

## Evolution of Healthcare-associated infections over five years: results of prevalence surveys

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### Background:

Tunisia is not spared from the scourge of healthcare associated infections (HAIs). National surveys on the prevalence of HAIs on a given day have regularly taken place in health facilities. We aimed to describe bacteriological profile as well as treatment modalities of HAIs in Sahloul Hospital for the last five years.

### Methods:

We conduct every year a prevalence survey, as part of the program for the prevention and control of HAI at Sahloul Hospital. It is a cross-sectional study of one-day prevalence with a single pathway. All departments were included in the survey, except emergency and hemodialysis services due to their very short length of stay. Data collection was carried out using NosoTun plug (national HAI prevalence survey).

### Results:

Over five years, prevalence of HAI ranged from 11.4% in 2014 to 7.1% in 2018. In 2014, bacteriological analysis was performed in 55.8% of HAI cases. In 66.6% of cases (n = 16), isolated bacteria were gram negative bacilli, the most frequent were *Pseudomonas aeruginosa*. In 2015, 17 germs were identified, and in 88.2% of cases (n = 5), isolated pathogens were also gram-negative bacilli, the most frequent were *Pseudomonas aeruginosa* (n = 4) and *Acinetobacter baumannii* (n = 3). Besides, cephalosporin 3rd generation was the most frequent antibiotic used for the treatment. However, in 2016, *Klebsiella Pneumoniae* was the most frequent germ isolated. Among those infected patients, 26 were treated (92.8%). In 2017, 26 germs were identified, the most frequent were Gram Negative Bacilli (53.8%), mostly *Escherichia coli* and *Pseudomonas aeruginosa*, followed by *Acinetobacter baumannii*. In 2018, 16 germs were identified, the most frequent were Gram Negative Bacilli (55.5%), mostly *Klebsiella Pneumoniae*.

**Conclusions:**

The challenges for the future are to minimize infection with gram-negative bacilli while limiting the emergence of antibiotic resistant organisms.

**Key messages:**

- Our study helped us to have an insight into the most common isolates identified throughout the last five years.
- An incidence survey was carried out to better highlight the impact of healthcare associated infections in our hospital.