**Indications for CT imaging in the severely injured patient**

**Descriptor:**

An audit to assess the adequacy of clinical information on CT major trauma imaging requests from the Emergency Department (ED).

**Background:**

There is evidence to suggest correlation between inadequate clinical information and inaccurate radiology reports.

The RCR outline indications for polytrauma CT imaging in the document ‘Standards of practice and guidance for trauma radiology in severely injured patients, 2nd edition’. Standard 7 in this guidance states that a CT request in the trauma setting should comply with the Ionising Radiation (Medical Exposure) Regulations justification regulations in the same way as any other request for imaging involving ionising radiation.

The guidance suggests that an annual audit of justification in trauma imaging should be carried out by the radiology department.

## The Cycle

**The standard:**

Clinical information on the radiology requests should satisfy at least one criteria for polytrauma CT as recommended by the Royal College of Radiologists in 'Standards of practice and guidance for trauma radiology in severely injured patients, 2nd edition’.

The acceptable criteria are as follows:

- There is haemodynamic instability

- The mechanism of injury or presentation suggests that there may be occult severe injuries that cannot be excluded by clinical examination or plain films

- FAST (if used) has demonstrated intra-abdominal fluid

- Plain films suggest significant injury, such as pneumothorax or pelvic fractures

- There is obvious severe injury on clinical assessment.

Two essential pieces of information which should be included in the referral are mechanism of injury and visible and suspected injuries.

**Target:**

100% of radiology requests for polytrauma imaging should satisfy at least one criteria for polytrauma CT.

100% of referrals should include details of mechanism of injury, and visible and suspected injuries.

## Assess local practice

**Indicators:**

Correct indications for polytrauma CT imaging on imaging requests by ED team.

Documentation of mechanism of injury, and visible and suspected injuries on the referral.

**Data items to be collected:**

Patient demographics, Clinical information from CT trauma request

**Suggested number:**

Retrospective collection of 100 (or 1 months worth of) trauma CT requests from the Emergency Department.

**Suggestions for change if target not met:**

Present audit findings to the Emergency Department team and discuss the benefits of clinical information at the time of CT trauma imaging referrals.

Give immediate constructive feedback to the referrer after receiving unjustifiable radiology requests for polytrauma scans.

**References:**

1. <https://www.rcr.ac.uk/system/files/publication/field_publication_files/bfcr155_traumaradiol.pdf>

**Editor's comments:**

This template will not be applicable in departments that perform straight to CT protocols for major trauma.

Would be useful to tie in with discrepancies to show reduced discrepancy rates with better clinical information.

**Submitted by:**

Dr Christopher Clarke

**Co-authors:**

Dr Hugh Ford

Dr Matthew Gale

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