Annual Report
October 2019 – March 2021

North East London & Essex
Trauma Network

April 2021

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Foreword

2020 was an exceptionally challenging year for all of us as a result of the Covid pandemic. The way healthcare is delivered has fundamentally changed as has the way we must approach all our patients, including those with major trauma. For weeks at a time our Emergency Departments saw mostly coronavirus, and the incidence of major trauma fell significantly across the Network. Critical care capacity remains limited due to the numbers of ventilated Covid patients. Members of the Network Team were redeployed to frontline clinical work to support teams managing the pandemic, as were many colleagues from all disciplines and specialties in all of our hospitals.

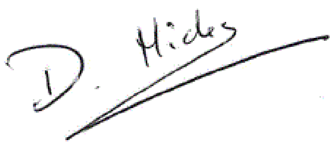
The way that we function as a Network has also been challenged by the pandemic response and the need for social distancing, we have moved much of our governance, steering and clinical consultation functions into the 'virtual environment'. I am pleased to say that the flexibility of colleagues and the willingness to follow a 'fail-fast and change' mentality in developing new models and processes has allowed us to continue providing high quality trauma care throughout the year. The most ground-breaking change onto a virtual platform has been the Peer Review process which is now provided through the 'Perfect Ward' App. This has substantially reduced the volume of work required for those submitting and those assessing the information needed to support the Peer Review process. Having taken the lead in introducing this App, Hannah Kosuge has presented our outcomes at Pan London and National levels, with other trauma networks already starting to adopt this way of working.

I have been incredibly impressed by the work of our Trauma Co-ordinators who fulfil a vital role within the Network as they liaise closely between the Trauma Units and MTC. The improvements seen in; the repatriation process, governance, incident reporting, training and TARN data quality are in no small part due to their efforts in bringing people together to solve the challenges faced in their individual trauma units.

The work of our TARN teams has also been very much appreciated. Across the board we have seen a huge improvement in data submission numbers and data quality. As a result, we are now, demonstrably a high performing trauma network and can show the clear benefits to patients in terms of survival from major trauma since the inauguration of the network a decade ago.

I continue to be humbled by the generosity and selflessness of colleagues who put in so much effort to provide the highest standards of care for our patients. I am grateful to our Trauma Unit Directors, Trauma Unit Managers and the Executive Teams of the Trusts within our Network who continue to strive for improvements despite the challenges of budgetary constraint, competing interests from other clinical areas and the Covid pandemic. It is an honour to work alongside such dedicated teams.

Derek Hicks, Network Director



Introduction

The North East London and Essex Trauma Network covers a very large and extremely diverse and vibrant demographic.

We are:

- 1 Major Trauma Centre
- 11 Trauma Units
- 1 Local Emergency Hospital
- 4 Pre-hospital Providers
- 3 NHS regions

We serve boroughs listed amongst the most affluent in London (Camden and Islington) and also the poorest and most deprived (Tower Hamlets and Hackney).

We cover the most central and busiest area (The City of London) and reach out to tiny countryside hamlets and coastal villages in East Essex.

We cover areas which include the most diverse populations in the UK, with more than two thirds of Tower Hamlets being made up of minority ethnic groups.

The Borough of Barnet alone has a population of 56,000 people over the age of 65, that's the highest population of older people in all of London's boroughs.

We provide world class, leading healthcare to a combined population of 4,300,899 and growing.

Our mission statement is to be an innovative, collaborative and accountable network of trauma expertise, with patient care and high-quality outcomes at the heart of all we do.

Due to no annual report having been written last year, we have decided to cover an extended period this year.

Network Team

Derek is the Network Director for NELETN. He is also an ED consultant at The Royal London Major Trauma Centre. Prior to this he has been a Trauma Unit Director in two of our Network Trauma Units.

Derek has extensive experience of pre-hospital emergency medicine and trauma care, having worked with EHAAT until 2018. Derek has over 18 years' experience which he brings to the network.

Hannah has been the Network Manager since August 2019 and is also a Registered Nurse with over 15 years' experience in Trauma Care.

Prior to taking on the Network Role, Hannah was the Ward Manager of The Major Trauma Unit at The Royal London Major Trauma Centre and has also worked within Trauma Units both within London and out in Essex. This experience has given Hannah a unique perspective of the challenges faced in different environments and settings.

Andrea is the Network Administrator and retuned to us in 2020 after a short hiatus with Specialist Medicine. She has 4 years of experience in trauma administration.

Andrea has great attention to detail and a keen interest in TARN and works with the TARN data collectors across the network as our TARN lead.

Anna is newly appointed in her role since June 2020 and continues to also work as a Senior Sister in Emergency Medicine and a Trauma Coordinator at the Whittington Hospital, one of our Trauma Unit's. She is also the Co-Vice Chair for the Pan London Trauma Nursing Group.

Education and training of the nursing and AHP workforce is Anna's passion, and she is working on several different training programmes throughout the Network.

Dr Karen Hoffman is the Network Rehabilitation lead. Karen also works in the Royal London MTC as an AHP rehabilitation consultant for the Trauma Service. Karen has a special interest in complex rehabilitation needs of multi-trauma patients that are often overlooked by condition specific rehabilitation services such as Neurorehabilitation. Karen is a keen researcher and holds a PhD. Karen also led on development of the AfterTrauma website and App which provides information and support for patients and families.

Alex is the network's deputy director. He also works as an ED consultant at University College London Hospitals (UCLH) and is the Trust's Trauma Unit Director there.

Before moving to the UK in 1999, Alex completed his undergraduate medical training in Germany where he gained extensive experience in trauma and hyperbaric medicine in both the civilian and military setting.
Following his basic surgical training, Alex completed his specialist training in Emergency Medicine in the North East of London region and as part of this gained valuable experience in trauma care at the Royal London Hospital, the network's MTC. He also gained broad experience in pre-hospital care as an air ambulance doctor with MAGPAS.

In addition to his clinical know-how, Alex also brings senior leadership experience to the network which he attained as clinical lead and subsequently as divisional clinical director for emergency medicine at UCLH.

Anne is a Consultant in Emergency Medicine & Pre-hospital Care (Royal London and London's Air Ambulance) and was appointed as the MTC Director at the Royal London Hospital in 2016. In 2003-04, Anne worked in Sydney, Australia for adult and paediatric rescue and retrieval services. In 2004, she became the first female consultant in emergency medicine and pre-hospital care in the UK. She was Lead Clinician for London's Air Ambulance 2007-14 and was also a Trustee for London's Air Ambulance Charity 2007-14.

Anne has a particular interest in major haemorrhage and established the RLH Code Red protocol in 2008. She also led on the development of protocols for blood storage and safe blood transfusion in the pre-hospital environment, making this innovation available to any air ambulance, aspiring to deliver the same standards of care.

Meena is the Networks' Lead for Paediatric Trauma, and a Paediatric Emergency Consultant working at the Homerton Hospital, a TU in Hackney, East London.

She has been Paediatric EM Consultant since 2013 and Named Doctor for safeguarding since 2015. Meena has a keen interest in medical education and is a departmental lead for paediatric simulation, APLS instructor, RCPCH START assessor and MRCPCH clinical examiner. She has prior experience during her PEM grid training working at the Royal London MTC, PICU and Children's Acute Transport Retrieval (CATS).

Our Partners (in alphabetical order)

Since January 2020, and despite 2 periods of lockdown where visits were not permitted, the network team have completed over 100 TU visits. This includes attendance at virtual trauma group meetings when it's not been possible to attend in person. In addition to this renewed commitment to our Trauma Unit partners, we have enjoyed close liaison with our pre-hospital partners via Mark Faulkner for LAS, Rob Riches for EEAST, Stuart Elms for EHAAT, and Anne Weaver and Anna Dobbie for LAA.

More recently we have enjoyed a closer relationship with our STP's across the network, and now have excellent routes of communication with both North Central London and North East London. We look forward to building on relationships with our STP colleagues in South Essex moving forward.

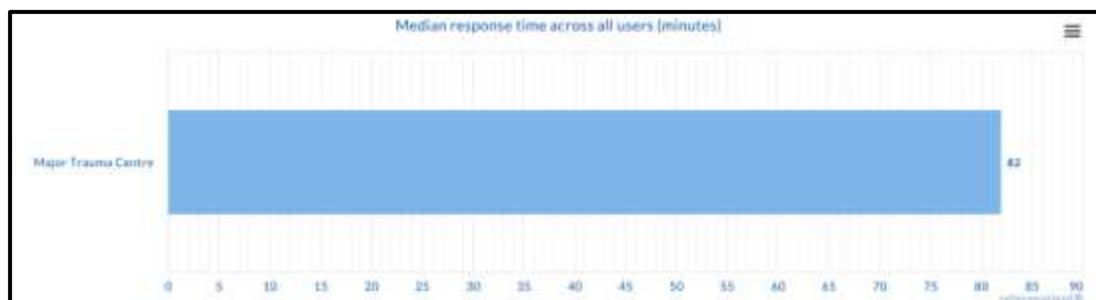
Our Trauma Units have developed robust pathways and processes to care for very sick trauma patients that present locally and as can be seen below are able to provide exceptional levels of care for around three quarters of patient with an ISS>15, without having to utilise the services of the MTC.

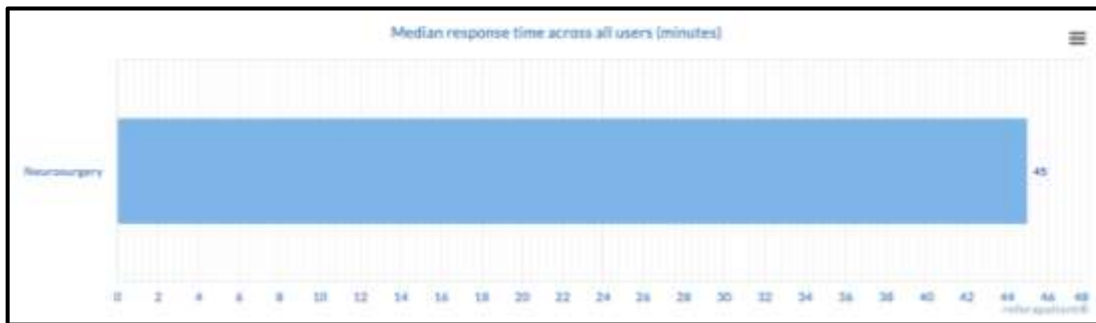
01 January 2020 to 31 December 2020

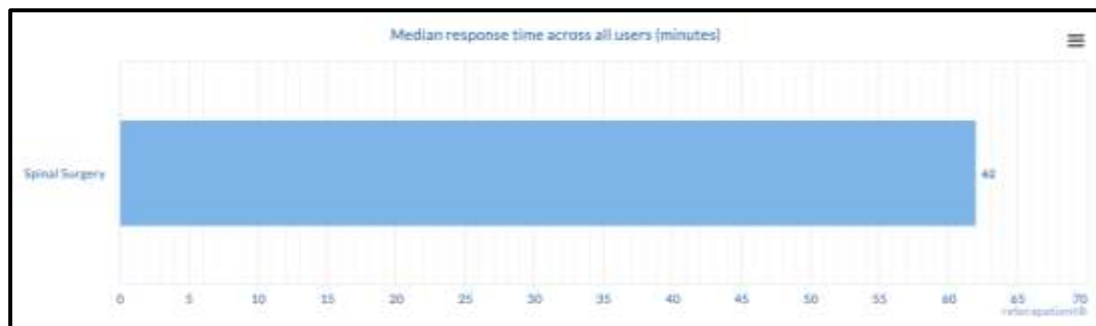
Hospital	All patients				ISS > 15 patients			
	n	No transfer	Transfer In	Transfer Out	n	No transfer	Transfer In	Transfer Out
Barnet Hospital	359	289 (80.5%)	9 (2.5%)	61 (17.0%)	117	92 (78.6%)	0 (0.0%)	25 (21.4%)
Basildon Hospital	420	370 (88.1%)	0 (0.0%)	50 (11.9%)	121	94 (77.7%)	0 (0.0%)	27 (22.3%)
Homerton University Hospital	98	84 (85.7%)	1 (1.0%)	13 (13.3%)	30	22 (73.3%)	1 (3.3%)	7 (23.3%)
Newham General Hospital	97	78 (80.4%)	0 (0.0%)	19 (19.6%)	33	25 (75.8%)	0 (0.0%)	8 (24.2%)
North Middlesex Hospital	249	197 (79.1%)	0 (0.0%)	52 (20.9%)	78	46 (59.0%)	0 (0.0%)	32 (41.0%)
Queen's Hospital Essex	399	332 (83.2%)	42 (10.5%)	25 (6.3%)	150	110 (73.3%)	27 (18.0%)	13 (8.7%)
Royal Free Hospital	175	160 (91.4%)	9 (5.1%)	6 (3.4%)	61	54 (88.5%)	5 (8.2%)	2 (3.3%)
Royal London Hospital	1369	966 (70.6%)	394 (28.8%)	9 (0.7%)	714	509 (71.3%)	200 (28.0%)	5 (0.7%)
Southend Hospital	362	348 (96.1%)	0 (0.0%)	14 (3.9%)	119	110 (92.4%)	0 (0.0%)	9 (7.6%)
University College Hospital	258	217 (84.1%)	19 (7.4%)	22 (8.5%)	81	63 (77.8%)	3 (3.7%)	15 (18.5%)
Whipps Cross University Hospital	83	66 (79.5%)	4 (4.8%)	13 (15.7%)	24	19 (79.2%)	0 (0.0%)	5 (20.8%)
Whittington Hospital	201	156 (77.6%)	2 (1.0%)	43 (21.4%)	63	48 (76.2%)	0 (0.0%)	15 (23.8%)
Total	**4070**	**3263 (80.2%)**	**480 (11.8%)**	**327 (8.0%)**	**1591**	**1192 (74.9%)**	**236 (14.8%)**	**163 (10.2%)**

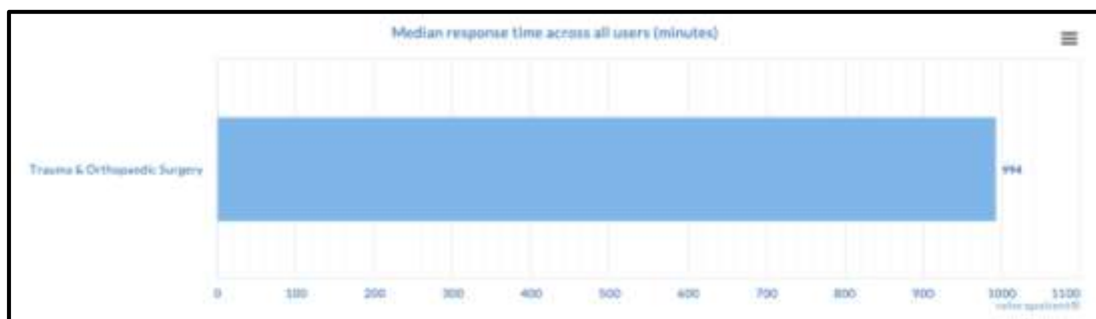
For those that do require onward transfer the network utilises *referapatient* to optimise this process. The use of referapatient also provides an excellent governance resource for case reviews.

We are also able to take advantage of the analytical tools on *referapatient* to monitor performance and response times.









Barnet Trauma Unit

Barnet Trauma Unit is led by Dr Marta Sowa. Marta commenced in post as TUD in May 2020 and works in partnership with Trauma Unit Manager Dan Harold. Marta and Dan write.....

The past 12 months have been extremely challenging for all of us as healthcare professionals within this forum with the world being changed forever: poignant as we write this one year on from the start of the first national lockdowns. The magnitude of the impact COVID-19 will have on our patients, on our hospital, our staff, and on the long-term physical and mental health of the local population we serve, is still yet to be quantified.

Specifically, for Barnet Hospital, part of the Royal Free London NHS Foundation Trust, we have seen astounding changes to the configuration of the site and how we work as a collaborative multi-disciplinary team with all patients, crucially important for operation and

success as a trauma unit.

At the start of the first wave in response to the sector's efforts to support the public, we closed both our paediatric ED and ward meaning we were unable to admit children. This had a profound impact on our department, staff and site with concurrent changes in response to an ever-changing environment. This was followed by a sector-wide and pan-London-led review and restructure of paediatric services. This initially led to issues with some referral processes for specialist post-trauma care that we have worked very hard to resolve by redesigning paediatric trauma referral pathways.

During March and April 2020, we worked within an eerie department with very few trauma cases. Since this date, we have seen the sharp rise of trauma attendances at Barnet Hospital, with these numbers growing and sustained approaching April 2021. This period allowed us to focus on specific clinical pathways; most notably for fractured neck of femur (NOF) presentations. We have revamped the initial assessment, timely treatment and referral pathway of #NOF patients to allow for quick and smooth transitions to specialist care with positive outcomes. In addition, we have several quality improvement projects on the go, focusing on re-designing our silver trauma assessment protocols in ED; crucial based on the age demographic of the surrounding catchment population. We have already managed to reduce the overall trauma mortality of our over 95-year-olds by 30%, thus this is an area we want to keep on improving.

Subsequently, we have many new faces throughout the trauma unit at Barnet with Dr Marta Sowa (Consultant in Emergency Medicine, Barnet Trauma Unit Director) joining the trust in May 2020 and Daniel Harrold (Service Manager – Emergency Department, now Barnet Trauma Unit Manager) taking the reins in summer 2020. In addition, we have new members of the key stakeholder's team found in the directory, including: Dr Raj Vignaraja as the Older Patient Trauma Lead; Jipsa Jacob as the Transfusion Lead; Carine Kelly as the Trauma Co-ordinator; Dr Claire Miller and Dr Robert Stellman, Paediatric EM Consultants, as Paediatric Trauma Leads. We welcome all to their new roles within the Trauma Unit at Barnet Hospital.

In the wake of the second lockdown, we secured funding to expand our ED waiting spaces and increased our Resus cubicles from six to eight (by April 2021). This vital additional capacity will continue to allow our clinicians to provide rapid, world-class care. We have resumed simulation (SIM) sessions with our nurses, junior and senior clinicians, and other healthcare professionals as we now refocus back to business-as-usual activities.

The trauma unit peer review of 2020 was the first for the new leading team and proved to be challenging. However, it allowed us to focus on aspects that are crucially important, and, in subsequent local trauma governance meetings, we have made many strides in implementing significant improvements for trauma patients. We are delighted with our current TARN performance with our case ascertainment and data accreditation sitting at 140.5% and 92.1% respectively (as below). This is largely due to the tireless effort and dedication of Farida Juma, our TARN Co-ordinator, who in recognition of the amazing job she's been doing has been nominated for a TARN excellence award this year. Recently we also found out that our rehabilitation prescriptions will be used as a NELETN template for implementation across the network.

With the start of the new year, we remain hopeful for the future that lies ahead. With many interesting projects and ideas, we're hoping to work on in the upcoming months we are positive that the next peer review will reflect on the hard work done by everyone here in Barnet on improving the trauma care we provide for the local community.

Basildon Trauma Unit

Basildon Trauma Unit is led by Dr Saad Abdullah, with fantastic support from Trauma Unit Manager Sheena Nicholson. Saad writes.....

2020 has been an exciting year for our Trauma unit. While the unit continued to work closely with NELETN (North East London & Essex Trauma Network) there was a big change where a new Trauma Unit Director was appointed in October 2020. The main asset of our trauma unit is the team that constitute the unit in ED in addition to the other members from various specialities involved in trauma management, as well as executive representation. Collectively this is called The Trust Trauma Board. Our Trauma Unit manager Sheena Nicholson has received special praise for her engagement within the network.

Our TARN data input, which won praise from the network, has helped push NELETN to be the best in the country. Recently a focus on data quality, led by our TARN coordinator Sandra Mustafa and Trauma Coordinators Claire Lambert and Christian Alejandrino, has impacted significantly on our outcomes score. Below are 2 charts detailing outcome before (Fig. 1) and after (Fig. 2) the exercise. We will be presenting this data at the next network meeting to highlight the importance of accurate data collection.

Fig. 1

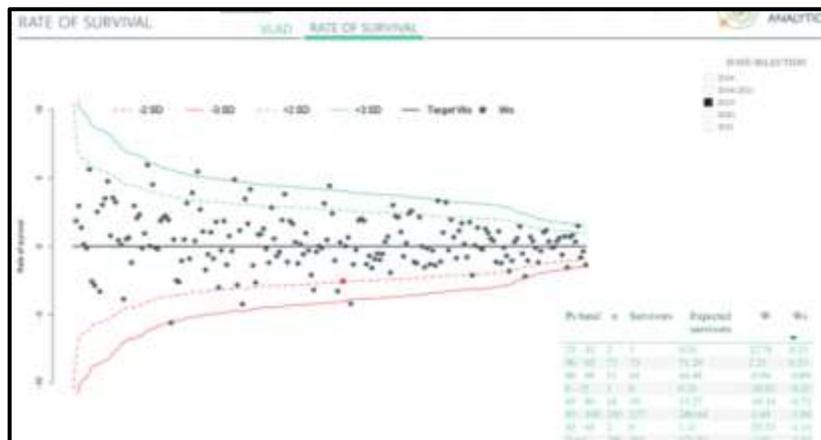
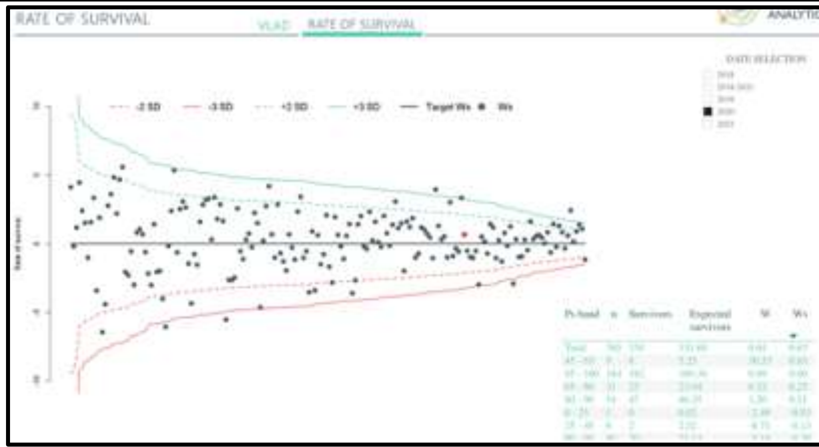


Fig. 2



We had a good peer review carried out by the network, where we achieved the required standards in most domains. The few remaining domains are being addressed and are our priority moving forward whilst we simultaneously strive to maintain the quality of the other domains we achieved.

We managed with new leadership to increase the engagement of other specialities in our discussions and operational and strategic planning, the last trauma board meeting was attended by at least 7 consultants from all specialities including the trauma lead of our sister hospital within the same trust. We think this is an important step in greater cooperation and possible integration.

We continue to work closely with our trauma network from which we receive tremendous support and look forward to planning more joint projects with the other trauma units over the coming year.

East of England Ambulance Service

Our liaison within East of England Ambulance service is Paramedic Rob Riches. Rob has provided support on a number of occasions over the last year and has inputted into the Networks Major Incident Plan (to be released). We look forward to creating stronger ties with EEAST over the coming year and building on those relationships further.

Essex and Herts Air Ambulance

NELETN has benefitted from great support from our prehospital provider colleagues at EHAAT. Our liaison within the team is Stuart Elms. Stuart writes….

As with our colleagues in the NHS, the last 12 months have been exceptional due to the impact of the pandemic. We were able to respond quickly to the changes in the trauma pathways and triage tool and these were assimilated into the team without any issues but we were cognitive of the fact the impact may be felt in the

Trauma Units we regularly deliver to. We were fortunate to be able to secure good stocks of appropriate PPE for the clinical team to use but on reflection the team training whilst wearing full PPE could and should have been better pre-pandemic. But this was addressed rapidly and neither patient care or team safety were compromised.

Trauma figures matched those trends seen by partner organisations and matched lock down patterns, however during lock down we did see some concerning trends in that RTC numbers whilst down, were higher energy and there were rises in numbers of assaults and self-harm incidents that we attended. There may be benefit in wider network research into these.

There is no doubt that the excellent communication throughout the network, the leadership shown by the Network Director, Manager and others within the network helped during the pandemic and especially during those times of peak demand.

Looking to the year ahead we will be operating from a new purpose designed airbase and will be aiming to provide help with any training or pre-hospital experience for our colleagues in the network.

Homerton Trauma Unit

Homerton Trauma Unit is led by Mr Tarun Taneja. Tarun is an orthopaedic consultant and benefits from support and guidance from ED consultant Claire Charley, and Paeds ED consultant Meena Patel. Tarun writes....

The Homerton TU dealt with the unprecedented situation brought about by the pandemic as a hospital wide team with all medical and surgical specialties and allied staff groups contributing to the redeployment efforts.

Homerton ED like all other TUs in the network has had a challenging year with COVID. The department has necessarily had to rapidly evolve to meet the changing landscape, including seeing high numbers of COVID attendances, running two simultaneous but separate majors areas and maintaining high standards of infection prevention and control to protect patients and staff to name a few.

Trauma service delivery in our ED did not change dramatically due to COVID, we continued to see whatever arrived at the front doors and maintained our excellent links with the MTC for advice and support where needed.

In the height of both waves we were supported by re-deployment of the Sports and Exercise Medicine staff to our numbers. This was a welcome addition of manpower but also brought a wealth of knowledge and expertise as well as new relationships. The SEM team not only helped in the minor injuries area but were available and willing to help with trauma in the main ED or resus areas alongside our permanent staff. This support was also mirrored by the Orthopaedic Department who, in wave 1 offered direct access to same day fracture clinic for ED patients. This not only allowed us to reduce the number of hospital visits for patients after minor traumatic injuries but it freed up nursing staff in ED to manage the unprecedented

	COVID surge. *Alongside the pandemic the ED was and still is, undergoing a refurbishment of the majors cubicles and resus area to improve infection prevention and control and to make us more future proof for the next new infectious disease. The team have risen to the challenge and coped admirably with the physical disruption of our environment, making sure that at all stages of the project we are able to manage, all types of trauma patient that might arrive.* *Our ITU capacity was tripled and remains in an extended capacity presently even though the national situation has begun to improve. There was significant re-deployment into ITU to support this expansion and to ease the pressure on our intensivist colleagues.* *For a period of time the Paediatric inpatient ward was converted to an adult inpatient NIV area. The ED continued to remain open to all paediatric patients, with those requiring admission being transferred to nearby Royal London Hospital.* *The Peer Review process was different this year as data was submitted through The Perfect Ward App, which we felt was a good move and made information gathering and submission more streamlined. We were pleased with the Peer Review report in which there were no areas of concern and even some improvements over the previous year. Namely; with regards to areas such as Rehab Prescription data . Our TARN accreditation and ascertainment figures remain satisfactory, and the good quality of our TARN data was noted in the peer review report, thanks to the work of TARN coordinator Muhammad Numan. Our therapy leads, Richard Page and Nazia Ahmad, were pivotal to our success at this year's peer review. Their work on rehabilitation prescriptions and input into the app was greatly appreciated by the Homerton trauma group and the trauma network, who commended them both specifically in the Peer Review report.* *We are pleased to announce that Ms Hamdi Hussein Awil joined the Trust as the new Trauma Coordinator. This is a new post that has been created. Hamdi has been off to a flying start with a number of courses lined up for her, to bring her up to speed with the Network and its activities. She will be an important member of the Trauma team at the Homerton and build resilience with TARN data collection, as well as acting as a link with the MTC.*
London's Air Ambulance	Our liaison within London's Air Ambulance is via Dr Anna Dobbie (Lead Clinician) and Frank Chege (Patient Liaison Nurse). Anna and Frank are on hand to help manage any governance issues and can provide advice and support to our TUs and the Network when required.
London Ambulance Service	Our liaison within LAS is Paramedic and Clinical Practice Development Manager -Mark Faulkner. Mark has provided exceptional support to NELETN over the past year which has included: • Assistance with network governance • Input into TU specific issues • Review of network policies and procedures • Support for our TARN coordinators during the implementation of E-PCR We look forward to further working with LAS and Mark over the coming 12 months.

Newham Trauma Unit

Newham Trauma Unit is led by new Trauma Unit Director Dr Sarah Perkin, with support from experienced TU Manager Tom Heffernan. Sarah writes….

Significant changes in acute service provision have been seen across Barts Health over the course of the last year, due to the Covid-19 pandemic and restructuring of surgical services.

For Newham specifically, the Emergency Department was split into Hot and Cold areas, and the provision of paediatric acute care was split between the paediatric inpatient teams and the Royal London Hospital Paediatric Emergency Department across the two pandemic waves. Most trauma has been managed in the Cold section of the Emergency Department, and whilst we saw a drop in non-Covid acute presentations in general, we did see slightly higher acuity trauma patients delivered by London Ambulance Service due to reconfiguration of the pre-hospital trauma tree.

Managing admitted trauma patients became challenging, as they were no longer all able to be admitted to the surgical wards, as patients were assigned to beds based on Covid status. Over the last twelve months due to restructuring of the orthopaedic service across Barts Health, acute orthopaedic admissions are no longer able to be admitted to Newham Hospital, which has caused some difficulties with admitted trauma patients.

Our 2020 peer review highlighted multiple areas requiring urgent improvement at Newham. With our Trauma Unit status under review, we are working hard to make and embed the required improvements as quickly and robustly as possible.

We have restarted monthly trauma steering group, governance, and M&M. Pathways are currently in the drafting process for local management of spinal fractures and chest wall injuries. Some issues have been identified in our management of paediatric and silver trauma, and so we will be reviewing these situations.

Monthly trauma simulation and teaching is underway for the Emergency Department doctors, with plans to start up simulation for the surgical team, and later extend to live drills for the entire trauma team. We are in touch with the Royal London about an 'exchange' programme for medical and nursing staff from ED and Surgery so that experience and knowledge can be shared across Barts Health.

TILS has kicked off for the ED nurses, and sitewide nurse trauma training is a work in progress.

We have a new Trauma Director and TARN Coordinator, and with the support of the Newham Executive Team, the Network, and an enthusiastic local steering group, we are confident that we can enact positive change for Newham and our trauma patients going forward.

North Middlesex Trauma Unit

North Middlesex Trauma Unit is led by Dr Clara Oliver, though she is stepping down this year. Clara has done a fantastic job as Trauma Unit Director and will be greatly missed by the Network team. Clara benefits from fantastic nursing support from Karen Wheeler. She writes…..

During this unprecedented year, the North Middlesex Trauma Unit has continued to deal with Trauma patients requiring varying levels of clinical care. North Middlesex University Hospital was one of the first hospitals in the region to experience a COVID surge, but in spite of that has worked within the new Trauma Triage tool guidelines and has continued to manage trauma patients to a high standard.

During both the first and second COVID wave, there were significant changes in the layout of the Emergency Department, inpatients wards and ITU; the Resus department becoming a COVID area, predominantly managing ITU level two and three patients. We created a separate 'clean' low probability COVID, trauma bay. Despite high ambulance attendance and potential long ambulance offloads times, this meant we continued to accept and deliver trauma care to the local population to an optimum standard.

Allowing for changes to the pre-hospital trauma triage tool during the first wave, our numbers of trauma patients dramatically reduced in line with local lockdown measures and the concurrent changes in behaviour.

During the COVID pandemic, clinical services were restructured. Despite this ED remained fully open for both adults and children. Certain inpatients services were re-sited, Paediatric inpatients moved to Great Ormand Street and Orthopaedic patients were transferred to Stanmore. However, we continued to have a limited bed base both children and orthopaedics patients requiring short periods of observation, for example paediatric head injuries or emergency surgery.

The process of peer review has changed in the last year and was delayed due to COVID, however despite the impacts of the pandemic on the Hospitals Work- North Middlesex University Hospital experienced the highest percentage increase in COVID bed base in England – we still achieved a successful peer review.

Share of adult general and acute beds which are occupied by confirmed covid-19 patients

Name	17-Nov-20	24-Nov-20	01-Dec-20	08-Dec-20	15-Dec-20	22-Dec-20	29-Dec-20	Up or down in week	Name
NORTH MIDDLESEX UNIVERSITY HOSPITAL NHS TRUST	10.9%	10.9%	11.9%	13.7%	18.3%	35.7%	63.1%	↑	NORTH MIDDLESEX UNIVERSITY HOSPITAL NHS TRUST
MEDWAY NHS FOUNDATION TRUST	24.3%	39.4%	46.4%	52.8%	48.4%	50.9%	57.6%	↑	MEDWAY NHS FOUNDATION TRUST
DARTFORD AND GRAVESHAM NHS TRUST	12.7%	14.3%	22.5%	24.0%	26.3%	39.0%	50.4%	↑	DARTFORD AND GRAVESHAM NHS TRUST
HOMERTON UNIVERSITY HOSPITAL NHS FOUNDATION TRUST	8.1%	7.3%	10.2%	14.2%	16.2%	29.2%	46.4%	↑	HOMERTON UNIVERSITY HOSPITAL NHS FOUNDATION TRUST
MID AND SOUTH ESSEX NHS FOUNDATION TRUST	7.3%	7.4%	8.4%	15.8%	20.6%	29.8%	45.3%	↑	MID AND SOUTH ESSEX NHS FOUNDATION TRUST
EAST KENT HOSPITALS UNIVERSITY NHS FOUNDATION TRUST	8.9%	14.4%	12.3%	24.2%	37.4%	40.3%	44.9%	↑	EAST KENT HOSPITALS UNIVERSITY NHS FOUNDATION TRUST
WHITTINGTON HEALTH NHS TRUST	6.2%	8.5%	8.5%	11.3%	11.3%	27.9%	44.1%	↑	WHITTINGTON HEALTH NHS TRUST
WEST HERTFORDSHIRE HOSPITALS NHS TRUST	11.6%	15.4%	14.0%	17.8%		30.5%	44.0%	↑	WEST HERTFORDSHIRE HOSPITALS NHS TRUST
MAIDSTONE AND TUNBRIDGE WELLS NHS TRUST	8.1%	13.4%	19.0%	24.0%	28.7%	35.7%	42.3%	↑	MAIDSTONE AND TUNBRIDGE WELLS NHS TRUST
MILTON KEYNES UNIVERSITY HOSPITAL NHS FOUNDATION TRUST	18.4%	21.9%	20.5%	24.1%	30.0%	33.4%	41.0%	↑	MILTON KEYNES UNIVERSITY HOSPITAL NHS FOUNDATION TRUST

In addition, during the last year we have managed to maintain our TARN data collection and maintain our level of case ascertainment, due to the hard work of our TARN co-ordinator, Daniel Rubin. Daniel has subsequently moved roles within the network, and we are currently recruiting a new TARN co-ordinator. The Trauma Director, Dr Clara Oliver has stepped down and we are currently in the process recruiting a new Trauma Director. Despite restructuring of staffing within Trauma directorate at North Middlesex, we aim to maintain the level of service we provide, and we are grateful to Karen Wheeler our Trauma Nurse co-ordinator for her continued support and all her hard work during the last year.

Queens Trauma Unit

Queens Trauma Unit is led by Dr Salim Ghantous with support from a whole host of trauma colleagues. Salim writes…..

This has been an eventful year (2020) and we have seen over 10,000 (10,670) trauma related cases in the Emergency Department at BHRUT (Queens Trauma Unit and King George Local Emergency Hospital) this includes falls <2 meters; complex road traffic collisions; and the whole spectrum in between. Out of those there were 392 trauma calls*

**note with our new front of house triage system (PELC), who stream all the minor injuries, we have seen a dip from 2019*

As usual our trauma committee included all specialties involved in delivery of care for trauma patients.

RLH continued to be our MTC referral centre and they support us with complex traumatic injuries including orthopaedic and thoracic.
Fortunately, our neurosurgical department at Queens is a great asset to our trust, giving support in adult traumatic head injuries and spinal injuries. However, in 2020 the decision was made by the Pan-London Major Trauma System that all isolated head injuries will go directly to RLH.

Our main problem over the last few months from an ITU point of view was the lack of Non-COVID ITU beds which really stretched us to the limit. We faced the same problem on our general medical and surgical ward where the constant lack of Non-COVID beds due to the reconfiguration of our trust bed capacity, that shifted the bulk of our bed capacity towards covid-19, proved problematic.

During this year we emphasised and introduced the importance of the use of tranexamic acid in head trauma to all doctors working in ED, and TARN data suggests this is going well.

There was significant drop in trauma calls presenting to our ED during this year (2020), around 20% drop from 2019 year mainly due to national lockdown.

Unfortunately, most trauma related training courses have been put on hold including TILS and ATNC which has left us with a shortage of level 2 trained trauma nurses. We are actively looking into arranging level 2 training for our nurses hopefully in the coming year and with the ease up of the covid-19 restrictions

As from Paediatric perspective, we are still dealing with all paediatric trauma calls in our dedicated paediatric ED where fortunately most of our paediatric ED doctors are APLS trained.

We managed to create a paediatric resuscitation room that is fully equipped to deal with all paediatric trauma calls in a spacious and child friendly environment. This didn't stop us from struggling from a Paeds spinal trauma perspective though, and we found it a very tedious process trying to navigate an appropriate onward care. Luckily enough the Network has now supplied us with a new paediatric spinal pathway with clear instructions and proper designated referral to MTC RLH

As other surrounding trauma units, we have to deal with an extensive number of elderly patients presenting with a fall at home that do not obviously fit the criteria of a trauma call, i.e falling from standing or slid off the bed/chair which has led to some missed limb / Head and neck injuries among this age group. We are working hard to introduce silver trauma pathways to fix this issue and expect this to be completed in the coming few months.

We are currently on a good projection to meet our TARN targets, with the overall Trauma numbers dropping compared to 2019, as seen nationwide. A HES validation will adjust the denominator, and the Ascertainment is expected to be 100% thanks to the hard work and dedication of our Trauma Data manager - Akbar Hussain

Peer review has been conducted and we were satisfied with the final report we have received from the network. We are working hard on the issues that need improvement, and specifically repatriation of trauma patients. The main reason for our failure there was the lack of non-COVID beds in our trust. The trust recently appointed a repatriation coordinator, Stewart Ryan, who is working hard to streamline the process, and has been noted by the Trauma Network Manager to be an extremely helpful and efficient addition to the team.

We recently lost our 3 trauma coordinators, Charlotte, Prina and Nick, to redeployment to Covid areas, and the temporary loss of their roles has really highlighted their importance. They work together to ensure that all trauma patients at Queens receive outstanding care, and support the wards with this extremely complex patient group. They also supply data to our governance meeting which is useful to assess our effectiveness as a team. A recent audit completed by the trio demonstrated that since the role of trauma coordinator came into being, average length of stay for the trauma population has decreased by a full day. Whilst at first glance this may not seem a big change, consider the number that we admit, and it is readily apparent that this represents a significant number of beds days across the hospital. They also contribute greatly to a robust and effective governance partnership between Queens and the network.

Looking forward for year 21/22, hopefully the pandemic will ease up and we will be able to breath some fresh air and regroup. We will also endeavour to keep up to the standards of our trauma governance set up in our trust

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Royal Free Trauma Unit

Royal Free Trauma Unit is led by ED consultant, Dr Nish Amin. Nish writes.....

During the last year the Royal Free Hospital has adapted to the changing climate and its requirements to prioritise COVID-19 measures, in addition to maintaining trauma capacity. Many small level service changes have been performed to cope with the nature of changing demands on emergency services and the

trust in general. ICU services were significantly affected at RFH and across the country in general. Admissions for trauma presentations had also reduced significantly as the country coped with lockdown measures.

Paediatric services were transferred to the Whittington Hospital alongside the supporting workforce of doctors and nurses. Orthopaedic admissions from the Royal Free were transferred to Barnet following assessment in the ED. Open fractures were stabilised and transferred to be managed at the MTC. Such significant changes were diligently managed by the Clinical and Operations teams effectively.

During that time, we have actively participated and responded to Network sitrep and reporting trauma capacity within the trust. Bed occupancy amongst Covid patients and reconfiguration of surgical services has affected return of care for repatriation during the first two quarters of the year. Since Nov 2020 the focus with Clinical Operations teams has resumed to facilitate and prioritise speedy repatriation of patients back to RFH.

During the Surge 1 and 2 Covid periods to maintain local trauma services the trust continued SIM training to retain skills. Silver trauma admissions have benefited from the introduction of a silver trauma pathway. Governance activity pertaining to trauma management resumed from November 2020. QI work involving trauma care has continued throughout this time with regards to Rib injury and silver trauma pathways.

The trust also maintained its commitment to the Trauma Peer Review Process as planned and was pleased to demonstrate progress towards objectives in delivering a Trauma Coordinator position in the trust, employing a TARN data coordinator, specifying further training on Swallow assessments, Silver trauma pathway education and implementation. The trust has been very pleased with the improvements and standards set out by the Network and its compliance towards these including the high level of evidence that were submitted.

Our workplan for 2021 includes the following key areas:
1) TARN data improvement (see fig 1). This has been mostly met but we aim to demonstrate significant improvements in data accreditation and ascertainment.
2)Training – restarting Trauma training courses.
3) Delivering on Level 1 and Level 2 Trauma Nursing training competencies for staff involved in Trauma Care.
4) Network CT Audit.
5) Rehabilitation prescriptions (currently at 80% compliance).
6) Trauma repatriations to the trust to be met in line with Network standards of return of care.

Fig1. TARN Analytic Dashboard March 2021
We are looking forward to the year ahead and delivering the Trauma workplan which will be

supported by the new TARN Coordinator (already in post) and a Trauma & Rehabilitation Coordinator (to be appointed). The Network have been instrumental in helping deliver these roles and support the trust in identifying the absolute value they will create for patient care and safety in trauma care at the Royal Free.

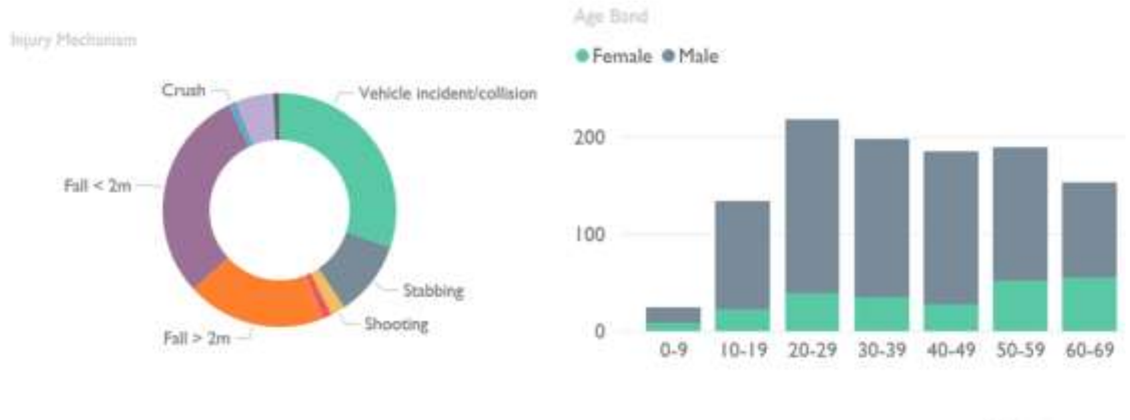
Royal London MTC

The Royal London MTC is led by Dr Anne Weaver. Anne has support from multiple teams across many specialties and also heads up The After Trauma Team. Lindsey Ramsey is the MTC's Service Manager and has instigated and overseen several successful projects and improvements over the previous 18 months. Anne writes…

The Major Trauma Centre at the Royal London Hospital has had a successful year, managing the impact of Covid and adapting and changing practices to meet the changing needs of the service.

Some key metrics from Jan-Dec 2020 are below:

Number of Trauma calls	*2330*
Number of Ward admissions	*1530*
Number of Code reds	*158*
Number of Code Blacks	*65*
Number of Paediatric patients (0-15 year olds)	*216*



Highlights from the last 12 months include:

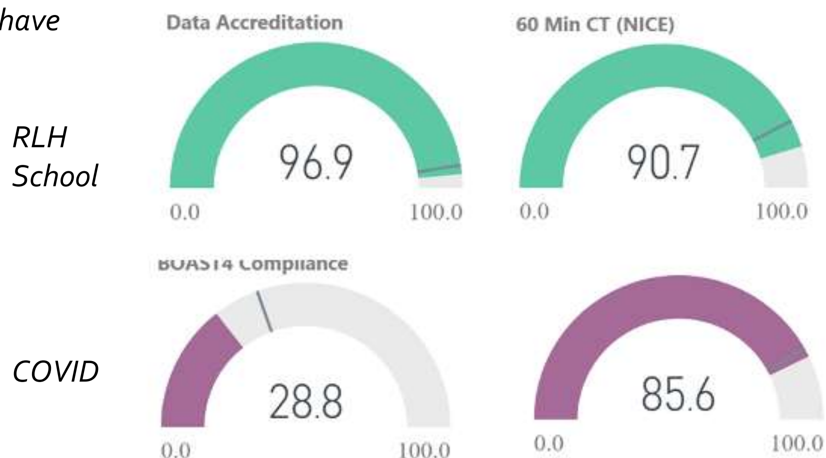
- *Publication of paper -Decade of Damage Control Resuscitation (E.Cole et al.) - outlining innovation within our MTC over 10 years resulting in 40% reduction in mortality.*
- *Appointment of 2 new Trauma Surgery Consultants, substantially increasing our trauma workforce.*
- *Delivery of new consultant job plans and rota allowing second-on consultant for two cavity surgery and supervision / mentorship of colleagues*
- *Relaunch of Trauma clinic offering both virtual and face-to-face appointments, ensuring that effective follow-up care is delivered to trauma patients.*
- *Delivery of Zone 1 REBOA pre-hospital and in MTC*
- *Completion of 2-year feasibility study of red cells and plasma in pre-hospital care study*
- *Expansion and upskilling of Trauma Anaesthetic Group to provide Mon-Fri, 08:00-20:00 service*
- *Restructure and relaunch of Trauma Governance programme with focus on thematic analysis and implementation of Safety-2 culture*

Covid has had a major impact on the MTC, as elsewhere, with a significant reduction in trauma numbers. The challenge for the MTC during this period has been to maintain the service, ensuring that capacity was maintained for any major trauma patients in the network. A number of changes were implemented during this time including:

- *Revised SOPs for COVID practice e.g., Trauma Team PPE, Code Red*
- *TACTICS updated to include COVID specific advice*
- *Additional Trauma Consultant role – Trauma Surgeon of the Week 2 (TSOW2) to provide resilience within MTC and offer potential to deliver outreach trauma surgery at NELETN TUs if needed*
- *Support from LAA Driving Manager to drive TCOW 2 to TU to perform damage control surgery if needed*
- *New Network outreach clinic set up remotely for NELETN TUs - daily, then weekly for Wave 1.*
- *Redeployed research team to clinical duties*
- *Established 4 bed monitored Trauma Unit with SOPs and staff training*
- *Established multi-specialty junior doctor rota for Trauma in-patients allowing redeployment whilst maintaining safe staffing for Trauma Service 24/7*

The team have made improvements in a number of key areas of TARN including data accreditation and BOAST4 compliance. There has also been some focused work on rehab prescriptions and orthogeriatrician review, which has resulted in improvements in our scores in these areas. and Key metrics for 2020 from TARN analytics are shown below:

A number of education and training initiatives have been delivered during the last 12 months. These have included:



- *Inaugural RLH MTC Trauma School (2 week programme) designed to replace ATLS was delivered during COVID for junior doctors.*
- *Inaugural Trauma induction*

day for Consultants delivered across all specialties
- *Ongoing contribution to London Trauma School courses - TALONS, TORCH*

The Violence Reduction Team has had a successful year, receiving a BMJ award in recognition of the success of the programme and also expanding their work to Newham. Exciting developments for 2021 include the implementation of the NHSE Violence Reduction Academy, which will further progress this work including an outreach programme. The Academy will be hosted by RLH.

The After Trauma Team continues its vital work with an expanded workforce including a Welfare Advisor and Clinical Health Psychology trainee. The addition of these roles provides further support to trauma patients following their admission. We have managed to maintain an After Trauma service to patients throughout the pandemic, despite redeployment of staff to critical care areas.

The team have received a number of awards recently in recognition of the great work being done in the MTC. These include:

- *Bart's Health Hero of the Month*
- *Special Recognition Award for Nursing Informatics for the Major Trauma ward*

There are some exciting developments planned for the next 12 months, including a large programme bid that has been submitted to Barts Charity to improve the pathway for exsanguinating patients at RLH. A DCS course is also planned for NELETN Trauma Units. A quality improvement project has also started with the aim of improving discharge processes.

Southend Trauma Unit

Southend Trauma Unit is led by Mr Ravi Kuppuswamy. Ravi is one of our two orthopaedic consultant Trauma Unit Directors and is well supported by ED consultant Antoine Azzi and Trauma Unit Manager Sam James. Ravi writes.....

As with every hospital in the country, Southend also has faced significant challenges since the onset of Pandemic last year. We increased our ITU capacity and suspended our elective services to cope with the surge of Covid patients during the first wave. We only had two theatres to deal with trauma and emergency patients at that time, as the rest of the theatre and post-operative areas were converted into ITU for Covid patients. Thankfully, there was reduction in number of major trauma patients due to the national lockdown and for the same reason the new triage pathway which came into effect, did not lead to increase in trauma cases here.

The ED capacity was increased by taking over the adjacent orthopaedic and fracture clinic areas and the orthopaedic department took the load of managing ambulatory trauma by creating a Minor Injury Unit manned by a Consultant, Middle-grade, nursing staff and Physiotherapist. This provision was from 8 am to 8 pm 7 days a week initially and was reduced to 8 am to 6 pm 5 days a week when the surge started to decrease.

We had a similar reduction in trauma theatre capacity during the second wave moving to one emergency theatre for a period. We now have whole day trauma theatre and a separate emergency theatre and hopefully recommence other elective work soon.

Peer review 2020 went ahead as planned. This was an app-based submission of evidence of our activity. The system was user friendly and made this year's peer review go smoothly. We would like to thank Hannah who was helpful during the whole process. We are delighted with the outcome of our peer review as we had no immediate risks or serious concern and some of our practices were commended.

TARN data submission has always been of high quality from us. We have continued to maintain that, and our submission rate is also high during this period. Our TARN Coordinator, Trish Bertrum, has been nominated for a national award due to her consistently high quality of submission over the years. We hope and wish she wins the award.

The three hospitals i.e. Southend, Basildon and Broomfield officially merged into one single trust (MSE Trust) in April last year. We hope that we will coordinate and work more closely together in providing trauma care in the coming years. We had our first MSE wide Quality and risk meeting for trauma chaired by our medical director on 9th of March. We hope this will lead to more effective communication with the senior management team. We have highlighted the lack of Trauma and Rehab coordinator during this meeting and the management team are going to look at trust wide as Broomfield also do not have a trauma coordinator.

We are hoping to continue with our good progress this year as well.

UCLH Trauma Unit

UCLH Trauma Unit is led by Dr Alex Schueler. Alex is also the networks deputy director. Alex writes……

It has been an eventful year for UCLH's Trauma Unit. As with all services across the NHS, the Covid pandemic fundamentally changed the trauma pathways at UCLH and across North Central London. Clinical services had to be streamlined and this had to enacted very quickly in order to maintain patient safety.

Although ICU capacity at UCLH was tripled in a very short space of time, Non-Covid ICU capacity was very limited. During this time the change to the LAS trauma triage tree also occurred. Although this was planned for launch later in the year, due to the demand on prehospital services, the start date was bought forward rapidly. This meant that UCLH as well as other Trauma Units across London were to potentially see a higher acuity of trauma patient in the first instance. However, a significant drop in trauma presentations, in large due to the national lockdown, meant that in reality this did not occur. We are unlikely to know the full extent of these changes until all lockdowns are completely lifted, but due to extensive training and planning, feel confident that we can manage what comes our way

The most significant change associated with Covid across North Central London was the

centralisation of paediatric services. This was established at Whittington Hospital and meant that all paediatric ED services at UCLH were transferred across. This was a loss felt by all clinical specialities and staff groups at UCLH. In a very short timeframe, we had to establish pathways in order to ensure the safe transfer of trauma patients who would self-present in our department. We are very pleased that we will be able to recommence our paediatric Emergency Department service on the 8th April.

2020 also highlighted the fact that UCLH sees a significant number of older trauma patients, and we took this as an opportunity to re-examine our multidisciplinary pathways of care. We expect this extensive piece of work to be completed in the next few months.

Over the last 12 months we really refocused our attention on our TARN data, which due to staff sickness and cover had fallen in terms of both ascertainment and accreditation. Thanks to the hard work and dedication of our TARN coordinator Karen Langworthy, we have been able to dramatically improve this as seen here.

Because of this improvement in our TARN data collection, we now know that as a Trauma Unit we have nearly three additional survivors over that which is expected – something which we are very proud of.

Peer review in 2020 was conducted via a new app which really transformed the way that we collected and demonstrated activity and outcomes on site. We were delighted with our final report issued by the network executive team which highlighted a number of improvements we have made. These include an 80% uptake in rehabilitation prescriptions completed for trauma patients by our therapy teams.

Looking forward to the year ahead we are excited to be welcoming a new Trauma Coordinator to the hospital. We hope that this new post will help coordinate the complex pathways that exist for trauma patients; provide expert clinical support for patients, staff and families; and contribute to the ongoing trauma governance structures we have set up at UCLH.

Whittington Trauma Unit

Whittington Trauma Unit is led by Dr Nora Brennan. Nora is supported by a number of trauma-interested colleagues across the hospital. This includes Anna Sweeney, who also works as our Network Lead Nurse. Nora writes.....

The last 18 months have thrown up immense challenges for all of us, but also some real opportunities. At the Whittington, the second wave hit us particularly hard. At the end of Dec/start of January we had a significant surge resulting in the highest percentage nationally of admitted patient with Covid.

However, throughout these challenges, we have maintained high standards in major trauma care. We received a very positive peer review outcome in 2020. We have improved our governance systems which allows us to recognise and learn from incidents, including near miss incidents in a much more proactive way.

Collaborative working across the hospital system has resulted in more streamlined and reliable pathways to improve patient experience and outcomes:

- *support from radiology*
    - *improved access to MRI out of hours and at the weekend*
    - *streamlining of CT requests including 'going paperless' which has improved time to CT*
- *ED led project which reduced time (from arrival to CT report) in trauma by over an hour*
- *ED/medics joint project which improved rate of CT for assessment of pelvic fractures in the elderly*
- *Support from T+O & care of the elderly: introduction of admission pathway for patients with spinal fractures*
- *access to virtual learning such as 'trauma talks' has been very beneficial to all the teams at the Whittington*

Paediatric reconfiguration was another huge challenge – becoming the paediatric south hub for north central London inevitably led to an increase in paediatric trauma cases. We instituted rapid learning from some early 'near miss' incidents. This reinforced the importance of embedding existing trauma pathways – in particular communicating and educating the inpatient teams about these pathways. Multidisciplinary Paeds trauma sims and the paediatric trauma road show were particularly effective strategies for training which we continue to use in the future.

Our hospital wide simulation program/wingman project was recognised for a national award. This covers adult and paediatric trauma (and non-trauma emergencies). The BA pilots at the Whittington are part of the faculty and provide teaching on human factors. The simulation program has led to structural improvement such as the trust QIP lead redesigning the major haemorrhage pathway to improve 'time to blood'.

Focuses for improvement in coming year include:

- *Spinal pathway training for ward-based nurses*
- *Elderly trauma pathway improvements*
- *continuing training across specialties with a particular focus on simulation training, and virtual training sessions.*

Whipps Cross Trauma Unit

Whipps Cross Trauma Unit is led by Dr Goran Ali. Goran writes……….

As we all know, 2020 was a very challenging year. Without a doubt, Whipps Cross was no exception.

Our main challenges for the Trauma Service include TARN data collection. engagement of specialty stakeholders and performance

relating to radiology targets.

We recognise that TARN data collection requires clinical input and we have recently introduced named clinician support. In addition, we have introduced measures to enable us to capture live data for Trauma patients at WXH. Our recent TARN analytics reveal forward, positive progress. We have internal twice weekly meetings to monitor progress and performance.

We have improved the level of engagement and attendance at our Trauma meetings from specialty leads. This was achieved through escalation and with support from our Medical Director and Divisional Directors. Participation and attendance at our Trauma Governance meeting is now recognised as a site responsibility by all stakeholders caring for trauma patients.

Our radiology issues are being addressed through twice weekly meetings between Trauma and Radiology leads. We have established audits to generate clear data and identify opportunities to collaborate and improve.

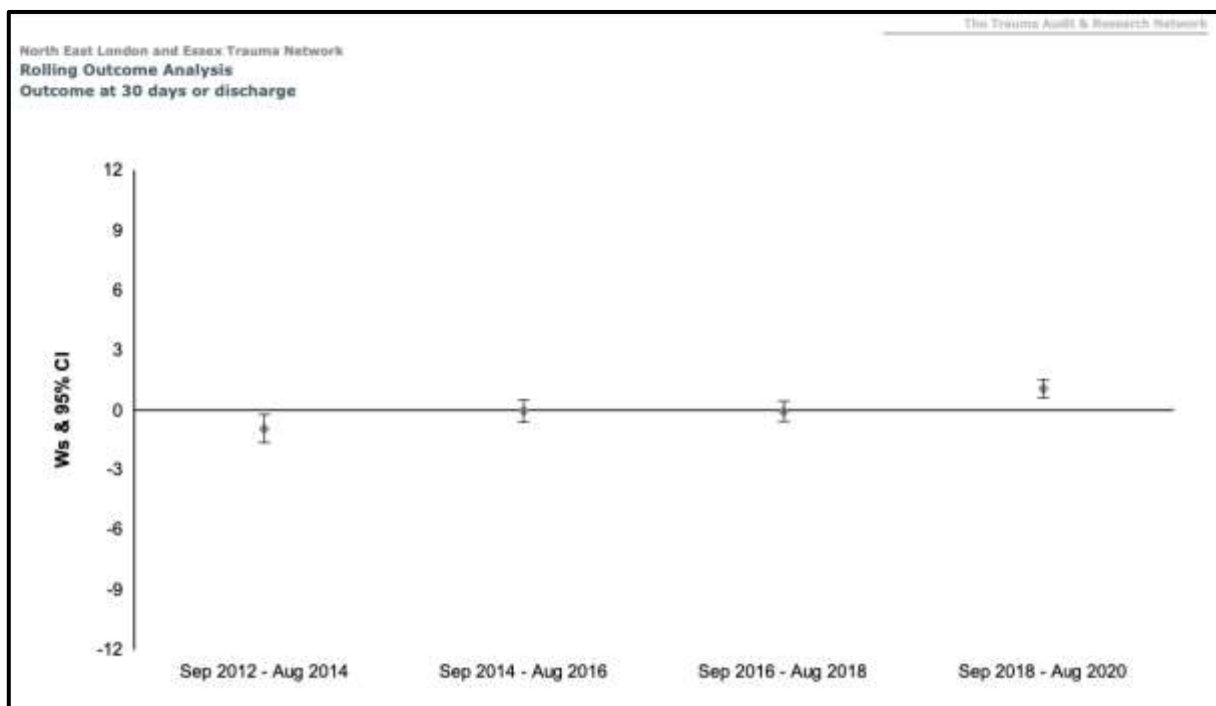
Our proudest achievement, saw 100% compliance for nursing staff who had completed Level 1 and level 2 trauma education, ensuring that we provide 24/7 cover with suitably trained staff. This was commended during Peer review and we were noted to be the only site within NETETN to have achieved this outcome.

Moving forwards, we are looking to improve timely attendance and compliance for trauma team activations. Through mock bleep tests, simulation training in our MEC (Medical Education Centre) and teaching we will encourage and support specialist attendance. We are also launching a Quality Improvement Project to improve our CT scanning compliance for trauma patients to meet NICE Guidelines and Peer review Trauma CT audit methodology. Finally, there is a work underway to create a trauma co-ordinator role within our TU.

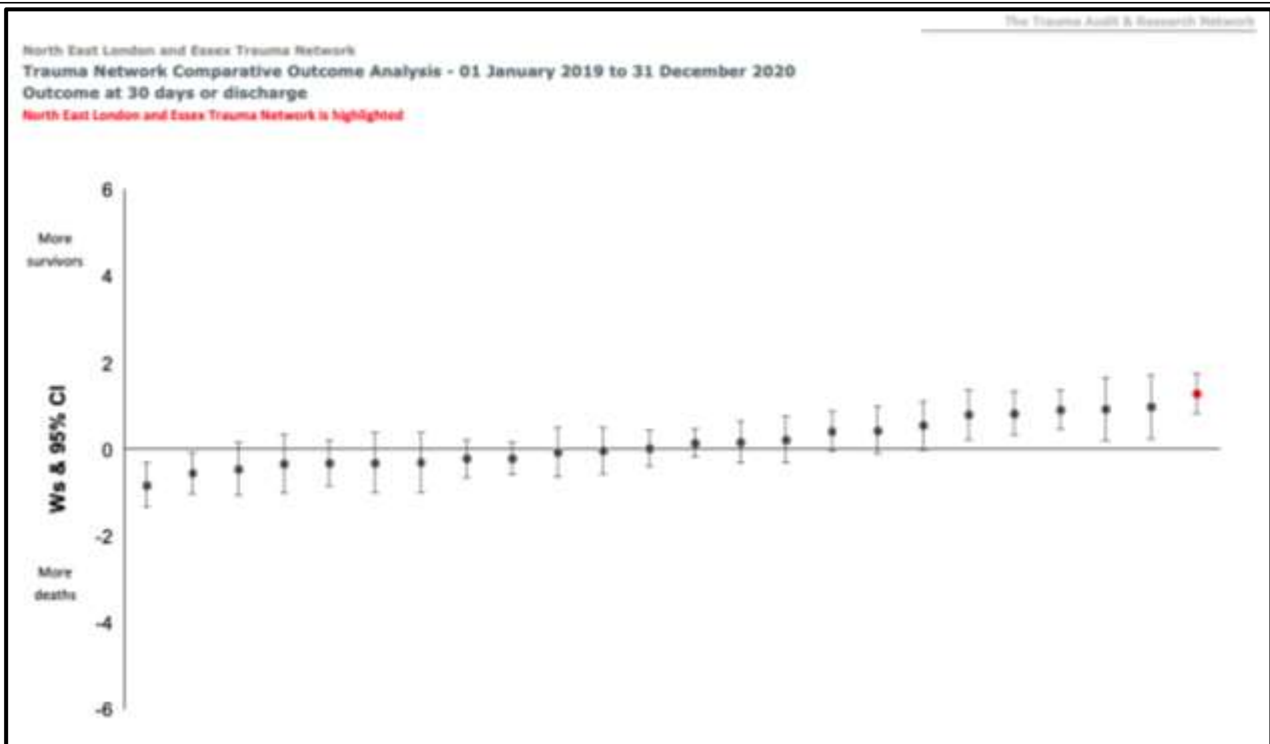
Overall, in spite of our challenges we have managed to improve on several indicators as demonstrated by our latest Peer review. We are looking forwards to continuing on an upward trajectory in coming months.

TARN

Throughout 2020 the TARN teams at our Trauma Units submitted 4056 TARN eligible cases online, which results in a 89.7% ascertainment rate, the highest in our network since TARN was commenced. We also achieved an overall ascertainment rate of 94%, also the highest to date for NELETN.



The increased time and effort that has gone into TARN data throughout 2020, and the associated increase in ascertainment and accreditation has resulted in NELETN coming out as the top network in England and Wales for patient outcomes at 30 days.



As a network, we also have a relatively small confidence interval which suggests reliable data.

During the 2020/21 period several projects have been instigated by the Network TARN Lead, Andrea. The first of which being a TARN Coordinators Network sub-group. Meeting quarterly to discuss performance, improvement projects and innovation within TARN, the hope is to build strong links between all coordinators and continue the improvement trajectory through shared best practice.

The Network TARN Lead has also begun a review of TARN data to ascertain improvements in clinical practice since the implementation of the Pan London Elderly Trauma Guidance. This audit project is still underway but has already identified significant improvements in mortality rates and a reduction in time from arrival to CT.

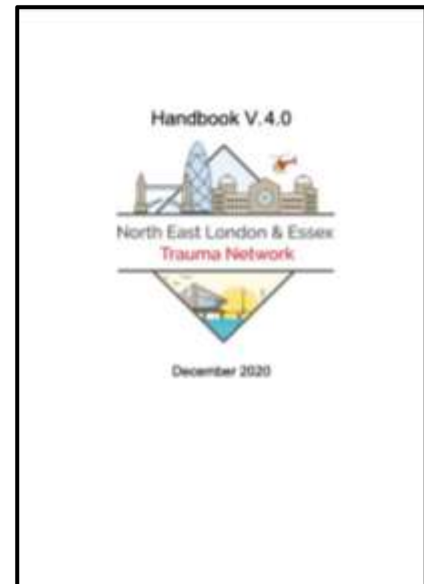
Activity

In August 2019, the Network implemented a dynamic workplan which outlined planned activity for the following 2 years. Despite a pandemic and redeployment for 2 members of the network team, the workplan has largely been met, with one or two exceptions which required face to face work rendered not possible because of lock downs and social distancing measures. Here we explore some highlights.

Handbook and Core Documents

Commencing August 2019, the network team set about drawing up several key core documents and making these readily accessible by inclusion in a new 'Network Handbook'. The handbook has developed further to include a network directory and repository for clinical pathways. It now includes:

- Network directory
- New memorandum of understanding, signed by all partners
- Terms of Reference for the Network
- Sample JDs for key TU roles
- Referapatient Guide
- Communication strategy
- Peer review manual
- TARN guide
- Data sharing agreement signed by all partners
- Updated automatic acceptance policy
- Updated repatriation policy
- New Network map
- Clinical pathways
    - Network open fracture pathway
    - Paediatric spinal pathway
    - Chest wall injury pathway
    - Adult spinal pathway
    - Tranexamic acid in trauma guidance



The network handbook has been shared across the region, including with our STP partners, with excellent feedback from all.

Governance

Since October 2019 we have set up a new governance process to record, monitor and manage network incidents in a more open and transparent manner. Working with our host organisation, we have set up a network datix account and associated pathways for our Trauma Units to raise and respond to incidents. We include our governance report below.

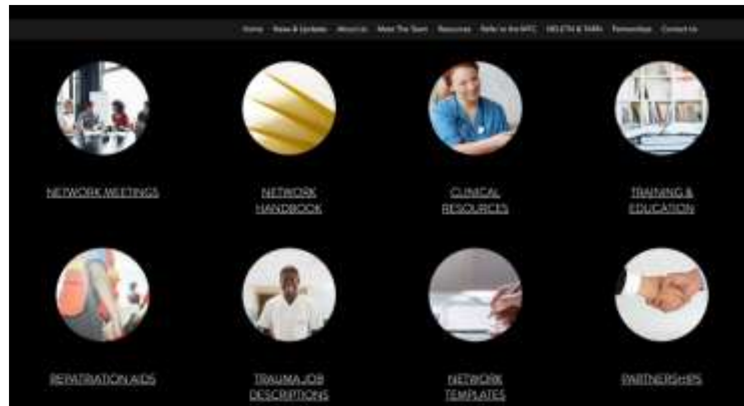
Peer review

In 2019 we began working with the group *Perfectward* to create a peer review audit app and this was implemented throughout the network for our 2020 peer review. This significant piece of work has resulted in a much more streamlined approach to peer review both in regard to collating and submitting evidence and reviewing and reporting. Initial set up included working with QSIS, Pan London and network measures to integrate them into the app, collating guidance for reviewers, adding a

peer review guide to the handbook and providing training for both TU's and the review team. Feedback has been overwhelmingly positive, and we are working with *perfectward* to further develop the app to suit peer review needs.

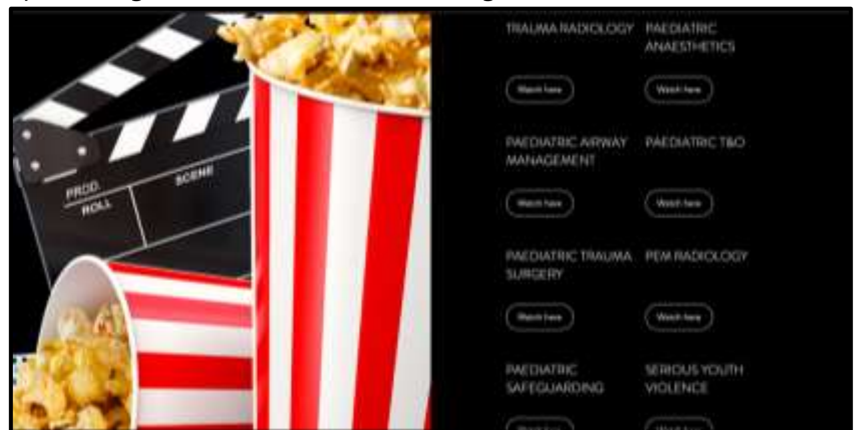
Network Website

In July 2020 the network team began working on the new NELETN website. The idea was to pull together an online resource of network information, clinical pathways, meeting minutes and education that can be accesses by everyone (meeting minutes are password protected for network colleagues only). The website, which features a nhs.uk URL, was designed in full by the network team and was a very large and complex project. neletn.nhs.uk was published online in February 2021 and has already proved its worth, having been accessed over 466 times by 349 unique visitors in its first month of release.



Paediatric Roadshow

During the first wave of Covid many pathway changes were made across London to find different ways of working throughout the pandemic. One such change was the decision to close 2 of our Trauma Units to paediatric trauma, and for those patients to go to a central hub at The Whittington Hospital. Due to the increased number of trauma presentations this would result in, the network team put together a paediatric trauma 'roadshow' to deliver key training and education to Whittington Paediatric clinicians. This project was led by Network Lead Nurse Anna Sweeney, who organised a schedule and also arranged for recordings of the sessions to be uploaded online for the benefit of the whole network. Anna's work has prompted further focus on paediatric trauma care, with quarterly meetings now being organised for the future.



Network Map

From August 2019 we were receiving increasing feedback from network therapists that they were struggling to coordinate ongoing care for patients repatriated to their area. Prior to the repatriation map, patients were allocated to their nearest hospital (as the crow flies) from their home address, but this would often put them 'out of area' and within a hospital where the patient has no episodes, having been referred for any hospital treatment to the hospital associated with their GP's CCG. There was also no consideration given to patient choice. The network team worked with TU chief operating officers/directors of ops in all NELETN Trauma Units and created boundaries based on the local CCG area's where patient would be accepted without question. We also agreed as a group that patient choice would become a consideration where a patient would like to return to an alternative hospital where they have history and are known to the clinical team. Since this system was implemented there has been a significant reduction in challenge back to the repatriation team at The Royal London, as to whether a patient could be referred elsewhere.

Repatriation

It is well recognised that having patients transferred and treated within their local hospital, surrounded by friends and family is beneficial to the individual, as well as making onward planning easier with local links to discharge services well managed and understood. Timely repatriation also ensures that the MTC can continue to provide major trauma care to those most in need.

In 2020 a retrospective audit of repatriations from the Major Trauma Centre to Trauma Units was conducted for a 3-month period in 2019. This highlighted the variation in delays across the Network and cases when the Major Trauma Repatriation pathway was being misinterpreted as well as issues with accurately reporting on this data with a retrospective review.

A prospective monthly audit of repatriation data is now carried out in order to ensure accuracy of data and timely reporting to highlight issues which may be specific to a single Trauma Unit or affecting the pathway across the Network. A Major Trauma Repatriation Clinical Guideline has also been developed to help treating teams determine the most appropriate transfer pathway for their patients. These new audit tools along with the Network Repatriation map were beginning to demonstrate improvements in transfer times through the 2020/21 period but have been disrupted somewhat by the Covid pandemic.

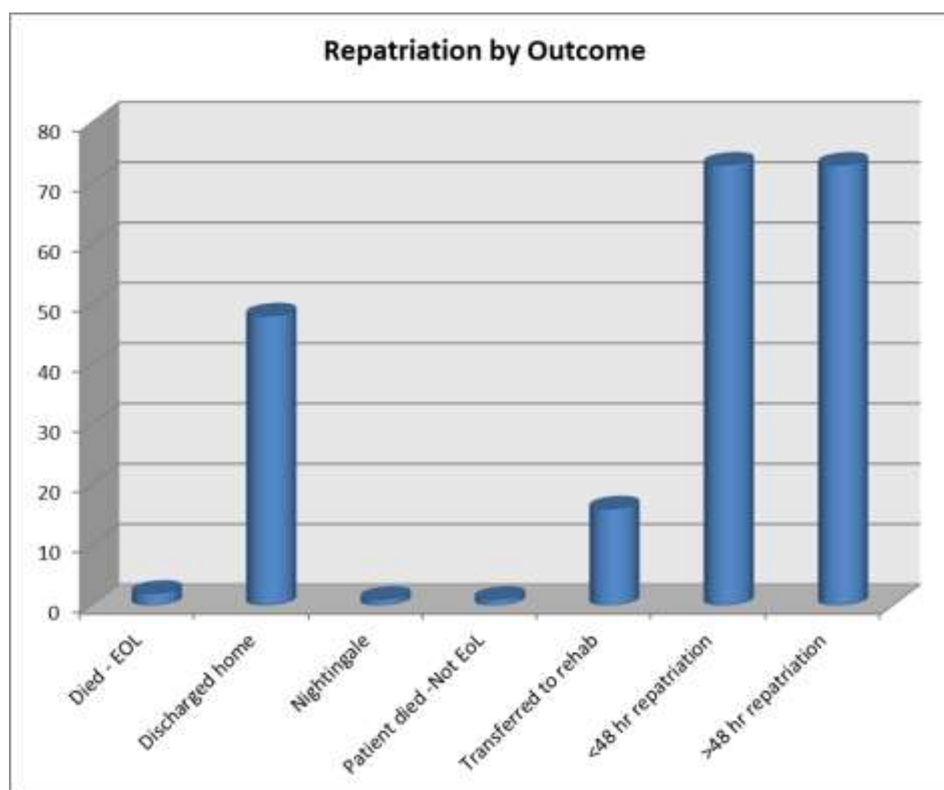


Fig.1 All repats from 1st July 2020 to 28th February 2021 - shows the majority are repatriated with 50% of those being repatriated transferred within the 48-hour window

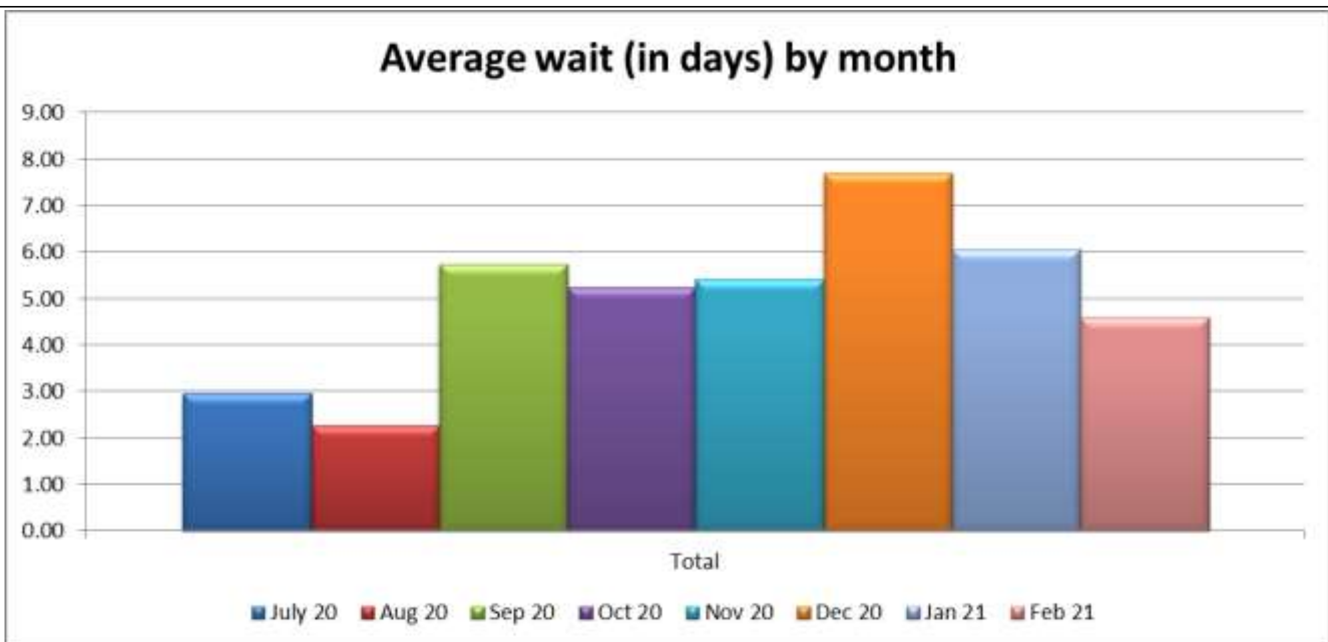


Fig.2 Average wait (in days) for all repatriations – was within or close to 2 day target in the summer but then increased through autumn and winter as Covid-19 cases peaked. Is now showing a downward trend as the pandemic numbers plateau and reduce

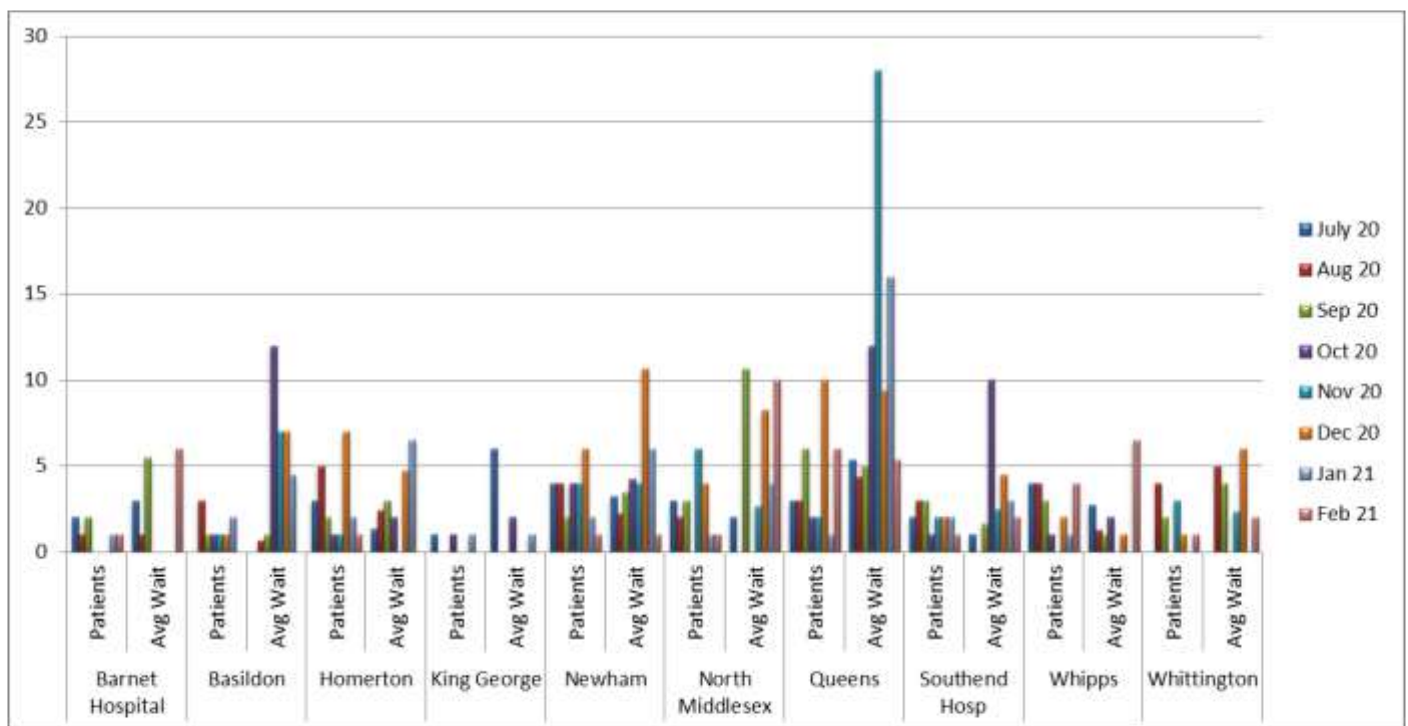


Fig.3 Patient no. vs average wait (in days) for each Trauma Unit by month – this highlights the drop in patient numbers against the increase in average waits for repatriation as the Covid-19 cases increased through autumns/winter

TCAR and PCAR

In August 2017, a team led by Hannah Kosuge travelled to the US to review a trauma course which was specifically for nurses caring for trauma patients in an inpatient setting. Since that time, we managed to redesign the course for UK audiences and run this twice within London to great acclaim. We were the first to bring this training opportunity to British nurses and we went on to set up a UK steering group (which includes Hannah Kosuge, Anna Sweeney, Elaine Cole, and RLH trauma coordinator Anita West). Further courses were planned, but when Covid hit we quickly had to adapt our approach to ensure that this

important training could continue. In October 2020 we were able to run our first TCAR Live Online training via a virtual platform. This pilot saw over 150 nurses across the country login and complete the adult course, and a further 180 paediatric nurses receive specialist paediatric trauma nurse training also.

We have built on the success of this and have now organised a further 4 adult courses and 2 paediatric courses following the same platform. We hope to continue this valued relationship with TCAR in future and have plans to introduce a local workshop alongside this theoretical course to develop ward competencies.

Network Governance

Since setting up a Datix governance account we have been better able to track and manage network related incidents and risks.

During the period included in this annual report we have had a total of 45 reported incidents. Unfortunately, we do not have previous data for comparison, but will have moving forward.

Only 1 of those 45 incidents resulted in any 'harm' and this was considered as such because of delayed access to analgesia and subsequent transfer of care for pain management.

13 incidents are related to repatriation. As a result of this we have instigated a repatriation QUIP as described above. We are in the process of auditing a large number of referrals to assess for quality and accuracy, and hope to be able to produce a report soon.

16 incident reports have been submitted by the Royal London MTC relating to patients transferred to the major trauma centre. Although we don't yet have enough data to identify trends, we have been able to deliver local advise and training to the TU's concerned to improve patient safety.

Reporting has remained reasonably steady since Datix was implemented with only 1 or 2 small spikes or dips.

We have managed to close 5 risks over the last 18 months. This included recruitment of Anna Sweeney, our network lead nurse. 2 risks remain outstanding and are being closely monitored. This includes a risk relating to the availability of level 2 ED nursing courses. Our network lead nurse has completed site visits to every TU to identify and specific risk points and suggest interim solutions.

Open Risks	
Description	**Controls in place**
There are currently no ATNC courses running in the South of England which has resulted in a decreased number of level 2 trained nurses in TU ED's across the network. When courses do become available, due to the cost and time commitment required it will take a significant time period to reach the desired numbers within the network.	Level 1 training figures are being closely monitored. The new network incident reporting pathway will help to identify any lapses in care due to training deficit. Network manager to liaise with Pan-London lead nurse to ascertain alternatives
There are Trauma Management guidelines in place. Some are overdue for review (TACTICS) and others do not yet exist (orthopaedic guidance).	Current TACTICS are still clinically relevant. There is orthopaedic guidance readily available via refer-a-patient which is being used to good effect.
	End of report

Closed Risks	
Description	**Controls in place**
There is currently no method to bring together incident management and risk across multi-site Trauma Units. Each unit has an internal pathway but this is not shared at network level. The risk is that incidents that are occurring involving 2 or more of our TU's are not reported or discussed.	There is a bi-monthly governance meeting Regular site visits are conducted by the Network Manager
The pathways for the spinal injured child are not well identified and recorded. There is uncertainty within the network of the correct route to take should a spinal injured child present	LAS triage should be direct to MTC which reduces the risk of spinal injured patients arriving at a TU. Refer-a-patient controls exist in order to refer these ptients to RLH without delay.
There is currently no governance lead for the trauma network.	The Trauma network manager is successfully fulfilling this role.
There is currently no Network Trauma Nursing Lead in post, resulting in a lack of engagement from nursing teams across the network and limited clinical and professional guidance.	The role is currently being partially fulfilled by network nurse who is not compensated for their work Nursing progress is monitored by the network executive team
There is no MOU in place to support the function of the Trauma Network, so no current contract in place to bind us as a network	A new MOU is underway This will be prioritise in workplan
	End of report

Incidents that occur within the network that can benefit from wider sharing for educational purposes are presented at the Networks steering group and governance meeting (minutes available on request).

Meetings are held bimonthly and all involved in trauma care across the network are invited. As can be seen in the network handbook, a terms of reference document supports the meeting and provides a structural framework.

Appendix 1: Network Workplan

Appendix 2: Network Maturity Matrix

NETWORK MATURITY MATRIX

	PURPOSE AND DIRECTION	GOVERNANCE AND STRUCTURE	LEADERSHIP AND FACILITATION	KNOWLEDGE CAPTURE AND REUSE	INTEGRITY AND VITALITY	LEARNING AND IMPROVEMENT	IMPACT AND VALUE	SUSTAINABILITY AND RENEWAL	
FIVE	The network continually reviews its strategic focus, spawning additional groups to cover specific topics or actions as appropriate. Members share the same ambition for the network. They fully buy into the strategy and plans for the network, and are personally committed to its future. External drivers and influences on the network are fully understood.	Membership coverage is complete, providing well-balanced representation. Diversity and cultural/ regional differences are well handled. Governance is fully effective, demonstrating a genuine strategic interest in the success of the network. Sponsors are proactive advocates who champion the cause and promote successes externally.	Leadership is shared seamlessly between several members, who have time and support to carry out the role effectively. There is good understanding of dynamic social processes (e.g. bridges and brokers, connectors and mavens.) and how to facilitate the network to get the best from these. There is a virtuous circle of credibility and confidence in the network to respond and deliver.	Members bring new insights, analysis and content for inclusion as a matter of course. Discussions are regularly distilled into valued knowledge assets. They become essential reading for all members, and may spawn other products, guides and checklists for wider use. Mechanisms for capturing and sharing are well established, including live and virtual events.	High levels of trust and mutual respect enable passionate discussions. People are able to discuss their feelings. Conflict is handled professionally, openly and positively. People honour commitments to participate and deliver. Good range of contributions and unsolicited offers. Members regularly inter-act on a peer-to-peer basis is well as with the network as a whole. Where appropriate, interaction extends well beyond the boundaries (e.g. suppliers, partners, other networks).	The network regularly engages in formal and informal learning, (e.g. guest speakers, internal and external bench-marking, project reviews and visits) with strong participation. The network models reflective practice and seeks ways to improve its effectiveness through evaluation and feedback. Members openly share their learning from failures as well as successes.	The network is acknowledged by members and stakeholders alike for its impact. Members are proud of their accomplishments together, and tell stories of measurable impact and innovation. The network reviews the impact is it having in order to understand and repeat its successes. Specific external stakeholders and influencers are targeted with impact stories.	The network is not reliant on a specific individual to maintain momentum. Multiple channels (e.g. voice, data, email, webcast) are used innovatively. Dialogue is rich and varied, incorporat-ing personal exchanges and business focus. There is an agreed strategy for growth, funding and recruitment of new members.	FIVE
FOUR	All members are clear about the purpose of the network and its role in convening, amplification, and advocacy or building community. Deliverables for the community are well known and plans to achieve them are underway. The network 'charter' is accessible to all, and used to induct new members	Network membership is well rounded, with actions in place to fill any gaps. Relationships with other networks are clear. They work to share and learn beyond the boundaries and with external stakeholders wherever appropriate. Governance is fully effective and is valued. Healthy membership turnover – few 'passengers'.	Leaders are engaged and have the requisite skills and dedicated time to fulfil the role. The network appreciates and values their input. A core team of committed participants supports the facilitation and leadership activities. Members have an expectation that questions and contributions will receive considered responses.	A dedicated portal provides a gateway to well managed information resources. The network has tangible products which go beyond FAQs to include, for example: top tips, examples, case studies, expertise, tools and templates. Examples of sharing and reusing knowledge are easily found and members regularly provide new material.	Leaders ensure regular, effective, animated virtual meetings and 'events'. People make this a priority and participation levels are high. Contributions come from the full of members. Members know about each other's expertise and experience. Diversity and cultural differences are well utilised. Leaders ensure that interactions stay focused and forward thinking.	Network members regularly share their insights and lessons learned without the prompting of the facilitator. Members make full use of the network to ensure that their projects learn from others, e.g. via Peer Assists. Plagiarism (with accreditation) is seen a positive - "steal with pride". Curiosity levels are high: "Not invented here" is not observed here!	The network tracks, captures and shares success stories, with evidence of benefits and impact. These stories are celebrated and communicated to an external stakeholders and audiences. Stakeholders understand the impact the network is having, and actively promote this.	Newcomers rapidly feel welcome and involved and bring new energy to the group. Dialogue is stimulating and there is a sense of dynamism and interest. Fresh thinking is regularly brought into the network through external input. Sources of funding and support are understood.	FOUR
THREE	The network has an agreed charter, clearly stating purpose, scope, and ways of working. Most members have a good understanding of the purpose of the network and could articulate it to others. There is an agreed plan for developing the network for the next year.	Good coverage of potential membership and awareness of any gaps in representation. Sponsor is in place, understands what is required of them and is regularly active in the role. Governance has been considered and is in place at the appropriate level. Sub-groups may evolve around specialist subjects.	The network has a credible leader/ facilitator in place, with dedicated time available for the role. Other members of the network support the leader informally. The network responds positively when the leader requests participation in an event or response to a challenge or question.	Members pool and validate their most useful documents, and make use of the available material. Experienced members or subject experts regularly summarise discussion threads into FAQs, but largely out of goodwill. Information resources are simplified, well structured and kept up to date.	The network makes use of voice, data-sharing and social media tools where possible. Contributions come from a wide range of members and people's expertise is appreciated. Most questions receive responses, but some go unanswered. Leaders sometimes work 'behind the scenes' to find responses to unanswered questions.	The network leader encourages members to reflect and share lessons. Members demonstrate an interest in learning from their peers and are willing to ask for help.	The network members have a shared understanding of the value they add. Some senior stakeholders visibly acknowledge this. Examples exist which clearly demonstrate clear impact, for example, on patient outcomes.	Membership grows organically at expected levels. Funding and support are discussed. Members talk about the future of the network and are ambitious for growth.	THREE
TWO	Network scope is loosely defined. Ways of working are emerging. The community is still forming and establishing groundrules. More time is required to converge on a shared agenda for all members. Short-term plans for the network may exist, but are not widely shared.	Network has reasonable coverage but there are still notable absences. Governance is not really on the agenda. A named sponsor may exist, but their commitment is not really visible through action. No distinct roles or responsibilities in the network beyond the leader.	A leader or facilitator for the network has emerged or been appointed, but with little or no dedicated time. Response to events and requests is mixed, usually coming from a small sub-set of the network. There is still a sense of untapped potential.	Members usually avoid asking questions which have already been answered. Examples, templates and tools are shared via email but not stored or managed centrally. It's hard to distinguish 'good practice' from 'any old practice'. Threaded discussions exist, but are not summarised and often dilute their value by wandering off-topic.	Network leaders work hard to stimulate interaction between members, but responses usually come from the 'usual suspects' whilst others remain silent. Occasional divisions and differences surface within the community, which can divert time and resources away from more valuable discussions.	Members 'talk the talk' about learning and improving, but don't always 'walk the walk'. Learning is thought of in terms of personal development and training, rather than collective improvement. Lessons are sometimes shared, but rarely applied because of a sense of "oh, but we're different".	Some members can point to examples of value and impact, but nobody has the big picture. Some success stories may be captured, but in an ad-hoc manner. Senior stakeholders are aware of the impact, but lack passion to really promote this.	The network is viable, but membership is static. No plans to recruit new members or pursue additional sources of funding. Opportunities to merge with overlapping communities are not discussed. Dialogue is predictable and not varied.	TWO
ONE	No sense of goals or plans – it's all about the here-and-now. Focus not yet clear, exchanges often stray off-topic. Members learn about how the network works via osmosis and personal experience!	No real perception of gaps in networks, or effort to fill them. Membership is ad-hoc and stagnating: some people are losing the will to either actively participate or leave the network. Sponsorship and governance not present.	The network continues to bump along without clear leadership, operating on the best endeavours of a few. Participation a spare-time activity and responsiveness is somewhat hit-and-miss.	Discussions occur mostly via e-mail. People repeatedly raise the same questions, leading to occasional frustration. No community artefacts or place to go for shared information resources.	Communities interact via e-mail only. Most members have never met face-to-face, and rarely interact verbally. Trust levels are low.	A few people use the community to voice their opinions or advance their own agenda, but there is little interest in learning from the experience of others. People don't talk about failure or share the lessons. Wheels are reinvented, mistakes repeated.	Impact is not really discussed. Members are comfortable just to 'belong to the club'. Nobody takes responsibility for capturing and sharing successes or prompting the "Are we making a difference?" conversation.	The network is ticking-over on the basis of goodwill but competition for members' time leads to periods of drought. It's all about survival rather than sustainability.	ONE

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Appendix 3: Network Toolkit

Value for Money Framework – North East London & Essex Trauma Network

Clinical Networks must demonstrate clear benefits and provide value for money in terms of economy, efficiency and effectiveness. This is particularly true within the current health economy. This Value for Money Framework was designed by Sue Shepherd following the review of Clinical Networks within the East Midlands Region, and is designed for completion by Clinical Networks to enable clear identification of where the Networks add value.

It is anticipated that the Framework will form part of an annual impact assessment and that it will be completed together with the Governance Framework Toolkit and the Network Work Plan.

This Framework is designed with section headings (as a guide) to enable Networks to specify areas/items of work successfully completed within each section that demonstrates the added value of the Network. When completing each section, networks are advised to expand on things that the network facilitates and makes it easier to achieve; particularly those things that are only possible in the context of a network (see attached guidance notes).

Value for Money Framework			
Network:	North East London and Essex Trauma Network	Name of person completing form:	Hannah Kosuge & Andrea Smith
Telephone Number:	07545 885 102	e:mail:	Nel-etn@nhs.net

Identify issues in terms of the section headings and type in the added value for patients, carers, clinicians, providers, commissioners etc. as relevant into each box

Identified Benefit	What is the added value for: Patient/Carer?	Clinicians?	Providers?	Commissioners?	Monitoring Org.?	Financial/Resource?	Other?
Quality/Service Improvement:							
Network Nurse	Improved standards of care/service and supporting the right care in the right place	Competency development/delivery, informed workforce	Ensures continuation of appropriate service development and delivery	Service development/ delivery, informs current and future strategic planning	Development of future workforce, strategic service development/delivery	Effective/efficient use of resources/skill delivery at all levels	Development/delivery regional training
Clinical Pathways	Improved clinical outcomes, assurance of maintained standards of care	Clinical assurance and support for traumatically injured patients, which follow local and national agreed evidence-based practices.	Clinical assurance and support for traumatically injured patients, which follow local and national agreed evidence-based practices.	Timely care delivered according to evidence based practices	Provides a framework by which to assess and monitor care and outcomes	Streamlines care according to evidence based practices which in turn lessens potential for erroneous testing and treatment	
Paediatric engagement	Improved clinical outcomes, assurance of maintained standards of care	Ensuring that clinicians are supported to provide evidence-based care	Ensuring that clinicians are supported to provide evidence-based care	Timely care delivered according to evidence based practices	Ensures equity in care regardless of age	Streamlines care according to evidence based practices which in turn lessens potential for erroneous testing and treatment	
Refer a Patient	Timely advice from specialist unit with clear governance trail	Provides a method of referral where responses and outcomes can be confidentially shared as well as providing a	Provides a means to refer and gain specialist advice as well as providing a governance trail	Ensures teams in local untis are equipped with advice from leading specialists	Allows for a proper governance framework	Reduces time required by clinical teams to make referrals and receive advice.	Provides M&M data

Identified Benefit	Patient/Carer?	Clinicians?	Providers?	Commissioners?	Monitoring Org.?	Financial/Resource?	Other?
		robust governance trail					
Peer Review	Maintained clinical standards. Recognition of areas of excellence as well as areas for improvement.	Gain peer reviewed insight into individual hospital performance and care outcomes while sharing on improvements across the network	Internal assurance that trauma services are provided to a high standard	External assurance that trauma services are provided to a high standard	External assurance that trauma services are provided to a high standard	Ensures pathways and processes are followed accordingly	
TACTICS (under review)	Improved clinical outcomes, assurance of maintained standards of care	Provide evidence-based pathways and processes to support trauma patients with specific pathologies and injuries	Provide evidence-based pathways and processes to support trauma patients with specific pathologies and injuries	External assurance that trauma services are provided to a high standard	External assurance that trauma services are provided to a high standard	Ensures pathways and processes are followed accordingly	
Capacity:							
Automatic acceptance	Rapid transfer to a specialist unit in the event that is required	Ensures the sickest patients reach the MTC	Ensures the sickest patients reach the MTC, removes undue stress from trauma units	Ensures the sickest patients reach the MTC, removes undue stress from trauma units, MTC will in turn need support from commissioners to repatriate patients to local units	Ensures the sickest patients reach the MTC	Lessens risk of substandard outcomes and litigation as a result of patients getting to the right environment.	
Repatriation process	Proven benefit to recovery of being in familiar surroundings, ease of access for friends/family	Promotes flow across the major trauma system, allowing the MTC to continue operating whilst trauma units remain able to send their sickest patients to the MTC	Promotes flow across the major trauma system, allowing the MTC to continue operating whilst trauma units remain able to send their sickest patients to the MTC	Ensures flow through the MTC for the sickest trauma patients	Ensures flow through the MTC for the sickest trauma patients	Ensures flow through the MTC for the sickest trauma patients	
Network Lead for repatriation	The patient is transferred to their local Trauma unit in an expedited timeline	Supports planning and aides effective utilisation of resources	Network wide comparative data. Identifies appropriate/ inappropriate use of resources	Effective efficient use of resources/capacity utilisation. Agreed standard/ quality indicator	Consistent approach, evidence of compliance, improved patient care	Improved patient flow and resource utilisation, reduction in inappropriate bed utilisation.	Development and implementation of Network process

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Identify issues in terms of the section headings and type in the added value for patients, carers, clinicians, providers, commissioners etc. as relevant into each box							
Identified Benefit	**What is the added value for:**						
	Patient/Carer?	**Clinicians?**	**Providers?**	**Commissioners?**	**SHA?**	**Financial/Resource?**	**Other?**
Research/Education/Training:							
TCAR	Equity of care/ standards, improved patient care/ delivery of services	Reduced variation, competency development/delivery, informed workforce	Access to standardised training, approved implementation/assessment methods	Agreed standard/ quality indicator, improved service delivery,	Regional standard, reduced risk, reduction in replication/ duplication	saving to Trusts training costs/release of staff, 38k saved in 2020/21	Development/delivery regional training
PCAR	Equity of care/ standards, improved patient care/ delivery of services	Reduced variation, competency development/delivery, informed workforce	Access to standardised training, approved implementation/assessment methods	Agreed standard/ quality indicator, improved service delivery,	Regional standard, reduced risk, reduction in replication/ duplication	saving to Trusts training costs/release of staff, 38k saved in 2020/21	
LEVEL 2 NURSE TRAINING	Equity of care/ standards, improved patient care/ delivery of services	Reduced variation, competency development/delivery, informed workforce	Access to standardised training, approved implementation/assessment methods	Agreed standard/ quality indicator, improved service delivery,	Regional standard, reduced risk, reduction in replication/ duplication	Reduction in requirement for bank staff, support from senior team resulting in fewer errors and finance recompense	
Trauma Talks	Equity of care/ standards, improved patient care/ delivery of services	Reduced variation, competency development/delivery, informed workforce	Access to standardised training, approved implementation/assessment methods	Active engagement from network, MTC and TU's contributing to education	Regional standard, reduced risk, reduction in replication/ duplication	Reduction in requirement for bank staff, support from senior team resulting in fewer errors and finance recompense	
Network M&M	Equity of care/ standards, improved patient care/ delivery of services	Allows for open, frank and honest discussion surrounding patient outcomes	Allows for open, frank and honest discussion surrounding patient outcomes	Acknowledgement of improvements to care that can be taken forward	Regional standard, reduced risk, reduction in replication/ duplication	Reduction in requirement for bank staff, support from senior team resulting in fewer errors and finance recompense	
Orthopaedic day	Equity of care/ standards, improved patient care/ delivery of services	Reduced variation, competency development/delivery, informed workforce	Access to standardised training, approved implementation/assessment methods	Active engagement from network, MTC and TU's contributing to education	Regional standard, reduced risk, reduction in replication/ duplication	Reduction in requirement for bank staff, support from senior team resulting in fewer errors and finance recompense	
Spinal Day	Equity of care/ standards, improved patient care/ delivery of services	Reduced variation, competency development/delivery, informed workforce	Access to standardised training, approved implementation/assessment methods	Active engagement from network, MTC and TU's contributing to education	Regional standard, reduced risk, reduction in replication/ duplication	Reduction in requirement for bank staff, support from senior team resulting in fewer errors and finance recompense	
TARN Day	Patient outcomes are monitored, improved delivery of services	Reduced variation, competency development/delivery, informed workforce	Reduced variation, competency development/delivery, informed workforce	Active engagement from network, MTC and TU's contributing to education	Regional standard, reduced risk, reduction in replication/ duplication	Reduction in requirement for bank staff, support from senior team resulting in fewer errors and finance recompense	
Paeds Outreach	Develop skills & competencies for North Central Paediatric ED Hub	To support clinicians with the setup of a newly established North Central London Paeds ED hub	To allow the instigation of evidence-based practices and pathways, reduce variance and enhance patient outcomes	Active engagement from network, MTC and TU's contributing to education	Regional standard, reduced risk, reduction in replication/ duplication	Reduction in requirement for bank staff, support from senior team resulting in	

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	to support patient care					fewer errors and finance recompense	
Workforce:							
JD Guides	To ensure that trauma roles have essential elements covered to support good clinical outcomes	Enhanced role development/extending nurse/other roles	Supports continuation of appropriate service development and delivery	Supports service development/ delivery, informs current and future strategic planning	Development of future workforce, strategic service development/delivery	Effective/efficient use of resources/skill delivery at all levels, reduction in medical/nurse reliance	Pilot opportunities
Network Director	To provide senior clinical oversight to ensure standards of care are maintained across the entire network	Competency development/delivery, informed workforce. Provide expert senior clinical support	Provides expert clinical resource and senior clinical oversight to both support and hold to account each partner organisation	Supports service development/ delivery, informs current and future strategic planning	Development of future workforce, strategic service development/delivery	Effective/efficient use of resources/skill delivery at all levels,	
Network Manager	To provide senior managerial oversight to ensure standards of care are maintained across the entire network	Provide direct point of contact and responsible manager for network support	Provides expert resource and senior management oversight to both support and hold to account each partner organisation	Supports service development/ delivery, informs current and future strategic planning	Development of future workforce, strategic service development/delivery	Effective/efficient use of resources/skill delivery at all levels,	
Network Admin	Support the essential functions of the Network and it's executive team in providing clinical oversight	Provide direct point of contact and responsible coordination of network support	Provides expert resource and oversight to both support and hold to account each partner organisation	Supports service development/ delivery, informs current and future strategic planning	Development of future workforce, strategic service development/delivery	Effective/efficient use of resources/skill delivery at all levels,	
Network Deputy Director	To deputise and provide senior clinical oversight to ensure standards of care are maintained across the entire network	Competency development/delivery, informed workforce. Deputise expert senior clinical support	Deputise to provides expert clinical resource and senior clinical oversight to both support and hold to account each partner organisation	Supports service development/ delivery, informs current and future strategic planning	Development of future workforce, strategic service development/delivery	Effective/efficient use of resources/skill delivery at all levels,	
Network Lead Nurse	To provide senior clinical oversight to ensure standards of care are maintained across the entire network	Competency development/delivery, informed workforce	Provides expert clinical resource and senior nursing oversight to both support and hold to account each partner organisation	Supports service development/ delivery, informs current and future strategic planning	Development of future workforce, strategic service development/delivery	Effective/efficient use of resources/skill delivery at all levels,	
Network Rehab Lead	To provide senior rehabilitation oversight to ensure standards of care are maintained across the entire network	Competency development/delivery, informed workforce	Provides expert rehabilitation resource and senior rehab oversight to both support and hold to account each partner organisation	Supports service development/ delivery, informs current and future strategic planning	Development of future workforce, strategic service development/delivery	Effective/efficient use of resources/skill delivery at all levels,	
Organisational:							
New Governance processes	Enables collection of robust date to inform service development and delivery	Development of standardised policy/ procedure, clear guidance, reduced risk	Identified process of regional implementation, reduced risk, providing links to Trust plans	Robust policies and procedures, agreed process for regional service delivery	Identification of risk to service delivery	Fairness of approach, risk reduction	sharing of Network plan, contingencies
Perfect Ward App (Peer Review)	Equity of care/ standards, improved	Introduces evidence based review, consistent approach, feedback on	Network wide comparative data, improved tool to audit delivery of elements of care	Quality framework, consistent approach, evidence of	Identification of risk to service delivery/ development	Effective/efficient use of resources. Fairness of approach	Market leader in the development and

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	patient care/ delivery of services	compliance – shared learning		compliance, improved patient care			introduction of audit tool
Network Map	Delivery of right care in right place	Consistent approach, Reduced variation	Network wide comparative data, improved patient experience, Identifies appropriate/ inappropriate use of resources	Effective efficient use of resources, consistent approach	Identifies resource utilisation	Appropriate resource utilisation, Improved patient flow, Fairness of approach,	Market leader in the development and introduction of the pathway
Memorandum Of Understanding	Ensures the collaborative approach to trauma care from all Network stakeholders	Shared vision and agreement amongst network parties	Shared vision and agreement amongst network parties	Effective efficient use of resources, consistent approach	Effective efficient use of resources, consistent approach	Effective efficient use of resources, consistent approach	
Data Sharing Agreement	Protects the confidential and sensitive information of patients	Ensures that data sharing throughout the network adheres to statutory requirements	Ensures that data sharing throughout the network adheres to statutory requirements	Data security assurance	Data quality assurance	Effective efficient use of resources, consistent approach	
Communications Strategy	Protects the confidential and sensitive information of patients & to facilitate effective communication	Supports a framework to communicate effectively in line with the Data Protection Act	Supports a framework to communicate effectively in line with the Data Protection Act	Effective efficient use of resources, consistent approach	Effective efficient use of resources, consistent approach	Effective efficient use of resources, consistent approach	
Trauma Unit Site Visits	Ensures standards of care are maintained	Provides in person support	Provides in person support	Effective efficient use of resources, consistent approach	Effective efficient use of resources, consistent approach	Effective efficient use of resources, consistent approach	
Steering group meetings	Ensure standards of care are maintained	Provides mutual support across the network and share updates. Safe forum to share concerns and validate experiences	Provides mutual support across the network and share updates	Effective efficient use of resources, consistent approach	Effective efficient use of resources, consistent approach	Effective efficient use of resources, consistent approach	
Rehab meetings	Ensure standards of care are maintained	Provides mutual support across the network and share updates	Provides mutual support across the network and share updates	Effective efficient use of resources, consistent approach	Effective efficient use of resources, consistent approach	Effective efficient use of resources, consistent approach	
London Major Trauma System	NELETN is held to account for quality standards and outcomes	Network colleagues are able to hold NELETN to account via London Major Trauma System	Up to date evidence-based practice from active research & development projects, as well as an input directly in to NHSE	Reporting structure up to Pan-London	Upward reporting structure	Effective efficient use of resources, consistent approach	
Data/Information:							
Network Handbook	Reduces variation in care delivery, Equity of care/ standards	Reduced variation, informed workforce, Development of standardised policy/ procedure, clear guidance	Robust policies and procedures, agreed process for regional service delivery	Quality framework, consistent approach, improved patient care	Regional standard, reduced risk, reduction in replication/ duplication	Appropriate resource utilisation, Fairness of approach	Links to National guidance and advice, sharing of Network plan, contingencies
TARN Coordinator Network	Supports collection of robust data to inform service development and delivery	Supports system to collect accurate patient data, regional/ national benchmarking	Accurate data to inform contracts and future financial flows	Accurate data to inform contracts and future financial flows, contract negotiation, cost savings	Supports strategic service development/delivery	Effective/efficient use of resources/skill delivery at all levels, reduction in medical/nurse reliance	Links to National guidance and advice

NHS

Network Comms (Poster, logo & associated documents)	Delivery of right care in right place	Reduced variation, reinforcement of collaborative working, credibility	Identifies appropriate/ inappropriate use of resources	Effective efficient use of resources	Effective efficient use of resources	Appropriate resource utilisation	Raises the Network profile
NHS Networks website	Supports collection of robust data to inform service development and delivery	Access to clinical supporting documents to develop services	Supports local clinicians	Supports individual organisations & clinicians	Supports individual organisations & clinicians	Streamlines care processes, resulting in less waste	
Other:							
Trauma Specific Covid support	Maintain trauma services throughout Covid-19 pandemic	Maintain trauma services throughout Covid-19 pandemic	Maintain trauma services throughout Covid-19 pandemic	Maintain trauma services throughout Covid-19 pandemic	Maintain trauma services throughout Covid-19 pandemic	Maintain trauma services throughout Covid-19 pandemic	Maintain trauma services throughout Covid-19 pandemic