



Fig. 1.

**Presentation Type:**

Poster Presentation

**Impact of Positive Vancomycin-Resistant *Enterococcus* (VRE) Screen Result on Appropriateness of Definitive Antibiotic Therapy**

Jenna Reynolds, Mayo Clinic Arizona; Lynn Chan, Mayo Clinic Arizona; Raelene Trudeau, Mayo Clinic Arizona; María Teresa Seville, Mayo Clinic Arizona

**Background:** Vancomycin-resistant *Enterococcus* (VRE) screening has been utilized to identify colonized patients to prevent transmission. However, little is known about the utility of screening to guide antibiotic therapy. We assessed the appropriateness of definitive therapy in patients with a VRE screen and evaluate the predictive value of screening for the development of a VRE infection. **Methods:** In this retrospective study, we evaluated VRE screening of patients aged  $\geq 18$  years admitted between June 1, 2015, and May 31, 2018, to a 280-bed, academic, tertiary-care hospital. Rectal swabs were tested using Cepheid Xpert. Screening was performed routinely on admission for hematologic malignancy and liver transplantation patients. Only the first screen result was included for patients who had multiple VRE screens. The patient was classified as having a VRE infection if any *Enterococcus* isolates were vancomycin resistant. The primary outcome was appropriateness of antibiotic therapy in patients who had a VRE screen. Appropriateness of VRE-directed therapy was defined as therapy with linezolid or daptomycin for patients who had a positive VRE culture and an identifiable source of infection, or who had no clinical improvement on alternative therapy, or who had a documented  $\beta$ -lactam allergy. If appropriateness was unclear, 2 infectious diseases specialists determined appropriateness. **Results:** In total, 1,374 patients who had a rectal VRE screen met inclusion criteria. Of these, 1,053 (88%) had a negative screen. We detected no difference in the appropriateness of VRE-directed therapy between patients with a positive screen and those with a negative screen (59.3% vs 61.0%;  $P = .8657$ ). The VRE screen had a sensitivity of

60% (95% CI, 43%–74%), specificity of 90% (95% CI, 88%–92%), positive predictive value of 18% (95% CI, 12%–25%), and negative predictive value of 98% (95% CI, 97%–99%) for VRE infection. **Conclusions:** Although VRE screening may have utility to detect colonization in high-risk patients, a positive VRE screen is of limited value in determining the need for VRE-directed therapy. Patients with a negative VRE screen have a low likelihood of developing a VRE infection, and a negative screen could be used to identify patients who may not require empiric coverage for VRE. Further research is needed to determine optimal utilization of VRE screening for prediction and treatment of VRE infections.

**Funding:** None**Disclosures:** None

Doi:10.1017/ice.2020.829

**Presentation Type:**

Poster Presentation

**Impact of Rapid PCR Influenza Testing on the Rate of Inpatient Admissions During Influenza Season at a Tertiary-Care Center**

Jordan Polistico, Detroit Medical Center Infectious Disease; Avnish Sandhu, Detroit Medical Center; Teena Chopra, Wayne State University; Erin Goldman, Detroit Medical Center-Wayne State University; Suganya Chandramohan; Jennifer LeRose, Michigan State University; Ashwin Ganesan, Detroit Medical Center

**Background:** Influenza causes a high burden of disease in the United States, with an estimate of 960,000 hospitalizations in the 2017–2018 flu season. Traditional flu diagnostic polymerase chain reaction (PCR) tests have a longer (24 hours or more) turnaround time that may lead to an increase in unnecessary inpatient admissions during peak influenza season. A new point-of-care rapid PCR assays, Xpert Flu, is an FDA-approved PCR test that has a significant decrease in turnaround time (2 hours). The present study sought to understand the impact of implementing a new Xpert Flu test on the rate of inpatient admissions.