West Midlands Regional Spine Network

Transfer and Repatriation policy

December 2018

Category	**Operational Delivery Network policy document** **West Midlands Regional Spine Network (WMRSN)**
Purpose	**To provide a regional policy on transfer and repatriation for spine surgical emergency referrals**
Version	**1.0**
Previous versions	**Nil**
Supporting documents	**WMRSN Emergency spine disorders policy v 1.0** **WMRSN MRI policy v 1.0** **RSN mandatory items** **NHS Wales policy for the repatriation of patients (QS13/034)** **MTC Major Trauma Patients for Continued Care Closer to Home Pathway** **https://www.judiciary.uk/wp-content/uploads/2017/02/Dennett-2017-0026.pdf**
Responsible working group	**WMRSN Board**
Sign off	**WMRSN board**
Related networks	**Major trauma network**
Distribution	**All WMRSN hospital COO and medical director** **Clinical leads ED / oncology / acute medicine / spine surgery / radiology** **Chair STPs** **Betsi Cadwaladr health board**
Review date	**1.6.19**

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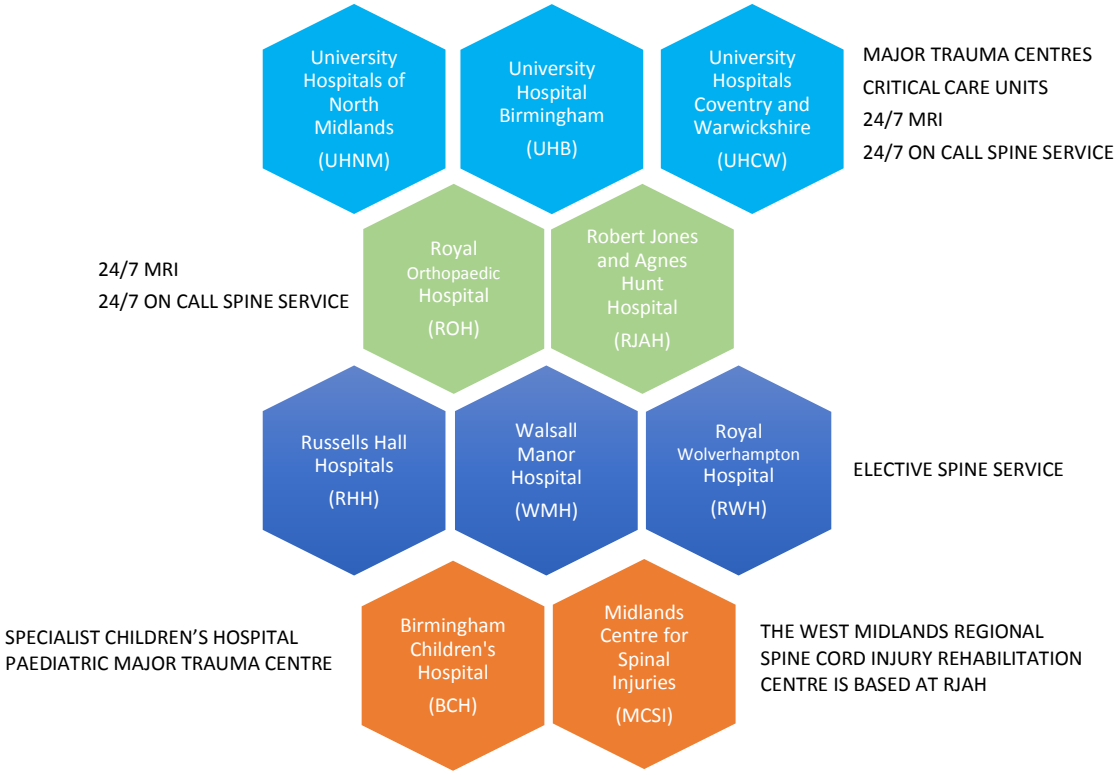
INTRODUCTION

The West Midlands Regional Spine Network (WM RSN) includes 3 major trauma centres, 2 specialist orthopaedic hospitals, 3 neuroscience centres and 3 spine partner hospitals. There is also a specialist children's hospital which provides elective and emergency spine care. There is a regional specialist spinal cord injury rehabilitation centre. Spine cord injury rehabilitation also takes place at the neurorehabilitation centres associated with the major trauma centres.

UHNM, UHB, UHCW, ROH and RJAH are known as spine hubs as they provide 24 hours spine on call cover. RWH, Walsall Manor and RHH are spine partners as they provide a spine service but without 24 hours on call cover.

WM RSN SPINE SURGICAL SERVICE OUTLINE



All hospitals accept adult patients for outpatient and inpatient management.
BCH, UHNM, ROH and RJAH accept 16 – 18 year olds for outpatient and inpatient management.
BCH and UHNM accept <16 year olds for outpatient and inpatient management. RJAH manages patients <14 years old as inpatients through Alder Hey Hospital, Liverpool.

In addition to the above hospitals are the triage services, pain management and rehabilitation services. Private provider hospitals carrying out spine surgery are also part of the RSN.

TYPES OF EMERGENCY SPINE DISORDERS ACCEPTED FOR MANAGEMENT BY HOSPITAL

Hospital	Major Trauma	Isolated spine trauma (ISS < 9)	Osteoporotic and elderly trauma (no neurology)	Cauda Equina Syndrome	MSCC	Intradural pathology	Primary sarcoma	Spinal cord injury (acute)	Spinal cord injury specialist rehabilitation
UHNM	✓	✓	✓	✓	✓	✓		✓	
UHB	✓	✓	✓	✓	✓	✓		✓	
UHCW	✓	✓	✓	✓	✓	✓		✓	
ROH		✓	✓	✓	✓		✓		
RJAH		✓	✓	✓	✓		✓		
RHH		✓*	✓*						
WMH		✓*	✓*						
RWH		✓*	✓*						
BCH	✓^	✓^			✓^	✓^			
MCSI									✓

*can manage isolated spine trauma presenting at own ED if no requirement for surgery
^paediatric major trauma centre and specialist children's hospital

TYPES OF ELECTIVE SPINE SURGERY BY HOSPITAL

Hospital	Degenerative lumbar	Degenerative cervical	Adult deformity	Paediatric disorders	MSCC	Intradural pathology
UHNM	✓	✓	✓	✓	✓	✓
UHB	✓	✓	✓		✓	✓
UHCW	✓	✓	✓		✓	✓
ROH	✓	✓	✓	✓*	✓	✓
RJAH	✓	✓	✓	✓*	✓	
RHH	✓					
WMH	✓					
RWH	✓	✓				
BCH				✓		

*16 – 18 year old on site; for ROH < 16 y are managed at BCH; RJAH < 14 y at Alder Hey

EXECUTIVE SUMMARY

- The aim of this document is to outline transfer and repatriation guidance for the WM RSN for all spine surgical patients requiring referral for tertiary care.
- Appropriate flow of patients between hospitals will ensure that patients are treated in the right facility at the right time.
- Tertiary care must not be delayed for patients requiring such care. Rehabilitation and being close to home must not be delayed for patients no longer requiring tertiary care.
- Expediting the transfer of patients to a tertiary unit when required and repatriation back to the referring or local hospital on completion of tertiary care is the responsibility of both referring and receiving hospital staff.
- Emergency transfers for tertiary care must happen on the same day of referral.
- Urgent transfers for tertiary care must happen within 24 hours of acceptance of referral.
- Repatriation back to referring OR the patient's local hospital must happen no later than 48 hours after acceptance for repatriation (escalation to commence at 24 hours).
- The need for a rehabilitation bed should not be a barrier to repatriation. Rehabilitation beds should be organised from the hospital the patient is repatriated to where appropriate.
- Escalation to directorate level and onwards must occur on failure to achieve these targets.

Who does this policy affect?

Patient group

This policy affects those patients that are referred from a secondary care setting to a tertiary or quartenary care setting for specialised care.

It does not relate to Emergency Department (ED) referrals to their own hospital services, but does relate to ED referrals to another hospital.

It does not relate to GP referrals to local services.

It does not relate to critical care to critical care transfers (see critical care network documents).

It is not limited to trauma patients only. Other patient groups could include patients with malignant disease affecting the spinal column, intradural lesions or those requiring complex revisional reconstructive procedures as examples.

Clinical staff

The clinicians referring the patients, the clinicians accepting the patients and all ward staff including flow coordinators and discharge facilitators should be aware of and acting on this policy.

Managerial staff

The site managers, responsible directorate managers, divisional managers, associate directors and Chief Operating Officer for each Trust in the WM RSN (spinal hub, spinal partner and non-spine partner hospitals) must be aware of this policy and be involved in acting on this policy.

What is the policy trying to achieve?

The policy aims to improve 3 important aspects of spine surgical care for the WM RSN:

1. Ensuring a patient has timely access to the right facility at the right time.
2. Improving bed capacity in tertiary services.
3. Ensuring a patient is returned to their local area for local care and rehabilitation plans and for the ability to receive visitors whilst in hospital.

By transferring patients to and from a tertiary centre with expediency, we can achieve these aims and so enhance holistic patient care for the individual patient as well as improving bed capacity for another patient requiring tertiary level care within the WM RSN.

Clarifying the terms used.

The referrer or referring hospital refers to the service that saw and referred the patient primarily.

The receiving hospital is the service that is being asked for specialist tertiary advice and is usually a major trauma centre and or a spine hub.

Transfer refers to the movement of a patient to and from hospitals. Emergency referral refers to a patient that is likely to require surgery within 24 hours. An urgent referral refers to a patient likely to need surgery on the next available list. An immediate emergency (time critical) refers to a patient that will require surgery as soon as safe to proceed (within hours).

Repatriation refers to the movement of a patient from the receiving (tertiary) hospital back to the referring OR hospital local to the patient.

Emergency Referrals and Transfers to a Tertiary Centre (Spine Hub)

The referring unit must ensure that:

1. The patient is reviewed and referred by registrar grade or above and discussed with the supervising consultant before referral.
2. The patient has been appropriately assessed and resuscitated from a general medical point of view. The full clinical details must be provided on referral including infection status if known (MRSA / ESBL).
3. The patient is appropriately immobilised if the spine is unstable or potentially unstable.
4. That the patient has been assessed for fitness for transfer and for potential surgery.
5. All appropriate initial imaging has been completed as requested by the tertiary centre.
6. All imaging has been digitally transferred to the appropriate emergency portal as directed by the spine service.
7. The referral is in a digital format as used by the spine service e.g. NORSE or Refer a Patient. Any referrals requiring immediate attention are flagged as such and followed up by a phone call to the receiving hospital.
8. The initial management plans outlined by the spine service are carried out before transfer.
9. Any agreed transfer takes place rapidly and after ensuring the patient is fit for transfer.
10. Where the patient has been accepted for assessment and or investigation only (e.g. out of hours MRI) there should be a bed kept available at the referring hospital for immediate repatriation if no tertiary care is required.

For MTC referrals follow the MTC network guidance (refer to trauma team leader at your MTC). For non MTC trauma transfers following trauma within 24 hours, the referral to the hub should be made via the trauma team leader who will accept to ED and perform a trauma assessment.

The receiving unit must ensure that:

1. They provide a clear and constantly available contact point for referrers.
2. Any referral received must have been reviewed by registrar grade or above and discussed with the supervising consultant.
3. Any digital or verbal referral is reviewed and a response given in less than 2 hours from receipt of referral. Any referral flagged as requiring immediate attention is actioned within ½ hour of receipt of all information.
4. There is a clear written protocol for urgent image transfer available to the referring service that allows the receiving clinical team to access images on an emergent basis to facilitate expedient provision of advice.
5. Clear advice is given to the referrer outlining recommended action plan including plans for medication, mobility status, orthotics, further imaging and transfer plans. The advice should be written and ideally in a digital format that the referring hospitals can access.
6. Further imaging / investigations that will not alter the need to transfer should not be requested and should be carried out at the receiving hospital. Unnecessary investigations will only delay transfer to the receiving centre.
7. Any agreed transfer takes place expediently and immediately for emergent transfers, 24 hours for urgent transfer and within 48 hours for non urgent transfer. The referring hospital must be updated if transfer does not happen the same day and repeatedly until transfer occurs. Failure to transfer should be escalated through senior management.
8. Any patient ready for repatriation must be assessed and documented as fit for transfer.
9. On repatriation or discharge, a written discharge summary must be provided to the referring service with a clear outline of diagnosis, neurological status on discharge, management undertaken, orthotic advice (if appropriate), wound management (if appropriate), infection status and a rehabilitation prescription (if ISS>8). Clear follow up instructions should be given.
10. All postoperative imaging is provided to the referring centre.

Time critical transfers

Where receiving units require emergent time critical transfer of cases to save life or prevent serious neurological deficit, there should be no delay and the patient should be transferred as long as theatre and imaging capacity is available.

The situation should be escalated to site manager at the receiving hospital to allow bed provision to be reviewed and plans made whilst the patient is in theatre (including critical care capacity).

The situation where surgery is required within hours will arise rarely in spine surgery. An example scenario is a cervical fracture dislocation with deteriorating neurological deficit.

Using the WM RSN

If the receiving centre does not have capacity for the patient to be transferred same day, a judgment needs to be made to determine risk for that patient.

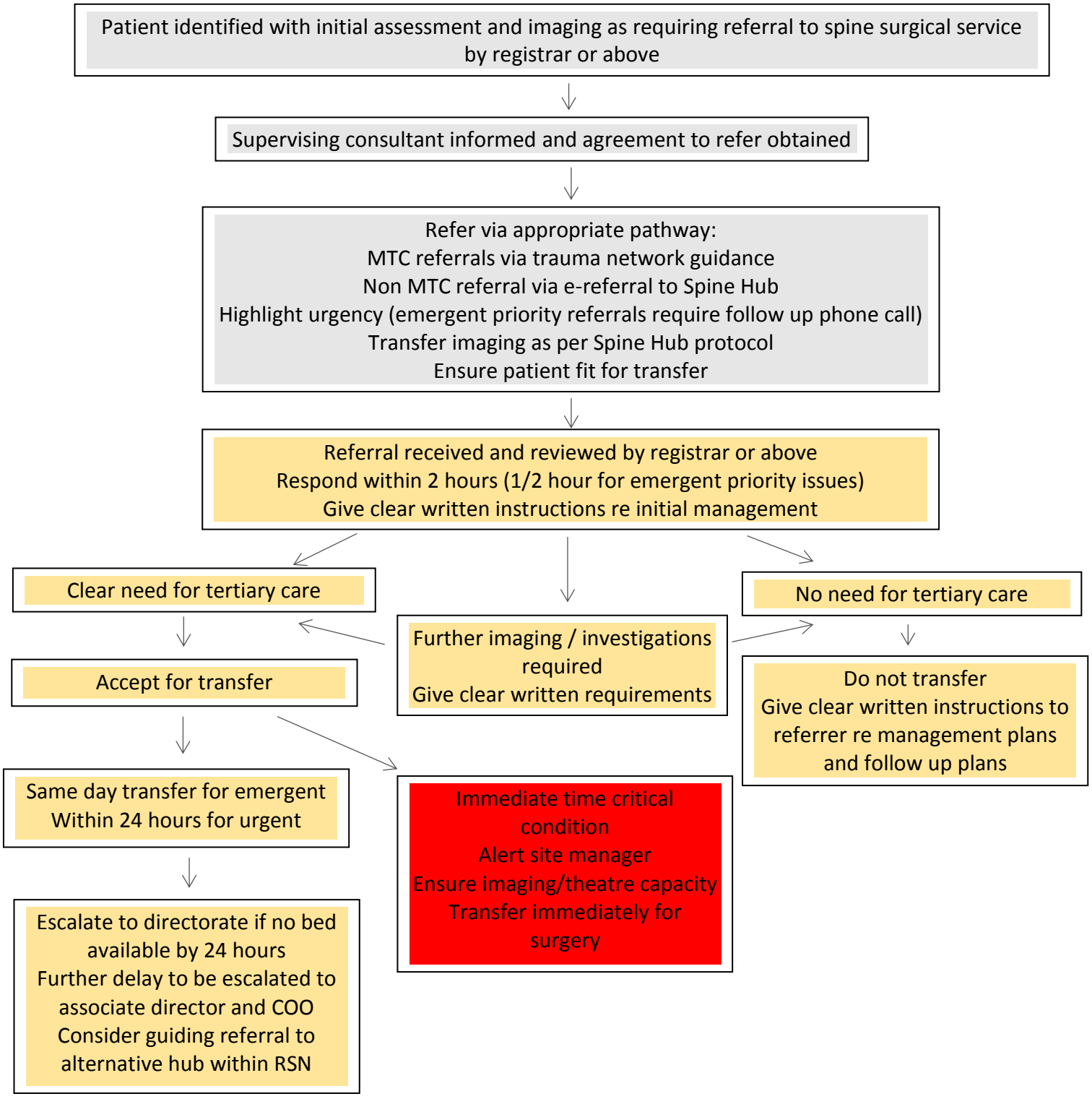
If there will be a risk in delaying transfer, the receiving hospital should recommend an alternative hub within the network to accept the transfer and facilitate that transfer by liasing with other units.

The situation will arise rarely and the initial receiving hospital must continue to make efforts to accept the initial referral in the meantime. The responsibility remains with the initial receiving hospital until the patient is accepted and transferred to another hub within the network.

Imaging for Emergency Referrals

1. When a patient requires transfer as the diagnosis is clear and further imaging will not influence the decision to transfer, the patient should be transferred without delay and MRI or other imaging should be carried out at the spine centre (for example CT scan confirmed spine trauma with neurology). The on call teams at the spine service should not automatically request an MRI to be carried out by the referring hospital for every referral. (Please note that plain radiographs are not sufficiently diagnostic for referral to a spine surgical service and further investigations will be required before referral).
2. When a working diagnosis can only be confirmed with an MRI then the referring hospital should carry out the MRI using the agreed MRI protocol (see below) as an urgent investigation to prevent undue delay (for example possible cauda equina syndrome, possible spine infection).
    a. During working hours the expectation is that a planned MRI list should be interrupted for the emergency scan.
    b. During extra MRI lists to clear elective backlogs the expectation is that the MRI list should be interrupted for the emergency scan.
    c. Out of hours the expectation is that an out of hours MRI service should be available at the referring hospital either in house or via a service level agreement with the spine centre. The referring hospital should repatriate the patient immediately after scan if the patient does not require treatment at the specialist spine centre.
3. When a diagnosis has been established but the patient's suitability for non-surgical management can only be clarified by an MRI, this should be undertaken at the referring hospital within a time frame agreed with the spine centre giving advice (for example spine trauma without neurology and no clear instability on CT scan).
4. Any imaging carried out at the referring hospital should be digitally transferred urgently so that the spine centre can access them immediately to provide advice. The local image transfer protocol should be followed.
5. Specialised imaging studies (including specialised MRI sequences) are best carried out by the spine centre

SUMMARY OF TRANSFER GUIDELINES



Referring hospitals transferring patients to a hub for out of hours scanning:

1. Must have an SLA in place with hub for provision of out of hours scanning at the hub
2. Must retain a bed for immediate repatriation in the event tertiary care is not required

Repatriation from Tertiary Centre (Spine Hub) to Referring / Local Hospital

The tertiary unit must ensure that:

1. Discharge home is facilitated where possible if this coincides with the end of acute tertiary intervention. Repatriation is not required in this case.
2. Any patient requiring repatriation at the end of acute tertiary intervention is assessed and documented as fit for transfer.
3. The supervising consultant is aware and agrees for transfer.
4. The patient, family and carers are aware of the plan for discharge, management to date and follow up plans.
5. The patient should be referred back to the referring / local hospital initial admitting team by registrar level or above. This date and time should be documented in the notes as clock starts at this point.
6. On repatriation or discharge, a written discharge summary must be provided to the referring service and patient's GP with a clear outline of diagnosis, neurological status on discharge, management undertaken, orthotic advice (if appropriate), wound management (if appropriate), infection status (MRSA / ESBL) and a rehabilitation prescription (if ISS>8). Clear follow up instructions should be given and made.
7. All postoperative imaging is transferred to the referring centre PACS.
8. The tertiary unit discharge coordinator is aware of the need for repatriation.
9. Escalation is initiated if repatriation does not occur within 24 hours of the initial repatriation request.

The initial referring unit must ensure that:

1. The bed manager / flow coordinator is aware of the need for transfer within 24 hours of repatriation request and no later than 48 hours. Clock starts at time of verbal request to clinical team.
2. The patient is accepted into the initial referring acute service even if rehabilitation is required. Rehabilitation services / beds are best organised from the referrer hospital and should not delay repatriation. The only exception is when specialist rehabilitation is required that the referrer cannot provide such as specialist spinal cord injury rehabilitation.
3. The repatriation request is accepted by the initial referring team. Any onward referral to other services within the initial referring hospital must be made by the initial referring team and contact details passed to the tertiary unit.
4. If a repatriation request is to a local hospital (not the initial referrer) then the appropriate acute service accepts the referral as long as the patient is safe for transfer and the facilities for the care required are available.
5. The tertiary unit is updated daily (via the ward sister) with respect to repatriation timelines.
6. Escalation is initiated if repatriation does not occur within 24 hours of the initial repatriation request.

Escalation

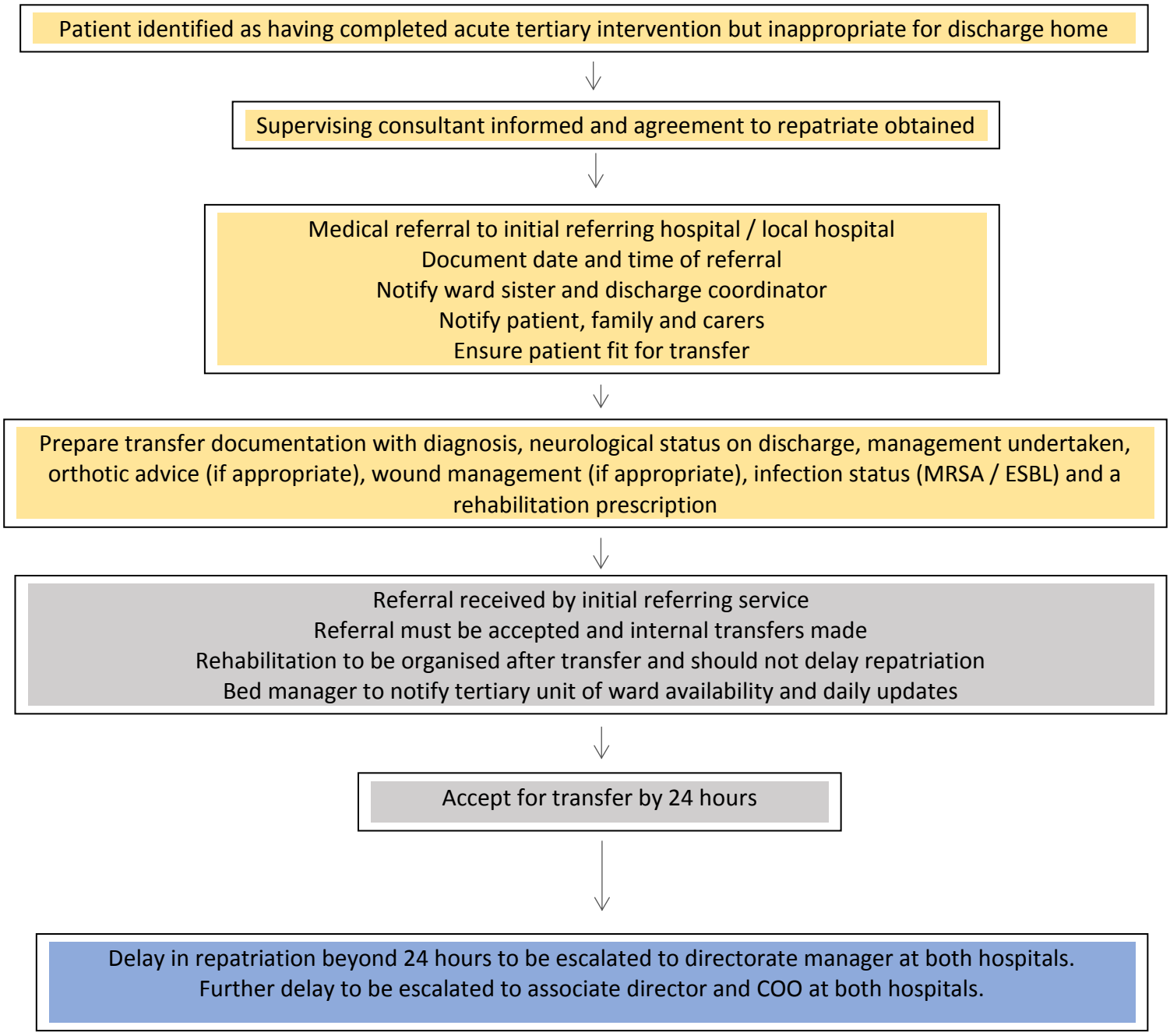
Escalation is the responsibility of both referring and receiving hospitals for both initial transfer and repatriation.

For a delay in transfer beyond 24 hours after referral for an urgent patient, the referring hospital ward sister or medical team should escalate to their directorate manager, who will liaise with their counterpart in the receiving hospital.
The receiving hospital should also escalate to their directorate team that a delay has been incurred.

For a delay in repatriation beyond 24 hours, the tertiary unit ward sister or medical team should escalate to their directorate manager, who will liaise with their counterpart in the referring hospital.
The initial referring hospital should also escalate to their directorate team that a delay has incurred.

The directorate teams should escalate the problem to the associate directors and the COO if the situation cannot be resolved to allow timely transfer.

SUMMARY OF REPATRIATION GUIDELINES



Transfer to Midlands Centre for Spinal Injuries (MCSI)

The MCSI is the designated spinal cord injury rehabilitation centre for the West Midlands. It will accept all referrals for cord or cauda equina neurological deficit where the neurological insult is non-progressive and the patient has rehabilitation potential. The MCSI inpatient base is at Robert Jones Agnes Hunt Hospital, Oswestry. The service does provide outreach to the whole region and advice.

Acute spinal cord or cauda equina insults should be referred to the nearest spine hub surgical service for acute advice and consideration for surgical intervention first. Referral to the MCSI is for rehabilitation and not for acute / emergency surgery. The MCSI must be notified as soon as a cord injury is diagnosed as a rehabilitation protocol can be provided and initiated early on. For traumatic cord injuries, the referral to MCSI should be within 4 hours of diagnosis.

MCSI will take stable patients with tracheostomies (see below) but will not take ventilated patients. However, all patients must initially be referred to MCSI.

The referring unit must ensure that:

1. The patient is reviewed and referred by registrar grade or above and discussed with the supervising consultant before referral.
2. The patient has been appropriately assessed and resuscitated from a general medical point of view. The full clinical details must be provided on referral including infection status if known (MRSA / ESBL).
3. The patient is appropriately immobilised if the spine is unstable or potentially unstable.
4. The patient does not require spine surgical intervention by discussing with the spine hub on call service.
5. That the patient has been assessed for fitness for transfer and is documented fit.
6. The patient has no active acute medical issue or active acute psychiatric disorder.
7. The patient is self-ventilating and if the patient is referred with a tracheostomy this must be size 6 uncuffed with saturations maintained with no more than a tracheostomy mask with a FiO2 of 35% or less.
8. The patient's surgical wounds are clean and healing.
9. The CRP is normal or has a normalising trend.
10. The patient has had a documented ASIA chart completed within 24 hours before transfer.
11. All imaging has been digitally transferred to the appropriate emergency portal as directed by the spine service.
12. The patient details are on the National Spine Cord Injury Database.
13. The initial management plans outlined by MCSI are carried out before transfer.
14. The MCSI transfer checklist is completed and faxed ahead of time.

The MCSI must ensure that:

1. A patient specific rehabilitation protocol is available (and receipt confirmed) within 24 hours of referral.
2. An outreach assessment is carried out within 5 days of referral.
3. A clear decision is made and communicated to the referring unit within 72 hours of referral to accept or reject for rehabilitation.
4. If the patient needs ventilation during rehabilitation, MCSI will facilitate and arrange the referral to the appropriate unit.
5. The referring unit is given 24 hour notice to arrange transport to MCSI.
6. The patient is accepted if arrival at MCSI is before 1900 hours.

PATIENT SUMMARY ON REPATRIATION / MCSI TRANSFER

Name: NHS number

DOB: Unit number

Diagnosis and active problems:

Neurology on discharge (attach ASIA record):

Treatment undertaken:

Orthosis required? Yes ☐ No ☐
Type of orthosis and instructions:

Wound checked and satisfactory for transfer? Yes ☐ NA ☐
Outline wound care instructions:

Infection status
Comment on MRSA / ESBL and last 2 CRP results

Rehabilitation prescription (ISS>8):

Referrers name: Contact number

Date of referral:

Recommended MRI protocols*

Degenerative disease (eg lumbar stenosis)	Region affected only T1 and T2 sagittal sequences T2 TSE axial sequences of abnormal levels (additional T2 gradient echo axial sequence for cord assessment may be used)
Trauma	Whole spine sagittal STIR with sagittal T1 and T2 Axial T1 and T2 TSE of affected levels (additional T2 gradient echo axial sequence for cord assessment may be used)
Cauda equina syndrome	Lumbar spine sagittal T1 and T2 Axial T1 and T2 TSE of affected levels (whole spine sagittal T2 to assess cord may be added)
MSCC	Whole spine sagittal STIR and T1 Sagittal T2, axial T1 and T2 TSE of affected levels (additional T2 gradient echo axial sequence for cord assessment may be used)
Spondylodiscitis	Whole spine sagittal STIR T1 and T2 sagittals of the region involved with T1 and T2 TSE axials of involved areas (additional T2 gradient echo axial sequence for cord assessment may be used)

*It is accepted that individual institutions may have additional sequences for specific disorders. The listed sequences are the minimal recommended to establish a diagnosis, aid surgical planning and where appropriate to exclude lesions in the rest of the spine.

Emergency image transfer protocols

University Hospital of North Midlands	Please ensure that you have sent any images via the Image Exchange Portal (IEP) to UHNM – Royal Stoke. For all urgent / trauma or out of hours referrals images please select “Tertiary PACS” and “blue light” priority to ensure clinician see the images immediately.
University Hospital Birmingham	Contact on call team
University Hospitals of Coventry and Warwickshire	Contact on call team
Royal Orthopaedic Hospital	Contact on call team
Robert Jones Agnes Hunt Hospital	Please ensure that you have sent any images via the Image Exchange Portal (IEP) to RJAH. In office hours a phone call is required to the PACS team in RJAH in order to allocate the images to the correct patients. Out of hour they can be sent as blue light transfers.
Russells Hall Hospitals	Contact hospital directly
Walsall Manor Hospital	Contact hospital directly
Royal Wolverhampton Hospital	Contact hospital directly
Birmingham Children’s Hospital	Contact hospital directly

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