## **Supplementary Online Content**

Bongiorno DM, Peters GA, Samuels-Kalow ME, et al. Racial and ethnic disparities in EMS use of restraints and sedation for patients with behavioral health emergencies. *JAMA Netw Open.* 2025;8(3):e251281. doi:10.1001/jamanetworkopen.2025.1281

**eTable 1.** Inclusion Criteria for Behavioral Health Emergencies **eFigure.** Unadjusted Odds of Any Restraint/Sedation Use by Patient Race/Ethnicity **eTable 2.** Adjusted Odds of Restraint/Sedation in Sensitivity Analyses Restricting Definition of Chemical Sedation to Intramuscular Route

This supplementary material has been provided by the authors to give readers additional information about their work.

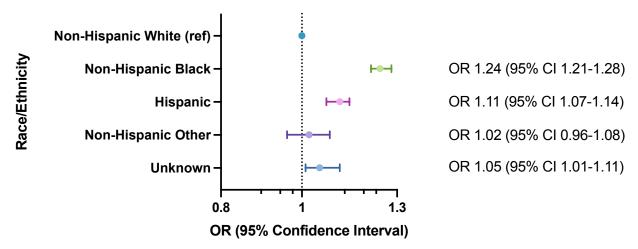
**eTable 1.** Inclusion Criteria for Behavioral Health Emergencies Study included encounters with a primary/secondary impression and/or protocol use and/or sign or symptom related to behavioral health emergency, as defined below.

Category	Inclusion criteria				
Primary/secondary impression	anxiety reaction/emotional upset				
	behavioral / psychiatric disorder				
	behavioral/psychiatric episode				
	mental disorder				
	suicidal ideation				
	suicide attempt				
	alcohol dependence with withdrawal				
	alcohol use				
	cocaine related disorders				
	other stimulant related disorders				
	overdose - acetaminophen				
	overdose - alcohol				
	overdose - amphetamine				
	overdose - benzodiazepine				
	overdose - acetaminophen				
	overdose - alcohol				
	overdose - amphetamine				
	overdose - benzodiazepine				
	overdose - cannabis				
	overdose - cocaine				
	overdose - hallucinogens				
	overdose - heroin				
	overdose - methadone				
	overdose - opium				
	overdose - other opioids				
	overdose - synthetic marijuana				
	overdose - synthetic narcotics				
	overdose - unspecified				
	poisoning / drug ingestion				
	sedative, hypnotic, or anxiolytic related disorders				
	substance abuse				
	substance/drug abuse				
	behavioral				
Protocol use	overdose / toxic ingestion				
	opioid poisoning/overdose				
	auditory hallucinations				
	bipolar disorder				
	catatonic schizophrenia				
	catatonic, refuses to respond				
Sign/symptom	central nervous system (stimulants) - adverse effect				
	combative or violent behavior				
	delusional disorders				
	demoralization and apathy				
	depression				
	hallucinations				
	homicidal ideations				

intoxication
irritability and anger
mental disorder, not otherwise specified
opiates - adverse effect
overactivity
poisoning by unspecified antiepileptic and sedative-
hypnotic drugs, undetermined
poisoning by unspecified narcotics
poisoning by unspecified psychotropic drug,
undetermined
psychotropic drugs - adverse effect
restlessness and agitation
strange and inexplicable behavior
suicidal ideations
toxic effect of unspecified substance, undetermined
visual hallucinations
withdrawal - alcohol
withdrawal - psychoactive substance

eFigure. Unadjusted Odds of Any Restraint/Sedation Use by Patient Race/Ethnicity

## Any Restraint/Sedation Use by Race/Ethnicity



Models account for clustering by EMS agency.

**eTable 2.** Adjusted Odds of Restraint/Sedation in Sensitivity Analyses Restricting Definition of Chemical Sedation to Intramuscular Route

	Hispanic	Non-Hispanic Black	Non-Hispanic White	Non-Hispanic Other	Unknown
Any restraint and/or sedation	1.01 (95% CI 0.98-1.05)	1.24 (95% CI 1.20-1.27)	aOR <sup>a</sup> 1.0 (ref)	0.97 (95% CI 0.91-1.03)	1.04 (95% CI 0.99-1.09)
Any chemical sedation	0.90 (95% CI 0.85-0.96)	1.30 (95% CI 1.25-1.36)	1.0 (ref)	0.81 (95% CI 0.70-0.92)	1.06 (95% CI 0.98-1.16)
Both restraint and sedation	0.92 (95% CI 0.84-0.99)	1.34 (95% CI 1.25-1.43)	1.0 (ref)	0.76 (95% CI 0.63-0.93)	1.04 (95% CI 0.91-1.18)

<sup>&</sup>lt;sup>a</sup>Adjusted odds ratio (aOR) are displayed throughout table. Models accounted for clustering by EMS agency and adjusted for age, gender, urbanicity, and community diversity (SVI minority status sub-theme).