infection rates of 0.19 and 0.09 per 10,000 patient days, respectively. **Conclusions:** Control of CP-CRE remains extremely challenging in hospitals with multibed open wards. A bundle approach to infection control showed a gradual reduction in CP-CRE cases, with a significant impact on the prevention of clinical infections.

Antimicrobial Stewardship & Healthcare Epidemiology 2023;3(Suppl. S1):s27–s28 doi:10.1017/ash.2023.82

## Subject Category: Multidrug-Resistant (MDR) Organisms Abstract Number: SG-APSIC1102

## Antimicrobial resistance and related factors in an intensive care unit— A study at Hue Central Hospital

Tan Dang, Hue Central Hospital, Hue City, Vietnam; Mi Ho Thihoa, Hue Central Hospital, Hue City, Vietnam; Vo Dai Quyen, Hue Central Hospital, Hue City, Vietnam; Tran Chi Thanh, Hue Central Hospital, Hue City, Vietnam; Mai Van Tuan, Hue Central Hospital, Hue City, Vietnam; Nguyen Thithanh Nhan, Hue Central Hospital, Hue City, Vietnam; Le Diem Phuoc, Hue Central Hospital, Hue City, Vietnam; Ha Thithuan, Hue Central Hospital, Hue City, Vietnam; Hoang Thiquynh Nhi, Hue Central Hospital, Hue City, Vietnam; Tran Thanh Thuy, Hue Central Hospital, Hue City, Vietnam; Nguyen Van Thanh Toan, Hue Central Hospital, Hue City, Vietnam; Hoang Thian Huong, Hue Central Hospital, Hue City, Vietnam; Hoang Thilan Huong, Hue Central Hospital, Hue City, Vietnam;

Objectives: Antimicrobial resistance (AMR) has emerged as a major concern in Vietnam, mainly due to the inappropriate use of antibiotics. Appropriate antibiotic management enables us to minimize the likelihood of antibiotic resistance and the spread of resistant bacteria. We evaluated vancomycin and colistin resistance and related factors in the intensive care unit (ICU) of Hue Central Hospital, a national hospital in central Vietnam. Methods: Using a cross-sectional descriptive study, we enrolled 362 patients who were prescribed antibiotics and were admitted to the ICU in 2019. Pathogens isolated from 473 routine clinical samples were subjected to antimicrobial susceptibility testing following the recommendations in the Clinical & Laboratory Standards Institute M100, 28th Edition. Colistin testing was performed using the broth microdilution method. Statistical significance was determined using the Fisher exact test. Results: The most commonly identified microorganisms were Acinetobacter baumannii (31.5%), Klebsiella pneumoniae (31.2%), Pseudomonas aeruginosa (12%), and Staphylococcus aureus (8.9%). All isolates of A. baumannii, K. pneumoniae, and P. aeruginosa tested with colistin were nonresistant. Moreover, >65% of A. baumannii isolates were resistant to all antibiotics except colistin. S. aureus had the highest resistance rate to erythromycin (80.6%), but no vancomycin-resistant isolates were identified. Factors associated with resistance to at least 1 antibiotic tested included length of stay (OR, 5.32; 95% CI, 1.47-19.17; P = .017), duration of antibiotics therapy (OR, 5.25; 95% CI, 1.46–18.95; P = .017), and the use of tracheal intubation and ventilator (OR, 3.08; 95% CI, 1.09–8.72; P = .038). Conclusions: These data indicated that although the vancomycin and colistin resistance rate is low, patients with longer length of stay, longer time on antibiotics, and invasive ventilation were at higher risk of AMR infection. Decreasing device use and strong antibiotic stewardship program at the hospital would help to reduce AMR infections.

Antimicrobial Stewardship & Healthcare Epidemiology 2023;3(Suppl. S1):s28 doi:10.1017/ash.2023.83

Subject Category: Multidrug-Resistant (MDR) Organisms Abstract Number: SG-APSIC1096 Changes in resistance patterns of "ESKAPE" pathogens to azithromincin and levofloxacin in Yogyakarta

Rizka Asdie, Perdalin Cabang Yogyakarta, Dr Sardjito General Hospital, Yogyakarta, Indonesia; Faisal Heryono, Perdalin Cabang Yogyakarta, Dr Sardjito General Hospital, Yogyakarta, Indonesia; Ika Puspitasari, Faculty of Pharmacy of Gadjah Mada University, Yogyakarta, Indonesia; Tri Wibawa, Academic Hospital of Gadjah Mada University, Yogyakarta, Indonesia; Abu Tholib Aman, Soeradji Tirtonegoro Hospital Klaten, Central Java, Indonesia; Andaru Dahesihdewi, Perdalin Cabang Yogyakarta, Dr Sardjito General Hospital, Yogyakarta, Indonesia; Ludang Rizki Pradhipta, PKU Muhammadiyah Hospital, Yogyakarta, Indonesia

Objectives: Bacterial coinfection occurred in 3.5% of COVID-19 patients, and secondary bacterial infection occurred in 14.3% of patients. In Indonesia, one of the guidelines for COVID-19 therapy is to administer azithromycin 500 mg per 24 hours for mild and moderate cases and azithromycin 500 mg per 24 hours and levofloxacin 750 g per 24 hours for severe cases with suspected secondary bacterial infection. At the beginning of the pandemic, many antibiotics were used, even without proven or suspected bacterial infection. We sought to determine changes in the resistance of "ESKAPE" bacteria (ie, Enterococcus faecium, Staphylococcus aureus, Klebsiella pneumoniae, Acinetobacter baumannii, Pseudomonas aeruginosa, and Enterobacter spp) to the antibiotics levofloxacin and azithromycin prior to and during the COVID-19 pandemic. Methods: The study was conducted retrospectively by examining the culture and sensitivity test results of "ESKAPE" bacteria to levofloxacin and azithromycin antibiotics in 2019 (before the pandemic) and April 2020-April 2021 (during the pandemic) in 4 hospitals in Yogyakarta. The number of samples represents all cultures completed within the specified period to detect antibiotic sensitivity patterns. Results: In a top referral hospital, resistance to levofloxacin and azithromycin increased significantly for E. faecium and P. aeruginosa, but at a private hospital, an increase in resistance to azithromycin and levofloxacin occurred for A. baumannii and for Enterobacter spp and resistance to levofloxacin increased significantly. At an academic hospital, there was a considerable decrease in S. aureus and E. faecium resistance to levofloxacin and azithromycin. At the government hospital, S. aureus, K. pneumoniae, P. aeruginosa, Acinetobacter baumannii, and Enterobacter spp developed resistance to levofloxacin. Conclusions: Resistance to azithromycin and levofloxacin by different ESKAPE bacteria increased on average during the COVID-19 pandemic.

Antimicrobial Stewardship & Healthcare Epidemiology 2023;3(Suppl. S1):s28 doi:10.1017/ash.2023.84

## Subject Category: Multidrug-Resistant (MDR) Organisms Abstract Number: SG-APSIC1164

## Cost-effectiveness of temporary isolation rooms in acute-care settings in Asia

Nicholas Graves, Singapore General Hospital, Singapore; Yiying Cai, Singapore General Hospital, Singapore; Dale Fisher, Singapore National University Hospital, Singapore; Martin Kiernan, University of West London, London, United Kingdom; Brett Mitchell, Newcastle University, Newcastle, Australia

Objectives: We estimated the change to health-service costs and health benefits resulting from a decision to adopt temporary isolation rooms, which are effective at isolating the patient within a general ward environment. We assessed the cost-effectiveness of the decision to adopt temporary isolation rooms in a Singapore hospital. Methods: Existing data were used to update a model of the impact of adopting temporary isolation rooms on healthcare-associated infections. We predicted the expected change to health service costs and health benefits, measured in life years gained. Uncertainty was addressed using probabilistic sensitivity analysis, and the findings were tested with plausible scenarios to determine the effectiveness of the intervention. Results: We predicted 478 fewer HAIs per 100,000 occupied bed days resulting from a decision to adopt temporary isolation rooms. This decreased would result in cost savings of SGD \$329,432 (US \$247,302) and 1,754 life years gained. When the effectiveness of the intervention was set at 1% of cases of HAI prevented, the incremental cost per life year saved was SGD\$16,519 (US \$12,400), indicating that this