

EP221

ePoster Session

Reducing inappropriate antibiotic use is a priority

A cross-sectional study for optimizing prescribing practice among junior doctors in acute care settings in England

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Objectives

Appropriate antimicrobial prescribing is essential for optimal clinical care, patient safety and minimisation of resistance and healthcare-associated infections. Up to 50% of the prescriptions are thought to be sub-optimal in acute-care settings. As prescribing is primarily the role of junior doctors in England, there is a critical need to better understand their current practice, as well as gaps in knowledge and training. The aim of this study is to investigate knowledge, attitudes and behaviours related to antimicrobial prescribing amongst junior doctors with a view to identifying potential areas for improvement and capacity building.

Methods

We conducted a cross-sectional multi-centre study among qualified doctors in training in the Health Education North West London region in April 2014. Antimicrobial prescribing practices, previous education and learning preferences were explored by using a 42-item questionnaire. Double data entry and validation of questionnaire was conducted. Associations between demographics, training interests and attitudes and 1) knowledge to antibiotic prescribing and 2) confidence in prescribing were examined using tests of proportion and central tendency.

Results

Among 141 completed questionnaires (participation rate: 92.8%), 34.4% of junior doctors prescribed primarily on their own. However, 18.5% did not feel confident yet in writing an antimicrobial drug prescription. Confidence in prescribing was increased by obtaining advice from a senior doctor (25.5%), and through diagnosis confirmation (24.5%); but decreased due to lack of knowledge (24.6%). In considering junior doctors top three sources of help for antimicrobial prescribing, 52.8% would ask an infection specialist/microbiologist and 28.9% a pharmacist, while 78.5% would ask a senior in their own specialty. 67.9% of the participants found difficulty in obtaining advice during night shifts, weekends or holidays. Only 36.9% considered antimicrobial resistance issues when prescribing with a significant difference between junior doctors in their 1st year post-qualification (26.8%), 2nd year (45.7%) and 3rd and more (63.6%) (pvalue = 0.05). Only 29% considered de-escalation (i.e. switch from intravenous to oral) at the recommended interval (every 24 hours), mainly junior doctors in their 2nd year (52.6%) compared to those in their 1st year or 3rd year and more (respectively, 21.8% and 17.7%; pvalue = 0.013). 68.6% stated a need for further antimicrobial prescribing education without significant difference between the three groups of junior doctors (1st year post-qualification: 60.3%, 2nd year: 74.4% and 3rd year:74.4%; pvalue = 0.54).

Conclusion

A surprisingly high proportion of junior doctors reported prescribing antimicrobials alone, even in their first year of training, and reported difficulty in accessing help when necessary. This, coupled with low confidence in prescribing abilities, suggests that both training focused on improving knowledge and improved provision of support, either through improved access to infection specialists or enhanced decision support tools should be considered to improve patient safety.