Methadone Dose and Patient-Directed Discharge in Hospitalized Persons with Prior Methadone Enrollment

William Garneau MD MPH MHS[1], Rebecca Meredith MD[1], Lindsay Bowman PharmD[2], Rosalyn Stewart MD MS MBA[3], Javier Cepeda PhD MPH[4], Kelly Gebo MD MPH[5], Megan Buresh MD[6]

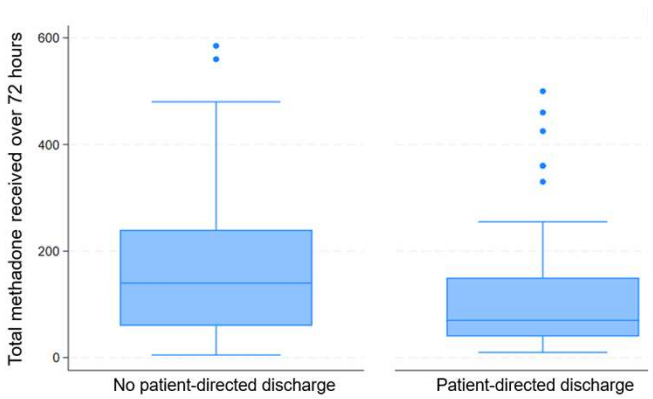
[1] Department of Medicine, Division of Hospital Medicine [2] Department of Pharmacy, Johns Hopkins Hospital [3] Addiction Consult Service, Johns Hopkins Hospital [4] Department of Epidemiology, Johns Hopkins School of Public Health, [5] Division of Infectious Diseases [6] Addiction Consult Service, Bayview Medical Center; Johns Hopkins University School of Medicine, Baltimore, MD, USA

Background

- 10-20% of hospitalizations for patients with OUD end in patient-directed discharge (PDD) which interferes with longitudinal management and is associated with increased 30-day readmission and one-year mortality[1–3]
- Stigma, undertreatment of pain, and withdrawal are common reasons for PDD[4]
- This phenomenon is exacerbated by prevalence of high-potency synthetic opioids (HPSO) such as fentanyl in the illicit drug supply which further complicates management
- We hypothesized that PDD may be due to untreated opioid withdrawal and may be inversely related to dosage and timing of medications for opioid use disorder (MOUD)

Methods

- Retrospective observational study of adult patients (age >18) with inpatient hospitalization between July 1, 2019 – June 30, 2022 with an ICD-10-CM diagnosis of OUD and methadone on medication list
- Exposure of interest was timing and dose of methadone following first contact with emergency department
- Primary outcome of interest was patient-directed discharge, which was defined as any discharge categorized as "Against Medical Advice" or "AWOL (Absent Without Leave)"
- The relationship between PDD and continuous variables and categorical were assessed using the Kruskal-Wallis test and Pearson's $\chi 2$ as appropriate



Dose of methadone during first 72 hours was associated with lower risk of patient-directed discharge

Median methadone dosage, stratified by PDD

		Patient-directed discharge			
	Time from triage	No	Yes	Total	p value
		1,181 (92%)	99 (8%)	1,280 (100%)	
Total dose (mg)	24 hours	60 (IQR 70)	30 (IQR 70)	60 (IQR 70)	0.124
Total dose (mg)	48 hours	90 (IQR 112)	63 (IQR 90)	90 (IQR 120)	0.025
Total dose (mg)	72 hours	140 (IQR 180)	70 (IQR 110)	135 (IQR 180)	<0.001

IQR = interquartile range

Results

- 4,308 hospitalizations with OUD were identified, of which 1,280 patients had documented prior methadone treatment
- Median age 31 years (IQR 21), 55.3% Male, 54.2% Black, 98.5% Non-Hispanic
- 76.8% were treated with methadone during hospitalization while a minority received buprenorphine (7.3%). Ninety-nine encounters ended in PDD (7.7%)

Conclusions

- Higher methadone doses at 48 and 72 hours were associated with decreased risk of PDD
- These results highlight the role that early and adequate treatment with methadone may lead to decreased PDD

References

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