

P0145A The Global Point Prevalence Survey of Antimicrobial Consumption and Resistance (Global-PPS) in 395 hospitals worldwide

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Background: The Global-PPS (www.global-pps.com) assesses variation of antimicrobial prescribing worldwide, using a standardized and validated method. We report on the second Global-PPS conducted in 2017. bioMérieux provided unrestricted funding support for the survey.

Materials/methods: Data were collected in January–December 2017 from 395 hospitals (H) in 52 countries (C), including Europe (20C;146H); Africa (5C;45H), Asia (16C;119H), Latin America (7C;56H), Northern America (2C;20H), and Oceania (2C;9H). A web-based application was used for data-entry, validation and reporting as designed by the University of Antwerp.

Results: In total, 90,640 patients admitted to 5,573 wards were surveyed. Antimicrobial prevalence was 36.9%, which varied between continents (range: 25.1% in Oceania to 56.6% in Africa), hospital type (range: 29.1% in primary care to 40.4% in tertiary care hospitals) and countries (range: 22.1% in Armenia to 77.9% in Egypt). Among all antimicrobials (n=49,369); antibiotics, antifungals and drugs to treat tuberculosis represented 89.3%, 3.5% and 2.6%. Out of 44,090 antibiotics, 63.7% (n=28,064) were prescribed for treatment among which 22.4% for a hospital acquired infection; and 31.3% (n=13,798) for medical or surgical prophylaxis. Top three antibiotics used were ceftriaxone (13.7%); amoxicillin/clavulanic acid (7.4%) and piperacillin/tazobactam (6.7%). Meropenem represented 4.9% of prescriptions (range: 4.5% in Africa to 8.1% in Asia); polymyxins 1.0% (range:0.6% in Europe to 2.1% in Latin America). Among 31,426 treated patients, 25.5% got a targeted treatment, among which 8.4% in East and South Asia to 15.8% in Latin America received an antibiotic targeting a multidrug resistant organism. ESBL-producing Enterobacteriaceae was the most often reported cause with highest rates in Latin America (5.8%). The reason for treatment was recorded in 71.8% and a stop/review date in 34.7% of antibiotic prescriptions. Local guidelines were mainly missing in Africa (44.7% of prescriptions).

Conclusions: This Global-PPS included several low middle income countries. The tool provided quantifiable outcome measures to assess and compare quantity and quality of antibiotic prescribing in hospitalized patients worldwide. These data serve to identify targets for quality improvement of antibiotic prescribing, the development of local prescribing guidelines, education and practice changes, and for measuring the impact of interventions through repeated PPS.