Trauma Bay Adult Acute Agitation Management

Purpose:

Traumatically injured patients presenting to the emergency department (ED) experiencing acute agitation have the potential to harm themselves, hospital staff, and others. Safe and expeditious management of agitation is imperative to prevent potential further harm. However, treatment of acute agitation is challenging due to the heterogenicity of the patient population, cause or source of agitation, and the available therapeutic treatment options.

There are two critical factors that are essential to the management of agitation – early recognition and targeted intervention to the etiology driving the patient's acutely agitated state. This treatment protocol is designed to help streamline the care of this difficult patient population.

Background/Definitions:

Acutely agitated and/or violent behaviors displayed by trauma patients interfere with the required medical care of the patient. Acute agitation is a medical emergency. Determining the cause or causes of agitation will allow for a more informed management strategy for the patient. However, because of constraints on time, limited information, and lack of patient engagement, one must assess and identify the underlying cause(s) expeditiously. The goal of acute agitation treatment is to calm the patient in the least invasive way, without causing oversedation.

Per policy TX-1, the philosophy of Nebraska Medicine is to reduce/limit the use of physical and chemical restraint while maintaining the safety and preserving dignity, rights, and wellbeing of patients. Nebraska Medicine respects the patient's right to be free of restraints of any form that are not medically necessary. If a patient's condition necessitates the use of restraints, the safety and wellbeing of the patient and medical staff caring for the patient is the primary focus of the medical team.

Severe Agitation:

- Currently violent or aggressive, attacking people and/or objects.

Moderate Agitation:

- Physically or verbally threatening, difficult to redirect, extremely active, however, not violent.

Mild Agitation:

- Signs of overt physical or verbal activity but redirectable.

De-escalation:

- A combination of both verbal and nonverbal strategies intended to calm the patient down to cooperate with their care.

Sedation and Analgesia:

- Use of pharmacologic agents to create a drug-induced state to reduce physiologic and psychological stress to a patient undergoing medical, surgical, or diagnostic procedures.

Common Medical Causes of Acute Agitation

Type	Examples
Neurological	Traumatic brain injury, intracranial hemorrhage, seizure/post-ictal, stroke, encephalopathy
Infectious	Meningitis, sepsis, urinary tract infection (elderly)
Metabolic	Electrolyte disturbance, hypoglycemia
Respiratory	Hypoxia
Toxicological	Environmental toxin, medication reaction, illicit drug use
Endocrine	Thyrotoxicosis, myxedema coma
Other	Hyper- or hypothermia, acute pain

Practice Recommendations for Medical Management:

De-escalation should always be attempted prior to medication management and physical restraint.

Restraint may only be imposed to ensure the immediate physical safety of the patient, staff or others and must be discontinued as soon as safely possible, regardless of the scheduled expiration of the order.

TX_01 will be followed if/when restraint use is required.

Follow the management considerations, listed in the table below, using the preferred agent(s) as listed in Attachment A. Preferred agents show better clinical properties, including onset of action, efficacy, and lower incidence of adverse effects.

Management Considerations for Agitation

Severity of Agitation	Preferred Route of Administration	Dosing Considerations	Special Populations
Severe	IV, when able IM, if IV not available	Maximize dose of first agent used, allowing for the onset and effects of the previous dose prior to administering second dose	Dosing adjustments may be required for elderly, renally/hepatically impaired, and/or when given medication(s) prior to arrival. Lower doses may be required when using concomitant sedating medications.
Moderate	IV, when able IM, if IV not available	Smaller doses may be sufficient (as compared to what is required for severe agitation) If able/known, use a patient's home regimen when patients can tolerate oral therapy.	
Mild	PO	If able/known, use a patient's home regimen when patients can tolerate oral therapy.	

Attachment A – Preferred Treatment Options for Acute Agitation (Trauma Bay)

Preferred Treatment Options: *

	Medication	Dose	Soft Max (Single Dose)	Onset	Time to Peak	Duration	Patient Considerations
ferred tions	Midazolam	2-5 mg IV	5 mg IV	IV: 1-5 min	IV: 3-5 min	IV: 1-2 hours	Hypotension with larger doses (IV). Delayed onset of action (IM).
		5-10 mg IM	10 mg IM	IM: 15 min	IM: 30-60 min	IM: 1-2 hours	

ızapine	2.5-5 mg IV	5 mg IV	IV: 5-10 min	15-45 min	2 hours	Possible hypotension and respiratory depression with IV use. Caution when used with benzodiazepines due to risk of over-sedation. MAX 30 mg/24 hrs (Cumulative for all routes of administration)
	10 mg IM	10 mg IM	IM: 15 min			
peridol	5 mg IV/IM	5 mg	IV: 3-20 min	IV: 30 min	2-4 hours	Risk of EKG changes Can lower seizure threshold
			IM: 15 min	IM: 20-30 min		

medetomidine	0.1-0.7 mcg/kg/hr IV, titrate to response	MAX rate 0.7 mcg/kg/hr IV	5-15 min	60 min	60-240 min (Dose dependent, after drip stopped)	**Restricted for Use in Non-Intubated Patients.** Only approved indication is refractory agitated delirium unresponsive to other pharmacologic agents or with contraindications to other pharmacologic agents. Only available with IV access. Can cause bradycardia. Bolus dosing **not** allowed outside of OR. Restricted to ED, ICU, and OR use only.

**Subject to drug availability/restrictions secondary to national drug shortage*

Management Considerations for Ketamine:

At Nebraska Medicine, ketamine is restricted to the following indications:

Induction for rapid sequence intubation

Ventilator management

Procedural sedation

Subanesthetic analgesia (restricted ordering to anesthesiology, pain management, emergency medicine, and pediatric critical care medicine)

If ketamine is required for the use of acute agitation, the institutional policy, MS_15 for procedural sedation or MP_33 for subanesthetic ketamine for pain management, will need to be followed. A provider must remain at bedside.

Dosing recommendations:

Sub-Anesthetic Ketamine for Pain

- Must be ordered by emergency medicine provider (while patient is in the ED).
- Use dosing recommendations per MP_33

Procedural Sedation

Dose	Soft Max (Single Dose)	Onset	Time to Peak	Duration
0.5 mg/kg IV	1 mg/kg	30-60 sec	5-10 min	1-2 hours (recovery)
2 mg/kg IM	3 mg/kg IM	3-4 min	5-30 min	3-4 hours (recovery)

Related Institutional Policies:

(MS_15) Medical Staff: Procedural Sedation and Analgesia Administration Guidelines (Non-Anesthesiology Providers)

(TX_01) Care of Patients: Restraint Use

- Attachment A: Alternative Interventions to Restraints

(TX_24) Admission, Transfer and Discharge for Define Levels of Care

(MP_33) Medication Policy and Guidelines: Low-Dose (Sub-anesthetic) Ketamine for Pain in Non-Intubated Patients

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References:

Roppolo LP, Morris DW, Khan F, *et al.* Improving the management of acutely agitated patients in the emergency department through implementation of Project BETA (Best Practices in the Evaluation and Treatment of Agitation). *JACEP Open* 2020; 1:898-907.

Zareifopoulos N and Panayiotakopoulos G. Treatment options for acute agitation in psychiatric patients: theoretical and empirical evidence. *Cureus* 2019; 11(11): e6152.

Curry A, Malas N, Mroczkowski M, *et al.* Updates in the assessment and management of agitation. *Focus (Am Psychiatr Publ)* 2023; 21(1): 35-45.

Lexicomp. (2024). Midazolam: dosage & administration. In Lexi-Drugs Online. Retrieved [June 27, 2024.] from https://online.lexi.com.

Lexicomp. (2024). Olanzapine: dosage & administration. In Lexi-Drugs Online. Retrieved [June 27, 2024.] from https://online.lexi.com.

Lexicomp. (2024). Haloperidol: dosage & administration. In Lexi-Drugs Online. Retrieved [June 27, 2024.] from https://online.lexi.com.

Lexicomp. (2024). Dexmedetomidine: dosage & administration. In Lexi-Drugs Online. Retrieved [June 27, 2024.] from https://online.lexi.com.

Lexicomp. (2024). Droperidol: dosage & administration. In Lexi-Drugs Online. Retrieved [June 27, 2024.] from https://online.lexi.com.

Lexicomp. (2024). Lorazepam: dosage & administration. In Lexi-Drugs Online. Retrieved [June 27, 2024.] from https://online.lexi.com.

Lexicomp. (2024). Ketamine: dosage & administration. In Lexi-Drugs Online. Retrieved [June 27, 2024.] from https://online.lexi.com.

Li M, Martinelli AN, Oliver WD, *et al*. Evaluation of ketamine for excited delirium syndrome in the adult emergency department. *J Emerg Med*. 2019; S0736-S4679(19)30802-9.

O'Brien ME, Fuh L, Raja AS, *et al*. Reduced-dose intramuscular ketamine for severe agitation in an academic emergency department. *Clin Toxicol (Phila).* 2020;58(4):294-298.

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