Analysis of the demand for antibiotics in Spanish community pharmacies with private, irregular or no prescription; interventions by the pharmacist

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Background Antibiotic resistance is one of the main challenges facing medicine today. It is a growing threat to public health that affects all countries in the world, since the new mechanisms of resistance spread on an international scale.

Purpose To quantify the proportion of oral antibiotic demand corresponding to therapeutic group Anatomical Therapeutic Chemical classification J01 (antibacterials for systemic use) with private prescriptions, irregular prescriptions and self-medication in the community pharmacy. To analyze the prescribing physician profile, the symptoms for which the medication is prescribed, and the reasons why the population demands antibiotics without a prescription. To evaluate intervention by the pharmacist and conduct health education referred to correct antibiotic use.

Method A prospective, cross-sectional, descriptive, observational multicenter study to be carried out in Spanish community pharmacies during four weeks - one in each season of the year (2016-2017). Classified by the Spanish Medicines Agency (AEMPS) as an EPA-OD (post-marketing prospective follow-up) study (SEF-ANT-2016-01) with Ethics Committee approval. Inclusion criteria: subjects requesting antibiotics for oral administration belonging to therapeutic group J01. Exclusion criteria: subjects with communication difficulties or requesting antibiotics with financed prescription. A case report form (CRF) is designed for collection of the following variables: type of pharmacist and pharmacy, sociodemographic data, antibiotic requested, type and reason for request, specialty of the prescribing physician, type of treatment, knowledge of the process of antibiotic use, drug-related problems (DRPs) and negative medication outcomes (NMOs) identified, and pharmacist behavior and intervention. A platform http://investigacionsefac.org/antibioticos/ is habilitated for data compilation. The SPSS statistical package is used for the analysis of results.

Findings A total of 351 community pharmacists (70% women) in 290 community pharmacies of all 17 Spanish Autonomous Communities have participated in the study. In the first week of the study (21-27 November 2016) a total of 5460 group J01 antibiotic containers for administration via the oral route were dispensed. Of these, 75.52% corresponded to financed prescriptions and 24.48% to the sum of private prescriptions. A total of 1730 patients have been included in the study. In 61.38% of the cases (n=1060) the demand for group J01 antibiotics corresponded to private prescription, while in 16.06% of the cases (n=277) was without a prescription, and in 22.56% of the cases (n=390) the demand corresponded to self-medication. The rest of the variables are still under study.

Conclusion The pharmacist is the near professional and expert in antibiotics, and can advise patients on all aspects related to these drugs (including self-medication), indicate drug treatment (not requiring medical prescription) or refer the patient to the physician.