Update on Management of Malignant Spinal Cord Compression

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Current Guidelines

- The symptoms of MSCC may be subtle and therefore careful history taking and examination are essential. 4  [Level 3]
- Always consider the overall condition of the patient before investigation and treatment are commenced, as maintaining quality of life should be the main aim of care. 7  [Level 3]
Current Guidelines continued

- If a cancer patient with known back pain experiences changes in pain severity and/or presence of root pain, MSCC should be considered as a possible diagnosis. 4  [Level 3]

- In patients with back pain but no cancer history, the diagnosis of MSCC may be delayed. This delay may be minimised by focusing on the history / examination and considering associated features which may suggest an underlying cancer diagnosis e.g. weight loss, general performance status or older age. 6  [Level 3]
Guidelines continued

- Cancer patients with known bone metastases or who are at high risk of developing spinal metastases should be given an information leaflet detailing symptoms of MSCC and who to contact in an emergency. 5 [Level 4]

- Cancer patients who develop clinical features of spinal metastases should have an MRI of the whole spine performed within one week. 5 [Level 4]
Guidelines continued

- If MSCC is suspected and patients are considered fit for investigation, an urgent MRI of the whole spine should be performed within 24 hours. 5, 9 [Level 2-]

- If an unstable spine or MSCC is suspected clinically or radiologically, consider immobilising the patient with flat bed rest until definitive treatment can be arranged. 5 [Level 4]

- If MSCC is suspected dexamethasone is the corticosteroid of choice. 3 [Level 2+]
Dexamethasone should be given in a daily dose of 16mg as soon as MSCC is suspected. If dexamethasone is not given or given in a lower dose, the reason for this should be documented. The dose of dexamethasone may have to be higher in patients receiving phenytoin or carbamazepine (see Guidelines on Antiepileptics and Corticosteroids). 3, 5 [Level 2+]
The basic care of patients with confirmed malignant spinal cord compression will include use of appropriate analgesia; pressure area care and bowel/bladder care. 1, 5 [Level 4]

Appropriate patients should be referred for surgery/radiotherapy immediately after diagnosis. 8

There is some evidence that clinical outcomes are better with surgery than radiotherapy. 10

[Level 3]
Guidelines continued

- Consider referral for a surgical opinion if the patient has a life expectancy of greater than 3 months and has not been paraplegic for more than 24 hours. Patients who may be suitable include:
  - No prior history of cancer.
  - Single metastasis.
  - Spinal instability.
  - Bony compression of the spinal canal.
  - Progression of symptoms during radiotherapy.
  - Bone compression of MSCC in a previously irradiated area. 7, 5 [Level 3]
Guideline continued

- All teams should be aware of the local guidelines for referral of patients with suspected MSCC. 5 [Level 4]
1. All patients with suspected MSCC should be asked about the presence or absence of back pain, nerve root pain, motor, sensory and bladder symptoms and the results documented in the case notes. 4 [Grade D]

2. Dexamethasone should be given as soon as MSCC is suspected in a total daily dose of 16mg. If dexamethasone is not given or given in a lower dose the reason for this should be documented.3, 5 [Grade D]

3. If a patient with MSCC is considered fit for investigation and treatment an MRI is the investigation of choice. 5, 9 [Grade D]

4. If MSCC is confirmed, transfer for definitive treatment to oncology/surgery should be completed within 24 hours. 8 [Grade D]
Responsibility to inform patient about risks of MSCC lies with Health Care Professional who identifies the risk

Spinal pain recognised as important symptom of spinal cord compression

Patients with suspected MSCC should be seen within 2 hours in A and E

Patients should be starved until surgical decision
Guidelines continued

- Don’t delay MRI
- If MRI facilities not available locally consider transfer to facility with MRI after discussion with MSCC co-ordinator at WCNN
- Adequate pain relief including invasive procedures as appropriate
- Consider bisphosphonates for patients with spinal pain from metastases who have myeloma or breast cancer. Prostate cancer only second line, not for other primaries
Guidelines continued

- Radiotherapy to painful spinal metastases even if paralysed
- Consider vertebroplasty if pain but no MSCC
- Patients with suspected MSCC should be nursed flat in bed
- Mobilisation after any spinal shock has passed
Guidelines continued

- Dexamethasone 16mg unless contraindication
- Consider PPI cover
- Patients with poor performance status and widespread disease should be discussed with specialist before imaging or transfer
- Offer thromboprophylaxis
- Rehabilitation should include psychological aspects
- Rehabilitation should start at diagnosis
MCCN Metastatic Spinal Cord Compression Referral Pathway

Suspicion of MSCC

Local Clinician - arrange urgent MRI scan within 24 hours

MRI Negative for MSCC

Local management of ongoing symptoms - Consider neuro-referral if neurological deficit or need for pain management

MRI Positive for MSCC
MCCN Metastatic Spinal Cord Compression Referral Pathway

Discuss with patient
Telephone MSCC clinical co-ordinator at WCNN
Urgently
Commence referral proforma and fax, arrange to share scan

Local clinician will get a response within 2 hours of contacting the MSCC coordinator based on:
* Telephone triage, review of MRI
* Clinical history; presenting symptoms, tumour type, extent of disease, co-morbidity, previous treatments
* Discussion will include initial management advice, including moving and handling; drug treatment
MCCN Metastatic Spinal Cord Compression Pathway

**Surgical option not appropriate**
Contact CCO on-call registrar via 0151 334 1155; fax referral form to 0151 482 7726
* Telephone triage, review MRI
* Clinical history; presenting symptoms, tumour type, extent of disease, comorbidity, previous treatments
* Discuss any further management advice – including moving and handling, drug treatment

**Surgical option appropriate**
Local clinician:
* Send results of blood, calcium, haemoglobin; scans; notes; information about moving and handling advice given to patient
* Organise transport if required

Consultant on Call for MSCC:
* source bed, surgical capacity
MCCN Metastatic Spinal Cord Compression Referral Pathway

**Radiotherapy option appropriate**
Local clinician:
* sends results of blood, calcium, haemoglobin, scans, notes, information about moving and handling advice given to patient
* organise transport

Clatterbridge Centre for Oncology clinician:
* source bed and radiotherapy capacity

**Supportive/palliative care option appropriate**
Local clinician:
* liaise with local specialist palliative care team
Emergency Referrals

Emergency referrals – (incipient neurological deficit) – immediate

For patients where an immediate opinion is required:-

1. Please phone the MSCC Coordinator at The Walton Centre on 0151 525 3611 who will discuss the case with the Consultant on call for MSCC and with Clatterbridge Centre for Oncology where required.
2. Then fax the 2 page referral form to: 0151 529 6626 and arrange to forward scans to the Walton Centre via image link. Do not delay referral if referral proforma not complete.
Urgent Referrals

Urgent referrals: (mechanical spinal pain without neurology) – within 24 hours

For patients that require an urgent (within 24 hours) but not immediate opinion, please fax the 2 page referral form directly to 0151 529 6626 and arrange to forward scans to the Walton Centre via image link. Then contact the Metastatic Spinal Cord Compression Coordinator via Walton Centre switchboard on 0151 525 3611 who will bring the case to the attention of the Consultant on call for MSCC. The fax machine is accessible 24/7.

Please note this does not infer acceptance of the referral until subsequently notified.
Surgical Services

Surgery for metastatic spinal cord compression is undertaken by neurosurgical specialists at the Walton Centre and the spinal specialists at the Royal Liverpool & Broadgreen University Hospitals Trust (RLBUHT). The two teams work together co-operatively to provide a 24/7 service to the population of Merseyside and Cheshire, and ensure best use of skills and capacity. The Consultant on call for MSCC will be from one of these two teams.
Radiotherapy Services

Following discussion with the Walton Centre MSCC Coordinator, if the patient is not suitable for surgery, the on call registrar at Clatterbridge Centre for Oncology will advise on, and arrange where appropriate, radiotherapy. The registrar can be contacted at all times on 0151 334 1155.
Rehabilitation and Follow Up

Following either surgery or radiotherapy, the patient’s further management will be undertaken in conjunction with the appropriate MDT, e.g. local palliative care team, tumour site MDT.
Suggestion for changes to current guideline

- Include referral pathway suggested by MCCN
- Adapt guideline in line with MCCN guidance