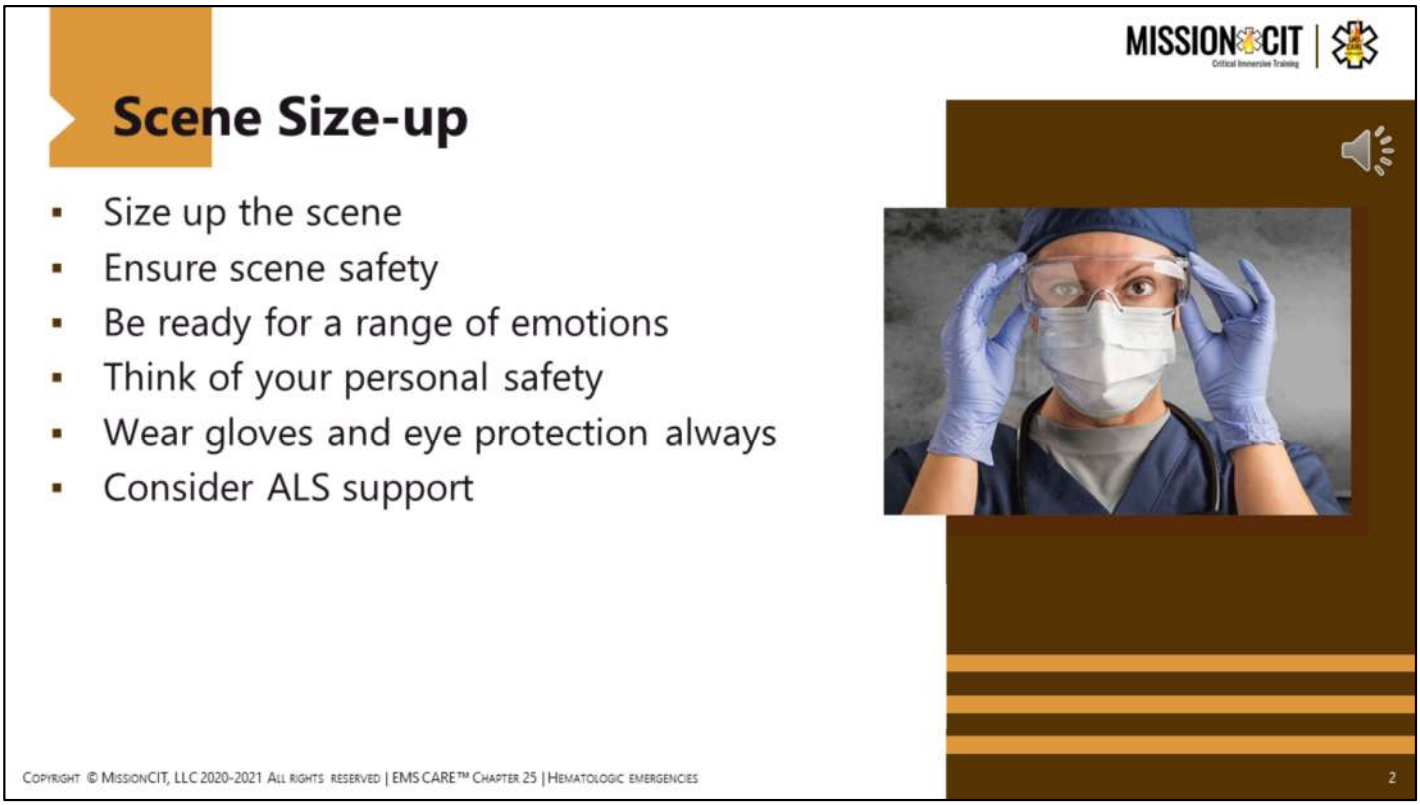


Thank you, Justin.

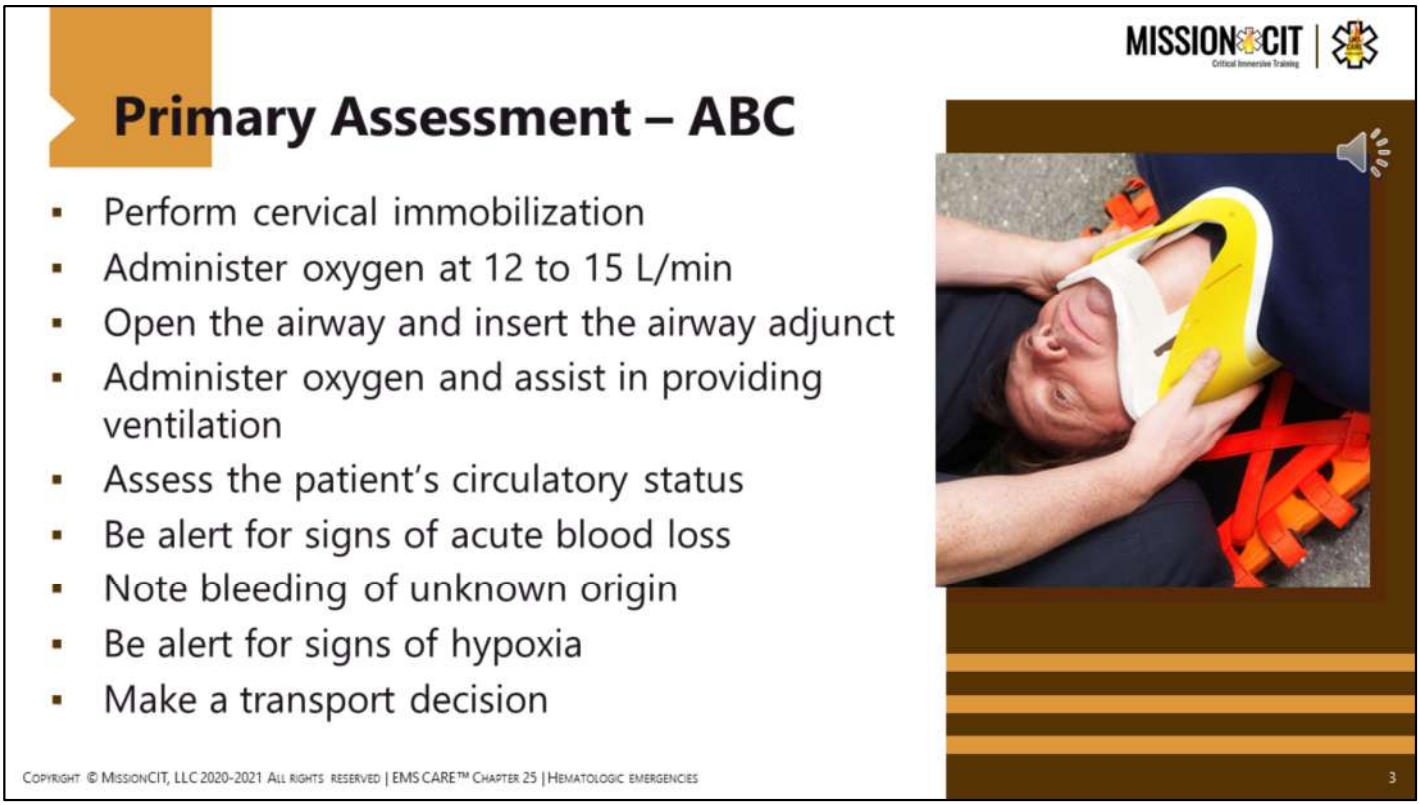
Now let's discuss what kind of care you can provide in a pre-hospital setting for such emergencies.



As always, size up the scene as you enter.

In the process ensure scene safety. Since most sickle cell patients have had a crisis before, they could express a range of emotions. Be prepared for it all.

Next, ensure your personal safety. Wear gloves and eye protection at a minimum and consider ALS support like analgesic administration for vaso occlusive crisis pain. Lastly, determine the Mechanism of Injury and Nature of Illness, and remember that trauma may also have occurred.



Once you have an idea of the situation, start the primary assessment.

Perform cervical spine immobilization, if necessary, and assess the patient's airway and breathing. For patients with inadequate breathing or altered mental status, provide high-flow oxygen at 12 to 15 L/min via a non-rebreathing mask. Note that patients experiencing a sickle cell crisis may have increased respirations or exhibit signs of pneumonia. So, for patients with breathing difficulty,

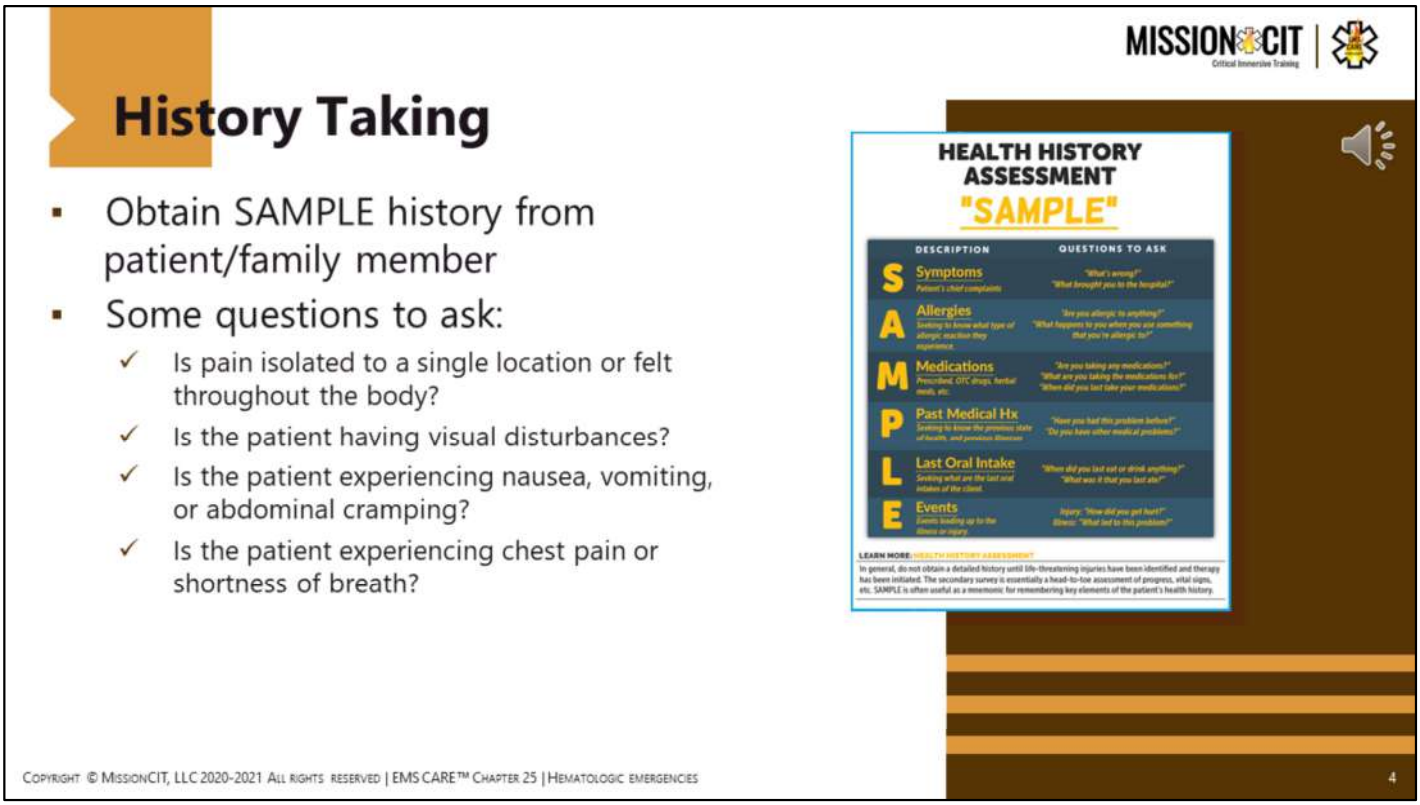
- Open the airway and insert the airway adjunct
- Administer oxygen and assist in providing ventilation

Next, assess the patient's circulatory status as sickle cell crisis patients will have increased heart rate to "force" sickled cells through smaller blood vessels.

In the case of suspected hemophilia patients,

- Be alert for signs of acute blood loss
- Note bleeding of unknown origin
- Be alert for signs of hypoxia, which is due to blood loss

Finally, make a transport decision. Remember, transport to an ED should always be recommended to any patient who is experiencing a sickle cell crisis or hemophilia.



Once you've done the primary assessment and stabilized the patient, it's time to go a bit deeper into the patient's history.

Investigate the chief complaint and based on it, obtain a history of the present illness from responsive patients, family, or bystanders. Be alert for physical signs indicating sickle cell crisis.

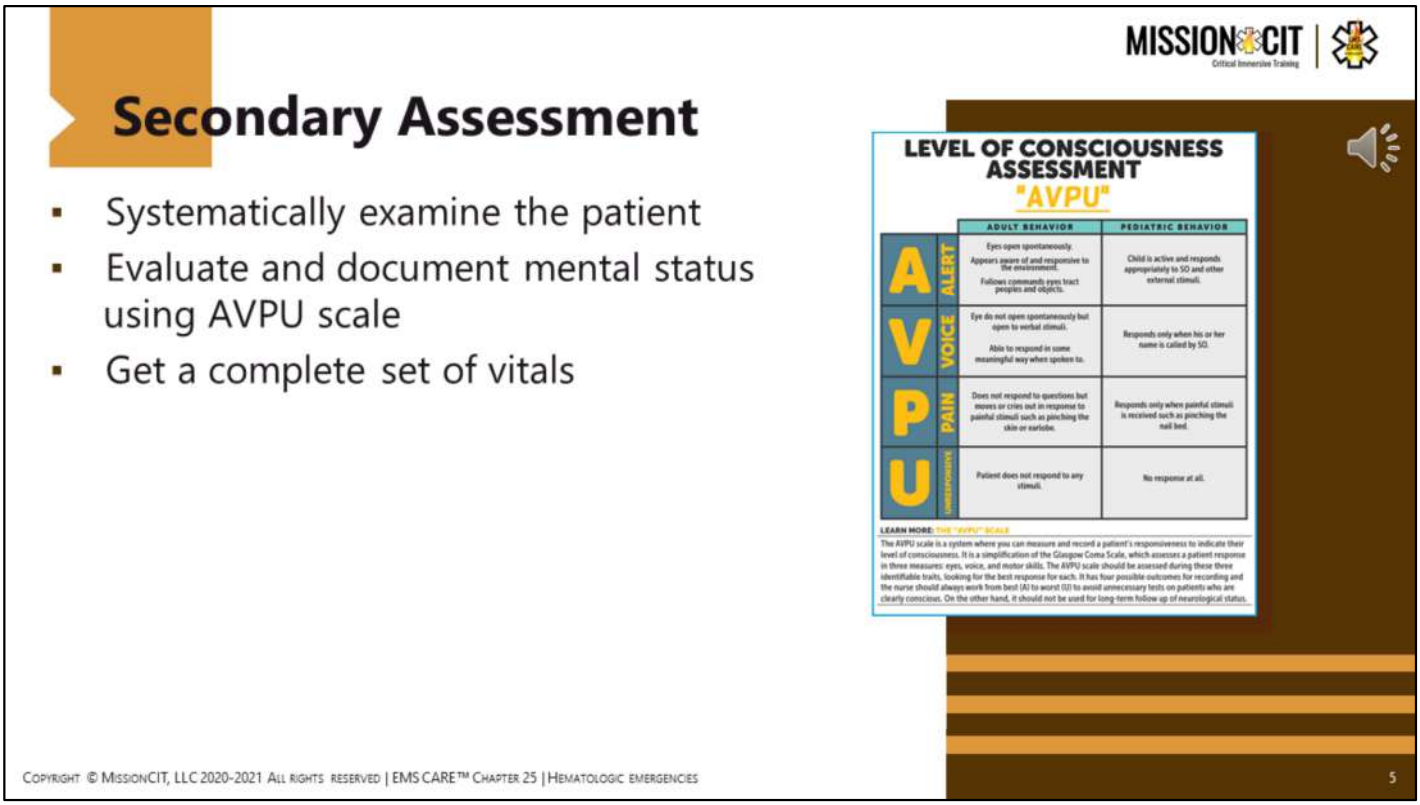
Ask the following questions to better understand the condition.

- Is pain isolated to a single location or felt throughout the body?
- Is the patient having visual disturbances?
- Is the patient experiencing nausea, vomiting, or abdominal cramping?
- Is the patient experiencing chest pain or shortness of breath?

Obtain the SAMPLE history from a responsive patient or family member. Specifically, ask the following questions.

- Have you had a crisis before?
- When was the last time you had a crisis?
- How did your last crisis resolve?

- Have you had any illnesses, unusual amount of activity, or stress lately?



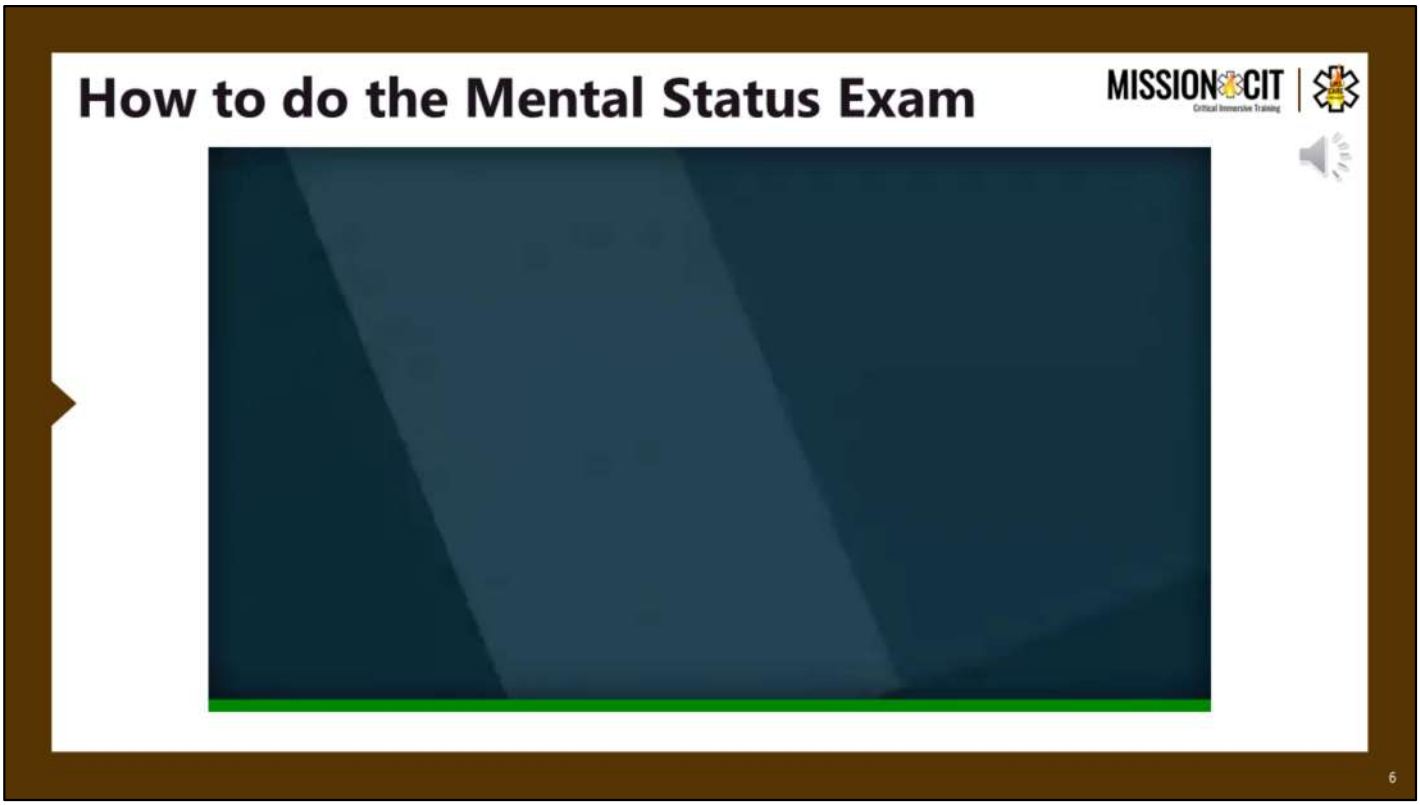
Next, move on to secondary assessment where you can systematically examine the patient. While doing so, focus on major joints at which cells congregate. Also, evaluate and document mental status using the AVPU scale.

Further, obtain a complete set of vital signs, including oxygen saturation level.

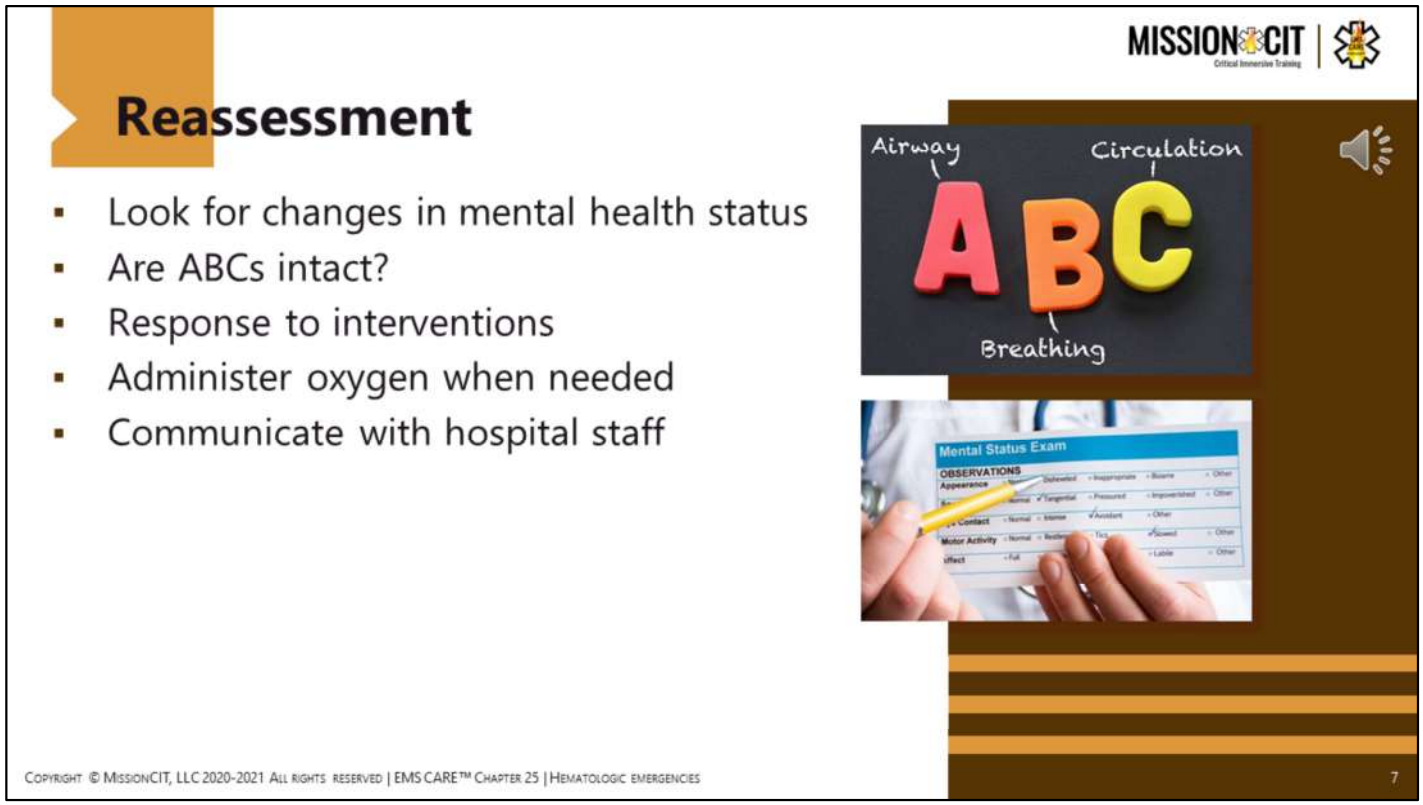
Remember, the normal sickle cell crisis vital signs are:

- Normal to rapid respirations
- Weak, rapid pulse
- Pale, clammy skin
- Low blood pressure

Use a pulse oximeter, if available, to monitor oxygen saturation, but be aware that the reading may be inaccurate due to the patient's anemic state.

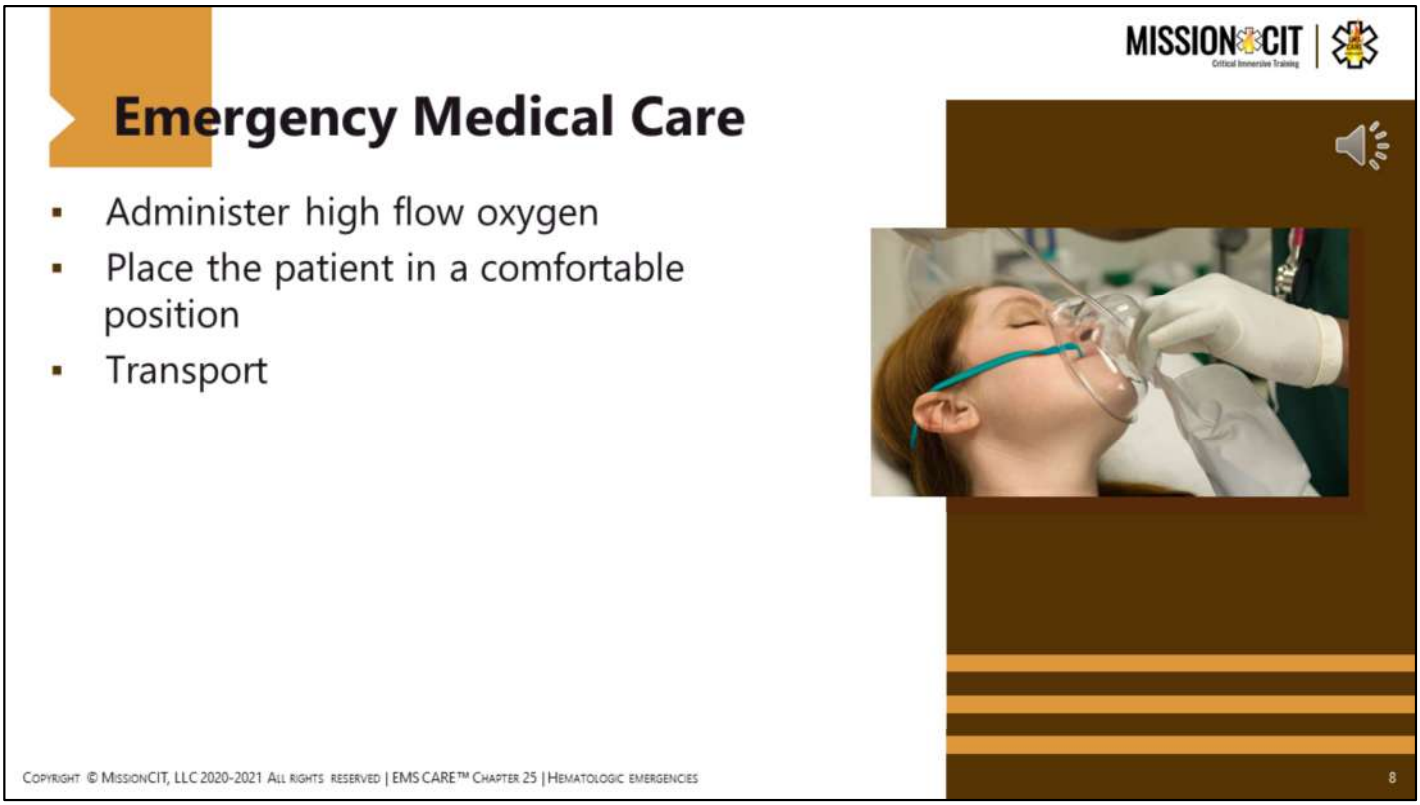


This video shows an examiner assessing a patient's mental status, including components such as orientation to time, place, and person, attention and concentration, memory, verbal and mathematical abilities, judgment, and reasoning.



Reassess the vital signs frequently to determine changes in the patient's condition. Specifically, check if there are any changes in the mental status and if the ABCs are intact?

See how the patient is responding to the interventions performed and administer supplemental oxygen via a non-rebreathing mask at 12 to 15 L/min to attempt to compensate for decreased cellular oxygenation related to the sickled cells or hemophilia. All through, communicate with the hospital staff for continuity of care and document.



Finally, let's talk a bit about the emergency medical care you can provide. It will be limited mainly supportive and symptomatic.

But for patients with inadequate breathing or altered mental status, administer high-flow oxygen 12 to 15 L/min via a non-rebreathing mask. Also, place the patient in a position of comfort and transport rapidly to the hospital.

This brings us to the end of this lesson, and in the next, Justin will walk you through age-related variations.