention and control**

- Assesses the knowledge and teaching techniques of standard precautions and hand hygiene of nursing students in France before and after training.
- Recommends practice audits to be included in IPC training programmes to improve students' level of knowledge of IPC.

*BMC Nursing* | Research | 5 July 2025 | [Online link](#)

---

## Virtual reality for education on infection prevention and control: the impact on medical students' knowledge, attitudes and practices

- Analyse the impact of a newly developed IPC virtual reality (VR) module on medical students' IPC, using a knowledge, attitudes and practices (KAP) study.
- Concludes that use of VR improved students' IPC knowledge and was appreciated by medical students and healthcare professionals.

*Antimicrobial Resistance & Infection Control* | Research | 7 June 2025 | [Online link](#)

## Guidelines

### Development and implementation of national action plans for infection prevention and control: practical guide

- Provides a stepwise approach to develop and implement national action plan (NAP) on IPC.
- Outlines tools, resources and country stories to help prioritize, cost, implement, monitor and evaluate NAP-IPC activities.

*WHO* | Handbook | 23 June 2025 | [Online link](#)

### Strategic actions for infection prevention and control and water, sanitation and hygiene during mpox outbreak response

- Presents the strategy and key actions to ensure the safe provision of care of patients and HCWs workers in health facilities, while mitigating and controlling community transmission of monkeypox virus.
- Strategies are based upon the key strategies and IPC activities outlined in the Mpox global strategic preparedness and response plan.

*WHO* | Guideline | 4 June 2025 | [Online link](#)

### Development of the SMART toolkit: an online collection of management resources for health care-associated infection prevention

- Describes the development of an online toolkit with resources that can be used to implement key management practices to prevent healthcare associated infections.
- Evidence-based resources include practical examples, facilitator guides and presentation slides for conducting information sessions, assessment tools, communication templates and simulation activities.

*American Journal of Infection Control* | Practice forum | 5 June 2025 | [Online link](#)

### Evaluation of WHO's contribution to water, sanitation, hygiene and health: executive summary

- Developed with the purpose of accountability and learning, identifying good practices and opportunities for improvement.
- Highlights effectiveness of WHO's WASH strategy for health and its service delivery interventions.

*WHO* | Publication | 8 July 2025 | [Online link](#)

## Training / IEC resources

### Society for Healthcare Epidemiology of America (SHEA) infectious diseases fellow infection prevention and control and healthcare epidemiology curriculum

- SHEA white paper outlining IPC and healthcare epidemiology training curriculum for infectious disease fellows.
- Contains objectives designated as core, basic and advanced, and required activities for completion of basic and advanced certificate courses.

*Infection Control & Hospital Epidemiology* | SHEA white paper | 3 June 2025 | [Online link](#)

### Respiratory infectious diseases: how to reduce the spread with personal protective measures

- Evidence-based IPC measures recommended by the Government of Canada.
- Includes importance of personal protective measures, spread of respiratory diseases, people at risk, importance of vaccination, specific protective measures and what to do if anyone becomes sick.

*Government of Canada* | Public information | 3 June 2025 | [Online link](#)

### 5 easy steps for glove use

- Outlines the steps for using gloves – assess the need, choose the right gloves, perform hand hygiene, wear gloves correctly and remove them correctly.
- Can be displayed above hand washing sinks in healthcare facilities.

*Australian Commission on Safety & Quality in Healthcare* | Poster | May 2025 | [Online link](#)

### Quotable quote

***Countries must take a whole-of-government, whole-of-society approach, built around a comprehensive strategy to prevent infections, save lives and minimize impact.***

– 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, along with a link to the online resource. The primary target audience includes clinical and public health IPC professionals from both public and private sector in India. Kindly note: inclusion of publications/resources in this review does not imply an endorsement by WHO.