Excited Delirium: The Controversy in the Care of the Acutely Agitated Patient

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Disclosure Information

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  - No Disclosures

Learning Objectives

- Describe the broad differential for causes of “excited delirium”
- Outline the various management strategies using both pharmacological and non-pharmacological methods and methods of drug testing available to these cases
- Understand how issues of racial disparity impact management of “excited/agitated delirium”

Case I – Walking a Tight Rope Intoxication & Agitated Delirium

- A 30-year-old Latino male is brought into the ED by police after he was found drinking beer and “snorting something from an ‘Altoids’ tin,” while in a parked car on a side street, in an area known for a lot of street-level drug sales and presence.
- Apparently, police officers pulled up behind a parked car where they had observed a male who was in the driver’s seat of a parked car and drinking from what appeared to be a beer bottle and was, “ducking down every few moments holding a straw in his hands.”
- As officers attempted to open the door, the individual reportedly grabbed several “wrapped objects” from under a ‘tin’ and put them in his mouth.

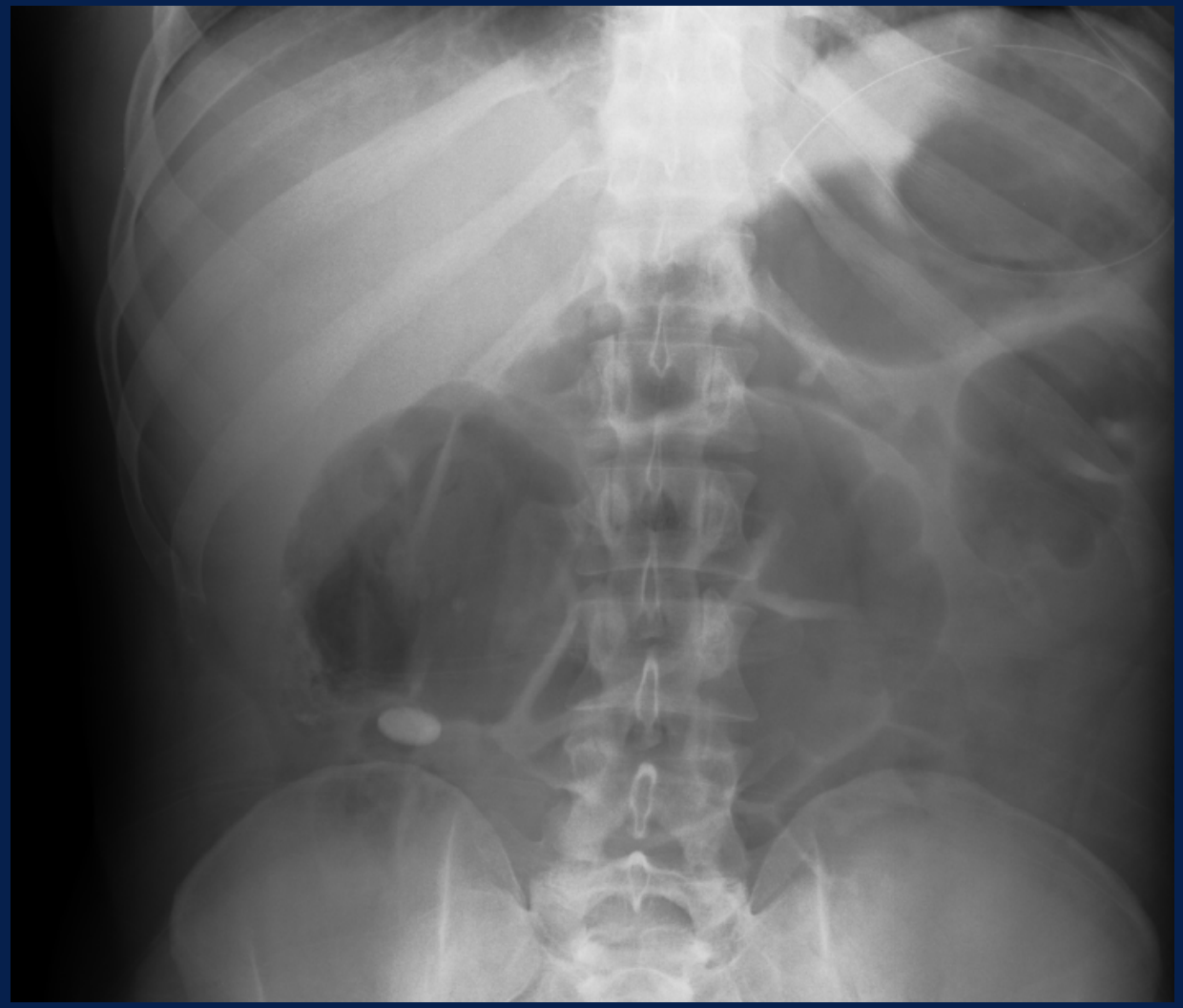
Case 1

- The patient is brought to the ED for evaluation as officers reported observing him, “swallowing some wrapped packets,” although the patient denies this. He states, “they injured my shoulder! He is refusing any labs or monitoring.
- The patient’s initial HR was 120 bpm and his BP 150/94 mmHg. He has marked mydriasis and is repeatedly sniffing and quite loquacious in his responses to questions and any interaction. “I did a few lines of cocaine, that’s why my eyes ‘are dilated’ OK? I did some coke! They yanked me out and jammed me into the ground. I want an Xray - my shoulder is messed up ok? It was good coke!”
- The patient has 3 police officers standing next to his gurney.
- He refuses lab draws, charcoal, or any other treatments.

Case 1

- The patient is evaluated by Emergency Medicine and a Toxicology/Addiction provider. He agrees to an XR which shows the following (next image).
- His HR has improved from 130 bpm to 110 bpm and he is less anxious. He is no longer sweating, although he has continued to talk and comment in near uninterrupted fashion to anyone who will listen both about the cocaine he just sniffed and how he was unfairly “targeted and profiled.”
- He is refusing to wear a mask (although is not coughing or acting aggressively)
- A shoulder XR and subsequent abd imaging show the following:

Case 1 imaging



Case 1: He Becomes Sicker

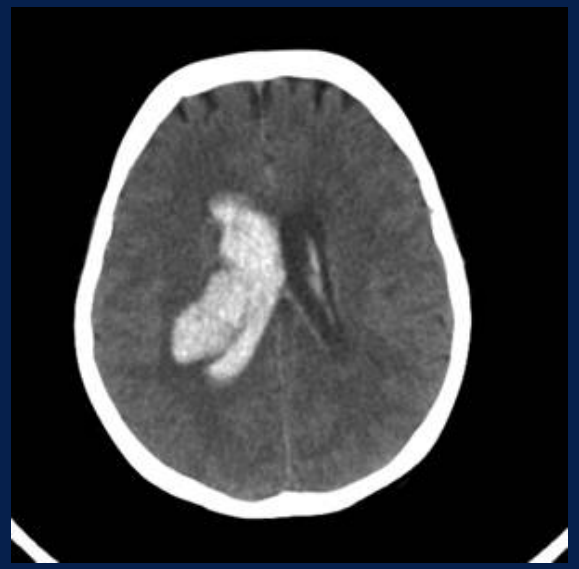
- After approximately two hours in the ED and with slow improvement of symptoms to that point, there is an abrupt commotion coming from his room.
- Police are yelling, “he’s having a seizure!”
- His HR is 170 bpm on the monitor (substantial artifact), and he is abruptly profusely diaphoretic trying to get out of bed with his arms outstretched, held onto by police and nursing (who’d run into the room to keep him from falling off the gurney).
- He had not allowed an IV and is now looking around ‘dazed’ with markedly mydriatic pupils. Dripping wet from sweat and shaking diffusely, the patient has also begun to breathe rapidly and deeply.

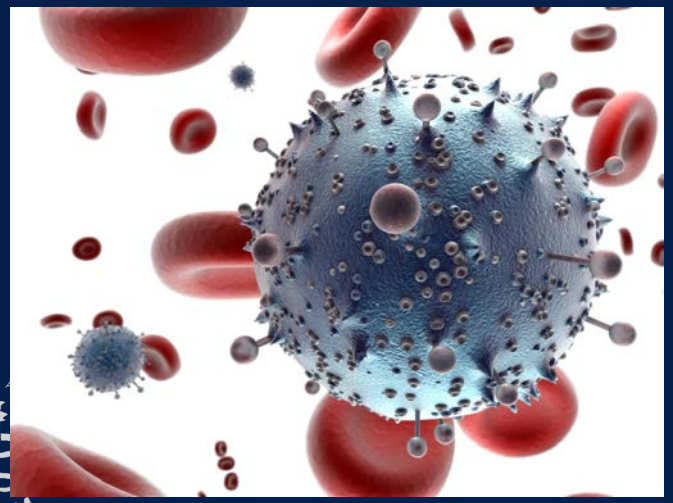
Case 1 - Questions

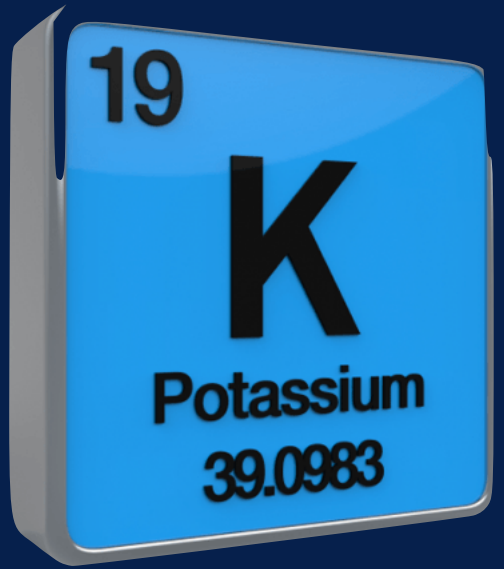
- As the patient becomes abruptly diaphoretic, tachycardic, agitated and stiff, nursing attempts to keep him in bed and place IVs. They are asking for guidance as the patient is wheeled in his gurney into the critical care bay of the ED.

- **What happened?**

Many Causes



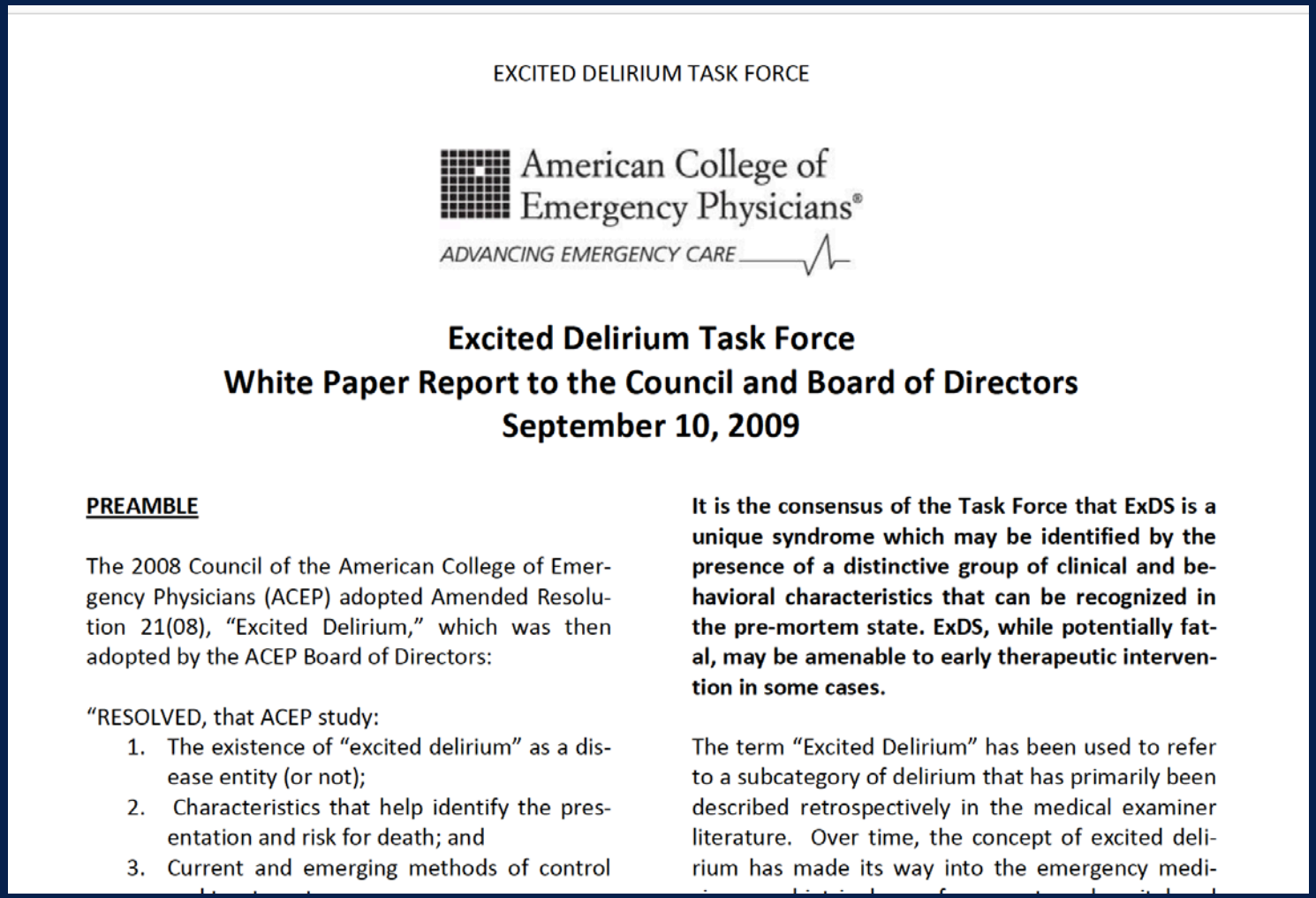




Case 1 – QUESTIONS: Excited Delirium vs other agitation

- How does true ‘excited delirium’ (or ‘severe agitation’) differ from agitation in general?
- What are the physiologic changes that occur in this setting when a patient has acute severe sympathomimetic intoxication?
- How often does this occur?
- How do such patient’s die?

What Is Excited Delirium?



EXCITED DELIRIUM TASK FORCE

American College of Emergency Physicians®
ADVANCING EMERGENCY CARE

Excited Delirium Task Force
White Paper Report to the Council and Board of Directors
September 10, 2009

PREAMBLE

The 2008 Council of the American College of Emergency Physicians (ACEP) adopted Amended Resolution 21(08), "Excited Delirium," which was then adopted by the ACEP Board of Directors:

"RESOLVED, that ACEP study:

1. The existence of "excited delirium" as a disease entity (or not);
2. Characteristics that help identify the presentation and risk for death; and
3. Current and emerging methods of control

It is the consensus of the Task Force that ExDS is a unique syndrome which may be identified by the presence of a distinctive group of clinical and behavioral characteristics that can be recognized in the pre-mortem state. ExDS, while potentially fatal, may be amenable to early therapeutic intervention in some cases.

The term "Excited Delirium" has been used to refer to a subcategory of delirium that has primarily been described retrospectively in the medical examiner literature. Over time, the concept of excited delirium has made its way into the emergency medi-

DeBard ML, Adler J, Bozeman W, Chan T, et al: ACEP Excited Delirium Task Force. White Paper Report on Excited Delirium Syndrome. 2009.

Case 1 continued

- The patient is severely diaphoretic, “just dripping sweat” and “really warm to the touch.” He is trying to push any assistance away and to get out of the gurney.

- **Question: What are the approaches to treating such a patient after initial control of agitation?**

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Man dies in police custody after being hogtied following concert in Mississippi

The Ideal Agent Would Be…

Quick Acting

Can Be Given By Multiple Routes

Easy to Dose

Few Side Effects

Cheap

Table 2
Medication treatment options.

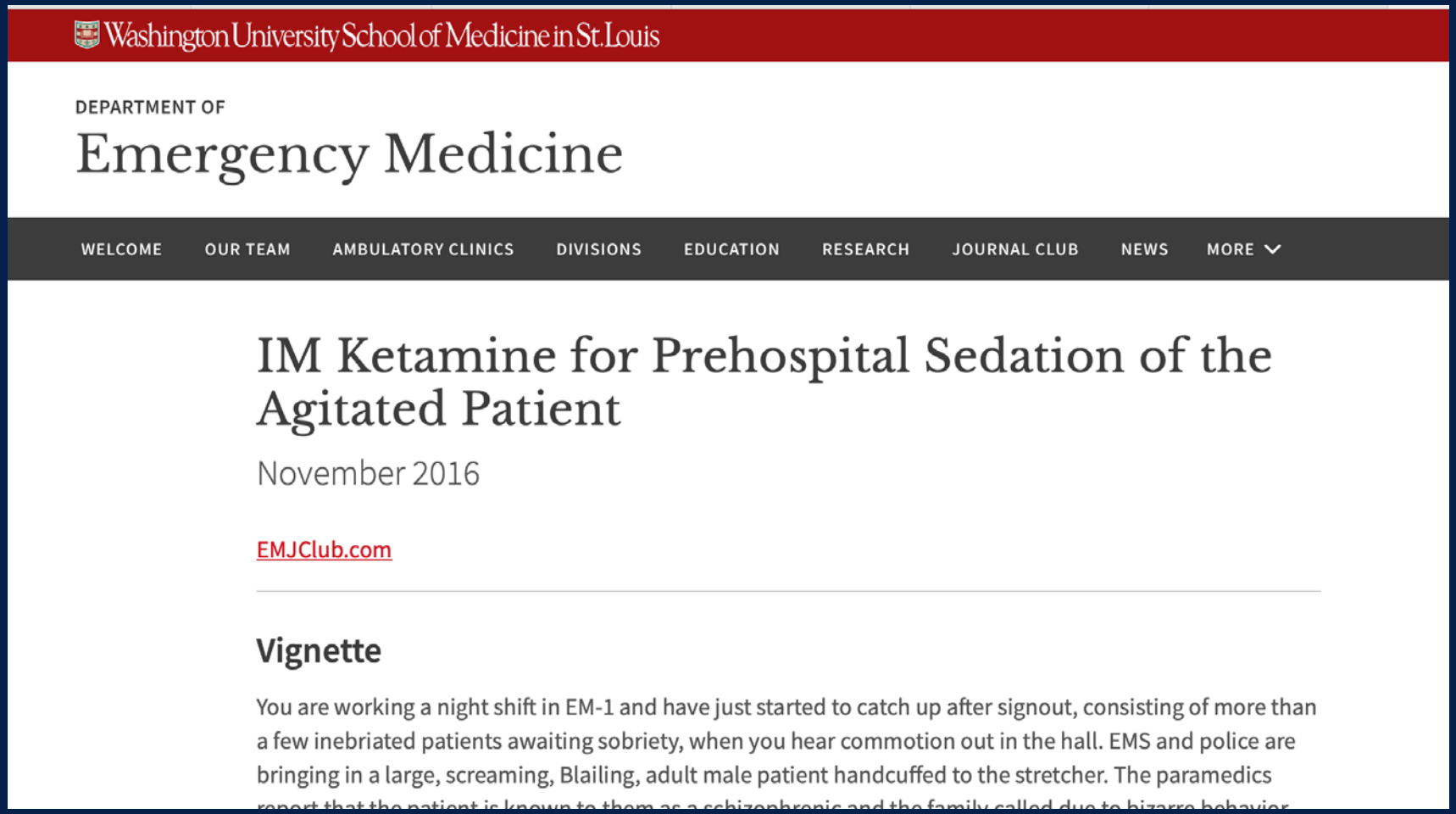
Medication (Trade Name)	Administration routes	Typical Dosing (mg)	Onset (min)
Benzodiazapines			
Midazolam (Versed)	IN	5	3–5
	IM	5	10–15
	IV	2–5	1–5
Lorazepam (Ativan)	IM	4	15–30
	IV	2–4	2–5
Diazepam (Valium)	IM	10	15–30
	IV	5–10	2–5
Antipsychotics			
Haloperidol (Haldol)	IM	10–20	15–30
	IV	5–10	10
Droperidol (Inapsine)	IM	5	10–30
	IV	2.5	10
Ziprasidone (Geodon)[a]	IM	10–20	15–30
Olanzapine (Zyprexa)[a]	IM	10	15–30
NMDA receptor antagonist/Dissociative			
ketamine (Ketaset, Ketalar)	IM	4–5 mg/kg	3–5
	IV	2–4 mg/kg	1

Vilke, G. M., Bozeman, W. P., Dawes, D. M., DeMers, G., & Wilson, M. P. (2012). Excited delirium syndrome (ExDS): treatment options and considerations. *Journal of forensic and legal medicine*, *19*(3), 117-121

Ketamine

- Familiarity ✓
- Rapid onset ✓
- Give by multiple routes ✓
- Fast acting ✓
- Few adverse effects ✓ ?
- Redosing ?

Ketamine



Washington University School of Medicine in St. Louis

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IM Ketamine for Prehospital Sedation of the Agitated Patient

November 2016

EMJClub.com

Vignette

You are working a night shift in EM-1 and have just started to catch up after signout, consisting of more than a few inebriated patients awaiting sobriety, when you hear commotion out in the hall. EMS and police are bringing in a large, screaming, Blailing, adult male patient handcuffed to the stretcher. The paramedics report that the patient is known to them as a schizophrenic and the family called due to bizarre behavior

https://emergencymedicine.wustl.edu/items/im-ketamine-for-prehospital-sedation-of-the-agitated-patient/

ACMT Statement on Ketamine Sedation and Law Enforcement

Phoenix, AZ, September 28, 2020--With great interest and concern, we have followed media reports of ketamine being administered by paramedics for sedating individuals at the direction of law enforcement officers to facilitate taking them into custody.

As physicians with expertise in pharmacology and toxicology, we support the appropriate use of ketamine by supervised paramedical professionals for dangerous agitation in the prehospital environment. However, we oppose the use of medications to restrain individuals solely for purposes of assisting law enforcement in controlling an individual. Ketamine and sedative medications should only be administered by healthcare professionals, for medically indicated purposes, and followed by appropriate medical monitoring.

We recognize that severe agitation, whether from a psychiatric condition, drug withdrawal, drug intoxication, medical condition, or an unclear cause, poses a risk to patients and those attempting to assist them. This condition, sometimes referred to as “excited delirium” or “agitated delirium,” may result in complications such as life-threatening hyperthermia, rhabdomyolysis (muscle breakdown), cardiac disturbances, injury, and death. We believe the safety of the treatment team, both on scene and during transport, should also be a consideration in the decision to administer sedating medications. Verbal de-escalation is the best initial approach, but when nonpharmacologic interventions are not effective, and the patient’s behavioral effects escalate despite their use, or when the patient’s agitation is becoming threatening to either their health or that of others, medications become necessary to protect both patients and providers.

Case 1

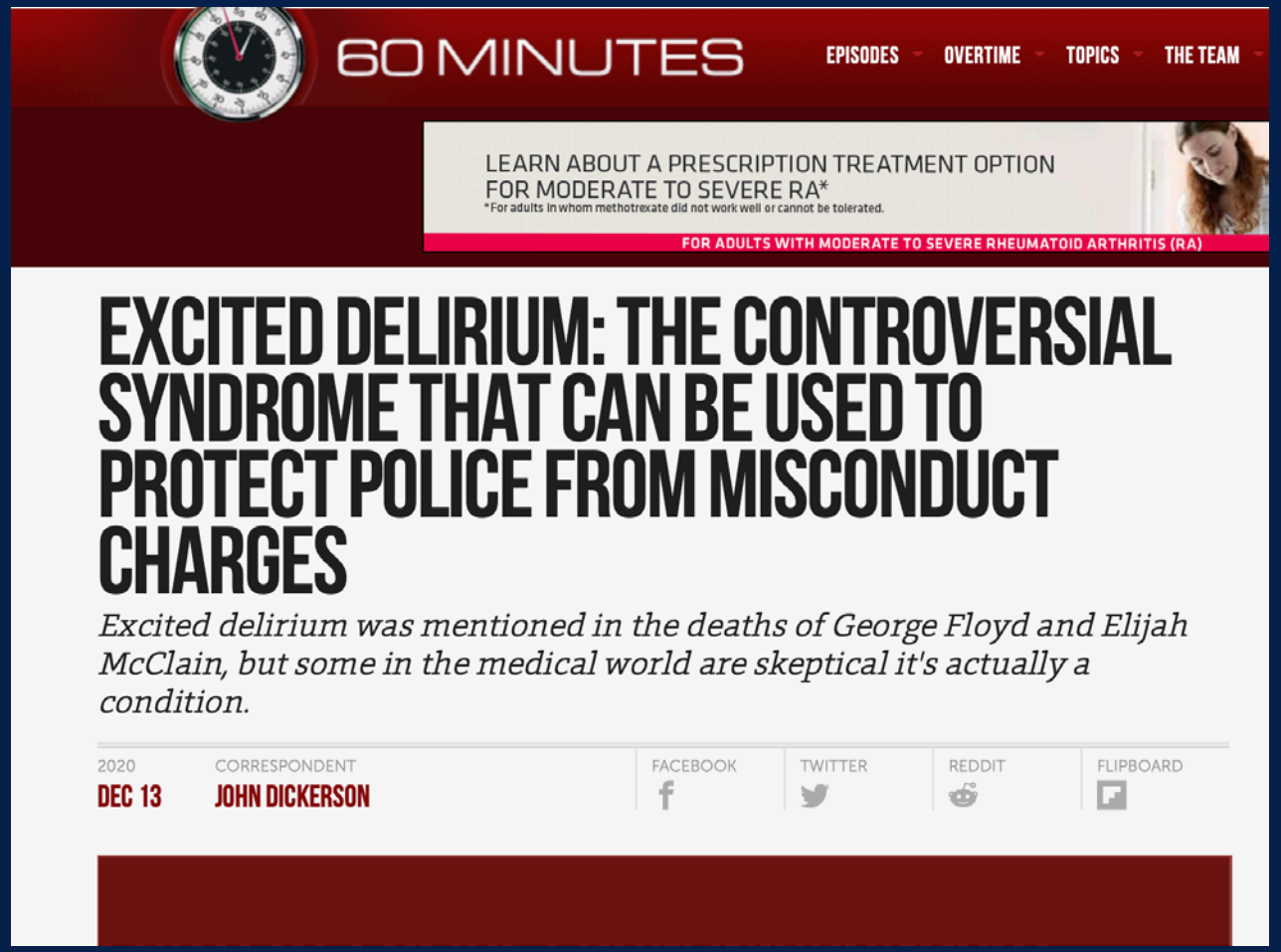
- The patient was given 5 mg of midazolam IM, although, at the same time, an adept nurse was able to obtain a peripheral IV and propofol was administered as he was being wheeled back to the critical care bay in the ED. His HR (last recorded) was 160-180's bpm and he had a temperature of 40.2 C.

- With the propofol bolus, the patient becomes relaxed and he is intubated for airway protection and placed on propofol at 40 mcg/kg/min and he'd been given a dose of rocuronium and etomidate. Dexmedetomidine is also added to his sedation regimen.

Case 1

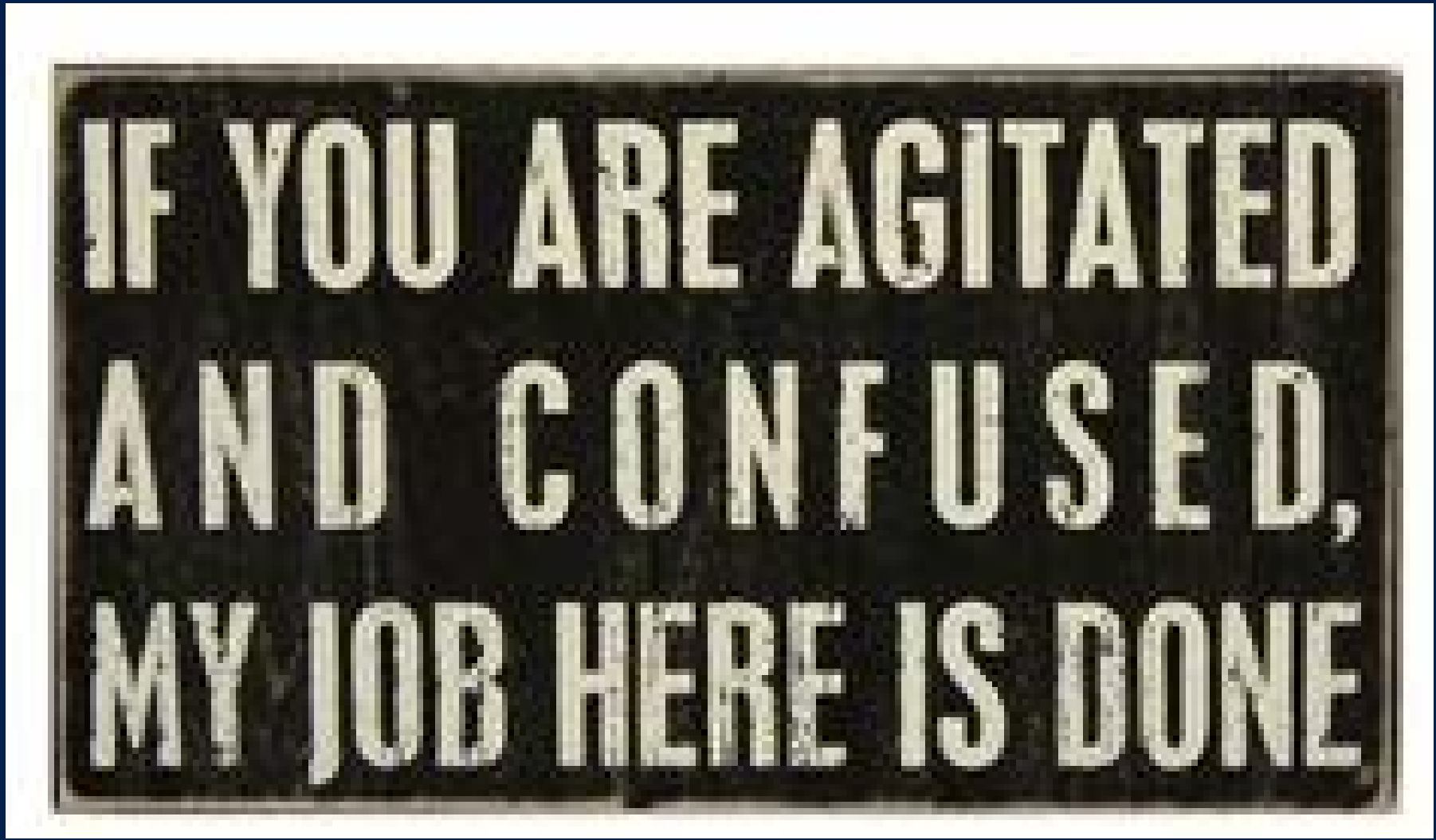
- The patient has tachycardia on the monitor (normal interval) and no conduction blocks. 120's bpm → 110's bpm as monitored.
- He has an NG tube placed and 50 grams of AC administered followed by Golytely at 1 liter/hour.
- The patient is admitted to the ICU overnight with WBI ongoing at 1 L/hour.
- He has remained stable with HR, BP and other symptoms improving so that he is relaxed and calm on sedation.

Media Cases and Discussion



https://www.cbsnews.com/news/excited-delirium-police-custody-george-floyd-60-minutes-2020-12-13/

QUESTIONS



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