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Yeovil District Hospital Trust

Malignant Spinal Cord Compression in Adults (Management of Suspected or Diagnosed)

Guidelines

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This Version	V5	**Status**	Final
Replaces	The previous Management of Suspected or Diagnosed Malignant Spinal Cord Compression in Adults		
Approval Date	25 May 2021	**Where**	CSSS Governance
Ratification	25 May 2021	**Where**	CSSS Governance
Date of issue	25 May 2021	**Review date**	25 May 2024
Applies to	Patients with suspected / proven malignant spinal cord compression	**Exclusions**	None

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1.0 KEY POINTS

1.1 *Spinal cord compression is a neurological emergency that requires early recognition and treatment to avoid permanent disability*

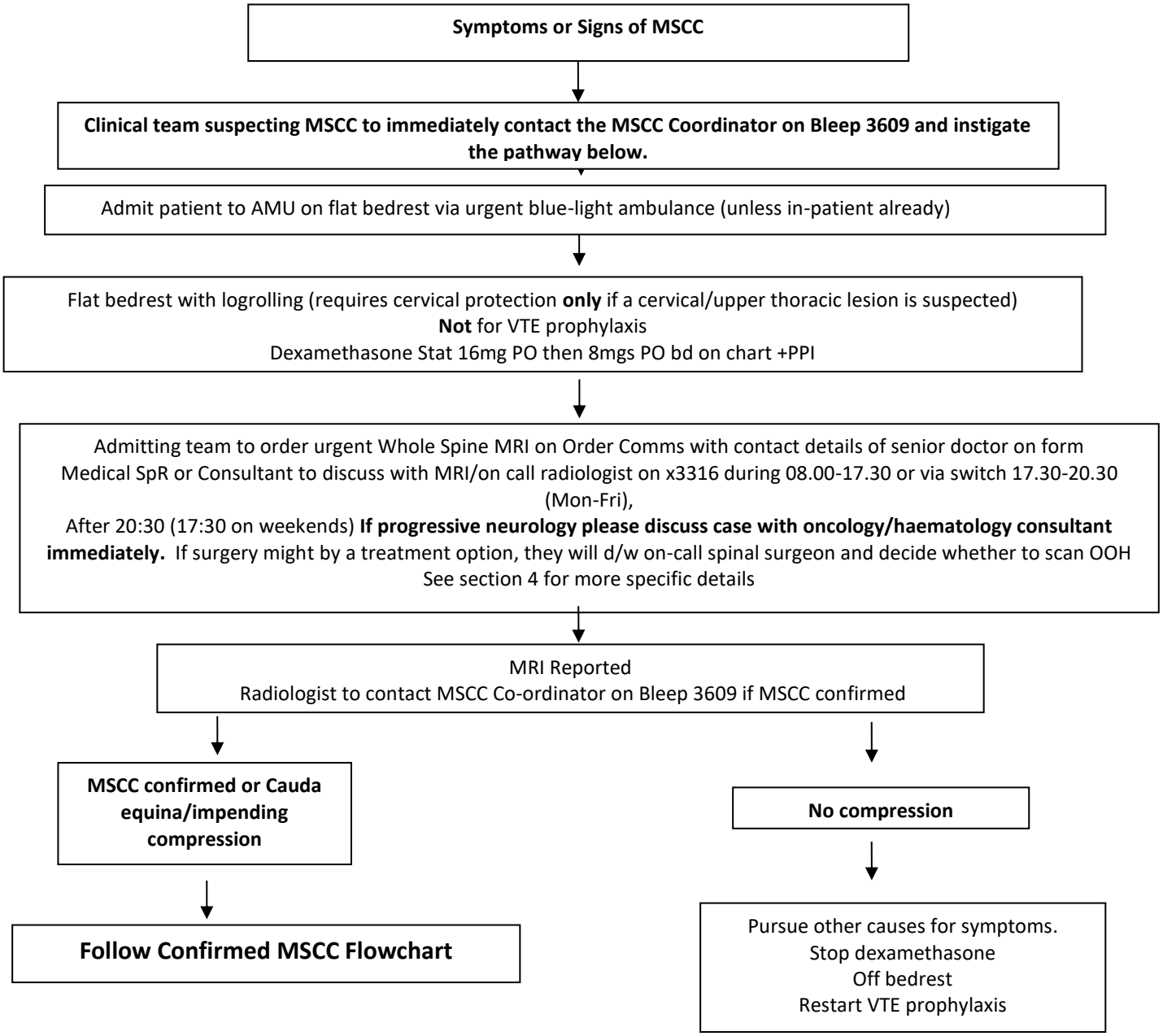
- ***Please note that MRI scans reported as showing cauda equina compression, nerve root compression or impending MSCC may also require urgent discussion with oncology/haematology or spinal surgery***

- ***Health care professionals in the community must escalate without delay signs and symptoms of spinal cord compression to the GP.***
  - Past history of ANY cancer
  - Progressive unremitting/constant axial spinal pain, including night pain
  - Radicular pain
  - Bladder / bowel disturbance
  - Progressive weakness or loss of co-ordination in limbs
  - Altered sensation in limbs

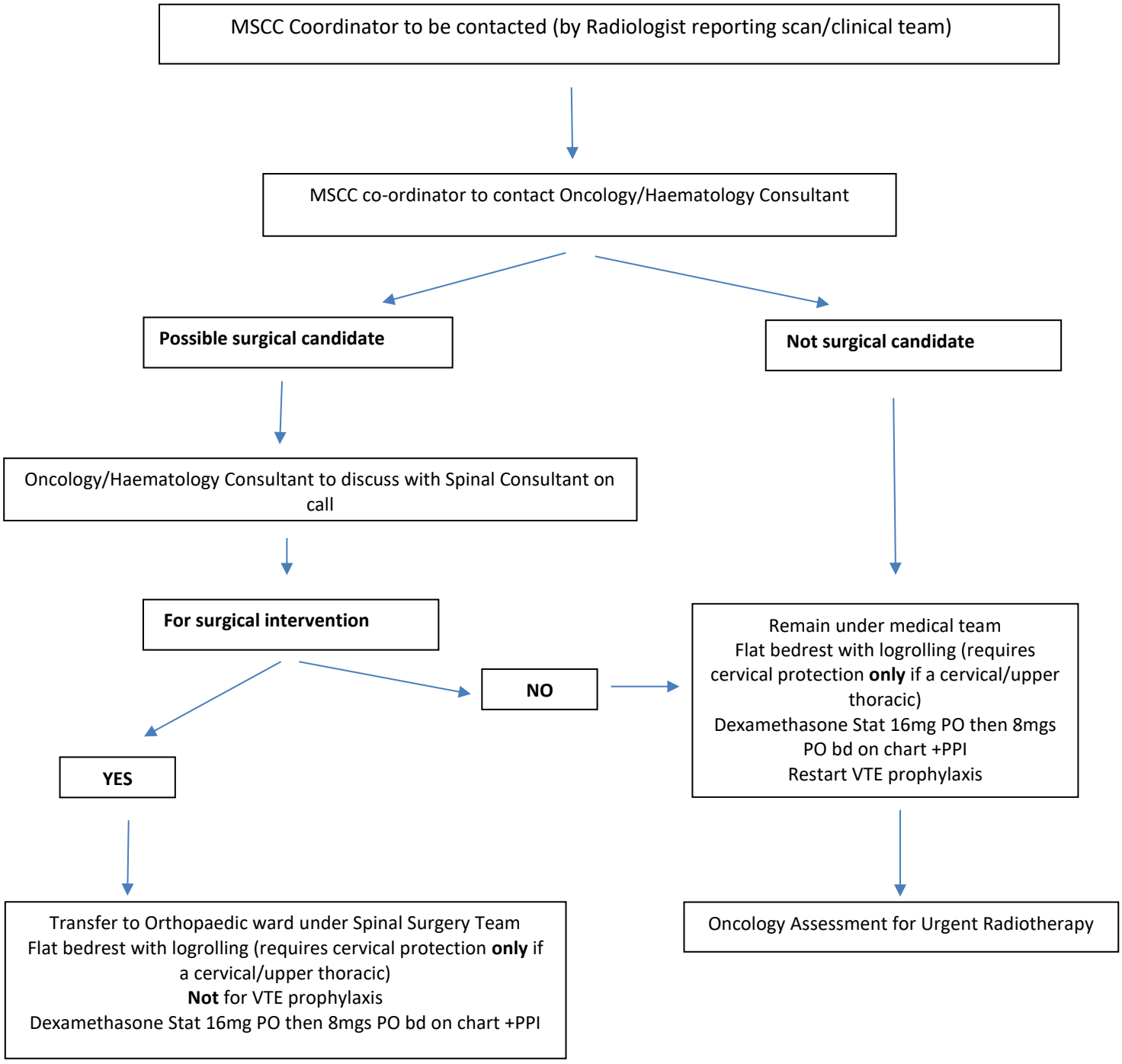
- *The investigation of choice for patients with suspected malignant spinal cord compression is immediate MRI of the whole spine.*

- *Inform the Metastatic Spinal Cord Compression Coordinator for all suspected cases of MSCC. Their role is to aid the pathway, not offer clinical advice.*
  Musgrove Park Hospital - Bleep 3609
  Yeovil District Hospital – Phone 6737 Mon-Friday 08.30 – 16.30
  Phone 6662 outside of these times

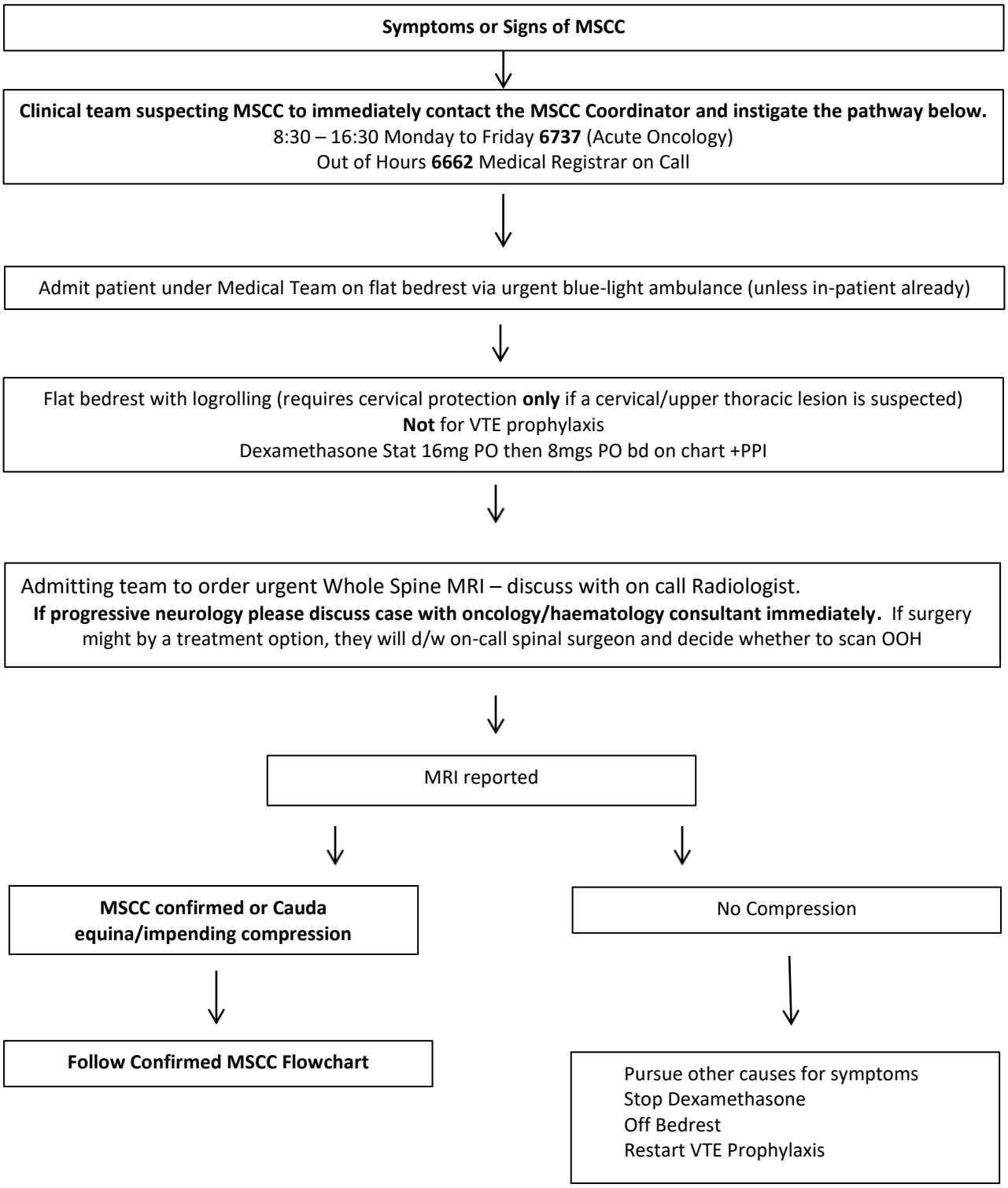
2.0 Suspected Metastatic Spinal Cord Compression (MSCC) Pathway – Musgrove Park Hospital Patients



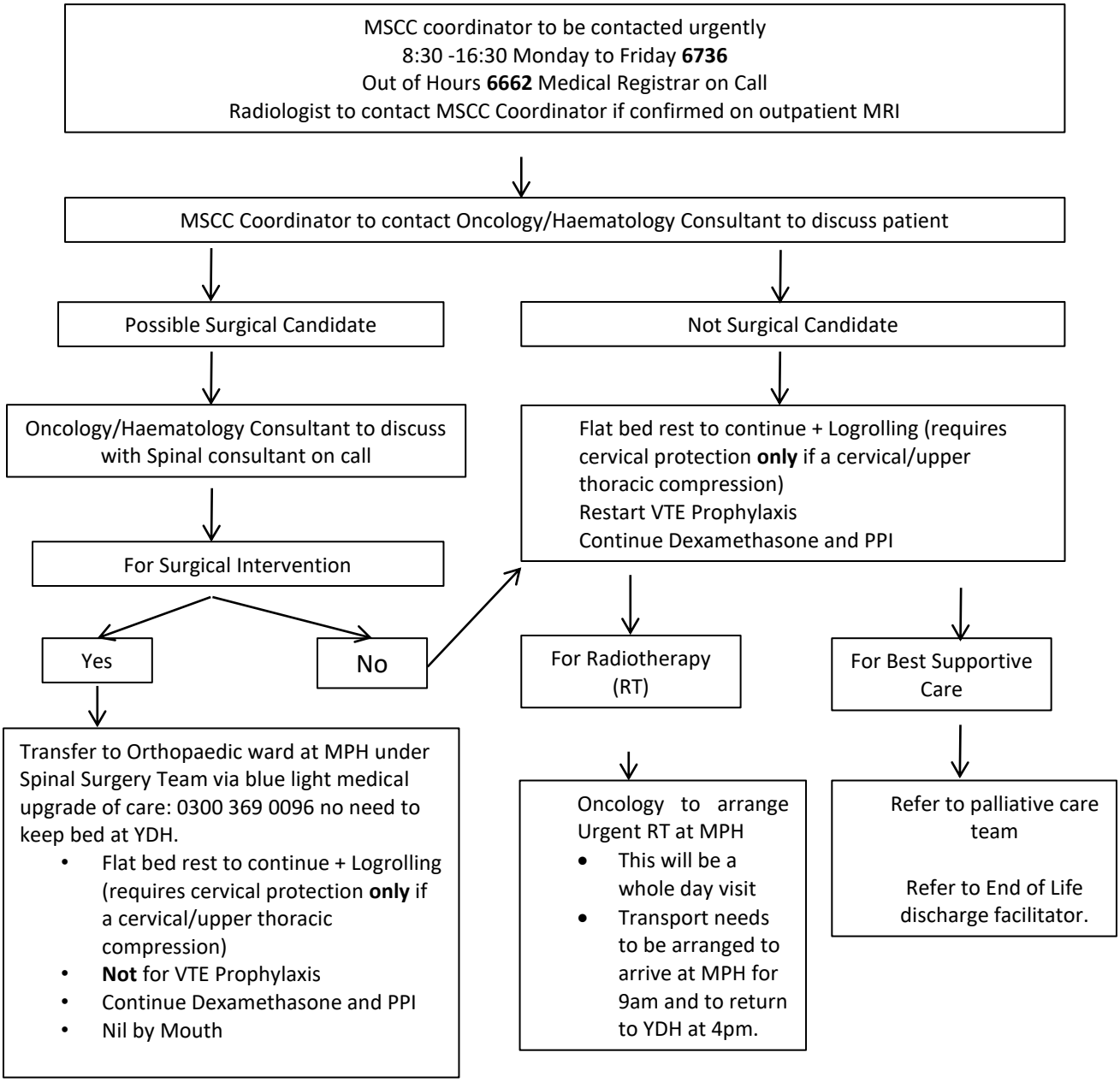
2.1 Confirmed Metastatic Spinal Cord Compression (MSCC) Pathway – Musgrove Park Hospital Patients



2.2 Suspected Metastatic Spinal Cord Compression (MSCC) Pathway – Yeovil District Hospital Patients



2.3 Confirmed Metastatic Spinal Cord Compression (MSCC) Pathway – Yeovil District Hospital Patients



NB If MSCC confirmed on an Outpatient MRI: After being informed of result MSCC coordinator is responsible for making sure the patient is informed and an urgent blue light ambulance is arranged into YDH under the medics. It is accepted that if this is overnight when someone would usually be asleep then this can wait until the morning.

2.4 Spinal cord compression is a neurological emergency that requires early recognition and treatment to avoid permanent disability. Cord compression can arise in those with known malignancy – 70% of patients with a tumour have spinal metastases in post mortem studies – and neurological symptoms in patients with malignancy must be thoroughly investigated. However, neurological symptoms of cord compression, with or without spinal pain, may often be the first presenting symptom of a malignancy.

3.0 ASSESSMENT

3.1 **Contact MSCC coordinator for all suspected cases of MSCC. It is the responsibility of the clinical team who suspect MSCC to contact the MSCC coordinator and instigate the pathway.**

3.2 MSCC coordinator will arrange for the patient to be admitted for assessment via blue light stretcher ambulance if patient is at home.

MPH AMU for MPH patients
YDH ED for YDH patients

Please arrange transfer of patient from ED to either AMU if at MPH or a medical bed if at YDH.

3.3 Patient needs to be kept on flat bed rest with logrolling (requires cervical protection **only** if a cervical/upper thoracic lesion is suspected)

3.4 Not for VTE prophylaxis in case surgery is required

3.5 Commence Dexamethasone 16mg PO stat and then 8mg bd (08.00h and 12.00h) with PPI

4.0 SIGNS AND SYMPTOMS

4.1 History

- Past history of ANY cancer
- Progressive unremitting/constant axial spinal pain, including night pain
- Radicular pain
- Bladder / bowel disturbance
- Progressive weakness or loss of co-ordination in limbs
- Altered sensation in limbs

4.2 Examination

- May be equivocal – patients often have multiple pathologies
- Document examination of chest, abdomen, breasts, thyroid, nodes
- Upper motor neurone signs: clonus, upgoing plantars, hyperreflexia
- Documentation of myotomal weakness and/or sensory level
- Rectal exam is mandatory – anal tone, sensation, volition

5.0 INVESTIGATIONS – MRI (MPH)

5.1 The investigation of choice for patients with suspected malignant spinal cord compression is MRI scan of the whole spine. This should be performed within 24 hours (as per NICE guidelines).

5.2 Patient to be assessed and examined by registrar (ST3+) or consultant.

5.3 Registrar or consultant should phone to discuss

MPH WEEKDAYS:

0800-1730 inpatient MRI radiographer (x3316),
1730-2030 on call Musgrove radiologist (via switch),
2030-0800 If urgent with deteriorating neurology discuss case with on call haematology or oncology consultant prior to contacting on call TMC radiologist (via switch). Once scan approved by TMC, contact on-call MRI radiographer (via switch). Where a decision has been made not to scan the patient overnight, please call MRI on ext 3316 the following day.

MPH WEEKENDS:

0800-1730 on call Musgrove radiologist (via switch). If Musgrove radiologist does not report MRI, then will be covered by TMC radiologist
1730-0800 . If urgent with deteriorating neurology discuss case with on call haematology or oncology consultant prior. If surgery might by a treatment option, they will d/w on-call spinal surgeon and decide whether to scan OOH. If so, contact TMC and once the scan has been approved, contact on-call MRI radiographer (via switch).

5.4 MRI scan to be requested by admitting team immediately.

5.4.1 If the request is made before 2030, it will be performed the same day.

5.4.2 If the request is made after 2030, the scan will be performed the following working day (unless discussed with and required overnight by the on call oncology/haematology consultant – see above).

5.4.3 If cord compression is confirmed, the radiologist will contact the MSCC coordinator. Admitting teams should however take responsibility to review the radiologist report and act appropriately.

5.5 Investigation for unknown primary should not delay the above.

6.0 OTHER INVESTIGATIONS

6.1 Take FBC, U&Es, LFTs, Calcium, Albumin.

6.2 Ensure patient has up to date clotting, G&S and ECG to prepare for possible surgical intervention. Document cardio-respiratory examination and observations.

7.0 Confirmed MSCC

7.1 MSCC coordinator to contact Oncology/Haematology consultant who will then discuss case with spinal surgeons if clinically appropriate.

7.2 Patient to remain on flat bed rest (with log-rolling- requires cervical protection **only** if a cervical/upper thoracic lesion has been confirmed) until a decision has been made about spinal stability. Please contact the on call spinal team at MPH for stability opinion as needed. Contact clinical site if unable to log-roll for additional nursing support

7.3 If for surgical intervention, transfer patient to T&O under the care of the spinal team

7.4 If not for surgical intervention, patient to remain under the care of a medical team

7.5 If for consideration for radiotherapy MSCC coordinator to ensure relevant site specific Consultant Clinical Oncologist is notified and an email also sent to the generic palliative radiotherapy email address providing the clinical details: RT.palliative@somersetft.nhs.uk

7.6 In patients with no known primary, please request CT thorax, abdomen and pelvis and discuss with the Acute Oncology Team to guide further investigations, such as biopsy

7.7 A plan to reduce dexamethasone will be implemented by the radiotherapy or spinal surgery team on completion of treatment

8.0 Patients without MSCC

8.1 These patients may be discharged home if no other cause for their symptoms is found. They will require admission via the medical team if unable to go home.

8.2 Patients can come off bed rest

8.3 Dexamethasone and PPI can be discontinued

8.4 End of MSCC involvement

9.0 Further Care

9.1 Adequate analgesia and bladder/bowel management

9.2 Referral to Palliative Care Team

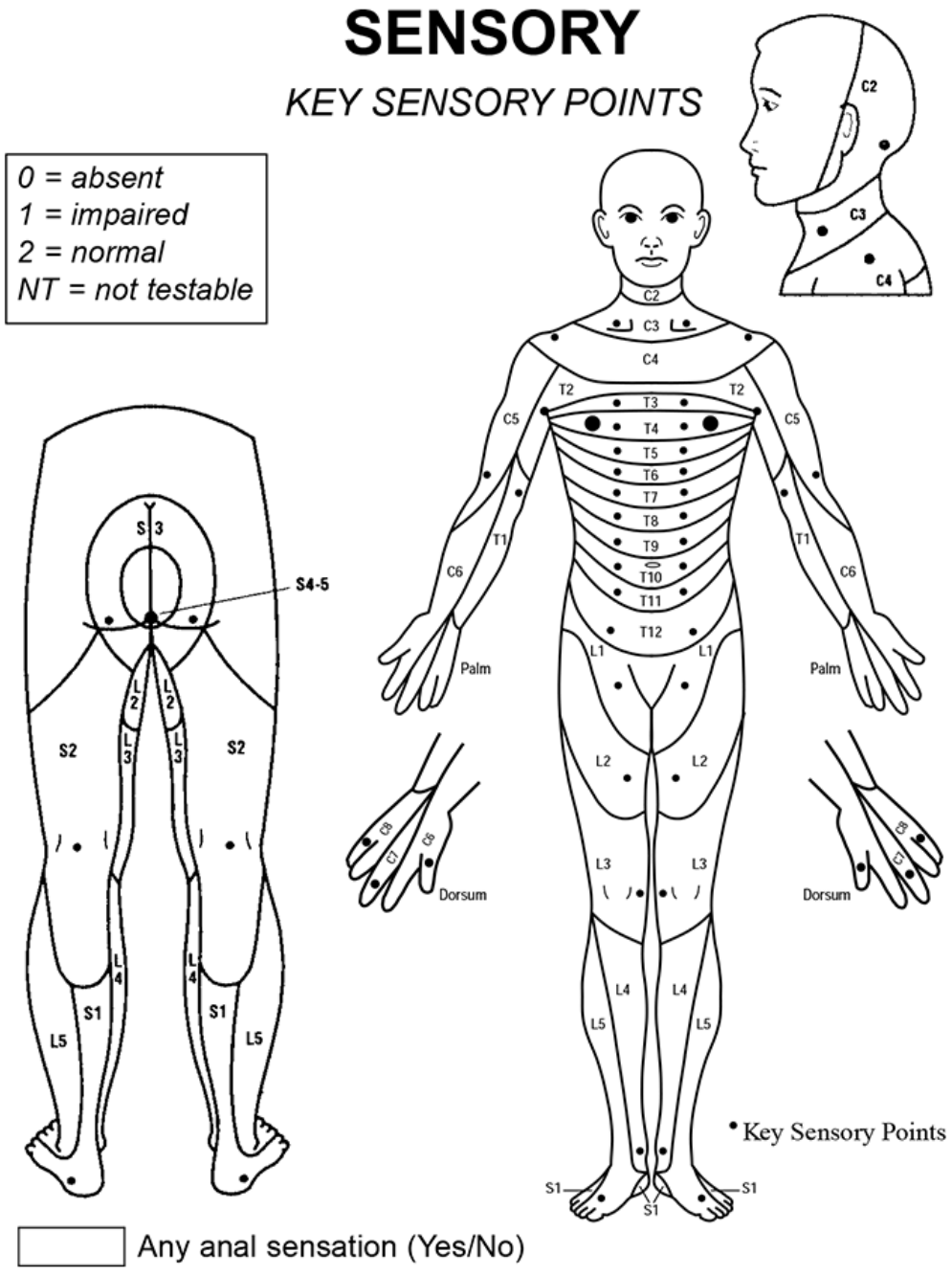
9.3 Referral to Physiotherapy and Occupational Therapy Teams

9.4 Acute Oncology Team referral MPH – bleep 3606
YDH – phone 6551

10.0 MUSCLE POWER - Muscle groups are charted using the Oxford Classification

0 = Complete paralysis
1 = Flicker of contraction
2 = Contraction with gravity eliminated
3 = Contraction against gravity
4 = Contraction against gravity and resistance (weaker than normal)
5 = Normal contraction

Dermatomes



Muscle Groups Nerve Roots

Upper Limb	
C3 (4)	Trapezius
C5	Deltoid
C5 (6)	Biceps
C6 (7, 8)	Pectorals
C6 (7, 8)	Wrist extensors
C7 (8)	Finger extensors
C7 (8)	Wrist flexors
C7 (8)	Triceps
C8 (T1)	Finger flexors
T1	Interossei
Lower Limb	
L1 (2)	Hip flexors
L3 (4)	Quadriceps
L4 (5), S1	Dorsi-flexors & Hip Abductors
L2 (3)	Hip Adductors
L5, S1	Internal & external rotators &Hamstrings
S1 (2)	Plantar flexors
L5, S1, S2	Gluteals
Trunk	
T6-L1	Abdominals
C1-L5	Back extensors

References

- NICE Clinical Guidelines CG075 – Metastatic Spinal Cord Compression: diagnosis and management of adults at risk of and with metastatic spinal cord compression

- Clarkson H and Gilewich G (1989) Musculoskeletal Assessment Joint: Joint Range of Motion and Manual Muscle Strength Baltimore Williams and Wilkins

- Manual for Cancer Services – Acute Oncology – Including Metastatic Spinal Cord Compression Measures April 2014.

Many patients receive part of their treatment in their referring hospital, but part of their treatment in another hospital within the network. Chemotherapy prescribing and delivery varies across trusts and effective communication between the trusts is therefore essential.