Metastatic Spinal Cord Compression (MSCC)
### Recognition

**Patient with suspicious spinal pain**

Do they have a cancer diagnosis? Don’t forget a history of previously ‘treated cancer, e.g. breast, or prostate cancer (consider PSA level) maybe years ago. 1 in 4 MSCC is a new cancer diagnosis, including haematological malignancies.

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#### Question 1:

Do they have pain suggestive of **spinal metastases**?

- Pain in the thoracic or cervical spine
- Progressive lumbar spinal pain
- Severe unremitting lumbar spinal pain
- Spinal pain aggravated by straining
- Localised spinal tenderness
- Nocturnal spinal pain preventing sleep

#### Question 2:

Do they have symptoms of **Metastatic spinal cord compression (MSCC)**?

**Symptoms MSCC**

- Radicular Pain
- Limb weakness
- Difficulty walking
- Sensory loss
- Bladder/Bowel dysfunction

#### Question 3:

Do they have clinical findings consistent with **MSCC**?

Undertake neurological examination to confirm clinical findings support symptoms Radicular Pain

- Limb weakness & motor loss
- Difficulty walking
- Sensory loss
- Bladder/Bowel dysfunction

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**If Yes to Question 1 Only**

**Symptoms Suggestive of Spinal Mets but no Neurological Finding**

**Immediate management**

Discuss with the Acute Oncology Service (AOS team) within 24 hours. If AOS not available discuss with local cancer centre if clinical concern.

These patient are at high risk of developing MSCC. Consider admission, consider analgesia (using the WHO analgesic ladder (link to WHO analgesic ladder) and /or local specialist palliative care team for advice (link to local SPCT inc OOH contact details), patient requires senior clinical review. Consider escalating if history of rapidly changing symptoms.

① For inpatients – daily monitoring of neurology, inform Acute Oncology Service of patient & request urgent (within 7 days) MRI whole spine.
② For outpatients whilst awaiting an urgent (within 7 days) MRI whole spine: If patient has a known cancer please ensure that GP/AOS Team/Treating centre is aware of patient , make sure concerns are highlighted on discharge letter and patient aware to act swiftly if any deterioration.
If you are concerned about new cancer diagnosis please seek senior advice.

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**If Yes to Question 2 and/or 3**

**Suspicion of Spinal Mets and Neurological Signs/Symptoms of MSCC**

Immobilise lie as flat as symptoms allow – (see guidance below)

Commence on Dexamethasone 16mg OD and PPI cover (see guidance below)

Analgesic care – pain can be severe may require opiates or specialist advice

DVT prophylaxis –

Refer for urgent **WHOLE** spine MRI within 24 hours

**TIP** - Patients regularly have multiple spinal level involvement.
**TIP** - too frail or unfit for specialist treatment – **See detail below**

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**If No to All the Above - No Suspicion of Spinal Mets**

Patients with nonspecific back pain and no clinical features suggestive of spinal metastases

Regular review within primary care or treating clinical team with the proviso to investigate if changing symptoms.
Nursing Flat

Ideally nurse flat (supine) with spine in neutral alignment patients with severe mechanical pain suggestive of spinal instability or neurological symptoms or signs suggestive of MSCC until spinal and neurological stability are ensured. Use log rolling techniques or turning beds and a slipper pan. Refer to Physio.

Once any spinal shock has settled and the spine and neurology are stable, monitor and assess during gradual sitting (to 60 degrees).

If blood pressure is stable and there is no significant increase in pain or neurological symptoms, continue to unsupported sitting and mobilisation. If pain or neurological symptoms worsen, return to a position where these changes reverse and reassess spinal stability. Consider C–spine immobilisation if C-spine affected — discuss with spinal surgeons /AOS team.

If patients are not suitable for definitive treatment they should be helped to position themselves and mobilise as symptoms permit after a discussion of the risks. Provide orthoses or specialist seating, if appropriate.
Dexamethasone

Prescribe 16 mg of dexamethasone to patients with suspected MSCC (unless contraindicated, including a significant suspicion of lymphoma) and continue dexamethasone 8 mg bd while treatment (surgery or radiotherapy) is being planned.

After surgery or the start of radiotherapy, gradually reduce the dose according to your local hospital policy (or if no policy consider halving the dexamethasone dose every 4 days until stop. If neurological function deteriorates, consider increasing the dexamethasone dose temporarily. In patients with MSCC who do not proceed to surgery or radiotherapy after planning, gradually reduce the dose and stop dexamethasone. Reconsider the dose if neurological function deteriorates.

Check diabetes risk and regular glucose monitoring

Do Not Transfer Unnecessarily, Patients with MSCC who are too Frail or Unfit for Specialist Treatment.

Discuss patients with suspected MSCC, a poor performance status and widespread metastatic disease with their primary tumour site clinician and spinal senior clinical adviser before any urgent imaging or hospital transfer.

If possible urgently discuss patients with suspected MSCC who have been completely paraplegic or tetraplegic for more than 24 hours with their primary tumour site clinician and spinal senior clinical adviser before any imaging or hospital transfer.