

primary outcome was the proportion and predictors of OPAT complications. The secondary outcomes were OPAT completion rate, 30-day ED visit, and 30-day readmission rates related to OPAT complications. We used univariable and multivariable analyses using logistic regression models for the predictors of OPAT complications. Variables with  $p \leq 0.05$  (OR, 0.281, 95% CI 0.101–0.784), but they were more likely to have received two antibiotics (OR, 2.265; 95% CI 1.155–4.442). However, no significant independent predictor OPAT complications was identified in multivariable regression analysis (Figure 2). OPAT completion rates were lower in patients with complications (59.1% versus 75.4%). The 30-day ED visit and 30-day readmission rates were significantly higher in the complication group (31.8% vs. 0 and 34.1% vs. 2.1%, respectively). **Conclusion:** Our study highlights the significant difference in treatment completion rates and higher incidence of ED visits and readmissions rates among those with OPAT complications. Although specific independent predictor was not identified, the association with multiple antibiotic therapies and telemedicine follow-ups suggests areas for further investigation.

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Poster Presentation - Poster Presentation

**Subject Category:** Antibiotic Stewardship

**Evaluating the Generalizability of an Electronic Algorithm to Identify Vancomycin-Associated Acute Kidney Injury**

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**Introduction:** Vancomycin-associated acute kidney injury (V-AKI) is a common adverse reaction; however, there is currently no method to systematically monitor its incidence. We previously developed and internally validated an electronic algorithm to identify cases of V-AKI using structured electronic health record data at the Johns Hopkins Hospital, which demonstrated excellent agreement with chart review (percent agreement 92.5%; weighted kappa coefficient 0.95), as well as excellent sensitivity (89.7%) and specificity (98.2%) in detecting at least possible V-AKI events. The objective of this study was to evaluate the generalizability of the V-AKI electronic algorithm. **Methods:** We identified a retrospective cohort of adult and pediatric patients who received  $\geq 1$  dose of intravenous vancomycin while admitted to University of Virginia (UVA) Medical Center from 1/2021-1/2023. An increase in creatinine (Cr) of  $\geq 0.3$  mg/dL within 48 hours or  $\geq 50\%$  increase in baseline Cr within 7 days, occurring after the first dose and up to 72 hours after the last dose of IV vancomycin, was considered a potential V-AKI event. The electronic algorithm was executed at UVA with only limited contextualization of hospital specific variables (e.g., procedure names). Patients were categorized as excluded/not meeting criteria, or as having an unlikely, possible or probable V-AKI event using a causality framework. A random subset of the cohort underwent chart review by a blinded reviewer for external validation. Percent agreement and a weighted kappa coefficient were calculated. The sensitivity and

	Electronic Algorithm Assessment				
	Excluded	Did Not Meet Criteria	Unlikely	Possible	Probable
Excluded	45	0	5	3	0
Did Not Meet Criteria	0	7	5	5	4
Unlikely	0	0	28	16	8
Possible	0	1	7	21	16
Probable	0	0	4	6	19

} At Least Possible

specificity in identifying at least possible V-AKI events was determined. **Results:** The electronic algorithm was validated using 200 cases and demonstrated 60.0% percent agreement with chart review (Figure). The weighted kappa coefficient was 0.75. The algorithm was 83.8% sensitive and 71.4% specific in detecting at least possible V-AKI events. Among the 80 discrepant cases, there was only a 1-category difference in 62.5% of cases. The most common reasons for discrepant assessments, which were partly due to inconsistencies in chart review, included disagreement regarding timing of AKI onset (18.6%) and whether renal function returned to baseline (16.3%). **Conclusions:** An electronic algorithm to identify V-AKI events was successfully implemented at another institution. Although agreement with chart review was only fair, sensitivity in detecting at least possible V-AKI events remained excellent. The electronic algorithm may be useful for systematically and reproducibly identifying V-AKI events across institutions in a scalable manner to inform stewardship interventions. However, further refinement of the algorithm and improvement in consistency of chart review assessments is needed.

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**Impact of MIC Breakpoint Changes for Enterobacterales on Trends of Antibiotic Susceptibilities in An Academic Medical Center**

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