

O006

2-hour Oral Session

Advancing hospital antibiotic stewardship

Do we need antimicrobial stewardship in the emergency room department for outpatients ?

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Objectives: Bacterial resistance is a major challenge for public health; reduction of unnecessary prescriptions and of antibiotic treatment duration should be a major goal in the fight against its rise. While in hospital, antibiotic prescriptions are often overviewed and controlled by pharmacists and infectious disease specialists, outpatients from the emergency department (ED) are often prescribed antibiotics but fail to be monitored. Data on these patients after hospital discharge are scarce while they may contribute to inadequate antibiotic prescription. We reviewed and evaluated these prescriptions

Methods: Retrospective monocentric study upon antibiotic prescriptions for adult outpatients (hospitalisation less than 24h) in a teaching-hospital ED. We audited antibiotic treatment with medical charts, according to national and international recommendations, over a one-year period. Two independent physicians assessed prescription validity: one emergency specialist and one infectious disease specialist. We evaluated the most frequent misuse and overuse of antibiotic prescriptions.

Results: From November 2012 to November 2013, 760 antibiotics prescriptions were reviewed. Mean patients age was 46.5 years old (15-103) and sex ratio 0.65 (H/F). Most frequent indications were: urinary tract infections (UTI) (n=281 ; 36.9%), pneumonia (n=101 ; 13.2%), cellulitis (n=88 ; 11.6%), wound (n=65 ; 8.5%), nasal throat ear (NTE) infections (n=62 ; 8.1%), cutaneous abscess (n=40 ; 5.2%), colitis (n=15 ; 1.9%), no clinical diagnosis (n=64 ; 8.4%). Most prescribed antibiotic treatments were fluroquinolones (FQ) (n=314 ; 41.3%) and amoxicillin-clavulanate (AAC) (n=245 ; 32.2%). Prescriptions were considered inadequate in 455 cases (59.86%). Main reasons were: no indication for treatment (n=197 ; 25.9%), excessive treatment duration (n=88 ; 11.6%). Main indication for unnecessary treatment were: wound (n=36 ; 55.3 % of wounds) and abscess (n=23 ; 57.5 % of abscess). Main diseases with excessive treatment duration were: UTI (n=73 ; 25.91% of UTI), mainly cystitis (n=67 ; 54.4% of cystitis). Main prescribed antibiotics without adequate indication were: AAC (n=83) and FQ (n=56), which represented, respectively, 33.8% of all AAC prescriptions and 17.8% of FQ prescriptions. Main antibiotics prescribed in excessive duration were FQ (n=60 ; 19.1% of FQ prescriptions), AAC (n=13 ; 5.3% of AAC prescriptions) and cefixim (n=12 ; 52.2% of cefixim prescriptions)

Conclusions: ED antibiotic prescription for outpatient represents an important quantity of antibiotics. In our experience, the antibiotic prescription for ED outpatient is often unjustified and too long, especially for FQ and AAC, which are molecules with high selecting resistance ability. Adequate indications and treatment duration are therefore major goals to prevent resistance emergence. Moreover, a target effort should be done to avoid unnecessary antibiotic treatment for wounds and abscesses and to reduce treatment duration when antibiotics are prescribed for UTI. Protocols, education and consults with infectious disease specialist should be developed