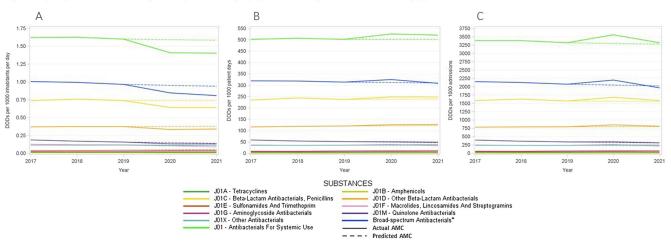
Figure 1: Evolution of actual and predicted consumption of Antibacterials for systemic use (J01, subclasses & broad-spectrum) between 2017 and 2021 in all Belgian hospitals (n=170) expressed in DDDs/1000 inhabitants/day (A), in acute care hospitals (n=103) expressed in DDDs/1000 patient days (B) and DDDs/1000 admissions (C)



\* Broad-Spectrum Antibacterials include Combinations Of Penicillins, Incl. Beta-Lactamase Inhibitors (J01CR), Second-Generation Cephalosporins (J01DC), Third-Generation Cephalosporins (J01DD), Macrolides, Lincosamides And Streptogramins (J01F) except Erythromycin (J01FA01) and Fluoroquinolones (J01MA).

of evaluations and facilitate targeted interventions aimed at optimizing antimicrobial utilization.

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### **Presentation Type:**

Poster Presentation - Poster Presentation Subject Category: Surveillance

### Efficacy of Empiric Contact Precautions for Patients from High Risk Facilities

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Background: Infection prevention surveillance revealed that patients admitted from two specific long term care facilities comprised the majority of multi-drug resistant organisms (MDRO) and scabies cases at our institution. Current practices include performing active surveillance for Candida auris and methicillin-resistant Staphylococcus aureus (MRSA) for specific high-risk patients, as surveillance for all MDROs and scabies is impractical. We therefore sought to create an admission screening process to efficiently identify patients from high-risk facilities (HRFs) and place them in pre-emptive contact precautions upon admission. Methods: Patients admitted from HRFs were identified on admission as part of the initial nursing assessment. For any positive responses, nursing received a Best Practice Advisory to place the patient in contact precautions and patient placement received an alert that the patient would require a private room. Infection Preventionists reviewed a report of all patients who screened positive and added a "High Risk Facility" banner to the chart. This banner remained for the duration of hospitalization and for every subsequent readmission and outpatient visit. We reviewed the electronic

S150 2024;4 Suppl 1 medical records of all patients with a HRF banner placed from March 8, 2023 to September 15, 2023 and abstracted data regarding the presence of scabies or any of the following MDROs before and after placement of the banner: C. auris, carbapenem-resistant enterobacterales (CRE), MRSA, vancomycin-resistant Enterococcus (VRE), carbapenem-resistant Acinetobacter, and MDR Pseudomonas. Results: Of the 93 patients who had a HRF banner added during the study period, 31 (33.33%) were already known to have MDRO colonization at the time of admission to our facility. Thirty-three of the remaining 62 patients (53.22%) without known MDRO colonization were subsequently found to have MDRO colonization/infection or scabies infestation that may have required contact precautions during their index admission or a subsequent admission. This included 14 patients with C. auris, 2 with CRE, 3 with MDR Pseudomonas, 12 with MRSA, 12 with carbapenem-resistant Acinetobacter, and 2 with VRE. Patients were admitted for a median of 9 days before their diagnosis, and 36 of the 93 patients (38.71%) were re-admitted to our hospital during the study period. Conclusion: We found that empiric contact precautions based solely on exposure to specific HRFs facilitated earlier isolation by a median of 9 days. This approach should be considered in acute care hospitals with a high proportion of admissions from HRFs, especially when active and passive surveillance for MDROs is limited.

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### Antimicrobial Use in Belgian Acute Care Hospitals : Results of the 2022 ECDC Point Prevalence Survey

Lucy Catteau, Sciensano; Katrien Latour, Sciensano; Morgan Pearcy, Sciensano and Boudewijn Catry, Sciensano

Background: Point prevalence surveys (PPS) organized by the European Centre for Disease Prevention and Control (ECDC) play a crucial role in assessing healthcare-associated infections (HAIs) and antimicrobial use (AU) in European acute care hospitals. In 2017, a crude prevalence of 28.1% (95% CI 27.3-29.0%) of inpatients receiving at least one

antimicrobial was recorded in Belgium (patients ≥65 years: 29.6% (95% CI 28.5-30.7%), < 6 5 years : 26.5% (95%CI 25.3-27.6%)). Following the challenges posed by the COVID-19 pandemic, the 2022 ECDC-PPS aimed to reassess AU levels. Method: A cross-sectional study was conducted between September and November 2022 in 57 representative acute care Belgian hospital sites (35 mergers), following the ECDC-PPS protocol version 6.0. All patients present in surveyed wards at 8 a.m. on the PPS day and not discharged at that time were included. Infection prevention and control teams collected comprehensive data on hospitals, wards, and AU, including agents and indications. Results: Among the 10,142 included inpatients, 29.3% (95%CI 28.4-30.2) were receiving at least one antimicrobial (patients ≥65 years: 31.1% (95% CI 29.7-32.4%), < 6 5 years : 27.1% (95%CI 25.6-28.6%)). Intensive care units (56.3%), surgical (38.7%), and medical wards (33.1%) demonstrated the highest AU prevalence, while psychiatric wards exhibited the lowest (3.0%). A total of 3,549 antimicrobials were recorded, commonly prescribed for treating community-acquired infections (48.6%) and HAIs (30.3%, including 4.2% of longterm care facility acquired infections), as well as for surgical and medical prophylaxis (12.4 and 6.6%, respectively). Notably, only 22.7% of surgical prophylaxis courses (n=100/440) lasted more than one day. The top three most used antimicrobial agents consisted of amoxicillin in combination with a beta-lactamase inhibitor (J01CR02, 20.0%), cefazolin (J01DB04, 9.8%) and piperacillin in combination with a beta-lactamase inhibitor (J01CR05, 9.6%). The most frequently reported diagnoses for medical antimicrobial treatment were pneumonia (25.7%) and urinary tract infections (17.1%). The reason for AU was available in 80.0% of the medical notes. Conclusion: The 2022 PPS reveals an increased AU prevalence (+1.2%) in Belgian acute care hospitals, especially in patients over 65 years of age (+1.5%). This increase was less pronounced in younger patients (< 65y) (+0.6%). Future investigations are crucial to delve into prescription attitudes and modifiable practices, emphasizing the urgent need for robust antimicrobial stewardship programs in these healthcare settings.

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## **Presentation Type:**

Poster Presentation - Poster Presentation Subject Category: Surveillance Impact of Point Prevalence Surveillance on Transmission of Candida auris Within an Acute Care Health System

Joan Ivaska, Banner Health; Milena Walker, Banner Estrella Medical Center; Claire Jai, Banner University Medical Center Phoenix and Marjorie Bessel, Banner University Medical Center Phoenix

Background: Patients infected or colonized with Candida auris can serve as a transmission source for other patients. Screening patients for Candida auris colonization allows facilities to implement infection prevention and control measures and minimize the risk of transmission. The Centers for Disease Control and Prevention (CDC) recommends healthcare facilities perform three types of screening; admission screening in patients with specific risks, close contact screening of patients who overlap a confirmed positive case for 3 or more days or point prevalence surveillance if there is evidence of ongoing transmission within the facility. The CDC further recommends that patients being screened for Candida auris be maintained in transmission-based precautions while awaiting Results: In 2022-2023 there was ongoing transmission of Candida auris occurring in a community served by a large multi-state healthcare system. Close contact and point prevalence surveillance screening for both acute and non-acute healthcare facilities were implemented by the local health jurisdiction. Methods: A composite swab of the bilateral axilla and groin was used to screen close contacts of patients confirmed to be infected or colonized with Candida auris. Close contact was defined as having been on the same

unit as the positive patient for 3 or more days while the patient was not in transmission-based precautions. Point prevalence surveillance was performed on all patients currently housed on units where close contact screen-positive patients resided. Potentially exposed patients who had been discharged were not screened. Patients were placed in contact transmission-based precautions until results were received. In 1657 patients in six acute care facilities were identified for Candida auris screening. 161 patients refused or were unable to be screened. Of the 1496 patients screened, 40 screened positive, demonstrating a 2.67% secondary attack rate. Of the 40 screen-positive patients, 5 were identified through point prevalence and 35 through close contact screening. Conclusion: Performing point prevalence surveillance in acute care facilities is operationally challenging and costly with little benefit in the prevention of Candida auris transmission. More robust collection and reporting of screening data is needed to inform surveillance protocols and prevention strategies specific to different healthcare settings. Limitations of this study include the lack of screening completion in discharged patients identified as close contact or point prevalence surveillance eligible. Additionally, some patients had a history of contact with healthcare facilities outside of this healthcare system, with unknown exposure risks or prevention strategies.

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#### **Presentation Type:**

Poster Presentation - Poster Presentation

Subject Category: Surveillance

# An Improved Algorithm for the Detection of Ventilator Associated Pneumonia

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**Background:** Ventilator associated pneumonia (VAP) is associated with significant rates of morbidity and all-cause mortality. Active VAP surveillance can identify risk factors for which targeted preventive measures can be implemented. However, surveillance efforts are complicated by challenges associated with accurate VAP diagnosis. We aimed to improve the accuracy and automation of existing VAP diagnostic algorithms to better identify patients at risk. **Methods:** The study was conducted at NYU Langone Health from June 2022 through December 2023. We created a semi-automated VAP surveillance system using the Centers for Disease

