



## MANAGEMENT FLOWCHART OF SUSPECTED CONCUSSION

### Initial GCS of 15-14 after blunt head trauma

1. Assess and stabilize ABCDE's and assess clinical risk factors
2. Pay special attention to the cervical spine
3. Remove from field of play (observe neck stabilisation if appropriate)
4. Commence observation with regular communication and reassurance
5. Minimum of hourly clinical observation of vital signs, GCS, symptom progression

**USE CLINICAL JUDGMENT IN APPLYING THESE GUIDELINES**

### LOW RISK MILD TRAUMATIC HEAD INJURY

#### No indication for CT scan if:

- GCS 15 at 2 hours post injury
- No focal neurological deficit
- No clinical suspicion of skull fracture
- No vomiting
- No known bleeding disorder
- Age below 65 years
- No seizure
- No or brief loss of consciousness ( $\leq$  1minute)
- No or brief post-traumatic amnesia ( $\leq$  30sec)
- No severe headache
- No large scalp haematoma or laceration
- Isolated head injury
- No dangerous mechanism
- No known neurological impairment
- No delayed presentation of new symptoms

NOTE: Mild acute clinical symptoms such as lethargy, nausea, dizziness, mild headache, mild behavioural change, amnesia for the event and mild disorientation are common and are not associated with increased risk of intracranial injury. These symptoms usually start to improve within 4-2 hours after the injury.

### HIGH RISK MILD TRAUMATIC HEAD INJURY

#### Urgent referral to Hamad Hospital Emergency Department if:

- GCS below 15 at 2 hours post injury
- Any deterioration in GCS
- Focal neurological deficit
- Clinical suspicion of skull fracture
- Recurrent vomiting
- Known coagulopathy or bleeding disorder
- Age over 65 or under 18 years
- Seizure
- Loss of consciousness  $\geq$  1 minute
- Persistent post-traumatic amnesia ( $\geq$ 4 hours)
- Persistent abnormal alertness/behavior/cognition for more than 30 minutes
- Persistent or increasing severe headache
- Large scalp haematoma or laceration
- Multiple trauma
- Dangerous mechanism
- Known pre-existing neurological impairment
- Delayed presentation of new symptoms
- Deterioration in condition

