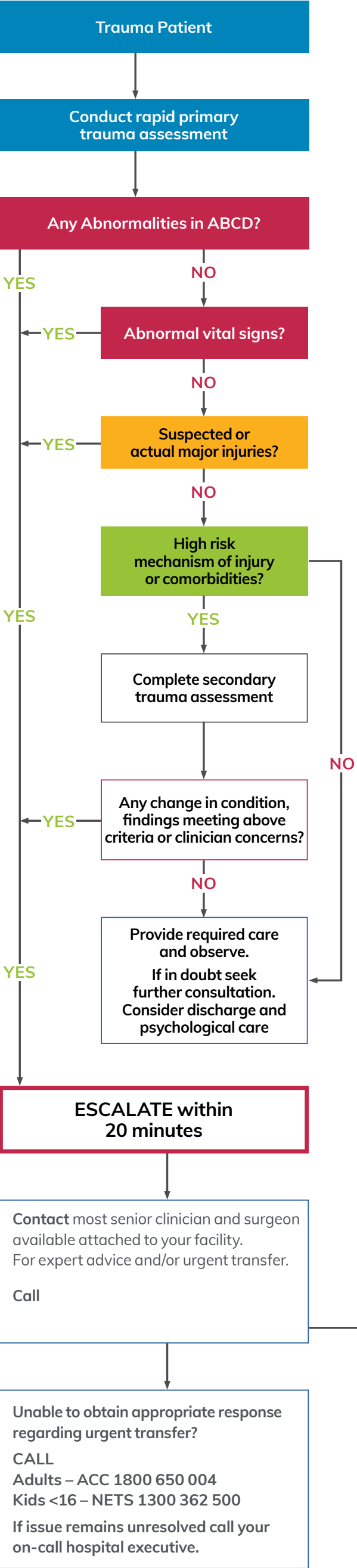


NSW Inter-hospital major trauma transfer algorithm



| Abnormal Assessment in ABCD   |  |  |   |
|---|--|--|---|
| Airway  | Breathing  | Circulation  | Disability  |
| <ul style="list-style-type: none"><li>Uncontrolled airway that cannot be managed locally</li><li>Swelling, bruising, haematoma, hoarseness or stridor</li></ul> | <ul style="list-style-type: none"><li>Respiratory compromise</li><li>Hypoxia, cyanosis</li></ul> | <ul style="list-style-type: none"><li>Severe and / or ongoing significant haemorrhage</li><li>Haemodynamic instability.</li><li>Symptoms of shock;</li></ul> | <ul style="list-style-type: none"><li>GCS ≤13 or decreasing</li><li>Lateralising signs</li><li>Motor and sensory deficit in suspected spinal cord injury</li><li>Neurovascular compromise e.g. limb injury; pain, numbness, cool, pulseless, reduced cap return</li></ul> |

| Abnormal Vital Signs  |              |             |             |             |             |                 |
|---|--------------|-------------|-------------|-------------|-------------|-----------------|
| AGE   | < 3 MTHS     | 3–12 MTHS   | 1–4 YRS.    | 5–11 YRS.   | 12+ YRS.    | ADULT > 16 YRS. |
| HR  | <100 or >170 | <90 or >170 | <80 or >150 | <70 or >140 | <50 or >130 | <50 or >120     |
| RR  | <25 or >65   | <25 or >55  | <20 or >50  | <15 or >35  | <10 or >30  | <10 or >25      |
| BP SYS  | <60 or >120  | <70 or >110 | <80 or >120 | <90 or >130 | <90 or >160 | <100 or >180    |
| SpO2  | <95%         |             |             |             |             | <90%            |
| GCS   | <15          |             |             |             |             | <13             |
| Any clinical deterioration in patients condition which causes concern |              |             |             |             |             |                 |

| Suspected or Actual Major Injuries   |   |
|--|---|
| <b>Head</b> <ul style="list-style-type: none"><li>Intracranial foreign body</li><li>Skull fracture – open, depressed, or complex</li><li>Intracranial haemorrhage – traumatic</li></ul>  | <b>Chest</b> <ul style="list-style-type: none"><li>Mediastinum or great vessels injury</li><li>Thoracic cage injury – e.g. flail chest</li><li>Massive Haemothorax</li></ul>  |
| <b>Face</b> <ul style="list-style-type: none"><li>Severe / complex maxillo-facial injuries with potential airway compromise and / or bleeding.</li></ul>   | <b>Abdomen / Pelvis</b> <ul style="list-style-type: none"><li>Pelvic fracture – complex or open</li><li>Solid organ or hollow viscus injury</li><li>Haemoperitoneum</li></ul> |
| <b>Neck / Spinal</b> <ul style="list-style-type: none"><li>Any paraplegia / tetraplegia or unstable spinal fracture + / – suspected cord injury.</li><li>Aerodigestive injury – larynx, trachea, oesophagus</li><li>Vascular injury – carotid / vertebral artery, jugular vein</li></ul> | <b>Limbs / Extremities</b> <ul style="list-style-type: none"><li>Amputation - limb</li><li>Crush injury – limb</li></ul>  |
| <b>Penetrating injuries</b> <ul style="list-style-type: none"><li>Any penetrating injury to the trunk, head, neck or limb junction (groin &amp; axilla region) e.g. Blast / Shooting / Stabbing / Impalement.</li><li>Other injuries causing uncontrolled bleeding</li></ul>             | <b>Burns</b> <ul style="list-style-type: none"><li>&gt;20% Adult. &gt;10% Child</li><li>Airway burns</li><li>High voltage injury</li></ul>                                    |

| High-risk mechanism of injury or comorbidities  |   |
|---|---|
| Blunt mechanism – Transport incident  | Blunt mechanism - Other incidents   |
| <ul style="list-style-type: none"><li>Death in same vehicle</li><li>Steering wheel deformity</li><li>Patient side impact</li><li>Vehicle vs. pedestrian / cyclist / motor bike</li><li>Ejection (complete or partial) from vehicle</li><li>Entrapment with compression</li><li>Focal blunt trauma to head or torso</li><li>Cyclist/Motorcyclist (Fall or Collision)</li></ul> | <ul style="list-style-type: none"><li>Falls &gt; 3m, or serious injuries in the very young</li><li>High voltage injury</li><li>Crush injury (excluding fingers/toes)</li><li>Livestock (horse / cattle)</li><li>Agricultural Machinery or equipment / Quadbike</li><li>Near drowning / hanging</li><li>Any rapid deceleration incident</li><li>Blast incident</li></ul> |
| Comorbidity factors associated with any injury  |   |
| <ul style="list-style-type: none"><li>&lt;16 years of age</li><li>&gt;65 years of age or &gt;50 years Aboriginal/ Torres Strait Islander</li><li>Patients on anticoagulants or antiplatelet medications or bleeding disorders</li></ul>   | <ul style="list-style-type: none"><li>Immunosuppression</li><li>Cardio, respiratory or chronic disease</li><li>Morbid obesity</li><li>Alcohol or Illicit Drug use</li><li>Obstetric patients &gt;20 weeks gestation</li></ul>   |

| Specialist Referral   |
|---|
| Adult Spinal Cord Injury (SCI)  |
| <ul style="list-style-type: none"><li>Call</li><li>Aim for patient to arrive at a SCI Unit &lt; 12 hours</li><li>SCI patients with associated major injuries to be referred to RNSH only.</li></ul> |
| Adult Burns injury  |
| <ul style="list-style-type: none"><li>Call</li><li>Burns patients with associated major injuries to be referred to RNSH only.</li></ul>   |

**Acronyms**

RTS = Regional Trauma Service  
MTS = Major Trauma Service  
ACC = Aeromedical Control Centre  
NETS = The Newborn & paediatric Emergency Transport Service  
SCI = Spinal Cord Injury