

National Healthcare-associated Infections Surveillance System. **Results:** A total of 48 CLABSI were identified, with mucosal barrier injury laboratory-confirmed bloodstream infection (MBI-LCBI) accounting for 29 (60.4%) and non-MBI-LCBI for 19 (39.6%). Among MBI-LCBI, 28 (96.6%) occurred in hematology wards, while among non-MBI-LCBI cases, 9 (47.4%) occurred in general wards, 9 (47.4%) in hematology wards, and 1 (5.3%) in the intensive care units (ICUs). Overall CLABSI rates was 2.75 per 1,000 catheter days, with 1.66 for MBI-LCBI and 1.09 for non-MBI-LCBI. By department, the CLABSI rates per 1,000 catheter days were 6.11 in hematology wards, 1.02 in general wards, and 0.63 in the ICUs. A total of 58 organisms were isolated, with gram-negative bacteria (78.8%) predominating in MBI-LCBI and gram-positive bacteria (56.0%) in non-MBI-LCBI. Among MBI-LCBI, *Klebsiella pneumoniae* (30.3%), *Escherichia coli* (27.3%) were the most frequently isolated organisms, whereas among non-MBI-LCBI, coagulase-negative staphylococci (16.0%) and *E. coli* (16.0%) were the most frequently isolated organisms. **Conclusions:** The CLABSI rates among hospitalized patients at a tertiary hospital in South Korea was higher for MBI-LCBI than non-MBI-LCBI, with the majority occurring in hematology wards. Since the departments and causative organisms are different depending on MBI-LCBI and non-MBI-LCBI, it is necessary to individualize the CLABSI surveillance policy based on this.

Keywords: CLABSI; Hospital-wide Surveillance; MBI-LCBI

Antimicrobial Stewardship & Healthcare Epidemiology 2025;5(Suppl. S1):s15-s16

doi:10.1017/ash.2025.120

A point-prevalence surveillance of healthcare-associated infections in a tertiary care teaching hospital in Malaysia

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Background: Prevention of Healthcare-Associated Infections (HCAIs) is an essential component of patient's safety in every healthcare setting and serve as an indicator for a good healthcare practice. Surveillance for HCAIs is important to measure their burden, identify high-risk patients and procedures, and guide efforts to reduce HCAI incidence. The aim of current study is to determine the prevalence of HCAI Hospital Universiti Sains Malaysia (Hospital USM), Kelantan, Malaysia. **Methods:** A one-day point prevalence survey (PPS) was conducted between 1st October 2023 to 15th October 2023 on all patients admitted to 15 selected wards at Hospital USM. The PPS was performed strictly following the "Manual for point prevalence survey for healthcare associated infection" by Ministry of Health Malaysia. Data were collected by a team of trained infection control practitioners, compiled, and analysed accordingly. **Results:** The surveyed hospital is a tertiary care teaching hospital contained 829 beds, has 11 certified infection control nurses, has 50 isolation rooms and 4 negative pressure rooms. During the surveyed period, there were 121 patients on continuous bladder catheterization, 63 patients had central venous catheter in situ and 107 patients were on mechanical ventilation.

Of the 588 patients surveyed, 14 (2.4%) had an active HCAI. Identified predisposing factors associated with the occurrence of HCAI were underlying medical illness (40.7%), prolonged hospitalization (25.9%), prematurity (11.1%), history of surgery (11.7%), immunosuppressive therapy (7.4%) and others (3.7%). The most frequent types of HCAI were pneumonia, followed by blood stream infection, clinical sepsis, surgical site infection and urinary tract infection. **Conclusions:** The survey reports an overall prevalence of 2.4% of HCAI in Hospital USM. A yearly PPS is very useful tool to measure the overall prevalence of HCAI, highlighting the areas with

prevalence that require special attention and allowing planning for improvement actions.

Antimicrobial Stewardship & Healthcare Epidemiology 2025;5(Suppl. S1):s16

doi:10.1017/ash.2025.121

Using the POCT real-time PCR to detect *Clostridium difficile* in the environment to reduce the healthcare association infection

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Introduction: To avoid *Clostridium difficile* infection in the healthcare facility is an important work. There were many methods to do in the *C. difficile* infection (CDI) reduction bundle, including cleaning and disinfection. After cleaning and disinfection, we can do an environmental examination to check whether it contains *C. difficile* or not. Traditional, we did the culture to check but it have to wait 24-48 hours. This method was so slow, so in this study, we try to use the molecular methodology to detect *C. difficile*. **Methods:** We collected the specimen after 16 hours when the cleaning and disinfection. Then we used the POCT real-time PCR((POCKIT central *C. difficile*, GeneReach Biotechnology Corp, Taiwan)) and culture agar to detect whether *C. difficile* is present or not. In this study, we collected 48 specimens from CDI patients' environments when they transferred to another space or left. **Results:** We found all the POCT real-time PCR results were the same compared to the culture results. That's to say, the POCT real-time PCR can replace the culture method and improve the term around time on the diagnosis of *C. difficile*. **Conclusion:** The molecular method could replace the traditional culture due to it was quick and precise. Patients can't wait for the culture result in clinical, especially in the ICU. Once delayed, the mortality rate would arise. In other words, the POCKIT central *C. difficile* is useful in clinical. It can be used to detect whether *C. difficile* survives on the surface or not. However, due to the limitation of the sample count, the statistical significance was not complete. So we will collect the sample to finish this study.

Antimicrobial Stewardship & Healthcare Epidemiology 2025;5(Suppl. S1):s16

doi:10.1017/ash.2025.122

Incidence and risk factors associated with healthcare associated infection of intensive care unit inpatients at Dr. Cipto Mangunkusumo Hospital

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Background: The incidence of Healthcare Associated Infection (HAI) in the ICU is five to seven times higher compared to general. The aim of this study was to determine the incidence and risk factors for HAI in the ICU at Dr. Cipto Mangunkusumo hospital. **Methods:** This study use retrospective data, adult patients age ≥ 18 years who were treated in ICU and suspected diagnosis of HAI (including Ventilator associated pneumonia, Catheter associated urinary tract infection, Central line associated bloodstream infection and Surgical site infection) in period from October 2022 – January 2023 were included in this study. We analyze the examination results of each specimen with identification, antibiotic susceptibility test and genomic data using whole genome sequencing. **Results:** There were 160 specimens with 108 positive culture results. The organisms that most commonly cause infections from blood specimens are *Klebsiella pneumoniae* (3/11), *Acinetobacter baumannii* (1/11) and *Pseudomonas aeruginosa* (1/11). For sputum, the causative pathogens obtained included *K. pneumoniae* (23/57), *A. baumannii* (11/57), and *P. aeruginosa* (9/57).