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Defensive medicine in antibiotic prescribing among specialists in infectious diseases and clinical microbiology: the international ESGAP AntibioLegalMap survey

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Background: The fear of legal claims can induce doctors to deviate from evidence-based practice, a behaviour known as defensive medicine. A common example of defensive medicine is overprescribing of drugs. The aim of this study was to investigate if specialists in infectious diseases and clinical microbiology fear legal claims, and if this fear leads to defensive practices, such as overprescribing antibiotics.

Material/methods: In 2016, ESGAP conducted the AntibioLegalMap study, an international internet-based cross-sectional exploratory survey targeting infectious diseases (ID) physicians and clinical microbiologists (CM) who regularly either prescribe antibiotics or advise on antibiotic prescriptions. Invitations were disseminated through the ESGAP and ESCMID networks. A multidisciplinary group developed the 29-item English questionnaire which consisted in two parts: one on defensive medicine in antibiotic prescribing and another on the legal liability of antibiotic prescriptions (not reported here). In exploring defensive medicine, we focused on three main variables (measured using Likert scales):

(i) fear of legal liability in antibiotic prescribing or advising; (ii) defensive behaviours in antibiotic prescribing in home department; (iii) defensive behaviours in antibiotic advising outside home department. A multivariate logistic regression analysis was performed to identify factors significantly associated with each of the three variables of interest.

Results: A total of 830 individuals from 74 countries participated in the survey. The majority of respondents (63.5%, 527/830) were ID specialists, 48.1% (396/823) were women, 8.5% (70/825) were younger than 35 years and 58.9% (482/824) were working in university public hospitals. Only 0.4% (3/779) had a previous condemnation for malpractice related to antibiotic prescription. Concerning the fear of legal liability, 21.2% (164/774) said they never worried, 45.1% (349/774) sometimes worried and 28.6% (221/774) frequently worried when prescribing or advising to prescribe antibiotics. Being female, younger than 35 years old, and aware of previous cases of litigation were independently associated with a higher level of fear (OR 1.92 [95%CI:1.23;2.98], 3.70 [95%CI:1.53;8.96] and 2.62 [95%CI:1.26;5.46] respectively). Most respondents (85.0%, 525/618) reported some form of defensive behaviour in antibiotic prescribing in the home department (figure 1A). Being younger than 35 years and sometimes or often worried about liability were independently associated with more frequent defensive behaviours in the home department (OR 2.49 [95%CI:1.29;4.81], 2.52 [95%CI:1.60;3.97] and 2.87 [95%CI:1.73;4.76] respectively). Similarly, 76.4% (505/661) reported defensive behaviours in antibiotic advising outside the home department (figure 1B). This behaviour was independently associated with being sometimes or often worried about liability (OR 3.67 [95%CI:2.31;5.81] and 3.90 [95%CI:2.36;6.45]). The preferred measures to reduce fear and defensive behaviours were having local guidelines and sharing decisions through teamwork.

Conclusions: This study suggests that defensive medicine could be a driver of antibiotic overprescription. A significant proportion of ID and CM reported some form of defensive behaviour in prescribing or advising to prescribe antibiotics.

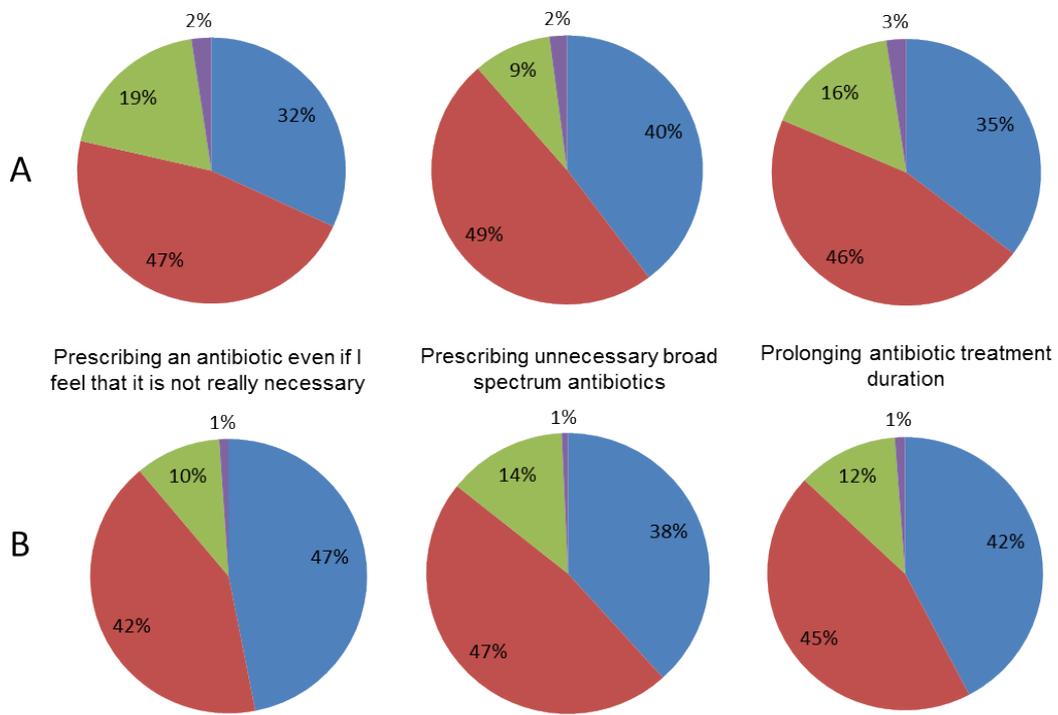


Figure 1. Acknowledged frequency of 3 different defensive behaviours in prescribing (A) and advising to prescribe (B) antibiotics

