**Background:**

- Risk of the development of antibiotic resistance in Europe, with a particular rise in antibiotic resistance to piperacillin-tazobactam. Countries such as Italy or different countries of East of Europe already suffer from this increase in resistance to antibiotics (Figure 1).
- As elsewhere in France, overuse of piperacillin-tazobactam in our University Hospital has represented a warning signal for the Anti-Infective Committee (Figure 2).

**Purpose:**

- The aim of this study was to evaluate the use of piperacillin-tazobactam within a French University Hospital.

**Material & Method:**

- **Duration of the study:** 2 months (from July 2017 to August 2017)
- **Place of the study:** All units of Caen University Hospital.
- **Method:** All electronic piperacillin-tazobactam and manual prescriptions for units which do not benefit from electronic prescriptions were analysed in order to evaluate their compliance and their relevance with clinical and biological registered in patient records.

**Results:**

- 91 prescriptions were studied, the majority from the clinical haematology department 17.6% (N=16), digestive surgery unit 13.2% (N=12), and pneumology unit 10.98% (N=10) (Figure 3).
- Medication was, in most cases, prescribed by medical residents 94.5% (N=86) (Table 1).
- Indications included nosocomial pneumonia 39.5% (N=36), febrile neutropenia 22% (N=20%) and digestive infections 17.6% (N=16) and isolated germs were mainly staphylococci (aureus, epidermidis) 25.3% (N=23), Escherichia coli 11% (N=10) and Pseudomonas aeruginosa 11% (N=10).
- Microbiological documentation was not available 75.8% (N=69), nor information on the performance of an antibiotic 60.2% (N=56). The mean dose was 12.7 g/day [8; 16 g/day] and the mean duration of piperacillin-tazobactam treatment was 12 days [2 days; 55 days].

**Conclusion:**

- This work highlights abidance by dose, treatment duration and indications.
- This study reveals insufficient microbiological documentation, few antibiograms and a lack of antibiotic therapy reassessment.
- Presentation of results to the anti-infective committee and hospital prescribers in order to improve the proper use of this antibiotic.