PATHWAY MANAGEMENT OF METASTATIC SPINAL CORD COMPRESSION (MSCC)

THE CHRISTIE, GREATER MANCHESTER & CHESHIRE

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Target audience:	All Clinicians		

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Objectives

1. To ensure that all patients 'at risk' of MSCC receive Patient Information leaflet – Spinal Cord Compression 'What you need to know', by a doctor, nurse, AHP or appropriate clinician with a verbal explanation
2. To ensure that the patient has the most appropriate treatment (surgery and post-operative radiotherapy, radiotherapy alone or best supportive care) by a combined triage process
3. To minimise the time to reach both a definitive treatment decision (aim within 24 hours of confirmed diagnosis) and to start treatment itself
4. To simplify the referral process and ensure good communication at all times by use of a single point of access – Network MSCC Co-ordinating Service
5. To incorporate a process for audit and quality assurance
6. To ensure plan for rehabilitation and discharge is timely and appropriate.

See The Christie, Greater Manchester & Cheshire guidelines and Pathway flow diagram *for management of an MSCC patient from clinical suspicion, to diagnosis, through to treatment and rehabilitation. This document accompanies the flowchart and provides explanatory notes of the treatment pathway (see link at the end of document).*
On suspicion of MSCC, it is expected that patients would be admitted to their local hospital and have the necessary investigations carried out at this location to diagnose MSCC. If the patient requires a period of admission for specialised treatment at another hospital site, it is expected that their local hospital will accept the patient on completion of treatment for any continuing support and care needs. This transfer must be co-ordinated to ensure the rehabilitation needs of the patient are continually met. ***The Named AHP Rehabilitation Link Person****** *may be contacted for advice.*

Treating centres

Surgery: Patients who have been triaged by the MSCC Co-ordinating Service and considered to be suitable for surgical opinion following discussion with the Clinical Oncologist will be transferred to Salford Royal Foundation Trust (SRFT) Spinal / Neuro surgery unit. Patients accepted for transfer from the referring hospital, will return there after surgery.

Radiotherapy: Christie at Withington(Central/South sector), Christie at Salford Royal (NW sector, Christie at Royal Oldham Hospital (NE sector) or Christie at Macclesfield (Mid and East Cheshire) .

Treatment pathway (refer to MSCC flowchart)

STEP 1: CONFIRM DIAGNOSIS OF MSCC BY MR SCAN

Actions for referring clinician:

- Admission to local hospital via A&E – for urgent clinical assessment

- Start dexamethasone 16mg daily (8mg BD) with PPI cover unless contraindicated (significant suspicion of lymphoma). If there is progressive neurology dexamethasone can be used at clinical discretion for patients suspected of having a lymphoma as long as a biopsy is done as soon as possible.
- Plasma glucose must be checked on all patients commencing steroids. Capillary blood glucose testing (CBG) must continue whilst the patient is taking steroids. Please refer to local trusts Steroid and CBG monitoring guidance for further information.
- Immobilise patient (as per The Christie, Greater Manchester & Cheshire MSCC guidelines)
- If there is uncertainty regarding MSCC signs, contact Network MSCC Co-ordinator for advice
- MRI of the WHOLE SPINE: Urgent request for imaging to be done at the patient's local hospital on the same day or within 24 hours of clinical suspicion and ensure timely reporting.
    - MRI scan OOH (Out of hours):
        - Patients to be scanned at their local hospital – (Salford Royal Radiology department does not accept imaging requests from anywhere outside Salford).
        - If neurology is stable then appropriate to scan on Monday – (i.e. patient remains at their local hospital).
        - If neurology is changing and scan cannot be done locally, then referring medical consultant at referring hospital to discuss with RMO at SRFT (via switchboard 789 7373 bleep 3693).
        - If the Emergency Assessment Unit (EAU) at SRFT accept patient, they will request MR scan.
        - A bed should be kept at referring hospital so that patient can be transferred back for on-going social/medical treatment (this should be clarified by EAU Consultant when accepting referral).
    - MRI scan must be reported urgently same day. Where an emergency MR is requested to assess for MSCC, the referring clinician should read the verified report as a matter of urgency and act upon the findings. If an unexpected finding of MSCC, or 'high risk of MSCC' is found in a CT or MRI scan by reporting radiologist, this should be communicated urgently to the referring clinician in person.

- Refer to local physiotherapy & OT / **MSCC Named Rehabilitation AHP Link person***
- **NB:** On confirmation of MSCC, <u>SPINAL STABILITY</u> should be assessed and documented. Input from the Medical team, radiologist and AHP teams is vital in assessing stability, refer to the stability guidelines.
- If MR scan shows 'impending' cord compression, refer to the 'Pathway management and guidance of Impending cord compression' also on the Christie MSCC webpage.
- If no MSCC found on MRI scan, inform GP and oncology team to ensure continued monitoring of signs and symptoms. If symptoms persist or worsen review patient urgently.

<u>STEP 2: CLINICIAN CONTACTS THE NETWORK MSCC CO-ORDINATOR SERVICE</u>

- A referral to the network MSCC coordinator must be made immediately on radiographic confirmation of MSCC.
- Referral to the MSCC coordination service is currently via Christie switchboard on 0161 446 3000 and requesting to be put through to the MSCC coordinator. Out of hours, the service is managed by the clinical oncology registrar on call at the Christie, who can also be reached via switchboard.

- Patients with impending MSCC and an associated neurological deficit as well as those with impending MSCC with no previous cancer diagnosis should be managed as per confirmed MSCC patients, with immediate referral to the MSCC coordinator.
- Patients with impending MSCC who are neurologically intact can be managed by the appropriate disease specific oncologist. Neurology should be monitored and if there is any deterioration, a referral to MSCC coordinator for urgent triage should be made (see 'Pathway management and guidance of Impending MSCC' - **https://www.christie.nhs.uk/patients-and-visitors/services/metastatic-spinal-cord-compression-mscc/information-for-professionals/network-flowchartpathway**

The following details are required for clinical triage:

1. **Demographics**
    a) Name
    b) DOB
    c) Address
    d) Current location of patient
    e) Referring clinician

2. **Details of Underlying Malignancy**
    a) Known cancer?
    b) Unknown Cancer: Is a biopsy planned?
    c) Known Oncologist
    d) Current treatment for cancer or not on active treatment

For patients known to the Christie, this information may be available to the MSCC team on the Christie web portal (CWP)

3. **Details of MSCC**
    a) Duration of symptoms
    b) Details of pain/motor/sensory/autonomic symptoms (including sphincter function)
    c) Current worst MRC grade motor power (Oxford scale 0 to 5)
    d) Current mobility (walking aided, unaided, unable to walk due to loss of power or pain)?
    e) When did the patient last walk?
    f) Previous MSCC/XRT in the same area? How long ago?
    g) Previous Spinal Surgery? When and where?
    h) Performance Status (PS) prior to onset of MSCC (ECOG/WHO/Zubrod score) and current PS

4. **Radiology**
    a) MRI: Date/Findings
    b) CT (if appropriate) Date/Findings: for good prognosis patients a CT chest, abdo and pelvis with contrast, within the last 3-months is essential for triage. Patients with an unknown primary must also have staging CT chest, abdo and pelvis before a surgical opinion can be given.

STEP 3: TRIAGING BY NETWORK CO-ORDINATOR AND CLINICAL ONCOLOGY TEAM
Triage performed and documented on the Christie Clinical Web Portal MSCC Referral Form

Referring team will be informed of the triage decision within 4 hours (between 9 am and 6 pm). This is dependent upon all essential information (including scan results) being made available to the MSCC Co-ordinating service prior to triage. After 6 pm, the decision will be deferred to the following morning

The following 3 outcomes are possible [see accompanying flow diagram]

A. **Clinical status and cancer prognosis require urgent surgical opinion**
B. **Clinical status and cancer prognosis indicate immediate radiotherapy**
C. **Clinical status and cancer prognosis indicate best supportive care only**

STEP 4: ARRANGEMENT OF TREATMENT BY TRIAGE OUTCOME

A. Surgical Pathway

a. Referring team contact the Network MSCC Co-ordinator who will liaise with the spinal / neuro-surgical team at SRFT for appropriate patients. If this is 'out of hours', and following discussion with the Clinical Oncology ST on-call, the referring hospital contact SRFT directly using the patient pass online referral system. https://patientpass.srft.nhs.uk/website/#/login
b. Surgical team to inform referring team and MSCC service regarding surgical decision within 24 hours.
c. If patient is suitable for surgery then the referring hospital and the surgical team will liaise and co-ordinate transfer and organise further clinical review with a view to surgery.
d. Referring hospital must keep the patients bed open for 24 hours after transfer to SRFT to allow immediate repatriation if the patient is deemed not suitable for surgery after initial assessment.
e. MSCC Co-ordinator maintains contact with surgical team to ensure timeliness of pathway.
f. Post-op, surgical team to refer to the oncology team for post-op radiotherapy, using post-op radiotherapy referral template which is e-mailed to the appropriate Clinical Oncology team - chn-tr.co-referrals@nhs.net . The MSCC Co-ordinator will advise the name of the consultant the patient should be referred to. This is recommended once the wounds have healed, usually at least 2 weeks after surgery.
g. If patient is not suitable for surgery, then surgical team to contact the MSCC Co-ordinator to arrange for URGENT radiotherapy within 24 hours.
h. Patients admitted to SRFT should be referred to the rehabilitation team in the spinal / neuro-surgical unit.
i. Referring team to be kept informed of patients location and condition by MSCC Co-ordinator.

B. Radiotherapy Pathway

a. MSCC Co-ordinator liaises with on-call Clinical Oncology team to arrange booking for radiotherapy.

b. Most patients will receive a single fraction of radiotherapy. There is no current evidence about any additional benefit from multiple fractions (SCORAD 2017). Patients who receive a single fraction will be transported between their care environment and the Christie for their treatment, accompanied by an escort; they will then return to this location.
c. In selected patients, multiple fractions may help provide better tumour regression or longer local disease control; 20 Gy in 5 fractions is recommended for these patients. Patients receiving fractionated treatment at Christie at Withington should preferably be admitted with agreement to transfer back to referring hospital for continuing rehabilitation once treatment has been completed. If a bed is not available then arrangements should be made for daily transfer from the local hospital with patient being accompanied by a healthcare escort until a bed becomes available.
d. Patients who are admitted to the Christie will be referred to the Christie rehabilitation team. If patients are attending the Radiotherapy department from another care environment (hospital / hospice), they should be referred to the local rehabilitation services.
e. Patients may be eligible for treatment at either the Christie at Salford Royal, the Christie at Royal Oldham Hospital or The Christie at Macclesfield. The Christie at Salford does not currently accept inpatients from hospitals / hospices outside SRFT for treatment of MSCC; but is available for ambulatory patients following surgery.
f. Referring team to be kept informed of patient's location and condition by MSCC Co-ordinator.

C. **Best Supportive Care pathway:** Patients not suitable for surgery or radiotherapy due to advanced disease and not able to tolerate treatment.

a. Local team refers to the palliative care team
b. Referral to the local rehabilitation team if appropriate
c. Commence discharge planning

NB: Spinal stability decision to be agreed as soon as MRI scan is reported. This involves a joint discussion (radiologist, medical and physiotherapy teams) which should be documented. If spine is considered to be stable, graded sitting should commence ASAP with on-going rehabilitation under the physiotherapy / OT teams (refer to Stability guidelines **http://www.christie.nhs.uk/MSCC).**

STEP 5: POST TREATMENT TRANSFER / ON GOING CARE BY LOCAL ACUTE TRUST

Actions for local team:

- Accept for transfer back to appropriate ward or rehabilitation setting as soon as possible.
- Involve **MSCC Named Rehabilitation AHP Link person*** in mobilisation and rehabilitation.
- Monitor steroid reduction

Notes

***Named AHP:** There is a named **MSCC Rehabilitation AHP Link person** within all hospital and community services who should be contacted for advice and to co-ordinate rehabilitation. All patients are entitled to rehabilitation in order to enable them to maximise function, independence and improve

their quality of life. The directory is available under the Rehabilitation resources MSCC information on the Christie web site (see link below).

MSCC referral and outcome forms: These form ensures that all essential information is collected to support rapid clinical decision-making and enable audit. It is essential when referring a patient to have all necessary information available (see Step 2 above)

Special circumstances: Spinal cord compression may be the first presentation of a new cancer diagnosis; these patients may have a localised primary tumour or evidence of disseminated disease. **Where disease appears to be confined to the spine, it is essential to obtain a guided biopsy at the referring hospital prior to radiotherapy treatment although urgent treatment will be given without waiting for the results.** This can be discussed with the on-call oncology team.
Unknown Primary: Most patients to follow the pathway above. However: Patients **with rapidly deteriorating neurological deficit** need an urgent scan and referral to the spinal on-call team**.**
To access the Christie, Greater Manchester & Cheshire guidelines, Pathway flow diagram and other relevant MSCC information follow the link - **http://www.christie.nhs.uk/MSCC**

CONSULTATION, APPROVAL & RATIFICATION PROCESS

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