AHC Media

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Managing Acute Agitation in the ED: Evaluation and Treatment

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Speakers

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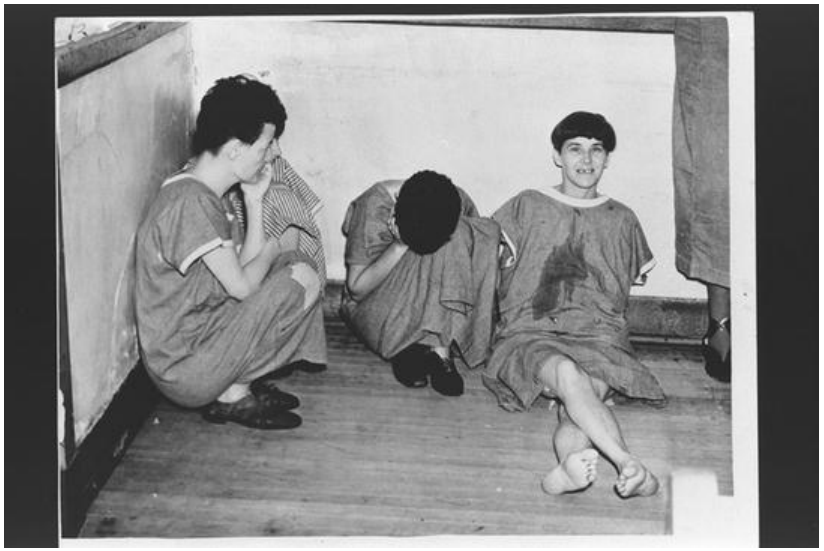
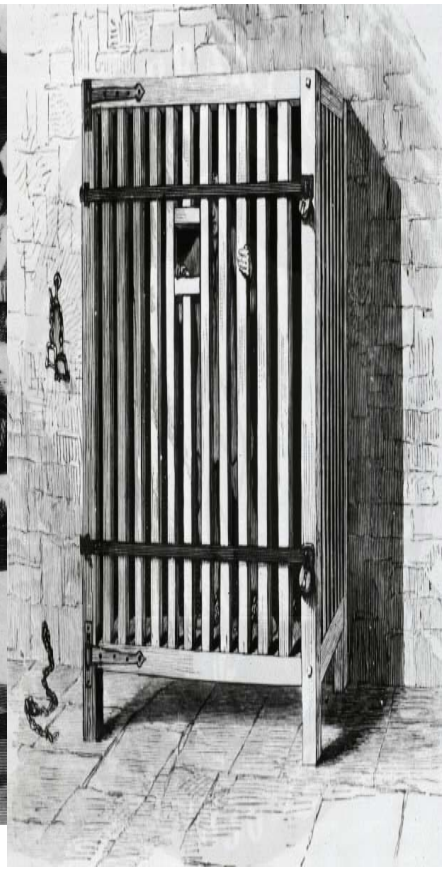
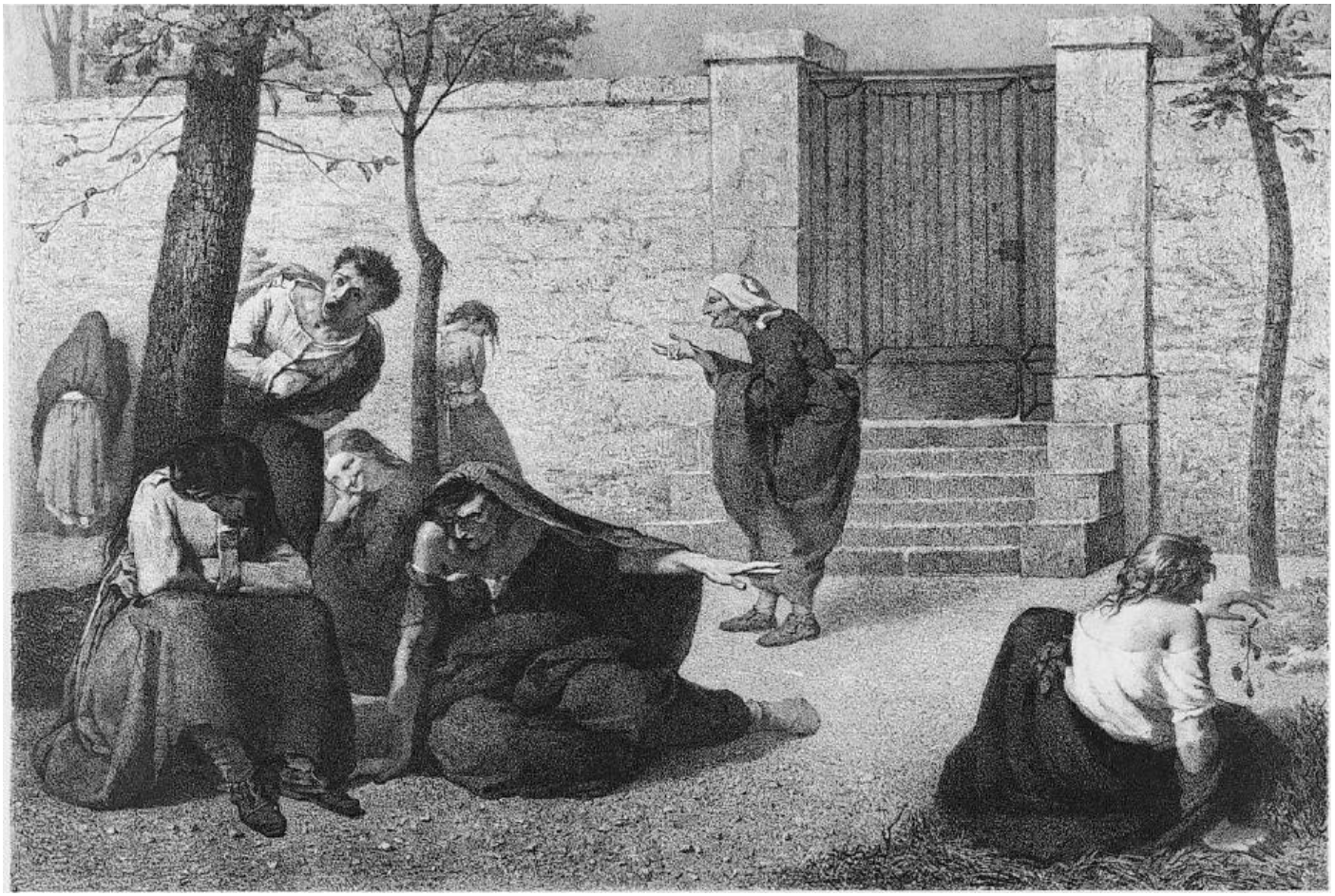
Objectives

- Explain what constitutes a behavioral emergency.
- Outline how to identify, manage and protect oneself from acutely agitated or psychotic patients.
- Explain the requirements for using physical restraints, emergency medications and/or sedation.
- Describe the main medication combinations commonly used in the ED setting for management of behavioral emergencies.

Historical Perspective



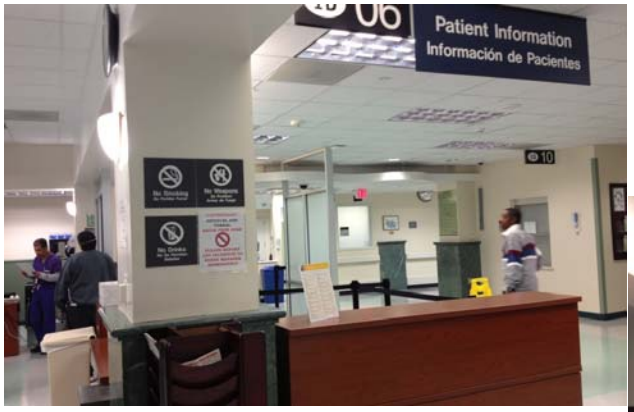





It WAS MORE
FUN IN HELL


LIFE

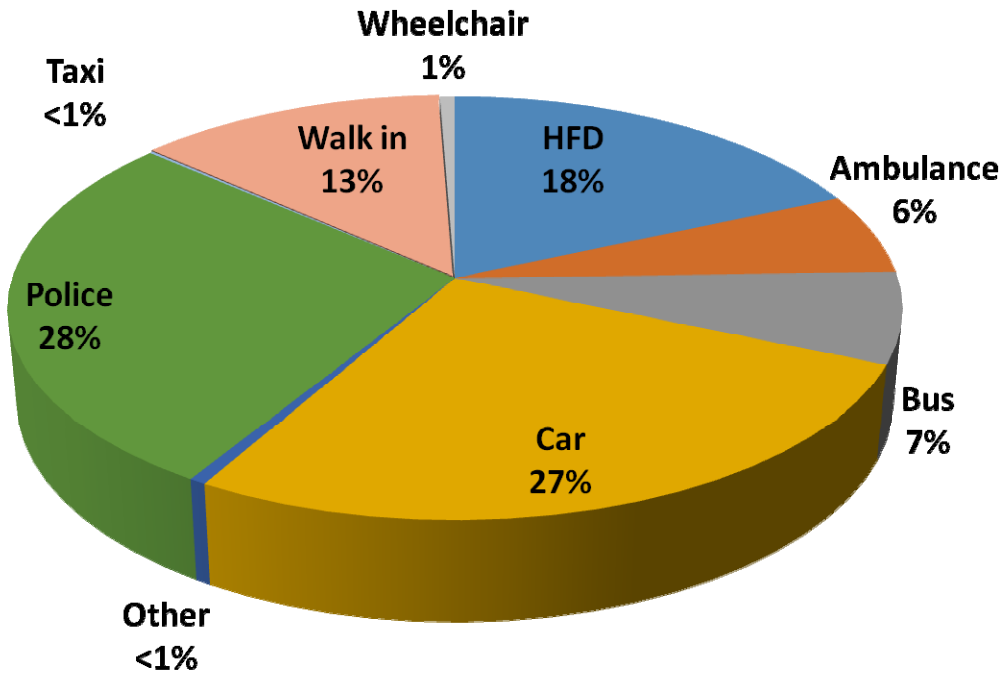
Accept Mental Health and Behavioral Emergencies as Part of your Clinical Experience



Ben Taub Hospital Emergency Center

Level I Trauma Center

Mode of Arrival



*January through October 2014

The practice gap:

- Incidents of work-place violence are very common in the healthcare and mental health in particular; the emergency department is subject to a high rate of such violent incidents, mainly because of the nature of presenting problems in patients (e.g. patients with psychosis, substance use/intoxication, and agitated for other reasons).
- It is estimated that more than one of ten ED nurses and providers have been subject to some sort of physical assault in past ten days. Thus, the scope of the problem is staggering, and the nature of ED work is such that agitation and assaults are likely here to stay.

Agitation:

- A state of motor restlessness accompanied by mental/emotional tension
- Can be present in medical and psychiatric/mental disorders
- Can be an independent, standalone issue
- Spectrum from mild restlessness to overtly aggressive behavior
- Overall not well studied
- Country by country variation

The Scope of the Problem

- According to one study between 1993 and 1999, healthcare or mental health workers were involved in approximately 200,000 incidents of work-place violence each year.
- A survey of academic EDs in 1999 found that:
  - 32% of staff had faced at least one verbal threat daily
  - 25% had to use restraint at least once a day
  - 18% had been threatened by a weapon daily; and
  - 7% reported seeing a death caused by ED violence in the last 5 years.
- A 2006 study found that during a six month period, almost all ED workers were abused verbally by patients or visitors and approximately 67% of nurses had been physically assaulted.

Agitation & Behavioral Emergencies Cost the System:

- Staff sick leave increases after an incidents of patient aggression
- "The annual economic consequences of conflictive behaviors and containment events; found to be over €91 and €133 million, respectively, in the UK."

BMC Psychiatry. 2015; 15: 35. **Health service use and costs associated with aggressiveness or agitation and containment in adult psychiatric care: a systematic review of the evidence**

Maria Rubio-Valera et al.

The Scope of the Problem

Recognize Agitation

- Heterogeneous group of behavioral manifestations
- Associated with different underlying emotions
- Motor activity is usually repetitive and non–goal directed
  - foot tapping, hand wringing, hair pulling, and fiddling with clothes or other objects
- Repetitive thoughts are frequently expressed, e.g. “I've got to get out of here. I've got to get out of here.”
- Irritability
- Heightened responsiveness to stimuli

Agitation is NOT Aggression

- Agitation and aggression are not necessarily correlated
- aggressive patients may represent a different sub-population
- There are different types of aggression

- Moyer KE. Kinds of aggression and their physiological basis. *Commun Behav Biol*. 1968;2:65–87

Types of aggression of interest to the ED

- Instrumental aggression
- Aggression driven by fear
- Irritable aggression

Can We Use Structured Forms?

- Rapid assessment and decision-making skills
- Under-used
- Reliance on clinical experience

- Report Form for Aggressive Episodes (REFA)
- Staff Observation Aggression Scale
- Behavioural Activity Rating Scale (BARS).

So What are the Danger Signs?

What Do We Do When a Patient is Agitated?

- Adaptive de-escalation and redirection techniques
- Seclusion
- Restraints

- Effectiveness of seclusion and restraint techniques is not well supported by empirical evidence but is used for
  - Staff safety
  - Overall containment
- Treatment with oral medications is as effective as intramuscular medications in rapidly reducing psychotic agitation in the ED

- Gault et al, J Emerg Med. 2012 Nov;43(5):854-9.**Are oral medications effective in the management of acute agitation?**

Goals When Managing Agitation

- Ensure the safety of the patient, staff, and others
- Help the patient manage emotions/distress
  - regain control of behavior
- Avoid the use of restraint when possible
- Avoid coercive interventions that could escalate agitation
- When possible, address the root cause of agitation

The Downside of seclusion/Restraints

- Cost-benefits
- Staff and patient injuries
- Lost staff time and associated expenses,
- Staff turnover and absenteeism
- Psychological and physical consequences for all involved
- Patient-perceived coercion and decreased treatment satisfaction
- Higher likelihood of admission, longer lengths of stay
- Lower likelihood of attending follow-up and treatment sessions

Rule 1: the best predictor of current behavior is past behavior

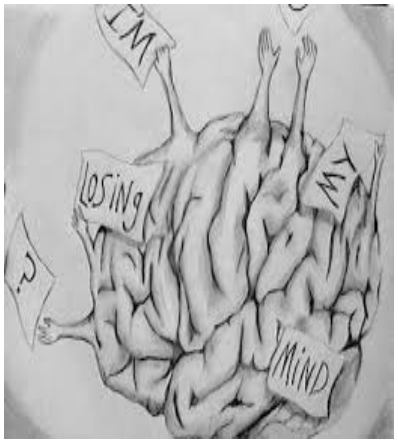
- The patient has threatened or previously assaulted ED staff, EMS or PD.

Rule 2: Violent is as Violent Does….

- Patient currently exhibits or threatens violence.

Rule 3: The Patient makes the ED staff afraid

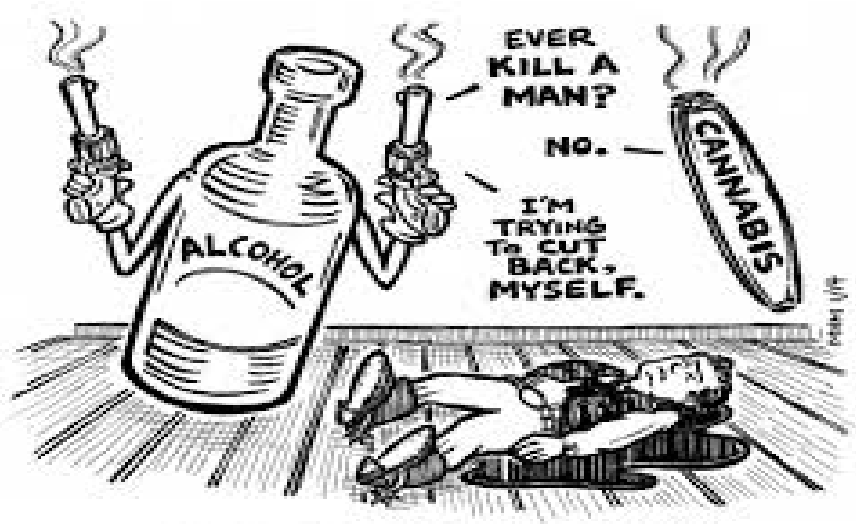
Rule 4: The patient tells you he is losing control!



Rule 5: He has a tense, rigid posture.

Rule 6: Pt is uncooperative, hostile, paranoid and suspicious.

Rule 7: The patient is intoxicated or in withdrawal

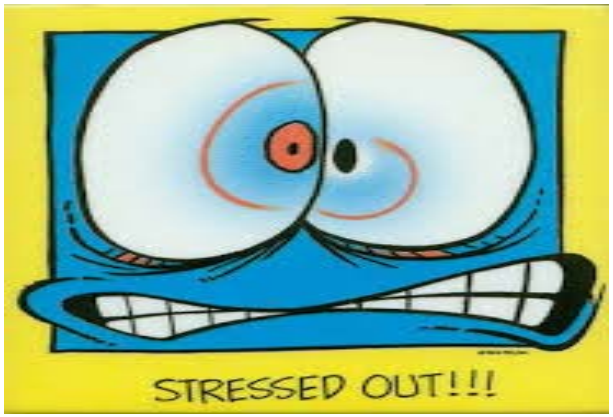


"THAT'S THE LIQUOR TALKING"

Rule 8: The patient can't sit still

"I have discovered that all human evil comes from this, man's being unable to sit still in a room."
—Blaise Pascal

QuoteAddicts



Rule 9: Patient alternates between shouting and sleeping, cooperation and belligerence.

"It's our new method for determining who we should treat first. We take people in order of how loud they scream."

Rule 10: Body art is sometimes more than mere self-expression.

Brief Overview of Causes of Agitation

- Medical causes of Agitation (Delirium)
- Metabolic:
  - Endocrine: Hypoglycemia, DKA, Thyroid dysfunction, adrneal dysfunction
  - Electrolyte Abnormality: Hypercalcemia, Hyponatermia, Hypernatermia
  - End Organ Failure: Uremic Encephalopathy, Hepatic Encephalopathy
- Neurologic: Post-ictal, Brian tumor, Intracranial hemorrhage, CVA, Traumatic Brain Injury, Wernicke's enchalopathy, Traumatic Brain Injury
- Infectious: Meningitis, Encephalitis, Sepsis, UTI, Pneumonia
- Cardiopulmonary: Hypoxia, CO2 narcosis, shock, PE, MI, CHF
- Drug related
  - Drug or alcohol intoxication
  - Drug or alcohol withdrawal
- Inflammatory: Lupus, Vasculitis, Sarcodosis
- Dementia

Psychiatric Causes of Agitation

- Schizophrenia and other psychotic disorders
- Bipolar Disorder
- Agitated depression
- Personality disorders
  - Borderline
  - Antisocial
- Cognitive disorders (eg dementia)
- Drug-induced syndromes (psychosis included by inhalants, PCP, Kush, etc.)

Ok so it's 2am on a Saturday night

- The paramedics roll on with an acutely agitated and likely intoxicated patient tied to the gurney with a mask over his face. EMS tells you that the patient tried to bite them.
- What do you want to do now doctor?

Assessment and Stabilization of Acutely Agitated or Psychotic Patient

- ABCs

Convinced your patient is stable medically…. At least for the moment, what do you do next?

De-escalation

- De-escalation interventions described in the BETA project
- Help patients develop their own internal locus of control
- Rather than being “calmed down”
- **Guideline:**
  - Staff must be adequately trained
  - An Adequate Number of Trained Staff Must Be Available
  - Use Objective Scales to Assess Agitation

- Richmond JS, Berlin JS, Fishkind AB, Holloman GH, Jr, Zeller SL, Wilson MP, et al. Verbal De-escalation of the agitated patient: consensus statement of the american association for emergency psychiatry project BETA De-escalation workgroup. West J Emerg Med. 2012

Techniques for De-Escalation aka Talking the Patient Down

- 1. Avoid eye contact with patient.
- 2. Do not block exits and leave door to room open.
- 3. Maintain distance from potentially violent patient; do not invade the patient's "space".
- 4. Adopt passive, non-confrontational posture and attitude, and allow patient to ventilate his feelings. Develop a therapeutic alliance with the patient.
- 5. Treat patient as you expect him to behave.

Techniques for De-Escalation aka Talking the Patient Down

- 6. Offer food or drink.
- 7. Do not make challenging, provocative, or belligerent remarks.
- 8. If patient acts out, tell patient directly "your behavior is frightening others and we cannot allow such behavior“.
- 9. Do not turn your back on potentially violent patient.
- 10. Never underestimate the potential for violence.

What do you do when de-escalation fails?

- Physical Restraints
- Chemical sedation/anxiety treatment
- Involuntary medication

Restraint

- The doctrine of "the least restrictive method of restraint" applies
- Non-coercive
- Maximize involvement of the patient in their treatment

Seclusion

- Seclusion is considered the least restrictive form of restraint available.
- Generally, the patient is placed alone in a locked but monitored room (typically by video surveillance).
- Often not available in the EC.

Physical Restraints

- More invasive than seclusion/isolation.
- May be used when the patient is deemed a threat to himself or others (including staff).

Physical Restraints

- 1. Team approach, ideally with six members, one for each extremity, one for head, and one to apply restraints. The team members should remove all objects from themselves which could be used as weapons by the violent patient, i.e., ID pins, reflex hammers, pagers, stethoscopes around neck of staff, etc. Team should advance as a unit from all directions, restraining their assigned extremity. Team members should wear protective gear, at least gloves, to minimize possible contamination of themselves.

  2. Generally all violent patients need four limb restraints.

  3. Explain to patient that the restraints are being applied for his protection and the protection of others, as he cannot seem to control his behavior. Do not negotiate. Emphasize the therapeutic reasons for the restraints, not the punitive.

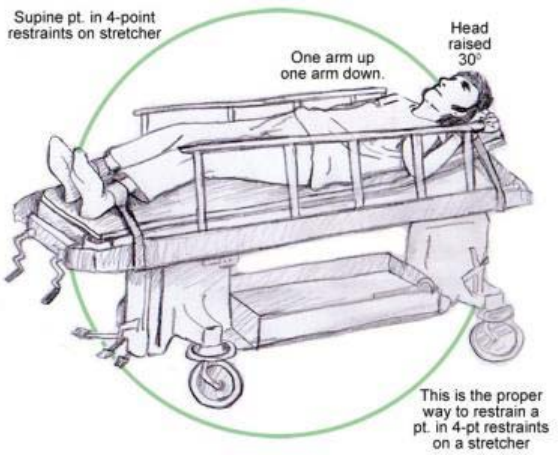
  4. Can apply soft cervical collar that may also restrict patient's range of motion and minimize head banging and biting.

  5. Patient should be kept in open area where he can be observed and monitored. Change position of restrained extremities often and check for neurovascular function.

  6. Undress patient and search for concealed weapons or chemicals after the restraints are applied.

  7. The ED physician must document fully the reasons the restraints were necessary.

4-point restraints



Anxiolysis v. Involuntary Medications

- Is the patient willing to take their meds or what you would give them?
- Is the dose you are ordering appropriate for treatment of patient's anxiety or agitation?
- Is the dose you are ordering not within the standard treatment dose for patient's anxiety, psychosis or agitation?

Classic Treatment of Acute Psychotic/Severe Agitation in the ED

- Haldol 5 mg, Benadryl 50 mg, Ativan 2 mg IM. (B_{52})
- Repeat Haldol 5mg IM +/- Ativan 1-2 mg q1-2h IM as needed until calm.

The Evidence behind the choices

- In 1987 Clinton et al. published a series of 136 cases of "disruptive" patients, the majority of who were intoxicated, that received IM/IV/PO haloperidol with an 83% efficacy rate within 30 minutes.
- In 1997 Battaglia et al. published a prospective, randomized, double blind study of 98 psychotic, agitated emergency department patients that received one of three possible treatment options; lorazepam (2mg), haloperidol (5mg) or both. Battaglia found that all three treatment groups were effective at decreasing agitated behavior as measured by Agitated Behavior Scale and Brief Psychiatric Rating Scale with the most rapid tranquilization occurring with the combination treatment.

The downside of chemical restraints/treatment

- In Battaglia's study, at least 35% of the patients were still asleep at 12 hours after the medication was initiated regardless of which treatment arm they were in.
- It is important to note that the majority of patients received 2-3 doses of medication. Second is that between 6% and 20% of patients receiving haloperidol experienced extrapyramidal symptoms (EPS).

More recent developments: using atypical antipsychotics

- Atypical antipsychotics include, clozapine (Clozaril), olanzapine (Zyprexa), quetiapine (Seroquel), risperidone (Risperdal), and ziprasidone (Geodon).
- Clozapine generally not used due to risk of agranulocytosis.
- Olanzapine has a potentially beneficial sedating effect because it has 160 times the antihistamine potency of diphenhydramine (benadryl) but it has been associated with weight gain, metabolic syndrome X and diabetes.
- Ziprasidone has the highest Qtc prolongation of atypicals.

Treatment of Acute Agitation Other Options

- Zyprexa 10 mg q 2 h X 1, then q 4 h not to exceed 30 mg/24 h.
  - ****Do not give concomitant Benzos.
- Geodon 10 mg q 2 h or 20 mg q 4 h, not to exceed 40 mg/24 h.
- Use 25-50% for elderly/medically compromised.
- Atypicals are generally NOT indicated in geriatric (particularly, dementia-related) behavioral emergencies.
  - FDA advisory with a mandatory boxed warning on manufacturers labeling has been issued advising against the use of the atypical antipsychotics in treating agitation in patients with dementia due to increased patient mortality.

Atypicals continued

- Risperidone has been found to be equivalent to haloperidol in the treatment of psychosis and may be more effective than haloperidol in treating aggression.
- In a comparison of oral risperidone aka RISPERDAL M TAB (in combination with oral lorazepam) with IM haloperidol (in combination with IM lorazepam) the two drug combinations were found to be equivalent both in overall efficacy and onset of action. The mean time to sleep was 43 minutes in the risperidone group and 44 minutes in the haloperidol group

Prescribing practices differ:

- Emergency physicians prefer benzodiazepines significantly more than psychiatrists do
- Preferred medication classes were antipsychotics (59.3%) and benzodiazepines (40.7%)
- Polypharmacy is more frequently used in secluded patients.

BMC Res Notes. 2015 Jun 5;8:218. **Prescribing preferences in rapid tranquillisation: a survey in Belgian psychiatrists and emergency physicians.,**Bervoets et al.

Other agents: Ketamine

- In a recent presentation at SAEM, Ketamine proved the fastest acting, with a median time to sedation of 3 minutes. Median time to sedation was 8 minutes for haloperidol alone, 10 minutes for the benzodiazepines, and 17.5 minutes for the combination of sedative agents.
- Recent JEM 2015 article on ketamine found few major adverse effects on vitals but that patients needed to be dosed with other meds, making it useful only for initial control of severe agitation

Emerg Med. 2015 Jun;48(6):712-9.. Epub 2015 Apr 2.**Ketamine use for acute agitation in the emergency department.**

Hopper et al

Ketamine: The Psychiatrist's Perspective

- NMDA receptor antagonist
- Dissociative capabilities
- Should not be used in psychotic patients as it can exacerbate psychosis
- Not to be used in cases of vomiting
- Not first line in patients with pre-existing psychiatric issues as they might need re-administration of meds anyway

Summary of Recommendations

- From EBMEDICINE.NET

Table 7: Recommendations For The Pharmacologic Management Of Acute Agitation*

Agent	Dose Range	Comments
Haloperidol**	1 mg to 5 mg IM or IV	Most evidence supports its use
Droperidol	1 mg to 5 mg IM or IV	FDA warning, see text on pages 9 and 12
Lorazepam**	0.5 mg to 5 mg IM or IV	Preferred in alcohol and drug withdrawal
Midazolam	1 mg to 5 mg IM or IV	Rapid onset and shorter duration

*Caution for all agents: Use the lower dose in elderly patients and in patients with respiratory depression and / or low blood pressure.

**Consider use of combination therapy, lorazepam and haloperidol, as an alternative to monotherapy in certain populations, refer to Clinical Pathway.

Legality of Restraints

- Youngberg v. Romero (1981) stated "Restraints are justified to protect others or self in the judgment of the health professional".
- Know your state laws
  - **INTERVENTIONS IN MENTAL HEALTH PROGRAMS, CHAPTER 415, SUBCHAPTER F (EFFECTIVE JANUARY 2004)**

Texas Administrative Code

§415.253. Definitions.

The following words and terms, when used in this subchapter, have the following meanings, unless the context clearly indicates otherwise.

(2) **Behavioral emergency** – A situation in which preventive, de-escalative, or verbal techniques have been considered and determined to be ineffective and it is immediately necessary to restrain or seclude an individual to prevent:

(A) imminent probable death or substantial bodily harm to the individual because the individual is attempting to commit suicide or serious bodily harm; or

(B) imminent physical harm to others because of acts the individual commits.

(3) **Chemical restraint** – The use of any chemical, including pharmaceuticals, through topical application, oral administration, injection, or other means, for purposes of restraining an individual and which is not a standard treatment for the individual's medical or psychiatric condition.

§415.255. Actions To Be Taken in an Emergency While an Individual is in Restraint or Seclusion.

(a) Emergency medical condition. If an individual experiences an emergency medical condition while in restraint or seclusion, the staff member providing continuous face-to-face observation of the individual or other staff must release the individual from restraint or seclusion as soon as possible as indicated by the emergency medical condition.

(1) The facility shall ensure that the individual's emergency medical condition is promptly addressed and that aid is rendered to the extent possible in accordance with required policies and procedures for management of emergency medical conditions.

(2) Unlocking the seclusion room door or fully releasing the restraints ends the episode.

(3) If the situation continues to meet the criteria for a behavioral emergency after the individual's emergency medical condition is addressed, a staff member must obtain a new order for restraint or seclusion.

Hospital policy and Documentation

- Harris Health Policy on Patient Rights:
  - **RIGHT TO BE FREE FROM RESTRAINT OR SECLUSION**. You have the right to be free from restraint or seclusion, of any form, imposed as a means of coercion, discipline, convenience, or retaliation by staff. Restraint or seclusion may only be imposed to ensure the immediate physical safety of you, a staff member, or others and must be stopped at the earliest time possible.
- Violent restraint order
- Restraint note
- Face to Face note

Responsibility of ED physician

- In October 1998 the Hartford Courant published a survey that found that 142 patients had died while in restraints or seclusion.
- In a recent prospective study of 221 patients restrained in the ED, Zun et al. found that there was a 5.4 percent incidence of minor complications, the two most frequent being getting out of restraints and injury to staff. There were no major complications in this study (death or disability)

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Thanks for attending!
Questions?