

Management of the Agitated and Violent ED Patient

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Conflicts of Interest

- None

A brief preamble...

- Is agitation and violence the same thing?
 - In some ways yes and in some ways no
- There are internal and external sources of violence in the ED
 - External violence = e.g. hospital shootings
 - Internal violence = violence among ED patients, escalation of agitation in individuals in the ED

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Objectives

- Define behavioral emergencies
- Discuss how to identify patients at risk for violent and agitated behavior
- Describe the prevalence of behavioral emergencies
- Explore reasons why treating violence and agitation is necessary
- Discuss treatments of the agitated, violent ED patient

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Behavioral Emergencies

Behavioral Emergencies = Medical Emergencies

Behavioral Emergencies

“Abnormal behavior within a given situation that is unacceptable or intolerable to the patient, the family, or the community”

Behavioral Emergencies

“You’ll know it when you see it”

Behavioral Emergencies

Behavior is out of control

Unpredictable

Danger to self

Danger to others

Time is of the essence when treating

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Why do we treat behavioral emergencies

Behavioral Emergencies = Medical Emergencies

If you have a patient with asthma, you would treat them with nebs

If you have a patient with an MI, you would given them an aspirin

So if you have an agitated patient with a behavioral emergency, why wouldn't you treat that too?

Why do we treat behavioral emergencies

1. Avoid injuries to patients and providers
2. To facilitate a comprehensive patient evaluation
3. To avoid serious morbidity or mortality from the agitation itself

2. To facilitate a comprehensive patient evaluation

TOXICOLOGY/ORIGINAL RESEARCH

Unsuspected Critical Illness Among Emergency Department Patients Presenting for Acute Alcohol Intoxication



Lauren R. Klein, MD*; Jon B. Cole, MD; Brian E. Driver, MD; Christopher Battista, MD; Ryan Jelinek, MD; Marc L. Martel, MD

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3. Excited Delirium Syndrome

Multiple definitions in the literature

Profound Agitation

Metabolic Acidosis

Hyperthermia

Severe electrolyte derangements

Acute renal failure

Death

Excited Delirium Syndrome

We don't know which patients will go on to develop the metabolic derangements or who is at risk for sudden cardiac death

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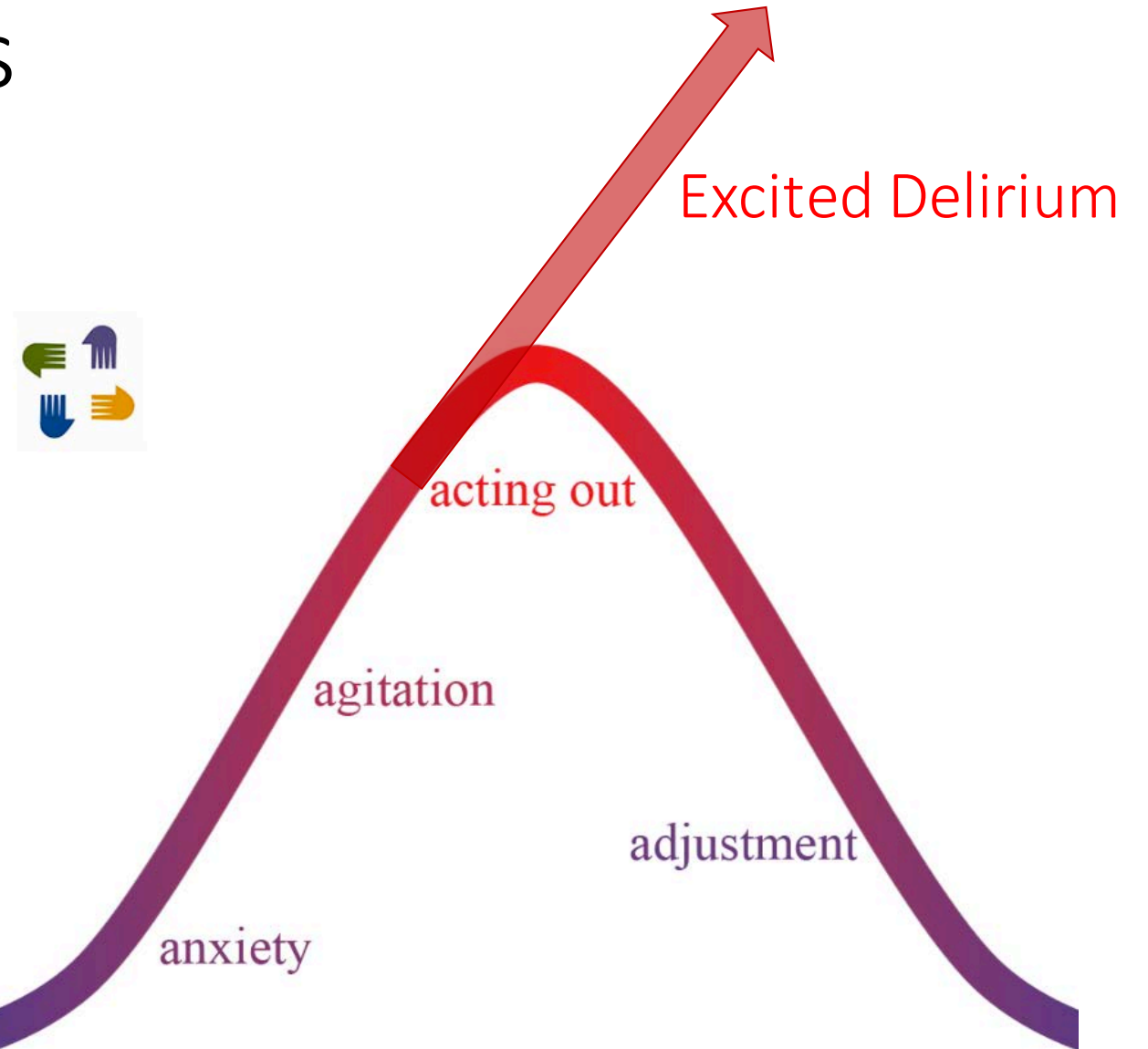
Spectrum of Behaviors

Anxious

Agitated

Acting out

Excited/Agitated Delirium



Clues to Potential Violence

Behavioral clues

Posture: tense, clenched

Speech: loud, threatening, insistent

Motor: restless, pacing, easily started

Agitated

Clues to Potential Violence

Historical and epidemiologic clues

- History of violence (especially if frequent, serious or unprovoked)

- Threats or plans of violence

- Symbolic acts of violence

Clues to Potential Violence

Inmates and Prisoners

While we certainly do not want to generalize ...

A Supreme Court decision in 1976 ruled that prisoners have a constitutional right to appropriate medical care

Numerous reports show a high rate of violent incidents associated with inmate patients, including shootings and deaths.

One study found that 1.9 attempted escapes by prisoners from the ED or other hospital clinics occur per week

Clues to Potential Violence

Time of Day

Incidents are more likely to occur on a night shift

In a California study, 32% of violent incidents occurred between 11 p.m. and 7 a.m. (while only 13.3 percent of the patient volume was seen during these hours)

Clues to Potential Violence

Certain diagnoses are frequently associated with agitation and violent behavior

Etiologies of Behavioral Emergencies

Four General Categories

1. Substance abuse

- Active Intoxication - alcohol, illicit substance, designer drugs, synthetic drugs, Rx substance intoxication
- Withdrawal syndromes

Etiologies of Behavioral Emergencies

2. Psychiatric

- Psychosis, acute mania, schizophrenia

Factors contributing to this:

- Closing of psychiatric and mental health clinics
- Reduction of psychiatric/behavioral hospital beds
- Too few mental health counselors and emergency psychiatrist

EDs have become first line of treatment for mental health patients.

Etiologies of Behavioral Emergencies

3. Medical

- Sepsis, hepatic encephalopathy, uremia, meningitis, etc.
- Any pathology associated with AMS

4. Traumatic

- Traumatic brain injury (current, previous)
- Hemorrhagic shock

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Agitation and violence in the ED is getting worse.

Why is it increasing?

- An overall increase in violence in society
- Increased presence of gangs, particularly in urban, inner-city settings.
- Increased prevalence of drug and alcohol use in society.
- Increased numbers of private citizens arming themselves related to perceived threats of violence in their neighborhoods

Why is it increasing?

- Prolonged waits for patients seeking medical care, sometimes compounded by unpleasant waiting room environments.
- Use of emergency departments for “medical clearance” of drug- and alcohol-related arrests.
- Distrust of physicians, nurses and paramedics since they may represent the “establishment” to some population segments.

Why is it increasing?

- Failure of community mental health systems, and subsequent referral of lots of patients into the ED
- Unavailability of acute psychiatric treatment so ED physicians are providing the preliminary psychiatric evaluation

What is the Scope?

The big events are all over the news:

Major Violent Events: Serious but Uncommon

154 hospital-related shootings between 2000 and 2011

Average of 14 per year

The emergency department was the most common site of hospital gun violence (29 percent)

Everyday Violence

Also on the rise...

Everyday Violence: Some Statistics

More than 75 percent of emergency physicians experienced at least one violent workplace incident in a year

Everyday Violence: Some Statistics

More than 70 percent of emergency nurses reported physical or verbal assault by emergency patients or visitors

Pushing/grabbing and yelling/shouting are the most prevalent types of violence

80% of incidents occurred in patient rooms.

The violence happened most frequently while the nurses were triaging patients, restraining or subduing patients or performing invasive procedures

Everyday Violence: Agitation

What is the prevalence of agitation?

The Prevalence of Agitation

PAIN MANAGEMENT AND SEDATION/ORIGINAL RESEARCH

The Characteristics and Prevalence of Agitation in an Urban County Emergency Department

James R. Miner, MD*; Lauren R. Klein, MD; Jon B. Cole, MD; Brian E. Driver, MD; Johanna C. Moore, MD; Jeffrey D. Ho, MD

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Study objective: We seek to determine the characteristics and prevalence of agitation among patients in an urban county emergency department (ED).

Methods: This was a prospective observational study of ED patients at an urban Level I trauma center. All ED patients were screened during daily randomized 8-hour enrollment periods. Adult agitated patients, defined as having an altered mental status score greater than 1, were included. Trained research volunteers collected demographics and baseline data, including

The Prevalence of Agitation

~ 3% in our ED at any given time

110,000 visits per year = 3300 patients

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System Level Approaches

- Environmental:
 - Trained security officers
 - "Panic buttons"
 - Direct phone lines to security in the hospital or local police departments.
 - Curved mirrors
 - Metal detectors (??)

System Level Approaches

- Control access in and out of the ED
 - Use coded badges
 - Visitor passes/ID for patients and visitors.

Verbal De-escalation

- There is no “right” way to do this for every encounter
- Every situation is different
 - Different: people, environment, factors
- Training should be implemented for all ED providers

Verbal De-escalation

- Remain calm, but avoid demanding or telling the patient to “calm down”
- Don’t push your “needs”
 - I’m busy, I have other patients
- Don’t minimize patients’ perspective
- Validate feelings
 - Allow patient to vent frustrations

Verbal De-escalation

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Verbal De-escalation

- Consider what the patient may need
 - Food?
 - Pain medication?
 - Access to the restroom?

Verbal De-escalation

Project BETA

3 step process

- Verbally engage patient
- Establish a collaborative relationship
- Verbally de-escalate

4 objectives

- Ensure safety of patient, staff and others
- Help manage emotions / regain behavior control
- Avoid restraints if possible
- Avoid coercive interventions that may escalate

Verbal De-escalation

Project BETA

1. Respect personal space
2. Do not be provocative
3. Establish verbal contact
4. Be concise
5. Identify wants and feelings

Verbal De-escalation

Project BETA

6. Listen closely
7. Agree or agree to disagree
8. Set clear limits
9. Offer choices and optimism
10. Debrief patient and staff

Verbal De-escalation: Summary

- Communication and understanding
- Understand point of view
- Build a relationship
- Assess often
 - Verbal de-escalation if no danger
 - Remove escalating factors
 - Call for help when necessary (if acting out)

Restraints

A complex topic!

Controversial for many individuals as there is a lot to consider

Restraints

Individual rights

vs

Interests of society

Informed consent

vs

Patient capacity

Restraint placement

vs

Assault & battery

Patient autonomy

vs

Safety of staff

Restraints

Legal authority to use of restraint

The Final Rule

- Effective January 8, 2007
- Applies to all hospitals participating in Medicare and Medicaid
- Sets minimum standards for care

Restraints

5th standard – Restraint for Acute Medical and Surgical Care

- Patient's right to be free from both physical restraints and drugs that are used as a restraint that are not medically necessary or are used as a means of coercion, discipline, convenience, or retaliation by staff

Restraints

“All patients have the right to be free from physical or mental abuse, and corporal punishment”

“Restraint or seclusion may only be imposed to ensure the immediate physical safety of the patient, a staff member, or others and must be discontinued at the earliest possible time;”

Restraints

Fairly stringent requirements:

Face to face evaluation when used to manage violent or self destructive behavior placing providers or patient at risk

May only be used when

Less restrictive agents have failed

Least restrictive restraints are applied

Never as a standing order

In accordance with written modification of original plan of care

Medication Treatment

Medical treatment of violent and agitated behaviors

NOT chemical restraint

Medication Treatment

How to treat agitation and violent behavior with medications

Medication Treatment

First consideration: Route of administration (Oral, IV, IM)

Medication Treatment

Second consideration: Which drug to chose

Benzodiazepines

1st generation antipsychotics

2nd generation antipsychotics

Ketamine

Medication Treatment

Second consideration: Which drug to chose

Demographic considerations?

Patient comorbidities?

Concomitant intoxication?

Specific Indications?

Medication Treatment

Second consideration: Which drug to chose

“Undifferentiated Agitation”

Medication Treatment

Second consideration: Which drug to chose

What does the literature show?

Medication Treatment

PAIN MANAGEMENT AND SEDATION/ORIGINAL RESEARCH

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

Lauren R. Klein, MD, MS*; Brian E. Driver, MD; James R. Miner, MD; Marc L. Martel, MD; Michelle Hessel, PharmD;
Jacob D. Collins, BS; Gabriella B. Horton; Erik Fagerstrom, BS; Rajesh Satpathy, BA; Jon B. Cole, MD

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Medication Treatment

AMSS Scores	Midazolam	Olanzapine	Ziprasidone	Haloperidol-5	Haloperidol-10
Proportion Sedated: 15 minutes	89 (71%)	99 (61%)	76 (52%)	61 (40%)	64 (42%)

	Difference in Proportion Adequately Sedated
Midazolam vs Olanzapine	9% (-1 to 20%)
Midazolam vs Ziprasidone	18% (6% to 29%)
Midazolam vs Haloperidol-5	30% (19 to 41%)
Midazolam vs Haloperidol-10	28% (17 to 39%)
Olanzapine vs Ziprasidone	8% (-3 to 19%)
Olanzapine vs Haloperidol-5	20% (10 to 31%)
Olanzapine vs Haloperidol-10	18% (7 to 29%)
Ziprasidone vs Haloperidol-5	12% (1 to 23%)
Ziprasidone vs Haloperidol-10	10% (0 to 21%)
Haloperidol-10 vs Haloperidol-5	2% (-9 to 13%)

	Midazolam	Olanzapine	Ziprasidone	Haloperidol-5	Haloperidol-10
Time to Adequate Sedation					
Median Time (IQR)	12 (9-22)	14 (10-28)	17 (13-30)	20 (15-32)	19 (13-31)
Rescue Medications					
Entire Encounter	52 (40%)	34 (21%)	35 (24%)	50 (33%)	30 (20%)
Before Adequate Sedation	12 (9%)	14 (9%)	27 (19%)	32 (22%)	12 (8%)
After Adequate Sedation	40 (32%)	20 (12%)	8 (6%)	18 (12%)	18 (12%)

Adverse Events	Midazolam	Olanzapine	Ziprasidone	Haloperidol-5	Haloperidol-10
Extrapyramidal Symptoms					
Dystonia	0	0	0	0	2 (1%)
Akathisia	0	0	0	0	0
Cardiovascular					
Hypotension	1 (1%)	1 (1%)	0	2 (2%)	1 (1%)
Bradycardia	0	1 (1%)	1 (1%)	1 (1%)	2 (1%)
Torsades de Pointes	0	0	0	0	0
Other dysrhythmias	0	0	0	0	0
Respiratory					
Hypoxemia (O2 < 93%)	2 (2%)	3 (2%)	1 (1%)	3 (2%)	1 (1%)
Endotracheal Intubation	1 (1%)	1 (1%)	1 (1%)	1 (1%)	0

Medication Treatment

Midazolam resulted in significantly lower AMSS scores at 15 minutes compared to:

Ziprasidone

Haloperidol-5

Haloperidol-10

Midazolam resulted in lower AMSS scores at 15 minutes compared to olanzapine but this was not quite significant

Thank you for your time.

Questions?

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