BACKGROUND / OBJECTIVES

- Carbapenems (CBP) : antibiotics more and more used in relation with increasing prevalence of extended-spectrum beta-lactamase (ESBL)-producing Enterobacteriaceae.
- Some bacteria have developed CBP resistant mutations.
- This epidemiological situation should make us wonder about CBP prescription.

The aim of this study was to describe prescribing patterns of imipenem/cilastatin, ertapenem and meropenem in elderly inpatients: context and impact of an interdisciplinary approach for prescription analysis.

MATERIALS AND METHODS

What? A retrospective study of CBP prescription
Perform over a ten-month period : March-December 2011
In geriatric departments (313 beds)
Data were collected from:
- electronic medical records
- bacteriological analysis results
- email exchanges between infectious disease physician (IDP), bacteriologists and pharmacists: monitoring system of the prescriptions

RESULTS

- n=55
- Mean age: 83; Sex ratio: 0,72
- Before hospitalization:
  - 56% were living at home, 42% in institution
  - 71% accumulated between 2 and 5 risks factors of multi-resistant bacteria (MRB)
- Repartition of risk factors for MRB :
  - < 6 months: 40
  - < 3 months: 36
  - 3-6 months: 25
  - 6-12 months: 11
  - > 1 year: 7

- 69 % of prescriptions were documented
  - Most common isolated bacteria
    - E. coli BLSE (32%)
    - Pseudomonas aeruginosa (13%)
    - Klebsiella pneumoniae BLSE (6%)
  - ESBL bacteria (51%)
  - 5 isolated-ESBL strains are community-acquired

- 61% of prescriptions were reassessed by an IDP
- 76% of them were in accordance with recommendations
- 18% of them were stopped or changed for narrow-spectrum-antibiotic

DISCUSSION / CONCLUSION

- CBP prescriptions seem relatively well controlled in geriatric care units
- Due to multidisciplinary prescriptions analysis:
  - infectious disease physician (IDP), bacteriologists and pharmacists
- Evaluation of the impact of monitoring prescriptions on CBP usage requires a more detailed follow-up

E-mail: fiona.chautant@gmail.com