Hull University Teaching Hospitals NHS Trust - GP Spinal Referral Guidance to Neurosurgery

1. Would your patient accept surgery if offered if not, don't refer.

2. Is your patient fit for surgery, if not, don't refer.

3. Does your patient have **red flag** conditions – cancer, CES, young age etc. If so, arrange an emergency outpatient MR scan locally. When you have the result ring and ask to speak to the on-call neurosurgeon to discuss if there is any relevant pathology.

4. When a patient is keen to explore **spinal injections** as a treatment option (either because of comorbidities, personal choice or circumstances, fear of risks with surgery, age etc.), referral should be directed to the Pain Service and not to neurosurgery.

5. If your patient has **non-specific** leg pain, arm pain, shoulder pain or non dermatomal/axial spinal pain: this should be managed in Primary care, by a GPwSI, in a Pain Clinics or by an MSK service.

6. **Osteoporotic Fractures / Fragility fractures** : Osteoporotic fractures in the absence of deformity or a new neurological deficit are NOT the remit of Neurosurgery. To further investigate an up to date (less than 3 months old) MRI with STIR is advised with the aim of diagnosing the acuteness of the fracture (old and healed or new) and differentiate between an insufficiency fracture or a pathological (secondary to an unknown metastatic disease - Any red flags?)

   a. If the patient is felt suitable for vertebroplasty, a referral to the Vertebroplasty MDT should be completed and returned to hyp.tr.RadiologyMDT@nhs.net.

   b. Please consider a referral to the Metabolic Bone team for advice regarding on-going osteoporosis management.

7. Does your patient have true sciatica?

   a. Specific pain in a radicular distribution that radiates down the leg to the foot, is increased with coughing and straining and is associated with paraesthesia, appropriate dermatomal numbness, appropriate myotomal weakness, appropriate reflex loss. (S1 – side of foot, L5 big toe, L4 anterior shin, L3 - inner thigh)

   b. Straight leg raising must be reduced by radicular pain and not by back pain or hamstring tightness and should have a positive Lasague test which increases radicular pain and is associated with sensory symptoms.

   c. If your patient meets these criteria arrange an MRI scan and refer with a detailed letter outlining the symptoms and signs if the MRI shows a correlative pathology if the *following are met* (and if patient wants to consider surgery):

- Patients understand that surgery can be offered to improve their leg symptoms rather than back pain and that patient is willing to accept **risks with spinal surgery** such as:

- *Infection, Haemorrhage, Major Vascular Injury, Life at risk, Nerve damage (paralysis of legs, bowel, bladder – sexual dysfunction), durotomy (that may require another operation up to an insertion of a permanent Lumbar-peritoneal shunt), perineural fibrosis, positional neuropathy, deep venous thrombosis, pulmonary embolism, No improvement or worsening of symptoms, Disc reoccurrence or incomplete disc removal, positional neuropathy, anaesthetic risks, unexpected risks.*

- We do not have expectations that primary care physicians consent patients. We want to ensure that patients have a good understanding that surgery has risks.

8. Does you patient have spinal claudication?

a. Pain in the legs increases with walking and is associated with paraesthesia and weakness that reduces mobility, or exercise tolerance.

b. The pain should be relieved by rest and regularly reproducible.

c. The patient should be able to walk further if bent forward e.g. with , frame or shopping trolley

d. Normal peripheral vascular examination

e. If your patient meets these criteria arrange an MRI scan and refer with a detailed letter outlining the symptoms and signs if the MRI shows a correlative pathology and refer to the risks as mentioned above

9. Does your patient have true brachalgia?

a. Specific pain in a radicular distribution that radiates down the arm to the hand, is increased with coughing and straining and is associated with paraesthesia, appropriate dermatomal numbness, appropriate myotomal weakness, appropriate reflex loss (C5 – shoulder and outer arm, C6 – thumb and index, C7 middle, C8 – little and ring). Pain that goes to all fingers is not typically radicular.

b. Turning the head or lateral flexion of the neck may precipitate radicular pain or they have evidence of a positive Spurling's sign.

c. If your patient meets these criteria arrange an MRI scan. If the MRI scan shows relevant findings, please refer with a detailed letter outlining the symptoms and signs if the following are met:

d. Patients understand that surgery can be offered for brachialgia symptoms rather than patient's axial neck pain and that patient is willing to accept **risks with spinal surgery** such as

Infection, Haemorrhage, Major Vascular Injury, Life at risk, Nerve damage (paralysis of arms/legs, bowel, bladder – sexual dysfunction), durotomy (that may require another operation up to an insertion of a permanent Lumbar-peritoneal shunt), swallowing disturbances, hoarseness, stroke, perineural fibrosis, positional neuropathy, deep venous thrombosis, pulmonary embolism, No improvement or worsening of symptoms, Disc reoccurrence or incomplete disc removal, positional neuropathy, anaesthetic risks, unexpected risks.

e. We do not have expectations that primary care physicians consent patients. We want to ensure that patients have a good understanding that surgery has risks

10. Does your patient have cervical myelopathy (upper motor neurone lesion)?

a. Numb, clumsy hands, tingling in all fingers, stiff arms, stiff legs, difficulty walking, urinary urgency with increased tone and increased reflexes in the upper and lower limbs.

b. If your patient meets these criteria arrange an MRI scan and refer with a detailed letter outlining the symptoms and signs once MRI reported and shows relevant compression.

11. Many patients with back pain or neck pain get MRI's in primary care. Disc bulges or lateral recess stenosis is almost always found as this is normal in the population with increasing frequency with age. Radiologists report these changes and suggest Neurosurgical referral. This is completely unnecessary unless the patient has Sciatica, Claudication, Brachalgia or Myelopathy as described above and at an appropriate level for the described pathology.

12. Back pain or Neck Pain is not a reason for referral except in the context of red flag symptoms and/or radicular signs as mentioned above.

    a. The fact that pain is severe in the presence of degenerative disease is not an indication for referral as NICE does not recommend surgical treatment and treatment is provided in Primary care, by a GPwSI, in a Pain Clinics or by an MSK service.

    b. Spondylolisthesis (plain x-rays) may rarely be an indication for surgery and advice on management can be sought by advice and guidance.

    c. If patients have seen everyone else, don't refer as a last resort for neck pain or back pain as if they had anything that required surgical opinion. This would have been advised and screened out by a GPwSI, a Pain Clinic or an MSK Service

Spinal pain is normal with age as it is an age-related degenerative condition. It is a chronic long-term condition like asthma, diabetes, MS and should be managed in primary care with advice, education physiotherapy and analgesia, remembering that no analgesic will relieve severe mechanical back pain. Analgesia will reduce background pain but not severe movement induced pain.

Degenerative back pain is similar to pain from an arthritic joint or a broken limb. Analgesia will help with background inflammatory pain but will not help much with pain from body weight loading or movement – this is where physiotherapy (core stability) can help.

We want to see patients that we can help. The patients that can and should be helped are those with neurological pain, neurological symptoms and signs, and disability.

Waiting times being as they are for routine outpatient appointments, many patients are referred to the spinal clinic and wait for months to be seen, only to tell us that they don't want surgery and that they would prefer injections to treat their problem. This is a waste of the patient's time, causes unnecessary delays for patients that are suitable candidates for surgery and is a poor use of limited specialty resources.

NOTES ON SPINAL REFERRALS

RED FLAGS

- Presentation younger than age 20
- Onset of symptoms following violent trauma (e.g. RTA; fall from a height)
- Thoracic pain
- Past medical history of carcinoma
- Patients who are using systemic steroids
- History of HIV and/or drug abuse
- Patients who are systemically unwell
- Patients with unexplained weight loss
- Persistent severe restriction of lumbar flexion
- Patients with inflammatory disorders such as ankylosing spondylitis

SPINAL CLAUDICATION

Radiating leg pain, paraesthesia or numbness coming on with walking and distance-limiting.

Pain progression is normally from buttocks to the periphery.

Relief is gained by rest and bending forwards.

Neurological symptoms (paraesthesia, numbness and/or muscular weakness) also resolve with rest.

Peripheral pulses are normal.

CAUDA EQUINA SYNDROME

- Bilateral radiating leg pain
- Sphincter disturbance
- Reduced perianal sensation
- Perineal numbness
- Progressive motor weakness affecting more than one nerve root and/or gait disturbances

Referral must include the findings from perineal examination

MYELOPATHY (cord compression)

Symptoms include numb, clumsy hands; jumping, stiff legs; falls, poor balance and urinary frequency.

Examine for long tract signs (also known as upper motor neuron or pyramidal signs)

Signs to look for include: hyper-reflexia, Babinski, clonus, crossed-adductor reflexes, Hoffman's, and loss of fine finger movements.

FURTHER LINKS AND SUGGESTIVE ANALGESIC REGIMES

https://bnf.nice.org.uk/treatment-summaries/low-back-pain-and-sciatica/

For back pain and sciatica, first-line, short-term management includes OTC NSAIDs (ibuprofen, naproxen) to reduce inflammation, potentially paired with paracetamol. For acute, nerve-related sciatica pain, medication like gabapentin or pregabalin may be used. Keep active and avoid long rest periods; heat/ice packs can provide relief