Tackling Racism in the Management of Acute Agitation

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Disclosures

I have no relevant disclosures

Objectives

- Define agitation and differentiate between its different etiologies
- Review both the nonpharmacologic and pharmacologic treatments of agitation
- Discuss the racial disparities in acute agitation treatment
- Use Project BETA to improve the treatment of the agitated patient

Background

- 1.7 million ED visits
- 2.6% of all visits
- Workplace violence increasing
- ~75% of all recorded events occur in a health care setting

AMA Code of Ethics

"When a patient poses a significant danger to self or others, it may be appropriate to restrain the patient involuntarily. In such situations, the least restrictive restraint reasonable should be implemented and the restraint should be removed promptly when no longer needed."

Assessment of Agitation

Agitation

- Inhibition
- Restlessness
- Emotional lability
- Impulsivity
- Inattention
- Aggression

Life Threatening Causes of Agitation

TRAUMA
Burns
Head Injury

THERMOREGULATION
Hypothermia
Hyperthermia

RESPIRATORY
Hypoxia
Hypercarbia

CARDIOVASCULAR
Shock
Hypertensive encephalopathy

NEUROLOGIC
Stroke
Tumor
Seizure
Vasculitis
Hemorrhage
Hydrocephalus
Dementia

TOXICOLOGIC
Serotonin syndrome
Neuroleptic malignant syndrome
Steroid-induced psychosis
Overdose or intoxication
Sedative-hypnotic withdrawal

METABOLIC/ENDOCRINE
Acidosis
Hyper/hypoglycemia
Electrolyte imbalance
Hyper/hypocortisolism
Hepatic/uremic encephalopathy
Nutritional deficiency (e.g. Wernicke's)
Thyroid storm, Myxedema coma

PSYCHIATRIC
Psychosis
Schizophrenia
Paranoid delusions
Personality disorder

INFECTION
Encephalitis
Meningitis
Syphilis
Sepsis

Gottlieb M, Long B, Koyfman A. Approach to the agitated emergency department patient. J Emerg Med. 2018;54(4):447-457.

Racial Disparities

Racial Disparities

- Black men are perceived to be larger, stronger, more muscular
- Black men are more capable of causing harm
- Black men more likely to be perceived as a threat, aggressive, “noncompliant”
- Black men have a higher rate of both physical & chemical restraint
- Darker skin with Black prototypic features

Racial Disparities & Physical Restraint

Massachusetts General Hospital, January 2016 to January 2018

- 195,092 unique ED visits
- 2,658 visits involved restraints
- Restraint use: Black men > white men (RR= 1.36, 95% CI = 1.15 to 1.61, $p < 0.001$)
- No documented h/o violence: Black patients > White patients (RR= 1.18, 95% CI = 1.02 to 1.37, $p = 0.025$)

Yale-New Haven Health System, January 2013 to August 2018

- 726,417 total ED visits,
- 7090 (1%) physical restraint use
- 4597 (64.8%) were male
- 2041 (28.8%) were Black
- Restraint use: Black men > White men

TABLE 1. Demographic and clinical characteristics of patients receiving an emergency psychiatric consultation from January 1, 2014, to September 18, 2020

Characteristic	Overall (N=12,977)		Physical restraint: No (N=12,016)		Physical restraint: Yes (N=961)		Chemical restraint: No (N=10,930)		Chemical restraint: Yes (N=2,047)	
	Median	IQR	Median	IQR	Median	IQR	Median	IQR	Median	IQR
Age (years)	37.0	27.0–52.0	38.0	27.0–52.0	32.0	26.0–44.0	38.0	27.0–52.0	35.0	27.0–49.0
Height (inches)[a]	67.0	64.0–70.0	67.0	64.0–70.0	67.0	64.5–70.5	67.0	64.0–70.0	67.0	64.0–71.0
	N	%[b]	N	%[b]	N	%[b]	N	%[b]	N	%[b]
Sex										
Female	5,816	44.8	5,430	45.2	386	40.2	5,013	45.9	803	39.2
Male	7,159	55.2	6,585	54.8	574	59.7	5,916	54.1	1,243	60.7
Missing	2	<.01	1	<.01	1	0.1	1	<.01	1	<.01
Race										
Asian	234	1.8	221	1.8	13	1.4	202	1.8	32	1.6
Black	6,287	48.4	5,739	47.8	548	57.0	5,151	47.1	1,136	55.5
White	5,263	40.6	4,979	41.4	284	29.6	4,616	42.3	647	31.6
Multiracial	682	5.3	609	5.1	73	7.6	542	5.0	140	6.8
Other	326	2.5	302	2.5	24	2.5	278	2.5	48	2.3
Unreported	178	1.4	159	1.3	19	2.0	135	1.2	43	2.1
Missing	7	0.1	7	0.1	0	–	6	0.1	1	0.0
Ethnicity										
Hispanic	566	4.4	531	4.4	35	3.6	499	4.6	67	3.3
Non-Hispanic	12,137	93.5	11,234	93.5	903	94.0	10,207	93.4	1,930	94.3
Unreported	266	2.0	243	2.0	23	2.4	217	2.0	49	2.4
Missing	8	<0.1	8	<0.1	0	–	7	<0.1	1	<0.1
Shift										
12:00 a.m.–3:59 a.m.	1,620	12.5	1,503	12.5	117	12.2	1,357	12.4	263	12.8
4:00 a.m.–7:59 a.m.	782	6.0	708	5.9	74	7.7	643	5.9	139	6.8
8:00 a.m.–11:59 a.m.	1,640	12.6	1,491	12.4	149	15.5	1,367	12.5	273	13.3
12:00 p.m.–3:59 p.m.	2,881	22.2	2,638	22.0	243	25.3	2,371	21.7	510	24.9
4:00 p.m.–7:59 p.m.	3,143	24.2	2,933	24.4	210	21.9	2,689	24.6	454	22.2
8:00 p.m.–11:59 p.m.	2,911	22.4	2,743	22.8	168	17.5	2,503	22.9	408	19.9
Diagnosis										
Bipolar disorder	2,045	15.8	1,801	15.0	244	25.4	1,562	14.3	483	23.6
Psychotic disorder	4,383	33.8	3,877	32.3	506	52.7	3,275	30.0	1,108	54.1
Missing	225	1.7	216	1.8	9	0.9	211	1.9	14	0.7
Laboratory tests[c]										
Amphetamine[d]	320	3.8	303	3.9	17	3.0	273	3.9	47	3.3
THC[e]	2,239	26.8	1,996	25.7	243	42.6	1,725	24.9	514	35.9
Cocaine[f]	1,646	19.7	1,548	19.9	98	17.1	1,389	20.1	257	17.9
Opiate[g]	552	6.6	519	6.7	33	5.8	463	6.7	89	6.2
Peak ethanol level ≥80 mg/dl[h]	1,063	13.1	1,006	13.3	57	10.1	900	13.4	163	11.6

[a] Height was missing from 2,019 (15.6%) encounters.
[b] Denotes column percentages.
[c] Amphetamine screen was not obtained in 4,619 (35.6%) encounters; THC screen was not obtained in 4,626 (35.6%) encounters; cocaine screen was not obtained in 4,616 (35.6%) encounters; opiate screen was not obtained in 4,618 (35.6%) encounters; blood alcohol level was not obtained in 4,839 (37.3%) encounters.
[d] Total N=8,358; physical restraint: no, N=7,787; yes, N=571; chemical restraint: no, N=6,925; yes, N=1,433.
[e] Total N=8,351; physical restraint: no, N=7,780; yes, N=571; chemical restraint: no, N=6,919; yes, N=1,432.
[f] Total N=8,361; physical restraint: no, N=7,788; yes, N=573; chemical restraint: no, N=6,926; yes, N=1,435.
[g] Total N=8,359; physical restraint: no, N=7,788; yes, N=571; chemical restraint: no, N=6,926; yes, N=1,433.
[h] Total N=8,138; physical restraint: no, N=7,575; yes, N=563; chemical restraint: no, N=6,730; yes, N=1,408.

Physical Restraint

Black patients – 57%

White patients – 29.6%

Chemical Restraint

Black patients – 55.5%

White patients – 31.6%

Duke University

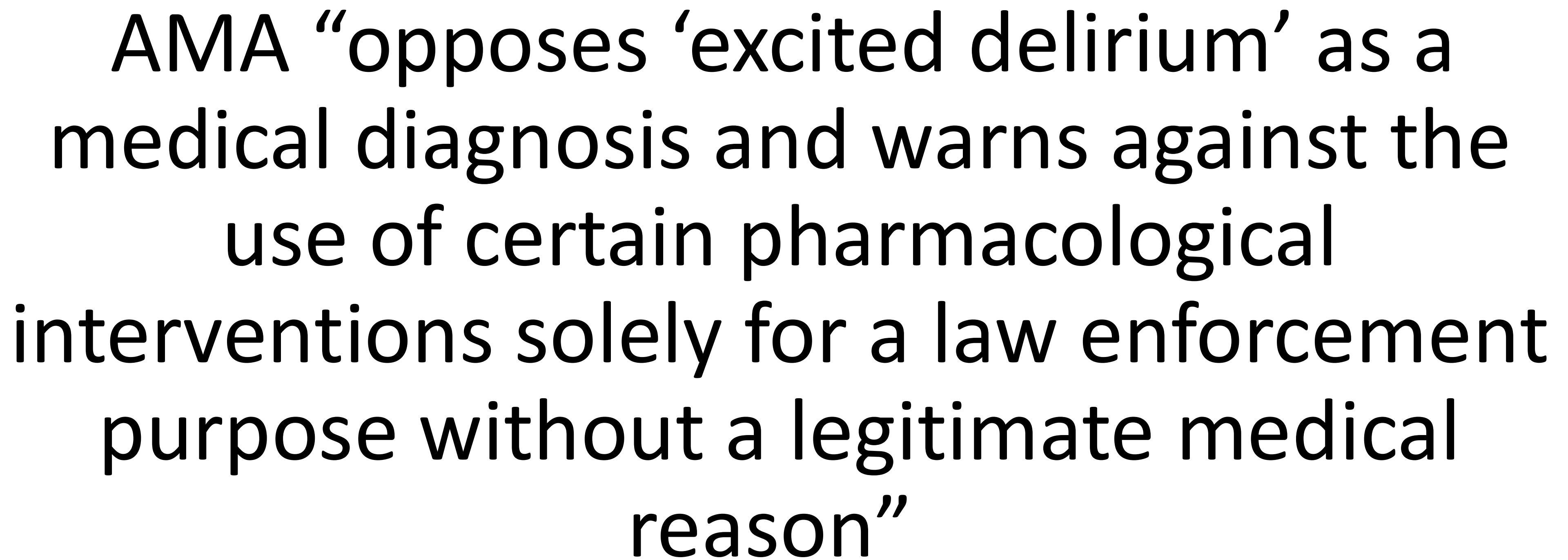
12,977 Psychiatric ED visits

January 1, 2014 – September 18, 2020

Excited Delirium Syndrome

- Clinical diagnosis lacking clear diagnostic criteria
- Altered mental status, extraordinary strength, hyperthermia, and sudden death
- Not a recognized medical or psychiatric diagnosis by the DSM-V, American Psychiatric Association, or ICD-10
- Black patients: 33-63% of fatal cases, 56% of non-fatal cases

AMA Opposes “Excited Delirium” – 6/14/2021



Project BETA

Project BETA (2012)

Led by American Association of Emergency Psychiatry

Interdisciplinary – psychiatry, emergency physicians, nurses, psychology, social work

Established principles

- De-escalation
- Pharmacotherapy for most likely etiology
- Appropriate psychiatric evaluation
- Appropriate treatment of associated medical conditions
- Minimization of physical restraint/seclusion

Spectrum of Acute Brain Dysfunction

Coma | Stupor | Delirium

RASS	-5	-4	-3	-2	-1	0	+1	+2	+3	+4
	Unarousable: No response to voice or physical stimulation	**Deep sedation:** No response to voice, but responds to physical stimulation	**Moderate Sedation:** Responds to voice, but does not make eye contact	**Light Sedation:** Responds to voice, but can only make eye contact for < 10 seconds	**Drowsy:** Responds to voice and can make eye contact for > 10 seconds	**Alert and calm**	**Restless:** Anxious, but movements not agressive	**Agitated:** Frequent, non-purposeful movement	**Very Agitated:** Pulls or removes tubes or catheters, agressive	**Combative:** Overtly combative, violent, danger to staff

ACEP 2021 Task Force Report on Hyperactive Delirium

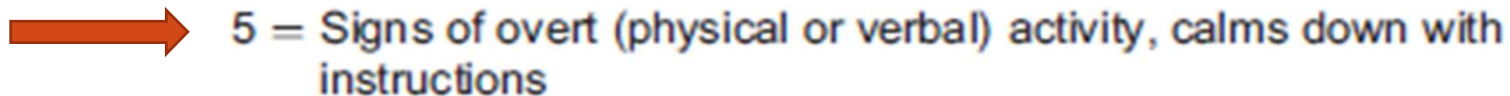
Table 1. Behavioural Activity Rating Scale.[4]

1 = Difficult or unable to rouse

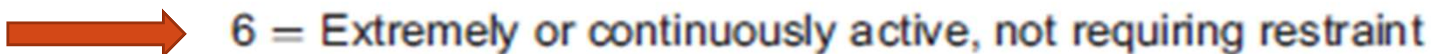
2 = Asleep but responds normally to verbal or physical contact

3 = Drowsy, appears sedated

4 = Quiet and awake (normal level of activity)



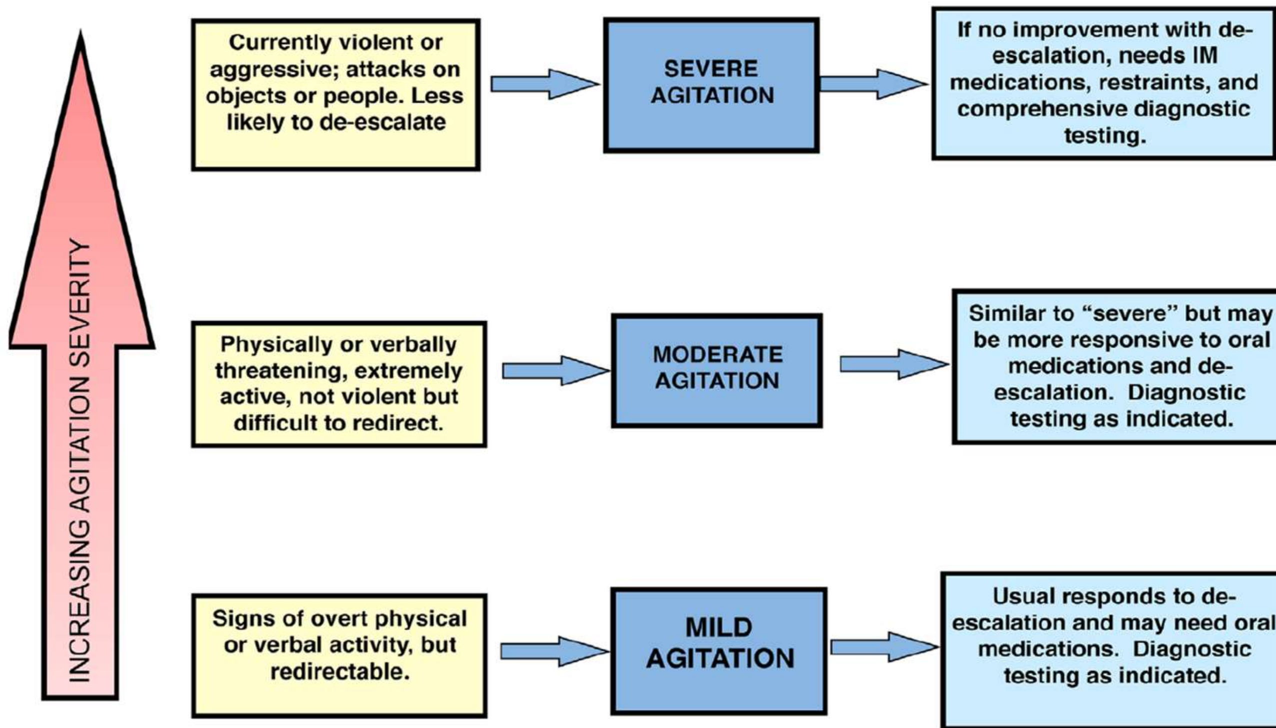
5 = Signs of overt (physical or verbal) activity, calms down with instructions



6 = Extremely or continuously active, not requiring restraint

7 = Violent, requires restraint

Nordstrom K, Zun LS, Wilson MP, et al. Medical evaluation and triage of the agitated patient: Consensus statement of the American Association for Emergency Psychiatry Project BETA Medical Evaluation Workgroup. West JEM. 2012; XIII(1):3-10.



BARS	RASS
7	+3, +4
6	+2
5	+1

Roppolo LP, Morris OW, Khan F, et al. Improving the management of acutely agitated patients in the emergency department through implementation of Project BETA (Best Practices in the Evaluation and Treatment of Agitation). JACEP Open. 2020;1:898-907. https:/ /doi.org/10.1002/emp2.12138

Treatment

ATTEMPT DE-ESCALATION

LISTEN *let patient speak, kick most people out of the room but still be SAFE (keep your distance, be close to the door)*

EMPATHIZE *try to understand patients perspective, emphasize that you care and want to help*

AGREE *reflect on what patient is saying, agree with what you can agree with such as feelings or things you know are true*

PARTNER *find common goal such as getting patient out of the ED, offer food, blanket to get patient to take medication; joint decision making*

Adapted from the LEAP Institute - http://www.leapinstitute.org/responders/

Mild/Moderate Agitation

- De-escalation Techniques
- Oral medication
- Some with moderate agitation may not take oral meds

Severe Agitation

- More aggressive, violent
- Will likely require physical restraints
- IM Medications

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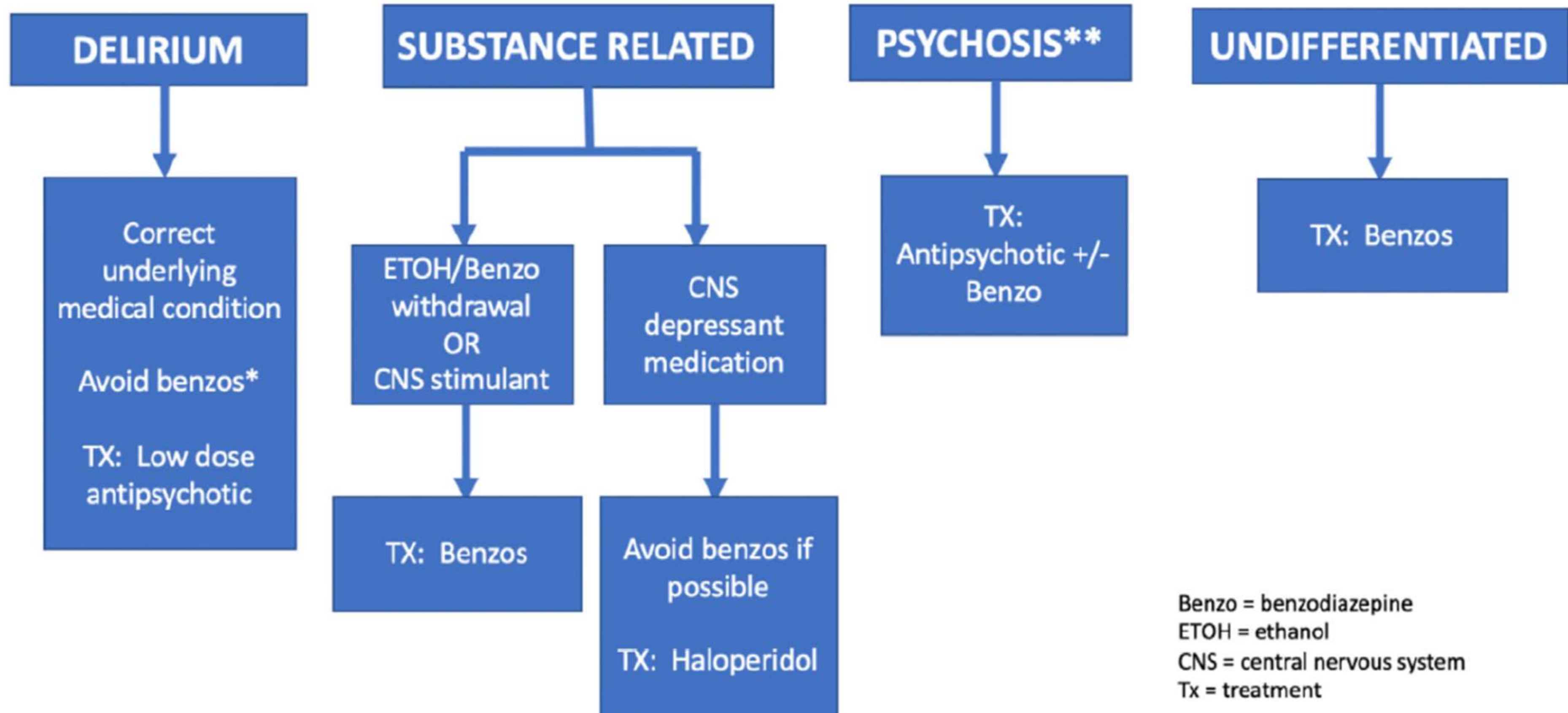
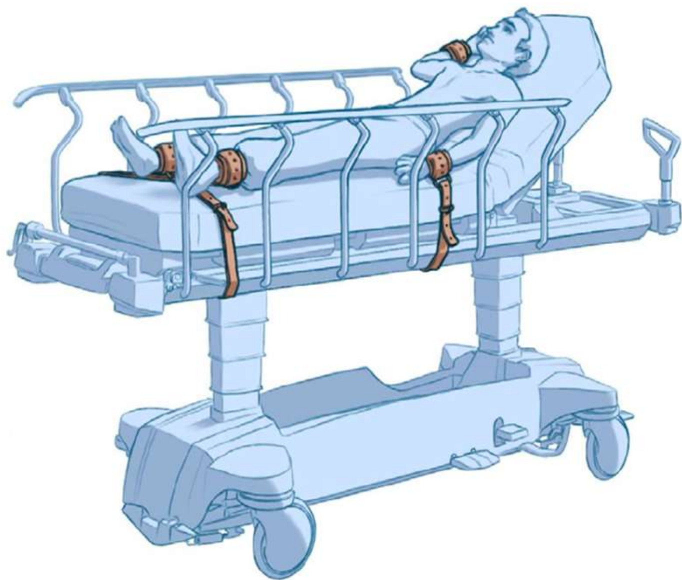

DELIRIUM
SUBSTANCE RELATED
PSYCHOSIS**
UNDIFFERENTIATED
Correct underlying medical condition
Avoid benzos*
TX: Low dose antipsychotic
ETOH/Benzo withdrawal OR CNS stimulant
CNS depressant medication
TX: Antipsychotic +/- Benzo
TX: Benzos
TX: Benzos
Avoid benzos if possible
TX: Haloperidol
Benzo = benzodiazepine
ETOH = ethanol
CNS = central nervous system
Tx = treatment
*Unless Benzo or ETOH withdrawal
**Hallucinations, delusions, disorganized thinking

Category	Name	Dose	Time of Onset (minutes)	Comments
1st generation antipsychotic	haloperidol (Haldol)	Mild: 2.5mg PO Moderate: 5mg PO Severe: 5mg IM	30	▪ MAX: 30mg/day
	droperidol (Inapsine)	Severe: 5mg IM or IV	15	▪ Max 10-20mg/day
2nd generation antipsychotic	risperidone (Risperdal)	Mild: 1mg ODT Moderate: 2mg ODT	<= 60	▪ May repeat q4-6h ▪ Caution above 10mg/day
	zisprasidone (Geodon)	Severe: 10-20mg IM	15-30	▪ Caution in pts with heart disease ▪ May repeat in 4h ▪ Max: 40mg/day

Category	Name	Dose	Time of Onset (minutes)	Comments
Benzodiazepines	lorazepam (Ativan)	Mild: 2mg PO	20-30	▪ Slowest onset, longest duration ▪ Caution with CNS depressants ▪ May give with haloperidol
	midazolam (Versed)	Moderate: 5mg IM or 2.5 IV Severe: 10mg IM or 5mg IV	15 (IM) 5 (IV)	▪ Caution with CNS depressants ▪ May give with haloperidol
Dissociate anesthetic	ketamine (Ketalar)	1-2mg/kg IV or up to 5mg/kg IM	1-2 (IV), 3 (IM)	▪ Emergence reaction, laryngospasm, bronchorrhea ▪ Severely agitated ▪ Increase BP, HR, CO

Medication Pearls

1. All antipsychotics lower seizure threshold
2. All antipsychotics cause QTc prolongation (Geodon is the worst)
3. Midazolam has faster onset and shorter duration. Lorazepam is preferred.
4. All antipsychotics may cause EPS. Add diphenhydramine OR lorazepam to reduce the side effect
5. No haloperidol in hyperthermia or anticholinergic toxicity



Physical Restraints

- Project BETA opposes the use of physical restraints
- Recommend at least 5 individuals
- Maintain patient’s privacy & dignity
- Extremities secured to the bed and NOT handrails
- Care not restrict patients breathing
- “One hour rule”
- Remain place for shortest time possible

Question #1

Question #2

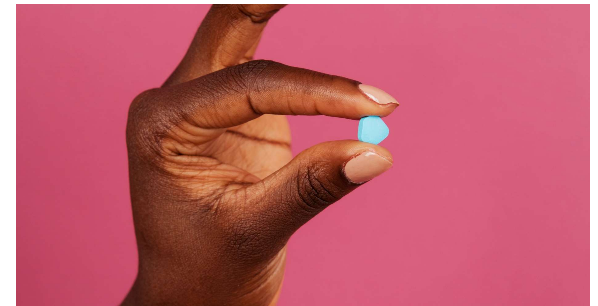
23-year-old female with unknown PMH BIBA for evaluation of abnormal behavior

Bystanders witnessed the patient standing at the bus stop mumbling to herself and screaming at others at the bus stop

BP 150/90 P 120 T 98.6F RR 25 O2 sat 98% on RA

Can we get some help in here?

- BP 150/90 P 120 T 98.6F RR 25 O2 sat 98% on RA
- POC glucose 98 mg/dL
- PMH – unknown
  - Empty bottle: Zyprexa 10mg
  - Violent behavior: punching walls, trying to kick staff



How do you treat this agitated patient?

Question #3

50 y/o m BIB police for evaluation of agitation. Pt has a h/o alcohol abuse, schizophrenia, CAD, and DM. He was on the side of Rt. 1. He kept walking up to cars sitting at a traffic lights and knocking on the windows. He would start screaming if the people did not open the window.

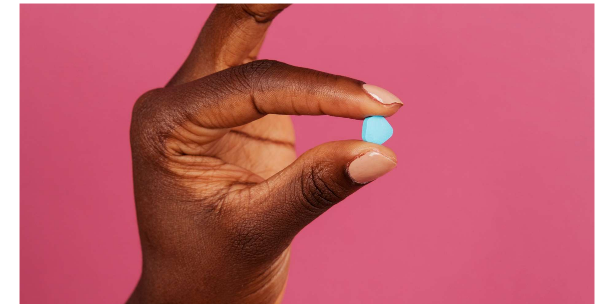
Physical exam

VS: BP 145/95 RR 22 P 100bpm 98% on room air

General: +ETOH on breath, appears unkempt & disheveled; he is agitated and aggressive

You ask if he would like some food, and he appears to calm down. He is no longer displaying aggressive behavior.

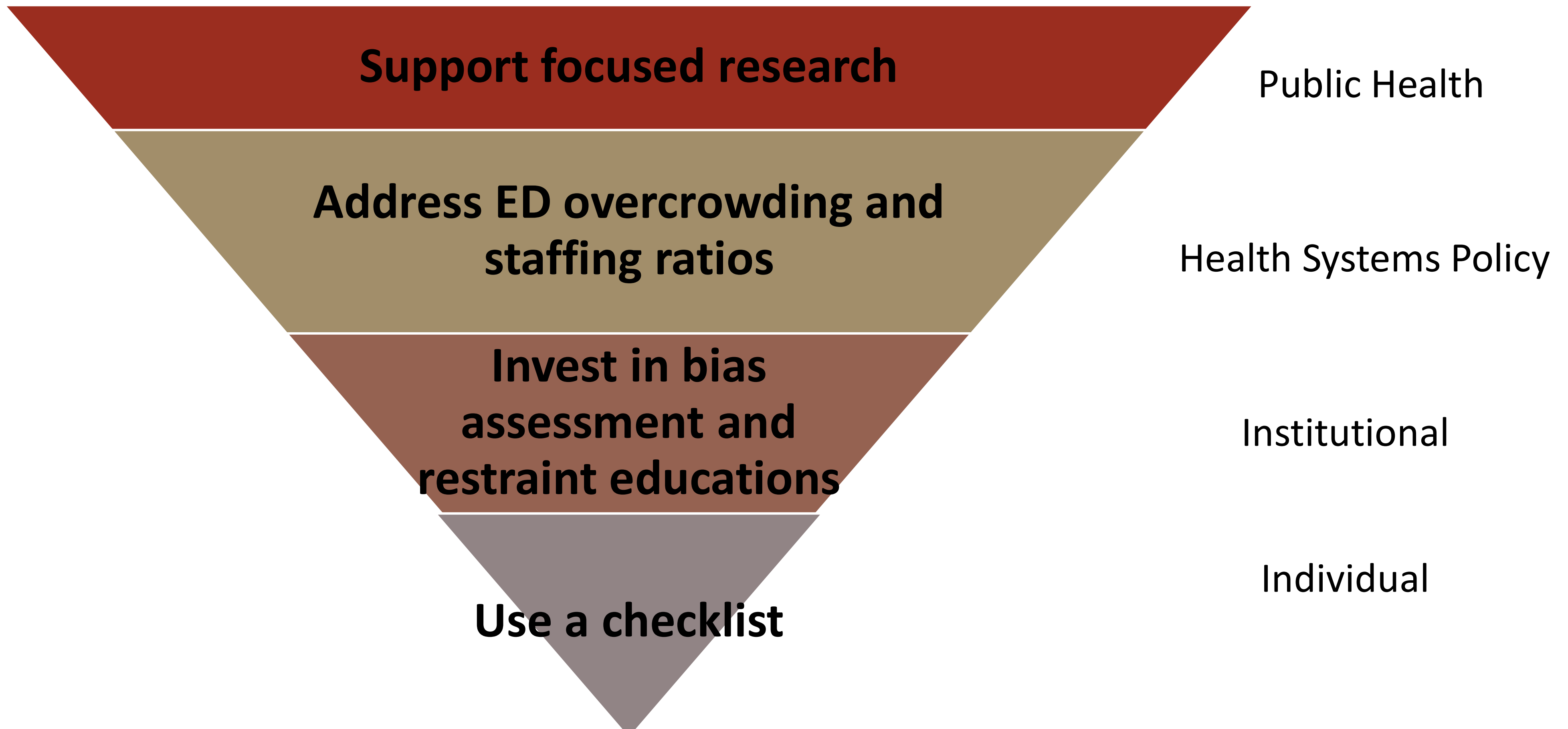
POC glucose: 80 mg/dL



How do you treat this agitated patient?

Question #4

Strategic Recommendations


Strategies to address bias in ED agitation management
Support focused research
Public Health
Address ED overcrowding and staffing ratios
Health Systems Policy
Invest in bias assessment and restraint educations
Institutional
Use a checklist
Individual

Restraint Checklist

1. Have I tried to listen to the patient's desires, employ verbal de-escalation, and other alternatives to chemical/physical restraints (such as offering food/drink)?

2. Is a different staff member, outside of myself or the patient’s primary care team, better at deescalating this patient based on demographic similarities (or differences, such as agitated male patient who responds better to female staff)?

3. Is my fear of this patient exaggerated by their appearance?

4. Are there cultural differences in the patient's expression of frustration and control?

5. Am I using racial, gender, socioeconomic, or other potentially harmful bias in determining my agitation care plan for this patient?

Summary

1. Use Project BETA guidelines when treating agitated patients
2. Try de-escalation techniques before using restraints
3. Try oral medications before parenteral medications
4. Consider the questions on the restraint checklist before using any restraints

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Questions?

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