Keep Calm and Carry On
Management of the Agitated Patient in the ED

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Disclosures

• None
Objectives

• To review the clinical approach to the agitated/violent patient in the Emergency Department.
• Describe approaches to minimize violence in the ED.
• To discuss medico-legal issues related to management of the agitated/violent patient in the ED.
Ground Rules

• Meant to be interactive
• Input encouraged and appreciated
Issues in Managing Violent/Agitated Patients

• Medical
• Legal / Ethical
• Administrative
What can happen
Case 1 - History

• 37 y.o. female
• Brought by friend who has known her for many years
• Patient under +++ personal stress x 2 weeks
• Bizarre behaviour
History

• PMHx:
  – Psychiatric ++
    • “Well known to Crisis”
  – Asthma
  – Substance abuse

• Medications
  – Flovent
  – Ventolin
Physical Examination

• Vitals: P – 96, BP – 169/85, R – 16, T – 36.8
• Unkempt female, agitated
• Moaning/Swearing/Striking at staff
• Not answering questions
• Not cooperative with examination
Physical Examination

- Pupils - equal and reactive
- Chest – clear
- CVS - S₁ S₂ normal, no murmurs
- Abdomen – soft
- Good femoral pulses
- Patient pushing MD’s hand away during examination
Laboratory Studies

- Hgb – 134, WBC – 17.3
- Electrolytes, urea, creatinine, calcium – normal
- Troponin – negative
- Urinalysis – negative
Question

- Refer patient to Crisis / Psychiatry now?
Further Laboratory

• Toxicology
  – Ethanol – negative
  – ASA / Acetaminophen – negative
  – DOA screen
    • + THC, +cocaine
Further Labs

• B-HCG – Positive
• Quant. – 12,142 IU
Progress

• Referrals to Medicine and Gyn.
• Gyn. Evaluation
  – Not a septic abortion
  – No acute Gyn. issues
• Medicine evaluation
  – Depression
  – No medical issues
  – Refer to psychiatry
Progress

- Pelvic U/S done in am
  - Limited exam
  - Hypoechoic oval region in uterus measuring 2.1 cm.
    - Fluid collection vs. gestational sac
- Awaiting Crisis Evaluation
Progress

- Patient increasingly agitated
- Seen by Psychiatry staff
  - Think patient is potentially organic
- Referred back to Emerg./Medicine
Progress

• Ceftriaxone ordered
• CT ordered
Progress

• Patient awaiting transfer to tertiary care center
• Found with fixed dilated pupils
• Intubated - #8 ETT
• Transferred
Progress – Tertiary Center

- Fixed/Dilated pupils
- Mannitol + Decadron
- CT repeated
- Taken to OR
- Abscesses drained
- 45 + 35 cc’s pus aspirated
Progress

- Extremely complex course
- Multiple CT/US
- 2nd OR
- Neck exploration
- Pathology – Poorly differentiated large cell carcinoma
- Patient expired
What can we learn?
Case 2 - History

- Inner city hospital
- 22 y.o. female - change in mental status
- Sign over from night staff to day staff
- Patient was brought in by roommates/friends approximately 06:00
- Group had been out at a party the night before
- Found patient confused and difficult to arouse
History

- Patient was noted to be mumbling somewhat incoherently
- Vitals were not remarkable
- Physical exam not remarkable
- Bloods including toxicology screen sent
- Friends are gone – looked “druggie”
Progress

• Patient remains in ED rest of the day
• Intermittently agitated – sedated
• Labs unremarkable – WBC = 14, Chemistry normal
• Toxicology Screen
  • + Cocaine metabolites
Progress

- Shift change
- Vitals redone – Temp = 38.5\degree
- Patient more agitated and difficult to examine
Progress

• CT ordered – Normal
• LP Performed
  – Turbid liquid
  – WBC = 8,200 - predominantly PMN’s
  – Gram stain = Gram + cocci
Progress

- Diagnosis = Meningitis
- Admit – ICU
- Poor course
What can we learn?
Invalid Assumptions in Assessing an Agitated Patient

• Triage has classified the patient as psychiatric (e.g. placed in psychiatric area of ED); therefore this patient’s illness is psychiatric.
• Patient has a previous psychiatric history; therefore the etiology of the current presentation must also be psychiatric.
• Patient is young and otherwise healthy; therefore this must be a functional disorder.
Invalid Assumptions in Assessing an Agitated Patient

- Patient’s abnormal vitals are due to agitation/psychiatric condition; therefore can be ignored.
- Patient’s neurological exam is “non-focal”; therefore it is not a CNS problem
- Toxicology screen is negative; therefore the patient’s presentation cannot be due to a toxidrome.
Pitfalls in Assessing an Agitated Patient

- Incomplete history from limited sources
- Lack of collateral history taking
- Incomplete review of systems
- Incomplete physical and neuropsychiatric exam (lack of patient cooperation)
- Failure to carefully review medications
- Limited testing / Misinterpretation of test results
### Organic vs. Functional

<table>
<thead>
<tr>
<th>Organic</th>
<th>Functional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &lt; 12 or &gt; 40</td>
<td>Age 13-40 years</td>
</tr>
<tr>
<td>Sudden onset (hours to days)</td>
<td>Gradual onset (wks -months)</td>
</tr>
<tr>
<td>Disorientation</td>
<td>Continuous course</td>
</tr>
<tr>
<td>Decreased LOC</td>
<td>Scattered thoughts</td>
</tr>
<tr>
<td>Visual hallucinations</td>
<td>Awake and alert</td>
</tr>
<tr>
<td>No psychiatric history</td>
<td>Auditory hallucinations</td>
</tr>
<tr>
<td>Emotional lability</td>
<td>Psychiatric history</td>
</tr>
<tr>
<td>Abnormal vitals</td>
<td>Flat affect</td>
</tr>
<tr>
<td>Abnormal physical examination</td>
<td>Normal vitals</td>
</tr>
<tr>
<td></td>
<td>Normal physical</td>
</tr>
<tr>
<td></td>
<td>History of substance abuse</td>
</tr>
</tbody>
</table>
Organic Considerations on Presentation

- **G** – Glucose
- **O** – Oxygen
- **T** – Trauma, Temperature
- **I** – Infection
- **V** – Vascular
- **S** - Seizure
Approach to Differential Diagnosis

- Trauma
- Infection
- Poisoning
- Psychiatric
- Syncope / stroke
- Alcohol
- Encephalopathy, epilepsy, electrolytes
- Insulin
- Opiates
- Uremia
Less Considered Organic Diagnoses

- CO exposure
- TTP
- Withdrawal syndromes
- Wernicke’s
- Endocarditis
- NMS
Special Mention
The Elderly

• Delirium
• Dementia
• Organic causes ++
• Adverse drug reactions common
Case 3 - History

• 42 y.o. male
• Brought to ED by EMS
• Acting bizarrely in shopping mall
History

- Patient placed in cubicle
- Pacing
- Swearing at staff
- Wishing to leave
- MD asked to assess re: capacity
History

- Patient sitting on stretcher
- Smells of ethanol
- Unkempt
- Multiple tattoos
- Not cooperative with assessment
- Patient states he is going to leave
History

• MD tells patient he needs to complete assessment
• Patient states “I will put you in a body bag and throw you in Lake Ontario”
• Discussion/ Examination continues
• Physician leaves room for phone call
• Patient pacing in room
History

- Physician returns to compete assessment
- Patient assaults physician
- Security arrives
- Assaults two security staff
- Restrained with difficulty
Questions

• Could this violence have been predicted?
• How could staff have been protected?
• How to approach restraint of patient?
Background

- Up to 50% of health care providers are victims of violence at some point in career
- Behavioral emergencies account for 1/20 ED visits
- ED has highest rate of employee assault in the hospital
- Nurses are most common victims
Management of patients with Acute Severe Behavioural Disturbance In Emergency Departments

Document Number  GL2015_007
Publication date  10-Aug-2015
Functional Sub group  Clinical/ Patient Services - Critical care
Summary  The purpose of this Guideline is to address the management and initial sedation requirements of patients who present to emergency departments with acute severe behavioural disturbance (ASBD). This guideline includes information for children, adolescents (children and adolescents includes those under 16 years) and adults under 65 years. Management of older persons over 65 years is not contained in this Guideline.
Violence and aggression: short-term management in mental health, health and community settings

NICE guideline
Published: 28 May 2015
nice.org.uk/guidance/ng10
System Actions to Prevent Violence

- Security personnel
- Alarm systems
- Monitoring ED entry
- Limiting ED Access
- Metal detectors
- Bulletproof glass
- Staff education
Warning Signs of Violence

- Patient exhibits or threatens violence.
- Patient makes ED staff anxious or fearful.
- Behavior alternates between shouting and dozing, and between cooperation and belligerence.
- Patient expresses fear of losing control.
- Patient is uncooperative, hostile, agitated and unable to sit still.
Warning Signs of Violence

• Patient is intoxicated with alcohol or other chemicals or withdrawing from drugs.
• Patient has a past history of violence.
• Patient has tense, rigid posture, is easily startled and suspicious.
• Patient has tattoos that suggest a relationship to a violent organization or gang.
Clinician Actions to Prevent Violence

• Alert staff and security if you feel uncomfortable
• Pay attention to “gut” feelings
• Never underestimate potential for violence
• Make sure security personnel or police have searched patient for weapons
• Do not bring potential weapons into the room with you
• Carry personal duress alarm
Clinician Actions to Prevent Violence

• Pay attention to geography
• Ask security to stand just outside the room
• Ask patient where you should stand if they retreat from you
• Do not block exits. Make sure you and patient have route for escape.
• Maintain “buffer zone” 4X larger than usual
• Approach patients directly
• Do not turn your back on patient
Clinician Actions to Prevent Violence

• Minimize eye contact
• Adopt passive non-confrontational posture and attitude
• Do not make challenging or belligerent remarks
• Offer food or drink
• Enlist friends or family to speak to patients
• Pain control
5.1.1 Adult (under 65 years or no diagnosis of organic cognitive impairment) sedation algorithm for patients with acute severe behavioural disturbance in the emergency department

- Verbal de-escalation successful
  - Yes → Continue assessment in a safe area
  - No → Patient accepts oral sedation
    - No SAT score ≥ 2
      - Yes → Diazepam 5 - 20 mg PO OR Lorazepam 1 - 2 mg PO AND/OR Olanzapine 5 – 10 mg PO
      - No → Patient doesn’t settle
        - Choice of medication used should be guided by underlying diagnosis and may be repeated after 4-6 hours
        - Move to parenteral sedation if patient does not settle in 45 minutes or behavior escalates

**Parenteral Sedation**
- Gather resources required

**First dose**
- Droperidol 10 mg IM
- If patient doesn’t settle in 15 minutes

**Second dose**
- Droperidol 10 mg IM / IV

(Maximum dose of droperidol is 20 mg per event)

**Third line agent Adults <65 years**
- Senior Medical consultation is required prior to use of any 3rd line agents
  - Midazolam 5 – 10 mg IM / IV (max dose 20 mg) OR
  - Diazepam 5 – 10 mg IV (max 60 mg per event) OR
  - Ketamine 4 – 5mg / kg IM or 1 mg / kg IV
De-escalation Techniques

• Approach in a calm, confident, non-threatening manner
• Be empathic, non-judgmental and respectful
• Listen to the patient’s concerns
• Introduce yourself, your role and the purpose of the discussion, lead the discussion and engage the patient
De-escalation Techniques

• Emphasize your desire to help
• Try to identify patient’s unmet needs and help them explore their fears
• Avoid medical jargon. Use short, clear statements
• Use, slow clear and steady voice and do not raise your voice
• Offer courtesies such as drink or sandwich
• Avoid provocative statements such as “calm down or X will happen....”
Methods of De-escalation

• Three F’s
  – Feel, felt, found

• Philosophy of yes
  – Yes ….. As soon as
  – Ok …but first we need to
Case 4 - History

- 24 y.o. male
- Brought by EMS
- Found lying in snow with clothes soaked
- Police intervention required
- ? History of Schizophrenia
Progress

- Mildly agitated
- Clothes removed
- Temp = 35.2 rectal
- Exam – non-contributory
- Bloods drawn, urine not available
- Foley catheter ordered
Progress

• Patient becomes extremely agitated
• Screaming / Banging head on stretcher / Rocking stretcher / Swearing constantly
• De-escalation not successful
• Patient becoming factor in care of other patients in area
Question

• How to manage this patient?
Managing Agitated Patients

- Seclusion
- Physical restraints
- Pharmacologic restraints
Seclusion

- Form of restraint
- Requires documentation
- Careful monitoring
  - Direct or video
- Room must be devoid of potentially harmful objects
Physical Restraints

- Team approach
- Security
- 5-6 people
  - One for each limb and head and one to apply restraints
  - Remove potentially harmful object from self
- Approach as a unit from all directions
- Protective equipment
Physical Restraints

- Generally - 4 limb restraints
- Explanation to patient
- Closely observe and monitor patient
- Careful documentation
- Standard procedure
- Minimize time in restraints
- Avoid prone position
- Caution in sympathomimetic overdose
Pharmacologic Sedation

• Can be voluntary alternative to physical restraints
• Many patients will voluntarily take oral meds!
• Can be used after physical restraints
• Gather and document as much history as possible prior to administering medication
Pharmacologic Restraints

- Effectiveness
- Safety
- Mode of administration
- Side effects
- Adverse reactions
- Drug interactions
- Continuity of therapy
- Special populations
<table>
<thead>
<tr>
<th>Agent</th>
<th>Route</th>
<th>Dose</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Generation Antipsychotics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haloperidol</td>
<td>IV/IM/PO</td>
<td>2.5-10mg</td>
<td>Large experience, EPS</td>
</tr>
<tr>
<td>Droperidol</td>
<td>IV/IM</td>
<td>2.5-5 mg</td>
<td>Black Box Warning, QT prolongation</td>
</tr>
<tr>
<td>Loxapine</td>
<td>IM/PO</td>
<td>12.5-75 mg</td>
<td>Sedation</td>
</tr>
<tr>
<td><strong>Benzodiazepines</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Midazolam</td>
<td>IV/IM</td>
<td>5 mg</td>
<td>Caution in elderly, use in combination</td>
</tr>
<tr>
<td>Lorazepam</td>
<td>IV/IM</td>
<td>2 mg</td>
<td>Caution in elderly, use in combination</td>
</tr>
<tr>
<td><strong>2nd Generation Antipsychotics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Olanzapine</td>
<td>IM/PO</td>
<td>10 mg</td>
<td>Less EPS, Caution in elderly</td>
</tr>
<tr>
<td>Risperidone</td>
<td>IM/PO</td>
<td>1-2 mg</td>
<td>Less EPS, Caution in elderly</td>
</tr>
<tr>
<td>Ziprasidone</td>
<td>IM/PO</td>
<td>10-20</td>
<td>Less EPS, Caution in elderly</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ketamine</td>
<td>IV/IM</td>
<td>1-2 mg/kg IV</td>
<td>Fast acting. Beware BP changes, tachycardia, laryngospasm and vomiting.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4-5 mg/kg IM</td>
<td></td>
</tr>
</tbody>
</table>
Pharmacologic Restraints

• Classic antipsychotics
  – Droperidol
    • “Black box” warning by FDA in 2001
  – Haloperidol – FDA warning 2007
  – Loxapine

• Benzodiazepines
  – Lorazepam
  – Midazolam

• Combination of haloperidol and lorazepam
Pharmacologic Restraints

• Atypical antipsychotics
  – Olanzapine (PO/Dissolving tabs/IM)
  – Risperidone (PO/Liquid/Dissolving tabs)
  – Ziprasidone (PO/IM)
  – Quetiapine (PO)
Regimens

- **Haloperidol**
  - PO/IM/IV
  - 1-5 mgs Q1h to max. 20 mgs
  - IV – off label but vast experience
  - Good when other medical problems
  - Beware EPS
  - Can add BZD’s

- **Loxapine**
  - IM/PO
  - 12.5 – 25 mgs. Q1H to max 75 mgs
  - Good sedating properties
  - Can use with BZD’s
Regimens

• Olanzapine
  – PO/Rapidly dissolving/IM
  – 2x as potent IM as PO
  – 10 mgs. Q1h to max. 40 mgs.
  – Less in anti-psychotic naive and elderly
  – Beware interaction between IM form and BZD’s
Olanzapine

• Some experience with IV Olanazapine
  – Rapid onset
  – Titratable
  – Start with 5 mgs IV
Ketamine

- Recent literature
- 1 mg/kg IV
- 4-5 mg/kg IM
- Rapid onset
- Less sedation
Post-Restraint /Sedation

- Monitoring
- Investigations
- Re-assessment
- Treat complications
- Documentation
- Team debrief
Medico-Legal / Ethical / Administrative Issues

- Patient right to autonomy
- Informed consent for treatment
- Patient capacity
- Substitute decision makers
- Criminal / Police issues
- Fiduciary responsibility of caregivers
- Personal, staff and patient safety
- Hospital policies
- Legislative framework
Legislation e.g. Ontario

• Relevant pieces of legislation
  – Mental Health Act (1990)
  – Patient Restraint Minimization Act (2001)
  – The Common Law
    • The HCCA specifically preserves the common law duty of a caregiver “to restrain or confine a person when immediate action is necessary to prevent serious bodily harm to the person or to others”.

The HCCA specifically preserves the common law duty of a caregiver “to restrain or confine a person when immediate action is necessary to prevent serious bodily harm to the person or to others”.

Summary

• Caution required in differentiating psychiatric from medical presentations in agitated patients
• Thorough differential is helpful
• Violent patients common in ED’s
• Need a careful, planned approach to potential violence/ violence
• Several options for restraint of agitated patients; all require caution
Summary

• There is generally a legislative framework for detaining or restraining patients

• Emergency physicians need to have an understanding of their responsibilities under legislation and/or common law or relevant legislative framework in your jurisdiction
Questions /Comments