ABSTRACT

Antibiotic Therapy Assessment of Patients diagnosed with Sepsis in Intermediate Care Ward of Internal Medicine Department of Dr. Soetomo General Hospital according to Gyssens Criteria

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Background: Rational empirical antimicrobial therapy is an important component of sepsis patient management. This study aimed to assess the rationality of empirical antimicrobial therapy in patients diagnosed with sepsis admitted in intermediate care ward of internal medicine department (RPI) of Dr. Soetomo General Hospital from January 2016 to July 2017.

Methods: Medical records of 91 patients diagnosed with sepsis were collected and studied retrospectively in period from July 2017 to November 2017. 91 (85.05%) medical records from 107 sepsis patients were evaluated. Empirical antibiotic therapies for these patients were assessed by an expert reviewer according to Gyssens method.

Results: 73 (80.2%) of 91 patients were deemed receiving appropriate empirical antibiotic therapies. Ceftriaxone IV injection as monotherapy or combination therapy were the most common empirical antibiotic therapies (82 in 91 patients, 90.1%), despite local microbiologic flora and antibiogram show most pathogens were resistant to ceftriaxone. Cultures and antimicrobial sensitivity tests were carried out in 21 (23.07%) patients from 91 patient, both from blood and urine specimens. 17 (80.95%) from 21 test results were positive, with 11 isolates of gram negative bacteria (mostly from urine specimen) and 6 isolates of gram positive bacteria. 8 from 17 (47.06%) positive culture results showed MDRO positive, most common isolates are Klebsiella pneumonia ESBL + and Escherichia coli ESBL +. Mortality rate in this study was high, 92.3% (84 patients died) despite rational empirical antibiotic therapies were high.

Conclusion: This study concluded that high mortality finding might be due to implementation of outdated local current guidelines for antibiotic therapies in sepsis patients adopted in Soetomo General Hospital, albeit categorized as rational therapies according to Gyssens method, was no longer appropriate according to local antibiogram issued by microbiological department of Soetomo General Hospital.

Keywords: Empirical Antibiotics Therapy, Intermediate Care Ward, Sepsis, Septic Shock, Gyssens criteria.