### DS 10-3

**THE ANTIMICROBIAL STEWARDSHIP PROGRAMMES REDUCE MULTIDRUG RESISTANT ACINETOBACTER BAUMANNII INFECTION IN THE INTENSIVE CARE UNIT (ICU) OF SILOAM HOSPITAL, TANGERANG, INDONESIA**

Cucunawanwangsi 1,2, Ratna Sari Wijaya 1, Audric Albertus 1, Primartanto Wibowo 1, Faculty of Medicine, PelitaHarapan University, Tangerang; 2Department of Microbiology, Siloam Hospital, Tangerang; 3Intensive Care Unit, Siloam Hospital, Tangerang

**Purpose:** Multidrug resistant Acinetobacter baumannii is one of the most common cause of hospital acquired infection (HAIs) in intensive care units (ICUs) worldwide and commonly associated with increasing mortality and length of stay. To address with the increasing of multi-drug resistant A. baumannii infection, antimicrobial stewardship programmes are promoted worldwide to encourage judicious antimicrobial use and prevent the emergence of resistance. The aim of this study is to determine the impact of the antimicrobial stewardship programmes in preventing the development of A. baumannii antimicrobial resistance.

**Methods:** During the period from June 2012 till June 2013, A. baumannii isolates data from sputum, wound, blood, urine, and cerebro-spinal fluid were collected and used as a baseline data. The identification of A. baumannii and resistant pattern was performed by using VITEK 2 Compact 4 according to Clinical Laboratory and Standards Institute (CLSI). Socialization and implementation of the antimicrobial stewardship programmes including; (1) determining the empirical antimicrobial drug use in the ICU, (2) using the antibiotic prescription chart to ensure antibiotic prescription based on microbiological culture and sensitivity.

**Results:** From the baseline data, A. baumannii found in 16 isolates and were multidrug resistant. The majority of the isolates sensitive to colistin (100%) and cefoparazone/sulbactame (77%). After the implementation of the antimicrobial stewardship programmes, the incidence of A. baumannii finding was decreasing into 3 isolates and showed the increasing sensitivity to cefoparazone/sulbactame (89%) that use as empirical therapy for gram negative bacteria infection in the ICU. The sensitivity to the other antimicrobial; carbapenem, imipenem, meropenem, aminoglycoside were also increasing.

**Conclusions:** As a result of this study, A baumannii can be reduced through the implementation of antimicrobial stewardship programmes. To have the antimicrobial stewardship programmes helped us to decrease the rate of bacterial resistance within our hospital.

### DS 10-4

**EVALUATION OF LEVOFLOXACIN UTILIZATION RATIONALITY BY COMPUTERIZED PHYSICIAN ORDER ENTRY SYSTEM**

Ya-Ling Ke 1, Hui-Hsia Hsieh 2, Tien-Yuan Wu 2, Yung-Ta Lin 2, Chi-Hua Chen 2, 1Pharmaceutic Division, Department of Pharmacy, Taichung Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Taichung, Taiwan; 2Clinical Pharmacy Division, Department of Pharmacy, Taichung Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Taichung, Taiwan; 3Department of Pharmacy, Taichung Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Taichung, Taiwan

**Purpose:** Levofoxacin belongs to the third-generation Fluoroquinolones (FQs). It is not only the broad-spectrum antibiotic for G (+) and G (−) (Escherichia coli, Klebsiella pneumonia, Pseudomonas aeruginosa) but also more activity to the atypical bacteria (Chlamydia, Mycoplasma). In this retrospective study, we evaluated the converting ratio between injection and oral forms. This drug utilizing evaluation (DUE) study will help to elevate the reasonable use of levofloxacin in the hospital.

**Methods:** This study is a retrospective study in a regional hospital. Cases were collected from April 2014 to June 2014 for all hospitalized patients using Levofoxacin. The reasonableness assessment of Levofoxacin prescribing included indications, doses, bacterial culture or consulted with Infectious Diseases physician. The recommendation doses for renal dysfunction followed by SANFORD GUIDE. Patient’s creatinine clearance (Clcr) was monitoring for adjusting the therapeutic dose accordingly. Descriptive statistical analysis was performed in the study.

**Results:** Total 158 cases were recruited in the study. The bacterial culture was performed in 157 cases (99.6%). Depending on bacterial culture results, considering as reasonable using levofoxacin was 86 cases (54.4%), and empirical therapy counted as 61 (38.6%), which were also consulted with Infectious Diseases physician prior to administration. In addition, 158 cases (100%) were monitored Clcr, 143 cases (90.5%) had performed dose adjustments in accordance with appropriate therapeutic doses by renal function. Moreover, 23 cases used Injection form over 7 days during hospitalization period, cases (13.0%) switched to oral form during hospitalization period, 12 cases (22.2%) did not switch during hospitalization period, 8 cases of them (8/23, 34.8%) did not switch during hospitalization period but took home with oral levofoxacin.

**Conclusion:** This study showed that the reasonability of the use of Levofoxacin was counted as 86 cases (54.4%). The ratio of injection dosage form converted to oral form was not ideally. The results will provide physicians to use the build-in computerized physician order entry system reminding to improve the efficacy of levofoxacin.