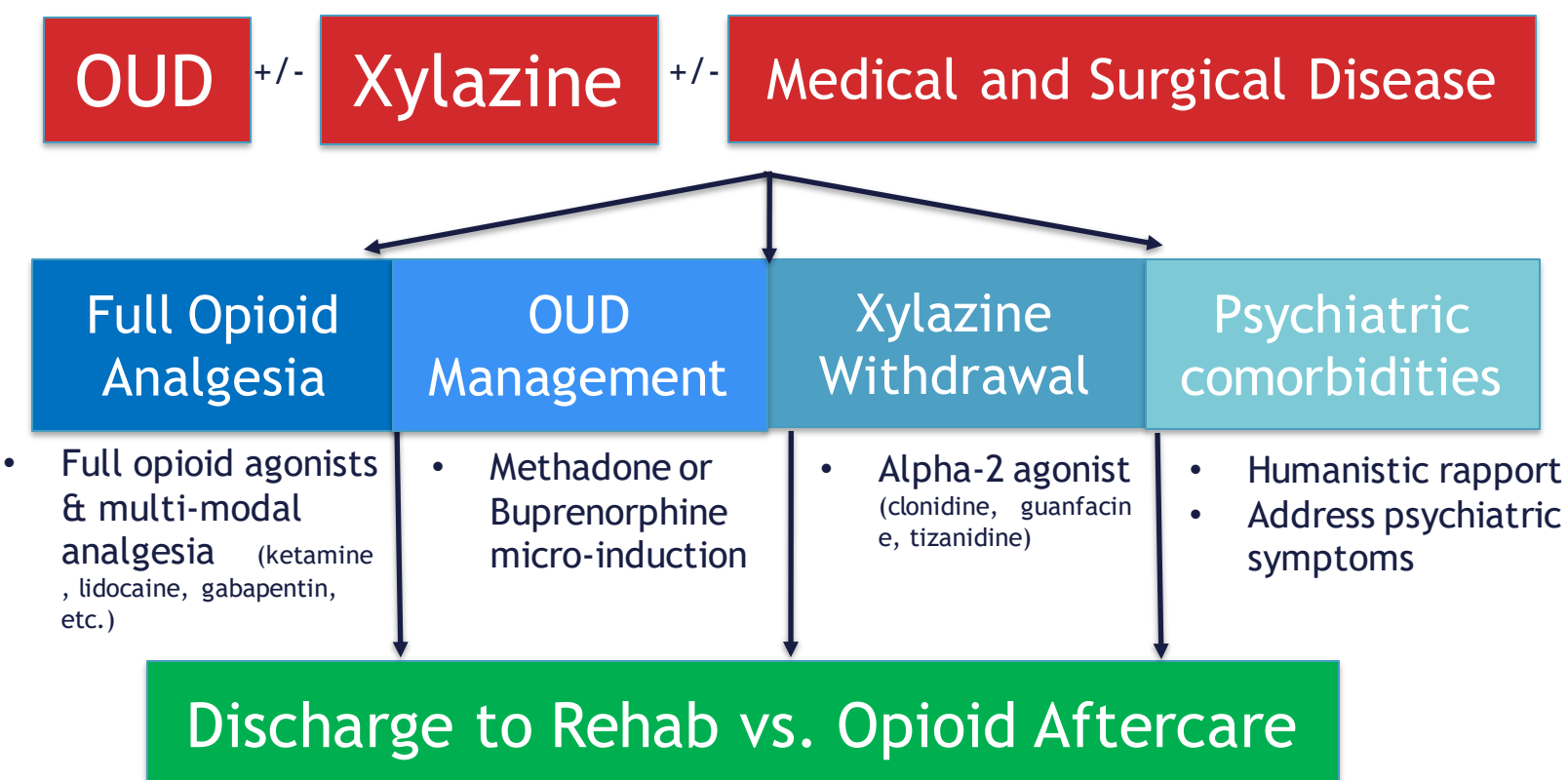


Background

- Deaths from **Opioid Use Disorder (OUD)** continue to rise in most of the United States^{1,2}.
- **Fentanyl** has replaced heroin, accounting for 82% of all opioid-involved deaths in 2020².
- **Xylazine** is increasingly detected in illicit drug supply, resulting in progressively complex toxidrome^{1,3}.
- OUD population represents diverse demographics and complex medical, psychiatric, and social needs.

Jefferson Addiction Multidisciplinary Service (JAMS) created at TJUH in 2022 to optimize buprenorphine micro-induction protocol to initiate MOUD while treating acute pain, utilizing multidisciplinary approach:



Methods

- Demographic and clinical data obtained from 49 JAMS consult patients October 2021-October 2022 from EMR.
- Data entered directly into secured REDCap database after Jefferson IRB approval.
- Socio-demographic data, urine toxicology, xylazine use, psychiatric, medical, and surgical comorbidities, buprenorphine micro-induction protocol status, medical/surgical treatment, discharge against medical advice (AMA), disposition variables, and readmission rates were compared between patients.
- Rate of self-directed hospital readmission compared using χ^2 (Chi-squared) test across variables, including leaving hospital AMA.

Results

Demographics	
Age	40.9±10.8
Sex	69% Male (n=34) 31% Female (n=15)
Race	8.3% Black (n=4) 91.7% White (n=44)
Ethnicity	14.3% Hispanic (n=7) 85.7% Non-Hispanic (n=42)
Housing	58.3% Unhoused (n=28) 41.7% Sheltered (n=20)
Education	71.4% 12+ years (n=15) 28.6% <12 years (n=6)

Opioid Use Disorder	
Current MOUD	14.3% (n=7)
Past MOUD	65.3% Suboxone (n=32) 38.8% Methadone (n=19)
Past Rehab	80% (n=32)
Reported Xylazine	63.6% (n=21)

Treatment Course	
Urine Drug Screen	83.7% (41/49) tested for fentanyl on admission 97.6% (40/41) fentanyl+ 76.6% (36/49) opiate+
Tizanidine Management	53.1% (n=26)
Social Work Support	100% (n=50)
CRS Support	87.8% (n=43)
Completed Micro-induction Protocol	85.7% (n=42)
Left AMA	36.7% (n=18)
Readmitted	65.3% Overall (n=32) •88.9% who left AMA* (n=16) •51.6% of medically discharged (n=16)

Comorbidity	
Comorbid Psychiatric Diagnosis	72.9% (n=35)
Comorbid Substance Use Disorder	31.3% (n=15)
Medical Comorbidity	91.8% (n=45)
Requiring Surgical Intervention	66.7% (n=32)
Chronic Wounds/Abscesses	61.2% (n=30)

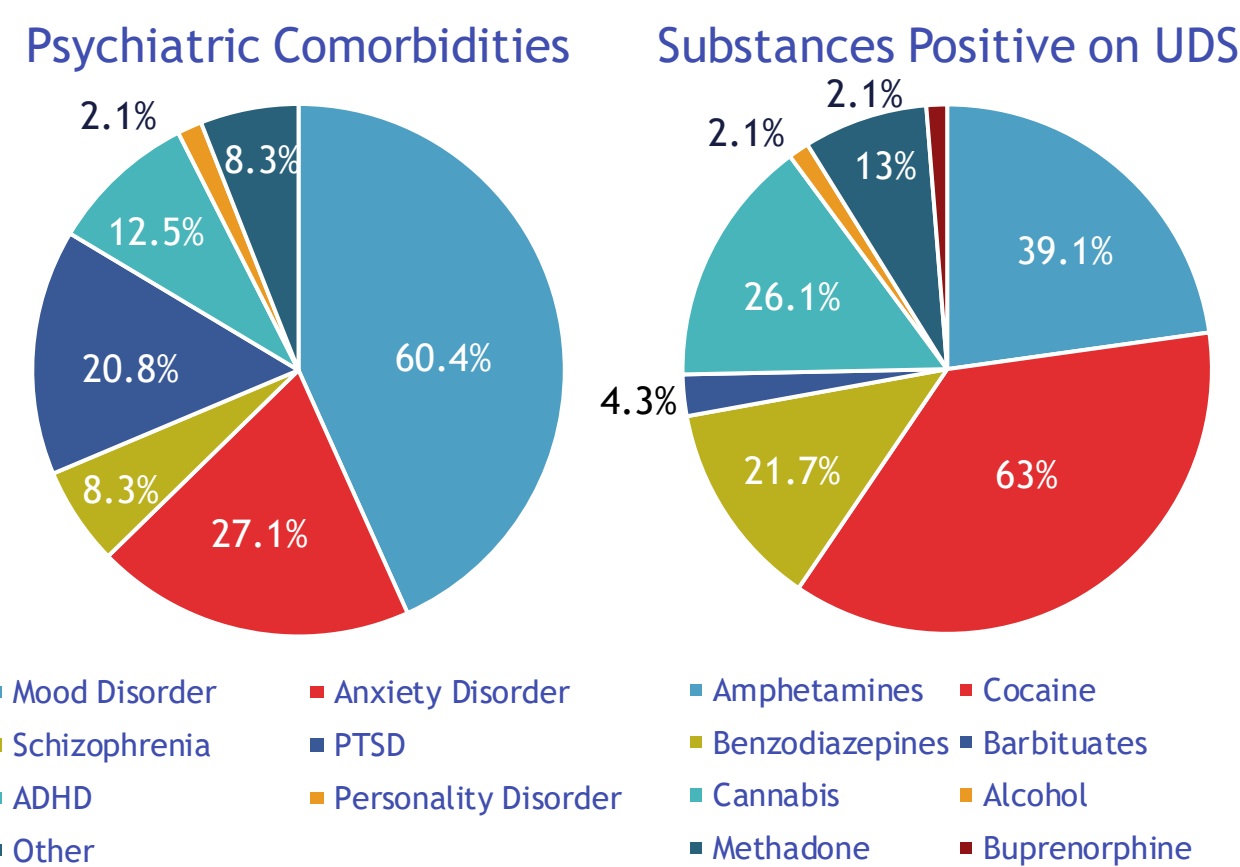


Figure 1: Psychiatric comorbidities amongst patients undergoing micro-induction. **Figure 2:** Substances positive on urine drug screen (UDS) for patients undergoing protocol.

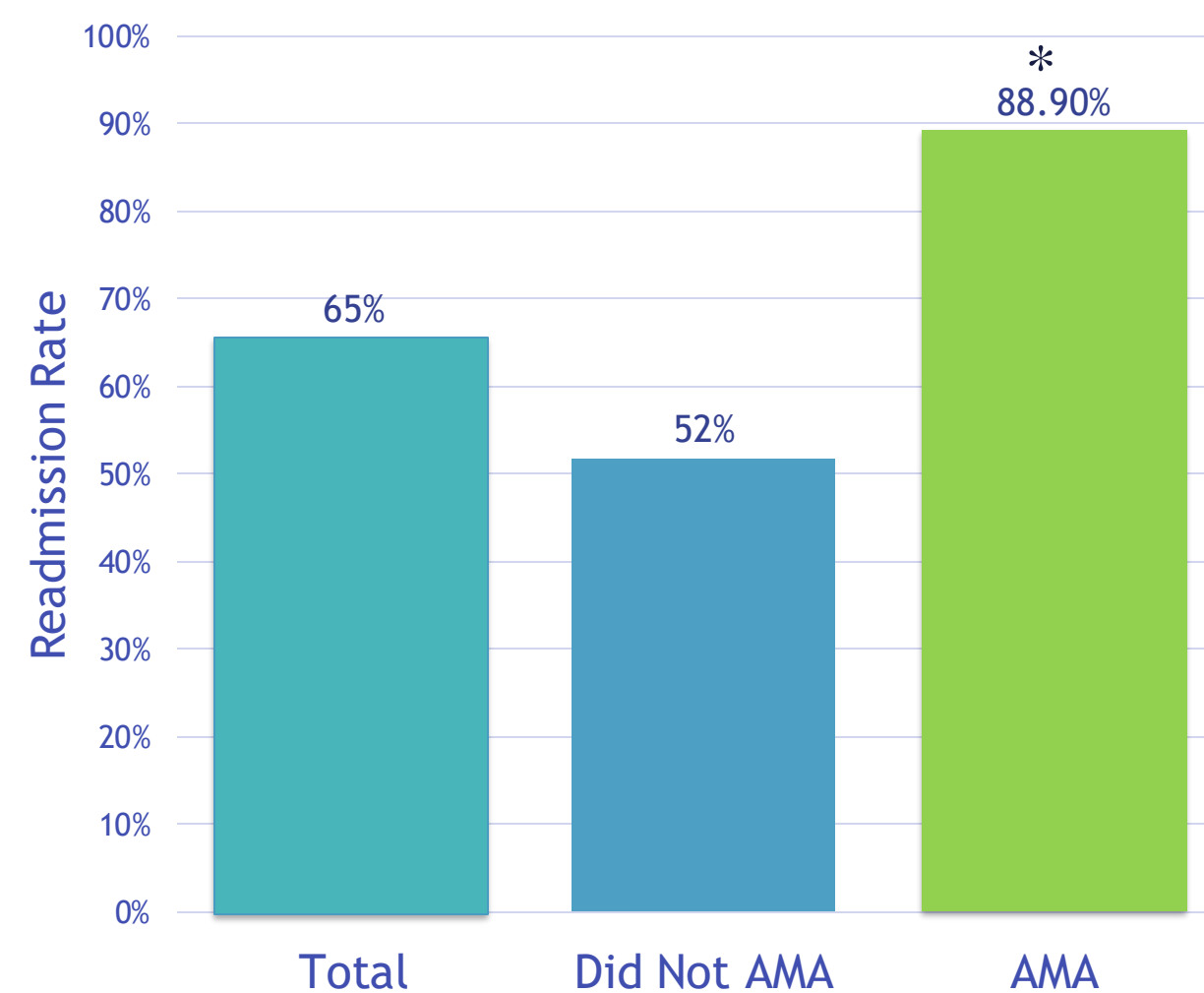


Figure 3: Patients who left the hospital against medical advice (AMA) were more likely to be readmitted to the JAMS service. (χ^2 (chi-square), p = 0.0082)

Discussion

- With high rates of fentanyl (97.6%) and xylazine (63.6%) use, effective management of OUD requires quadruple aim to address:
 - 1) **Pain** (full opioid agonist)
 - 2) **Opioid withdrawal**
 - 3) **Xylazine withdrawal** (tizanidine)
 - 4) **Psychiatric & medical comorbidities**
- JAMS patients still had *high* rates of AMA and readmission, reflecting clinical complexity and longitudinal, relapsing nature of OUD throughout lifespan.
- Unlike management of medical illness (where high readmission rates represent ineffective disease management), self-directed readmission in JAMS may represent a *positive* impact.
 - Represents improved therapeutic alliance in stigmatized population; willingness to return.

Conclusion

- In Philadelphia, OUD represents a complex and diverse population that requires innovative approaches in the acute setting.
- Future studies needed to examine:
 - Relationship between JAMS service and rates of AMA/readmission.
 - What factors within JAMS and outside stressors impact self-directed readmission?
 - Conceptualizing patients with OUD across lifespan necessitates bridging gaps between inpatient and outpatient aftercare.

References

- 1) Friedman J, Montero F, Bourgois P, et al. Xylazine spreads across the US: A growing component of the increasingly synthetic and polysubstance overdose crisis. *Drug Alcohol Depend.* 2022;233:109380. doi:10.1016/j.drugalcdep.2022.109380
- 2) United States CDC; <https://www.cdc.gov/drugoverdose/deaths/>
- 3) Johnson, J; Pizzicato, L; Johnson, C; Viner, K. Increasing presence of xylazine in heroin and/or fentanyl deaths, Philadelphia, Pennsylvania, 2010-2019.

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