THE COMBATIVE, UNCOOPERATIVE, ARRESTED, AND THREATENING TRAUMA PATIENT: A LEGAL, ETHICAL, AND MEDICAL MINEFIELD!

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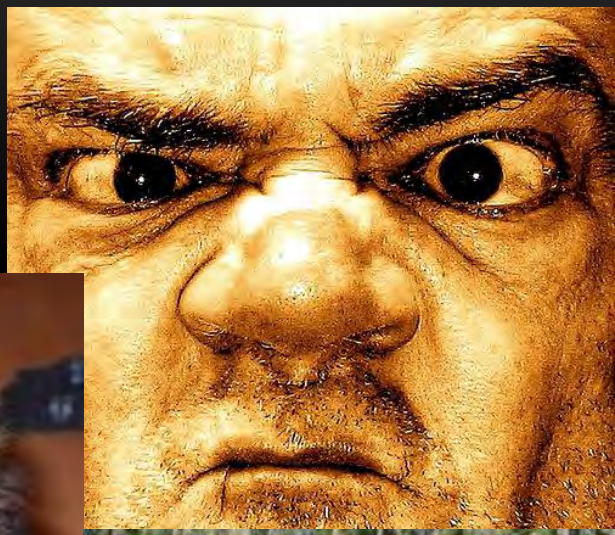
Level I Agitation Center!

WHY AGITATED?



CASE #1

- 58 year old male RD in head-on MVA with two others transported from the scene
  - Moderate damage
  - EtOH on board
    - No slurred speech
    - Nystagmus
  - Refusing all care and demanding to speak to his lawyer
  - BP 132/90, HR 138, RR 22, Pulse Ox 98%

CASE #1 - CONTINUED

- Wife demands transfer to “real” trauma center
- Two adult children demand that you let him go
- Who decides?
  - Patient
  - Wife
  - Kids
  - Insurance carrier
  - Court
  - You
- Police are asking questions

MEDICAL ISSUES

- Most important!
- Must consider
  - Head trauma
  - Hypoglycemia
  - Hypoxia

HEAD TRAUMA, ALCOHOL, OR BOTH?

- Combative patient may be
  - Head injured
  - Intoxicated
  - Bad disposition
    - Combination of all 3
- When the patient is annoying you…
- In this particular case, no injuries found

LEGAL ISSUES

- Who decides?
  - You do
    - “Reasonable man” standard
      - Courts have supported providers
  - Exceptions
    - Court appointed guardian
    - Family consent statute

LEGAL ISSUES

- Consent/Refusal of Care
  - How to determine medical decision making capacity
  - Impact of intoxication on ability to consent or refuse care
  - Alcohol levels?
  - Toxicology screens?

ELEMENTS OF DECISION MAKING

- Is the patient able to
  - Understand the options presented and their associated risks and benefits
  - Make a choice using a consistent set of values and goals
  - Communicate his or her choice
  - Make a decision specific to this problem and this treatment

ASSESSING CAPACITY

- Does the patient understand
  - The problem at hand?
  - Proposed treatment?
  - Alternatives?
  - Consequences?
  - Influences on their decision?
- Clinical determination
  - Not based on a number

LEGAL ISSUES

- Confidentiality
  - Federal law
    - Health Insurance Portability and Accountability Act of 1996
      - HIPAA
        - Get and give any necessary information
  - Police requests
    - “Hey Doc, what’s his alcohol level? Do I need to get a police blood draw?”

LEGAL ISSUES

- Law Enforcement
  - Reporting requirements
    - GSW
    - Intentional stabbing
    - Animal bite
    - DV, SA, Elder abuse, NAT
  - Homicidal intent
    - Readily identifiable party
  - Intent to leave and drive while intoxicated?

CASE #2

- 43 year old male brought in by a friend seeking admission to an affiliated detox facility
- On exam
  - Red eyes
  - Garbled speech
  - Strong smell of alcohol
- Blood alcohol 0.369
- After waiting 4 hours patient removed his IV and declared his intent to leave
- Nurse left the room to inform the EP of patient's intention
- Patient left before nurse returns
- Nurse asks EP if police should be called

CASE #2

- Patient leaves the ED unescorted
- Wandered onto a nearby highway an hour or two later
- Hit by a car
- Paralyzed from the neck down
- Sued the hospital, EP and EP's medical corporation for negligence and medical malpractice
- Does the hospital or EP have a duty to retain an intoxicated patient who presents voluntarily and now wants to leave?

Thy Intoxicated brother's keeper?

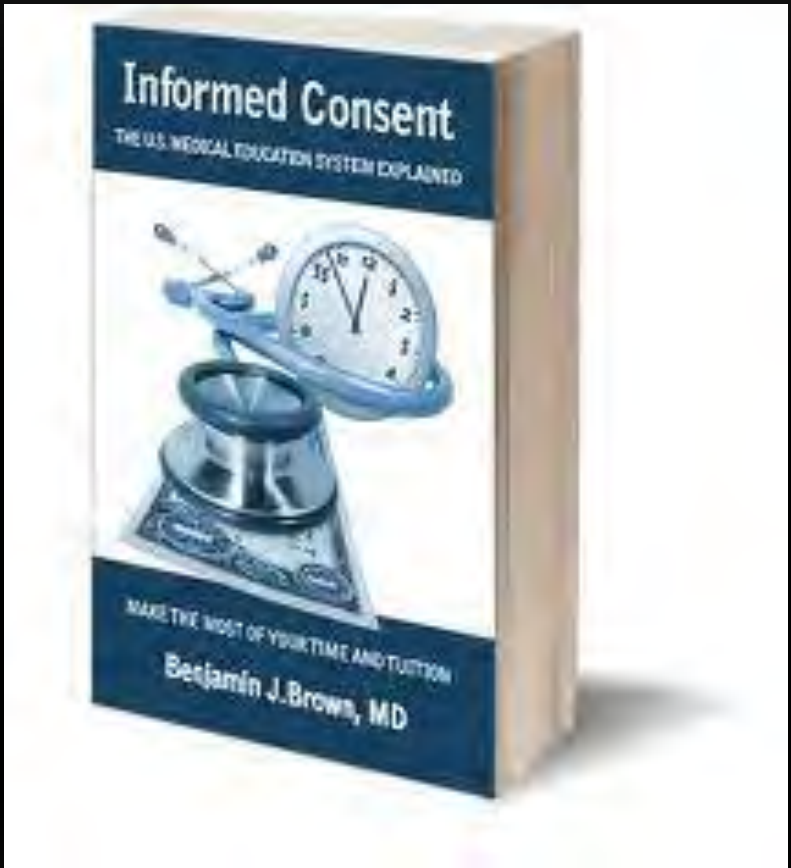
- Kozalski v St. Francis Hospital and Health Centers
  - New York Court of Appeals
    - June 26th, 2013
  - Ruled the hospital and EP had no such duty
    - Cannot have a duty to do that which the law forbids
- State's Mental Hygiene Law
  - A hospital may retain "a person whose mental or physical functioning is substantially impaired as a result of the presence of alcohol…"
  - Distinguishes "who comes voluntarily or is brought with his or her objection"

Thy Intoxicated brother's keeper?

- Whether a duty exists is a question of law
  - Questions of law are decided by the court, not by a jury
- Had the dissenting judges prevailed
  - Jury
- Was he in "imminent danger"?
- Was he "mentally incapacitated"?
- Ingutti v. Rochester Hospital
  - 2014

LEGAL ISSUES

- Consent/Refusal of Care
  - When can you allow a patient to
    - Refuse care
    - Leave AMA
  - Are we free to make bad decisions?
    - Yes!
      - If we have capacity
  - When in doubt…..



TAKE HOME POINTS

- This does not get us off the hook
- What would you rather defend?
- When in doubt “rule”
  - Do what you believe is in the patient’s best interest
    - Courts have supported us
- Keep intoxicated patients until you believe it is safe for them to leave
- Make it difficult for them to get away
  - IV
  - Remove their clothes
  - Restrain

CASE # 3

- 32 year old male assaulted by 3 dudes at a bar
  - 4th visit in 7 days for EtOH and assault
    - 4 different assaults
  - Verbally and physically abusive to staff in the ED
    - Threatening everyone and demanding to leave
    - Screaming at staff and other patients
  - 150/100 118 24
  - No obvious abnormalities on exam

PERSONALITY CHANGE?

- “You can’t change someone’s personality but you can obliterate it with drugs”
  - Billy Mallon

LEGAL ISSUES

- Restraint
  - Why
    - Medical versus behavioral
      - Code of Federal Regulations (CFR) 482.13
  - When
  - How
    - Seclusion/verbal/physical/chemical
      - Least restrictive and progress
  - Partial restraint?
  - “Rock star”

ACEP Task Force – Excited Delirium

- September, 2009
  - “May be amenable to early therapeutic intervention in some cases in the pre-mortem state”
  - “Physical restraints should be rapidly supplemented with chemical restraints…”

EXCITED DELIRIUM

- Pathophysiology
  - Profound metabolic acidosis
  - Unchecked catecholamine surge
  - Our job
    - Interrupt the downward spiral

CHEMICAL RESTRAINT

- Benzodiazepines
- Anti-psychotics
  - Droperidol
  - Haloperidol
- Dissociatives
  - Ketamine

CHEMICAL RESTRAINT

- Benzodiazepines work
  - Particularly for cocaine/methamphetamines
  - Midazolam
    - 0.05 to 0.1 mg/kg IV/IM
      - Typical dose 2-8 mg
  - Diazepam
    - 0.2 – 0.5 mg IV/IM
      - Typical dose 5-10 mg
  - Lorazepam
    - 0.1 – 0.3 mg/kg IV/IM
      - Typical dose 2-5 mg
  - Careful when combined with alcohol
    - Knott et al, Ann Emerg Med 2006

SEDATION

- Droperidol (Inapsine)
  - Butyrophenone
  - Binds to GABA and dopamine receptors
  - Dose
    - 2.5 – 10 mg IV/IM
  - Cardiovascular effects
    - QTc prolongation (<1%)
    - TdP (<1%)
      - Dose dependent risks
  - Anti-emetic

DROPERIDOL

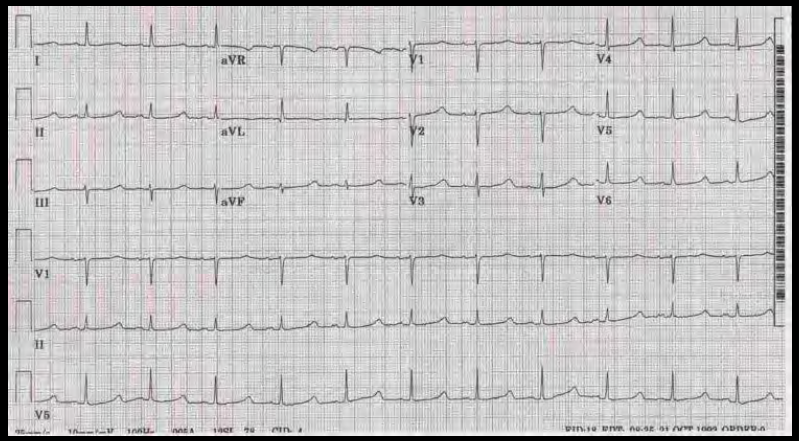
- Safe
  - Chase PB, Biros MH, Acad Emerg Med 2002
  - Richards JR et al, J Emerg Med 1998
  - Szuba et al, J Clin Psychiatr 1992
  - Watcha M, Anesthesiol Clin North Am, 2002
  - Silverstein JH et al, Anesthesiology, 2002
  - Cohen J et al, Gastrointest Endosc, 2000
  - Magee LA et al, Am J Obstet Gynecol 2002

SEDATION

- Haloperidol (Haldol)
  - Butryophenone
  - Blocks post-synaptic mesolimbic dopaminergic D1 and D2 receptors in the brain
  - Dose
    - 5 mg IV/IM

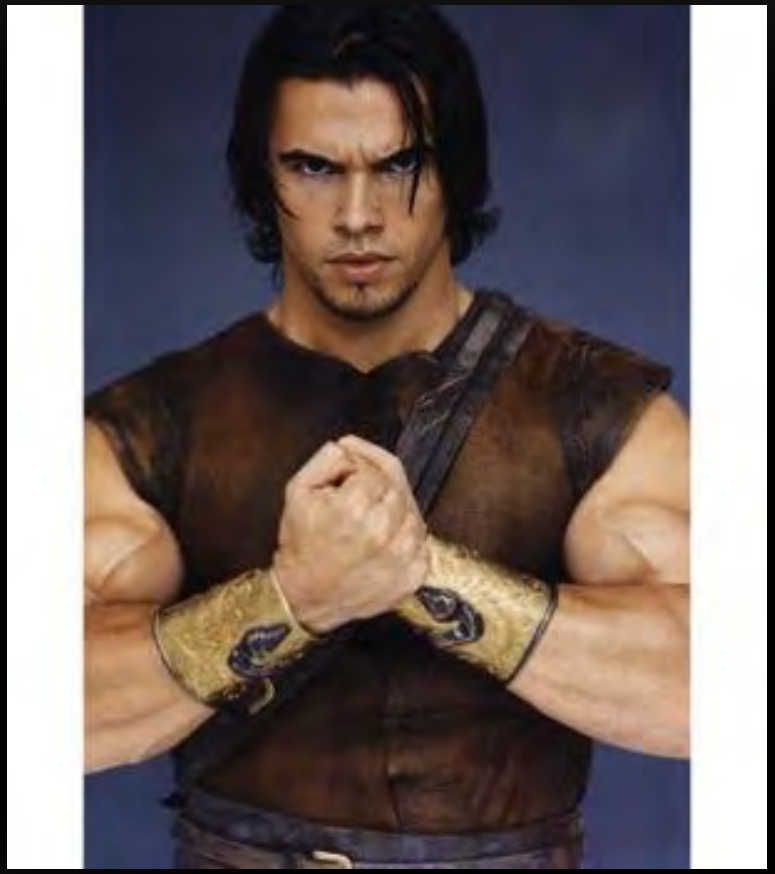
SEDATION

- Haloperidol
  - Cardiovascular effects
    - QTc prolongation (<1%)
    - TdP (<1%)
  - Mechanism
    - Antagonizes potassium channel thereby prolonging cardiac repolarization
  - FDA issued a QT prolongation warning on haloperidol in 2007



SEDATION

- Diphenhydramine (Benadryl)
  - QTc prolongation (<1%)
  - QRS prolongation (<1%)
  - TdP (<1%)
- Ziprasidone (Geodon)
  - QTc prolongation (<1%)
  - TdP (<1%)
  - Hypotension
  - Tachycardia
- Olanzapine (Zyprexa)
  - QTc prolongation (<1%)
  - TdP (<1%)
  - Hypotension
- All higher risk at high dosages



CHEMICAL RESTRAINT

- Ketamine
  - 1-2 mg/kg IV
  - 4-5 mg/kg IM
    - Use in the field
      - Burnett et al, Prehosp Emerg Care 2012

INCREASED ICP?

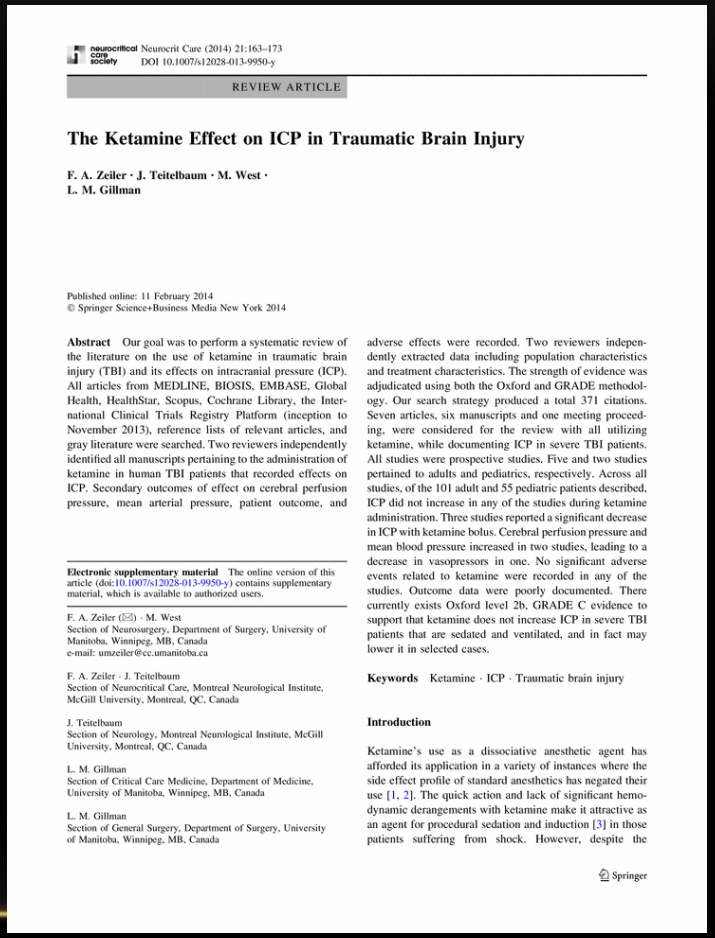
- Evaluated the available evidence on the effects of ketamine on intracranial and cerebral perfusion pressures
  - Cohen at al
    - Ann Emerg Med, 2014

INCREASED ICP?

- Conclusions
  - No adverse effect on
    - ICP
    - CPP
    - Neurologic outcome
    - ICU stay
    - Mortality

KETAMINE IN HEAD INJURY

- No increase in ICP
- Improved CPP
  - CPP = MAP – ICP
- Possibly
  - Neuro-protective
  - Neuro-regenerative
- Safe in head injury
  - Himmelseher et al
    - Anesth and Analg, 2005



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REVIEW ARTICLE

The Ketamine Effect on ICP in Traumatic Brain Injury

F. A. Zeiler · J. Teitelbaum · M. West · L. M. Gillman

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Abstract Our goal was to perform a systematic review of the literature on the use of ketamine in traumatic brain injury (TBI) and its effects on intracranial pressure (ICP). All articles from MEDLINE, BIOSIS, EMBASE, Global Health, HealthStar, Scopus, Cochrane Library, the International Clinical Trials Registry Platform (inception to November 2013), reference lists of relevant articles, and gray literature were searched. Two reviewers independently identified all manuscripts pertaining to the administration of ketamine in human TBI patients that recorded effects on ICP. Secondary outcomes of effect on cerebral perfusion pressure, mean arterial pressure, patient outcome, and adverse effects were recorded. Two reviewers independently extracted data including population characteristics and treatment characteristics. The strength of evidence was adjudicated using both the Oxford and GRADE methodology. Our search strategy produced a total 371 citations. Seven articles, six manuscripts and one meeting proceeding, were considered for the review with all utilizing ketamine, while documenting ICP in severe TBI patients. All studies were prospective studies. Five and two studies pertained to adults and pediatrics, respectively. Across all studies, of the 101 adult and 55 pediatric patients described, ICP did not increase in any of the studies during ketamine administration. Three studies reported a significant decrease in ICP with ketamine bolus. Cerebral perfusion pressure and mean blood pressure increased in two studies, leading to a decrease in vasopressors in one. No significant adverse events related to ketamine were recorded in any of the studies. Outcome data were poorly documented. There currently exists Oxford level 2b, GRADE C evidence to support that ketamine does not increase ICP in severe TBI patients that are sedated and ventilated, and in fact may lower it in selected cases.

Keywords Ketamine · ICP · Traumatic brain injury

Introduction

Ketamine's use as a dissociative anesthetic agent has afforded its application in a variety of instances where the side effect profile of standard anesthetics has negated their use [1, 2]. The quick action and lack of significant hemodynamic derangements with ketamine make it attractive as an agent for procedural sedation and induction [3] in those patients suffering from shock. However, despite the

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HEAD INJURY

- Greatest predictors of bad outcome
  - Hypotension
  - Hypoxia

HEAD INJURED TRAUMA PATIENT

- Intoxicated
- Combative
- Uncooperative
- Non-compliant
  - Spinal immobilization
- End-result
  - Raised ICP
  - Risk of spinal injury
  - Risk to providers

HEAD INJURY

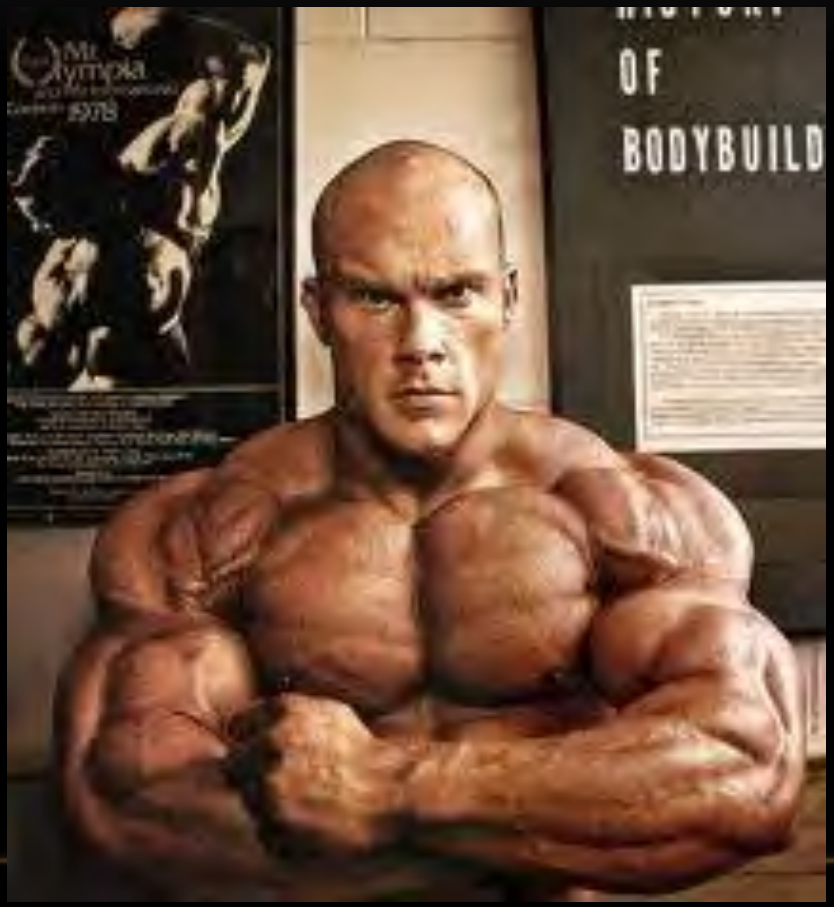
- Benzodiazepines
  - Drop MAP
  - Decrease respiratory drive
    - Especially with high levels of alcohol!
      - Knott et al, Ann Emerg Med 2006
- Ketamine
  - Increases MAP
  - No decrease in respiratory drive

CASE

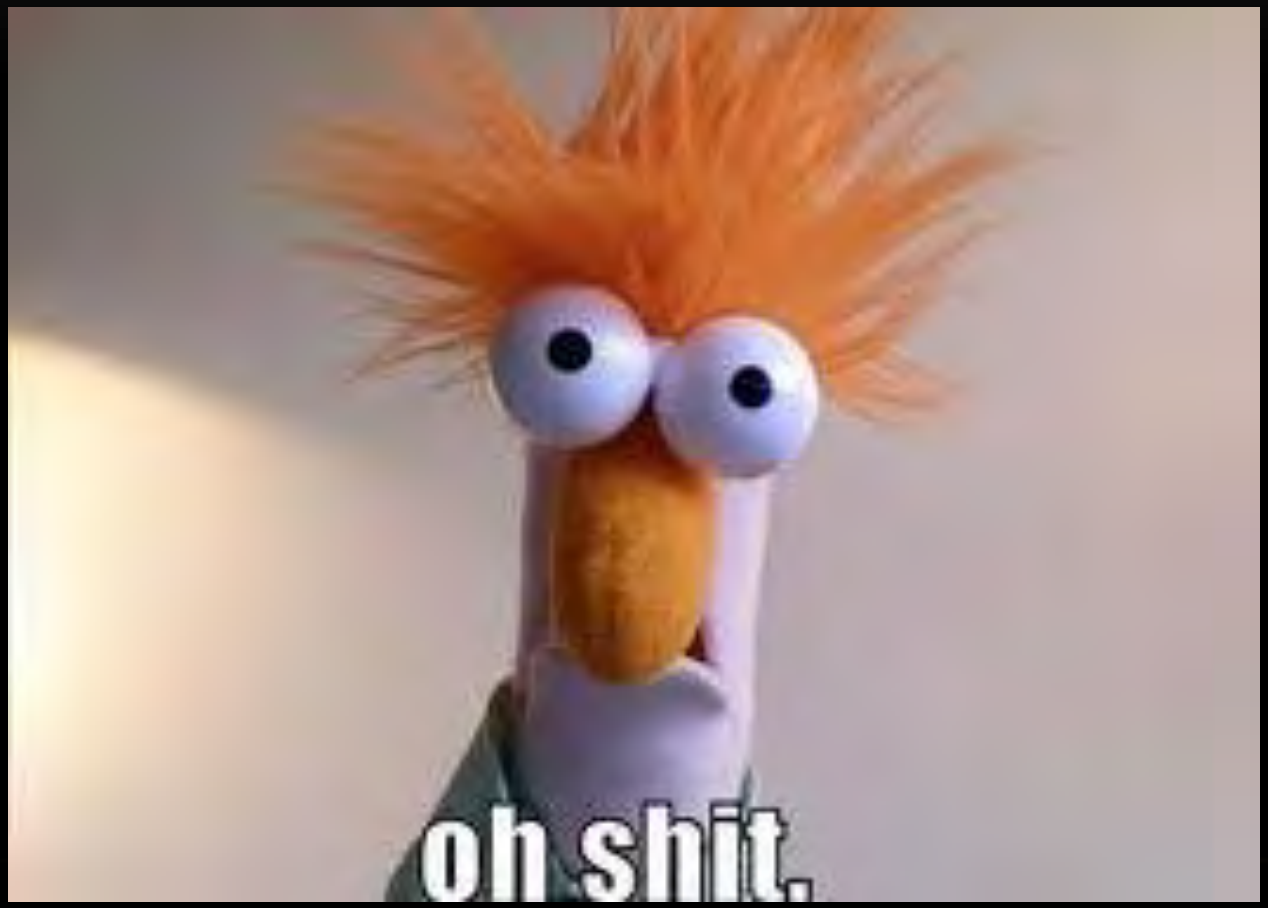
- 27 year old male tried a “drug cocktail” this evening
- Now naked outside 7-11, challenging customers
- 10 police officers restraining him and he is still fighting
- They call you

HERE IS YOUR HELP

HERE IS YOUR PATIENT



HERE IS YOU



SEDATION APPROACH

- Cocaine/methamphetamines
  - Benzodiazepines
- Psychiatric/alcohol/undifferentiated
  - Droperidol
- Agitated delirium?
  - Ketamine
- Have a plan

LEGAL ISSUES

- Documentation
  - Consent/refusal of care
  - Restraint
  - Tell a story
    - If abusive/uncooperative
  - Control yourself
    - Don’t react
    - Don’t speculate
  - Accurate
    - Macros
      - Template documentation
  - “The chart should tell a story that can only have one ending”

CASE #4

- 13 year old male brought in by ambulance after being hit by a car while riding his bike
- Parents couldn't be located
- Angry, intoxicated uncle says "don't do anything"
- On arrival:
  - 96/50, 100, 20, 95% RA
  - Abdomen ttp
  - Deformity at left wrist

LEGAL ISSUES

- Consent
  - Federal law
    - Emergency Medical Treatment and Labor Act
      - EMTALA
  - State laws
    - Emergency Doctrine
    - Minors – Child abuse/child neglect
    - Formally appointed guardian or surrogate
    - State family consent statutes
  - Federal duty preempts state law

CASE # 5

- 36 year old male in police custody
  - Witnessed to swallow several bags with a white powder in them just prior to being arrested
  - Patient denies ingesting anything and wishes to refuse all care
  - BP 148/80; HR 125; RR 20; Pulse Ox 97% RA
  - Normal physical exam
- Authority of the warden

ETHICAL ISSUES

- Freedom to make bad decisions
- Cannot be allowed to harm themselves
- Cannot be allowed to harm others
- Presence of alcohol or drugs and capacity
- Duty to patient and duty to others
  - Staff
  - Other patients
  - Public
- What would you rather defend?

Comments, thoughts, frustrations…..

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