

ORAL PRESENTATION

Open Access

Quality of surgical antibiotic prophylaxis using E-prescription conditioning

JFC Rodrigues^{1*}, A Duarte^{1,4}, C Palos², A Casado², C Santos³, F Fernandez-Llimos⁴

From International Conference on Prevention & Infection Control (ICPIC 2011)
Geneva, Switzerland. 29 June – 2 July 2011

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.

Author details

¹Pharmacist, Lisbon, Portugal. ²ICU Physician, Hospital Da Luz, Lisbon, Portugal. ³Head of Pharmaceutical Department, Hospital Da Luz, Lisbon, Portugal. ⁴Med.UL, Faculty of Pharmacy, University of Lisbon, Lisbon, Portugal.

Published: 29 June 2011

doi:10.1186/1753-6561-5-S6-O44

Cite this article as: Rodrigues et al.: Quality of surgical antibiotic prophylaxis using E-prescription conditioning. *BMC Proceedings* 2011 **5** (Suppl 6):O44.

Submit your next manuscript to BioMed Central
and take full advantage of:

- Convenient online submission
- Thorough peer review
- No space constraints or color figure charges
- Immediate publication on acceptance
- Inclusion in PubMed, CAS, Scopus and Google Scholar
- Research which is freely available for redistribution

Submit your manuscript at
www.biomedcentral.com/submit



¹Pharmacist, Lisbon, Portugal

Full list of author information is available at the end of the article