Lightning Learning: Neurological Observations in Head Injury

http://em3.org.uk @EM3FOAMed youtube.com/em3orguk

#EM3
East Midlands Emergency Medicine Educational Media

WHAT?

Neurological observations must be performed on all patients with a head injury.

Aims to recognise deterioration and monitor progress.

Observations must include:

- GCS
- Pupil size + reactivity
- Limb movements
- Respiratory Rate
- Blood pressure
- Temperature
- Oxygen Saturations

WHY?

Frequency and timing of observations are important and should follow NICE guidance.

If GCS is <15:

Observations every **30 mins** until GCS is 15

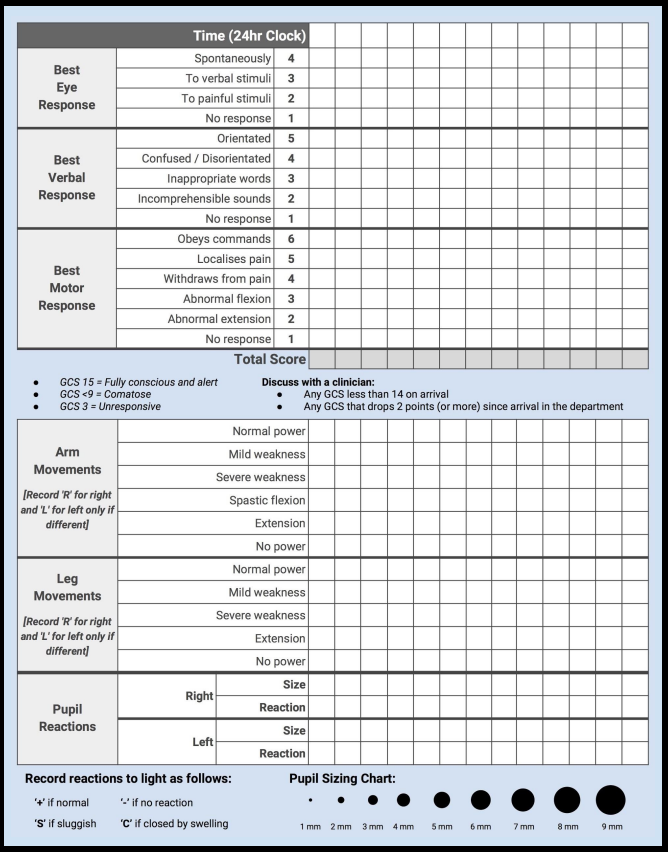
If GCS is 15:

- Obs **every 30 mins** for 2 hours, then…
- …**every 1 hour** for 4 hours, then…
- …**every 2 hours** thereafter.

If any deterioration occurs then revert to half hourly observations and start the protocol again.

HOW?

Head injury: assessment and early management *(NICE)*
http://bit.ly/2w7a2oM



			Time (24hr Clock)													
Best Eye Response	Spontaneously	4														
	To verbal stimuli	3														
	To painful stimuli	2														
	No response	1														
Best Verbal Response	Orientated	5														
	Confused / Disorientated	4														
	Inappropriate words	3														
	Incomprehensible sounds	2														
	No response	1														
Best Motor Response	Obeys commands	6														
	Localises pain	5														
	Withdraws from pain	4														
	Abnormal flexion	3														
	Abnormal extension	2														
	No response	1														
	Total Score															

- *GCS 15 = Fully conscious and alert*
- *GCS <9 = Comatose*
- *GCS 3 = Unresponsive*

Discuss with a clinician:
- Any GCS less than 14 on arrival
- Any GCS that drops 2 points (or more) since arrival in the department

Arm Movements *[Record 'R' for right and 'L' for left only if different]*	Normal power	
	Mild weakness	
	Severe weakness	
	Spastic flexion	
	Extension	
	No power	
Leg Movements *[Record 'R' for right and 'L' for left only if different]*	Normal power	
	Mild weakness	
	Severe weakness	
	Extension	
	No power	
Pupil Reactions	Right	Size
		Reaction
	Left	Size
		Reaction

Record reactions to light as follows:
'+' if normal '-' if no reaction
'S' if sluggish 'C' if closed by swelling

Pupil Sizing Chart:
1 mm 2 mm 3 mm 4 mm 5 mm 6 mm 7 mm 8 mm 9 mm

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