had urine cultures sent, of which 46 (7%) were positive. In all, 407 urine cultures (61.9%) were obtained by clean catch, 233 (35.4%) were obtained by urethral catheterization, 2 (0.3%) were obtained by Foley catheter, and 16 (2.4%) were unspecified. Among the 46 positive cultures, 32 (69.6%) had ≥10 WBC/HPF, and 55 (9.0%) of 612 negative cultures had ≥10 WBC/HPF. Of the 14 patients with positive urine cultures without pyuria, 8 had a contaminated sample or asymptomatic bacteriuria, 3 had urologic abnormalities, and 3 were infants aged <3 months. Of the 14 patients, 3 (21.4%) had a consistent clinical presentation for UTI and were treated with antibiotics: 2 were infants aged <3 months and 1 had urologic abnormalities. Using the ≥10 WBC/HPF threshold compared to 'true UTI,' sensitivity was 91.4%, specificity was 91.5%, positive predictive value was 36%, and NPV was 99.5%. Sensitivity and NPV increased to 100% when infants aged <3 months and urologic patients with positive urine culture were excluded. We estimated a cost saving of ~$200,000 had reflexive testing been in place. **Conclusions:** A reflexive urine culture for specimens with ≥10 WBC/HPF would have reduced the number of urine cultures substantially because 571 (86.8%) of 658 urine cultures would not have been performed. To prevent missed diagnoses of UTI, infants aged <3 months and children with urologic abnormalities should be excluded from this diagnostic stewardship intervention.

Disclosures: None

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Presentation Type:
Poster Presentation - Poster Presentation
Subject Category: Diagnostic/Microbiology
Assessment of endotracheal aspirate culture appropriateness among adult ICU patients at an academic medical center
Michael Chambers; Romney Humphries; Bryan Harris and Tom Talbot

Background: Ventilator-associated pneumonia (VAP) is a significant cause of mortality in intensive care units (ICUs), but minimal research exists regarding the appropriateness of ordering endotracheal aspirate cultures (EACs). We evaluated the diagnostic utility of rationales given for EAC collection in ICUs at an academic medical center to assess potentially inappropriate EAC ordering. **Methods:** The study population comprised all adult patients admitted to an ICU in 2019 who underwent EAC collection. A random 10% sample from this population, stratified by ICU type, was selected. Clinical and diagnostic characteristics within 24 hours of EAC collection were identified by chart review. Clinical documentation was reviewed to identify ICU provider rationales for ordering EAC. **Results:** In total, 749 patients underwent EAC collection. Among them, 75 patients comprised the random sample, of whom 7 (9.3%) were excluded due to extubation before culture collection. Figure 1 shows patient distribution by ICU type. From these 68 patients, 105 EACs were collected. Of these, 41 (39%) were positive for potential pathogens, and 59 (56.2%) had explicit rationales for EAC collection, including fever (44.1%), hypoxia (18.6%), leukocytosis (16.9%), secretions (11.9%), shock (10.2%),

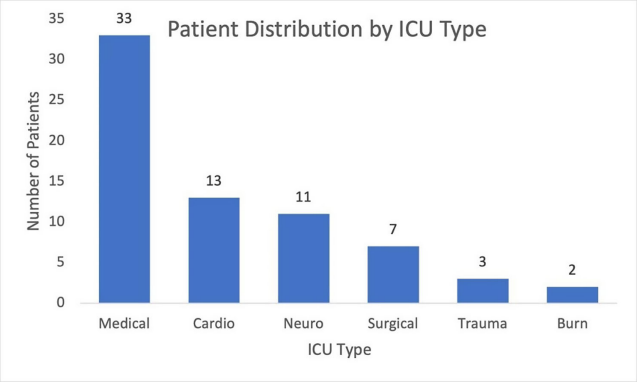

Table 1: Clinical and Diagnostic Characteristics among ICU Patients within 24 Hours of EAC Collection

Characteristic	Sensitivity (%)	Specificity (%)	Positive LR	Negative LR
Fever	70.7	53.1	1.5	0.6
Hypothermia	12.2	81.3	0.7	1.1
Hypoxia	41.5	62.5	1.1	0.9
Leukocytosis	**68.7**	**28.1**	**0.9**	**1.2**
Leukopenia	8.8	96.7	2.7	0.9
Secretions				
Thick	39.0	65.6	1.1	0.9
Bloody or pink	9.8	82.8	0.6	1.1
Tan	31.7	79.7	1.6	0.9
Green	2.4	98.4	1.6	1.0
Yellow	14.6	90.6	1.6	0.9
Shock				
Pressor requirement	36.6	59.4	0.9	1.1
Three or more pressors	12.2	93.8	2.0	0.9
Imaging				
Consolidation	4.9	89.1	0.4	1.1
Opacity	22.0	75.0	0.9	1.0
Atelectasis	48.8	64.1	1.4	0.8
Effusion	22.0	65.6	0.6	1.2
Pulmonary edema	26.8	82.8	1.6	0.9
No Rationale Given for EAC	36.6	51.6	0.8	1.2

LR = Likelihood Ratio
EAC = Endotracheal Aspirate Culture

and radiologic findings (8.5%). Also, 43.8% of EACs had no explicit rationale for collection. Table 1 shows sensitivities, specificities, positive likelihood ratios (LRs), and negative LRs for these rationales and related characteristics. **Conclusions:** EACs were commonly ordered without clear clinical indications. Of the noted rationales for EAC collections, most performed poorly at predicting positive cultures, which challenged common rationales for ordering EAC. This study could serve as a foundation for diagnostic stewardship interventions for EAC, potentially decreasing unnecessary cultures.

Disclosures: None

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Presentation Type:
Poster Presentation - Poster Presentation
Subject Category: Dialysis
Developing a statewide infection prevention program assessment service for dialysis settings using a six-sigma framework
Chelsea Ludington and Renee Brum

Background: Due to the need for recurrent and direct access to the bloodstream, patients who require hemodialysis are at higher risk of developing healthcare-associated infections. Failure to assess gaps in systems and processes impedes the implementation of quality and performance improvement initiatives. In Michigan, there is no consultative service offered to dialysis units to assist with infection prevention practices, and no statewide dialysis data are being utilized. The Michigan Department of Health and Human Services developed a consultative, nonregulatory service dedicated to providing a comprehensive assessment of dialysis-based infection prevention programs. **Methods:** A multidisciplinary team created an infection prevention dialysis evaluation program using the six-sigma define–measure–analyze–design–verify model. These elements included content within the dialysis-specific Infection Control Assessment and Response (ICAR) Tool from the CDC with supporting program assessment items. From August 2021 through August 2022, the team completed 17 inpatient dialysis assessments within our cohort's 17 hospitals. Data were analyzed using descriptive statistical analysis, and the final analysis included 1,086 observations from the developed assessment tool. Observations were grouped into 7 infection prevention categories: appropriate use of single and multiuse devices and supplies, aseptic technique, bloodborne pathogen prevention, cleaning and disinfection, hand hygiene, personal protection equipment (PPE) use, and storage of