North East London & Essex Trauma Network

Standard Operating Procedure (SOP) V1.0 (August 2026)

Review date: August 2028

Management and Follow-Up of isolated Spinal Fractures Across NELETN

1. Purpose

To provide a standardised pathway for the assessment, management, and follow-up of isolated spinal fractures referred to the Royal London Hospital (RLH) Major Trauma Centre (MTC).

Patients who have sustained polytrauma, should be referred via the 'Major Trauma centre' workstream on Referapatient.

This SOP ensures:

- Consultant-led decision-making for complex spinal trauma.
- Judicious use of immobilisation and orthoses.
- Care delivery as close to the patient's home as possible.
- Efficient use of MTC capacity for complex and operative cases.
- Timely, evidence-based guidance and support for linked Trauma Units.

2. Scope

This SOP applies to all spinal fracture referrals to the RLH Complex Spine Service via the North East London and Essex Major Trauma Network. Non-traumatic pathology (e.g. infection, malignancy, degenerative) should follow existing referral patterns.

It is relevant to clinicians in:

- Emergency Departments (ED)
- Trauma and Orthopaedics
- Neurosurgery / Spinal Surgery
- Complex Spine Patient Pathway Coordinators (PPC) and Fracture Clinic Teams

It is relevant to all Trauma Units within NELETN, including:

- Barnet
- Basildon
- Homerton
- North Middlesex
- Newham
- Barking, Havering, and Redbridge University Hospitals (Queens Romford Trauma Unit and King George Local Emergency Hospital)
- Royal Free
- Southend
- UCLH
- Whipps Cross
- Whittington

3. Principles

Consultant-led decision-making: All spinal fracture management decisions are made under consultant supervision. Initial advice is given by the Neurosurgical SpR on call within 4 hours, with review by Complex Spine Fellow or Consultant within 24 hours. Definitive advice for those who have undergone follow-up imaging, e.g. MRI, should also be issued within 24 hours. Hence, referring clinicians should arrange for local admission whilst awaiting response, and not keep the patient in ED.

Where MDT discussion is required, this timescale may be extended. Complex spinal MDT takes place every Tuesday morning, and outcomes from this will be posted same day.

Patients that present with neurological defecit should be highlighted to the on-call team via phone call after a Referapatient referral has been submitted.

Delays should be escalated via the on-call SpR in the first instance. If this does not result in resolution, the Trauma Unit can liaise directly with the spinal consultant on call available via switch on 020 7377 7000. In hours, the team can also escalate via the Trauma Newtork Team on bartshealth.nel-etn@nhs.net

Minimal immobilisation: Avoid unnecessary use of braces or orthoses; only use where clearly indicated, and NOT solely for comfort. Advice on the use of orthoses should also be carefully considered in the context of pre-existing conditions (e.g. kyphosis, ankylosing spondylitis, DISH), other injuries (e.g. thoracic injuries), comorbidity/frailty, cognitive status, and any end-of-life care considerations.

VTE prophylaxis: Commence mechanical prophylaxis for all patients **without delay**. Commence chemical prophylaxis for all patients, except those accepted for immediate surgery, those with neurological deficits or with spinal haematoma (epidural, subdural, cord contusion) on MRI - seek neurosurgery/spinal advice in these cases.

Localised care: Non-complex cases should be followed up by local spinal or orthopaedic services, or by regional spinal units where such arrangements exist.

MTC capacity: Reserve MTC clinic and inpatient resources for complex and operative spinal injuries.

The referring Trauma Unit retains full clinical and medico-legal responsibility for the patient **unless and until a formal transfer of care has been agreed and documented with the MTC**. Providing advice does not constitute acceptance of clinical ownership.

4. Referral Management Process

Local ED Referral

Perform initial imaging (typically CT; X-ray acceptable in selected cases) and clinical assessment. A scheme for initial investigation and management is included in Appendix 1.

Appropriate cases should be referred via referapatient.org to via the Spinal Surgery workstream. This is monitored 24/7 by the on-call Neurosurgery Registrar, supervised by the Complex Spine Fellow of the Week (FOW) and Consultant of the Week (COW).

Further imaging (e.g. MRI or standing X-rays) may be requested if clinically indicated (see appendix 2 for further guidance). Ambulatory patients with well-controlled pain do not require immobilisation while investigations are ongoing.

Following the initial referral via referapatient.org:

- The Neurosurgery Registrar will reply with either initial advice (if further information or imaging is required) or definitive advice.
- Initial advice will include:
    - Details of any further clinical information or imaging required.
    - Initial immobilisation instructions pending further review.
- Definitive advice will involve triage of the case into Green, Amber, or Red pathways as described in Section 4.2 below.
- All initial and/or definitive advice issued by the neurosurgical SpR will be reviewed by the spinal service COW within 24 hours, and any updates or changes will be communicated via referapatient.org.
- It remains the responsibility of the local referring team to act on the most recent advice once senior review has been shared via referapatient.org.
- Only when the referral has been marked as 'complete' by the MTC, should the referral be considered as such. **Once the referral has been marked as complete, if any changes to the patients' plan are agreed, it is the responsibility of the SpR to contact the Trauma Unit Directly. Referapatient cannot be relied upon in this scenario as the referral will not have been handed over locally. Please see contact list in appendix 5**

Triage and Classification

Each referral is reviewed by the on-call neurosurgery registrar, under Complex Spine & Consultant Supervision, and classified into Green, Amber, or Red pathways based on injury complexity and risk. See also appendix 3.

Green Pathway – Stable Non-Complex Thoracolumbar Fractures (fragility related, or otherwise)

Typically, AO Type A compression or stable burst fractures without neurological deficit.

Managed non-operatively with initial suggested advice given by the on-call neurosurgery team as above if required (according to appendix 1) and further follow-up with local spinal surgeons or via local existing arrangement with a linked spinal centre.

Suggested follow-up schedule for local spinal surgeons:

Follow-up	Collar/Brace/Orthotic	Bone Health:
At 6 weeks by local spinal or orthopaedic team*, with clinical review ± X-ray.	Avoid unless absolutely indicated.	Assess per GIRFT Vertebral Fragility Fracture (VFF) Pathway: DEXA, bone profile, serum electrophoresis, etc. This pathway is available at https://gettingitrightfirsttime.co.uk/wp-content/uploads/2025/07/VFF-pathway-FINAL-July-2025.html (appendix 1)

Pain should be managed according to local protocols, and patient requirement. Increasing pain preventing mobilisation may require re-imaging and re-referral

Communication and documentation:

- Registrar documents plan and communicates via referapatient.org.
- Referring hospital arranges local/linked spinal centre follow-up.
- Local spine units are responsible for maintaining referral and follow-up contact points.
- Tower Hamlets / Hackney patients: referral shared with RLH Complex Spine PPC Team.
- If a Green Pathway patient is mistakenly booked to RLH clinic, the PPC will redirect to the relevant local spinal team using Trauma Network catchment area map via this link.

Amber Pathway – Higher Risk Thoracolumbar or Cervical Fractures

All cervical fractures.

Thoracolumbar fractures at higher risk of conservative failure (e.g. AO Type A3 burst fractures with >50% collapse or kyphosis >15°).

Follow-up	Collar/Brace/Orthotic	Fragility fractures and Bone Health:
At RLH Fracture Clinic (Complex Spine). 2-week or 6-week review depending on risk (will be advised and arranged via referapatient response).	Usually required (type specified in referapatient.org response). Care will also be outlined very clearly on a collar and brace proforma.	Managed per GIRFT pathway (definitions under review). Where applicable, assess per GIRFT Vertebral Fragility Fracture (VFF) Pathway: DEXA, bone profile, serum electrophoresis, etc. This pathway is available at https://gettingitrightfirsttime.co.uk/wp-content/uploads/2025/07/VFF-pathway-FINAL-July-2025.html and included in Appendix.

Communication and documentation:

- Referral shared by RLH team via referapatient.org to RLH Complex Spine PPC Team for fracture clinic booking.

Red Pathway – Complex / Operative Cases

Fractures with neurological deficit, mechanical instability, multi-level involvement, or requiring operative intervention require inpatient transfer to RLH, under the Complex Spine Service.

Bed management coordination (as advised by MTC team) could include:

- Immediate transfer: via RLH ED Consultant-in-Charge
- Patients requiring critical care: via ACCU Nurse-in-Charge
- Patients requiring ward bed when available: via RLH Bed Management Team

Please do not send the patient via blue lights unless specifically requested to do so. The majority of patients with spinal fractures are safe to bring over in daylight hours, directly to a ward.

Deteriorating patients

If at any point, a patient on a green or amber pathway suffers a clinical deterioration (e.g. new onset neurology, worsening or unremitting pain, new deformity), they should undergo re-assessment locally (or at the closest TU ED if already discharged) with repeat clinical assessment, re-imaging, and re-discussion with the RLH Complex Spine Team via referapatient.org 'QCKMessage' (ideally linked to initial referral). **It would be appropriate in this scenario to alert the on-call SpR via a phone call that this referral has been re-submitted.**

Deteriorating patients should undergo repeat CT of the affected area, and patients with new onset neurological deficits or bladder/bowel dysfunction should undergo MRI whole spine.

Patients who are assessed in local spinal clinics who are found to have above deteriorations can be re-referred in the same way or managed locally by local spinal surgeons at their discretion – the RLH Complex Spine COW is available for advice & support via referapatient in this regard.

5. Outpatient Follow-Up

Royal London Complex Spine Fracture Clinic

Consultant-led, with CNS support.

Covers patients from Tower Hamlets and Hackney (Newham / Waltham Forest TBC).

Operates 1 PA per week.

Elective Friday clinics are not to be used for trauma follow-up unless at COW request.

Local Fracture Clinics – contacts as per appendix 4

Responsible for bone health assessment and management (per VFF pathway).

Suggested follow-up schedule:

6 weeks: Clinical ± radiological review.

12 weeks: Repeat review as indicated.

If conservative management appears to fail, refer via referapatient.org requesting:

Admission to RLH, or urgent (<1 week) MTC spinal review.

6. Governance

Monthly audit of fracture triage and follow-up compliance.

Quarterly review at Spinal M&M / Governance Meeting.

Annual review by Complex Spine Governance Group.

All with reporting in to Trauma Network Executive Team.

7. References

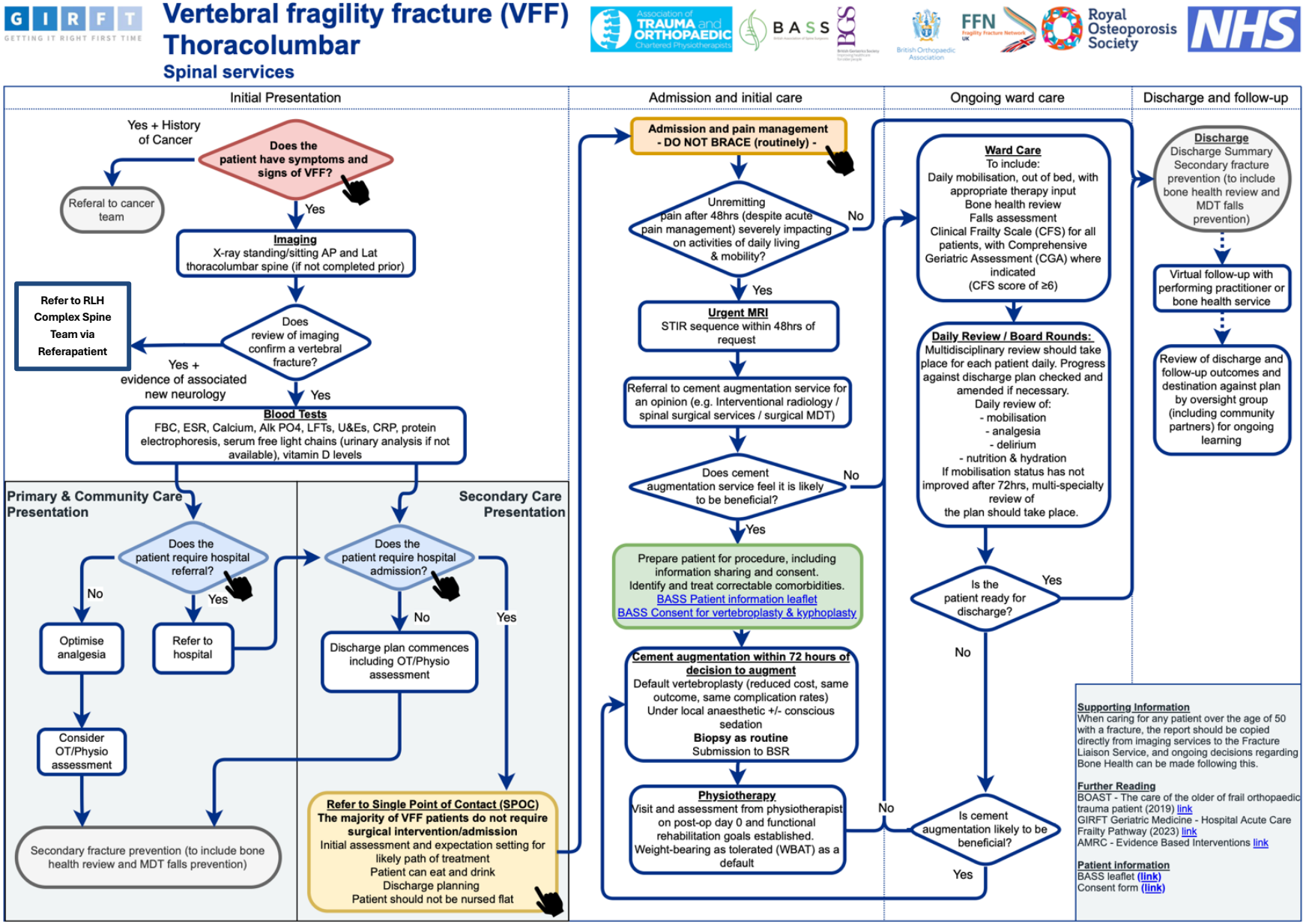
BOAST: Management of Spinal Fractures

NICE NG41: Spinal Injury – Assessment and Initial Management

NHS England Major Trauma Service Specification (2026)

GIRFT: Vertebral Fragility Fracture Pathway (2024 draft)

Appendix 1



Interactive GIRFT pathway can be found at https://gettingitrightfirsttime.co.uk/wp-content/uploads/2025/07/VFF-pathway-FINAL-July-2025.html

Appendix 2

Acute imaging and referral

Principles: referral for isolated spinal fractures in clinically stable patients. For polytrauma or unstable patients, refer in parallel to Major Trauma via Refer-a-patient and/or to the Royal London Emergency Department Consultant-in-Charge.

IMAGING, IMMOBILISATION & REFERRAL BY MECHANISM AND CLINICAL PRESENTATION

Neurological deficit

Weakness · radicular pain · numbness · bladder / bowel disturbance

IMAGING

- CT affected area — usually whole-body trauma CT (risk of occult injury).
- Arrange immediate local MRI whole spine
- confirm with neurosurgery registrar if this should take place locally or patient should be transferred immediately

IMMOBILISATION & management

Flat bed rest with cervical collar · log roll · MAP > 85 mmHg if possible

Refer immediately — Refer-a-patient (Spinal Surgery) + call on-call neurosurgery registrar. MRI site (pre-transfer / at MTC) confirmed by registrar.

High-energy injury

Road traffic high speed · fall > 2 m · similar high-energy mechanism

IMAGING

- Whole-body trauma CT. I
- If fracture is identified, MRI (performed in-hours) likely required to exclude disco-ligamentous injury.

IMMOBILISATION

Flat bed rest, cervical spine collar until radiological clearance

Refer & classify. Neurosurgery registrar may give initial advice after CT (incl. whether MR is needed); if further imaging is required, definitive advice follows once it is performed & transferred. Use MTC workstream if polytrauma.

Low-energy injury

Fall from standing height · fragility mechanism

IMAGING

- CT affected region
- erect X-ray affected region
- MRI usually only required if suspected pathological fracture (e.g. malignancy / infection) or CT suggests ligamentous injury

IMMOBILISATION

mobilise as pain allows. If in significant pain on standing, then bed rest with 45 degrees head up. No need to log roll whilst awaiting imaging/advice

Classify fracture & triage — see Green / Amber / Red (next slide).

Refer via referapatient.org · Spinal Surgery workstream. Expect response within:

4 h **Neurosurgery Registrar** — initial advice

24 h **Complex Spine Fellow / Consultant of the Week** — definitive confirmation; triage into **Red** / **Amber** / **Green** ; definitive brace advice within 24 h of all relevant imaging & clinical information

ADDITIONAL CONSIDERATIONS & SECONDARY IMAGING

Ankylosed spine

Ankylosing spondylitis · DISH · significantly fused spine

- **Perform MRI — irrespective of CT evidence of injury — if any significant back pain or clinical concern.**
- Immobilise as per high-energy injury – high risk of instability with minimal trauma
- Nurse in the patient's natural position — do not force a fixed kyphotic deformity flat.

Ligamentous injury

CT suggestive of significant ligamentous injury

- Immobilise the patient as per high-energy injury
- arrange in-hours MRI
- refer to RLH

Non-traumatic pathology

Infection · malignancy · metastatic cord compression

Falls outside the remit of this SOP.

Barts Health catchment (Homerton, Newham, Whipps Cross, St Bartholomew's) → RLH Neurosurgery Registrar advises.

Other TUs → local neurosurgical unit (Queen's, Romford or NHNN, Queen Square).

Appendix 3

Triage — Red · Amber · Green

Classify the identified fracture under Registrar → FOW / COW supervision

AO structural stability → **A0 / A1** stable · insignificant | **A2 · A3 · A4** burst — uncertain, higher-risk | **Type B & C** distraction / translation — unstable

RED

Unstable, or requires inpatient transfer for assessment

INCLUDES

- Neurological deficit
- Mechanical instability (AO type B & C)
- Multi-level involvement
- Fractures requiring operative intervention

ACTION

- **Flat bed rest, full immobilisation** — unless otherwise specified by neurosurgery registrar
- **Inpatient transfer** to RLH Complex Spine Service
- **Bed management**
  - Immediate transfer → ED CIC (Royal London DECT 45722)
  - Critical care → ACCU co-ordinator (Royal London DECT 45717)
  - When bed available → RLH capacity manager (Royal London DECT 45686)
- Do not transfer by blue-light / time-critical transfer unless requested by RLH Neurosurgery / ED / Trauma teams — if clinical concern, recontact / re-escalate

AMBER

Non-operative management, higher risk — for MTC follow-up

INCLUDES

- All cervical fractures
- Thoracolumbar fractures at higher risk of conservative failure (e.g. AO A3 burst with > 50% collapse or kyphosis > 15°)

ACTION

- **Brace / orthosis usually required** (type per proforma)
- Follow-up at **RLH Fracture Clinic (Complex Spine)**
- 2- or 6-week review depending on risk, via Refer-a-patient
- For vertebral fragility fracture (VFF): local TU follow-up with bone-health checks per GIRFT

Safety-netting

Patients may contact the Royal London Complex Spinal Clinical Nurse Specialists · **bartshealth.spinalcnsteam@nhs.net** · **07508 543636 (Monday-Friday 0800-1600)**

Clinic appointments — Patient Pathway Co-ordinators · **bartshealth.complexspine@nhs.net**

GREEN

Stable — for local follow-up

INCLUDES

- Stable non-complex thoracolumbar fractures (fragility-related or otherwise)
- Typically, AO type A compression or stable burst, **no neurological deficit**

ACTION

- Manage non-operatively; minimal immobilisation
- **Avoid orthosis** — advice provided by the neurosurgery registrar on the basis of COW / FOW instruction (e.g. LSO L2–L5, TLSO T6–L1 if used)
- Local spinal / orthopaedic follow-up at 6 weeks (± X-ray)

Bone health — GIRFT VFF pathway (see Appendix 3)

Further investigations: DEXA · bone profile (calcium / phosphate) · myeloma screen (serum electrophoresis / free light chains) · vitamin D.

gettingitrightfirsttime.co.uk/wp-content/uploads/2025/07/VFF-pathway-FINAL-July-2025.html

Guiding principle — minimal immobilisation: avoid unnecessary braces or orthoses; use only where clearly indicated and not solely for comfort. Consider kyphosis, AS / DISH, other injuries, cognitive status and end-of-life care.

Appendix 4:

Patient pathway coordinators, to organised local spinal follow-up in Trauma Units

	Patient pathway coordinators
Barnet	Ext: 59607 tom.loizou@nhs.net
Basildon	mse.TOSpine.SurgPOD@nhs.net orthopaedic.bookingclerks@nhs.net mse.Basildonorthopaedicsecretaries@nhs.net
BHRUT (Queens and King George Hospitals)	holly.simpson6@nhs.net
Homerton	N/A – follow-up via RLH
North Middlesex	aleida.rita@nhs.net 0208 887 2202
Newham	Bartshealth.gateway.opd@nhs.net
Royal Free	rf.orthopaedicsadmin@nhs.net
Southend	rory.joscelyne@nhs.net
UCLH	UCLH to refer directly to Queen Square via Referapatient for non-major trauma spinal injury
Whipps Cross	kemi.dowell1@nhs.net Ext 1756936
Whittington	Whh-tr.orthopaedics@nhs.net Outpatients.whitthealth@nhs.net

Appendix 5:

Referapatient communication

All incoming referrals to the MTC come via referapatient (RAP). Whilst the referral remains open, communication through RAP allows for record keeping and good governance, and the Trauma Units retain responsibility for monitoring for responses. If plans for the patient change after the referral is closed, the Trauma Units will not receive updates, and at this stage it is appropriate to call the Trauma unit to update verbally (as well as updating RAP for governance purposes).

Contacts for each of the Trauma units for critical updates are as follows:

	Trauma Coordinators in hours	**Clinical Site Teams out of Hours/Back up**
Barnet	Tel: 0208 216 4194 Bleep: 2780 benjamin.horner4@nhs.net	020 8216 4524/0208 2164 600 Bleep 2305 OR 2400 rf.bhclinicalsiteteam@nhs.net
Basildon	Tel: 01268524900 ext 2755, 7251 rian.dawson1@nhs.net	Mse.siteteam@nhs.net 01268 524 900 Ext 32000
BHRUT (Queens and King George Hospitals)	01708 435 000 Ext:6424 Bhrut.traumarehabcoordinators@nhs.net	01708 435 000 ext 6341 bhrut.DL-dutyclinicalsitebedmanagers2@nhs.net
Homerton	Number: 07775 992 243 Bleep: 475 Jessica.ruiz@nhs.net	020 8510 7043 / Bleep 118 huh-tr.HUH.Clinical.Site.Managers@nhs.net
North Middlesex	Karen.wheeler3@nhs.net and Karina.holder@nhs.net extension 2611	northmid.CLINICALSITETEAM@nhs.net 02088872508/3297
Newham	Tel: 02073638971 / 07597526121 nicoleadams@nhs.net	02074604000 Bleep 4339 nuh.clinicalsitemanagers@nhs.net
Royal Free	02077940500 TNC bleep is 31339	rf-tr.RFHrepats@nhs.net 07929 790 950
Southend	Direct:0300 443 8138 / Bleep:4480 trudi.foster@nhs.net	Direct:0300 443 0700 / Bleep:3601 clinicalsitemanagers.soh@nhs.net
UCLH	TNC Phone: 07967 859643 Bleep: 2438 c.mcfauld@nhs.net	Uclh.coordinationcentre.team@nhs.net Mobile: 07930 610108
Whipps Cross	Tel: 07432 399110 Bleep: 2750	07546655786 Bleep 2381 or 2131 bartshealth.wch.wxclinicalsitemanagers@nhs.net
Whittington	0207 288 5516 anna.sweeney@nhs.net	0207 272 3070 Bleep 2689 or bleep 3340 0207 288 5423