

ORAL PRESENTATION

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# Quality of surgical antibiotic prophylaxis using E-prescription conditioning

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## Introduction / objectives

Hospital da Luz is a paper-free hospital. Antibiotic prescription is made electronically and is automatically conditioned by both context and duration. We aimed to assess the pattern of use of antibiotics in surgical prophylaxis in a general hospital.

## Methods

Prophylactic antibiotic prescriptions for patients undergoing surgery in January 2011 were extracted from the medical records. Variables collected included: surgical procedure, prophylactic antibiotic prescribed (ATC code), surgery classification (clean, clean contaminated, contaminated and dirty), and prophylaxis duration. A descriptive statistical analysis and cross-tabulations (chi-square) were performed.

## Results

611 prophylactic antibiotics were initiated for patients with an average age of 49.6 years (SD=16.6), (60.6% females). Surgeries were classified as: clean (39.1%), clean contaminated (29.4%), contaminated (2.1%) and dirty (1.2%). Most prescribed antibiotics were: first-generation cephalosporins (83.6%), second-generation cephalosporins (8.0%), imidazole derivatives (4.6%) and quinolones (1.8%). Antibiotic administration was exclusively intraoperative in 50.8% of the cases. 34.5% of the prescriptions were extended for 24 hours, 12.4% for 48 hours and 2.3% for more than 48 hours. Statistical association between surgery classification and treatment duration was found (chi-square  $p=0.010$ ). Quinolones were prescribed only in urological surgery and imidazoles were prescribed only in colorectal surgery.

## Conclusion

Antibiotic prophylaxis using e-prescription conditioning resulted on adequate compliance with guidelines, although opportunities for improvement were found.

## Disclosure of interest

None declared.

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