



INFECTION PREVENTION AND CONTROL (IPC) | Volume 24 | October-November 2025

#### **IPC Sameeksha\***

#### Highlights

- Infection risk of peripheral intravenous catheters
- Genome sequencing to prevent HAI caused by Carbapenem-resistant Acinetobacter baumannii
- Data analysis of infection control awareness and practices among healthcare workers
- Knowledge gaps and research priorities to understand transmission of TB and other airborne infections
- Enhancing hand hygiene compliance in healthcare environmental services staff
- Tools to plan, prepare, prevent and protect against illnesses caused by infectious diseases in the workplace

### **Publications from scientific journals**

### Infection risk of peripheral intravenous catheters: meta-synthesis of 18 prospective studies with 14,606 catheters

- Quantifies the incidence of peripheral intravenous catheter (PIVC) infections in Australian health facilities.
- Advocates for a robust risk-adjusted surveillance of HAIs and post-insertion management especially among highrisk groups.

Antimicrobial Resistance & Infection Control | Research | 27 October 2025 | Online link

### Genome sequencing to prevent hospital-acquired infections caused by Carbapenemresistant *Acinetobacter baumannii* due to importation and intra-facility transmission in a regional hospital network: study protocol for implementation research

- Documents the dynamics of Carbapenem-resistant *Acinetobacter baumannii* (CRAb) associated HAIs, the phylogenetic lineages responsible for intra- and inter-facility transmission in six medical colleges in Odisha, India.
- Recommends context-specific implementation strategies including surveillance, prevention and antibiotic stewardship to tackle CRAb-associated HAIs outbreaks at facility levels.

Cureus | Original article | 17 October 2025 | Online link

## Assessment of air infectious contamination during wound care in a burn intensive care unit using shotgun metagenomics

- Characterizes microbial contamination of the air during wound care and dressing removal in burn patients by applying clinical metagenomic technologies to analyse the surrounding air environment in a French hospital.
- Demonstrates the impact of wound care on airborne microbial contamination in Burn ICUs.

American Journal of Infection Control | Major article | November 2025 | Online link

## Data analysis of infection control awareness and practices among healthcare workers: a cross-sectional study in a tertiary-care hospital in Kashmir, India

- Evaluates healthcare workers' understanding of IPC protocols on hand hygiene, PPE use, and waste management;
  measure compliance with key IPC practices and identify barriers that hinder consistent IPC adherence.
- Proposes multi-tiered policy recommendations to bridge the knowledge-practice gap and improve IPC compliance.

Cureus | Original article | 22 October 2025 | Online link

# Association between infection prevention and control safety culture and healthcare workers' compliance with infection control measures: a cross-sectional study

- Investigates how different dimensions of infection control culture affect IPC compliance and provides evidence for targeted interventions to improve patient safety.
- Recommends strengthening of basic IPC competence, hospital management support, organizational learning, and reporting practices, along with targeted interventions for clinical instructors to improve compliance and prevent healthcare-associated infections.

Frontiers in Public Health | Original research | 17 October 2025 | Online link

## Knowledge gaps and research priorities for understanding the transmission of *Mycobacterium tuberculosis* and other airborne infections

- Highlight the research gaps to understand and enable evidence-based, practical efforts to reduce airborne transmission in healthcare facilities.
- Updates on advances in science since 2017 and summarize knowledge gaps and research priorities for future.

International Journal of Infection Control | Original article | 13 October 2025 | Online link

## Air purifier intervention for respiratory viral exposure in elementary schools: a secondary analysis of a randomized clinical trial

- Evaluates whether portable high-efficiency particulate air (HEPA) purifiers are associated with reduced respiratory virus exposure in elementary school classrooms.
- Finds that HEPA purifiers led to a modest decrease in viral diversity but did not reduce high viral exposure; highlighting that multicomponent interventions along with HEPA purifiers are needed to mitigate respiratory viral exposures in schools.

JAMA Network Open | Original investigation | 10 October 2025 | Online link

# Comparative evaluation and performance of large language models in clinical infection control scenarios: a benchmark study

- Summarises evidence on the use of artificial intelligence (AI) tools to support infection control nurses (ICN) in IPC decision-making processes at a tertiary care referral hospital in Hong Kong.
- Concludes that while leading large language models such as GPT-4.1 and DeepSeek V3 can generate actionable infection control advice, but they are not yet reliable enough to replace the expertise of ICNs.

Healthcare | Research article | 21 October 2025 | Online link

## Enhancing hand hygiene compliance in healthcare environmental services staff: a systematic approach to indicator development

- Develops a comprehensive system of hand hygiene (HH) indicators for environmental services staff in healthcare facilities.
- Offers quantitative tools and methodologies for monitoring and enhancing adherence to HH practices by identifying low-compliance moments and guiding targeted training and supervisory measures.

Antimicrobial Resistance & Infection Control | Research | 3 November 2025 | Online link

#### **Guidelines**

### New multi-society guidance strengthens infection prevention and control in nursing homes

- Updated guidance provides a framework to help American long-term residential care facilities to prevent and control infections while maintaining the social and rehabilitative goals of residential care.
- Addresses the challenges of maintaining a home-like care space while sustaining necessary infection prevention and control measures.

*Infection Control & Hospital Epidemiology* | Guidelines | 28 October 2025 | Online link

### Public health and infection prevention and control guidance on the prevention and management of cases and outbreaks of respiratory viral infections in residential care facilities

- Guidance for residential care facilities in Ireland long-term nursing homes, long-term mental health residences and shorter-term respite and convalescence care.
- Recommends timely implementation of multi-layered interventions to prevent further strain on residential care facility personnel and other resources, and governance structures to ensure adherence to IPC measures and adequate availability of resources, such as personal protective equipment.

HPSC | Outbreak management guidance | 23 October 2025 | Online link

### **Care home IPC resource for gastro-intestinal illness**

- Guidance for infection prevention and control in Scottish residential care facilities.
- Provides guidance to care home staff with key IPC information to support the management of suspected and confirmed GI illness of an infectious nature amongst residents.

NHS Scotland | Guidelines | 31 October 2025 | Online link

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NHS Scotland | Guidelines | 31 October 2025 | Online link

#### **Training / IEC resources**

#### New adaptable training resources: infection prevention and control

- Customizable training materials on IPC designed for home health and in-home care settings, developed with US-CDC support.
- Make IPC education practical, portable, and locally relevant and help staff recognize risks and apply infection control principles during everyday interactions with patients in a variety of settings.

National Association of County Health Officials | Training resources | 23 October 2025 | Online link

## Tools to help you plan, prepare, prevent and protect against illnesses caused by infectious diseases in the workplace

- Comprehensive collection of free, credible guidance, tools and resources (fact sheets, posters, infographics, online courses and publications) for workplaces in Canada.
- Includes SafeWork app for free download.

Canadian Centre for Occupational Health and Safety | IPC tools | 7 November 2025 | Online link

#### **Quotable quote**

We will always rely on sanitation to protect us from diseases and keep our environment clean.

We'll Always Need the Toilet

World Toilet Day (19 November 2025) theme

<sup>\*</sup>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.