



Disclosures. All authors: No reported disclosures.

1026. Trends in Infective Endocarditis During the Substance Use Disorder Epidemic at an Academic Medical Center

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Background. In many areas of the United States, substance use disorders (SUD) have increased dramatically over the past decade. Overdose deaths have increased as well, and Kentucky ranks among the nation's leaders in deaths per 100,000 population. Infective endocarditis (IE) is a well-known complication of intravenous drug use, contributing to significant morbidity and mortality, but few studies have evaluated the effect of the current SUD epidemic on rates and demographics of IE. We sought to examine the trends in IE and IE with SUD at our institution.

Methods. We collected data from patients admitted to a large academic medical center in Kentucky between January 1, 2013 and December 31, 2016. Patients were classified according to the International Classification of Diseases, Tenth Revision. Patients were considered to have IE if they received codes I33 or I38. Patients were considered to have an SUD if they received codes F11.10, F15.10, F14.10, F19.10, or Z86.59. Data were collected through the TriNetX database (TriNetX, Cambridge, MA).

Results. There were 2,100 cases of IE during the study period. The mean (SD) age was 53 years (21). Of those, 440 also had an SUD. The mean (SD) age of these patients was 41 years (11). Patients in both the IE and IE/SUD categories were primarily male (54% and 55%) and white (94% and 94%). The number of cases of IE increased from 190 in 2013 to 430 in 2016 ($R^2 = 0.9877$). The number of IE cases diagnosed as having an SUD increased from 30 (16% of all IE cases) in 2013 to 130 (30% of all IE cases) in 2016 ($R^2 = 0.7352$ for the trend). This increase in cases corresponds to a 333% increase in the number of cases of IE with SUD.

Conclusion. Between 2014 and 2016, opioid overdose deaths in Kentucky rose from 24.7 to 33.5 per 100,000 population, a 35.6% increase. During a similar time-frame, the number of IE cases associated with SUD at our institution rose 333%. While it is possible that increased coding of substance use disorders factored into this dramatic increase, it appears that the number of IE cases associated with SUD is rising at a disproportionately rapid rate.

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1027. Outpatient Parenteral Antimicrobial Therapy (OPAT) in Injection Drug Users (IDUs): Is It Safe?

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Background. OPAT is widely implemented in the United States. However, there are concerns surrounding discharge of IDU with a peripherally inserted central catheter (PICC). The objective of this study was to evaluate the characteristics and treatment outcomes of IDUs discharged on OPAT.

Methods. This is a retrospective observational study conducted on patients discharged from an Infectious Diseases unit at a quaternary academic healthcare center in Detroit. Charts of all IDUs discharged on OPAT between 2011 and 2017 were reviewed. Current or former IDU were discharged on OPAT if they met the following criteria: self-reported history of IDU, stable living conditions, controlled psychiatric illness (if present), and willingness to sign a discharge agreement to refrain from using the PICC as a route for illicit drugs. Patients were categorized based on clinic follow-up vs. no clinic follow-up. Outcomes evaluated were: cured (completed treatment and symptom free for 1 month after completion), improved (symptoms were improved but there was no confirmation of treatment completion); and relapsed (readmitted within 30 days for the same infection or sequela). Outcomes of patients with no clinic follow-up were based on chart review of subsequent emergency department visits or admissions.

Results. Patient characteristics are shown in Table 1. Of the 61 patients evaluated, 33 (54.1%) attended clinic follow-up and 28 (45.9%) did not. Outcomes based on clinic follow-up are shown in Table 2. Of the 18 patients who were cured, 16 attended clinic follow-up vs. two who did not.

Conclusion. This study demonstrates that some IDUs can be discharged safely on OPAT. Patients with clinic follow-up had improved outcomes compared with those who did not. Further studies are needed to look at other predictors of outcome in this patient population.

Table 1: Patient Characteristics

	Patients N = 61 (%)
Age (mean ± SD)	±12.4
Male	33 (54.1)
Length of stay (days) mean ± SD	± 10.9
IVDU status	
Active	49 (80.3)
Former	10 (16.4)
Unknown	2 (3.3)
Psychiatric illness Disposition	12 (19.7)
Home	37 (60.6)
Nursing facility	24 (39.3)

Table 2. Outcome Based on Clinic Follow-up

	Clinic Follow-up N = 33 (%)	No Clinic Follow-up N = 12 (%)	P value
Cured	16 (48.5)	2 (16.7)	0.086
Improved	14 (42.4)	6 (50)	0.74
Relapsed	3 (9)	4 (33.3)	0.069

Sixteen patients were excluded from the analysis because their outcome was unknown.

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1028. Synergizing Infectious Diseases and Substance Use Treatment to Improve the Outcomes of Endocarditis in People Who Inject Drugs at a Large Academic Hospital

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Background. Philadelphia is at the epicenter of the urban opioid epidemic: currently more than 70,000 individuals use heroin and in the year 2017 there were 1,200 overdose deaths. Endocarditis in patients with opioid use disorder (OUD) requires long hospitalizations for IV antibiotic use that delays the initiation of rehabilitation and opioid replacement therapy. We decided to implement an integrative approach to both problems. During the first step (this study), we evaluated the current care and identified areas that could be improved and in a second step developed an intervention with the goal to improve long-term outcomes.

Methods. We conducted a retrospective chart review of patients admitted to the Hospital of University of Pennsylvania with infective endocarditis (IE) and OUD from July 2016 to June 2017. Patients were identified via ICD-10 codes for infective endocarditis and substance use.

Results. Among the 669 admissions for patients with a diagnosis of OUD, 37 had IE (33 unique patients). Seventy-three percent of those required valve replacement surgery. Mean length of stay was 32 days (IQR 16, 49), 10% left against medical advice. The overall readmission rate was 55%. The most common valves involved were tricuspid with 20 (54%) and 10 aortic (27%). On discharge, only 6 (18%) of the patients were discharged on Medication Assisted Treatment (MAT), 14 (38%) were discharged with