The Impact of Addiction Medicine Consultation on Discharges Against Medical Advice in Patients with Opioid Use Disorder and *Staphylococcus aureus* Bacteremia

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Background

- People who inject drugs (PWID) are at risk for infections, including *Staphylococcus aureus* bacteremia (SAB)
- Prolonged hospitalization is often required; however, this population frequently leaves the hospital before their planned discharge, or against medical medical advice (AMA)
- Inadequate control of pain and opioid withdrawal are commonly cited as reasons for not staying
- Addiction medicine consult service is relatively new at our institution and helps manage opioid use disorder (OUD)

Purpose

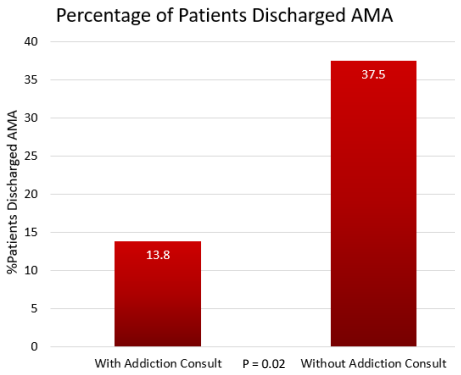
- Our aim was to assess if PWIDs admitted with SAB had lower rates of AMA discharges if they were evaluated by an addiction medicine consultant

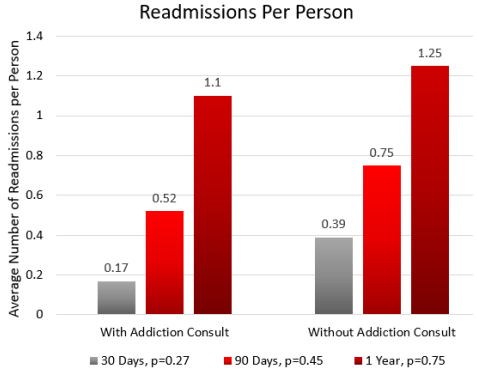
Methods

- We performed a retrospective chart review of adults admitted to an urban hospital with SAB between 9/2016 and 5/2018
- We started by looking at charts of patients with SAB
- We included patients with active injection opioid use at the time of admission
- We excluded patients who did not use drugs, who only used intranasal or oral opioids, who injected other drugs but not opioids, or who were already on opioid replacement therapy
- We recorded patient demographics and presence or absence of addiction medicine consultation in a RedCap database
- We assessed whether discharges were planned or AMA, the duration of hospitalization, the number of re-admissions, and death within one year
- EpiInfo6 was used for data analysis

Characteristics Between Groups

	Total	With Addiction Consult	Without Addiction Consult	P Value
Mean age in years	37	36.3	37.1	0.99
Sex, Male	65/101 (64%)	21/29 (72%)	44/72 (61%)	0.36
Ethnicity, White Non-Hispanic	67/100 (67%)	19/29 (68%)	48/72 (67%)	1.0
Ethnicity, Hispanic	22/100 (22%)	6/29 (21%)	16/72 (22%)	1.0
Ethnicity, African American	10/100 (10%)	3/29 (11%)	7/72 (10%)	1.0
Ethnicity, Asian/Pacific Islander	1/100 (1%)	0/29 (0%)	1/72 (1%)	1.0
HIV	13/97 (13%) 4 not recorded	4/29 (14%)	9/68 (13%)	1.0
HIV Controlled (viral load <50)	2/13 (15%)	0/4 (0%)	2/9 (22%)	1.0
HCV	80/97 (82%) 4 not recorded	25/29 (86%)	55/68 (81%)	0.77
HCV Treated	3/80 (4%)	1/25 (4%)	2/55 (4%)	1.0
Mean Duration of Hospitalization in Days	20.6	25.5	18.6	0.08





Results

- 360 patients with SAB were reviewed
- 101 had injection opioid use at time of admission and were included
- Addiction medicine was consulted on 29/101 patients
- Demographics between groups were similar
- 4/29 (13.8%) of patients with addiction consult left AMA, compared to 27/72 (37.5%) without consult (RR = 0.37 [95% CI = 0.14 - 0.96], p = 0.02). These results were unchanged if patients hospitalized for <2, 3, or 4 days were excluded
- A trend towards longer hospital stays and fewer readmissions was seen in the addiction consult group
- At one year, 2 deaths were seen in group with consults and 4 were seen in the group without

Conclusions

- Consultation with an addiction medicine specialist was associated with a significant decrease in the number of discharges AMA in PWID presenting with SAB
- Patients with a consult had a longer duration of stay, though this was not statistically significant
- Fewer readmissions were observed after consultation, though this also did not meet statistical significance
- There were high rates of HIV and HCV in this patient population
- Mortality in both groups was low overall, but high for this age group

Limitations

- ID consult for SAB became mandatory in 7/2017
- Our institution's general practices for managing opioid use disorder have changed over the study period
- We did not assess the effect of the timing or the type of pain regimen used (methadone, buprenorphine, etc)
- We did not assess if the severity of infection, level of care, or complications of SAB affected outcomes