Pre-Hospital Care of the Agitated Patient

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Disclosures

- I have no financial interests to disclose
- The views expressed in this presentation do not reflect official policy or position of the U.S. Navy, Department of Defense, or U.S. Government

Objectives

- What is it?
- What causes it?
- Who is presenting with it?
- Approach to care
- Current treatment protocol
- Considerations for the future
- Special populations

What is it?

Excessive verbal or motor behavior that impairs patients from participating in and providers from administering medical care

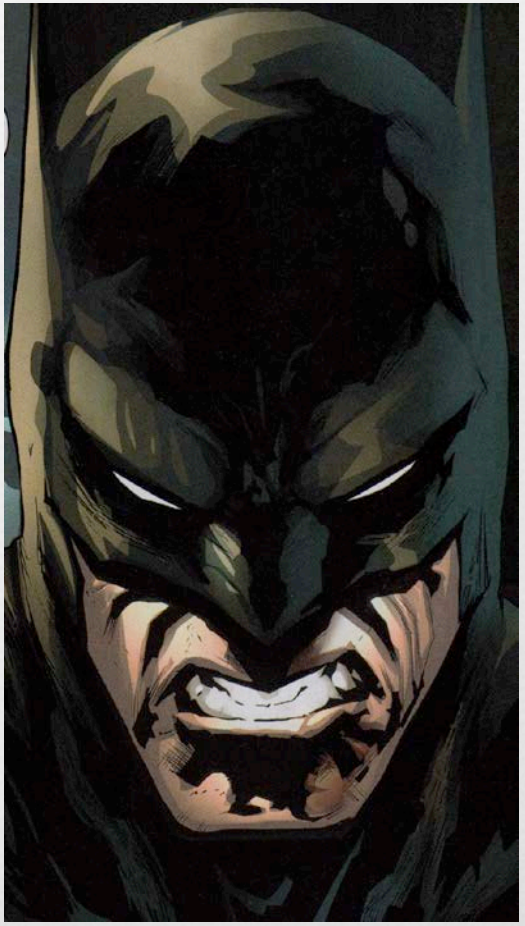
What causes it?

- Alcohol intoxication/withdrawal
- Primary psychiatric disorder
- Drug intoxication
- Medication side effect
- Pain
- Encephalitis, Sepsis
- Thyrotoxicosis
- Hypoglycemia
- Hypoxia
- Hyperthermia
- Hypovolemia
- Intracranial bleeding
- CNS lesion
- Seizure/Post-ictal state

A symptom, NOT a diagnosis

Who is presenting with it?

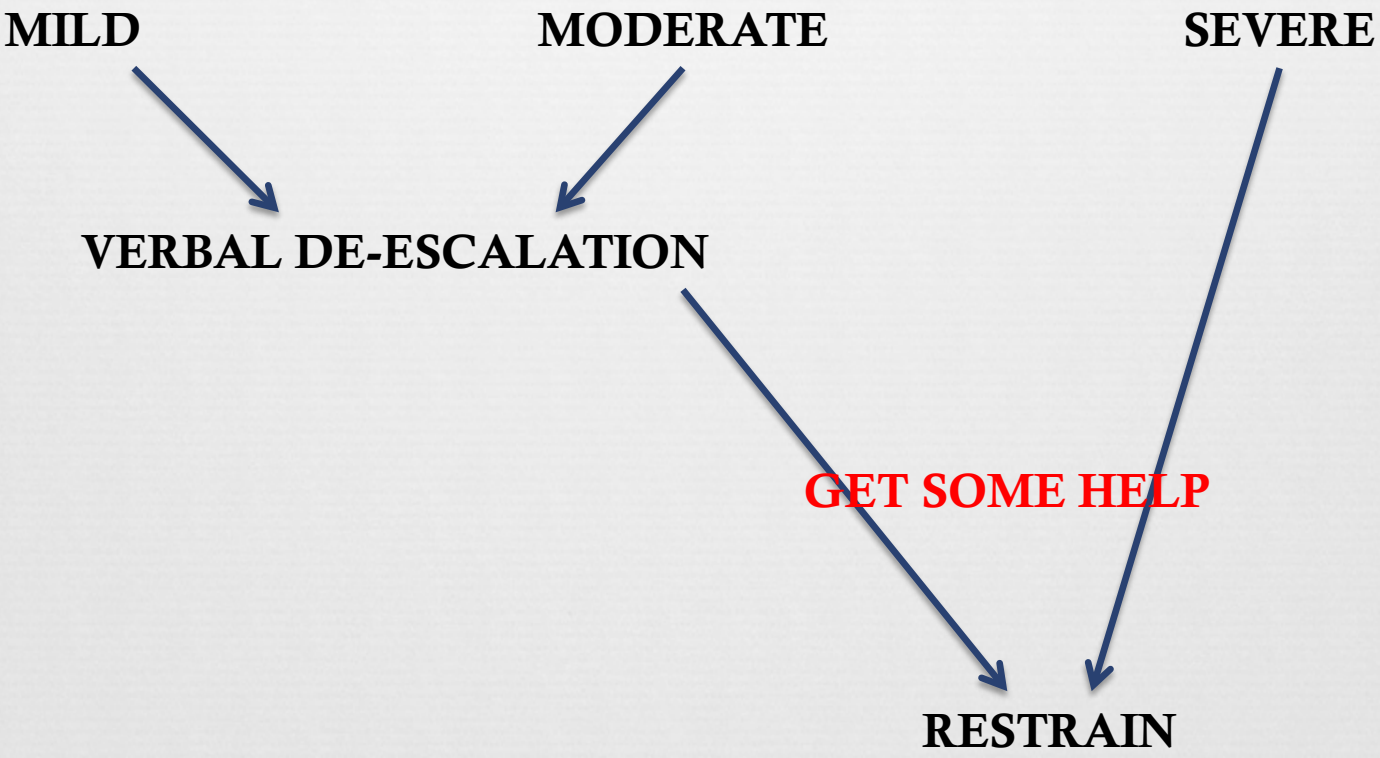
- Young men (~70%)
- Most common etiologies
  1. Drug use (~40%)
  2. ETOH (~20%)
  3. Primary psychiatric disorder (~20%)



Approach to Care

Ensuring the safety of the patient and the staff involved to allow for a thorough medical evaluation

Approach to Care



The Excited Delirium Syndrome

Bell LV. "On a form of disease resembling some advanced stages of mania and fever, but so contradistinguished from any ordinary observed or described combination of symptoms as to render it probable that it may be overlooked and hitherto unrecorded malady". *Am J Insanity*. 1849;6:97–127.

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Delayed In-Custody Death Involving Excited Delirium.

Kennedy DB[1], Savard DM[2].

Int J Law Psychiatry. 2018 Sep - Oct;60:26-34. doi: 10.1016/j.ijlp.2018.06.011. Epub 2018 Jul 18.

Excited delirium syndrome (ExDS): Situational factors and risks to officer safety in non-fatal use of force encounters.

Baldwin S[1], Hall C[2], Blaskovits B[3], Bennell C[3], Lawrence C[4], Semple T[3].

Front Physiol. 2016 Oct 13;7:435. eCollection 2016.

Excited Delirium and Sudden Death: A Syndromal Disorder at the Extreme End of the Neuropsychiatric Continuum.

Mash DC[1].

The Art of Verbal De-escalation

What you say AND how you say it.

Current Treatment Protocol

COUNTY OF SAN DIEGO
HEALTH & HUMAN SERVICES AGENCY
EMERGENCY MEDICAL SERVICES

COUNTY OF SAN DIEGO EMERGENCY MEDICAL SERVICES
POLICY/PROCEDURE/PROTOCOL

No. S-142
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SUBJECT: TREATMENT PROTOCOL - PSYCHIATRIC/BEHAVIORAL EMERGENCIES

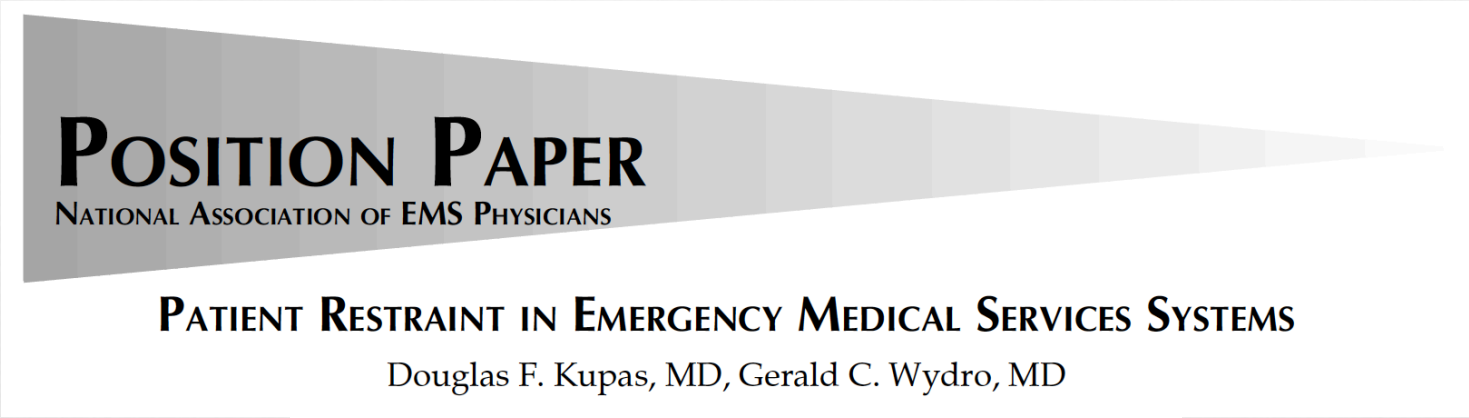
Date: 07/01/2015

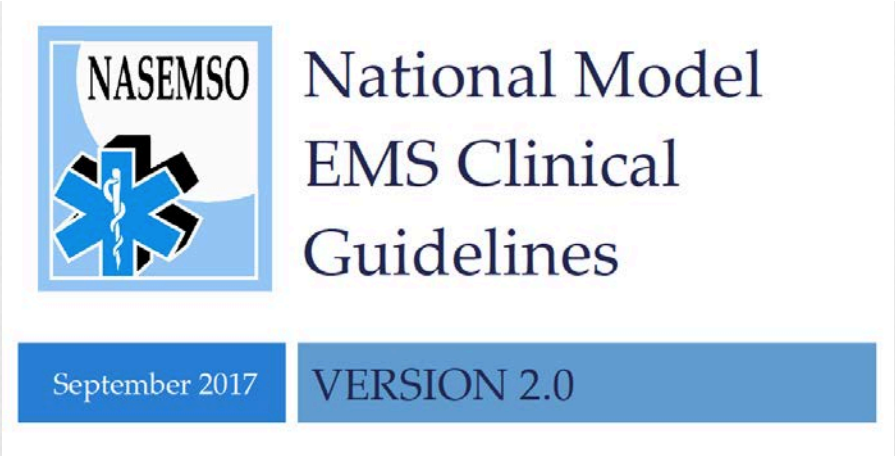
BLS	ALS
• Ensure patent airway, O_2 and/or ventilate prn • O_2 Saturation prn • Treat life threatening injuries • Attempt to determine if behavior is related to injury, illness or drug use. • Restrain only if necessary to prevent injury. Document distal neurovascular status q15'. Avoid unnecessary sirens. • Consider law enforcement support and/or evaluation of patient. • Law enforcement could remove taser barbs, but EMS may remove barbs.	• Monitor EKG • IV SO adjust prn • Capnography SO **For Combative patient:** ○ Versed 5 mg IM/IN/IV SO, MR x1 in 10" SO

Note: For combative patient IN or IM Versed is preferred route to decrease risk of injury to patient and personnel.

Use caution when considering Versed use with ETOH intoxication. Can result in apnea.

Current Treatment Protocol





The management of violent patients requires a constant reevaluation of the risk/benefit balance for the patient and bystanders in order to provide the safest care for all involved. These are complex and high-risk encounters. There is no one size fits all solution for addressing these patients.

Chemical Restraint Options

- Route of administration: oral, IN, IM, IV
- Benzodiazepine (Midazolam, Lorazepam)
- Anti-Psychotic (Haloperidol, Olanzapine, Ziprasidone)
- Dissociative (Ketamine)
- Anti-Histamine (Benadryl)
- Combination therapy (“B-52”)

The Literature

Ann Emerg Med. 2018 Oct;72(4):374-385. doi: 10.1016/j.annemergmed.2018.04.027. Epub 2018 Jun 7.

Intramuscular Midazolam, Olanzapine, Ziprasidone, or Haloperidol for Treating Acute Agitation in the Emergency Department.

Klein LR[1], Driver BE[2], Miner JR[2], Martel ML[2], Hessel M[2], Collins JD[2], Horton GB[2], Fagerstrom E[2], Satpathy R[2], Cole JB[2].

J Emerg Med. 2018 Mar;54(3):364-374. doi: 10.1016/j.jemermed.2017.10.011. Epub 2018 Feb 1.

Evidence-Based Review of Pharmacotherapy for Acute Agitation. Part 1: Onset of Efficacy.

Zun LS[1].

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Prehospital Agitation and Sedation Trial (PhAST): A Randomized Control Trial of Intramuscular Haloperidol versus Intramuscular Midazolam for the Sedation of the Agitated or Violent Patient in the Prehospital Environment.

Isenberg DL[1], Jacobs D[1].

The Literature

Am J Emerg Med. 2017 Jul;35(7):1000-1004. doi: 10.1016/j.ajem.2017.02.026. Epub 2017 Feb 13.

Ketamine as a first-line treatment for severely agitated emergency department patients.

Riddell J[1], Tran A[2], Bengiamin R[3], Hendey GW[4], Armenian P[3].

Clin Toxicol (Phila). 2016 Aug;54(7):556-62. doi: 10.1080/15563650.2016.1177652. Epub 2016 Apr 22.

A prospective study of ketamine versus haloperidol for severe prehospital agitation.

Cole JB[1,2], Moore JC[2], Nystrom PC[2], Orozco BS[1,2], Stellpflug SJ[3], Kornas RL[2], Fryza BJ[2], Steinberg LW[2], O'Brien-Lambert A[2], Bache-Wiig P[2], Engebretsen KM[3], Ho JD[2].

J Emerg Med. 2018 Nov;55(5):670-681. doi: 10.1016/j.jemermed.2018.07.017. Epub 2018 Sep 7.

Ketamine for Rapid Sedation of Agitated Patients in the Prehospital and Emergency Department Settings: A Systematic Review and Proportional Meta-Analysis.

Mankowitz SL[1], Regenberg P[2], Kaldan J[3], Cole JB[4].

Which chemical agent is best?

DEPENDS

- Clinical environment
- Suspected cause of agitation
- Severity of agitation
- Medications available
- Level of skill in responding to side effects

Chemical, Physical, or Both?

Physical restraints should be considered a last resort, and should be used as a bridge to adequate chemical sedation

If you're going to restrain the patient, then restrain the patient – i.e. chemical + physical

RE-ASSESS

Do's & Don'ts of Physical Restraints

- **DO**
  - 4 or 5 point restraints
  - One arm up, one arm down
  - Elevate the HOB
  - Tie restraints to the bedframe
  - RE-ASSESS FREQUENTLY
- **DON'T**
  - Restrain prone
  - Tie restraints to the bed rails
  - Use 2 or 3 points restraints
  - Place a pillow under the head

Special Populations

- Elderly
  - Avoid benzodiazepines
  - Use anti-psychotics (Haldol, Risperidone, Quetiapine)
  - Start low, Go slow
- Pediatric
  - The art of verbal de-escalation is even more important
  - Don’t delay restraints if you need it

Summary

- Protect yourself
- Don’t operate in a vacuum
- Think about the underlying cause
- Attempt verbal de-escalation
- Quickly move to chemical + physical restraints
- Re-assess often

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