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Paper Poster Session

Education and competencies in antimicrobial stewardship

Do medical students in France feel prepared to prescribe antibiotics responsibly?

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Background: Undergraduate education should prepare tomorrow's doctors to prescribe antibiotics responsibly. Here we present the French results of Student-PREPARE, a Europe-wide study that asked students how prepared they felt across a wide range of topics related to antibiotic use.

Material/methods: All medical students in their last year of undergraduate education in French medical schools were invited to participate in a voluntary online survey. The survey was developed by a group of international experts in antibiotic stewardship. Two reminders were sent to students by email after the initial invitation. The survey was open from January to August 2015.

Results: 2093 students participated at 31 of 33 medical schools in France, with a mean response rate of 27.4% (range 11.9%-50.6%). Students felt very well prepared on topics related to diagnosis of infection and selection of initial therapy, with over 95% sufficiently prepared to recognise the clinical signs of infection, assess the severity of infection, and interpret biochemical markers of inflammation. Most students felt sufficiently prepared to identify clinical situations when antibiotics are not needed (88.0%), to differentiate between bacterial and viral upper respiratory tract infections (84.0%), and to practise effective infection control and hygiene (79.1%). Over half of the students did not feel prepared to be able to use epidemiological knowledge of bacterial resistance (64.2%), to use surgical antibiotic prophylaxis principles (56.9%), to communicate with senior doctors when they feel antibiotics are not necessary but are being pressured to prescribe by senior doctors (56.3%), or to decide the shortest possible adequate duration of antibiotic therapy (50.1%). Students rated teaching methods according usefulness (Figure), preferring discussions of clinical cases, peer teaching, and infectious diseases clinical placements. Only a third of students felt they had received sufficient teaching in antibiotic use for their future practice as a junior doctor, with 42.2% needing more education on prudent antibiotic use, and 23.1% needing more education on both prudent antibiotic use and general antibiotic treatments.

Conclusions: This is the first comprehensive nationwide study of medical students in France on antibiotic use. We have found that students at the end of their undergraduate medical courses feel well prepared in important areas related to responsible antibiotic use (diagnosis of infection, selecting initial therapy), but also insufficiently prepared in some topics (communication skills, assessment of

quality of care, antibiotic resistance). There are also areas in which students appear to be overly-confident, such as recognising situations in which antibiotics are not needed. Overall, two-thirds of students feel they need more education on antibiotics, and high value teaching methods have been identified. The results from this study are being used at national and regional levels to support improvements in antibiotic education in France.

