

Factors associated with antibiotic use knowledge and practices among urban and rural adults in Malaysia

Kong LS¹, Farida I¹, Leelavathi M², Chong WW¹

¹Centre of Quality Management of Medicines, Faculty of Pharmacy, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia,

²Department of Family Medicine, Medical Faculty, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia

ABSTRACT

Introduction: Identifying gaps and factors related to knowledge and practices of antibiotic use among the Malaysian public from urban and rural areas is essential to effectively tailor interventional strategies to targeted population groups. **Objectives:** This study aimed to assess the differences in knowledge and practices of antibiotic use between the general public from urban and rural areas in Malaysia and identify factors influencing their knowledge and practices. **Materials and methods:** A nationwide cross-sectional study was conducted among adult Malaysian citizens from urban and rural areas in Malaysia, using a self-administered and validated questionnaire. **Results and conclusion:** A total of 1971 respondents were recruited. Respondents from urban areas scored significantly higher with knowledge of antibiotic use than those from rural areas (mean = 8.78 ± 4.28 versus 7.92 ± 4.02 , $p < 0.001$). However, there was no significant difference in engagement in inappropriate antibiotic use practices ($p = 0.739$). Compared to those from urban areas, respondents from rural areas were less likely to answer correctly for identification ($p < 0.001$), adverse effects ($p < 0.001$), and administration ($p = 0.003$) of antibiotics, and consequences of antibiotic resistance ($p < 0.001$). From multiple logistic regressions, knowledge of antibiotic use was influenced by ethnicity, educational level, main occupation, occupation related to healthcare and monthly income; while practices related to antibiotic use were influenced by gender, ethnicity, main occupation, monthly income and knowledge of antibiotic use score. Residence status did not influence the knowledge and practices of antibiotic use. Differences in knowledge between the general public from urban and rural areas and socioeconomic factors associated with knowledge and practices of antibiotic use should be incorporated in designing interventional strategies tailored to the different needs of targeted audiences in Malaysia.

Keywords: Antibiotic, Knowledge, Practice, Predictors, Urban, Rural