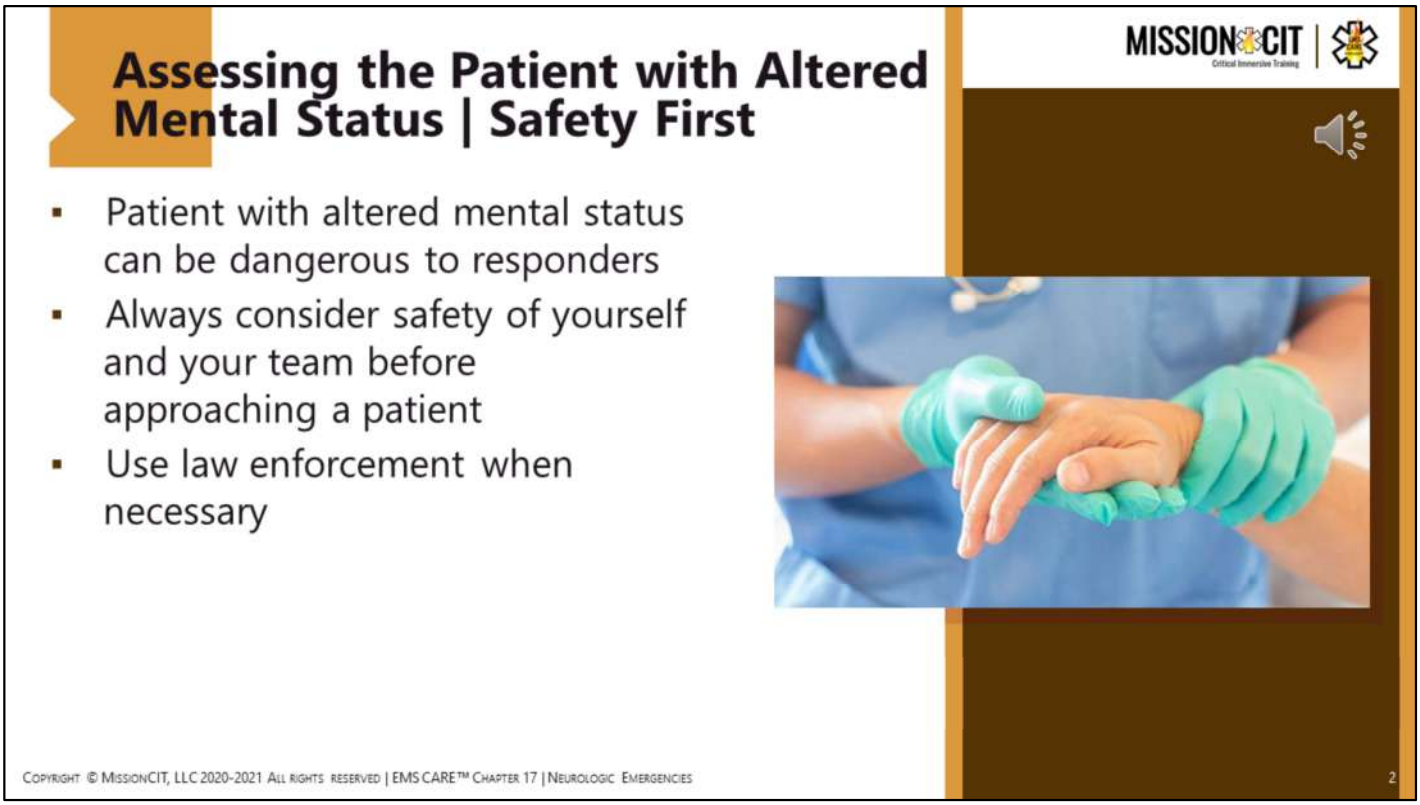


In this lesson, we will look at how to assess a patient with an Altered Mental State. The variables we may encounter are many. Safety of the patient and first responder may be at risk. So, preparedness, and process are paramount.

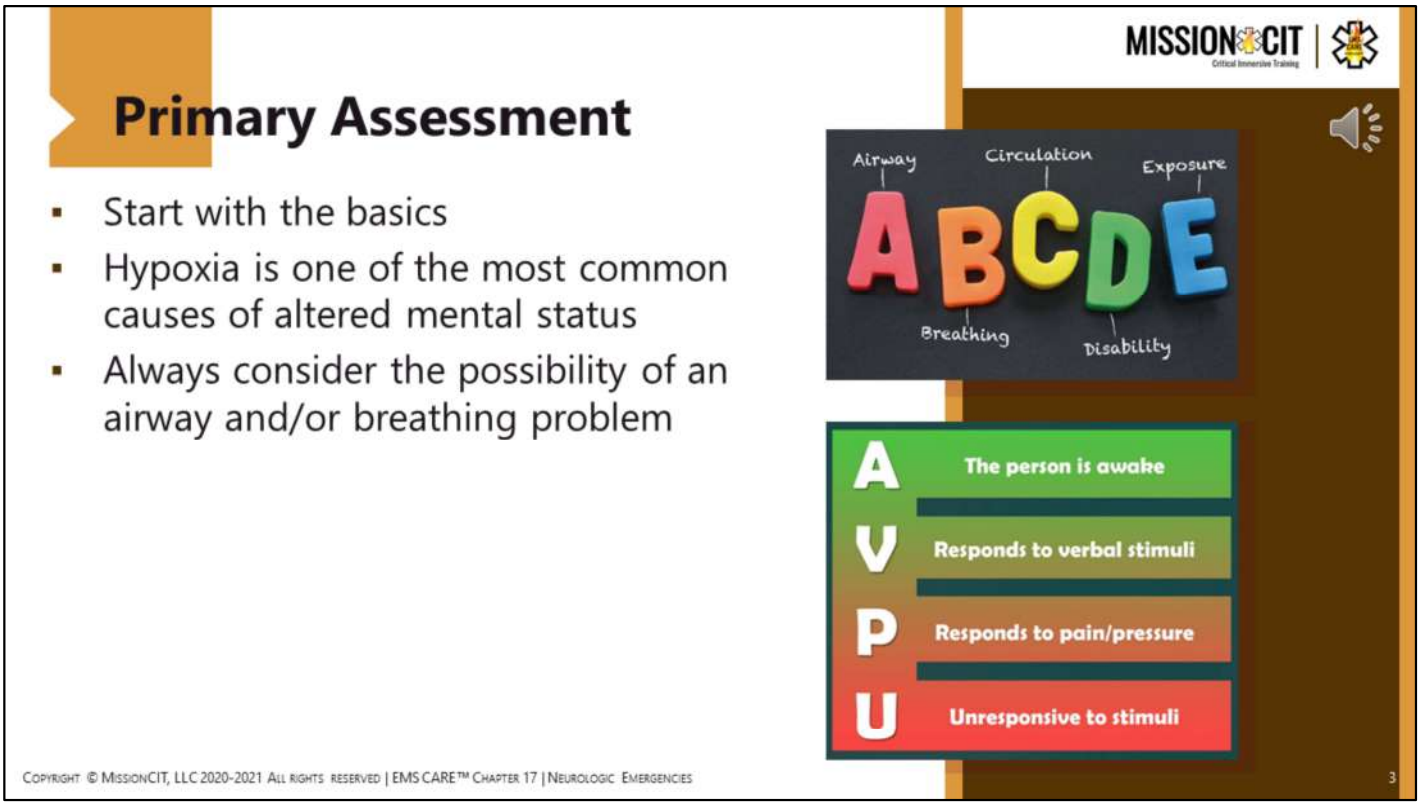
And of course, be sure to start with your basic primary assessment. And then move on to secondary assessments as indicated by the Altered Mental State of your patient, and as the situation allows.



Safety is always the most important concern when assessing a patient with an altered mental status.

Always consider the safety of yourself and your team before approaching the scene. Don't hesitate to use law enforcement when necessary.

Think about how your scene assessment process may enhance your ability to assess a patient with an altered mental status. And what does your local protocol advise.

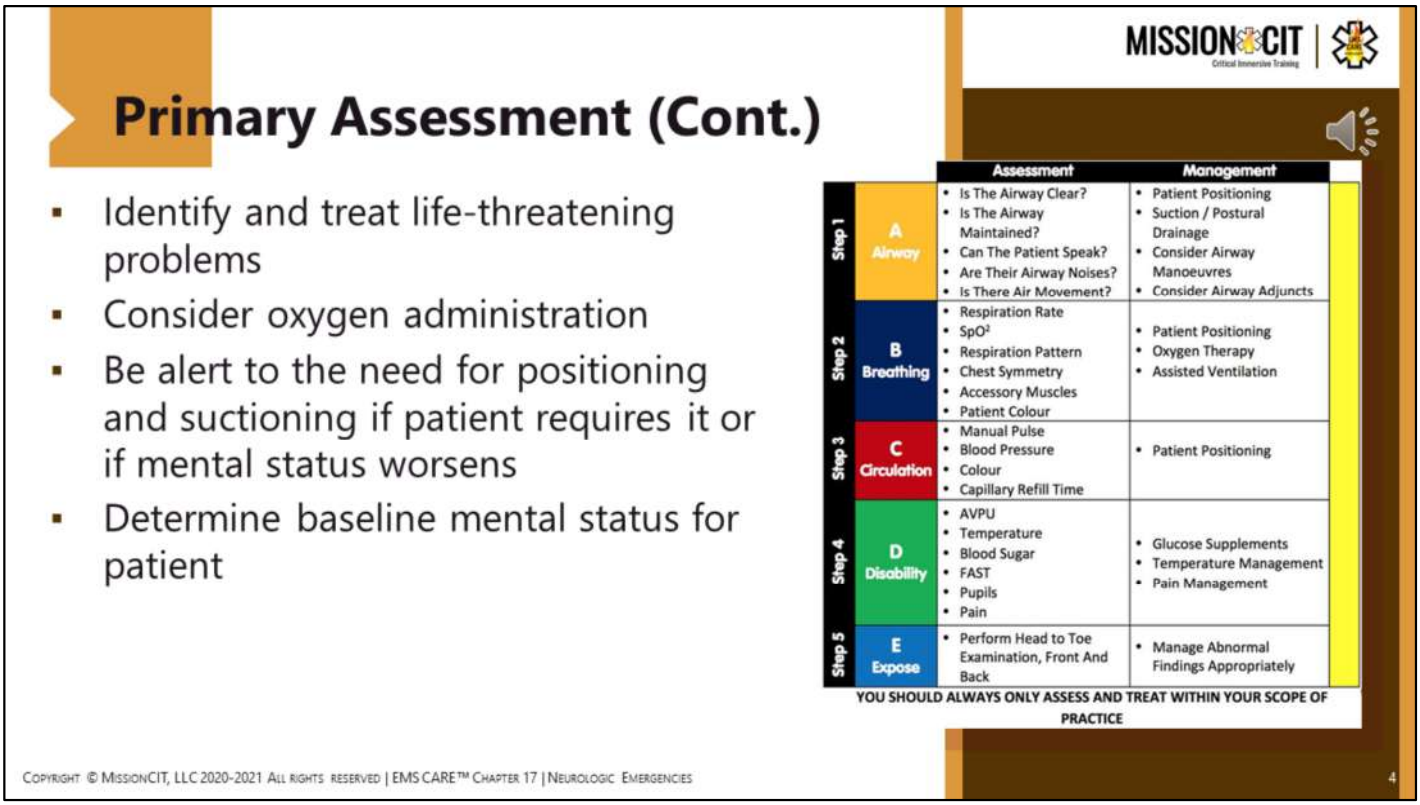


Start with a primary assessment as you would for any other scene. However, patients with an altered mental status may pose risks that are at times difficult to assess. As a result, adding stresses on you and your team.

So, stay focused, rely on your training, and follow your protocol. Now is the time to work through mental checklists like A B C D E, or A V P U, to manage situational stresses.

Remember, Hypoxia is one of the most common causes of altered mental status. Always consider the possibility of an airway and/or breathing problem. Headache with AMS can indicate infection, tumor or bleeding.

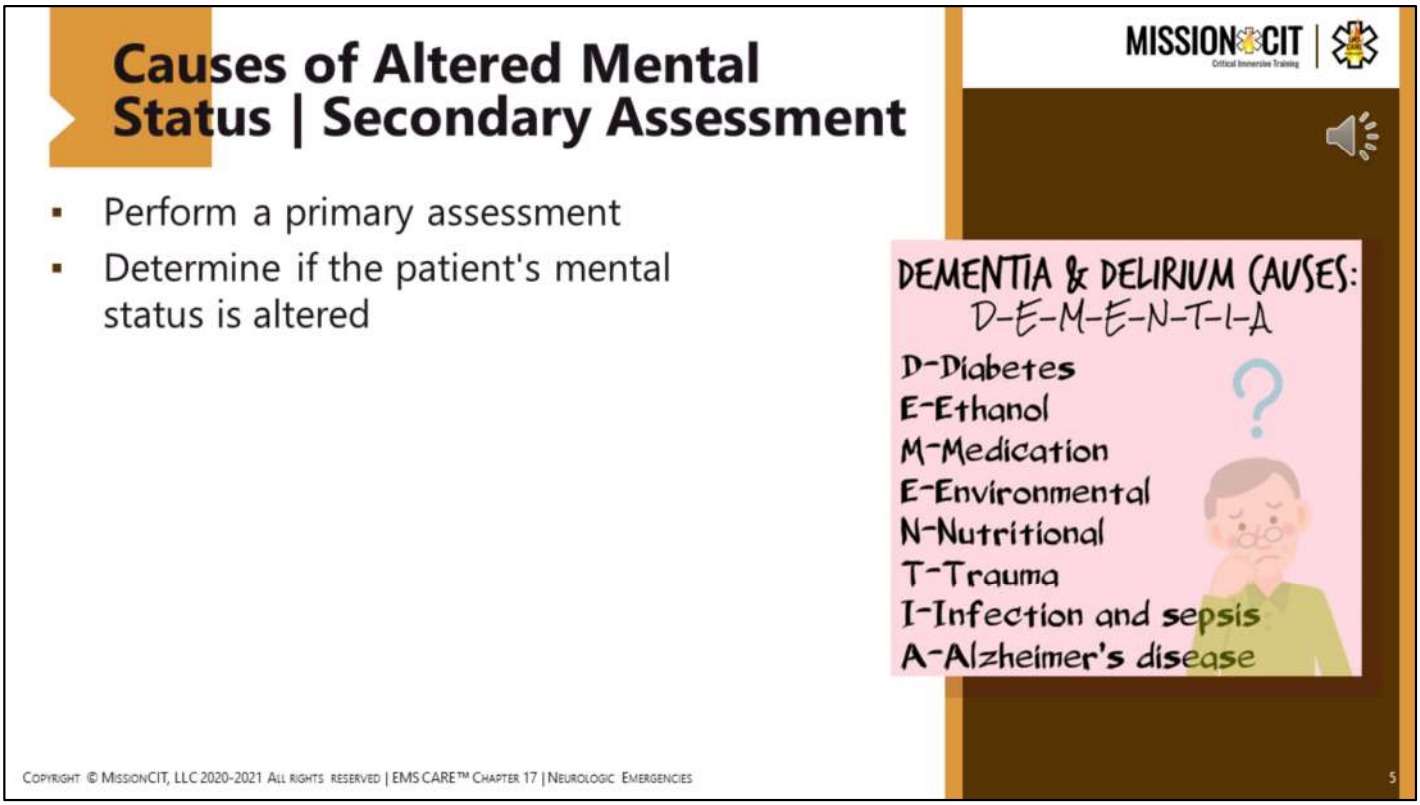
If you suspect alcohol or drugs are involved, how might this affect your assessment process. You can discuss on the forum or contact your instructor to discuss if you have questions.



So, sticking with the basics of a primary assessment,

1. Identify and treat life-threatening problems.
2. Consider oxygen administration.
3. Be alert to the need for positioning and suctioning if the patient requires it, or if the mental status worsens.

Then, determine a baseline mental status for the patient.



Once the primary assessment is complete, begin a secondary assessment.

Dementia is an overall term for diseases and conditions characterized by a decline in memory, language, problem-solving, and other thinking skills that affect a person's ability to perform everyday activities. Memory loss is an example. It is not a disease, rather a group of symptoms that are caused by several conditions. There may also be changes in personality, mood, and behavior.

In contrast, Delirium is an abrupt change in the brain, that causes mental confusion and emotional disruption. Delirium is usually temporary, and can often be treated effectively. Patients suffering from delirium may fall in and out of consciousness, and there may be problems with awareness, attention, emotions, muscle control, sleeping, and waking.

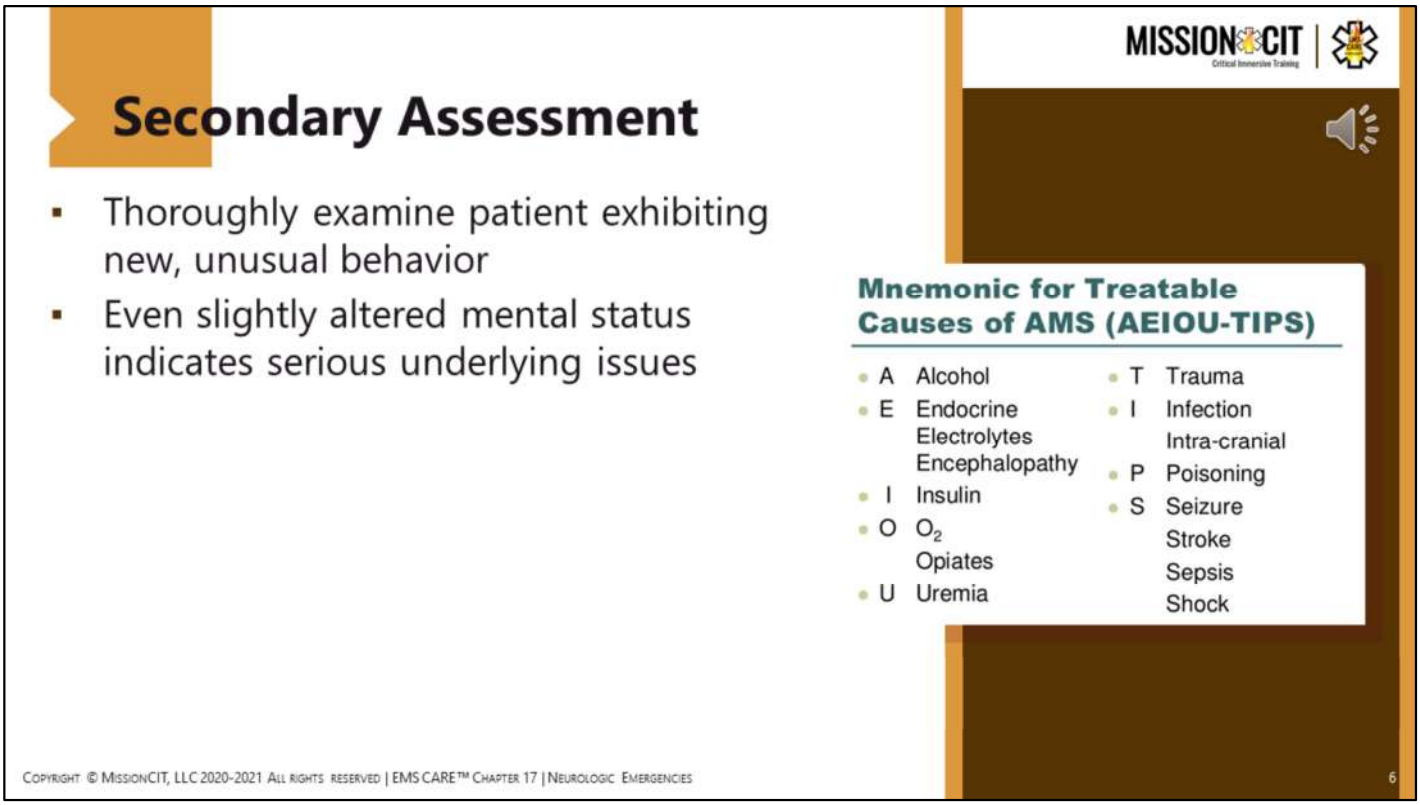
Diseases that cause inflammation and infection, such as pneumonia, can interfere with brain function. Additionally, taking certain medications (such as blood pressure medicine) or misusing drugs, can disrupt chemicals in the brain.

Those who have an increased risk of delirium include:

- people who’ve had surgery,
- people withdrawing from alcohol and drugs,
- those who’ve experienced conditions that damage the brain (for example, stroke and

dementia),

- and people who are under extreme emotional stress.



Continuing the secondary assessment. Thoroughly examine the patient exhibiting new or unusual behavior.

Even slightly altered mental status indicates serious underlying issues.

The A E I O U – T I P S mnemonic is a good way to set up a mental checklist for possible root causes of an altered mental status.

Some other conditions to be evaluated using this acronym include.

A: for Alcohol, Abuse of substances, and Acidosis or Diabetic ketoacidosis.

E: for Ecstasy, Environmental, Epilepsy, Electrolytes, Encephalopathy, or Endocrine disease.

I: for Infection, including Encephalitis, meningitis, meningoencephalitis, and sepsis.

O: for Overdose, resulting in Oxygen deficiency, or hypoxic brain injury due to cardiac arrest.

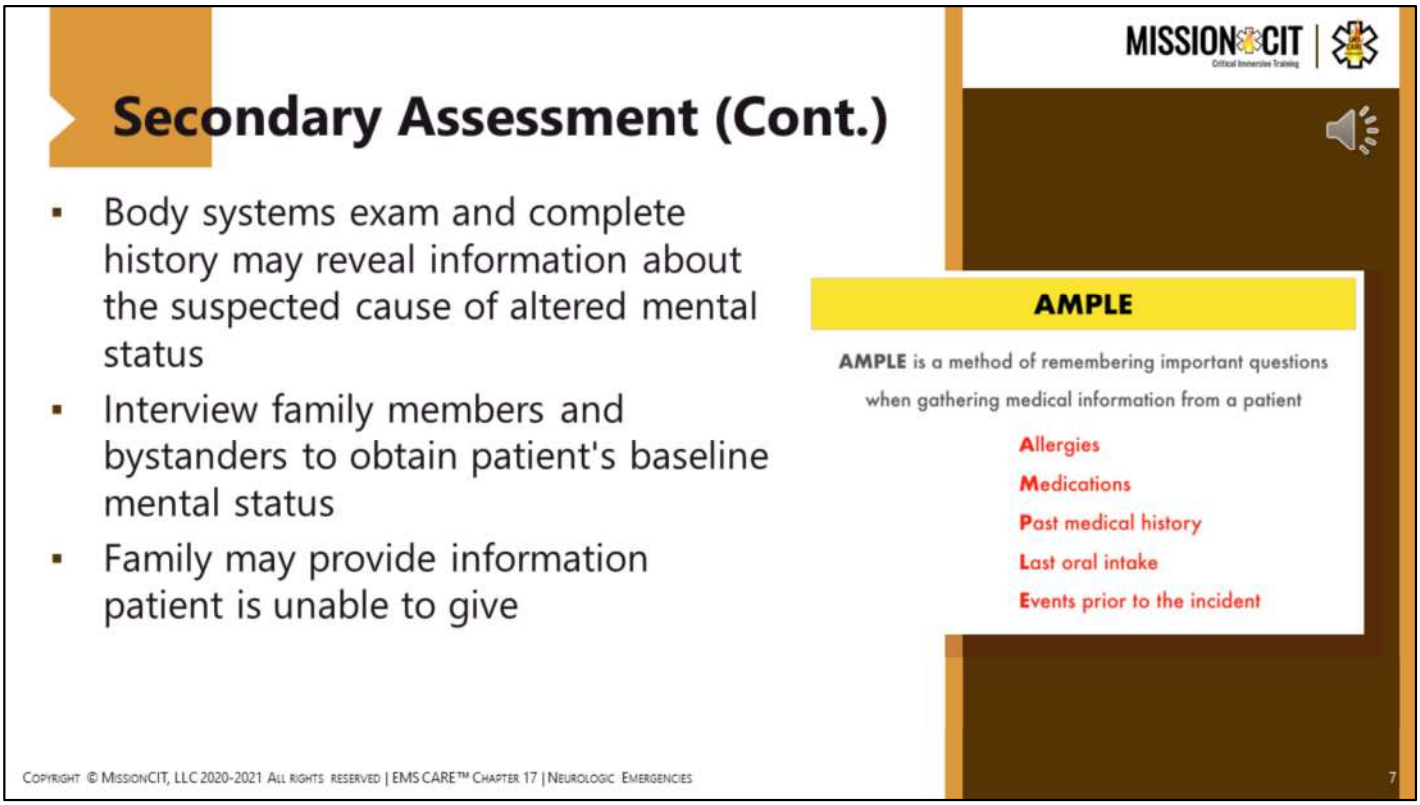
U: for Under dose, or Insufficient dose of prescription medications, and Uremia due to kidney failure, congestive heart failure, or urinary obstruction.

T: for Trauma, due to Concussion or traumatic brain injury; and Tumor.

I: for Insulin, indicating a Hypoglycemic or hyperglycemic state.

P: for Poisons, including Carbon monoxide poisoning; lead poisoning; and iron poisoning.

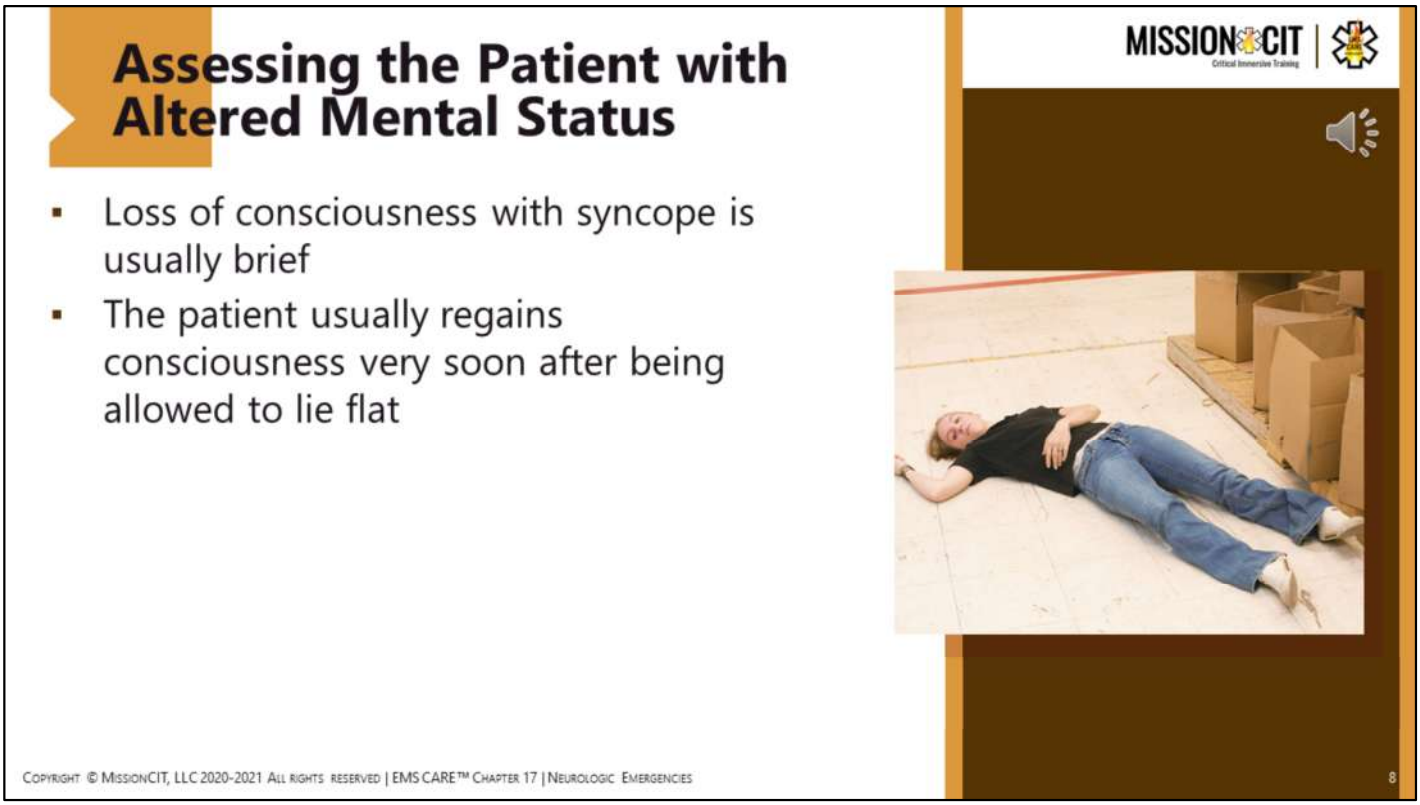
S: for Stroke or Shock or spinal cord injury.



The secondary assessment may continue the search for a cause of altered mental status. It often can identify life threats not found in the initial assessment. A Body systems exam and complete history may reveal information about the suspected cause of the AMS.

Interview family members and bystanders to obtain the patient's baseline mental status. The family may provide information the patient is unable to give.

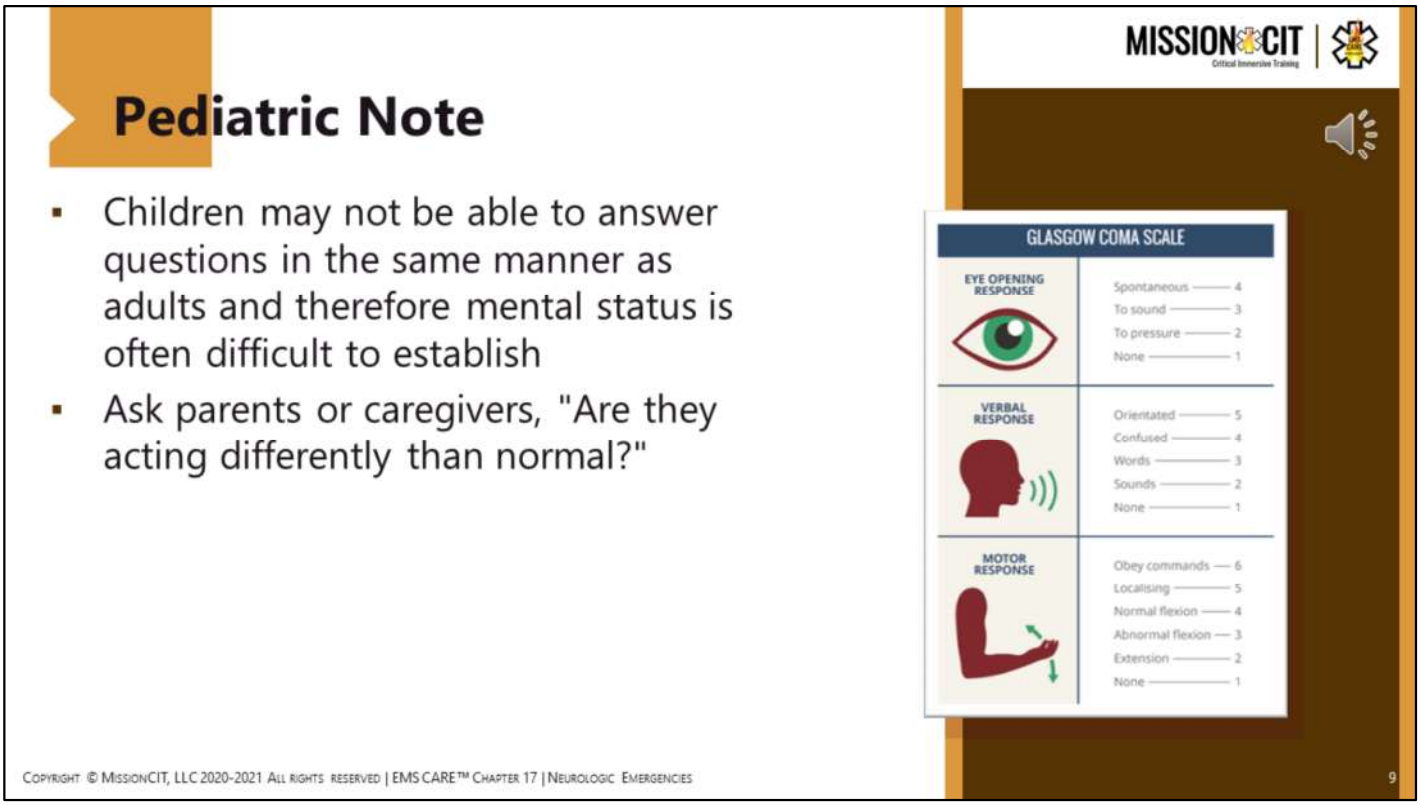
So, another mnemonic: A M P L E, adds another mental checklist as you assess your patient.



For the patient who has fainted or passed out; Loss of consciousness with syncope is usually brief. The patient usually regains consciousness very soon after being allowed to lie flat.

Follow the primary and secondary assessment protocol when possible. If the patient is not responding, consider advanced life support.

If the patient regains consciousness, consider assessing mental status using the Glasgow index, which we discuss on the next slide.



Altered mental status (AMS) is when a person fails to respond appropriately to verbal or physical stimulus. In children, you need to consider their age and developmental stage to determine what is an appropriate response.

Altered mental status in children can be subtle. Look for age-specific behaviors that range from irritability, to anger, to sleepiness, to decreased interaction.

In the altered child, anchoring bias, may be your biggest enemy. Keep your mind open to the possibilities, and be ready to change it, when new information becomes available.

Children may not be able to answer questions in the same manner as adults. Therefore, mental status in children is often difficult to establish. Ask parents or caregivers, "Are they acting differently than normal?"

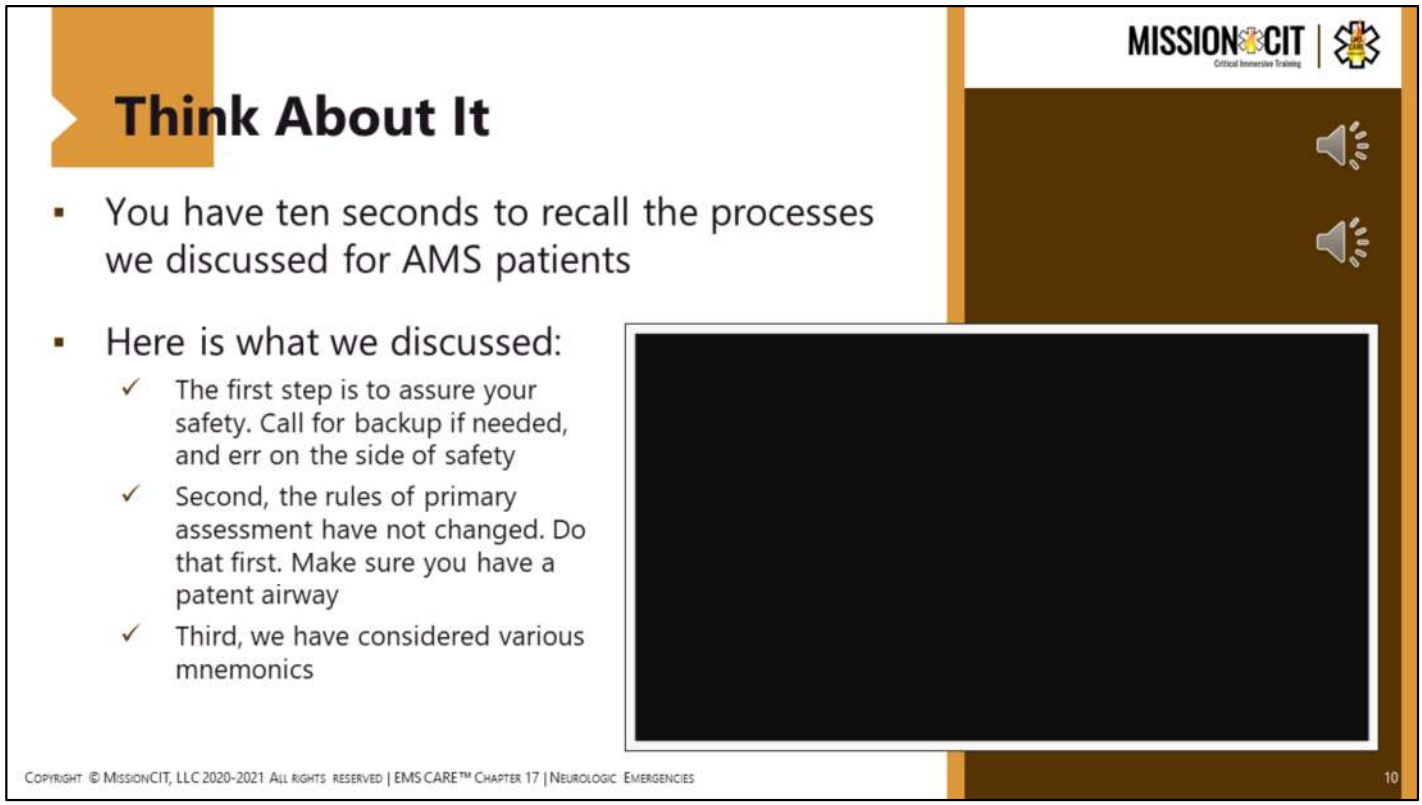
The Glasgow Coma Scale, is one assessment tool to help assess a person's level of consciousness. It consists of assessing three categories of behaviors: eye-opening, verbal response, and motor response. If the child opens their eyes spontaneously, is oriented to time, person, and place, and obeys commands, they get a score of 15.

A score of 15 is normal and a score of less than 3, is considered a coma state. Altered mental status falls anywhere between 4-14.

Additional signs and symptoms of altered mental status include: confusion, inappropriate responses for age, lethargy, and non-responsiveness. Altered mental status may be caused by

some type of underlying disease process, and it is a medical emergency. Some causes include seizures, infections, and tumors. Other causes could be the ingestion of toxic substances, metabolic abnormalities, low oxygen levels, and brain injuries. The list could go on and on.

That's it for this lesson. A question is waiting for you next.



You have ten seconds to recall the processes we discussed for AMS patients.

Here is what we discussed:

- The first step is to assure your safety. Call for backup if needed, and err on the side of safety.
- Second, the rules of primary assessment have not changed. Do that first. Make sure you have a patent airway.
- Third, we have considered various mnemonics.