NORTHERN TRAUMA NETWORK NTN	Interventional Radiology for Trauma

Interventional radiology for traumatic injuries

This pathway has been developed to define the pathway for trauma patients who have injuries amenable to interventional radiology. This includes:

- Solid organ injury with any ongoing bleeding (including contrast blush)
- Arterial injuries including dissection, transection, and false aneurysm
- Any other ongoing bleeding on CT can be discussed for IR opinion

Patients with traumatic injuries potentially amenable to interventional radiography should have equitable access to interventional radiography services across the whole Northern Trauma Network irrespective of the primary receiving unit.

IR service provision across the region varies between units and between regular working hours and out of hours. The two MTCs (JCUH and NUTH) have 24/7 cover. SRH, QE, NCIC and UHNT have incomplete provision during normal working hours and no out of hours service.

There is a regional rota for OOH IR services. By default, NUTH will receive patients from NCIC, Northumbria and QEH. JCUH will receive patients from DMH, UHNT (including Hartlepool). Patients from STST and UHND will be transferred to either NUTH or JCUH depending on the rota.

The decision to transfer a sick patient balances the risks of transfer vs the risk of delaying treatment until local IR services are available, or an alternative treatment is considered.

All decisions to transfer must be made at a senior level by clinicians fully informed about the patient and the treatment options. The decision to transfer a sick patient must balance the benefits of IR with the risks of transfer. It may be deemed more suitable for patients to remain at the receiving unit either for delayed IR in hours or for alternative management whether conservative or surgical.

MTC pathway

Teams at RVI and JCUH should follow their normal pathway for IR referrals in and out of hours.

TU pathway

IR provision at the Trauma Units is a developing service and teams should be aware of their own unit's IR provision. In some cases TU's with some inhouse IR provision may be able to arrange IR locally for trauma patients depending on specific injury pattern, time of day, caseload and expertise available.

If IR not possible at the TU then the following pathway should be followed.

1. In the multiply injured patient senior clinicians should determine whether urgent ED to ED secondary transfer is required as per the secondary transfer pathway.
2. If patient does not meet the requirements for urgent secondary transfer to an MTC, ie isolated injury, please refer as follows:

    A. Referring consultant will review patient, imaging and investigations. For life or limb threatening emergencies on site review by registrar or specialty doctor is acceptable.

    B. Referring consultant will initiate contact between on-call consultant IR and the ED consultant in the receiving unit.

    C. All available imaging and investigations will be transferred via IEP or Global worklist and e-record systems.

    D. If all three parties agree that transfer is in the patient's best interest, arrangements will be made to transfer the patient to the receiving ED.

    E. Where there is risk of haemodynamic or respiratory instability, the referring consultant will arrange review of patient by local ITU team to determine if patient requires any pre-transfer interventions (I&V, arterial line etc) and whether escort is required for transfer.

    F. On arrival to the receiving ED a primary survey will be completed to ensure patient condition has not deteriorated en route and transfer to IR suite is still appropriate.

    G. There may be circumstances where delayed or alternative local treatment is deemed lower risk than patient transfer. In these cases the tripartite discussion should be documented and referral to local surgical teams made.

    H. Following treatment repatriation would be as per the trauma repatriation pathway.

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