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Poster Session I

Antibiotic consumption data

ANTIMICROBIAL USE IN TURKEY: FIRST RESULTS OF THE WHO/EUROPE-ESAC PROJECT

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Objectives

There is no reliable data on antimicrobial use in non-European-Union (EU) south-eastern European countries (SEE) and newly independent states (NIS). We aimed to collect valid, representative, comparable total national wholesales data on systemic antimicrobial use in Turkey, a SEE with a population of 74.724.269(http://www.tuik.gov.tr/HbGetir.do?id=10736&tb_id=2).

Methods

Valid 2011 total antimicrobial use data of Turkey were analysed according to the WHO Anatomical Therapeutic Chemical (ATC)/Defined Daily Doses (DDD) methodology and expressed in DDD/1000 inhabitants/day (DID). Wholesales data on antibacterials (ATC group J01), antimycotics (J02) and antifungals (D01BA) were provided, using IMS data (Information Management System database) which included complete, not extrapolated data covering the whole ambulatory care sector (99.7% of the population). Quarterly data was also submitted allowing studying seasonal variation.

Results

Total outpatient antibacterial use was 42.28 DID. The top 5 antibacterial subgroups (ATC level 3) were: penicillins, ATC group J01C (17.3 DID, 41.0% of all antibacterials); other beta-lactam antibacterials, ATC group J01D (14.1 DID, 33.4%); macrolides, lincosamides and streptogramins, ATC group J01F (3.9 DID, 9.2%); quinolones, ATC group J01M (3.6 DID, 8.5%) and other antibacterials, ATC group J01X (1.4 DID, 3.4%). The top 5 antibacterials (ATC level 5) were: amoxicillin and enzyme inhibitor (co-amoxiclav, 13.0 DID, 30.6%); cefuroxime, a second-generation cephalosporin (6.5 DID, 15.4%); clarithromycin (2.7 DID, 6.4%); amoxicillin (2.6 DID, 6.2%) and ciprofloxacin (2.4 DID, 5.6%). Oral third-generation cephalosporins were frequently used (4.0 DID) among which mainly cefixime (1.1 DID, 2.7%), cefpodoxime (1.1 DID, 2.5%), cefdinir (0.9 DID, 2.1%) and cefditoren (0.7 DID, 1.6%). Considerable use of the third-generation quinolone moxifloxacin (0.4 DID, 1.0%) was observed. Turkey reported use for a high number of different kind of antibiotic substances (n=72). Seasonal variation of quinolones showed a seven-fold increased use of levofloxacin and moxifloxacin during the winter season. Total antimycotic and antifungal use was 2.33 DID (n=10 different substances). The top 3 were: terbinafine (1.76 DID, 75.6% of all antimycotics and antifugals), itraconazole (0.37 DID, 15.7%), and fluconazole (0.16 DID, 6.8%).

Conclusions

We present for the first time a standardised and validated data set of systemic antimicrobial outpatient use in Turkey. Overall antibacterial use was high with remarkable use of broad-spectrum antibiotics (co-amoxiclav and oral third-generation cephalosporins). These data can be used for target setting and follow up of the efficiency of the national rational drug use program.