Head Injury Pathway

Clinical Assessment/ Management tool for Children

Management - Acute Setting

Healthier Together NHS

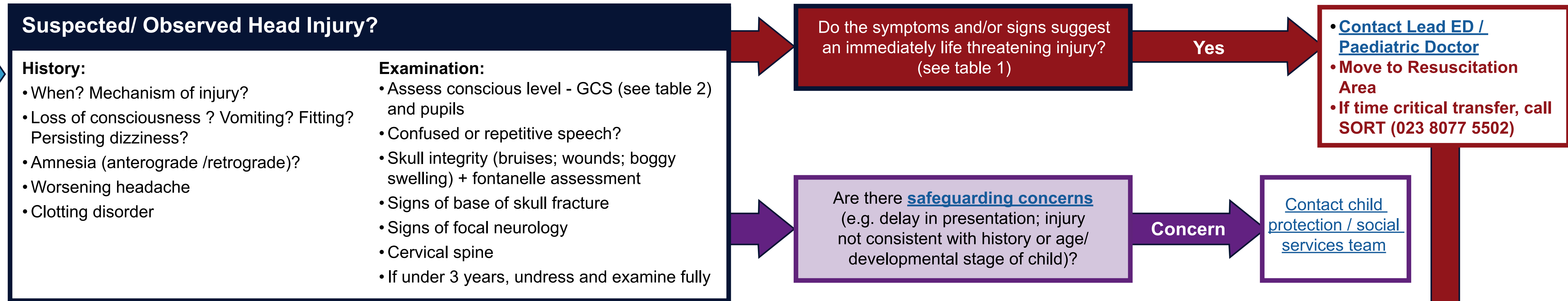
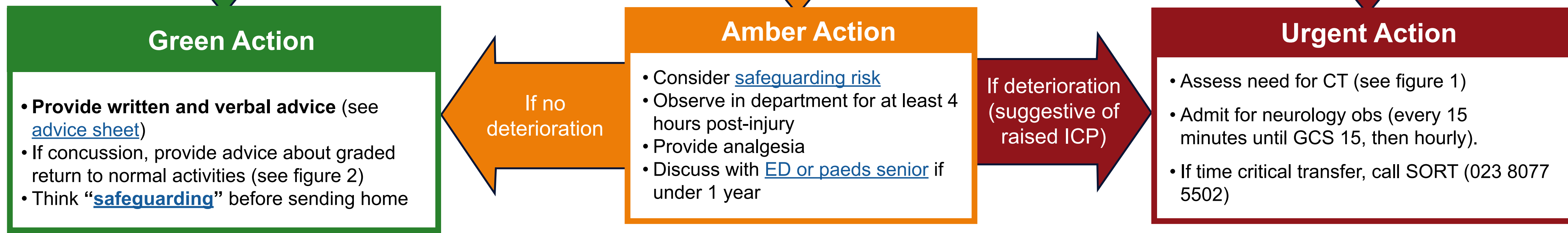


Table 1

	Green - low risk	Amber - intermediate risk	Red - high risk
Nature of injury and conscious level	• Low risk mechanism of injury • No loss of consciousness; GCS = 15 • Child cried immediately after injury • Alert, interacting with parent, easily rousable • Behaviour considered normal by parent	• Mechanism of injury: fall from a height > 1m or greater than child's own height • Alert but irritable and/or altered behaviour	• Mechanism of injury: considered dangerous (high speed RTA; >3m fall) • GCS < 15 / altered level of consciousness • Witnessed loss of consciousness lasting > 5mins • Amnesia lasting > 5mins • Abnormal drowsiness • Post traumatic seizure
Symptoms & Signs	• No more than 2 episodes of vomiting (>10 minutes apart) • Minor bruising or minor cuts to the head	• 3 or more episodes of vomiting (>10 minutes apart) • Persistent or worsening headache • Amnesia or repetitive speech • Persisting dizziness • A bruise, swelling or laceration > 5cm if age < 1 year	• Skull fracture – open, closed or depressed • Tense fontanelle (infants) • Signs of basal skull fracture (haemotypanum, 'panda' eyes, CSF leakage from ears/ nose; Battle's sign (mastoid ecchymosis) • Focal neurological deficit
Other		• Clotting disorder • Additional parent/carer support required	



GMC Best Practice recommends: Record your findings (See "Good Medical Practice" http://bit.ly/1DPXl2b)

First Draft Version: June 2016 Review Date: June 2018.

This guidance was written in collaboration with the SE Coast SCN and involved extensive consultation with healthcare professionals in Wessex

This document was arrived at after careful consideration of the evidence available including but not exclusively NICE, SIGN, EBM data and NHS evidence, as applicable. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. The guidance does not, however, override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient in consultation with the patient and / or carer.

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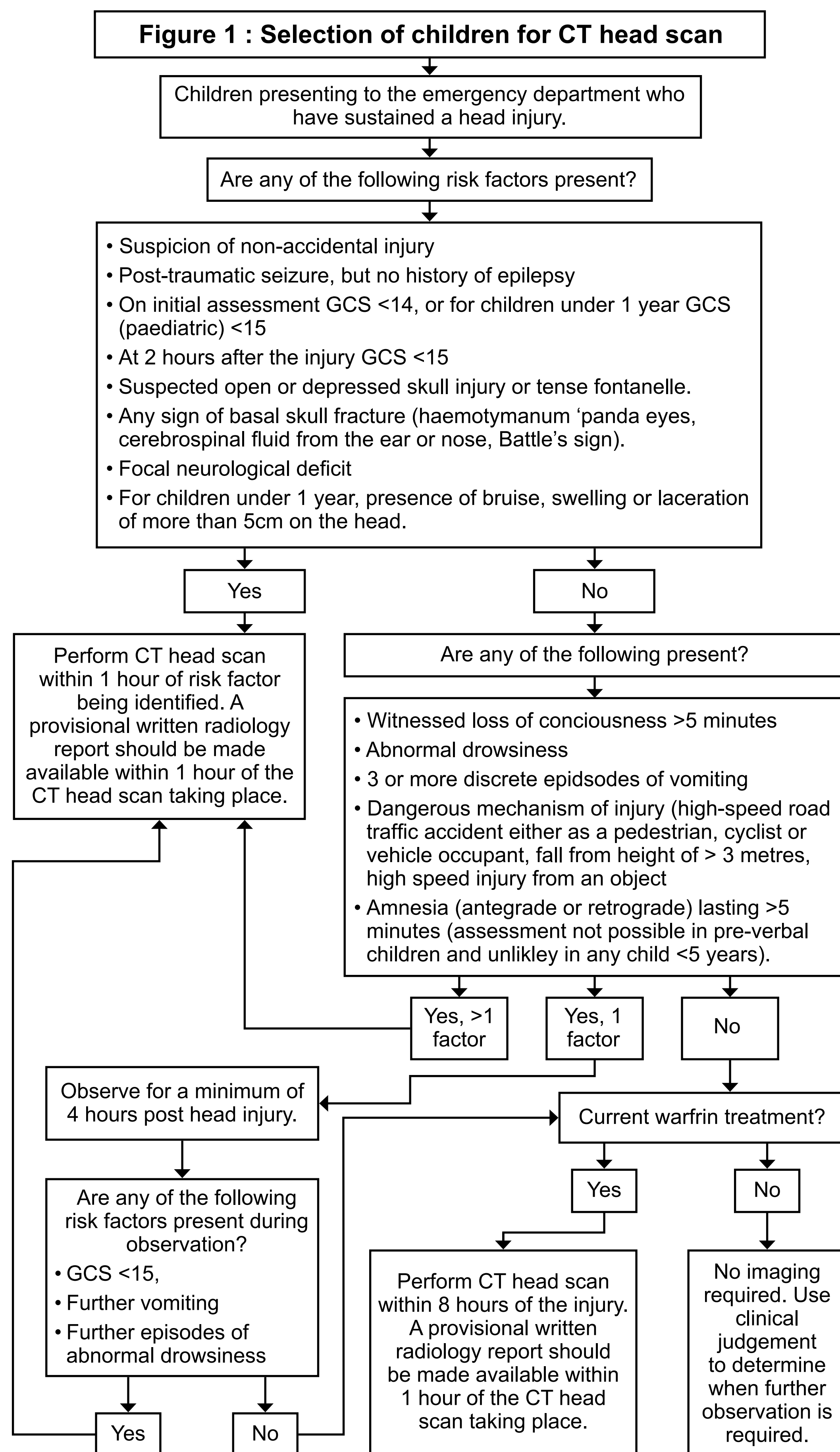

Table 2: Modified Glasgow Coma Scale for infants and Children

	Child	Infant	Score
Eye opening	Spontaneous	Spontaneous	4
	To speech	To speech	3
	To pain only	To pain only	2
	No response	No response	1
Best verbal response	Oriented, appropriate	Coos and babbles	5
	Confused	irritable cries	4
	Inappropriate words	Cries to pain	3
	Incomprehensible sounds	Moans to pain	2
	No response	No response	1
Best motor response*	Obey commands	Moves spontaneously and purposefully	6
	Localises painful stimulus	Withdraws to touch	5
	Withdraws in response to pain	Withdraws to response in pain	4
	Flexion in response to pain	Abnormal flexion posture to pain	3
	Extension in response to pain	Abnormal extension posture to pain	2
	No response	No response	1

* If patient is intubated, unconcious, or preverbal, the most important part of this scale is motor response. Motor response should be carefully evaluated.

Glossary of Terms	
ABC	Airways, Breathing, Circulation
APLS	Advanced Paediatric Life Support
AVPU	Alert Voice Pain Unresponsive
B/P	Blood Pressure
CPD	Continuous Professional Development
CRT	Capillary Refill Time
ED	Hospital Emergency Department
GCS	Glasgow Coma Scale
HR	Heart Rate
MOI	Mechanism of Injury
PEWS	Paediatric Early Warning Score
RR	Respiratory Rate
WBC	White Blood Cell Count

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Figure 2: suggested graded recovery regime following concussion (taken from BMJ 2016; 355 doi: https://doi.org/10.1136/bmj.i5629 (Published 16 November 2016)