

EV0385

ePoster Viewing

Clinical ID: community-acquired infections including CAP, sepsis, STD, ...

High variability among emergency departments in 3rd-generation cephalosporins and fluoroquinolones use for community-acquired pneumonia

E. Batard¹, N. Lecadet¹, N. Goffinet¹, J. Hardouin², D. Lepelletier¹, G. Potel¹, E. Montassier¹

¹Université de Nantes- EA3826 Thérapeutiques cliniques et expérimentales des infections, Nantes, France

²Université de Nantes- EA4275 SPHERE Biostatistics Pharmacoepidemiology and Human Science Research Team, Nantes, France

Objective : Fluoroquinolones and 3rd-generation cephalosporins that are prescribed for pneumonia may be avoided and replaced by a penicillin in some cases. We aimed to determine if the proportion of patients treated for pneumonia with a 3rd-generation cephalosporin and/or a fluoroquinolone vary among Emergency Departments (EDs), and to estimate the proportion of avoidable prescriptions.

Methods : Retrospective study of patients treated for pneumonia in 8 French EDs, and subsequently hospitalized in non ICU wards in 2013. Third-generation cephalosporins or respiratory fluoroquinolones were presumed unavoidable if they met both criteria : (i) age \geq 65 y or comorbid condition ; and (ii) allergy or intolerance to penicillin, or failure of penicillin, or previous treatment with penicillin, or, for fluoroquinolones only, suspected legionellosis.

Results : We included 832 patients. Thirty-four percent [95% CI, 31%-38%] of patients were treated with a 3rd-generation cephalosporin and/or a respiratory fluoroquinolone (range among EDs, 19%-44%). Four EDs were independent risk factors for prescription of cephalosporin and/or fluoroquinolone (adjusted OR, 2.27 [1.64-3.15], as were immune compromise (aOR, 2.54 [1.56-4.14]), antibacterial therapy started before arrival in the ED (aOR, 3.32[2.30-4.81]), REA-ICU class III or IV (aOR, 1.93[1.15-3.23]), PSI class V (aOR, 1.49[1.00-2.20]), fluid resuscitation (aOR, 3.98[2.49-6.43]) and non-invasive ventilation in the ED (aOR, 7.18[1.7-50.1]). Treatment with 3rd-generation cephalosporin and/or fluoroquinolone was avoidable in 67% [62% – 73%] of patients.

Conclusion : Cephalosporins and/or fluoroquinolones use in pneumonia is highly variable among EDs. The majority of these prescriptions is avoidable. Antibiotic stewardship programs should be implemented to restrict their use in EDs.