Young Doctors' Perspectives on Antibiotic use and Resistance in Europe in 2015 (YPAR): Preliminary results.

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Background: Young doctors in training start to prescribe antibiotics on their own. We investigated their attitudes toward antibiotic prescribing and antimicrobial resistance.

Material/methods: An online survey was sent to young doctors in training in October 2015 with regular reminders for 2 months via national/regional coordinators in 9 European countries and social networks.

Results:1366 participants responded to at least one half of the questions and 1056 participants completed the survey. Nine countries provided more than 10 participants. The participants used grades from 1 to 5 were to estimate their knowledge: highest grade was given for the decision on the need of antibiotic treatment (3.8±0.69) followed by interpretation of microbiology results (3.77±0.86), the choice between parenteral and oral antibiotic (3.67±0.89), the dose and the dose interval (3.51±0.98). They were less confident with the choice of antibiotic (3.40±0.87) and the treatment duration (3.40±0.86) (Figure 1).

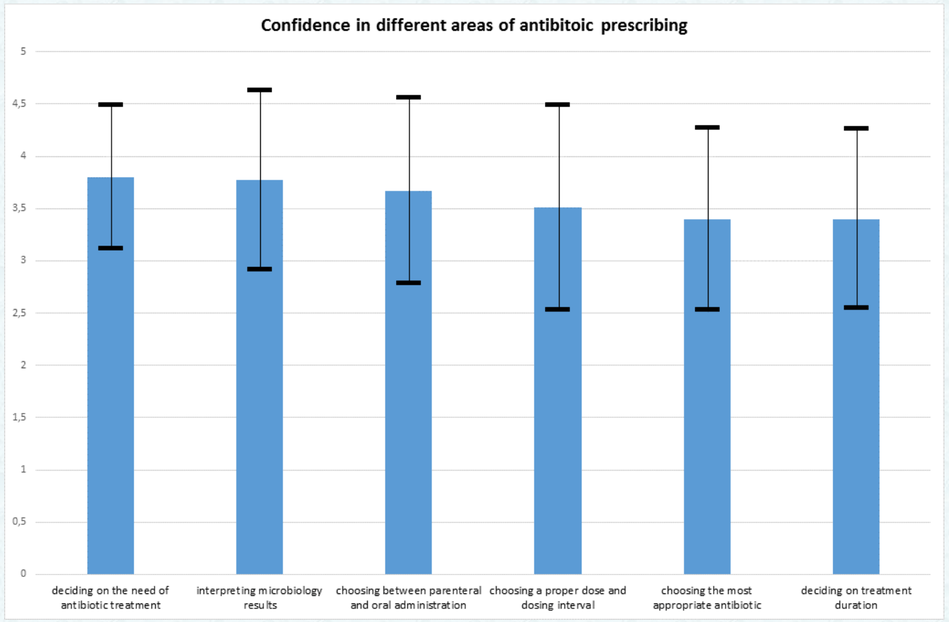

Figure 1: Graph of confidence in different areas of antibiotic prescribing.

For most of the young doctors, the decision to prescribe an antibiotic is influenced by laboratory results and imaging (98.7%), followed by immune status of the patients (96.9%) and severity of the disease (84.2%). The decision depended upon the prescribing habits of the ward (77.4%) and senior colleagues (70.0), but rarely on expectations from the patients (12.0%). 98.4% of young doctors claimed that they followed antibiotic prescribing guidelines. In 55.2% of the cases, young doctors prescribed antibiotics as told by their mentors, who followed the guidelines in only 60.6%. 93.4% and 70.3% of participants bore in mind antibiotic resistance and *Clostridium difficile* infection respectively. Most participants recognized that antimicrobial resistance is a global (98.7%), and a national problem (92.2%), but less so a problem at their workplace (76.3%) (Figure 2). They were aware that many antibiotics prescriptions are unnecessary (93.6%), but only 37.6% felt that this is their own problem (Figure 3). Most young doctors (96.6%) wished to get more education in antibiotic prescribing. Education by industry played a role for only 21.6%.

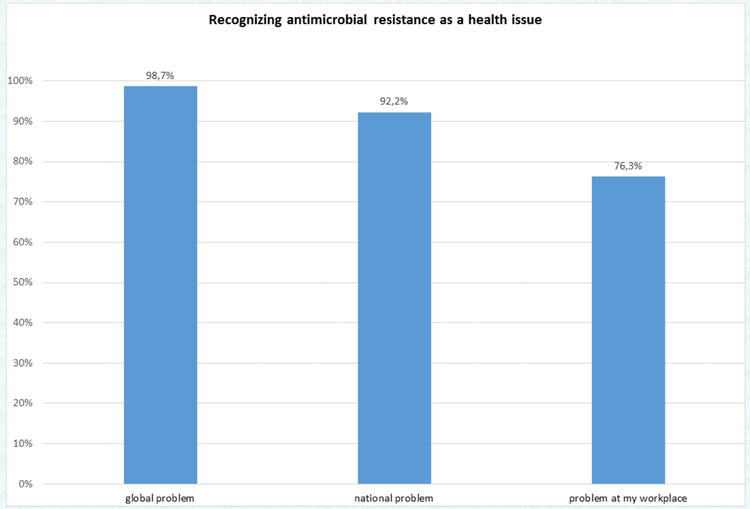

Figure 2: Recognition of antimicrobial resistance as a health issue globally, nationally and locally

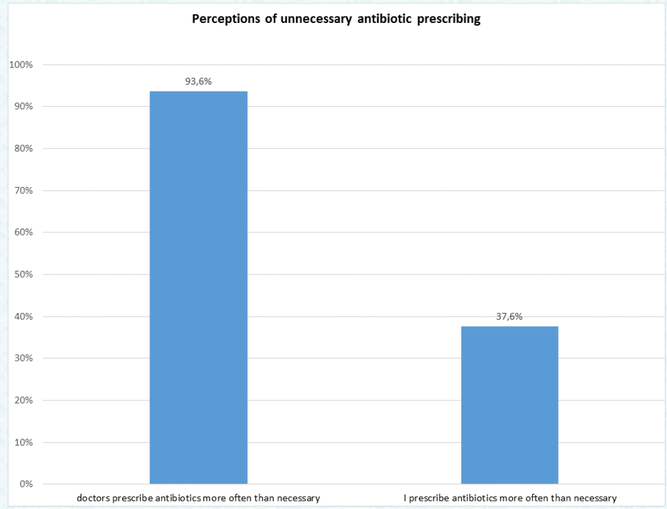

Figure 3: Perceptions of unnecessary antibiotc prescribing by doctors in general and by participants themselves.

Conclusions: Young doctors claim that they are aware of the problems of antibiotic resistance and importance of prudent antibiotic prescribing, but not all of them recognize the problems at their own workplace or with their own prescribing. They rate their own adherence to guidelines higher than the adherence of their supervisors. Further analysis of the results per country and per speciality is needed.

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