SHEFFIELD TEACHING HOSPITALS

Complex Spine Multidisciplinary Team Operational Policy

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Updated: January 2015

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Introduction

This operational policy is to ensure that all members of staff are aware of the purpose and organisation of the Complex Spine multidisciplinary team (MDT) structure and scope of the services offered. It outlines how our team at Sheffield Teaching Hospitals (STH) provides services for patients referred for the management of suspected complex spinal problems.

Sheffield Teaching Hospitals (STH) includes Royal Hallamshire Hospital (RHH) and Northern General Hospital (NGH).

The Trust serves the local network population of approximately 2 million. Referral agreements are in place with:

- *Lincoln County Hospital*
- *Barnsley District General Hospital*
- *Chesterfield Hospital*
- *Doncaster Royal Infirmary*
- *Rotherham Hospital*
- *Worksop Hospital*

We also receive referrals from neighbouring networks, nationally and internationally and are frequently asked to give second opinions as a consequence of the reputation as a centre of spinal excellence.

The Complex Spine Service

The Spinal Service was established to offer high-quality treatment and care to patients with, or suspected of having, any form of complex spinal pathology (tumours of the spine and spinal cord, trauma, deformity, infection etc). We provide multidisciplinary care for patients who are referred from their GP or from other units or hospitals. The complex spinal problems are relatively frequent and they cause significant problems for patients and carers alike and require a variety of different experts to provide high quality care.

STH is now one of the major spinal centres in the country. There is a critical mass of specialist clinicians, clinical nurse specialists and allied health professionals within STH, who offer a comprehensive spinal service covering the whole spectrum of spinal pathology.

STH is nationally and internationally recognized training center for spine and is one of AOSPINE and EANS centers for fellowship and observership, with a significant number of trainees coming from abroad to enhance their spinal experience (China, Pakistan, Ukraine, France, Romania, Egypt, Sudan, Moldova etc).

The team deals with complex spinal pathology in the adult and adolescent population. Patients with suspected or newly diagnosed complex spinal pathology are referred into the service through either MSK team, neurology or neurosurgery at STH, Infectious diseases department, by general practitioners (GPs), accident and emergency departments or other acute medical services. They may be seen in outpatients or referred as an inpatient in emergency cases for assessment in our spinal unit or other inpatient wards at STH. Adolescent patients requiring assessment or inpatient treatment will be transferred to the Sheffield Children's Hospital.

The complex spine service within STH is based around a weekly Complex Spine MDT.

Administrative input for patients referred to Neurosurgery is provided by the Neurosciences Department. This office has a number of roles, including:

- *a focal point of contact for complex spine patients and referrers*
- *preparation of the MDT meeting*
- *data collection*
- *management support*

The data about patients referred to Orthopaedic Spinal Surgeons is collected and documented by the Orthopaedic Spinal Consultant in charge for a particular patient.

There are strong links to both clinical and translational research STH. Particular interests include development of the British Spine Registry, supported by the the Orthopaedic Spine Surgeons on behalf of British Association of Spine Surgeons.

The joint Neurosurgical and Orthopaedic Sheffield Complex Spine MDT has been running since 2011. Prior to this, there were four separate spinal MDT, often involving the same members and creating unnecessary work "duplication".

Aims and Objectives of the Complex Spine MDT

- To provide all members with a policy of agreed standards and processes to enable quality patient focused care.
- To review all new and recurrent cases of complex spinal problems without delay.
- To discuss the initial and subsequent treatment of all patients diagnosed with a Complex Spinal problem.
- Ensure individual patient management is co-ordinated in a specific multidisciplinary way to support best practice, enabling the delivery of high quality patient care.
- Help foster Trust wide co-operation between clinicians working for patients with Complex Spinal pathology.
- To work in a collaborative way to contribute to the management plan for patients with Complex Spinal Problems.
- To use agreed operational standards in the management of Complex Spinal pathology.
- Support research in Complex Spinal problems through recruitment to trials and ensure patients have access to appropriate clinical trials.
- Ensure the service is fully compliant with IOG guidelines.
- For a member or members of the MDT to attend Complex Spine meetings so that STH is appropriately represented.
- To participate in audit internal to the service and agreed audits with the Complex Spine MDT undertaking service improvement where required.
- To ensure a data collection system is in place to allow entry of information on all patients with complex spinal pathology.

Roles and Responsibilities of the Lead Clinicians for the Complex Spine MDT

Mr Neil Chiverton, consultant orthopaedic spine surgeon, is lead clinician for the Orthopaedic Spine Service

Mr Marcel Ivanov, consultant neurosurgeon, is spinal lead clinician for the Neurosurgery Department.

- To develop and maintain a high quality service for patients within our Complex Spine Service
- To ensure that designated specialists work effectively together such that decisions regarding all aspects of diagnosis, treatment and care of individual patients and decisions regarding the team's operational policies are multidisciplinary decisions.
- To ensure that care is given according to recognized guidelines (including those for onward referrals) with appropriate information being collected to inform clinical decision-making and to support clinical governance/audit.
- To ensure that the outcomes of the meeting are clearly recorded and clinically

validated, and that appropriate data collection is supported.

- To ensure mechanisms are in place to support entry of eligible patients into clinical trials subject to patients giving fully informed consent.
- To ensure attendance levels of core members and cover are maintained, in line with quality measures.
- To take overall responsibility for ensuring that MDT meeting and team meet peer review quality measures.
- To ensure that the objectives of MDT working are met.
- To ensure all core members of the team with direct clinical contact with patients apply for and attend the national advanced communications skills training.

Core Members of the Complex Spine MDT

Mr M Athanassacopoulos	Consultant Orthopaedic Surgeon
Mr A Bacon	Consultant Neurosurgeon
Mr D Bhattacharyya	Consultant Neurosurgeon
Mr L Breakwell	Consultant Orthopaedic Surgeon
Mr N Chiverton	Consultant Orthopaedic Surgeon
Mr A Cole	Consultant Orthopaedic Surgeon
Dr D Connolly	Consultant Neuro-Radiologist
Dr A Highland	Consultant Radiologist
Mr R Ibrahim	Consultant Neurosurgeon
Mr M Ivanov	Consultant Neurosurgeon
Mr A L R Michael	Consultant Orthopaedic Surgeon
Dr P Murray	Consultant in Pain Management
Ms R Newsome	Physiotherapist
Dr N Plunkett	Consultant in Pain Management
Mr M W Radatz	Consultant Neurosurgeon
Mr M Reddington	Physiotherapist
Mr J Tomlinson	Consultant Orthopaedic Surgeon
Dr R Townsend	Consultant in Microbiology
Rachel Marsden	Nurse Practitioner Orthopaedics

It is the responsibility of each core member to attend in person at least 50% of the Spine MDTs and to ensure that his or her agreed cover is able to attend the MDT meetings

when required.

Clinical Nurse Specialists (CNS)

The MDT has several Clinical Nurse Specialists who are core members.

The Complex Spine MDT has 2 spinal clinical nurse specialists (Lynda Gunn (Neurosurgery) and Rachel (Orthopaedic Spine Surgery).

They have wide ranging responsibilities which include the following:

- Contributing to the multidisciplinary discussion and patient assessment/care planning decision of the team at their regular meetings.
- Providing expert nursing advice and support to other health professionals in the nurse's specialist area of nursing practice.
- Involvement in clinical audit.
- Leading on patient and carer communication issues and co-ordination of the patient pathway for patients referred to the team.
- To act as the key worker or is responsible for nominating the key worker for the patients dealings with the team.
- Ensuring that the results of patients' holistic needs assessment are taken into account in the decision making.
- Contributing to the management of the service e.g. manage the referrals to palliative care, the welfare benefits service and key contributors to community team, such as district nurses or other support services.
- Providing relevant information on the services offered and required at every relevant stage of the patient pathway. e.g. around diagnostics, treatment, support and welfare benefits.
- Utilizing research into their specialist areas of practice in order to constantly seek improvements in patient care/practice,
- To undertake and act upon patient satisfaction surveys annually. The CNS service operates from Monday to Friday within normal working hours (9am to 5pm). There are cross cover arrangements between the CNS's for annual leave and sickness.

Complex Spine MDT Coordinator

The MDT coordinator provides the following support to the MDT team

- Liaises with consultants, nursing staff, secretaries and radiology teams to prepare for the MDT.
- Ensures adequate clinical information is available where possible for the weekly meeting to discuss each case.

- Produces and distributes a list of patients to be discussed in advance of the weekly meeting; records treatment plans.
- Ensures the appropriate proportion of patients is discussed at MDT meetings.
- Adds any patient on the MDT meeting not discussed to the following meeting list.
- Takes minutes of the meetings and ensures distribution of these minutes to appropriate members of the team.
- Ensures action plans for patient care are produced with agreed reviews.
- Manages systems that inform GPs of patient's diagnosis, decisions made at outpatient appointments etc.
- Liaises with staff to ensure that all patients have a booked first appointment, investigation and procedures and records details of patients coming via a different route.
- Ensures members or their cover are advised of meetings and any changes of venue or dates.
- Collects and validates the target data for new cancers and waiting times.
- Works with key MDT members to identify where targets are not achieved and undertake process mapping to identify bottlenecks.
- Keeps a comprehensive diary of all team meetings and records attendance.
- Provides support to the MDT chair with any service improvement and quality issues.

The Multi Disciplinary Team Meetings (MDT)

There are weekly Complex Spine MDT meetings and monthly meetings for discussion of spinal infections. These meetings are held to facilitate discussion of patients with complex spinal problems in order to provide guidance on their management and initial treatment plan**.**

All patients are discussed at the MDT meeting either:

- when newly diagnosed with a complex spinal problem
- following diagnosis before any potential definitive surgical procedure
- following definitive surgical procedure and before any potential adjuvant treatment
- all cases of spinal tumour recurrence or progression
- at any other times agreed in the area-wide pathway

MDT Meeting time and location

The Complex Spine MDT meets formally as a group on a weekly basis on Wednesday from 8 am-11 am in the N floor Seminar Room for members located in RHH and Vickers lecture theatre located on the ground floor, Vickers corridor of the NGH. The MDT meeting is chaired by a core member of the team on a weekly rotating basis (on-call consultant). The meeting is held using teleconference facilities linking both hospitals.

A list of new, post operative and follow-up patients with clinical details to be discussed must reach the MDT co-ordinator no later than Tuesday morning prior to the scheduled Wednesday morning meeting.

New referrals to the service, including those waiting at referring hospitals are added to the meeting list and are provided by the neurosurgical or orthopaedic spinal team.

Patients known to the service that need discussion at the MDT meeting are added to the list by their consultant who informs the MDT co-ordinator directly by email, telephone or in person.

A provisional agenda is circulated on Tuesday afternoon to the MDT, including to the all neurosurgeons and orthopaedic spinal surgeons.

In order to avoid interference with other clinical activities of some neurosurgery consultants, the timeslot between 08.00 am and 09.00 am is allocated primarily for the patients of these consultants.

The Spinal Infections MDT (occurs monthly at 08.00-11.30 am on the second Wednesday of the month in the N floor Seminar Room for members located in RHH and Vickers lecture theatre located on the ground floor, Vickers corridor of the NGH.

The list of patients with spinal infections is prepared and circulated to other core members of MDT by a member of Infectious Disease team. The MDT meeting is chaired by the spinal consultant on-call and after finishing the list of patients with spinal infections is followed by discussion of other (non-infection) spinal cases as per usual MDT.

The meeting is using video-conference facilities linking both hospitals (RHH and NGH).

Meeting Processes

All patients are discussed in the Complex Spine MDT meeting, and an individual management plan made for the patient. The spinal service offers the full range of surgical and non-surgical treatments, including physiotherapy and pain management and recruitment into clinical trials where appropriate.

Details for each referred patient should include a short clinical summary, the reason for referral to the meeting, together with any investigations performed.. Diagnostic imaging from outside STH must be sent by the imaging electronic portal or a CD must be sent and uploaded onto PACS.

An individual proforma is produced for each patient with details provided, including the reason for discussion and the latest diagnostic test, dates and results. The proforma should be sent to MDT Coordinator via email, fax or post by Tuesday morning prior to MDT. There is ongoing work of Mr Ivanov (Consultant Neurosurgeon) with the IT department to facilitate on-line referral and data collection using STH intranet (expected date of finalization – February 2015).

Each patient is presented by the clinician responsible for their care or by a delegated member of his/her team.

The Complex Spine MDT discussion will determine the possible treatment options for each new patient. The Chair will ensure that an action plan is formulated by consensus agreement.

The following details of all MDT meetings must be recorded and produced:

- An MDT Attendance List signed by the core team and other attendees.
- An individual treatment plan for each patient discussed, agreed by the team and recorded on the MDT patient proforma.
- The completed MDT proforma should include the following:
    - Identity of patient
    - The diagnosis
    - MDT advice with regard to further investigations, imaging, management plan, surgical options, pain management, physiotherapy or rehabilitation etc.

Copies are sent to the referring team for patients transferred back to their local hospital or faxed to their GP for those discharged home.

The minutes of MDT for each patient is reviewed weekly by Mr Ivanov (Consultant Neurosurgeon) and Mr Rex Michael (Consultant Orthopaedic Surgeon) after each MDT and after confirmation is made available electronically to the referring team and other MDT members by the MDT Coordinator. All outcomes from the MDT (including the completed proforma) will be sent to the referring clinicians by secure email or fax.

The consultant in charge of the patient and the Clinical Nurse Specialist is responsible for the immediate communication of any planning decisions to the patient.

For patients with benign spinal tumours, the relevant members of the team should discuss the treatment options with the patient in the outpatient clinic. Correspondence regarding this discussion and outcome of the MDT meeting will be made to the referring clinician or GP by letter, a copy of which will be filed in the patient's notes.

Cancellation of MDT meetings

MDT meetings can only be cancelled in exceptional circumstances, e.g., all consultants are not available. The email notifying about this will be sent to all core members and the cases will be postponed to the next MDT. The urgent cases will be resolved by the on-call teams.

It may be necessary for patients that would normally be expected to be discussed at the MDT meeting to have decisions made concerning their results and/or their treatment plans prior to the next MDT meeting. Such discussions will be subsequently endorsed at the next MDT meeting. Such actions and discussion outside the MDT meeting are formally recorded in the notes,

Emergency decisions between MDT meetings

In the event that a patient requires management prior to any of the named Spine MDT meetings, referrals are made between team members (in person, by phone or email) so that any emergency investigations and treatment decisions can be undertaken. The consultant in charge of the patient contacts other members of the team as appropriate.

Emergency decisions on patient management taken between meetings should be documented in the patient's notes and communicated to the MDT coordinator to add to the next meeting list. The treatment decisions are discussed in retrospect at the following MDT meeting and the treatment decision is documented.

Multidisciplinary working relationships

The complex spine service includes the following outpatient clinics:

General Spinal clinics – covering whole spectrum of spinal pathology weekly by all Orthopaedic Spine Surgeons and most Neurosurgeons.

Complex Spinal clinics – monthly by four Neurosurgeons with interest in Complex Spine pathology (Core Members of Complex Spine MDT): Mr Andrew Bacon, Mr Dev Bhattacharyya. Mr Ramez Ibrahim, Mr Marcel Ivanov, Mr Mathias Radatz). With four complex spinal a month it is expected that there is at least one complex spinal clinic a week,

Spinal Cord tumors clinics – monthly by Mr Marcel Ivanov (Consultant Neurosurgeon) and Mr Dev Bhattacharyya on ad-hoc basis.

In addition to these there are also clinics run by trained Nurse Specialist (supervised by consultants).

There are close links with the STH Neuro-Oncology MDT. Three neurosurgeons (Mr Bhattacharyya, Mr Ivanov and Mr Radatz) are also core members of the brain and CNS tumour MDT which is held weekly on Wednesdays at 12.30 after Complex Spine MDT.

There is strong link with the Sheffield Spinal Injuries Unit where patients requiring rehabilitation would be normally admitted following initial treatment in RHH or NGH.

Patient Centred Care

The named consultant for the patient has overall responsibility for the patient's clinical management, until the patient has been referred and seen by another consultant in the network or appropriate MDT. This will be made clear to the patient and their GP, recorded in their case notes and documented on the MDT proforma.

The patient will see their named consultant in clinic, occasionally jointly with other members of the appropriate MDT and the named consultant will write to the GP with any clinical decision. Patients will automatically be sent a copy of their consultation letter as per Trust policy unless they choose to opt out at the time of the consultation. Letters should

include details of diagnosis, treatment options and plan as well as follow-up arrangements.

If the patient receives another modality of treatment there will be a new named consultant, for example pain management, infectious diseases, and the rules stated above regarding outpatient clinics and letters to the GP applies together with a copy letter sent to the patient. Copies of these letters are filed in the patient's notes.

Referral Guidelines to the Service

All NHS patients with a suspected or newly diagnosed complex spinal condition (see definition of "complex spinal pathology" below), and private patients for which STH provides some contribution to their care, will be referred into the Complex Spine multidisciplinary team, and dealt with in a spinal clinic and complex spine MDT meeting.

Emergency Referrals

Referrals should be made to the on call STH Spinal Consultant or Neurosurgeon via hospital switchboard. This is a 24 hour service throughout the week and weekends. This is for advice and may lead to the patient being transferred to STH as an inpatient to a neurosurgical bed in RHH or spinal bed in NGH. Certain patients can be safely discharged from the referring hospital and admitted directly to a spinal/neurosurgical bed from home (to avoid any unnecessary waits in a hospital bed) or seen in our outpatient department.

A full clinical summary of the patient together with details of any diagnostic investigations should be sent with the patient and faxed to the on-call team and MDT Coordinator office. Diagnostic imaging should be sent via the imaging electronic portal if possible.

Non-Emergency Referrals from GPs and hospital clinicians

Referral by GPs or hospital clinicians is usually made by referral letter directly to the appropriate consultant or to the spinal/neurosurgical unit. Letters to the brain tumour unit can be faxed (0114 226 8509), emailed (Chloe.Handscombe@sth.nhs.uk).

If a patient has investigations in another department or another hospital and a diagnosis of a complex spinal condition is suspected or confirmed, the responsible clinician will communicate this information to the spinal team via letter. A letter outlining the patient's clinical details together with any imaging must be sent. Patients are discussed in the appropriate MDT meeting once the scans have been transferred (by the imaging electronic portal or a CD uploaded onto PACS for external films). These can then be reviewed on PACS by our radiologists (Dr Adrian Highland, Dr Daniel Connolly).

A small minority of patients with suspected complex spine pathology are referred directly by their GP to the spinal MDT office. In non-urgent cases it is advised that the patient with suspected complex spine pathology is initially seen by a spinal surgeon and only if considered appropriate, to be referred to the MDT.

Definition of "Complex Spinal Pathology"

As the general spinal pathology is extremely common and it is not possible to discuss every spinal condition on this meeting, the scope of the MDT is to discuss only the complex spinal cases. There are two groups of spinal pathologies:

Group 1 – Spinal pathology that **must** be discussed at the MDT

- *all spinal tumours*
- *all spinal fractures/dislocations*
- *all spinal infections*
- *spinal deformities*
- *primary thoracic and primary anterior lumbar pathology*
- *any cases that may require more than two level spinal fixation*

Group 2 – Spinal conditions which are advised to be discussed at the MDT

- *any cases that may require one or two level spinal fixation (non-specialised)*
- *primary cervical pathology (two or more levels decompression and fusion)*
- *cases where uncertainty with regard to further surgical management exist or an advice from colleagues regarding optimal management in a difficult spine is required*
- *all spinal complications related to instrumentation*

Clinical Services

The spinal service offers an integrated comprehensive service for the treatment and care of patients with Complex Spinal Problems

Diagnostic Clinics

Many patients will be seen by the referring clinician in a local hospital and will have a diagnostic MRI scan at that point, before onward referral to the Complex Spine MDT. Other appropriate diagnostic investigations may also occur locally. Once referred to the MDT, patients may be transferred as an inpatient to STH or seen in clinic initially prior to discussion at the MDT meeting. Alternatively, patients may initially be discussed in the MDT meeting before considering whether the patient requires transfer and assessment at STH.

Radiology Services

Our radiologists (Dr Adrian Highland (NGH), Dr Daniel Connolly (RHH)) provide a service that can deliver appropriate diagnostic investigations in a timely and efficient manner, complying with national waiting times and targets and are directly involved in pre and post-operative management decisions. Both radiologists are core members of the MDT. In addition to diagnostic services, they have significant involvement in interventional procedures (diagnostic spinal injections, vertebral cement augmentation etc).

Clinics following the Complex Spine MDT meeting

Following discussion of a case at the MDT , the recommendation(s) for further management will be relayed to the referring clinician, who will take primary responsibility for discussing these with the patient. Where appropriate the patient may then be referred on to one of the specialist clinics for further assessment, and to allow them to discuss the rationale for treatment with the relevant specialty team.

Surgical Services

All spinal surgeries for Complex Spine Pathology will be performed at STH by the named surgical members.

Surgery for spinal conditions takes place seven days a week and our spinal surgeons have access to state of the art technology, including spinal navigation. This enables the surgeons to improve the accuracy of spinal fixation and reduce the radiation exposure of the theatre staff.

We also have established collaboration with Neurophysiology Department and routine intraoperative monitoring (SSEP, MEP, D-wave, EMG etc) for surgery of spinal cord tumours and other spinal surgeries where the risk of spinal cord damage is considered to be high. This has been shown to be helpful to improve the rate of tumour resection and reduce the risk of postoperative neurological deficit.

The theatres are equipped with top of the range surgical microscopes (Zeiss Pentero 900, Leica) that have the necessary filters for ICG and 5ALA) as well as intraoperative

ultrasound, which is helpful to identify intramedullary spinal cord tumours.

Surgical Pre-Assessment and Admission

All elective patients are pre-assessed prior to inpatient admission to STH. Patients who present a specific or increased anaesthetic risk will undergo earlier anaesthetic assessment as arranged by the surgical or medical teams.

Patients will be admitted to STH on the day before or the day of surgery, where they will be assessed by the anaesthetist and the surgical team to assess and ensure that the patient is fit for treatment at the time of surgery.

Radiotherapy services

Radiotherapy and chemotherapy are provided at WPH and STH.

Patients will have access to:

- A comprehensive radiotherapy service which treats patients with:
  - Conventional radiotherapy techniques,
  - Stereotactic radiosurgery when appropriate (Mr Radatz and Mr Bhattacharyya – 50% of their activity in the Trust is stereotactic radiosurgery)
  - CyberKnife (MVCC) (Mr. Radatz has admitting rights for CyberKnife treatment)
- A Comprehensive chemotherapy service used as first line management for spinal tumours (and at recurrence, where patients will be offered entry into clinical trials is appropriate. This is discussed at the Neurooncology MDT

Neurorehabilitation Facilities

The treatment of patients with significant neurological is done in the Spinal Injuries Unit after appropriate referral is made. Our physiotherapist and occupational therapists make a joint assessment of the ward patients.

Referrals are made for in-patient rehabilitation to the Spinal Injuries Unit at STH or to other in-patient rehabilitation services local to the patient. Referral to community services are made, the teams receiving these are either specialist teams or general community teams dependant on their structures.

Occupational and Physiotherapy

The role of the Occupational Therapy in spine is to:

- Provide specialist OT assessment and intervention, which includes assessment of physical, cognitive, sensory and perceptual abilities and their impact upon function.
- Appropriate intervention is planned and developed in conjunction with the patient, their carers and the rest of the MDT
- Provide specialist education and advice to patients and carers.
- Work collaboratively with other professionals involved in patient care in both the primary and secondary sector.

- Facilitate transfer of care and discharge planning, ensuring respect for patient autonomy and choice and allowing consideration from the patient and their family regarding treatment options and discharge plans.
- Recommend and provide specialist adaptive equipment to facilitate timely discharge and enable the patient to remain as independent as possible. The role of the Physiotherapy in spine surgery is to:
- Provide specialist physiotherapy assessment and intervention, which includes respiratory status, muscle tone, balance, mobility and functional activities.
- Provide advice and education to family and carers about how to manage and maintain mobility & functional activities.
- To assess and provide appropriate equipment/aids to enhance mobility.
- To work collaboratively with other health care professionals to co-ordinate aspects along the patient journey.
- Facilitate transfer of care and discharge planning, ensuring respect for patient autonomy and choice and allowing consideration from the patient and their family regarding treatment options and discharge plans.
- At STH the Physiotherapist are integral members of the MDT and attend Complex Spine MDT meetings to maintain regular communication with the rest of the team.

20.12 Discharge Planning and Discharge from Hospital

Patients will be discharged after review when they meet the following criteria:

- When the patient is deemed medically and surgically fit.
- When the patient has received training on any equipment required.
- When the patient has received sufficient medication to take home for at least two weeks as per local agreement.
- When a follow up appointment has been made.
- When a rehabilitation plan has been tailored for the patient between the key worker and the local support team.
- As part of the enhanced discharge planning for spinal tumour patients, a provisional date should have been given to the patient at the pre-assessment clinic. In the case of protracted inpatient stay, where social issues or co-morbidities prevent discharge home, the senior nurse/ward manager will liaise with local inpatient teams to facilitate effective transfer back to the patient's local Trust.
- Discharge documents are prepared by the medical team and include past medical history, diagnosis, procedure, follow up arrangements and medication. These documents will be communicated to the GP and local clinical team. Copies will be given to the patient and placed in the medical notes as per local discharge policy.

Emergency Care post surgical discharge

At the point of discharge, a written summary of the admission, including patient diagnosis, past medical history, procedures performed, discharge medications, and

follow up arrangements is handed to patient, and sent to referring clinician and GP.

Follow up

When patients with complex spine pathology finish their treatment a personal follow up care plan is discussed and agreed. (The surgical teams will take responsibility for the patients following surgery until discharge from hospital and until patients have been returned to the care of their referring clinician. The surgical team can be contacted during normal working hours or the spinal/neurosurgical consultant on call for post-operative surgical advice.

Patients who have had surgery will have a routine follow up at 6-8 weeks unless they have been referred to another team for further treatment.

Data Collection

The complex spine MDT currently collect and submit data to the British Spine Registry currently run by BASS (British Association of Spine Surgeons). We have submitted data including patient clinical details, diagnosis, dates of referral, surgery, complications, patient reported outcome (VAS, EQ5D, ODI).

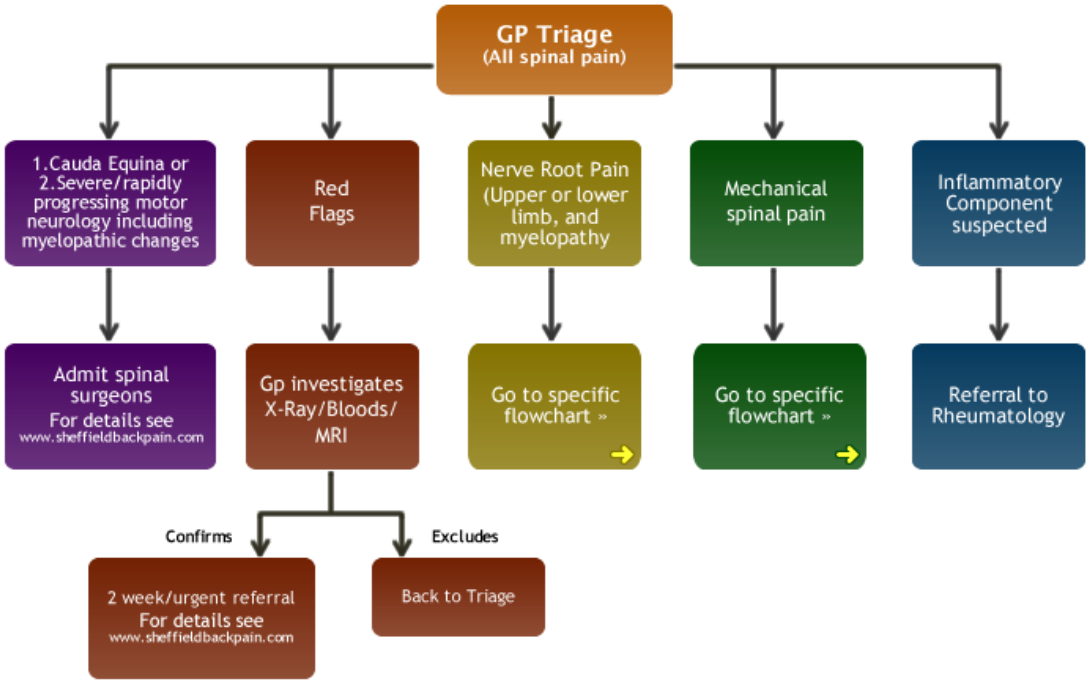
COMPLEX SPINE MDT REFERRAL FORM

To be completed for all referrals and sent to MDT coordinator prior to meeting

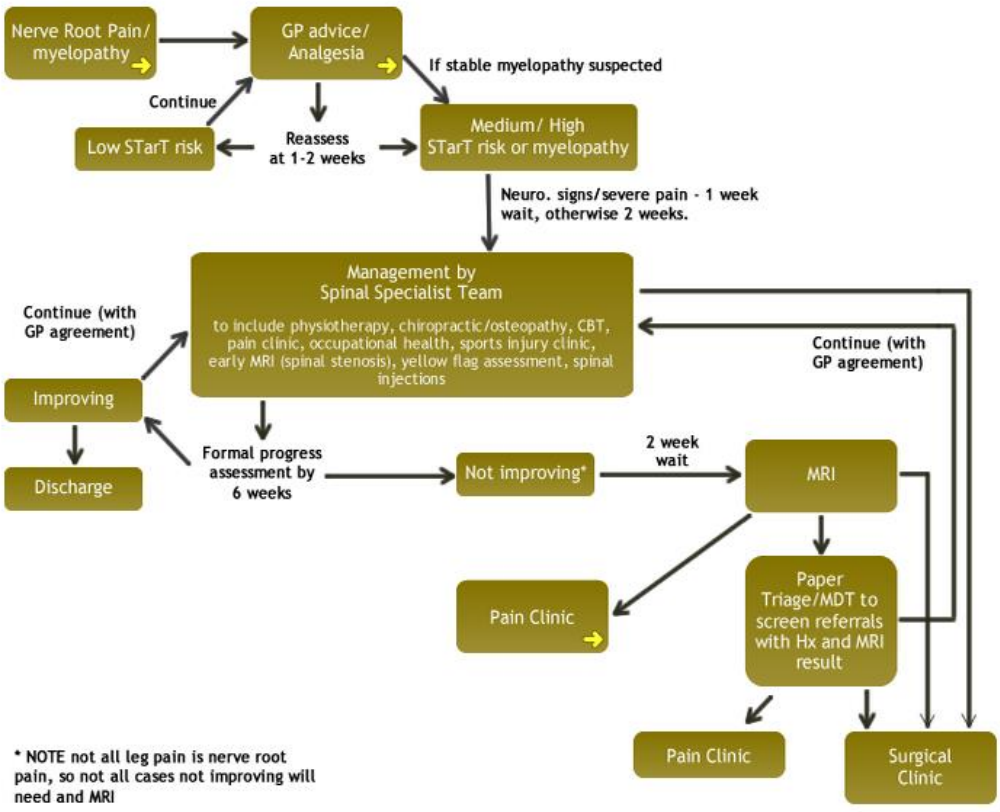
emma.fisher@sth.nhs.uk Fax no: 0114 226 8509 ***Tel no: 0114 27126 66***

Patient details	Name:		
	Address:		
	NHS No:	DoB:	Date of referral:
Consultant			
Patient's location	Home	Hospital…… Ward……	
Site	**Cervical / Thoracic / Lumbar / Sacral**		
Suspected diagnosis			
Questions to MDT			
Brief clinical history and clinical examination findings			
Neurological status			
Duration of symptoms			
Significant co-morbidities.			
Performance score.	**WHO Performance status** (circle most appropriate): 0 Normal Activity 1 Capable of Light Work 2 Self-caring, up >50% of day 3 Limited Self-care, up <50% of day 4 In bed		
Treatment received	**Medication** **Is patient currently on?** Aspirin Yes/ No Warfarin Yes/No Dexamethasone Yes/No - Dose		
Referral made by:	**Name** …… **Hospital** …… **Contact Nr:**…… **Clinical Referral Letter attached? Yes** ☐ **No** ☐		

Pathways



Nerve root pain



Mechanical spinal pain