Identifying cases

The Trauma Audit & Research Network (TARN)

Foundation session
Identifying cases:
2 case studies
System 1: Retrospective Data capture

Employed by St. Peter’s Hospital - Chertsey

Trauma Unit

South West London and Surrey Major Trauma Network
System 1: Retrospective Data capture
Employed by St Peter’s Hospital – Chertsey, Trauma Unit

- TARN data coordinators are based in ED

- Good communication with Trauma Consultant, ED nurses and the network’s TARN coordinator based at the MTC
  - Notified about transfers out
  - Clinicians notify the TARN coordinators of patients they have seen on wards

- ED reception has a TARN folder
  - CAS card for trauma patients
  - Coordinators check for eligibility – can identify some cases live

- Also use ICD10 coding to identify patients and the unmatched transfers report (more later)
Clinical coding departments use a coding system called ICD10

ICD10: International Classification of Diseases

ICD10 codes document: Admission reason (Injury, Medical, Elective, Complication)

ICD10 codes that begin with S or T indicate injury e.g.  
- S82.2: fracture to shaft of tibia
- S82.21: open shaft of tibia
- S82.20: closed shaft of tibia
- T055: Traumatic amputation of both legs
Trust IT dept. can use a TARN SQL script to generate weekly spreadsheet showing:

- Patients discharged previous week with any relevant S or T ICD10 code
- Filtering out:
  - <3 days stay, discharge destination = home
  - 65+ isolated NOF
  - 65+ isolated pubic rami fracture
  - Minor injuries

Full list of all relevant ICD10 codes: [www.tarn.ac.uk/resources](http://www.tarn.ac.uk/resources)

Spreadsheet categorises TARN Inclusion

Result: List of potential TARN patients

Check imaging reports to ensure inclusion
Example ICD10 spreadsheet

- Patients potentially have multiple ICD10 (Diagnosis) codes
- Ensure you reviews the first 5 diagnosis codes
- Reviewing Primary Diagnosis code only – will definitely result in missed cases
System 1: Retrospective Data capture

Clinical (ICD10) codes: Advantages

- Captures patients who bypass ED (transfers in, GP admissions)
- TARN can liaise with IT to help set this up: Off the shelf SQL script
- Limited staff resource required
- Used by most Trauma Units who employ Retrospective data capture
- Used as backup to “live” data capture by most Major Trauma Centres
Only admitted patients are assigned an ICD10 code

- **Transfers out from ED** - Use ‘Unmatched Transfers’ report
- **Deaths in ED**

Separate system required to capture these

Accuracy of Trust ICD10 coding

Use of NOS (not otherwise specified) codes can increase potential cases

Cases admitted for Rehabilitation only – not easily identified

Delay between discharge and clinical coding
System 2: Live Data capture

Employed by Nottingham University Hospital

Major Trauma Centre
East Midlands Major Trauma Network
System 2: Live Data capture

Employed by Nottingham University Hospital Major Trauma Centre

- Pre-alert booklet completed and scanned in; coordinators have access to EMAS online system
- Audit lead and TARN database manager produce daily reports which filter out relevant patients
- TARN team is based in the major trauma department; are notified by MT fellows re eligible patients
- Attend morning case discussion meetings and follow up with physios and ICU staff re any trauma patients they have seen
- Clinical Frailty query to pick up patients who bypass ED
  - Elderly patients admitted directly to wards
When eligible cases identified:

- Early care data collected by data coordinators whilst still inpatient.

- Later care data (Operation, ICU, Imaging, Ward, Discharge data) taken from online systems; using daily discharge spreadsheet and in-house pro formas.
System 2: Live Data capture: Advantages

Employed by Nottingham University Hospital Major Trauma Centre

- Can achieve high level of case ascertainment and meet MTC discharge deadline, as cases are dispatched soon after discharge.

- Improved communication with clinicians in relevant departments helps identify cases.

- Case notes only required for “missed” cases identified post discharge.

- Major Trauma Co-ordinators involved very early on and band 2 physio helps chase any missing data.

- Easily identify transfers as coordinators are split between the MTC and TUs within the network.

- Best practise sharing with coordinators from other networks and MTCs (Addenbrookes and UHCW).
System 2: Live Data capture: Disadvantages

Employed by Royal Stoke University Hospital Major Trauma Centre

- Greater staff resource required
  - 2 full time MTC coordinators, others are split between MTC and TUs
  - Complex system requiring a high level of training
  - Maintaining communication within the hospital

- Post discharge ICD10 report required to capture “missed” patients.

- Deaths data: not easily available from coroners, however major trauma fellows can notify coordinators of deaths on the ward
Key points

- Communication between departments is key
  - Awareness of TARN
  - Access to the relevant systems

- Hospitals and networks can share ideas
  - Can be circulated in TARN newsletter, contact support@tarn.ac.uk
Collecting the data

- Retrospective Data Entry: Post discharge
- Enter data directly from notes or use Pro-forma
- CORE PROFORMA IN RESOURCES SECTION OF WEBSITE
- DO NOT have to start and finish a submission in one session