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The Global and ECDC Point Prevalence Survey of Antimicrobial Consumption and Resistance: Antimicrobial Prescribing and outcomes of urinary tract infections in Belgium

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INTRODUCTION AND PURPOSE

The Urinary Tract Infection (UTI) working group of the Belgian Antibiotic Policy Coordination Committee (BAPCOC) promotes prevention and control of UTI as well as antibiotic stewardship. We aimed to assess antibiotic prescribing for UTI in Belgian acute care hospitals to identify priorities for antimicrobial stewardship programmes and quality of care.

METHODS

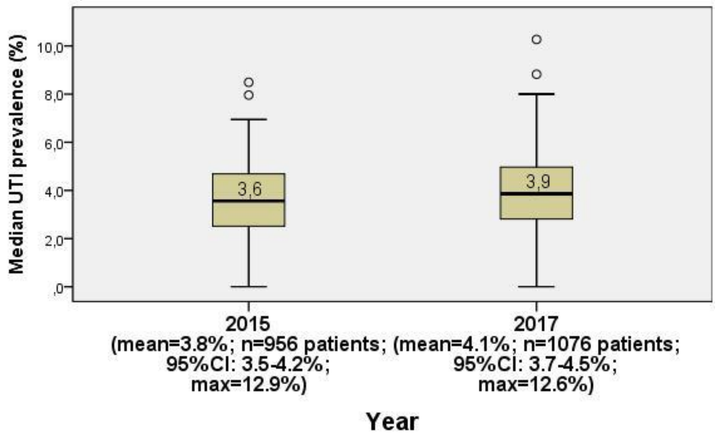
Point prevalence surveys (PPS) on antimicrobial use and resistance were performed in Belgian hospitals in 2015 (Global-PPS) and 2017 (Global-PPS and ECDC-PPS) (1-2). Data were collected at hospital, ward and patient level using a standardized methodology and through a web-based application. Data on patients treated with antimicrobials for community acquired (CA) and hospital acquired (HA) upper and lower UTI were analysed.

RESULTS

Overall prevalence of UTI at hospital level remained stable over time (Fig1). CA-UTI represented 2.1% and 2.3%; and HA-UTI 1.6% and 1.5% respectively in 2015 and 2017. Catheter Associated UTI represented overall 0.6% and 0.3% in 2015 and 2017 in Belgian hospitals.

Degree of participation: 69 hospital entities (67.6%; 26365 patients included) in 2015
83 hospital entities (81.4%; 28007 patients included) in 2017

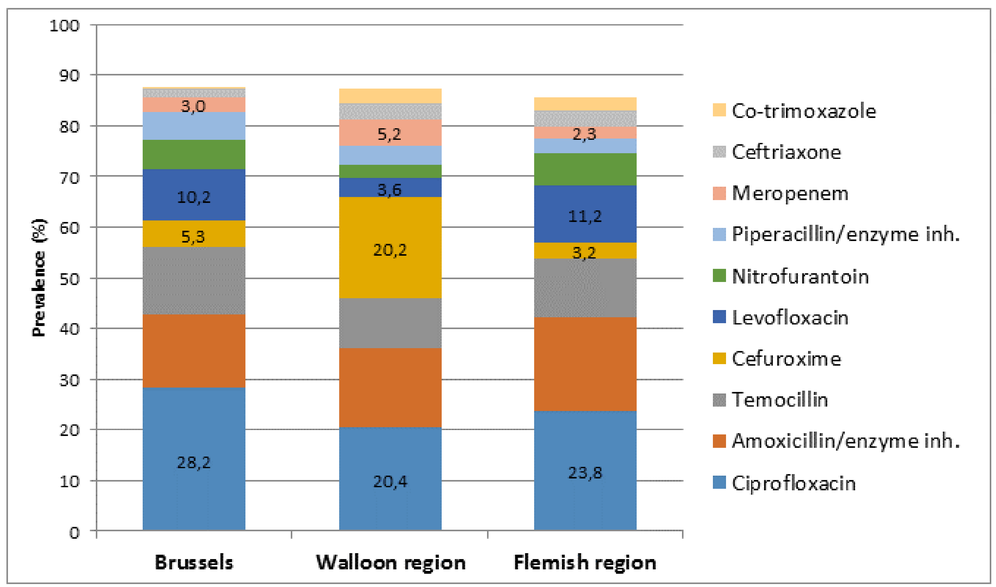
Fig1: Overall median/mean prevalence of UTI in Belgian hospitals



	2015	2017
CA-UTI (n patients, %)	543; 56.9	357; 60.3
HA-UTI (n patients, %)	412; 43.1	235; 39.7
Skin soft tissue HA-UTI (%)	1.5	2.4
Catheter Associated UTI (%)	16.5	15.2
Other HA-UTI (%)	19.2	16.7
HA-UTI from another hosp. (%)	0.6	0.7
HA-UTI from LTCF° (%)	5.2	4.7

Table1: Distribution of patients treated for an UTI (denominator=all patients receiving at least one antibiotic (J01) "to treat" an upper and lower UTI; only Global-PPS data)
° LTCF=Long Term Care Facilities

Fig2: Top 10 prescribed antibiotics (J01) to treat upper and lower CA-UTI and HA-UTI in Belgian hospitals by region, merged 2015 & 2017 data



	Brussels	Walloon region	Flemish region
Reason written in notes (%)	87.6	88.4	83.3
Stop-review date* (%)	41.4	40.9	46.6
Guideline compliant* (%)	83.6	81.7	74.2
Targeted prescribing* (%)	57.0	67.9	57.5

Table2: Quality Indicators for antibiotic prescribing (J01) for upper and lower UTI, merged 2015 & 2017 data

*only Global-PPS data

Overall, 75.0% of patients with a Catheter Associated UTI and 55.1% of patients with UTI from LTCF was microbiology-based, and ESBL-producing Enterobacteriaceae were the most commonly detected organisms (6.7% and 5.7% in 2015 and 2017).

Overall, 50.7% of patients with a CA-UTI and 40.5% with an HA-UTI were treated based on biomarker results* (CRP). CRP levels measured on blood were on average 103.3 mg/L for CA-UTI and 100.8 mg/L for HA-UTI, with a maximum of 625 mg/L.

CONCLUSION

PPS allow assessing antibiotic prescribing in patients with UTI, pointing out priorities for national and local antimicrobial stewardship programmes such as the high rate of Catheter Associated UTI in hospitals. Further initiatives are carried out by the UTI working group to support Belgian healthcare facilities in preventing and managing UTI.

Disclosures: "bioMérieux is the sole private sponsor of the GLOBAL Point Prevalence Survey. The funder has no role in study design, data collection, data analysis, data interpretation, or writing the report. Data are strictly confidential and stored anonymously at the coordinating centre of the University of Antwerp."

1 www.Global-PPS.com 2 https://ecdc.europa.eu/en/healthcare-associated-infections-acute-care-hospitals/surveillance-disease-data/database