

## A RETROSPECTIVE STUDY ANTIMICROBIAL STEWARDSHIP IN A UNIVERSITY HOSPITAL

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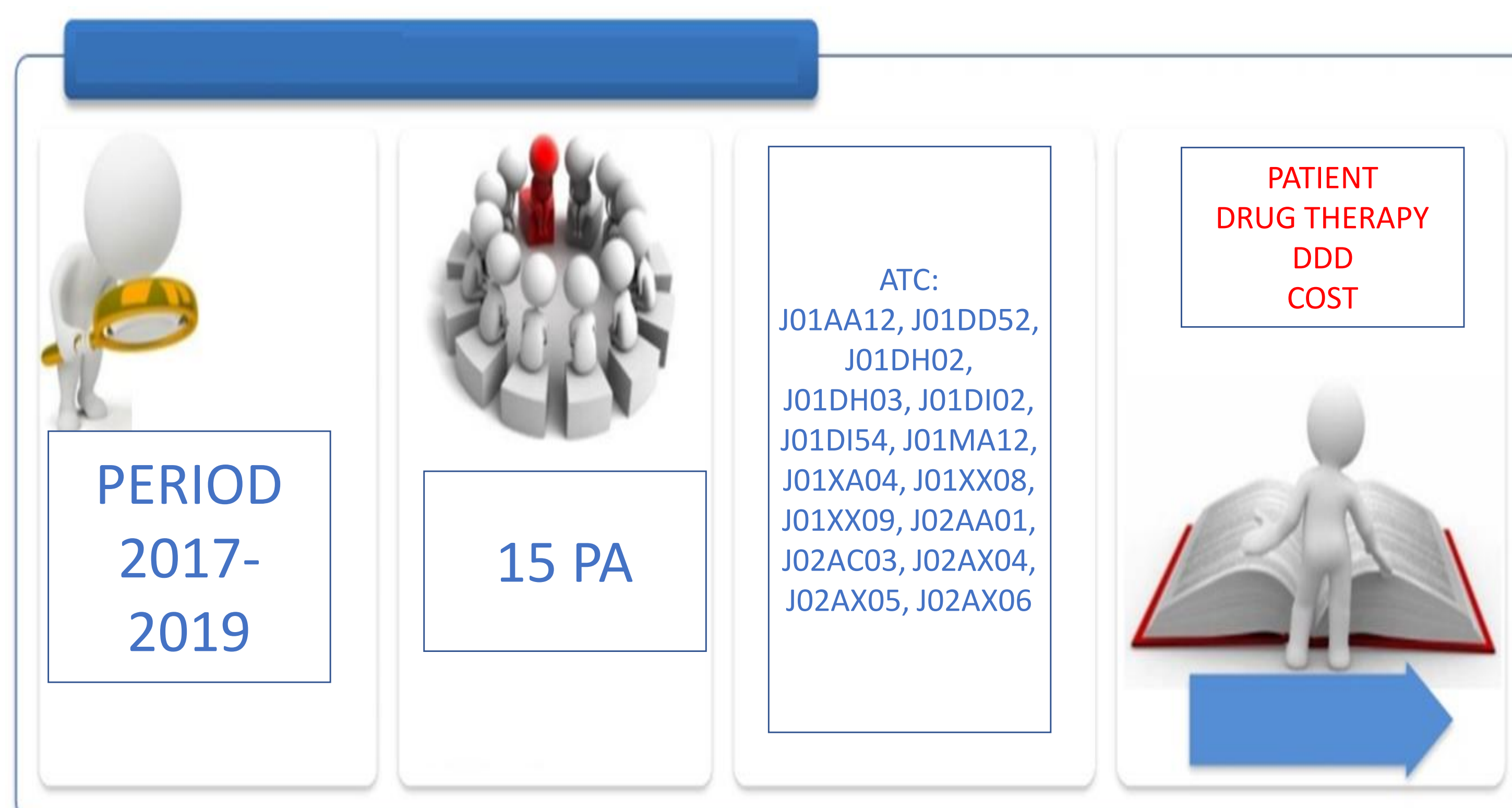
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### BACKGROUND AND IMPORTANCE

Misuse and abuse of antibiotics are among the main causes of the increase in antibiotic resistance. Monitoring and evaluation of antibiotic prescriptions is an important activity involving the hospital pharmacist.

### AIM AND OBJECTIVES

Aim of study is to assess attitude and practice toward antibiotic. The objectives were to assess clinical governance, prescriptive appropriateness as well as costs incurred.



The consumption (DDD/pz) of levofloxacin did not increase in study period (mean 11.22 DDD/pz), while a considerable increase was highlighted for Ceftaroline Fosamil and micafungin. systemic antifungals therapy was started empirically in 181 patients (68.5% Male ; mean age 65 years).

### CONCLUSIONS

Hospital pharmacists is able to detect and prevent harmful errors in prescribing therapies. Supervision of hospital pharmacist can significantly improve the management of clinical risk, patient safety, optimization of care and effective management of expenditure.

### MATERIALI E METODI

A retrospective observational study was carried out from 01/01/2017 to 31/12/2019 in a University Hospital. Outpatient dispensing were used for patient identification and data collection. Demographical, diagnostic, therapeutic and clinical variables were gathered. Consumption was expressed in Defined Daily Dose (DDD). Drugs evaluated were: tigecycline, ceftazidime and beta-lactamase inhibitor, Meropenem, ertapenem, Ceftaroline Fosamil, Ceftolozane and beta-lactamase inhibitor, Levofloxacin, dalbavancin, Linezolid, Daptomycin, Amphotericin B, Voriconazole, Caspofungin, Micafungin, Anidulafungin. First dispensation date was considered as index date. Custom requests (CR) that report prescribing errors were considered inappropriate. Drug costs were calculated based on ex-factory prices ( VAT excluded), net of the temporary reductions provided for by law. Avoided costs were calculated based on inappropriate prescriptions and unauthorized treatments.

### RESULTS

4017 CR, 1267 patients (70.72% Male; mean age 66.54 years) and 26,457.22 DDD (19.89 DDD/patient) were included in the study. The expenditure incurred was Euro 1,214,876.87. Data show a significantly decrease patients treated rate (-2%), DDD required (delta 2019-2017 = -9.33%) and expenditure incurred (delta 2019-17 = -52.65%).

Daptomycin has been used for persistent methicillin-resistant *Staphylococcus aureus* bacteremia (delta 2019-2018 = +191.43). 3.68% of CR (148/4017) were deemed inappropriate (56.4% in 2019). Costs saved were Euro 29,730.37. Prescribed Daily Dose represents the most common error (20.94%) in CP examined.

