Barking, Havering and Redbridge University Hospitals NHS Trust

The TANQ

Trauma Aggregated News, Queen's

Queen's Trauma Service

BHR

Points of Interest:

- TARN
- TQuINS
- Clinical Governance
- Education

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It's been a very productive few months for the Queen's Trauma Service following on from the last MDT meeting. We've had a successful ATLS course with great all-round feedback (the pizzas went down a treat); we have revised the Major Trauma Policy and it should be uploaded on to the intranet shortly; our 'Massive Haemorrhage—Trauma' is now inline with that of the Network; and we are in the final stages of formulating a job description for a combined Trauma and Rehabilitation Coordinator for the Trust.

As our simplified title picture suggests, we are also in the final stages of implementing the Fascia Iliaca block pathway for our patients presenting with a neck of femur fracture. This pathway is a concerted effort between Anaesthetics, Orthopaedics and the Emergency Department. The goal is to provide adequate pain relief to this group of patients 24/7 once the fracture is identified. Training programmes are being run by the ED and anaesthetic teams. If you are interested in learning more, have a chat with Gerry Sion, the clinical nurse specialist for orthopaedics, who is championing this cause. You could also check out some of the #FOAMed blogs (http://stemlynsblog.org/fib-virgil and http://shortcoatsinem.blogspot.co.uk/2013/09/blocked-ed-analgesia-for-hipfemur.html.

On a separate note, we did a presentation for the North East London and Essex Trauma Network on the birth of the TANQ and its evolution that was quite well received (check out their twitter feed @NELETN).

Other highlights from the past two months come from a number of presentations at the Royal College of Emergency Medicine's Annual Scientific Conference, held this year in Bournemouth. There were updates on ground breaking research around the next generation of Resuscitative Endovascular Balloon Occlusion of the Aorta (#REBOA) focussing on Selective Aortic Arch Perfusion Technology. There was also a very enlightening presentation by Dr Youri Yordanov, EM physician in Hospital St Antoine, right at the heart of the Paris attacks.

Following on from Paris, there is a lot of work being done both locally and nationally on Major Incident plans. We are currently taking stock of all our Majax resources, and it would be a good idea for all to re-familiarise themselves with the Trust policies and guidelines. A good person to get in touch with in this regard is our Emergency Planning Officer, Mr Stephen Arundell.

Finally, our next issue will be our Christmas Special, so if you want to contribute to the issue in any way, get in touch with Akbar, the EDTAM. December's MDT is also going to be the Annual Trauma Meeting for the Trust, so all are welcome to attend in the Seminar Room. Further details will be circulated in time, but until then, Keep Calm and Trauma on!

PRIDE

TARN
THE TRAUMA AUDIT & RESEARCH NETWORK

TRAUMA CALLS

Monthly Breakdown 2016

Month	Total	Home	Admit Queens	To Theatres	Admit Other	DID	Did Not Wait
August	33	18	10	0	4	1	0
September	24	11	12	0	1	0	0

MAJOR TRAUMA DASHBOARD

Trauma Unit Dashboard

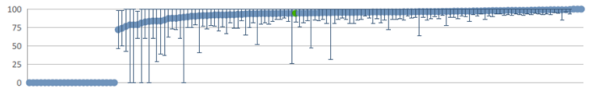
Queen's Hospital Essex

Developed by a working group of clinicians from Trauma Units
Prepared by the Trauma Audit & Research Network 05/09/2016

Data Quality

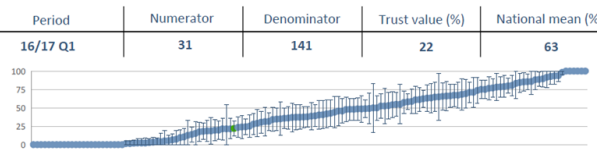
TU 01 - Quality of patient data submitted to TARN

Period	Numerator	Denominator	Trust value (%)	National mean (%)
16/17 Q1	29.3	31	94.4	95



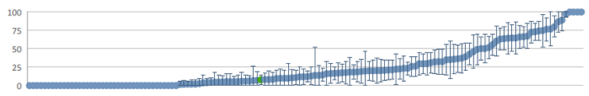
TU 02a - All TARN eligible patients submitted

Period	Numerator	Denominator	Trust value (%)	National mean (%)
16/17 Q1	31	141	22	63



TU 02b - All TARN eligible patients submitted within 40 days of discharge or death (excluding coroner's cases)

Period	Numerator	Denominator	Trust value (%)	National mean (%)
16/17 Q1	11	141	7.8	37.7



System Indicators

TU 06 - TUs deliver grade STR 3 or above led trauma teams ON ARRIVAL

Period	Numerator	Denominator	Trust value (%)	National mean (%)
16/17 Q1	Less than 6	Numerator < 6	71.4	54.4

Small numbers of patients do not allow effective national comparisons.
Details of any eligible patients can be found in the patient lists.

TU 07 - Rapid access to specialist MTC care - patients transferred to MTC within 12 hours of referral request

Period	Numerator	Denominator	Trust value (%)	National mean (%)
16/17 Q1	No patients	No patients	0	70.3

Small numbers of patients do not allow effective national comparisons.
Details of any eligible patients can be found in the patient lists.

TU 08 - Proportion of patients with GCS <9 with definitive airway management within 30 minutes of arrival in ED

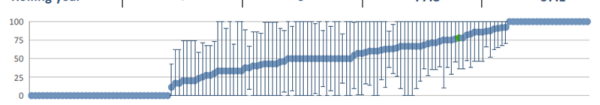
Rolling	Numerator	Denominator	Trust value (%)	National mean (%)
Rolling year	Less than 6	Numerator < 6	0	36.2

Small numbers of patients do not allow effective national comparisons.
Details of any eligible patients can be found in the patient lists.

Evidence Based Measures

TU 03 - Proportion of patients meeting NICE head injury guidelines that receive CT scan within 60 minutes of arrival at TU

Rolling	Numerator	Denominator	Trust value (%)	National mean (%)
Rolling year	7	9	77.8	57.1



TU 04 - TUs administer Tranexamic Acid within 3 hours of incident to patients that receive blood products within 6 hours of incident

Rolling	Numerator	Denominator	Trust value (%)	National mean (%)
Rolling year	No patients	No patients	0	55.7

Small numbers of patients do not allow effective national comparisons.
Details of any eligible patients can be found in the patient lists.

TU 05 - TUs deliver Consultant led trauma teams within 30 minutes for patients with an Injury Severity Score greater than 15

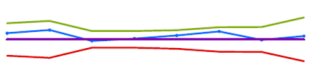
Period	Numerator	Denominator	Trust value (%)	National mean (%)
16/17 Q1	Less than 6	Numerator < 6	100	50.5

Small numbers of patients do not allow effective national comparisons.
Details of any eligible patients can be found in the patient lists.

TU 09 - Proportion of directly admitted patients receiving CT scan within 60 minutes of arrival at TU

Period	Numerator	Denominator	Trust value (%)	National mean (%)
16/17 Q1	Less than 6	Numerator < 6	30.8	24.8

Small numbers of patients do not allow effective national comparisons.
Details of any eligible patients can be found in the patient lists.



TU 10 - Proportion of patients with an ISS of more than 8 that have a rehabilitation prescription completed

Period	Numerator	Denominator	Trust value (%)	National mean (%)
16/17 Q1	Less than 6	Numerator < 6	0	27.4

Small numbers of patients do not allow effective national comparisons.
Details of any eligible patients can be found in the patient lists.

TARN LATEST UPDATE

Last updated 22nd July 2016. All data shown is by calendar year.

Hospital Name	Completeness of Data 2013 - 2014 %	Completeness of Data 2015 %	Completeness of Data 2016 %
Barking, Havering & Redbridge Hospitals NHS Trust	23 - 28	76 - 92	25 - 30
Queen's Hospital Essex			

Data Monitoring

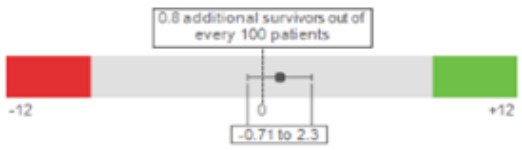
	2013 - 2014 %	2015 %	2016 %
Hospital Data Completeness	26 - 32	86 - 100+	25 - 30
Hospital Data Accreditation	74.9	86.1	93.6

Cases submitted and eligible for Rate of Survival calculation:

Year	Total cases	Eligible cases
2013	116	100
2014	198	184
2015	521	491
2016	80	78

Rate of Survival at this Hospital

Between January 1st 2013 and December 31st 2016



Rate of Survival at this Hospital: Yearly Figures

Rate of Survival Breakdown at this Hospital

Survival band %	Number in group	Expected survivors	Actual survivors	Difference*	Adjusted difference**
95 - 100	591	581	580	-0.2	-0.2
90 - 95	123	114	116	1.3	0.2
80 - 90	77	66	66	-0.2	0.0
65 - 80	37	27	31	9.3	0.4
45 - 65	15	8	10	9.9	0.3
25 - 45	7	2	4	25.9	0.4
0 - 25	3	0	0	-16.9	-0.2
Total	853	800	807	0.8	0.8

Unexpected deaths in minor/moderate injury
Usually due to poor management of co-morbidity and/or complications

Unexpected survivors with more serious injury
Usually indicates good initial resuscitation and the treatment of head injury in Neurological Centres

CASES OF ISS > 15 NOT REQUIRING TRANSFER TO MTC

Patient	Outcome
PATIENT DETAILS: 79YO, Female, BIBA **Primary Diagnosis:** Trauma - acute T2 wedge fracture | Intracranial bleed | Cushing's reaction – hypernatremia SIADH and postural hypotension. **Significant History of Diagnoses and Co-morbidity:** Pt. fell while cleaning windows. BIBA. Had full trauma work up. Was assessed by neurosurgeons (Obs and conservative). Orthotics (multi-axonal spinal brace). conservatively with bed rest and analgesia. Trauma X-ray – Chest 17:06 Trauma CT (Head, Spine and CAP) 18:04	ISS (Injury Severity Score) Code - 26 NISS (New Injury Severity Score) Code - 34 **No transfer required**
PATIENT DETAILS: 95YO, Female, Un-witnessed fall, found by daughter with facial drop confused ?Stroke **Primary Diagnosis:** Acute on chronic subdural haematoma secondary to un-witnessed fall **Significant History of Diagnoses and Co-morbidity:** MHX: right sided mini-craniotomy and evacuation of acute on chronic collection. Patient required long-term physiotherapy and cognitive rehabilitation. She is able to mobilise with a frame. She will be discharged to a residential home placement.	ISS (Injury Severity Score) Code - 16 NISS (New Injury Severity Score) Code - 24 **No transfer required**
PATIENT DETAILS: 30YO, Female, Assaulted - hit back of head with 6 pack of can drinks and hit head on pavement as she fell (chasing shop lifters). Had seizures and was subsequently intubated by HEMS and transferred to Queens Hospital. **Primary Diagnosis:** Extensive contusion of frontal and parietal lobes and associated SAH. **Significant History of Diagnoses and Co-morbidity:** CT showed frontal and temporal contusions. Unable to wean sedation and so an ICP bolt was inserted. Low pressures recorded for >24 hours and patient subsequently woken up. Good recovery and no further intervention was required. Discharged home	ISS (Injury Severity Score) Code - 42 NISS (New Injury Severity Score) Code - 66 **No transfer required**
PATIENT DETAILS: 87YO, Male, Fell whilst going down the stairs **Primary Diagnosis**: Right frontal subdural haematoma with local mass effect and mild midline shift to the left. **Significant History of Diagnoses and Co-morbidity**: Came in after he had a fall while trying to go downstairs. CT head showed a small subdural haematoma. Seen by neuro-surgeons who suggested patient be monitored and a repeat CT done if GSC deteriorates. Patient has remained medically stable on the ward through out the course of his admission with no drop in GCS.	ISS (Injury Severity Score) Code - 25 NISS (New Injury Severity Score) Code - 34 **No transfer required**
PATIENT DETAILS: 79YO, female, Fall, Left sided weakness with ataxia **Primary Diagnosis:** Subdural Haematoma **Significant History of Diagnoses and Co-morbidity:** Recurrent falls, R sided trigeminal neuralgia, Cortico-basal degeneration	ISS (Injury Severity Score) Code - 25 NISS (New Injury Severity Score) Code - 66 **No transfer required**
PATIENT DETAILS: 88YO, Female, Admitted with a fall and subsequent Right facial fracture and intracranial bleed **Primary Diagnosis:** Subdural haematoma, Subarachnoid haemorrhage. **Significant History of Diagnoses and Co-morbidity**: From nursing home, resident admitted with a fall and subsequent right facial fracture with intracranial bleed. She was found on the floor by the carers in the morning. She had CT scans of head and C spine. Seen by Max-Facs and they advised for conservative management. SOFT FOOD FOR 2-3 WEEKS. she had regular neuro-obs on the ward and did not show any decline in GCS. Pain is controlled and mobile with frame, now medically fit for discharge and is being sent back to her nursing home.	ISS (Injury Severity Score) Code - 29 NISS (New Injury Severity Score) Code - 38 **No transfer required**
PATIENT DETAILS: 61YO, female, Pedestrian vs. car RTC with loss of consciousness at scene. **Primary Diagnosis:** Traumatic Brain injury with left sided frontal and temporal contusions along with left intra-cerebral haemorrhage and right occipital fracture. Also posterior scalp laceration. **Significant History of Diagnoses and Co-morbidity:** Trauma call to A&E Resus. Pedestrian vs. car accident with loss of consciousness at scene, requiring intubation. CT head: left sided frontal and temporal contusions along with left intra-cerebral haemorrhage and right occipital fracture. CT C-spine normal. Scalp laceration sutured. The sedation was gradually weaned down over the next few days, the patient was then extubated and sent back to ward. GCS remained constant at E4V3M6 since.	ISS (Injury Severity Score) Code - 26 NISS (New Injury Severity Score) Code - 66 **No transfer required**
PATIENT DETAILS: 53YO, Male, fall (14ft) from scaffolding with LOC **Primary Diagnosis**: 1. Right wrist # (distal radius) 2. Right frontal-temporal depressed skull # 3. Subdural haemorrhage 4. Left temporal contusion **Significant History of Diagnoses and Co-morbidity:** TRAUMA CALL. Resuscitated. Seen neurosurgical team - frequent Neuro Obs - pt. stable. No cervical fracture or paravertebral soft tissue swelling is seen. Seen by max-facs and orthopaedics, ENT - to F/U in clinics. Patient fit for discharge with stable observations, apyrexial.	ISS (Injury Severity Score) Code - 24 NISS (New Injury Severity Score) Code - 41 **No transfer required**
PATIENT DETAILS: 79YO, F, Pt. was painting window sill and slipped off step. Fell 14 steps **Primary Diagnosis:** T2 vertebral fracture, multiple rib fractures, chest contusion, head injury **Significant History of Diagnoses and Co-morbidity:** Pt. fell while cleaning windows. BIBA. Had full trauma work up. Was assessed by neurosurgeons - for Neuro Obs and conservative Mx of fracture and bleed. Was seen by orthotics and given a multi-axonal spinal brace. Pt. was Mx conservatively with bed rest and analgesia. She developed hypernatremia - ramipril was stopped and osmolalities sent. Cortisol high - likely acute stress reaction to head injury. Pt. had low sats/confusion and as she was unable to be anti-coagulated a PE was suspected. CTPA ruled out PE but showed some collapse/consolidation so pt. was given Abx. Pt. was seen extensively by OT/PT. She is now medically stable but requires more PT before she is able to mobilise independently at home. Pt. is having postural drops which are asymptomatic. This is likely due to the Cushing's response.	ISS (Injury Severity Score) Code - 26 NISS (New Injury Severity Score) Code - 34 **No transfer required**
PATIENT DETAILS: 78YO, M, fall in the garden, fell backwards, hit his head, **Primary Diagnosis:** Laceration over the right side frontal area, right arm Colle's fracture. **Significant History of Diagnoses and Co-morbidity:** No LOC, no dizziness, no symptoms before fall. Patient remembers the fall (slipped). O/e- laceration over the right side frontal area, right arm Colle's fracture. No postural hypotension observed. Ortho review- Colle's cast in place, follow up in fracture clinic. Neurosurgical review- Fractures, contusions will resolve spontaneously, headaches can persist for up to 6 months, painkillers.	ISS (Injury Severity Score) Code - 29 NISS (New Injury Severity Score) Code - 43 **No transfer required**

Report on deaths of ISS > 15

Case 1 -

PATIENT DETAILS: 87YO, Male

Fall in L cheek bone & forehead Recurrent falls. Today increasingly drowsy. Intermittent confusion. Decreased mobility ?subdural haemorrhage, Drowsy and confusion. Decreased right basal air entry ?right basal pneumonia

Primary Diagnosis: Traumatic Subdural Haemorrhage, Injury textual description and associated injury codes: Moderate left-sided extradural haemorrhage with mass effect. Subdural haematoma

ISS Code - 25 **NISS Code** - 50 **DID** 05/04/2016

Case 2 - **IR1**

PATIENT DETAILS: 63YO, Fall from the bed on the Ward.

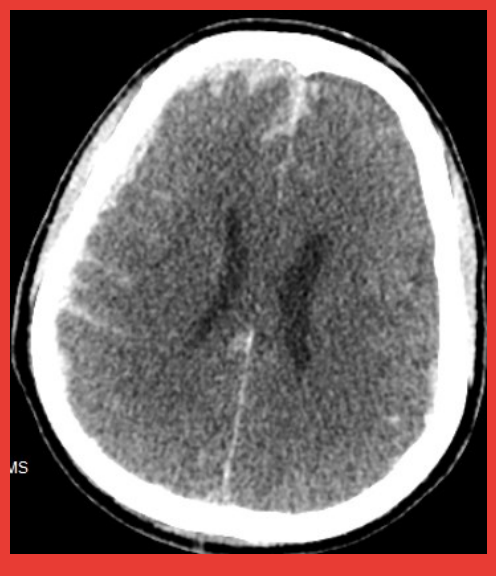
Primary Diagnosis: Right-sided subdural haematoma, Fracture of base of skull

INDICATION: Newly diagnosed HIV. Fall with head laceration. Confused.

FINDINGS: Significant volume of subdural blood overlying the right cerebral convexity which extends into the subarachnoid space and fills the sulci of both hemispheres.

IMPRESSION: Traumatic brain injury with acute subdural and subarachnoid haemorrhage and associated frontal and right temporal skull fractures. Mass effect with effacement of the sulci within the right cerebral hemisphere.

ISS Code - 26 NISS Code - 50 DID 24/06/2016



Understanding Injury Severity Scores

Injury scores are used to assess the severity of trauma and allows for the definition of major trauma. They bear a clear correlation with morbidity, mortality and hospital length of stay following injury.

The **Abbreviated Injury Scale** divides the body into nine regions and classifies the injury into six levels of severity.

The **Injury Severity Score** is calculated by taking the highest AIS in the three most severely injured ISS body regions, squaring each AIS and then adding them up. ($ISS = A^2 + B^2 + C^2$). The score ranges from 1 to 75, with major trauma being defined as scores above 15. If any of the AIS scores are 6, the ISS is automatically set to 75.

The **New Injury Severity Score** has been developed as it is a potentially more accurate predictor of in-hospital mortality. It is calculated in much the same way as the ISS, but takes the most serious injuries into consideration irrespective of body regions.

Abbreviated Injury Scale			
Body Regions		Injury Severity	
1	Head	1	Minor
2	Face	2	Moderate
3	Neck	3	Serious
4	Thorax	4	Severe
5	Abdomen	5	Critical
6	Spine	6	Maximum (currently untreatable)
7	Upper Extremity		
8	Lower Extremity		
9	External and others		

Education, Training & Professional Development

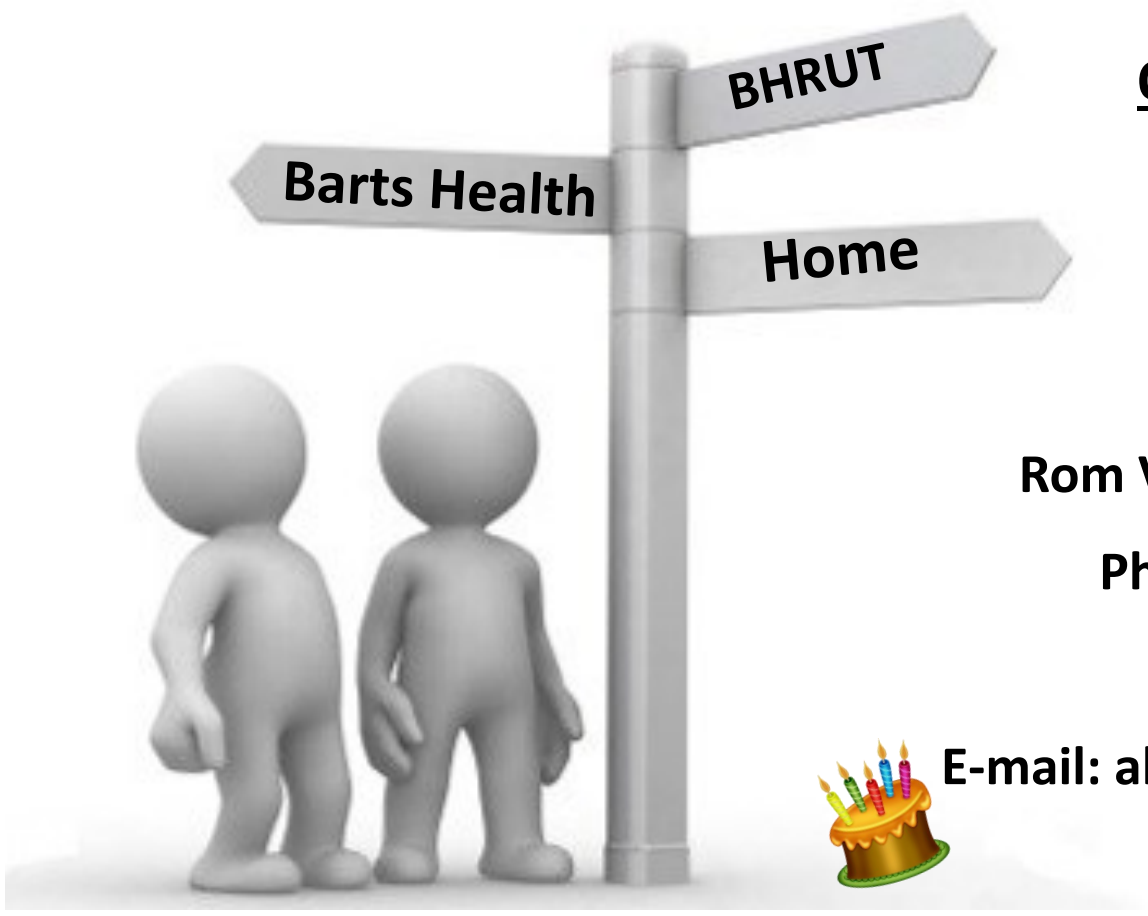
CENTRE FOR TRAUMA SCIENCES
Saving Life, Rebuilding Lives

NORTH EAST LONDON & ESSEX TRAUMA NETWORK

- **Pan London Major Trauma System symposium: 14 December Royal Geographical Society**
- **TARN Date collection: 28 October (Manchester) 24 November (London)**
- **TILS @ Queen's to be announced**
- **Network Steering group / Governance Meeting (NSGM) 25 November**
- **APLS @ Queen's Hospital Romford, January 2017 (TBC)**
- **ATLS @ Queen's Hospital Romford, 29—31 March 2017 (TBC)**

Useful websites for trauma:

www.bhrhospitals.nhs.uk | www.tarn.ac.uk | www.c4ts.qmul.ac.uk | www.nice.org.uk | www.trauma.org | www.aftertrauma.org
www.tquins.nhs.uk | www.rcseng.ac.uk | erc.europa.eu



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