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The Global Point Prevalence Survey of Antimicrobial Consumption and Resistance (Global-PPS): Results of Antimicrobial prescribing in Albanian hospitals.

Albania

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INTRODUCTION AND PURPOSE

Albania officially known as the Republic of Albania is a country in Southeastern Europe. It is bordered by Montenegro, Kosovo, Republic of Macedonia, and Greece. It has a coast on the Adriatic Sea and on the Ionian Sea. Albania has a total area of 28,748 km^2, with a population around 3 million.

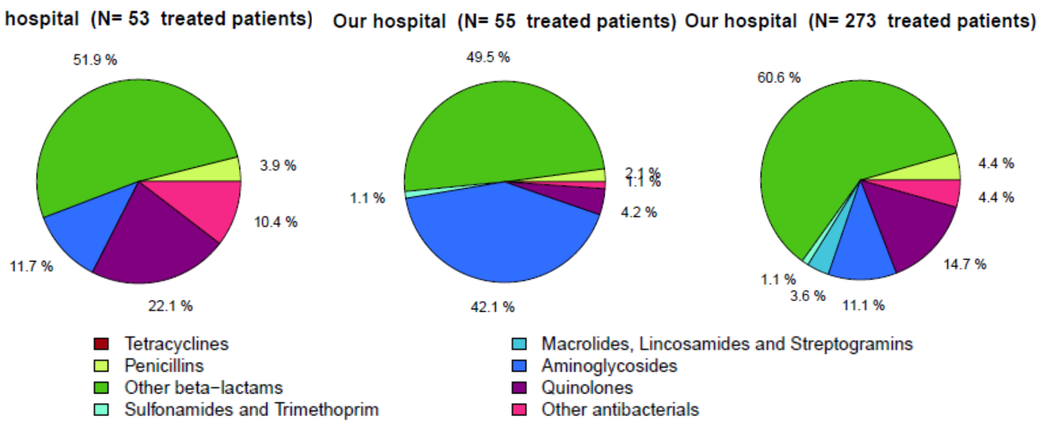
Antimicrobial resistance in Albania is one of the major health care problems, which is promoted by decades of unrestrictive antibiotic prescribing and use in healthcare and community setting. A uniform and standardized method for surveillance of antimicrobial use in hospitals was used to assess the variation in antimicrobial prescribing in Albania. This methodology is a well-established surveillance method for monitoring antimicrobial prescribing in hospitals.

METHODS

PPS was conducted in January - July 2015, in 3 Albanian hospitals. The survey included all inpatients receiving an antimicrobial on the day of PPS. Data collected included age, gender, weight, antimicrobial agents, doses, reasons and indications for treatment, microbiological data, compliance to guidelines, documentation of reasons and stop/review date of prescription. Denominators included the total number of inpatients. A web-based application is used for data-entry, validation and reporting as designed by the University of Antwerp (www.global-pps.com).

RESULTS

***Figure 1**. Overall proportional antibiotic use in 3 Albanian hospitals*



Three hospitals participated: University Hospital Centre "Mother Theresa" in Tirana (UHC), University Hospital of Trauma (UHT), in Tirana and Vlora Hospital (VH) (Regional Hospital) in Vlora. The PPS included 804 patients admitted to 31 wards (mainly adult wards; 84.7%). Only antibiotics for systemic use (ATC J01) have been reported. Overall antibiotic prevalence rate was 47.4% with highest rates observed in VH 83.3%, followed by UHT 56.1% and UHC 38.5%. Out of 533 antibiotics, 22.3% was for a community acquired infection, 14.3% for a hospital acquired infection and 50.1% for prophylactic use (mainly surgical prophylaxis: 70.8%). The most common diagnosis to be treated with therapeutic antibiotics are provided in ***Table 1***. ***Figure 1*** provides proportional prevalence rates for the 3 hospitals. Top three antibiotics for therapeutic use were ceftriaxone (28.2%) mainly for pneumonia (20.0%) beside several other reasons, cefazolin (23.1%) mainly prescribed for bronchitis and upper urinary tract infections (44.4%) and ciprofloxacin (14.4%). For surgical prophylaxis, mainly cefazolin was prescribed (26.6%), often in combination with gentamicin. Overall, prolonged surgical prophylaxis (more than one day) was very common (in 96.8% of prescriptions) (***Figure 2***). An overview of antibiotic quality indicators is provided in ***Table 2***. The reason of the prescription was commonly documented (91.7%), but a stop/review date was nearly absent for all prescriptions (99.1%). Overall, antibiotic guidelines were not available. Nearly all antibiotics were empirically administered (98.9%).

Table 1. Ten most common diagnoses to be treated with therapeutic antibiotics

Diagnosis	N	%
Pneumonia or lower respiratory tract infection	101	27.1
Bronchitis	76	20.4
Upper urinary tract infection	15	4.0
Pyrexia of unknown origin	14	3.8
Cardiovascular system infections	10	2.7
Lower urinary tract infection	16	4.3
Upper respiratory tract infection	9	2.4
Infection central nervous system	5	1.3
Gastro−intestinal infections	11	2.9
Intra−abdominal sepsis	9	2.4

***Figure 2**. Duration of surgical prophylaxis in 3 Albanian hospitals*

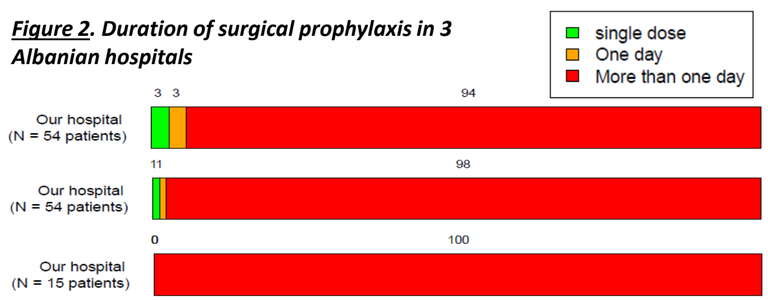


Table 2. Quality indicators for antibiotic use

	Medical (%)	Surgical (%)	ICU (%)
Reason written in notes	88.1	100	95.8
Stop/review date	0.6	0	1.4
Guidelines missing	100	100	100
Parenteral use	93.9	97.5	97.2
Targeted treatment	0.9	2.5	0

CONCLUSION

The reported high antibiotic prescribing rates might be attributed to the lack of guidelines and absence of continuous monitoring of antibiotic agents. Global PPS was an excellent experience to value the current situation of antibiotic consumption in Albania. We aim to repeat this survey in 2016 and will include as much as possible hospitals to obtain a more representative picture of AM prescribing in Albania. This will also give us an opportunity to initiate antibiotic stewardship initiatives and monitor their outcome.

Disclosures: "**bioMérieux** is the sole sponsor of the GLOBAL Point Prevalence Survey. The funder has no role in study design, data collection, data analysis, data interpretation, or writing the report. Data are strictly confidential and stored anonymous at the coordinating centre of the University of Antwerp."