

ABSTRACT

ANTIBIOTIC USE ON ACUTE RESPIRATORY TRACT INFECTION NON PNEUMONIA AND NON SPECIFIC DIARRHEA IN PRIMARY HEALTH CENTRES IN BANJARBARU CITY-SOUTH KALIMANTAN

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BACKGROUND- Acute respiratory tract infection (ARTI) non pneumonia and non specific diarrhea are the most common case in primary health centre (PHC) in Indonesia with the enormous use of antibiotics.

OBJECTIVE- The aims of this study were to analyze antibiotic use and the factors affected to the quality of antibiotic use in PHC in Banjarbaru City, Indonesia.

METHOD- The study was set in 2 PHCs in urban area and 2 PHCs in rural area. All of physicians in these places and patients visited the area during March to April 2018 were recruited as samples after signing informed consent. Data were analyzed with chi-square tests and logistic regression analysis.

RESULTS- There was no significant difference in antibiotic use between urban and rural PHC, both on ARTI non pneumonia and non specific diarrhea. Out of 495 patients on ARTI non pneumonia, the majority was get antibiotic (52.2%) while out of 287 patients on non specific diarrhea, 14.8% were get antibiotic. There was no significant difference between time consultation to antibiotic use pattern both in urban and rural PHC ($p > 0.005$). The most prescribed antibiotics were amoxicillin (26.5% in urban PHC vs 22.5% in rural PHC) and cephadroxil (7.9% in urban PHC vs 8.9% in rural PHC). Based on DDD calculation, the quantity of antibiotics in urban PHC was 3544.4 DDD and in rural PHC was 3478.6 DDD. Physicians with a long years of service (i.e. > 7 years) were prescribe the antibiotics 3.2 times higher than physicians who had been working for shorter period (95% CI 2.157-4.728) in urban PHC and were 3.8 times higher (95% CI 2.448-5.740) in rural PHC. There was no significant difference between physicians who had trained on rational drug use training and had not trained yet (95% CI 0.556-1.993), while in rural PHC there was a significant difference among them (OR 2.1; 95% CI 1.371-3.250).

CONCLUSIONS- From the analysis of antibiotic use, it found that the antibiotic use in PHCs in Banjarbaru City were not rational yet with total DDD of antibiotics in urban PHC was 3544.416 DDD and in rural PHC was 3478.693 DDD. The factors that affected the antibiotics use were physician's years of service, attended on rational drug use training, and clinical guidelines. This study will encourage the improvement of health care facilities, such as clinical guideline framing in every primary health centre, improvement of supporting examination, and evaluation of rational drug use training.

KEYWORDS: acute respiratory tract infection (ARTI) non pneumonia, non specific diarrhea, primary health centres, antibiotic.