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### Understanding of antibiotic use and resistance among final-year pharmacy and medical students: A pilot study (Article)

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#### Abstract

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**Introduction:** This study is aimed to investigate the understanding of antibiotic use and antibiotic resistance and its correlate factors among final-year medical and pharmacy students at International Islamic University Malaysia (IIUM). **Methodology:** This was a cross-sectional study. The study instrument was developed by extensive literature search and was subjected to face validity and content validity to medical and pharmacy academics. A pilot study was conducted to ascertain the reliability coefficient. Data was entered to SPSS version 17 and descriptive and inferential statistics were applied. **Results:** A total of 123 questionnaires were included in the study. Out of 123 respondents, 58.5% (n = 72) were final-year medical students, while 41.5% (n = 51) were final-year pharmacy students. The majority of the respondents showed adequate knowledge regarding the course contents related to antibiotics (n = 116; 94.3%). Almost all the respondents correctly reported the difference between bactericidal and bacteriostatic antibiotics. Only 15.4% (n = 19) and 27.6% (n = 34) of students were able to recognize *Streptococcus pyogenes* as non-penicillin resistant bacterium and *Enterococcus* as vancomycin-resistant bacterium, respectively. **Conclusions:** The students showed good understanding regarding antibiotic resistance. In comparison to medical students, pharmacy students showed better understanding and more adequate knowledge, as the mean value for each domain was slightly higher for pharmacy students. Extensively improving the curriculum and educating healthcare professionals, especially physicians and pharmacists, right from the time of their educational training can inculcate a moral responsibility toward the judicious use of antibiotics, which can serve to eradicate antibiotic resistance. © 2014 Jamshed et al.

#### Author keywords

Antibiotic resistance | Malaysia | Medical students | Pharmacy students

#### Indexed keywords

##### EMTREE drug terms:

antibiotic agent | bactericide | beta lactamase | ceftioxiime | diphenhydramine | penicillin derivative | vancomycin | antiseptic agent

##### EMTREE medical terms:

adult | antibiotic resistance | article | attitude to health | bacteriostatic | cross-sectional study | drug use | Enterococcus | female | human | Malaysia | male | medical education | medical student | pharmacist | pharmacy student | physician | pilot study | questionnaire | Streptococcus pyogenes | young adult | developed country | education | inappropriate prescribing | pharmacy student

##### MeSH:

Adults | Anti-Bacterial Agents | Cross-Sectional Studies | Developed Countries | Drug Resistance, Microbial | Education, Medical, Undergraduate | Education, Pharmacy | Female | Humans | Inappropriate Prescribing | Malaysia | Male | Pilot Projects | Questionnaires | Students, Medical | Students, Pharmacy | Young Adult

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