

A Marquet¹, S Thibaut¹, J Caillon^{1,2}, JC Maupetit³, D Boutoille^{1,2}, E. Batard^{2,3} and hospitals of MedQual network/Omédit.

¹ : MedQual, Centre Ressource en Antibiotologie, Nantes, France.

² : Université de Nantes, EA3826 «Thérapeutiques cliniques et expérimentales des infections », Nantes, France.

³ : Omédit Pays de la Loire, Nantes, France.

www.medqual.fr

contact@medqual.fr

Contact: +33 (0)2 40 84 64 34

MedQual/CHU Nantes

44093 Nantes

France

OBJECTIVES

In 2014, the french agence of medicines (ANSM) published a list of antibiotics that are particularly prone to select bacterial resistance (broad spectrum antibiotics, BSATB), that includes amoxicillin-clavulanic acid (AMC) fluoroquinolones (FQ) and third-generation cephalosporins (3GC). The objective of this study was to survey the consumption of these antibiotics in French hospitals.

METHODS

This retrospective study was carried out by MedQual network and the antimicrobial observatory (Omédit) between 2010 to 2014. AMC, FQ and 3GC were collected. For each voluntary hospital, the annual numbers of patient-days were recorded and the antimicrobial consumption was finally expressed as a number of DDD per 1000 patient-days (PD). Hospitals were categorized according to bed size and main activities : >300 beds, 100-300 beds , <100 beds and post-acute care hospitals.

RESULTS

Thirty six hospitals in the Pays de la Loire region were included.

Broad spectrum antibiotics (BSATB) use decrease from 51.6% of total antibiotics (TOT) use in 2010 to 48.5% in 2014. BSATB consumption is shown in figure 1.

EVOLUTION OF EACH BSATB TO 2010 TO 2014

Amoxicillin-clavulanic acid

- ↘ in > 300 beds hospitals (- 10%)
- ↗ in <100 beds hospitals (+ 20 %)
- ➡ in 100-300 beds and post acute care hospitals

3rd generation cephalosporins

- ↗ in <100 beds (+ 32 %), 100-300 beds (+ 33%), and > 300 beds hospitals (+ 22,6%)
- ➡ in poste acute care hospitals

Fluoroquinolones

- ↘ in 100-300 beds (-12%) and >300 beds (- 25 %) hospitals
- ➡ in <100 beds and post acute care hospitals

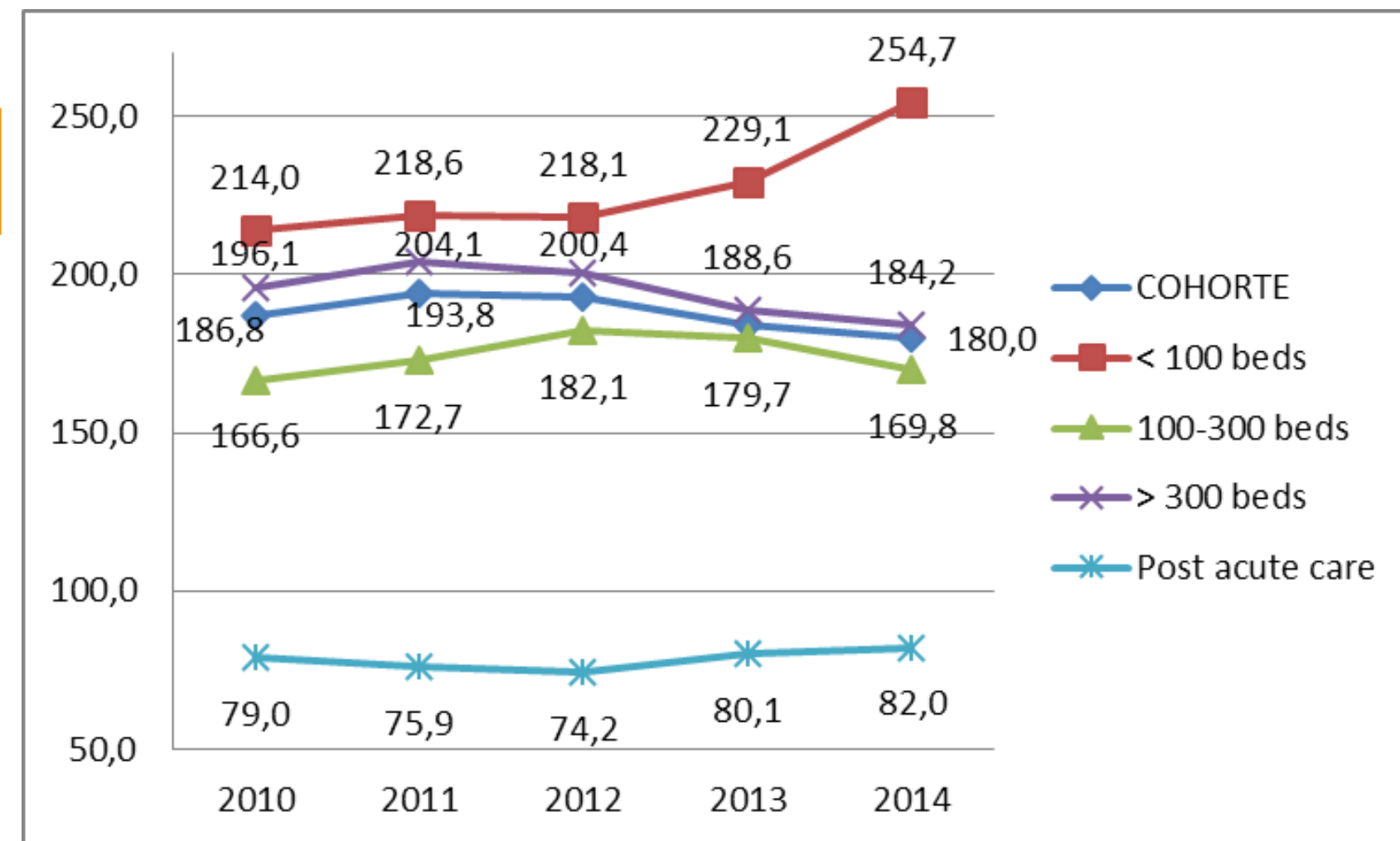


Figure 1 : Broad spectrum antibiotics (AMC + 3GC+ FQ) in DDD/1000PD for each hospital categories.

CONCLUSION

This longitudinal evaluation of broad spectrum antibiotics consumption is necessary to measure the impact of the national and regional policies. In <100 beds hospitals, the use of broad-spectrum agents increased mainly because of AMC and 3GC. An audit of professional practices is going on in the region to assess the use of AMC for prophylactic indications.

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