

University Hospitals Birmingham NHS Foundation Trust *and* Birmingham Women's and Children's NHS Foundation Trust *and* Heart Of England NHS Foundation Trust, Training Interface Group fellowship post in Major Trauma



## ***Introduction***

The fellowship programme is run through the Joint Committee on Surgical Training (JCST).

Fellowship posts are open to all higher surgical and where appropriate, non-surgical trainees, that meet the person specifications. Details of eligibility are found through the [JCST](#).

Any unit applying to host Training Interface Group fellows must have trainer representation from all parent specialties.

Applicant units are required to be able to deliver the TIG curriculum and adhere to the quality indicators (QIs). The curriculum can be found on the [ISCP website](#) in the curricula of the most relevant parent Specialties (as mentioned above) and the QIs are listed on the [JCST website](#).

The data included in the form below is an extract of the data submitted by the unit in their application to become a TIG unit.

University Hospitals Birmingham NHS Foundation Trust *and* Birmingham Women's and Children's NHS Foundation Trust *and* Heart Of England NHS Foundation Trust, Training Interface Group fellowship post in Major Trauma

***Unit Lead Trainer:***

Name
<b>Alastair Marsh</b>

***Local Educational Provider (LEP)***

Main hospitals/trusts involved with teaching (base units):

	<b>Hospital/Trust A</b>	<b>Hospital/Trust B</b>	<b>Hospital/Trust C</b>
Name of Trust	University Hospitals Birmingham NHS Foundation Trust	Birmingham Children's Hospital	University Hospitals Birmingham NHS Foundation Trust (Heartlands Hospital)
Address of Trust	Mindelsohn Way, Birmingham, B15 2TH	Steelhouse Lane, Birmingham, B4 6NH	Bordesley Green East, Birmingham, B9 5SS

Peripheral units (if to be visited by trainee):

	<b>Hospital/Trust N</b>	<b>Hospital/Trust O</b>	<b>Hospital/Trust P</b>
Name of Trust	Moseley Hall	WMAS (MERIT/PHEMS)	Dudley Group of Hospitals NHSFT
Address of Trust	Alcester Road, Birmingham B13 8JL	Waterfront Business Park, 65 Waterfront Way, Brierley Hill DY5 1LX	Russells Hall Hospital Pensnett Road, Dudley, West Midlands DY1 2HQ
	<b>Hospital/Trust Q</b>	<b>Hospital/Trust R</b>	<b>Hospital/Trust S</b>
Name of Trust	Robert Jones and Agnes Hunt Hospital	Headley Court	Birmingham Women's Hospital
Address of Trust	Gobowen, Oswestry	Headley Court, Epsom	Mindelsohn Way, Birmingham

University Hospitals Birmingham NHS Foundation Trust *and* Birmingham Women's and Children's NHS Foundation Trust *and* Heart Of England NHS Foundation Trust, Training Interface Group fellowship post in Major Trauma

	SY10 7AG	KT18 6JW	B15 2TG
--	----------	----------	---------

### ***LEP Consultants / Trainers***

Primary Educational Supervisor (may be a trainer): Alastair Marsh

#### **Main Trainer(s) involved with fellowship:**

*A main trainer must undertake more than five programmed activities (PA) in their job plan and they must also be a surgeon primarily in the relevant sub-specialty area and recognised by the GMC as a trainer. At least one trainer from each specialty must have five years full time experience in the NHS.*

List of parent Specialties of main trainers:

Parent Specialty	Number of main trainers from this Specialty
Orthopaedic Trauma	3
Burns and Plastics	6
General Surgery	2
Vascular Surgery	2
Cardiothoracic Surgery	2
OMFS	2
ITU/General Internal Medicine	1

#### **Other Trainer(s) involved with fellowship:**

Parent Specialty	Number of other trainers from this Specialty
Orthopaedic Trauma	6
Burns and Plastics	5
Emergency Medicine/Prehospital Care	2
Emergency Medicine	4
Paediatric ITU	1

University Hospitals Birmingham NHS Foundation Trust *and* Birmingham Women's and Children's NHS Foundation Trust *and* Heart Of England NHS Foundation Trust, Training Interface Group fellowship post in Major Trauma

Rehabilitation Medicine	1
Obstetrics	1
Vascular	1
Urology	1

Any other Specialties who are members of the multidisciplinary team not already mentioned as appropriate to the TIG:

Specialty	Trust A (numbers)	Trust B (numbers)	Trust C (numbers)
Radiology	5		
Neurology/TBI/Neuro-Rehab	2		
Neurosurgery - cranial	1		
Neurosurgery - spinal	1		
Urology	2		
Ortho Geriatrics	1		
Stroke Medicine	2		
Microbiology	2		
Haematology	1		
Physiotherapy	2		
Plastic Surgery	3		
Cardiac Surgery	1		
Rehabilitation Medicine	2		
Military Medicine	2		
Pre Hospital Emergency Medicine	2		
Emergency Medicine	4		
Intensive Care Medicine	6		
Complex Pain (anaesthetics)	2		
NeuroAnaesthetics	2		
General and Military Surgery	3		
Thoracic Surgery	2		
Vascular Surgery	1		

University Hospitals Birmingham NHS Foundation Trust *and* Birmingham Women's and Children's NHS Foundation Trust *and* Heart Of England NHS Foundation Trust, Training Interface Group fellowship post in Major Trauma

## ***Indicative Timetable***

The fellow should be based at the main hospitals/Trusts for most of their educational activity but one session (professional activity) may occur outside these units each week. A trainee may work for 48 hours per week and if there is no on-call, all this time may be used for training.

Below is an indicative timetable that indicates the type of proposed activity and includes supporting professional development (SPD). SPD should be one half day each week. Please note that the timetable must be compatible with the Quality Indicators specific to the relevant TIG. All Quality Indicators may be found online at: <https://www.icst.org/training-interface-groups/quality-processes/>

## **Types of activity**

Combined outpatient clinic (COC), Other outpatient clinics (OOC), Operating theatre (Th), Multi-disciplinary team meeting (MDT), Supporting Professional Development (SPD), Teaching ward round (WR), Research activities (RA)

## **QEHB**

The nature of trauma surgery is that patients present at erratic times. The Fellow will be expected to be available to work both in and out of hours including weekends. To ensure no loss of elective/core skills occurs, Fellows will be scheduled to attend appropriate elective or scheduled operating sessions within their core speciality. As Fellows are unlikely to have experience in caesarean section they will regularly be scheduled to attend HEFT and Birmingham Women's Hospital for elective C-section lists every month. Fellows will be provided with a hospital phone to ensure that Fellows can be contacted if appropriate cases present to either QEHB or BCH.

Daily (7/7) Orthopaedic Trauma Meeting 0745-0815

Daily (7/7) MTS handover 0815-0900 followed by daily Consultant led Major Trauma Ward Round (teaching) when not attending operating theatres or a relevant clinic. The fellow will initially be directly shadowing the MTS consultant, and then progressively given more "hands off" freedom to coordinate care as their skills develop. The Fellow would be called for every trauma alert and "Code Red" alert, and be free to follow cases through their journey from the emergency department, theatres, critical care, wards and their eventual rehabilitation. The fellow would have an attachment at Birmingham Children's Hospital to ensure their Paediatric experience is complete. This means that the timetable has several free slots to allow fellows to attend theatres and clinics to support their training. There are 2 general emergency theatres running every day which will allow the Fellow to attend general surgery/vascular and OMFS acute cases. There are 42 operating theatres at QEHB and 10 theatres at BCH which allow excellent training opportunities as well as the supporting outpatient clinics across both sites. There are strong links with prehospital care provided by MERIT and the Midland Air Ambulance. Whilst

University Hospitals Birmingham NHS Foundation Trust *and* Birmingham Women's and Children's NHS Foundation Trust *and* Heart Of England NHS Foundation Trust, Training Interface Group fellowship post in Major Trauma

Fellows cannot fly in the air ambulance, it will be possible for them to be observers with mobile medical teams and for them to attend governance and relevant training sessions. This will ensure that fellows are exposed to prehospital and in-hospital resuscitative training and procedures.

University Hospitals Birmingham NHS Foundation Trust *and* Birmingham Women's and Children's NHS Foundation Trust *and* Heart Of England NHS Foundation Trust, Training Interface Group fellowship post in Major Trauma

Please indicate the activity and the trust, for example, MDT (A) or Th (B).

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Morning	Orthoplastic/Vascular/ General Surgery/OMFS emergency list OR CTC Shadow if no relevant cases	Military MDT Civilian MDT  Paeds MDT (BCH)	Special Case Reviews/M&M meeting Nerve injury MDT Core Speciality in touch day (monthly)	Elective C section list (Heartlands) all day monthly  Thoracic Surgery (Heartlands) monthly	Orthoplastics MDT NeuroTrauma MDT	CTC Shadow (every 6-8 weeks) Day time only	CTC Shadow (every 6-8 weeks) Day time only
Afternoon	Orthoplastic/Vascular/ General Surgery/OMFS emergency list	SPA	MTS clinic Core Speciality in touch day (monthly)	Complex Neurotrauma MDT	Orthoplastic Clinic		
Evening		CTC shadow every 3 weeks					

Fellows will be expected to follow relevant cases to theatre to enhance their training. There is agreement by trainers that the Fellow will attend sessions to develop their skills and experience – exact timetables will be adjusted according to training needs and requirements.

University Hospitals Birmingham NHS Foundation Trust *and* Birmingham Women's and Children's NHS Foundation Trust *and* Heart Of England NHS Foundation Trust, Training Interface Group fellowship post in Major Trauma

*Training Delivery*

Please an overview of the Unit’s TIG Fellowship Training Delivery plan:

The Queen Elizabeth Hospital Birmingham (QEHB) is well placed to deliver both pathways of the TIG fellowship and could accommodate 2 fellows, providing sufficient surgical and managerial exposure to meet the curriculum objectives of both paths. Since the birth of Major Trauma Networks in 2012, QEHB has been a Major Trauma Centre (MTC) and has seen a 30% increase in major trauma cases since the network “go-live”. Whilst QEHB is an adult MTC, we have close links with Birmingham Children’s Hospital and this fellowship would cross both sites. BCH are committed to contributing to the TIG Fellowship program, and the combined number s of ISS >15 patients attending the two sites would make the 3<sup>rd</sup> largest MTC in the country. BCH are the receiving hospital for the largest number of high ISS injured children of all the specialist paediatric centres, and the experience of working across the two sites would offer unmatched experience in the management of major trauma in the UK.

Site	Arrival date				Grand Total Patients ISS>15
	2013	2014	2015	2016	
QEHB	498	522	574	647	2241
BCH	62	68	81	83	294

Since its inception, all polytraumatised patients have been admitted to QEHB under a stand-alone subspecialty – the “Major Trauma Service (MTS)”. The advantages of this model of care are that the polytraumatised patient has their care managed and coordinated by a consultant led team of junior doctors whose sole responsibility is the management of these patients rather than having other non polytrauma patients to look after. There is a 24 hour MTS junior doctor presence in the hospital, with a Consultant Trauma Clinician (CTC) providing on-call senior leadership. The CTCs all have specialist backgrounds and have been appointed into the CTC role in addition to their speciality duties because of their interest in trauma management. The CTC and the MTS juniors attend all trauma alerts in the emergency department and will then act as the care coordinator for that patient.

There is a daily MTS care planning meeting, followed by a CTC led ward round of all MTS patients. All patients are discussed at the weekly MDT meeting, and when their care can be stepped down to a single speciality (or repatriated to a trauma unit closer to home) they are transferred from the Service. The MDT is



University Hospitals Birmingham NHS Foundation Trust *and* Birmingham Women's and Children's NHS Foundation Trust *and* Heart Of England NHS Foundation Trust, Training Interface Group fellowship post in Major Trauma

divided into military and civilian sessions. All patients under the MTS are discussed with colleagues from all surgical and support specialities including AHPs. There are separate rehabilitation case conferences where the most complex cases are discussed in more detail. The Fellow will be expected to take a lead role in supervising the preparation and chairing the MDTs as their experience increases. As the number of elderly trauma patients increases, the MTS team play an even more important role in ensuring polytraumatised frail elderly patients are managed holistically by both care of the elderly and surgical specialities.

This consultant led model allows the Fellow to be directly supervised from their first day in the initial resuscitation, planning and coordination of the patient's care. As the Fellows' experience and competence are developed, they will be encouraged to take more responsibility as CTC including overnight duties whilst being closely mentored by a selection of experienced trainers. As the CTCs have differing speciality interests, a variety of management styles and skills will be experienced, all with the common goal of delivering first class trauma care. The twice daily CTC led ward rounds and trauma call attendance allow a variety of real time, multi-speciality work placed based assessments to be performed. Because the Fellow is supernumerary in the MTS and hospital structure, they will be able to accompany trauma patients to theatre for resuscitative surgery as well as definitive care procedures, depending on the Fellow's learning objectives and experience.

At QEHB the Trauma Team Leader is usually the on-call Emergency Medicine Consultant, who hands the patient over to the CTC/MTS when the initial assessment and resuscitation is complete. Fellows will be able to gain prehospital experience via our close links with the Prehospital Emergency Medicine service/MERIT, a number of whose consultants work at QEHB and are part of the CTC rota. Whilst Fellows cannot fly on the air ambulance due to CAA rules, they will be able to travel as observers on the prehospital CARETeam car and MERIT car services that provide mobile medical support overnight. Fellows will also be expected to attend appropriate governance and training sessions with the prehospital team to support their resuscitative training. Since 2016, a "[Code Red](#)" call out system has been in place which enables speciality consultants to be called directly to ED in appropriate circumstances. The Fellow will be part of this call out cascade to further increase resuscitative exposure.

All adult surgical specialities and 24 hour Interventional Radiology are co-located on the QEHB site which allows unparalleled access to internationally renowned surgical teams and their support structures. QEHB has the second largest Peripheral Nerve Injuries unit in the country (after RNOH, Stanmore) receiving approximately 6 new brachial plexus injuries per week, performing regular nerve transfers, allografts and nerve grafts to reconstruct these complex injuries. As part of a MTC, these patients are often operated on earlier than patients referred secondarily to RNOH.

We have close links with the specialist Rehabilitation units at Robert Jones and Agnes Hunt Hospital (spinal injuries) and Moseley Hall Hospital (neurorehabilitation and musculoskeletal). It is only by understanding the rehabilitation process and systems that the lengthy recover process following major trauma can be appreciated. At QEHB we believe that the rehabilitation of patients and their relatives starts right from their admission, and whilst a full knowledge of stage 4 rehabilitation care is outside surgical training, we would expect a Fellow at QEHB to have a good understanding of the process and the particular requirements of spinal injury and traumatic brain injury patients.

University Hospitals Birmingham NHS Foundation Trust *and* Birmingham Women's and Children's NHS Foundation Trust *and* Heart Of England NHS Foundation Trust, Training Interface Group fellowship post in Major Trauma

The Regional Burns Centres for the West Midlands are located at QEHB (adults) and BCH (paediatric). Adult admissions last year were 400 of which 41 were a BSA >10%. Paediatric admissions were 264 of which 19 were BSA >10%. QEHB/BCH are the only MTC in the East and West Midlands that can admit major burns - the three other adult MTCs in the Midlands only accept burns ≤5% BSA and Fellows will be able to gain experience the initial management and reconstruction of the most severely burned patients. The catchment area for the Burns Centre is seen in the map, and covers a population of approximately 10 million.



QEHB is the Royal Centre for Defence Medicine and is still the receiving hospital for service personnel injured overseas. The Fellow will be involved in the care planning for these military patients as well as civilian. Other surgical subspecialty experience in urogenital reconstruction and thoracic reconstruction is provided by visiting surgeons from Russells Hall Hospital (urogenital) and Heartlands Hospital (thoracics). Fellows would have opportunities to visit units allied to QEHB as relevant to their learning needs and interests, and they will be able to gain paediatric major trauma experience via our links with Birmingham Children's Hospital, a separate MTC located in the City centre. This will allow all aspects of the Major Trauma syllabus to be met.

Birmingham Children's Hospital is well placed to provide the children's component of the TIG syllabus. There is a specialist paediatric retrieval service run by BCH and a full complement of paediatric trauma specialists at BCH to provide specialist care. The Fellow would be expected to spend blocks of time at BCH to allow paediatric trauma skills to develop, using their time there to participate in trauma and elective surgery to expand their paediatric knowledge. BCH is only 20 minutes away from QEHB via train (every 10 minutes) and a short walk. This means that attendance at both MTCs on the same day is possible for maximal educational exposure.

There are close academic links with the University of Birmingham and original research activity is encouraged. The Surgical Reconstruction and Microbiology Centre, part of the National Institute for Health Research is located on the QEHB campus. Fellows will be encouraged to undertake original research and QEHB is one of the few hospitals with 24 hour research nurse availability. Research ideas can be supported with "pump priming" financial support and advice and guidance from an experienced team of academic surgeons, physicians, scientists and allied professionals.

Fellows will be expected to design and conduct audit and quality improvement projects with a view to clinical and systems/process development. They will play a key role in the coordination and dissemination of learning outcomes from special case reviews, M and M discussions and governance meetings. After

University Hospitals Birmingham NHS Foundation Trust *and* Birmingham Women's and Children's NHS Foundation Trust *and* Heart Of England NHS Foundation Trust, Training Interface Group fellowship post in Major Trauma

starting the fellowship, they will be expected to attend the [Major Incident Surgical and Trauma Teams](#) training course which is a combination of lecture and cadaveric teaching on major trauma/mass casualty management. At the end of the Fellowship, the Fellow will be expected to be able to act as a credible faculty member, contributing to the educational content of the course. The Fellow would be expected to contribute to regional speciality training programs (delivering relevant teaching sessions) and attend and contribute to relevant sessions at the annual [TraumaCare](#) conference to develop their teaching and managerial portfolio .

In collaboration with the School of Surgery a bespoke leadership development program will be offered, dependent on the Fellow's needs and experience. A variety of on-line and face to face courses are available which can be tailored to the Fellow's requirements. Managerial experience will be provided by facilitating attendance at QEHB Divisional and Executive meetings, Trauma Network meetings, as well as encouraging Fellows to take part in speciality recruitment and assessment activities.