a baseline low UC DUR, successful implementation of female external catheters further modestly reduced UC DUR and was associated with a 61% decrease in CAUTI among females in the ICU but not in wards. Further interventions to better identify appropriate patients for female external catheters may improve patient safety and prevent patient harm.

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## **Presentation Type:**

Poster Presentation

Improvement of Adequacy of Empirical Antimicrobial Therapy in *Escherichia coli* Bacteremia of Urinary Source in Catalonia (VINCat-PROA)

Juan P. Horcajada, Department of Infectious Diseases. Hospital del Mar; Sergi Hernández, VINCAT Program Surveillance of health-care related infections in Catalonia; Ariadna Padullés, Hospital Pharmacist; Montserrat Gimenez, Microbiology Service; Lucía Boix-Palop, Infectious DIseases Unit, Internal Medicine Department, Hospital Universitari Mútua Terrassa; Ricard Ferrer, Hospital vall d'Hebron; Susana Melendo, Pediatric Infectious Diseases and Immunodeficiencies Unit, Hospital Universitari Vall d'Hebron; Josep Maria Badia, Hospital General de Granollers (Barcelona); Glòria Oliva, Departament de Salut. Generalitat de Catalunya; Esther Calbo, Hospital Universitari Mútua Terrassa; Santiago Grau, Hospital del Mar

**Background:** The antibiotic use optimization program (PROA) in Catalonia (Spain) is part of the surveillance program for nosocomial infections in hospitals in Catalonia (VINCat). Despite the existence of guidelines for the treatment of urinary tract infections in hospitals, adherence to them is not guaranteed. Objective: Our objective was to evaluate the adequacy of empirical antimicrobial therapy to local guidelines in bacteremia caused by Escherichia coli of urinary source within the PROA-VINCat program during a 3year period. The impact of a voluntary survey asking for evaluating local results and implementing correction measures was also analyzed. Methods: Multicentric prospective observational study including all episodes of E. coli bacteremia of urinary source between May 2017 and September 2019, in adult hospitalized patients in 45 Catalan hospitals. Adequacy of the empirical therapy to local guidelines was one of the prospectively recorded items. A survey evaluating local results of 2017-2018 and asking for possible correcting measures was sent to the participating centers at the end of 2018. Percentages of adequacy of empirical antimicrobial therapy in 2017, 2018, and 2019 were compared by means of  $\chi^2$ test. **Results:** Overall, 3,804 episodes of bacteremia were recorded: 845 in 2017, 1,861 in 2018 and 1,098 until September 30, 2019. Globally, adequacy of empirical therapy to guidelines increased from 73.7% in 2017 to 78.2% in 2019 (P = .06). Interestingly, in the 24 hospitals that responded to the voluntary survey, the adequacy of empirical therapy increased significantly from 72.9% in 2017 to 79.9% in 2019 (P = .009). In hospitals that did not respond, adequacy remained the same over the years (76.7% in 2017, 75.1% in 2019; P = .90). Correction measures applied were: meeting with the antimicrobial stewardship team to evaluate the results (100%), review of local resistance rates (62%), review of local guidelines (58.3%), improving guidelines dissemination (75%), sessions for improving guidelines adherence (58%), and analysis of adherence to guidelines after education (65%).

**Conclusions:** In the empirical treatment of *E. coli* bacteremia of urinary source, adequacy to local antimicrobial therapy guidelines improved from 2017 to 2019, but only in hospitals answering a voluntary survey regarding correcting measures for improving adequacy. Adherence to antimicrobial stewardship proposals improves indicators at local and regional level.

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## **Presentation Type:**

Poster Presentation

Infection Control, Antimicrobial Consumption, and Hospital-Acquired *Clostridioides difficile* Infection in Acute-Care Hospitals in Catalonia

Esther Calbo, Hospital Universitari Mútua Terrassa; Laia Castellà, Infection Control Nurse. Hospital Universitari Germans Trias i Pujol; Ana Hornero, Infection Control Nurse. Hospital Universitari de Bellvitge. Institut d'Investigació Biomèdica de Bellvitge-IDIBELL. L'Hospitalet de Llobregat, Barcelona, Spain; Nieves Larrosa, Vall d'Hebron Campus Hospital Josefa Pérez, Microbiology Service. CatLab; Nieves Sopena, Infectious Diseases Service. Hospital Universitari Germans Trias i Pujol. Universitat Autònoma de Barcelona, Barcelona, Spain; Santiago Grau, Hospital del Mar; Sergi Hernández, VINCAT Program Surveillance of healthcare related infections in Catalonia Ariadna Padullés, Hospital Pharmacist; Montserrat Gimenez, Microbiology Service Ricard Ferrer, Hospital vall d'Hebron; Pediatric Infectious Diseases Susana Melendo, Immunodeficiencies Unit, Hospital Universitari Vall d'Hebron; Lucía Boix-Palop, Infectious Diseases Unit, Internal Medicine Department, Hospital Universitari Mútua Terrassa; Juan P. Horcajada, Department of Infectious Diseases. Hospital del Mar

Background: Hospital-acquired Clostridioides difficile infection (HA-CDI) is a major infection control challenge. Using wholegenome sequencing, <40% of HA-CDI cases have been estimated to have been acquired from other inpatient cases. Huge regional variations have been described depending on the prevalence of epidemic ribotypes. We hypothesized that, according to the geographical area, variations in HA-CDI rates between hospitals could be attributable either to differences in infection control policies or to antimicrobial consumption. Objectives: To assess the association of HA-MRSA rates (a surrogate marker of infection control policies) and antimicrobial consumption with HA-CDI incidence from 2011 to 2018 in hospitals reporting at the VINCat-program (Infection Control and Antimicrobial Stewardship Catalan Program). Methods: Data on 45 hospitals in Catalonia (with 70.5% of all adult acute-care hospital beds) reporting antimicrobial consumption, HA-MRSA, and HA-CDI new cases to the VINCat-program since 2011 to 2018 were analyzed. To report antimicrobial consumption, the Anatomical Therapeutic Chemical Classification (ATC) defined daily dose (DDD) index 2018 was used. Participating hospitals were classified into 3 groups according to size: group 1 (>500 beds), 9 hospitals; group 2 (500-200 beds), 15 hospitals; and group 3 (<200 beds), 21 hospitals. The number of hospitalization days recorded at the participating hospitals increased from 2,828,101 in 2011 to 3,201,680 in 2018. To analyze the association between HA-MRSA rate,