Control of the Agitated Adult Emergency Department Patient

Initial Measures Assess for staff safety and call security if needed Attempt to calm patient with deescalation techniques Routine medical/psychiatric care Assess for reversible causes of agitation* Ensure adequate resources Physical and staff safety YES Restraint Follow MMC Restraint *Reversible causes of agitation Necessary? Orders/Monitoring Guidelines Hypoglycemia Hypoxia Intoxication Withdrawal Infection Ensure adequate resources Intracranial hemorrhage Pharmacologic and staff safety NO Intervention Follow MMC Restraint Necessary? Orders/Monitoring Guidelines **↓**YES Select Appropriate **Drug Therapy** Rapid Intervention 1, 2, 3, 4 Non-Violent Psychosis/Dementia Elderly 5 1. Haloperidol 5 mg IM/IV PLUS Olanzapine 10 mg IM/PO Haloperidol 2.5 mg IM/IV Lorazepam 2mg IV/IM OR Midazolam 5 mg IV/IM PLUS Lorazepam 1mg IV/IM OR OR Midazolam 2.5 mg IV/IM Risperidone 2 mg po ODT OR 2. Ketamine 4-5 mg/kg IM (2 mg/kg IV) Olanzapine 2.5 mg IM/PO Lorazepam 2mg IV/IM OR Midazolam 5 mg IV/IM

<u>Notes</u>

- 1. Consider ketamine for the *acutely violent* patient. Ketamine has an expected duration of 30-60 minutes. Data on redosing is limited, but may be considered.
- 2. There is a concern of risk of worsening of underlying psychiatric symptoms with sub-dissociative dose ketamine. This has not been reported with dissociative (agitation) doses.
- 3. Patients may require multiple doses of antipsychotics/benzodiazepines for both initial stabilization and on-going sedation.
- 4. Benzodiazepines may be given *after* administration of ketamine (within 10-15 minutes) to decrease risk of emergence phenomena.
- 5. Data is insufficient to recommend use of ketamine in elderly patients

This guideline was ratified by the emergency department faculty at Maine Medical Center in May 2017. It reflects our expert opinion and is not necessarily applicable to all institutions. It is intended to be a reference for clinicians caring for patients and is not intended to replace providers' clinical judgment.

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Control of the Agitated Adult Emergency Department Patient <u>Evidentiary Table</u>

Recommendation:	Source:	Classification:	Level of Evidence:
Ketamine IV/IM (2 and 4mg/kg, respectively) for acute agitation	1. Riddell J, et al. Ketamine as a first- line treatment for severely agitated emergency department patients. American Journal of Emergency Medicine. 2017; Article in Press	Single-center, prospective, observational study	lla
	2. Hopper AB, et al. Ketamine use for acute agitation in the emergency department. The Journal of Emergency Medicine. 2015; 1 (1): 1-8	Retrospective Cohort/Chart Review	IIb
	3. Scheppke KA et al. West J Emerg Med. 2014; 15(7): 736-741	Retrospective Review	IV
	4. Kowalski, et al. A novel agent for management of agitated delirium: A case series of ketamine utilization in the pediatric emergency department. <i>Ped Emerg Care.</i> 2015; epub ahead of print.	Case series	IV
Ketamine: established safety profile.	1. Newton, et al. Intravenous ketamine for adult procedural sedation in the Emergency Department. <i>Emerg Med J.</i> 2008; 25:498-501.	Prospective, cohort study.	lla
	2. ACEP Clinical Policy: Procedural sedation and analgesia in the emergency department. <i>Ann Emerg Med.</i> 2014; 63 (2): 247-258.	Policy/practice guideline.	III
	3. Roback, et al. Adverse events with procedural sedation in children. <i>Acad Emerg Med;</i> 2005; 12(6): 508-513.	Retrospectitve, cohort.	IIb
	4. Lahti et al. Subdissociative doses of ketamine stimulate psychosis in schizophrenia. Neuropsychopharmacology; 1995; 13(1): 9-19	RCT	Ib
Add midazolam or	1. Senner, et al. Ketamine with and	RCT	Ib

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lorazepam to ketamine	without midazolam for emergency		
when used for acute	department sedation in adults: A		
agitation.	randomized controlled trial. Ann		
	Emerg Med. 2011; 57: 109-114.		
Use haloperidol	1. Rund DA et al. The use of	Review article.	III
combined with	intramuscular benzodiazepines and		
lorazepam (vs either in	antipsychotic agents in the treatment		
isolation) for rapid	of acute agitation or violence in the		
tranaquilization.	emergency department. The Journal		
· ·	of Emergency Medicine 2006;		
	31(3):317-324.		
	31(3).31, 32 11		
	2. Battaglia J et al. Haloperidol,		
	Lorazepam, or Both for Psychotic	RCT	lb
	Agitation? A Multicenter, Prospective,	NC1	15
	Double-Blind, Emergency Department		
	Study. Amer Jour Em Med 1997;		
	15(4):335-340.		
Consider IM olanzapine	1. Meehan KM et al. Comparison of	RCT	Ib
in agitated elderly	Rapidly Acting Intramuscular		
patients with	Olanzapine, Lorazepam, and Placebo:		
underlying dementia.	A Double-blind, Randomized Study in		
	Acutely Agitated patients with		
	Dementia. Neuropsychopharmacology.		
	2002 Apr;26(4):494-504		
	2. Peisah C et al. Practical Guidelines	Practice Guideline	III
	for the acute emergency sedation of		
	the severely agitated older patient.		
	Internal Medicine Journal 2011;		
	41:651-657.		