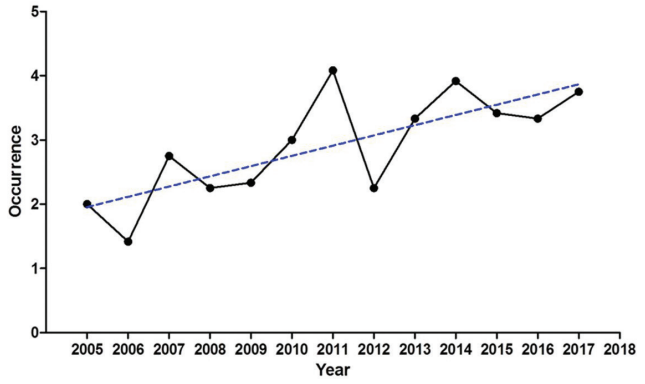

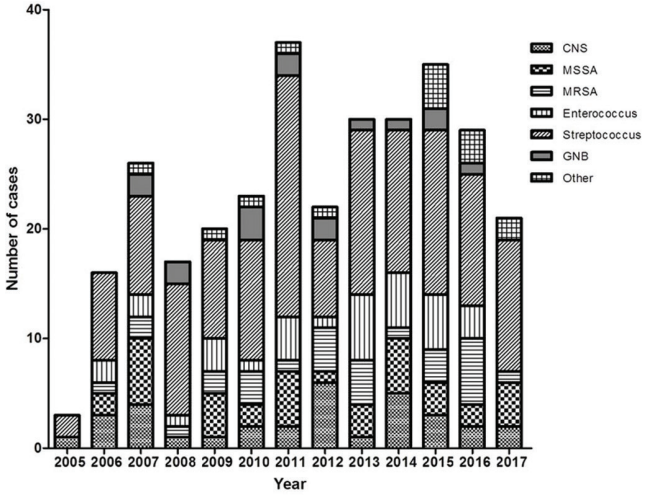

Disclosures. **All authors:** No reported disclosures.

147. Non-Fermenting Gram-Negative Bloodstream Infection: A Multicenter Retrospective Cohort Study

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Session: 37. Bacteremia, CLABSI, and Endovascular Infections
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Background. Few data exist on clinical characteristics, therapeutic management and outcome of patients with Non-Fermenting Gram-negative bloodstream infection (NFGN-BSI). Our aim is to describe a large cohort of patients with NFGN-BSI and to investigate risk factors for 30-day mortality. Further, the impact of the new difficult to treat resistance (DTR) definition will be investigated.

Methods. Retrospective multicenter study of patients diagnosed with NFGN-BSI at three large Italian hospitals (Bologna, Genova, Torino), over a 4-year period (2013–2016). Exclusion criteria: age <18 years, clinical data not available, polymicrobial BSI, death within 72 hours from drawing index blood cultures (BCs). Carbapenem resistance (CR) was defined according to 2015 CDC definitions, and DTR as resistance to all β-lactams and fluoroquinolones. Active empiric therapy (AET) was defined as at least one *in vitro* active drug administered within 24 hours from drawing index BCs. Endpoint was all-cause 30-day mortality.

Results. 521 patients with NFGN-BSI were analyzed: 63.3% male, median age 67 (IQR 55–78) years, median Charlson index 6 (IQR: 3–7). Most episodes were hospital acquired 72.9%. Etiology distribution: *Pseudomonas aeruginosa* 69.9%, *Acinetobacter baumannii* 19.6%, and *Stenotrophomonas maltophilia* 10.6%. CR and DTR rates were 38.6% and 26.9%. Main infection sources were deemed as primary 50.7%, CVC-related 26.5%, and lower respiratory tract 16.3%. Source control and ID consultation were performed in 33.4% and 47.6% of cases. AET rate was 38.2%. Empiric and definitive antibiotic treatment cohorts consisted of 377 and 472 patients, respectively. There was high heterogeneity in antibiotic choice with 30 and 48 different regimens in empiric and definitive cohort, respectively. Combination therapy was administered in 22.3% of empiric cohort and in 37.3% of definitive cohort patients. Independent risk factors for 30-day mortality were age (HR 1.03, 95% CI 1.01–1.05, P = 0.001), SOFA (HR 1.25, 1.15–1.36, <0.001), DTR (HR 2.73, 1.60–4.65, <0.001), and AET (HR 0.50, 0.25–0.99, 0.05).

Conclusion. High heterogeneity in therapeutic management of patients with NF-GNBSI was observed. DTR was a strong predictor of mortality, AET was associated with improved outcome.

Disclosures. **All authors:** No reported disclosures.

148. Retrospective Evaluation of Acute Cholangitis and Clinical Implication and Management of Secondary Bacteremia

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Background. Optimum duration of antimicrobial therapy for acute bacteremic cholangitis is not well established; however, 4–7 days is recommended by the 2018 Tokyo guidelines in those without Gram-positive bacteremia.

Methods. A retrospective study performed at Mayo Clinic - Rochester, Florida and Arizona sites was conducted, reviewing all adult patients with the first episode of acute cholangitis secondary to biliary stone obstruction, between January 1, 2012 and December 31, 2017. We reviewed the duration of prescribed antimicrobials.

Results. Among 331 included cases, 197(60%) were men, 66 (20%) were immuno-compromised. Presenting symptoms included fever in 202 (61.5%), abdominal pain in 289 (87%), jaundice 128(38.7%), and altered mentation in 49 (15%). Among these, 256 (77%) were classified as "definite" and 38 (11.5%) were "suspected" using the 2018 Tokyo guideline classification. Cholangitis grade was grade III in 134 (40.5%); grade II in 115 (34.7%); and grade I in 82 (24.8%). Majority of cases, 321 (97%), underwent source control—most commonly 309 (96%) achieved by endoscopic retrograde cholangiopancreatography (ERCP). Source control occurred within 24 hr of presentation in 197 (61.4%) of the cases. Bacteremia was documented in 131/277 (47%). Majority of bacteremias were due to Gram-negative organisms in 119 (91%). Mean duration of antibiotic therapy following "source control" was 9.6 days (SD 7.0). Cases with bacteremia, resulted in longer treatment duration, mean of 13 days (SD 5.6), regardless of the isolated organism. Overall 30 day mortality was 14/331 (4.2%). No mortality difference was noted in patients who underwent early (within 12 hours) vs. later source control (4.55% Vs. 4.53%), nor in those who received more or less than 6 days of antibiotic therapy after source control (4.7% Vs. 3.9%, P = 0.76). No difference in mortality was observed in those with or without bacteremia.

Conclusion. Our results note the use of longer courses of antimicrobials for management of bacteremic cholangitis, regardless of the organism type. This population could be a prime target for an antimicrobial stewardship intervention, to decrease the duration of prescribed antimicrobials in accordance with recent guidelines.

Disclosures. **All authors:** No reported disclosures.

149. Short vs. Long Course of Antibiotics for Uncomplicated Gram-Negative Bacteremia

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Background. Bloodstream infections (BSI) continue to be a major cause of morbidity and mortality in the United States; thus, the correct choice of antibiotics for an appropriate duration is imperative. However, there are limited recommendations on adequate duration of treatment of bacteremia caused by Gram-negative organisms. Therefore, treating an infection for an adequate duration to prevent complications while preventing adverse effects from unnecessary antibiotic exposure remains a balancing act. This study aims to compare clinical outcomes between patients treated with a short (7–10 days) vs. long (11–20 days) course of antibiotics for uncomplicated gram-negative bacteremia.

Methods. This single-center retrospective cohort study evaluated adult patients admitted between January 2007 to October 2018 with a blood culture positive for gram-negative bacteria. Data came from the University of Kentucky Microbiological Laboratory and Center for Clinical and Translational Science (CCTS) Data Bank. Patients included must have received appropriate antibiotics for at least 7 days. Appropriate antibiotics were defined as those to which the organism is susceptible with day one of therapy as the first day of appropriate antibiotic therapy. Patients were excluded if they were treated with aminoglycoside monotherapy, had polymicrobial bacteremia, or if treated for longer than 20 days of therapy.

Results. A total of 466 patients were identified (208 in the short-course group and 258 in the long course group). Gender and ethnicity were similar across both groups. The patients in the long course group had more ICU admissions compared with the short-course group (52.7% vs. 43.3%, P = 0.0426), tended to be older (57 ± 16.7 vs. 53 ± 15.9 years, P = 0.0119), had a higher Charlson Comorbidity Index (5.7 ± 3.6 vs. 4.6 ± 3.6, P = 0.0009) and remained admitted to the hospital longer (23.2 ± 25.6 vs. 15.8 ± 17.5 days, P = 0.0002). However, patients treated with a long course had no difference in 30-day mortality compared with the short-course group (3.9% vs. 3.4%, P = 0.7701).

Conclusion. Patients with an uncomplicated gram-negative BSI treated with a short course (7–10 days) of antibiotics do not appear to have a significant difference in 30-day mortality compared with those patients treated with a long course (11–20 days).

Disclosures. **All authors:** No reported disclosures.