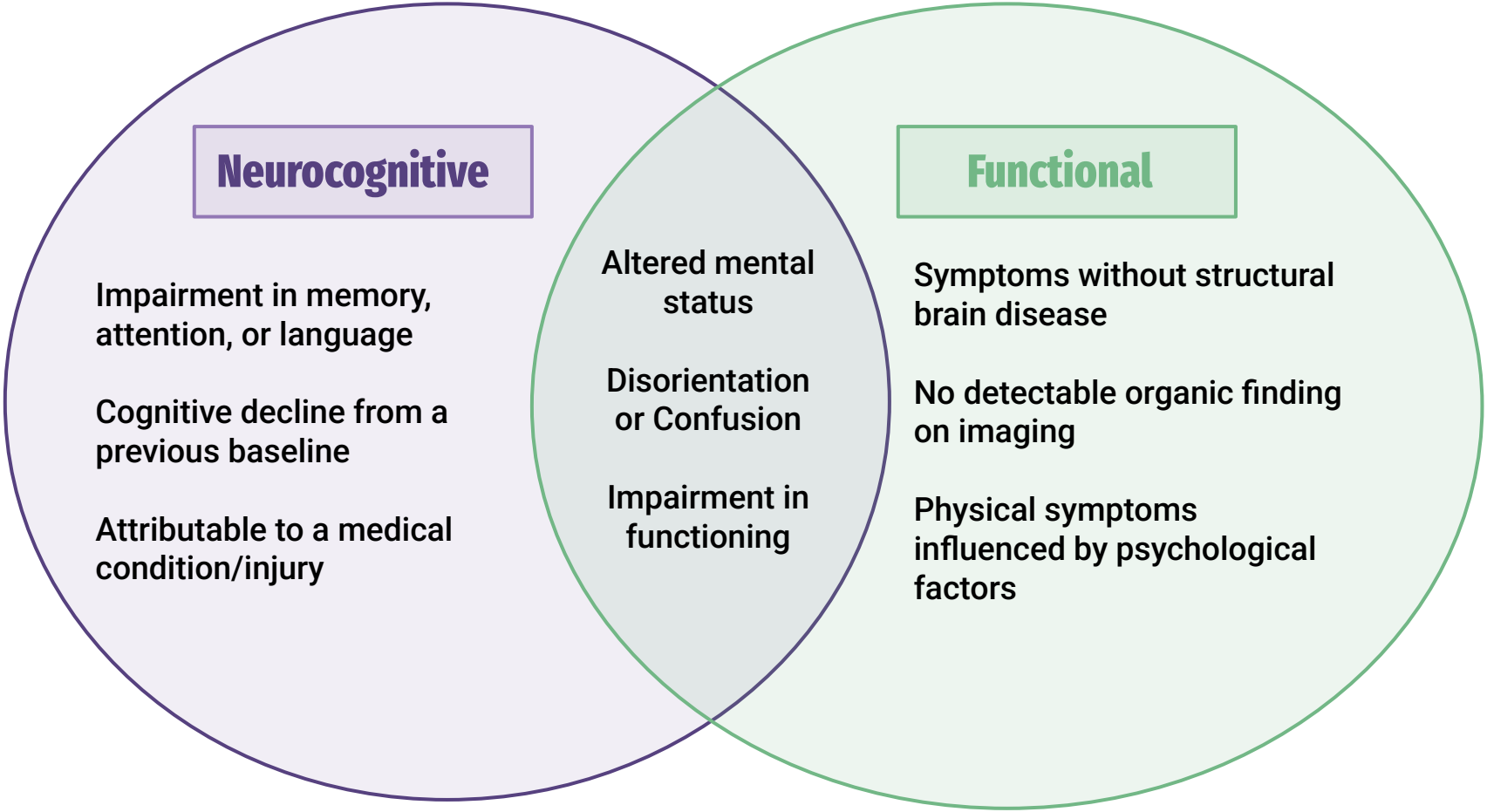
Psychiatric Emergencies

Kailey Choi, Aditya Arora, Arul Banerjea, Christian T. Ghion

Common Neurocognitive & Functional Disorders


Neurocognitive
Impairment in memory, attention, or language
Cognitive decline from a previous baseline
Attributable to a medical condition/injury
Altered mental status
Disorientation or Confusion
Impairment in functioning
Functional
Symptoms without structural brain disease
No detectable organic finding on imaging
Physical symptoms influenced by psychological factors

Dementia

General term for chronic progressive cognitive decline

Decline in brain function that affects memory, thinking, language, judgment, and behavior

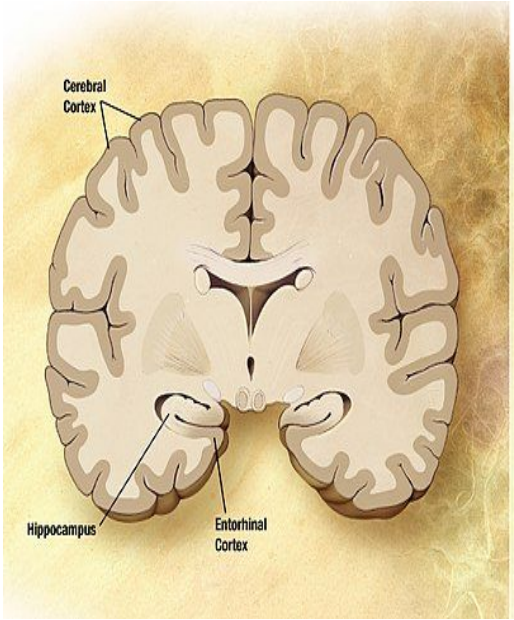
Sx: memory loss, personality changes, irritability, anxiety, depression, etc.

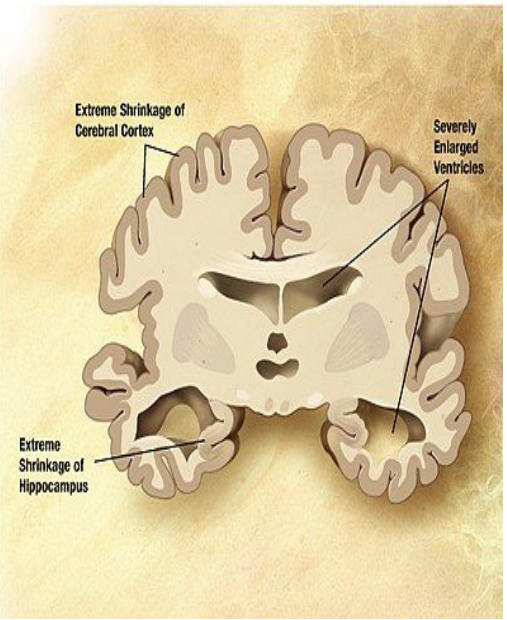
Alzheimer's Disease

Degenerative disease of unknown etiology; most common form of dementia

Degeneration of brain neurons especially in the cerebral cortex & presence of neurofibrillary tangles & plaques

Sx: progressive memory loss, impaired thinking, disorientation, changes in personality/mood





Dissociative Identity Disorder (DID)

DEFINITION

(AKA multiple personality disorder): dissociative disorder characterized by 2+ distinct personalities w/ the ability to take control of the person w/ DID

Typically severe childhood trauma → fragmented identity states

ETIOLOGY

Functional Disorders

01

Definition

Group of conditions characterized by unknown neurological symptoms

02

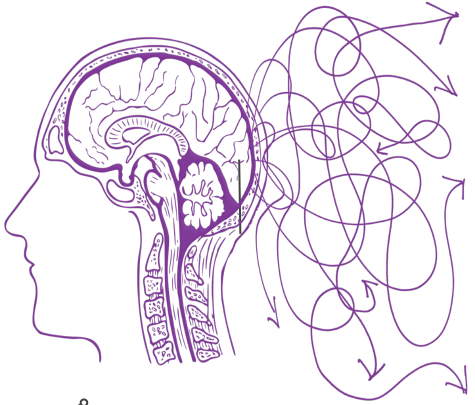
Common Examples

Conversion disorder, psychogenic non-epileptic seizures (PNES), somatic symptom disorder

03

Symptoms

No organic cause: Paralysis, blindness, seizures, amnesia, etc.



Organic Brain Syndromes

DEFINITION

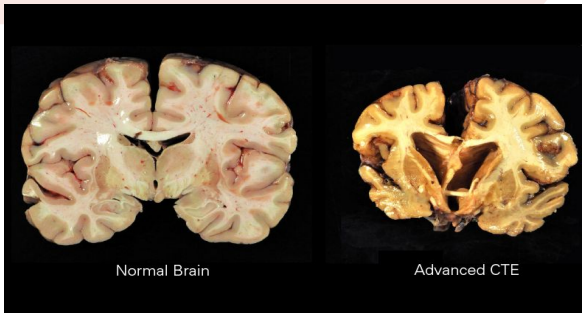
Group of disorders caused by **“demonstrable” organic pathological conditions** affecting the brain (i.e. physical damage of brain tissue)

CAUSES

Head trauma, brain infections/tumors/etc., endocrine disorders, toxins, substance-related disorders, etc.

CATEGORIES

A. Cognitive disorders
B. Mental disorders secondary to general medical conditions



Mania

Part of **bipolar disorder spectrum**; mood of an abnormally elevated arousal energy level

Period must last at least **1 week** (or less if hospitalization is required)

<u>Sx:</u> extreme mood swings, increased energy, and behavioral changes

Treatment/transport considerations for cognitive impairment & altered mental status (AMS)

Assessment

1. Scene safe?
2. Primary assessment
   a. ABCs
   b. GCS
   c. Vitals
   d. Baseline mental status
3. Check for reversible causes of AMS (i.e. hypoxia, infection, etc.)

Transport

Transport to the **closest appropriate facility** while re-evaluating vital signs **every 5 minutes**, especially if:

A. Unconscious
B. Airway/breathing is compromised
C. Shock/unstable vitals are present
D. Possible stroke, trauma, or hypoglycemia
E. Behavioral changes pose a safety concern

ALCO Protocols

ALCO aims for verbal de-escalation before restraint/medication, whilst also ensuring scene safety.

ALCO expects for medical causes to be ruled out of contention before focusing on behavioral causes. However, ALCO also differentiates between psychological and behavioral emergencies.

EMTs do not initiate 5150 holds in Alameda County.

Psychiatric vs Behavioral Emergencies

DEFINITIONS

Psychiatric Emergency: Patient's mental status and/or behavior are altered in a manner that presents a serious danger to themselves or others.

Behavioral Emergency: Abnormal mental status/behavior which doesn't necessarily present a danger/threat.

Examples:

Psychiatric Emergencies: Psychosis, PTSD episode, suicide attempting, etc.

Behavioral Emergencies: Depression, panic attack, withdrawal, etc.

Both have to do with altered behavior/mental status but the danger level differs, and separates the two.

Mood Disorders

DEFINITION

Disorders which cause an abnormality in a patient's emotional/mental state, impairing their ability to function normally.

Examples:

Major Depressive Disorder (MAD): Feelings of sadness, sorrow, fatigue, suicidal ideation, **Seasonal Affective Disorder (SAD):** Similar to MAD but takes place usually in the winter due to lack of sunlight.

Bipolar Disorder: Causes mania that cycles with depression, depending on the patient and the time.

Depression

Depression is a mood disorder which causes the patient to feel saddened, hopeless, or sorrowful.

Causes can be biological, medical, social, or psychologically related. Overall symptoms include hopelessness, fatigue, suicidal ideation, etc.

It’s important to follow proper protocols and focus on reassuring the patient and making them comfortable.

Anxiety

Definition

A mental condition that has to do with feelings of severe fear, worry, nervousness.

03 Treat via reassuring the patient and assessing for other medical issues that could be playing a part.

02 Anxiety can cause panic attacks or excessive feelings of fear or worry.

01 Causes include psychological ones like PTSD or trauma, physical due to usage of substances, or situational due to phobias/fears.

Schizophrenia

Definition: Chronic psychotic disorder causing distorted thinking, perceptions, and behavior. Patients lose touch with reality.

Signs and Symptoms: hallucinations (esp auditory), delusions, paranoia, disorganized speech/behavior

Field Management Strategies: ensure scene safety, speak calmly, avoid arguing with delusions, reduce stimulations

Bipolar Disorder

Definition: Mood disorder with altering manic & depressive episodes

Signs and Symptoms: mania (euphoria, rapid speech, risky behavior); depressive (sadness, guilt, fatigue, suicidal thoughts)

Field Management Strategies: ensure scene safety, speak calmly, reduce stimulations, asses for suicide risk (oif depressive)

Post-Traumatic Stress Disorder (PTSD)

Definition: Anxiety disorder following trauma, with re-experiencing, avoidance, and hyperarousal symptoms lasting >1 month.

Signs and Symptoms: flashbacks, avoidance of reminders, hypervigilance, emotional numbing, anger

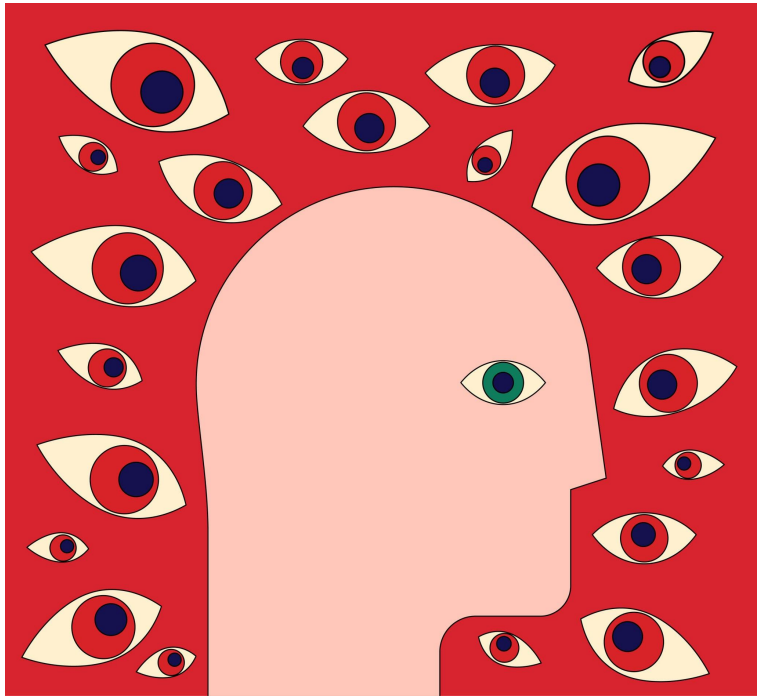
Field Management Strategies: clearly identify yourself, approach slowly, avoid noises, limit triggers, reassure patient

Paranoia

Definition: Irrational mistrust or suspicion of others, sometimes part of psychosis.

Signs and Symptoms: suspicious/hostile behavior, guarded or withdrawn demeanor, anxious, belief others are plotting

Field Management Strategies: clearly identify yourself, maintain distance, don't make promises, offer choices



What Can We Learn From These Last Few?

Build Rapport with Patients

Reduce External Stimuli

Ensure Personal Safety

Possible Causes of Altered Mental Status (AEIOU TIPS)

Physical Causes to Rule Out		
A	Alcohol/Substance Abuse	Acute alcohol or substance intoxication
E	Epilepsy/Electrolytes	Active seizure, post-ictal state, breakthrough seizure Hypo/hypernatremia, hypo/hypercalcemia
I	Infection	Meningitis/encephalitis, sepsis
O	Oxygen Deficiency/Overdose	Hypoxia from pulmonary edema, pulmonary embolism, or tension pneumothorax; hypoxic brain injury from cardiac arrest Prescription/OTC/illicit drug overdose; opioid toxicity
U	Underdose/Uremia	Missed/insufficient doses of chronic meds Advanced renal failure; congestive heart failure–related hypoperfusion, or urinary tract obstruction
T	Trauma/Temperature	Concussion, TBI, intracerebral hemorrhage (epidural/subdural) Hypo/hyperthermia
I	Insulin	Hypoglycemia; diabetic ketoacidosis
P	Psychiatric/Poisons	Psychosis; pseudoseizure; conversion disorder CO, lead, iron, other toxins
S	Stroke/Shock/SAH	Ischemic/hemorrhagic, subarachnoid hemorrhage (SAH) Hypovolemic, cardiogenic, distributive, neurogenic

Differential Dx for AMS: Head/Brain Trauma

01

When to Suspect

- **Any fall**/assault/vehicle crash
- **Anticoagulant use**
- **Headache/vomiting** after unknown MOI/NOI
- **Seizures**
- **Signs**:
  - Unequal pupils; focal deficits, amnesia, Battle signs/raccoon eyes/CSF leak
  - Cushing's triad (↑BP, ↓HR, irregular respirations)

02

EMT Assessment

- **Primary Assessment** (ABCs) with **C-spine** precaution if MOI suggests
- Glasgow Coma Scale (**GCS**)
- **Assess** pupils, limb strength/sensation, speech
- **Expose** and **inspect scalp** for lacerations/hematomas
- **Palpate** skull/face; check neck step-offs and C-spine tenderness
- **Obtain SAMPLE** and screen for anticoagulants/antiplatelets
- Consider concurrent **stroke** and run **FAST**

Differential Dx for AMS: Low Blood Glucose

01

When to Suspect

- **Known diabetes**, missed meals, heavy exertion, recent illness, alcohol use
- **Adrenergic signs**: Diaphoresis, tremor, palpitations, anxiety, hunger
- **Neuroglycopenic signs**: confusion, slurred speech, odd behavior, focal deficits (stroke mimic), seizures, coma
- **Pediatrics/older adults/pregnancy**: higher suspicion—may have subtle or atypical signs

02

EMT Assessment

- **Calibrated glucometer**: check for <60 mg/dL (ALCO protocol)
- **Assess vitals** (look for brady/tachycardia, hypotension), temperature, SpO_2
- **Consider** concurrent causes (hypoxia, stroke, trauma, tox)
- **Focused history**: last oral intake; diabetes meds and timing; recent insulin dosing errors; alcohol use; exercise; infection
- GCS, pupils, FAST screen (because **stroke mimic**)
- If BGL normal or symptoms persist after correction → **search for alternate causes of AMS**

Differential Dx for AMS: Hypoxia

01

When to Suspect

- **Dyspnea**, SpO_2 <94% (or <92% if COPD baseline per ALCO protocol), cyanosis, tachypnea/bradypnea, accessory muscle use, confusion/agitation
- **Physical Signs**: Chest pain, wheeze/stridor/rales, unequal breath sounds; opioid signs (pinpoint pupils, hypoventilation)
- **Situational clues**: smoke/space heater (CO), drowning, trauma to chest/neck, anaphylaxis (hives, swelling), CHF history (orthopnea/edema), Pulmonary embolism risk (recent surgery/immobility)

02

EMT Assessment

- **Airway**: patency, gurgling/stridor; suction as needed
- **Breathing**: rate/effort, chest rise symmetry; lung sounds (wheeze = bronchospasm; rales = edema; absent/↓ unilateral = pneumothorax)
- **Circulation**: pulse, skin temp/color, BP (shock?)
- **Pulse oximetry** (continuous) — CO poisoning gives falsely normal SpO_2
- **Focused**:
    - CHF/pulmonary edema: rales, JVD, pink froth, orthopnea.
    - Asthma/COPD: wheeze, prolonged expiration, tripod.
    - Pneumothorax/tension: pleuritic pain, ↓/absent sounds one side, distended neck veins (late).
    - Anaphylaxis: urticaria, edema, wheeze/stridor, hypotension.
    - CO/tox: headache, nausea, multiple co-exposed patients, normal lungs.
    - Opioids: shallow/slow respirations, miosis.

Differential Dx for AMS: Stroke

01

When to Suspect

- **Sudden neurologic deficit**: facial droop, arm/leg weakness or numbness, speech trouble (slurred/aphasia), vision loss, severe “worst headache” (think hemorrhage), vertigo/ataxia (posterior stroke), neglect, confusion
- **Risk clues:** age >55, AFib/anticoagulants, recent surgery, prior transient ischemic attack (TIA)/stroke, hypertension, diabetes, smoking.
- **Time matters**: establish Last Known Well (LKW) precisely (clock time).

02

EMT Assessment

- **Standard stroke screen** (per ALCO protocol):
  - FAST/BE-FAST (Face, Arm, Speech, ± Balance/Eyes)
- **Examine:**
  - GCS, orientation
  - Cranial signs: facial asymmetry, gaze deviation, visual fields, expressive/receptive aphasia
  - Motor/sensory: arm drift (10 sec), grip strength, leg drift (5 sec), sensation asymmetry
- **Differentiate ischemic vs hemorrhagic**:
  - Hemorrhage clues: abrupt severe headache, vomiting, very high BP, rapid decline in consciousness, seizure at onset
  - Ischemic/Large Vessel Occlusion clues: dense unilateral weakness, aphasia, neglect, gaze deviation

Common Stroke Mimics

- **Hypoglycemia/hyperglycemia** → check glucose early (stroke mimic)
- **Post-ictal:** witnessed seizure, tongue bite, focal weakness improving over minutes–hours
- **Migraine aura**: gradual symptom spread, prior similar episodes
- **Bell's palsy**: entire facial paralysis including forehead with normal limb strength/speech
- **Intoxication/sedatives:** odor/history
- **Sepsis/hypoxia**: fever, diffuse AMS without focal findings; abnormal SpO_2
- **Hypoperfusion/syncope**: brief global weakness without focal asymmetry

Differential Dx for AMS: Intoxication

01

When to Suspect

- **Scene clues**: alcohol odor, bottles/pills/patches, paraphernalia, witness reports of use
- **Exam pattern**: slurred speech, ataxia, rapid eye movements (nystagmus)
- **Tox**:
  - Opioids: miosis, hypoventilation, bradypnea/apnea
  - Sedatives (benzos/GHB): drowsy, hypotonia, often normal pupils.
  - Stimulants (cocaine/meth/MDMA): agitation, tachycardia/hypertension, diaphoresis, hyperthermia, chest pain
  - Cannabinoids/hallucinogens: anxiety/panic, perceptual changes, tachycardia

02

EMT Assessment

- **ABCs**
- **Vital signs:** temperature, HR, BP, RR, SpO_2
- **Glucose check early**—intoxication can mimic or precipitate hypoglycemia.
- **Pupils:** pinpoint (opioids), dilated (stimulants/hallucinogens)
- **Look for complications**: head/facial injuries, vomiting/aspiration, seizures, hyperthermia, chest pain.
- **Exposure-specific clues**: multiple co-exposed patients (CO or shared substance), chemical odors/solvents, transdermal patches.

Differential Dx for AMS: Environmental/Hypothermia

01

When to Suspect

- **Exposure history**: cold weather, wet clothing, immersion, wind, inadequate shelter/heat, intoxication, psych crisis outdoors.
- **Risk factors**: elderly, infants, trauma, sepsis, malnutrition, homelessness.
- **Clinical pattern**
  - Mild (90–95 °F): shivering, tachypnea, tachycardia, impaired judgment, slurred speech
  - Moderate (82–90 °F): diminished shivering, bradycardia, hypoventilation, confusion
  - Severe (<82 °F): coma, slow/irregular pulse/respirations

02

EMT Assessment

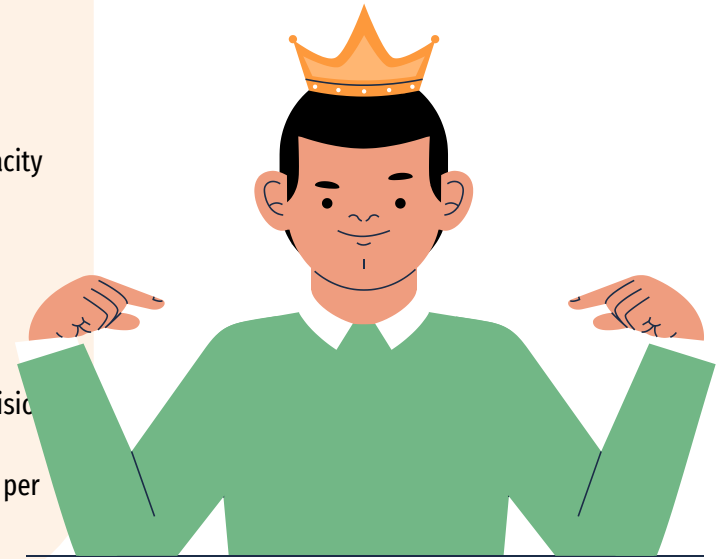
- **Temperature:** core temp; document time + method
- **Vitals & trend:** HR (often bradycardic), RR (may be low), BP (may be low/soft), SpO_2 (can be unreliable peripherally in cold).
- **Neuro status:** GCS; speech; look for paradoxical undressing/terminal burrowing
- **Skin findings**: cold, pale or cyanotic; frostnip/frostbite on extremities; edema after immersion
- **Cardiorespiratory clues**: slow, shallow breathing; chest wall stiffness
- **History points (from patient/bystanders)**: time last seen normal, duration of exposure, wet vs dry, wind, activity level, medical meds/insulin/alcohol, baseline functional status.

Distinguishing between psychiatric vs. medical causes

- **Favors medical/traumatic:** abnormal vitals, new focal neuro deficits, head/neck trauma signs, altered level of consciousness, age <12 or >55 with new onset, sudden onset, fluctuating course, toxin exposure
- **Favors psychiatric**: normal vitals, alert/oriented with purposeful behavior, known psych history with similar prior episodes
- **If unsure** → treat as medical/trauma and transport.

Patient Mental Status + Consent/Refusal

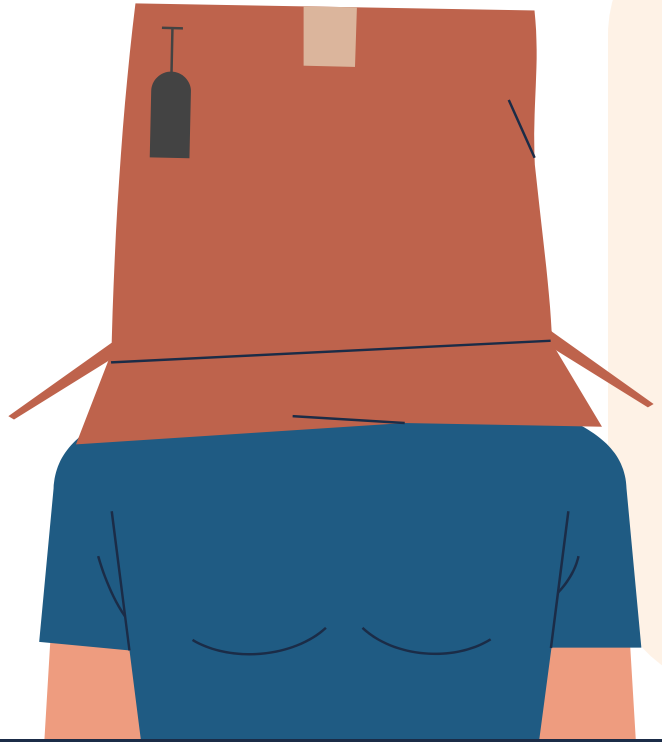
- **Field Priorities:** treat life threats first and rule out potential causes
  - Use calm, non-confrontational communication
- Assess decision-making capacity
  - **Understands** and can paraphrase condition and proposed care
  - **Recognizes** personal risk/consequences of refusing care
  - **Reasons** through options logically and not repeating a preference
  - **Communicates** a stable choice and does not fluctuate
  - Task and time specific and orientation alone does not qualify as capacity
- **Managing refusal of care**
  - **Offer** assessment/treatment/transport; explain risks, benefits, and alternatives in plain language
  - **Involve** family/friends (with consent), base medical control, and law enforcement when appropriate
  - If capacity **present** → obtain signed informed refusal with vitals, decisio witnesses, and return precautions.
  - If capacity **absent/unclear** → treat/transport under **implied consent** per protocol and consult medical control.



Reasonable Force + Restraints

- **Principles:**
  - Prevent imminent harm to patient/others and enable necessary medical care
  - Use the least restrictive method that is effective and escalate only as needed
- **When to consider**
  - Patient lacks capacity and is at risk (violent psychosis, severe hypoxia/intoxication, post-ictal confusion)
  - Active self-harm or credible danger to others
- **Best practices**
  - **Verbal de-escalation** first; maintain space, one calm lead communicator
  - Coordinate with **law enforcement** if criminal behavior, weapons, or public safety risk
  - If physical restraint is **necessary**: apply with a team (supine of semi-Fowler's), secure each limb separately (CSMs), protect airway, continuous monitoring (airway, breathing, circulation, neuro).
  - Avoid p**ositional asphyxi**a and remove tight face/neck bindings
  - Document why restraint was used, type, who applied, patient behavior pre/post, monitoring, and any injuries

Mental Health Holds



- **5150**: up to 72-hour involuntary hold for danger to self (DTS), danger to others (DTO), or grave disability (GD) due to mental disorder
- **5250**: up to 14-day extension if criteria persist after 5150 and continue to be deemed a danger to themselves or others, or who are gravely disabled and potentially suicidal
- **5270**: up to 30-day hold, generally for grave disability when longer stabilization is needed.
- **Initiated by** peace officers and county-designated/authorized mental health professionals (qualified clinicians)
- **Actions**
  - **Identify criteria** (DTS/DTO/GD), assess capacity, rule out medical causes
  - **Consult medical control**, request law enforcement or designated clinician for hold initiation when indicated
  - **Provide** medical actions within scope (vitals, glucose, SpO_2, exam) and transport per direction
  - **Maintain safety**: consider restraints if the patient is violent or eloping and lacks capacity
- **Thresholds and coordination**
  - **Threshold**- credible risk or inability to provide for basic needs due to mental disorder
  - Coordinate early with law enforcement and receiving facility; relay: behavior, statements, risk factors, exam findings, attempts at de-escalation, and any injuries or restraints

Key Terminology

- **Hallucination**: Perception without external stimulus (hearing voices, seeing things)
- **Delusion**: **Fixed false belief** not changed by evidence (being followed)
- **Incoherence / disorganized speech**: Illogical, tangential, or word-salad speech that's hard to follow
- **Catatonia**: Marked motor abnormalities often with reduced response to stimuli
- **Psychosis**: Loss of reality testing (hallucinations, delusions, disorganized thinking/behavior)
- **Delirium**: Acute, fluctuating disturbance of attention/awareness from a medical cause (infection, hypoxia, drugs).