

Head Injury Assessment

Patient Information

Patient Name:
Age:
DOB:
Date:
Contact Information:
Address:
Chief complaint:
Mechanism of Injury:
Additional information: (e.g., causal)
Medical History: Previous head injuries: <input type="checkbox"/> Yes <input type="checkbox"/> No Other related injuries: <input type="checkbox"/> Yes, provide details: _____ <input type="checkbox"/> No
Medical Conditions:
Current Medications:

Take immediate action if the patient presents any of the following symptoms

- Any signs of skull fracture
- Fixed and/or dilated pupils that do not respond to light
- Impaired cognition
- Impaired consciousness levels
- Memory loss
- Seizures
- Significant head pains, migraines, vomiting, or nausea
- Visual disturbances or any focal neurological deficit (such as paralysis or weakness)

Check the patient's **Glasgow Coma Scale (GCS) score** upon admission using the following table:

Behavior	Response	Score
Eyes open	4. Spontaneously	<input type="checkbox"/> 4
	3. Response to voice	<input type="checkbox"/> 3
	2. Response to pain	<input type="checkbox"/> 2
	1. Do not open	<input type="checkbox"/> 1
Verbal response	5. Converses well	<input type="checkbox"/> 5
	4. Confused speech	<input type="checkbox"/> 4
	4. Uses words only	<input type="checkbox"/> 3
	2. Makes sounds only, no words	<input type="checkbox"/> 2
	1. No sounds at all	<input type="checkbox"/> 1
Motor response	6. Follows commands	<input type="checkbox"/> 6
	5. Moves to localized pain	<input type="checkbox"/> 5
	4. Moves away or flexes to pain	<input type="checkbox"/> 4
	3. Decorticate (abnormal flexion to pain)	<input type="checkbox"/> 3
	2. Decerebrate (abnormal extension to pain)	<input type="checkbox"/> 2
	1. No response	<input type="checkbox"/> 1

GCS score	<ul style="list-style-type: none"> • Best response • Comatose • Completely unresponsive 	<input type="checkbox"/> 15 <input type="checkbox"/> 8 or less <input type="checkbox"/> 3
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Initial Assessment

Protocols:

- Patients admitted to emergency services (or healthcare centers) that present any symptoms or evidence of a head injury must be assessed within 15 minutes following their arrival.
- Assessments should assess the level of head trauma, and determine whether the patient has suffered any injury to the brain or spinal cord.
- Complete an initial head injury assessment

Assessment Procedures:

Cervical spine

- Assess whether the cervical spine has been injured, and whether it requires immobilization.

Airway

- If the patient with a Glasgow Coma Scale (GCS) of 8 or less may not be able to maintain their own airway
- If this is the case, or the patient's ability begins deteriorating, call the anesthetic team for airway management.
- A jaw thrust is usually most appropriate for patients with suspected injuries to the cervical spine.
- If there is facial trauma or suspected basal skull fractures, use airway adjuncts with caution.

Breathing

- Ensure the patient has adequate ventilation and oxygenation to avoid secondary damage with tissue hypoxia.

Circulation

- To prevent further secondary brain damage, ensure there is adequate tissue perfusion.
- Use resuscitation and appropriate fluids to create a good circulating volume.

Disability and neurological examination

- Record the patient's GCS on arrival, as well as every 30 to 60 minutes of admission.
- Assess the patient's pupils, paying attention to their size, symmetry, and responses to light stimuli.

- If conscious, complete a full neurological examination (peripheral and cranial nerve) to assess the patient's focal neurological deficit.
- Assess the blood glucose level, taking care to avoid hypoglycemia.

Exposure

Examine whether the patient has any of the following:

- Lacerations
- Facial fractures
- Depressed skull fractures
- Basal skull fractures (battle's signs, raccoon eyes, hemotympanum, CSH rhinorrhoea, or CSF otorrhoea)
- Any visible penetrating injuries

Imaging

- Use the NICE guidelines to determine if a patient requires a CT scan. This includes the following criteria:
 - A GCS less than 13 on arrival assessment, or a GCS score of less than 15 following 2 hours of the injury occurrence.
 - Any signs of a basal skull fracture, open skull fracture, or depressed skull fracture.
 - The patient has a seizure, or has more than one vomiting episode.
 - The patient demonstrates a focal neurological deficit.
- Perform CT scans within 8 hours if patients have any loss of consciousness, memory loss, or are on any anticoagulants with the following:
 - The patient is over 65 years of age.
 - The patient has any bleeding-related disorders.
 - The patient's mechanism of injury was dangerous, or had a fall from over 1m height.
 - The patient demonstrates retrograde amnesia for 30 minutes for events that occurred prior to the injury.

History

When it is appropriate to do so (patient is conscious, resuscitated, and does not require imaging or further treatments), document the following information to update the patient's medical information:

- The mechanism of injury, including the type and nature of the injury.
- Any amnesia or loss of consciousness following the injury.
- Any vomiting episodes or headaches.
- Whether the patient had any drug or alcohol use.
- Previous medical histories, including surgeries to do with the central nervous system, previous head trauma, seizures, or any other relevant information
- Current medications

Referral to neurosurgery

Use the following guidelines as a basis for referral:

- A significant abnormality is presented in the imaging.
- The patient has a GCS 8 or less following resuscitation, or following admission to care the patient has a drop in GCS.
- The patient has over 4 hours of unexplained confusion.
- The patient has seizures that they do not fully recover from, or shows focal neurological signs.
- There is evidence of a leak in cerebrospinal fluid, or there is suspicion of a penetrating injury.

Additional Notes:

Practitioner Name

Practitioner Signature

Date