Guidelines on management and transfer of Brachial Plexus Injury
Victoria Infirmary, Acute Services Division, NHS Greater Glasgow and Clyde

We welcome referral of any acute trauma patient with a brachial plexus injury. We can also advise on any peripheral nerve injury and admit as necessary. All patients must be assessed by local trauma team.

ASSESS

Assess

Risk factors and associations for Brachial Plexus Injury
- High velocity RTA, especially motorbike.
- Fracture or dislocation of shoulder, scapular, or elbow.
- Open/penetrating injury to neck, upper quadrant of trunk, or arm.
- Arterial injury in upper limb.
- Traction injury to the upper limb.

Signs of injury
- Swelling above and/or below the clavicle.
- Horner’s sign.
- Severe pain in the upper limb.
- Paralysis.
- Sensory loss.

Investigations
Mandatory: Radiographs - Chest; C-spine.
Optional: MRI of the C-spine or CT-myelography. Both are useful in diagnosing root avulsions although neither is 100% accurate. MRI is easier to perform early after injury.

Neuropysiology - Is not usually helpful in the acute situation.

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- Paralysis.
- Swelling above and/or below the clavicle.
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- Fracture or dislocation of shoulder, scapular, or elbow.
- High velocity RTA, especially motorbike.

Injury date and time: Finger flexion

Contact Brachial Plexus Service

Fractures/dislocations:
- C2H5OH withdrawal (sedative and thiamine)
- Other injuries
- Past medical history
- Medications
- Obstetric Brachial Plexus Palsy
- Referrals are welcomed to Department of Orthopaedic Surgery, Royal Hospital for Sick Children, Yorkhill, Glasgow (Mr David Sherlock and Mr Tim Hems).

Injuries to the Lumbrosacral Plexus
Indications for referral
- Open injuries.
- Closed injuries: After 3 months - Complete absence of function in the femoral nerve or the tibial division of the sciatic nerve.

ASSESS - Vessels; Nerves; Bones

Motor assessment

Complex upper limb trauma

Vascular injury
No vascular injury

Life threatening haemorrhage
Not life threatening
Open or closed injury

Emergency operation to repair vessels
Arteriography

Contact Brachial Plexus Service

Vascular repair

Brachial plexus exploration

An expert opinion should be sought immediately in cases of vascular injury or open injury, and within 48 hours in all other cases.

Think: Vessel…Nerve…Bone

Complete a referral form

Please provide the following information for all patients.

Referral forms can be obtained by telephoning: 0141 201 5436 or can be downloaded as a PDF file from: www.brachialplexus.scot.nhs.uk