SIMULATION

Altered Mental Status: Epilepsy, Acute Psychosis, Intoxication or Delirium Tremens?

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ABSTRACT:

Audience: This simulation session can be used for emergency medicine residents or medical students, but it may be more appropriate for senior residents. Junior residents and medical students may also misdiagnose delirium tremens as a seizure disorder.

Introduction: Delirium tremens (DT) is a rare, severe form of withdrawal that includes tremors, seizures, fever and delirium and occurs in approximately 5% of patients with alcohol withdrawal. Early identification and prompt treatment is essential as DT has a 5%-20% mortality rate which can be reduced to 1%-5% with appropriate therapy.

Objectives: At the end of this simulation session the learner will: 1) evaluate a patient with undifferentiated altered mental status, 2) recognize signs and symptoms of delirium tremens (DT), 3) promptly treat DT with benzodiazepines and supportive care, and 4) appropriately disposition a patient with DT.

Method: This educational session is a high-fidelity simulation.

Topics: Alcohol withdrawal, substance abuse, delirium tremens, simulation, seizure, toxicology, adult resuscitation.

USER GUIDE

List of Resources:

Learner Audience:
Medical Students, interns, junior residents, senior residents.

Time Required for Implementation:
Instructor Preparation: 15-30 minutes
Time for case: 10-15 minutes
Time for debriefing: 15-30 minutes

Recommended Number of Learners per Instructor:
2-5

Topics:
Alcohol withdrawal, substance abuse, delirium tremens, simulation, seizure, toxicology, adult resuscitation.

Objectives:
At the end of this simulation session, learners will be able to:

1. Evaluate a patient with undifferentiated altered mental status
2. Recognize signs and symptoms of delirium tremens (DT)
3. Promptly treat DT with benzodiazepines and supportive care
4. Appropriately disposition a patient with DT

Linked objectives, methods and results:
Delirium tremens is a rare, severe form of alcohol withdrawal with a high mortality rate (5%-15%). Prompt resuscitation and treatment with benzodiazepines are essential. By completing this simulation, learners will practice evaluating and managing an acutely ill patient with DT (objective 1 and 2). They will experience the difficulty in managing a patient with DT, given the patient's hemodynamic instability and need to appropriate titrate benzodiazepine doses for treatment (objective 3). Lastly, they will need to appropriately disposition the patient to end the case (objective 4). The learner will achieve the third tier of Miller's pyramid by "showing how" to diagnosis and manage DT. The debriefing session can discuss any cognitive, diagnostic or management errors, problems with communication, or points of confusion.

Recommended pre-reading for instructor:
Any resource to review delirium tremens (DT) and alcohol withdrawal would be appropriate. For suggestions see reference list below.

Results and tips for successful implementation:
This can be completed on a high- or moderate-fidelity simulation or could be incorporated as a mock oral board case. The patient should initially present brought in by paramedics from jail, with altered mental status, which leaves a fairly wide differential.

This simulation case was built based on an actual patient case. The simulation case was piloted with 8 second- and third-year residents. It was well received and the residents felt it was a challenging case and a good review of a relatively rare diagnosis. After pilot implementation, we made moderate adjustments to make the diagnosis more straightforward and the resuscitation more difficult.

References/suggestions for further reading:

1. Lank PM, Kusin S. Ethanol and opioid intoxication and withdrawal. In: Adams JG, Barton ED, Collings JL, DeBlieux PM, Gisondi MA, Nadel ES, eds. *Emergency Medicine: Clinical Essentials.* 2nd ed. Philadelphia, PA: Elsevier; 2013:1314-1322.
2. Thompson TM. Withdrawal, alcohol. In: *Rosen & Barken's 5-Minute Emergency Medical Consult*, 4th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2010:1234-1235.
3. Finnell JT. Alcohol-related disease. In: Walls RM, Hockberger RS, Gausche-Hill M, et al. eds. *Rosen's Emergency Medicine: Concepts and Clinical Practice*. 8th ed. Philadelphia, PA: Elsevier; 2014:2378-94.

INSTRUCTOR MATERIALS

Case Title: Altered mental status: Epilepsy, acute psychosis, intoxication, or delirium tremens?

Case Description & Diagnosis (short synopsis): A 48-year-old male is brought into the emergency department (ED) by paramedics. Per report, he has been in jail for two days. He was normal last night, but was found altered in his cell this morning. The paramedics report that he appears to be incontinent. They think he may have had a seizure. On arrival, the patient is combative, mumbling to himself and not answering questions appropriately. His vital signs are significant for hypertension and tachycardia. He has an otherwise benign exam, with no evidence of trauma. The patient continues to have worsening agitation, hypertension and tachycardia. The learner should recognize the concern for delirium tremens (DT). The patient will require multiple rounds of benzodiazepines to hold still for a head CT, and will continue to have severe tachycardia and worsening hypertension. Learners should recognize the need for escalating doses of benzodiazepines. They will need to intubate him and start high dose benzodiazepines and sedation drips. Once the drips are started, the patients will be fully sedated and blood pressure and heart rate will improve and the patient can be admitted to the medical intensive care unit (ICU).

Equipment or Props Needed:
High- or moderate-fidelity simulator
Infusion pumps
Normal Saline
Intravenous line supplies
Prop benzodiazepine vials and syringes
Prop anti-psychotic vials and syringes
Intubation/airway tray
Blood pressure cuff
Cardiac monitor
Two-lead ECG
Pulse oximeter

Confederates needed: This simulation needs a confederate or narrator from the simulation control room to give the initial paramedic report and a nurse to assist with the management of the patient.

INSTRUCTOR MATERIALS

Stimulus Inventory:

#1 Complete blood count
#2 Comprehensive metabolic panel
#3 Lipase
#4 Urine drug screen
#5 Lactate
#6 Alcohol Level
#7 CT head
#8 Chest X-ray
#9 Post-intubation chest X-ray

Background and brief information: 48-year-old male is brought in from jail by paramedics with altered mental status, agitation, hypertension and tachycardia. The paramedics state they believe the patient had a seizure because he had incontinence.

Initial presentation: On arrival the patient is tachycardic and hypertensive with agitation as he is moved to a gurney.

How the scenario unfolds: Participants should ask paramedics to stay, while quickly checking airway, breathing, and circulation (ABCs). Participants should then obtain a history from paramedics and perform a complete physical exam. They need to consider the differential for the patient's altered mental status including seizure, intoxication, alcohol withdrawal, infection, and trauma. They should order appropriate labs and imaging (including a head CT) and recognize that the patient's agitation will require intervention.

The nurse will report to the participant that they tried to take the patient for head CT but he was too agitated. His heart rate and blood pressure are still very elevated. If the participants do not start treating the patient with benzodiazepines, he will decompensate with worsening tachycardia and hypertension, fever and unremitting seizures. If they continue to fail to provide sufficient benzodiazepines, he will go into ventricular fibrillation, code and die.

If participants give benzodiazepines, they will need to be repeated, escalating the dose. The patient will continue to have severe hypertension and tachycardia. The participant should recognize that these symptoms are more consistent with delirium tremens than a seizure disorder or acute psychosis. Given the failure of multiple push-dosed benzodiazepines, they

should intubate the patient and start him on a benzodiazepine drip with or without additional sedation drip. The patient should then be admitted to the medical ICU.

Critical Actions:

1. Assess airway, breathing and circulation (ABCs)
2. Order appropriate basic labs and head CT
3. Recognize likely delirium tremens and aggressively treat with benzodiazepines
4. Recognize failure of push-dose benzodiazepines to treat the patient's symptoms and need for intubation and benzodiazepine and sedation drips
5. Admit the patient to the medical ICU

INSTRUCTOR MATERIALS

Case title: Altered mental status: Epilepsy, acute psychosis, intoxication, or delirum tremens?

Chief Complaint: 48-year-old male with history of polysubstance abuse, brought in by paramedics from jail for altered mental status. Patient is unable to provide history, but paramedics report they found him incontinent of both bowel and bladder and they think he had a seizure.

Vitals: Heart rate (HR) 120 Blood pressure (BP) 195/116 Respiratory rate (RR) 26
Temperature (T) 37.6°C Oxygen saturation (O_2Sat) 100%

General Appearance: Agitated, laying in gurney with handcuffs on

Primary Survey:

- **Airway:** Patent, protected, patient is moaning incoherently
- **Breathing:** Tachypneic, clear breath sounds bilaterally
- **Circulation:** Bounding femoral pulses, tachycardic

History:

- **History of present illness:** Per report the patient has been in jail for two days. He was normal last night, but was found altered in his cell this morning at 5am. Paramedics report he has both fecal and urinary incontinence and they think he had a seizure. Patient is only oriented to self. He is agitated and uncooperative, muttering to himself. No known preceding trauma. No known ingestions.
- **Past Medical history:** Polysubstance abuse, otherwise unknown
- **Past Surgical history:** Unable to obtain due to patient mental status
- **Patients Medications:** Unable to obtain due to patient mental status
- **Allergies:** Unable to obtain due to patient mental status
- **Social history:** Polysubstance abuse per paramedic report
- **Family history:** Unable to obtain due to patient mental status

Secondary Survey/Physical Examination:

- **General Appearance:** Agitated, laying in gurney with handcuffs on
- **Head, eyes, ears, nose and throat (HEENT):**
    - **Head:** normocephalic, atraumatic
    - **Eyes:** within normal limits, but not cooperative with extraocular movements
    - **Ears:** within normal limits

  - **Nose:** within normal limits
  - **Throat:** within normal limits
- **Neck:** within normal limits, moving head spontaneously
- **Heart:** tachycardic, regular rhythm, no murmurs noted
- **Lungs:** tachypneic, clear to auscultation bilaterally
- **Abdomen:** within normal limits
- **Genitourinary:** within normal limits
- **Rectal:** within normal limits
- **Extremities:** within normal limits
- **Back:** within normal limits
- **Neurological:** agitated. Awake but confused, staring off into distance, no eye contact, not answering questions or following commands. Appears to be responding to internal stimuli. Glascow coma scale (GCS) 13: motor 5, verbal 4, eyes 4, only able to answer name when asked. Face symmetric, pupils equally round and reactive to light, not pinpoint or enlarged. Moving all extremities equally and localizes to pain. No hyperreflexia or clonus.
- **Skin:** within normal limits, sweaty
- **Lymph:** within normal limits
- **Psychological:** agitated, unable to answer questions, looking around and appears to be responding to internal stimuli

Results:

#1 Complete blood count (CBC)

White blood count (WBC)	$11.5x10^3/mm^3$
Hemoglobin (Hgb)	14.2 g/dL
Hematocrit (Hct)	44.1%
Platelets	$228 /mm^3$

#2 Complete metabolic panel (CMP)

Sodium (Na)	131 mEq/L
Potassium (K)	3.3 mEq/L
Chloride (Cl)	101 mEq/L
Carbon dioxide (CO_2)	28 mEq/L
Blood urea nitrogen (BUN)	35 mg/dL
Creatinine (Cr)	1.4 mg/dL
Aspartate aminotransferase (AST)	54 Units/L
Alanine aminotransferase (ALS)	46 Units/L
Alkaline Phosphatase	126 Units/L
Albumin	1.9 g/dL
Total bilirubin	1.3 mg/dL

#3 Lipase
9 Units/L

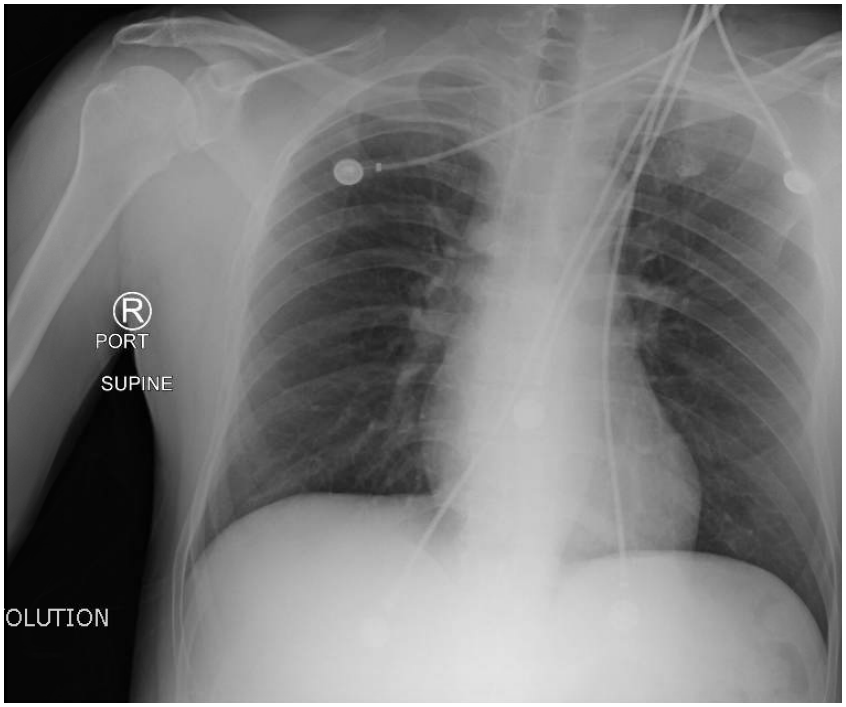
#4 Lactate
1.2 mEq/L

#5 Alcohol level
None detected

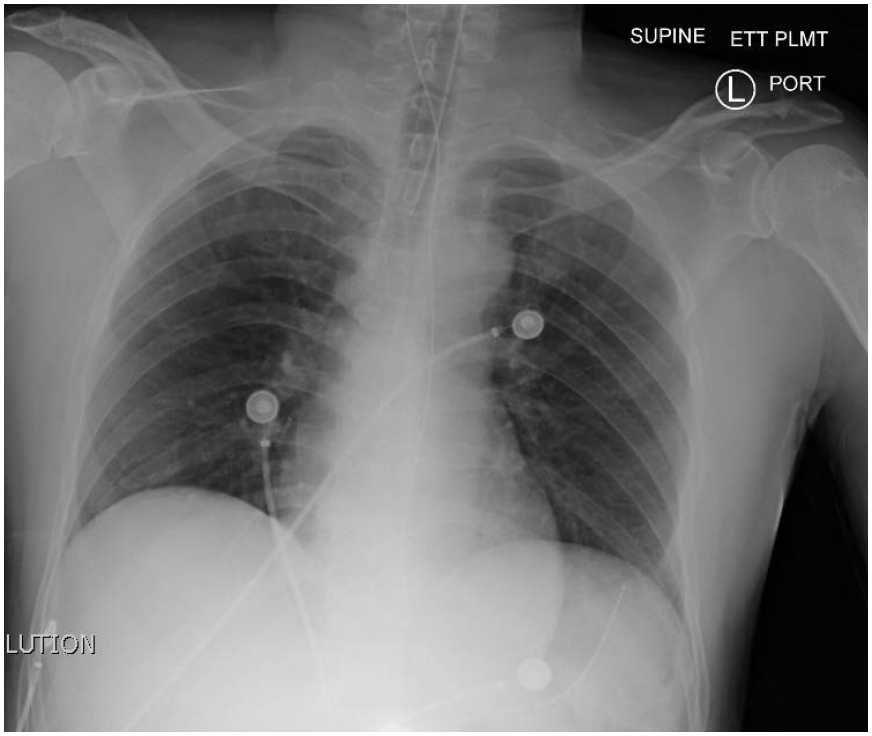
#6 Urine toxicology
Positive for opiates and benzodiazepines, otherwise negative

#7 CT Head
Author's own image

#8 Chest X-ray
Author's own image



#9 Post-Intubation chest X-ray
Author's own image



OPERATOR MATERIALS

SIMULATION EVENTS TABLE:

Minute (State)	Participant action/ Trigger	Patient Status (Simulator response) & Operator Prompts	Monitor Display (Vital Signs)
0:00 (Baseline)	Paramedics arrive with patient	Patient altered, agitated, combative.	T 37.6°C HR 120 BP 195/116 RR 26 O_2sat 100% on RA
1:00	Evaluate ABCs. Obtain history from paramedics. Start two large-bore intravenous (IV) lines Order monitors (cardiac and pulse ox).	Patient is altered and unable to provide a history. History is given per paramedics that he has been altered since this morning and they believe that he had a seizure.	T 37.6°C HR 120 BP 195/116 RR 26 O_2sat 100% on RA
3:00	Labs are ordered. Head CT ordered. Benzodiazepines ordered for agitation and possible alcohol withdrawal.	Patient is still agitated, tachycardic and hypertensive. If participant does not recognize the need to treat agitation and severe vital sign abnormality, the nurse can cue participant that they tried to take the patient for head CT but he was too agitated. If anti-psychotics are ordered instead of benzodiazepines, they will have no effect on the patient.	T 37.6°C HR 130 BP 205/116 RR 26 O_2sat 100% on RA
5:00	Further benzodiazepines should be ordered due to continued agitation, tachycardia and hypertension.	Continued hypertension and tachycardia. Labs available: CBC, CMP, lipase, lactate, alcohol level.	T 37.6°C HR 120 BP 210/120 RR 26 O_2sat 100% on RA

OPERATOR MATERIALS

Minute (State)	Participant action/ Trigger	Patient Status (Simulator response) & Operator Prompts	Monitor Display (Vital Signs)
6:00	Further benzodiazepines should be ordered due to continued agitation, tachycardia and hypertension.	If the participant orders sufficient benzodiazepines (at least 100mg of diazepam or 10mg of lorazepam or 20mg of midazolam), the patient will hold still long enough for head CT; otherwise patient will continue to be too agitated. If sufficient benzodiazepines have still not been ordered or if patient is given multiple doses of anti-psychotics, the patient will have worsening tachycardia and hypertension and start having intractable seizures until benzodiazepines are ordered.	T 37.6°C HR 120 BP 200/110 RR 26 O_2sat 100% on RA T 37.6°C HR 145 BP 237/131 RR 26 O_2sat 100% on RA
7:00	Patient still with abnormal vital signs, more benzodiazepines should be ordered.	Head CT results available. Continued hypertension and tachycardia, recurrence of agitation after head CT regardless of previous sufficient benzodiazepine pushes.	T 38.1°C HR 120 BP 215/120 RR 26 O_2sat 100% on RA
8:00	Recognize failure of repeat doses of benzodiazepine and need for heavy sedation and benzodiazepine drips requiring intubation. If they fail to intubate and start benzodiazepine drips, they should follow ACLS guidelines for the code.	If the participant does not recognize the need for intubation and higher doses of sedation and benzodiazepines, the patient will start seizing until higher doses of benzodiazepines are given. If they give further benzodiazepines without intubation the patient will stop breathing and become hypoxic, requiring intubation. If the participant still does not recognize the need for intubation and higher doses of sedation and benzodiazepines, either the nurse can prompt the learners "doctor, what medications do you want to improve the patient's heart rate and blood pressure?" or (for more advanced learners) the patient will go into ventricular fibrillation (see 11:00 code)	T 38.1°C HR 120 BP 215/120 RR 26 O_2sat 100% on RA T 38.1°C HR 145 BP 225/135 RR 26 O_2sat 100% on RA HR 0 BP 0 RR 0

OPERATOR MATERIALS

Minute (State)	Participant action/ Trigger	Patient Status (Simulator response) & Operator Prompts	Monitor Display (Vital Signs)
9:00	Intubate the patient. Order post-intubation chest X-ray.	Patient sedated for intubation, continued hypertension and tachycardia.	T 38.1°C HR 120 BP 215/120 RR 26 O_2sat 100% on RA
10:00	Order benzodiazepine drip with or without additional sedation.	For vitals to improve participants must order at least lorazepam or versed drip with or without propofol or dexmedatomadine. Otherwise remain at 9:00 vitals until they do. Patient sedated from drips, hypertension and tachycardia improved. Post-intubation chest X-ray available.	T 37.6°C HR 105 BP 140/85 RR ventilated O_2sat 100% ventilated
11:00	Call medical ICU for admission and sign out the patient.	Patient sedated from drips, hypertension and tachycardia improved. Patient admitted to the MICU for further management. Case ends.	T 37.6°C HR 105 BP 140/85 RR ventilated O_2sat 100% ventilated
11:00 Code	Continue ACLS protocol	Patient will degrade from ventricular fibrillation to asystole and after a period of running the code, the participants should call the code and declare time of death. Case ends.	HR 0 BP 0 RR 0

Diagnosis: Delirium tremens with severe sympathomimetic instability unresponsive to benzodiazepine push doses, requiring intubation and medication drips.

Disposition: The patient should be admitted to the medical ICU for further management of delirium tremens. If the participants did not recognize the need for benzodiazepines the patient will have a seizure and code and will not have return of spontaneous circulation regardless of resuscitative efforts.

Learner: _____

Delirium Tremens

Epidemiology

- In the United States it is estimated that 5%-10% of the population has alcoholism, and a substantial portion of the population is at risk for suffering alcohol withdrawal.
- Mortality rate is as high as 20% if left untreated, can be reduced to approximately 1%-5% with appropriate treatment.
- Alcohol is the most common withdrawal syndrome in the emergency department and unlike opiate withdrawal, it can be life-threatening.

Pathophysiology

- Chronic alcohol use down-regulates gamma-aminobutyric acid (GABA) receptors and up-regulates N-methyl-D-aspartate(NMDA) receptors.
- Sudden reduction in use causes increased adrenergic activity.
- Alcohol withdrawal is a spectrum of disease ranging from minor to major withdrawal.

Presenting Signs and Symptoms

- Minor withdrawal occurs within 6-24 hours and consists of tremors, tachycardia, hypertension, diaphoresis, anorexia and insomnia.
- Major withdrawal symptoms start after 24 hours, peak after 48-72 hours and consist of worsening tremors, tachycardia, hypertension, and can include fevers, seizures, altered mental status, and delusions.

Diagnosis

- History of previous alcohol withdrawal or chronic abuse with recent decreased intake is key to diagnosis.
- Diagnosis is by recognition of history and signs and symptoms consistent with alcohol withdrawal.
- Further diagnostic testing should be based on suspicion of other associated diseases such as traumatic injury, associated intoxication, or infection. In general, electrolytes, BUN, creatinine, glucose, magnesium, CBC, and alcohol level may be useful.
- Imaging is generally not required but CT head may be necessary to rule out trauma if patient is altered, and CXR may be useful in ruling out infection.

SIMULATION ASSESSMENT

Altered Mental Status: Epilepsy, Acute Psychosis, Intoxication or Delirium Tremens

Learner: _____

Treatment

- Airway, breathing and circulation (ABCs)
- Benzodiazepines are the mainstay of treatment for alcohol withdrawal: Lorazepam, diazepam, or chlordiazepoxide can be used. Large repeated doses may be required to control symptoms.
- Propofol and barbiturates are also useful in patients not responding to benzodiazepines.
- Phenytoin and other anti-epileptic medications are not recommended for seizures related to alcohol withdrawal.
- Haloperidol and other anti-psychotics may lower the seizure threshold and prolong the QT interval.
- If patient is receiving high doses of benzodiazepines or adjunct agents, they may require intubation for airway protection.
- Lorazepam is generally avoided as a drip, as high doses may be associated with propylene glycol toxicity.
- Resuscitation with fluids.
- Electrolyte repletion.
- Patients with DT usually require ICU admission for close monitoring and frequent reassessment and repeat medication.

Further Reading

1. Lank PM, Kusin S. Ethanol and opioid intoxication and withdrawal. In: Adams JG, Barton ED, Collings JL, DeBlieux PM, Gisondi MA, Nadel ES, eds. *Emergency Medicine: Clinical Essentials.* 2nd ed. Philadelphia, PA: Elsevier; 2013:1314-1322.
2. Thompson TM. Withdrawal, alcohol. In: *Rosen & Barken's 5-Minute Emergency Medical Consult*, 4th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2010:1234-1235.
3. Finnell JT. Alcohol-related disease. In: Walls RM, Hockberger RS, Gausche-Hill M, et al. eds. *Rosen's Emergency Medicine: Concepts and Clinical Practice*. 8th ed. Philadelphia, PA: Elsevier; 2014:2378-94.

SIMULATION ASSESSMENT

Altered Mental Status: Epilepsy, Acute Psychosis, Intoxication or Delirium Tremens

Learner: _____

Assessment Timeline

This timeline is to help observers assess their learners. It allows observer to make notes on when learners performed various tasks, which can help guide debriefing discussion.

Critical Actions	0:00
1. Assess airway, breathing and circulation (ABCs). 2. Order appropriate basic labs and head CT. 3. Recognize likely delirium tremens and aggressively treat with benzodiazepines 4. Recognize failure of push-dose benzodiazepines to treat the patient's symptoms and need for intubation and benzodiazepine and sedation drips 5. Admit the patient to the medical ICU.	

SIMULATION ASSESSMENT

Altered Mental Status: Epilepsy, Acute Psychosis, Intoxication or Delirium Tremens

Learner: _____

Critical Actions:

- ☐ Assess airway, breathing and circulation (ABCs)
- ☐ Order appropriate basic labs and head CT
- ☐ Recognize likely delirium tremens and aggressively treat with benzodiazepines
- ☐ Recognize failure of push-dose benzodiazepines to treat the patient's symptoms and need for intubation and benzodiazepine and sedation drips
- ☐ Admit to the medical ICU

Summative and formative comments:

Milestones assessment:

	Milestone	Did not achieve level 1	Level 1	Level 2	Level 3
1	**Emergency Stabilization (PC1)**	☐ Did not achieve Level 1	☐ Recognizes abnormal vital signs	☐ Recognizes an unstable patient, requiring intervention Performs primary assessment Discerns data to formulate a diagnostic impression/plan	☐ Manages and prioritizes critical actions in a critically ill patient Reassesses after implementing a stabilizing intervention

Standardized assessment form for oral boards cases. JETem © Developed by: Megan Osborn, MD, MHPE; Shannon Toohey, MD; Alisa Wray, MD
Toohey S. Altered Mental Status. JETem 2016. 1(2):S1-21. https://doi.org/10.21980/J8G592

SIMULATION ASSESSMENT

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Learner: _____

	Milestone	Did not achieve level 1	Level 1	Level 2	Level 3
2	**Performance of focused history and physical (PC2)**	☐ Did not achieve Level 1	☐ Performs a reliable, comprehensive history and physical exam	☐ Performs and communicates a focused history and physical exam based on chief complaint and urgent issues	☐ Prioritizes essential components of history and physical exam given dynamic circumstances
3	**Diagnostic studies (PC3)**	☐ Did not achieve Level 1	☐ Determines the necessity of diagnostic studies	☐ Orders appropriate diagnostic studies. Performs appropriate bedside diagnostic studies/procedures	☐ Prioritizes essential testing Interprets results of diagnostic studies Reviews risks, benefits, contraindications, and alternatives to a diagnostic study or procedure
4	**Diagnosis (PC4)**	☐ Did not achieve Level 1	☐ Considers a list of potential diagnoses	☐ Considers an appropriate list of potential diagnosis May or may not make correct diagnosis	☐ Makes the appropriate diagnosis Considers other potential diagnoses, avoiding premature closure
5	**Pharmacotherapy (PC5)**	☐ Did not achieve Level 1	☐ Asks patient for drug allergies	☐ Selects an medication for therapeutic intervention, consider potential adverse effects	☐ Selects the most appropriate medication and understands mechanism of action, effect, and potential side effects Considers and recognizes drug-drug interactions

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Learner: _____

	Milestone	Did not achieve level 1	Level 1	Level 2	Level 3
6	**Observation and reassessment (PC6)**	☐ Did not achieve Level 1	☐ Reevaluates patient at least one time during case	☐ Reevaluates patient after most therapeutic interventions	☐ Consistently evaluates the effectiveness of therapies at appropriate intervals
7	**Disposition (PC7)**	☐ Did not achieve Level 1	☐ Appropriately selects whether to admit or discharge the patient	☐ Appropriately selects whether to admit or discharge Involves the expertise of some of the appropriate specialists	☐ Educates the patient appropriately about their disposition Assigns patient to an appropriate level of care (ICU/Tele/Floor) Involves expertise of all appropriate specialists
9	**General Approach to Procedures (PC9)**	☐ Did not achieve Level 1	☐ Identifies pertinent anatomy and physiology for a procedure Uses appropriate Universal Precautions	☐ Obtains informed consent Knows indications, contraindications, anatomic landmarks, equipment, anesthetic and procedural technique, and potential complications for common ED procedures	☐ Determines a back-up strategy if initial attempts are unsuccessful Correctly interprets results of diagnostic procedure
20	**Professional Values (PROF1)**	☐ Did not achieve Level 1	☐ Demonstrates caring, honest behavior	☐ Exhibits compassion, respect, sensitivity and responsiveness	☐ Develops alternative care plans when patients' personal beliefs and decisions preclude standard care

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Learner: _____

	Milestone	Did not achieve level 1	Level 1	Level 2	Level 3
22	**Patient centered communication (ICS1)**	☐ Did not achieve level 1	☐ Establishes rapport and demonstrates empathy to patient (and family) Listens effectively	☐ Elicits patient's reason for seeking health care	☐ Manages patient expectations in a manner that minimizes potential for stress, conflict, and misunderstanding. Effectively communicates with vulnerable populations, (at risk patients and families)
23	**Team management (ICS2)**	☐ Did not achieve level 1	☐ Recognizes other members of the patient care team during case (nurse, techs)	☐ Communicates pertinent information to other healthcare colleagues	☐ Communicates a clear, succinct, and appropriate handoff with specialists and other colleagues Communicates effectively with ancillary staff