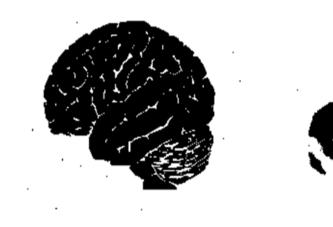


Valencia University General Hospital Management of head injured patients in coma or with possible multiple injuries





A) Criteria for Skull X- ray after recent Head Injury

Clinical judgment is necessary but the following criteria are helpful

- 1- Loss of consciousness or amnesia at any time
- 2- Neurological symptoms or signs
- 3- Cerebrospinal fluid or blood from the nose or ear
- 4- Suspected penetrating injury
- 5- Scalp bruising or deep laceration
- 6- Difficulty in assessing the patient
- B) Criteria for Ct-Scan after recent Head injury
- 1- Loss of consciousness or amnesia (F.M 10')
- 2- Epilepsy
- 3- Neurological symptoms or signs
- 4- Coma after resuscitation
- 5- Amnesia for more than 6-8 h.
- 6- Depressed skull fracture



## Criteria for admission of adults to Hospital

- 1- Confusion or any other depressed level of consciousness at the time of Obs
- 2- Skull fracture
- 3- Neurological symptoms or signs
- 4- Difficulty in assessing the patients
- 5- Other medical conditions- Hemophilia
- 6- The patients' social conditions

Criteria for consultation with the Neurosurgeon

- 1- Skull fracture (With impairment of consciousness, neurological symptoms & signs)
- 2- Coma
- 3- Deterioration in the level of consciousness
- 4- Confusion or other neurological disturbances
- 5- Compound depressed fracture
- 6- Fracture of the base of the skull



## Criteria for ICP monitoring after H.I

ICP monitoring is established once the neurological examination & complementary studies have been completed.

- 1- Acute cerebral swelling
- 2- Extracerebral hematoma after surgery
- 3- Subdural hematoma after surgery
- 4- Intracerebral hematomas after surgery
- 5- General brain swelling whether or not associated with extra- and intracerebral hematoma



Risk of cerebral hematoma due to H.I. in adults (12)

Skull fracture Level of consciousness Risk

None	Normal	1/6000
None	Impairment	1/100
Yes	Normal	1/30
Yes	Impairment	1/4

H.I patients in coma or with multiple injuries

- 1- Assess for respiratory, shock & internal injuries
- 2- Perform: chest x-ray; blood gases; cervical spine x-ray
- 3- Appropriate treatment may include: intubation & ventilation; IV infusion; Manitol; cervical collar; immobilization of the patient#.
- 4- The patient should be accompanied by medical staff during transfer.

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Chart for recording the assessment of consciousness levels (G.C.S.) (13)

Eye response Opening Spontaneous To speech To pain None

Best verbal response
Orientated
Confused
Inappropriate
Incomprehensible
None

Best motor response
Obeying
Localizing
Flexing
Extending
None