EMERGENCY DEPARTMENT APPROACH TO MINOR HEAD INJURY

The ideal emergency approach to minor head injury is to identify patients at risk of significant injuries and to minimise unnecessary investigation and observation in those which are low or very low risk of intracranial pathology.

Read in conjunction with Assessment of Head Injuries

Minor Head Injury is a common presentation to the Emergency Department. The challenge for emergency physicians is to identify in a timely manner which patients in this group have significant underlying intracranial injury. Remember in this group (GCS 14-15), 10-15% of patients will have an abnormal CT scan and 1-3% will require neurosurgical intervention.

MANAGEMENT

Patients with a minor head injury should be observed in the emergency department until they are 4 hours following injury.

In this time CT imaging should be arranged according to individual patient merit as outlined in the Assessment of Head Injuries.

After this time, a patient can be discharged home for observation if they meet clinical and social criteria.

- **Clinical criteria**
  - Normal mental status and behaviour
  - Normal CT head if performed
  - Clinically improving minor post concussive symptoms

- **Social criteria**
  - Responsible adult available to observe patient at home
  - Patient able to return easily if deterioration
  - Written and verbal discharge instructions are understood

Occupational therapy review to perform PTA testing should be arranged on all patients presenting following minor head injury.

Written Head injury Discharge Advice should be provided to all patients on discharge.
8 When can patients with Mild Head Injury be safely discharged home?

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<tr>
<th>GUIDELINE</th>
<th>LEVEL OF EVIDENCE</th>
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<tbody>
<tr>
<td>Mild Head Injury patients can be discharged for home observation after initial period of in-hospital observation if they meet the following clinical, social and discharge advice criteria.</td>
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**Clinical criteria**
- Normal mental status and behaviour with clinically improving minor post concussion symptoms after observation until at least four hours post injury.
- No clinical risk factors indicating the need for CT scanning or normal CT scan if performed due to risk factors being present.
- No clinical indicators for prolonged hospital observation (irrespective of CT scan result) such as:
  - clinical deterioration
  - persistent abnormal GCS or focal neurological deficit
  - persistent abnormal mental status or behaviour
  - persistent severe post concussion symptoms
  - persistent drug or alcohol intoxication
  - presence of known coagulopathy (relative)
  - presence of multi-system injuries (relative)
  - presence of intercurrent medical problems (relative)
  - age >65 (relative).

**Social criteria**
- Responsible person available to take patient home.
- Responsible person available for home observation.
- Patient able to return easily in case of deterioration.
- Written and verbal discharge advice able to be understood.

**Discharge advice criteria**
- Discharge summary for local doctor.
- Written and verbal head injury advice given to patient and nominated responsible person covering:
  - symptoms and signs of acute deterioration
  - reasons for seeking urgent medical attention
  - typical post concussion symptoms
  - reasons for seeking routine follow up.

Consensus
References:


2. Reed D. “Adult Trauma Clinical Practice Guidelines, Initial Management of Closed Head Injury in Adults” *NSW Institute of Trauma and Injury Management*, 2007