

O0974 Evolution of antimicrobial resistance: results of two consecutive point prevalence surveys in Greek hospitals

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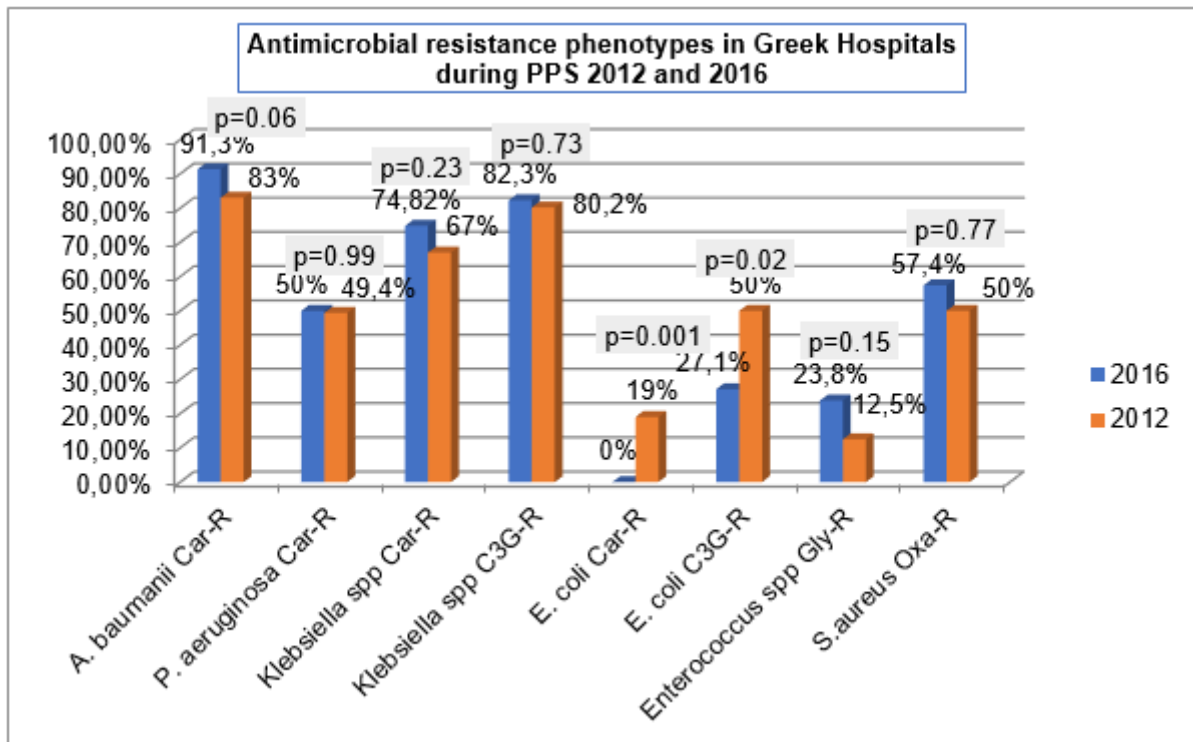
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Background: Healthcare-associated infections (HAIs) represent a major issue for patients, healthcare providers, and public health authorities. Resistance of the most prevalent bacteria against certain antibiotics (antibiotic-markers) was estimated during two National Point Prevalence Surveys (PPS) conducted in 2012 and 2016. The results were jointly analysed in order to assess antimicrobial resistance and HAIs' evolution over time within Greek hospitals.

Materials/methods: Following the ECDC standard protocol 37 and 77 hospitals participated in 2012 PPS and 2016 PPS respectively. Both studies were based on a patient sample of 8,247 in 37 hospitals and 13,784 in 77 hospitals, respectively. Data collection was completed within a single day at the ward/unit level and within 3-4 weeks at the hospital level.

Patients with an active HAI on the survey day were identified according to ECDC case definitions. Antimicrobial resistance phenotypes were determined by selected antimicrobial resistance markers: oxacillin for *Staphylococcus aureus*; glycopeptides for *Enterococcus* species; third generation cephalosporins and carbapenems for Enterobacteriaceae; carbapenems for *Acinetobacter baumannii* and *Pseudomonas aeruginosa*.

Results: Prevalence of patients with HAIs was 9.1% in 2012 and 9.61% in 2016, with a total of 563 and 993 isolated microorganisms, respectively. The most prevailing pathogens in 2012 compared to those identified in 2016 were: *Klebsiella* species (17.6% vs. 17.0%), *P. aeruginosa* (16.8% vs. 12.78%), *Acinetobacter* species (16.8% vs. 16.21%), *Staphylococcus* species (8.0% vs. 11.77%; *S. aureus* 3.0% vs. 5.23%), *Enterococcus* species (8.9% vs. 6.65%), *E. coli* (8.3% vs. 6.65%). No significant change was recorded regarding resistance phenotypes between the two PPS, except for *E.coli* where a significant decrease was observed in both recorded phenotypes (Graph).



Car-R: carbapenems resistant; C3G-R: 3rd generation cephalosporins resistant; Gly-R: glycopeptides resistant; Oxa-R: oxacillin resistant

Conclusions: Important information on antibiotic resistance at a national level was derived from the two consecutive PPS. High prevalence of resistance to specific antibiotic markers was depicted in both PPS without significant modifications over time for most of the prevalent bacteria. Based on the PPS results, efforts at the national level should be further intensified by more widely implemented infection control strategies.