Worcestershire Acute Hospitals NHS Trust

INTERGRATED GUIDELINE FOR ACUTE OCCUPATIONAL THERAPY AND PHYSIOTHERAPY IN THE ASSESSMENT AND TREATMENT OF PATIENTS WITH PRIMARY LOWER LIMB AMPUTATIONS

This guidance does not override the individual responsibility of health professionals to make appropriate decision according to the circumstances of the individual patient in consultation with the patient and /or carer. Health care professionals must be prepared to justify any deviation from this guidance.

Introduction

This integrated guideline has been agreed with the Therapy Service Managers for the Acute Hospitals NHS trust in Worcestershire and are to be used with patients who have undergone a major lower limb amputation.

This guideline is for use by the following staff groups:

All Occupational Therapy and Physiotherapy staff working with major lower limb amputation patients.

Lead Clinician(s)

Claire Moore	Clinical Specialist Occupational Therapist General and Vascular Surgery, WRH
Lindsay Wedgwood	Clinical Specialist Physiotherapist in Vascular Surgery, WRH
Approved by Occupational Therapy Leads Clinical Governance Meeting on:	1st October 2025
Review Date: This is the most current document and should be used until a revised version is in place	1st October 2028

Key amendments to this guideline

Date	Amendment	Approved by:
	New document	

INTERGRATED GUIDELINE FOR ACUTE OCCUPATIONAL THERAPY AND PHYSIOTHERPAY IN THE ASSESSMENT AND TREATMENT OF PATIENTS WITH PRIMARY LOWER LIMB AMPUTATIONS

INTRODUCTION

All Therapy staff working with primary lower limb amputees should be aware of the existence of this guideline and the location of where a copy of the guideline is kept (RCOT 2021).

AIM

This guideline has been developed to assist acute therapy staff working within WAHT, in the early assessment and treatment of patients with lower limb amputations, to ensure a continuity of care, using recent evidenced based practice, as well as local and national guidelines. These include Rehabilitation After Traumatic Injury (NICE 2022 NG211), and the British Association of Chartered Physiotherapists in Limb Absence Rehabilitation- Pre and Post Op Guidelines (BACPAR 2016) to support interventions with this patient group.

DETAILS OF GUIDELINE

Common Primary lower limb amputations (Primary= A new lower limb amputee within first 12 months post-surgery), seen under this guideline include:

- Unilateral below knee amputation (BKA) - Transtibial or Symes
- Unilateral above knee amputation (AKA)-Transfemoral or hip disarticulation
- Bilateral amputation- Bilateral Transtibial, Bilateral Transfemoral or mixed transfemoral and transtibial
- Guillotine amputation of the lower limb- (an initial temporary amputation that will return to theatre for final refashioning of the residual limb resulting in one of the above levels of amputation)

These are most commonly the result of vascular disease (often associated with smoking or diabetes), traumatic injuries, infections, congenital deformity or cancer, and are often compounded by lifestyle choices.

PRE-OPERATIVELY

British Association of Chartered Physiotherapists in Limb Absence Rehabilitation (BACPAR 2016) states that it is best practice, if possible, for therapists to see an amputee patient prior to their amputation to enable early assessment and planning, as well as an opportunity for the therapy staff to give advice and reassurance. However, if the amputation is carried out as emergency surgery, then this pre-amputation consultation may not be achievable.

Referrals for pre-op assessments can be generated via Elective Orthopaedics, Vascular Clinic or from the Vascular inpatient ward.

- For inpatients -referral to be made by a member of the multi-disciplinary team, via Sunrise to OT or via ward handover to therapy staff as soon as a patient has been identified for lower limb amputation.
- For out-patients, referral to OT to be made via generic email (elective orthopaedics) or to therapy staff directly from Vascular Clinic at Worcestershire Royal Hospital via email, telephone or face to face referral.

Once referral received-

- Therapists to establish collateral history i.e. community teams/agencies involved pre-operatively such as Wheelchair Services, West Midlands Rehabilitation Centre (WMRC), and existing equipment provided.
- Therapists to complete an initial pre-operative assessment/discussion with the patient, either jointly or individually as appropriate and able for either outpatients or inpatients as detailed below.

  <u>Outpatients</u>
  OT to complete an initial consultation and wherever possible, will be a remote consultation. If the outcome of this is that an assessment of their home is required, OT to complete an access visit and an initial assessment at the same time. If clinically indicated, a PT will aim to attend a joint access visit/initial assessment. These assessments will then be recorded on Sunrise (See Occupational Therapy Procedure for the Completion of Community Visits 2023)

  <u>Inpatients</u>
  Therapy initial inpatient assessments can be completed face to face in the clinical setting. The aims of these assessments are as follows:

- For OT- to establish what matters to the patient, and to ascertain home environment, social support, cognitive status and pre-admission occupational level. Establish any pre-existing long-term conditions including physical and mental health conditions that may affect rehabilitation.
- For PT- to establish their current level of mobility, level of independence, joint range and power, general strength and to encourage the patient to maintain this pre-operatively, if possible.
- If the patient lacks capacity or is unable to give a clear social history due to a cognitive impairment, involvement of relatives/carers may be required to gain this information.
- Therapists to work together to prevent repetition.
- Therapists to set and agree realistic goals together in partnership with the patient and/or carer.

- Therapists to discuss and educate the patient and carer, as appropriate, regarding therapy process including post-op procedure, wheelchair provision, safe mobility, prosthetic pathway, phantom limb sensation and pain management.
- For elective/traumatic orthopaedic lower limb amputees, liaise with orthopaedic consultant regarding appropriateness to hop using walking aid or to be fully wheelchair dependent until assessed for a prosthetic limb (**although hopping is not recommended and should be kept to a minimum due to risk of falls, damage of the remaining foot and residual limb oedema**). Vascular lower limb amputees should **NEVER HOP** – unless absolutely necessary for discharge home, to be kept to a minimum and patient is assessed as safe to do so. They should always be a wheelchair user until assessed at prosthetic clinic due to risk high risk of falls and potential injury to remaining limb (BACPAR 2016).

WHEELCHAIR PROVISION: OT

- Ensure that wheelchairs are provided as early as possible. Measure patient for wheelchair measurements and refer to Wheelchair Services for permanent wheelchair provision with appropriate accessories including footplates, residual limb support for all transtibial amputees and pressure management cushions, within 24 hours of accepting the OT referral. Complete email referral form.
- If patient has had a wheelchair prescribed previously, ensure that this wheelchair remains fit for purpose. Contact Wheelchair Services for modifications to the wheelchair if required.
- If the patient is not a Worcestershire resident refer to Wheelchair Services in their local area.
- Approved Acute OT Prescribers for wheelchairs can order wheelchairs via Worcestershire Wheelchair Services for next working day delivery if referral is sent before 2pm (Standard Operating Procedure for Occupational Therapy Wheelchair Referrals at Worcestershire Acute Hospitals NHS Trust 2024).
- If required issue a hospital loan wheelchair whilst awaiting delivery of permanent wheelchair (Standard Operating Procedure for Occupational Therapy Wheelchair Referrals at Worcestershire Acute Hospitals NHS Trust 2024).

COMMUNITY ACCESS VISIT: OT

- If clinically indicated and patient agrees, arrange a suitable date and time to complete an access visit to assess the home environment for suitability of wheelchair access/living within 48 hours of receiving a referral. This can be completed pre-operatively with an elective lower limb amputation if appropriate.
- If the patient is not a Worcestershire resident, refer to OT covering their local area within 48 hours of receiving a referral, to complete an access visit on our behalf and then feedback to WRH OT.
- If any concerns regarding housing are identified at this stage refer to social worker and housing officer at the earliest opportunity.
- Access visit to be carried out in adherence to the Occupational Therapy Procedure for Community visits, and Occupational Therapy Guideline for Community Visits (2023), and community visit report to be completed within 24 hours.

DAY 1 AND ONWARDS (Day 1 = The first day after the operation)

- Any of the above if not completed pre-amputation.
- Joint assessment between therapists to establish physical capabilities and potential transfer ability.
- Initially assess bed mobility and ability to move their residual limb, dependant on pain and muscle power.
- Progress to sitting on edge of bed if able and assess sitting balance.
- If patient able to sit independently on the edge of the bed, assess their ability to manage bottom lift with clearance from the bed, and ability to move sideways along the bed.
- If medically stable, appropriate and able to complete above, a transfer from bed to wheelchair can be attempted. Use clinical reasoning to determine most appropriate transfer method (Full passive hoist, transfer board/pivot transfer).
- Issue wheelchair with a demonstration on use and how to fit/remove wheelchair accessories.
- Discuss prevention of limb oedema in stump and protection of remaining leg.
- Assess ability to self-propel in wheelchair, including applying/removing brakes, changing direction, avoiding obstacles and reversing.
- Complete access visit and report back to patient and MDT on findings of the visit. If required order equipment identified from this visit or make onward referrals to community OT for major adaptations if required.

Post-op amputees can vary greatly in their ability to participate in therapy and the speed in which they will progress. The above may all be completed on the first day post- amputation or may take many days to achieve. Use clinical reasoning to assess the speed at which the patient should be progressed.

DAY 2 ONWARDS- Joint therapy session or separately

- Promote independence with activities of daily living and educate on washing and dressing techniques and complete PADL assessment if required (See useful links for washing and dressing advice).
- Discuss management of domestic tasks and complete kitchen assessment if required (See useful links for kitchen advice).
- For unilateral lower limb amputees, or bilateral amputees with a prosthetic limb, the aim is to progress from transfers with a transfer board to a pivot transfer with or without wheelchair arm removed. For bilateral amputees progress to forward/backward or sideways transfer as appropriate (see useful links for transfer advice).
- Daily transfer, wheelchair use and accessories, and PADL practice whilst an inpatient to progress independence with these tasks as appropriate and as caseload allows.
- Toilet transfers to be assessed and practiced once able to pivot transfer without a transfer board.
- If there are concerns regarding how the patient will manage at home, a home visit with the patient may need to be completed prior to discharge home.
- Guide the patient through and practice appropriate amputee bed exercises and issue with ‘Exercises for Lower Limb Amputees’ and ‘Following Amputation’ WMRC booklets (See useful links). These leaflets are produced and provided by WMRC and are issued to our lower limb amputees with their knowledge and permission. Original copies of these leaflets are available on the Vascular ward and in the PT outpatient

department to be issued to patients. (Contact WMRC PT to provide more copies as required). *Copies shown in appendix are for illustration purposes only.*

NB: As Therapists do not currently offer a 7-day service, any new amputee who undergoes their operation on a Friday or over the weekend, will not receive an initial therapy assessment until Monday unless requiring urgent PT intervention i.e. chest PT.

DISCHARGE CRITERIA

- To be discharged from therapy once the therapy intervention plans are complete (Mobility, transfers and key activities of daily living have been assessed) or appropriate interim bed/PW2 is available.
- Consider the provision of short-term loan equipment for discharge to the home environment to facilitate independence.
- Onward referrals have been made to any of the following within their locality: Community OT/ Wheelchair Services/Housing officer/Neighbourhood Teams/Prosthetic service.
- In consultation with patient, MDT and family refer on to PW1 (or equivalent out of area) for assistance with ongoing rehabilitation/support at home if required.
- Falls prevention should be discussed by therapists - patient and carers should be aware of how to get up from the floor or how to call for assistance if unable.
- Outreach visit for all patients if clinically reasoned as appropriate to do so, as per Occupational Therapy Guideline for the Completion of Community Visits 2023. Outreach visit to be completed by OT on same day as discharge to complete assessments that cannot be replicated in the hospital, and to assist with transition from hospital to home for both the patient and carer. Reason for outreach visit to be clinical reasoned within OT notes. If clinically indicated a PT may be invited to attend the outreach visit as well. If the patient lives outside of Worcestershire, refer to local team to complete this outreach visit on our behalf.
- For prosthetic rehabilitation see pathway and flowchart for West Midlands Rehabilitation Centre referral process (see useful links).

PSYCHOLOGICAL AND EMOTIONAL SUPPORT

- Therapists as part of the multidisciplinary team should offer emotional support to enable the patient to adjust to their altered body image and cope with changes in function.
- Grief following the loss of a limb is normal and expected. It is when these emotions become excessive or continue for more than a few weeks that further specialist psychological support may be required.
- All lower limb amputees should be referred to a limb fitting centre for assessment and follow up and should be able to access a psychologist/counsellor based through this centre. If this is not available, the patient will need to ask their GP or Consultant to refer them for this service.
- Support can also be provided from the following organisations:
    - Limbless Association (www.limbless-association.org)
    - Steel Bones charity supports families of amputees
    - If amputee is ex-service personnel for the forces, they may be eligible to get support from SSAFA or the Royal British Legion.

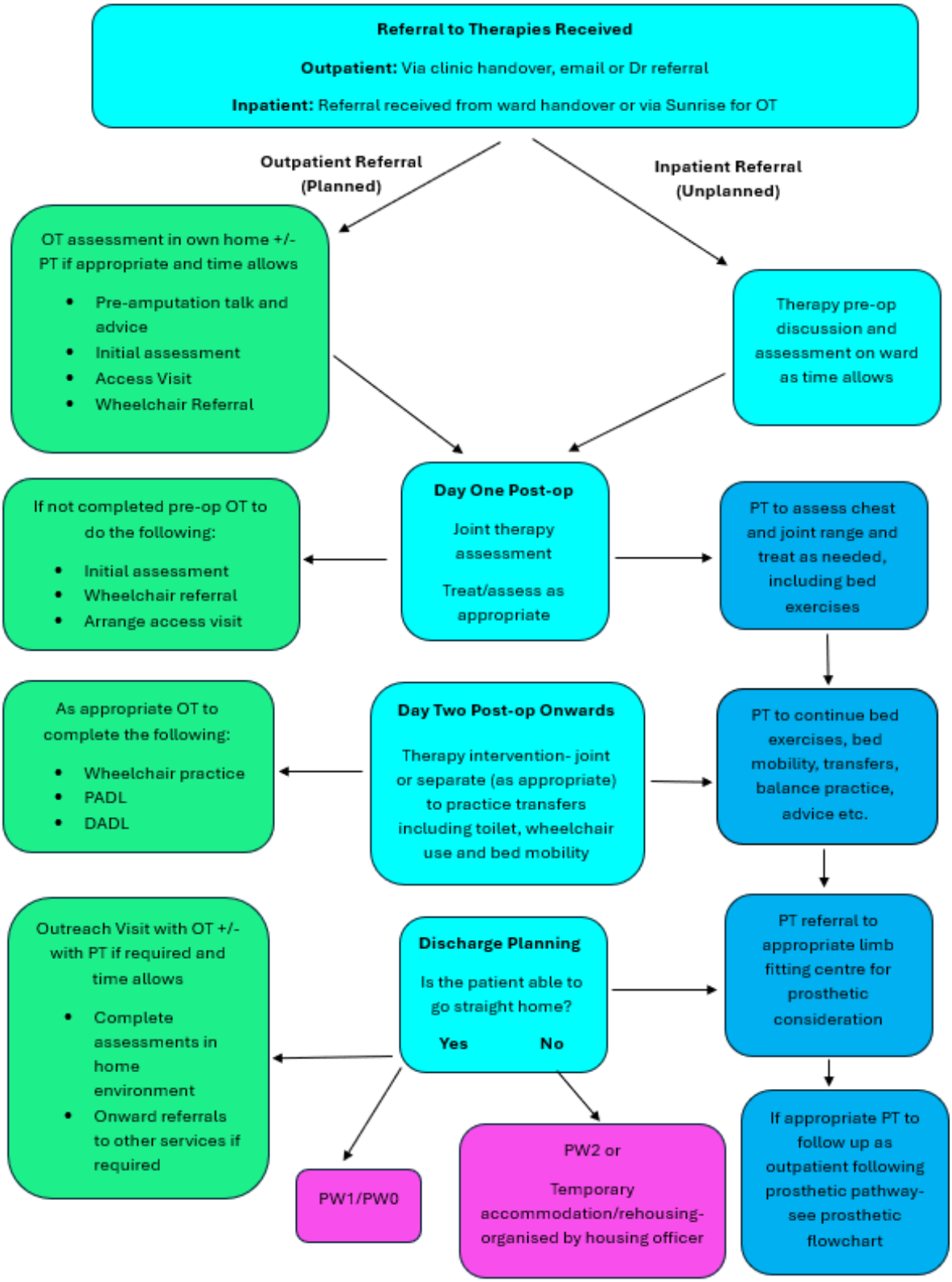
DRIVING

- It is the patient's responsibility to inform the DVLA and their insurance company of their amputation.
- The patient or their therapist can refer to drivingmobility.org for a local driving assessment.
- Motability can assist with adaptations to vehicles www.motability.co.uk.
- Blue Badge Scheme – Patients need to apply directly via their Local Authority.

EMPLOYMENT

- If the patient would like to return to their previous or new employment, they should discuss this with the employer regarding feasibility, time scales and reasonable adjustments. Patients can get further advice from the Disablement Employment Agency and Citizens Advice Bureau.
- Discuss with doctors the need for fit note on discharge if required.

Therapy Guideline Flowchart for Amputees



USEFUL LINKS

Standard Operating Procedure for Occupational Therapy Wheelchair Referrals at Worcestershire Acute Hospitals NHS Trust 2024	Wheelchair OT Referrals Standard Op
Occupational Therapy Procedure for the Completion of Community Visits 2023	Community Visit procedure.DOC
Occupational Therapy Guideline for the Completion of Community Visits 2023	Community Visit Guideline.DOCX
Transfer Advice	Transfer Advice Following a Lower lim
Washing and Dressing Advice	Washing and Dressing Advice Follo
Kitchen Advice	Kitchen Advice Following Lower Limb
Prosthetic pathway and Flowchart of West Midlands Rehabilitation Centre Referral Process	Prosthetic pathway.docx
Exercises for Lower Limb Amputees Booklet	Amputee Exercise leaflet.pdf
Following Amputation Booklet	Following Amputation leaflet.pdf

Monitoring

Page/ Section of Key Document	Key control:	Checks to be carried out to confirm compliance with the Policy:	How often the check will be carried out:	Responsible for carrying out the check:	Results of check reported to: *(Responsible for also ensuring actions are developed to address any areas of non-compliance)*	Frequency of reporting:
	WHAT?	**HOW?**	**WHEN?**	**WHO?**	**WHERE?**	**WHEN?**
ALL	ALL OT/PT staff are familiar with the guidelines contained within this document when working with lower limb amputation patients	Informal and formal documentation audits. Compliance with referrals to wheelchair services within 24 hours of accepting an OT referral. Compliance with arranging an access visit within 48 hours of accepting an OT referral.	1 set of notes of each therapist to be audited twice per year	Team leaders of each speciality and/ or clinical leads	Reporting to clinical leads meeting and OT/PT manager	2 times per year
ALL	Clinical supervision and supervision records	Specific case discussion and reflection in supervision	Agreed supervision frequency of the staff member	Clinical supervisor	Clinical/Team lead and Therapy Services Managers	When required
ALL	Annual service quality and performance reviews	Quality auditing	Annual	Clinical/team leads	Therapy Services Managers	Annual

References

- Rehabilitation After Traumatic Injury NICE guidelines [NG211] published: 18th January 2022 www.nice.org.uk/guidance/ng211.
- Clinical guidelines for the pre and post operative physiotherapy management of adults with lower limb amputations 2nd Edition (2016) British Association of Chartered Physiotherapists in Amputee Rehabilitation.
- RCOT. (2021). Professional standards for occupational therapy practice, conduct and ethics. London: RCOT

Contribution List

Contribution List

This key document has been circulated to the following individuals for consultation;

Designation
Kate Harris – Therapies Manager
Beverley Phillips – Clinical Strategic Lead Trauma and Elective Orthopaedics and Surgery
Emma Jameson – Clinical Lead Physiotherapist Surgery, ICU and Paediatrics

This key document has been circulated to the chair(s) of the following committee's / groups for comments;

Committee
Therapy Team Leads
Therapy Clinical Governance
Vascular MDT

Supporting Document 1 - Equality Impact Assessment Tool

To be completed by the key document author and included as an appendix to key document when submitted to the appropriate committee for consideration and approval.

Please complete assessment form on next page;

Worcestershire Acute Hospitals NHS Trust

Worcestershire Acute Hospitals NHS Trust

Herefordshire & Worcestershire STP - Equality Impact Assessment (EIA) Form
Please read EIA guidelines when completing this form

Section 1 - Name of Organisation (please tick)

Herefordshire & Worcestershire STP		Herefordshire Council		Herefordshire CCG	
Worcestershire Acute Hospitals NHS Trust	x	Worcestershire County Council		Worcestershire CCGs	
Worcestershire Health and Care NHS Trust		Wye Valley NHS Trust		Other (please state)	

Name of Lead for Activity	**Claire Moore**

Details of individuals completing this assessment	**Name**	**Job title**	**e-mail contact**
	Claire Moore	**Band 7 OT**	**Claire.moore17@nhs.net**
	Lindsay Wedgwood	**Band 7 PT**	**Lindsay.wedgwood@nhs.net**
Date assessment completed	**16/05/2025**		

Section 2

Activity being assessed (e.g. policy/procedure, document, service redesign, policy, strategy etc.)	**Title:** GUIDELINE FOR OCCUPATIONAL THERAPY ASSESSMENT AND TREATMENT FOR PATIENTS WITH LOWER LIMB AMPUTATIONS			
What is the aim, purpose and/or intended outcomes of this Activity?	To give OT staff a guideline to follow for assessment and intervention for patients with lower limb amputations			
Who will be affected by the development & implementation of this activity?	❑ ☒ ☒ ❑	Service User Patient Carers Visitors	☒ ❑ ❑ ❑	Staff Communities Other _____
Is this:	❑ Review of an existing activity ☒ New activity ❑ Planning to withdraw or reduce a service, activity or presence?			

What information and evidence have you reviewed to help inform this assessment? (Please name sources, eg demographic information for patients / services / staff groups affected, complaints etc.	NICE Guideline RCOT BACPAR Band 7/8a OT/PT in Surgery and trauma and orthopaedics WAHT Therapy clinical governance group
Summary of engagement or consultation undertaken (e.g. who and how have you engaged with, or why do you believe this is not required)	Therapy manager Therapy Team Leads Therapy Clinical Governance group Vascular MDT
Summary of relevant findings	

Section 3

Please consider the potential impact of this activity (during development & implementation) on each of the equality groups outlined below. **Please tick one or more impact box below for each Equality Group and explain your rationale**. Please note it is possible for the potential impact to be both positive and negative within the same equality group and this should be recorded. Remember to consider the impact on e.g. staff, public, patients, carers etc. in these equality groups.

Equality Group	Potential positive impact	Potential neutral impact	Potential negative impact	Please explain your reasons for any potential positive, neutral or negative impact identified
Age		x		
Disability		x		
Gender Reassignment		x		
Marriage & Civil Partnerships		x		
Pregnancy & Maternity		x		
Race including Traveling Communities		x		
Religion & Belief		x		
Sex		x		
Sexual Orientation		x		
Other Vulnerable and		x		

Equality Group	Potential positive impact	Potential neutral impact	Potential negative impact	Please explain your reasons for any potential positive, neutral or negative impact identified
Disadvantaged Groups (e.g. carers; care leavers; homeless; Social/Economic deprivation, travelling communities etc.)				
Health Inequalities (any preventable, unfair & unjust differences in health status between groups, populations or individuals that arise from the unequal distribution of social, environmental & economic conditions within societies)		x		

Section 4

What actions will you take to mitigate any potential negative impacts?	Risk identified	Actions required to reduce / eliminate negative impact	Who will lead on the action?	Timeframe
	None identified	·		
How will you monitor these actions?	Band 7 OT/PT to oversee implementation of guideline for therapy staff involved with this patient group.			
When will you review this EIA? (e.g in a service redesign, this EIA should be revisited regularly throughout the design & implementation)	At the next Therapy Surgery Service review.			

Section 5 - Please read and agree to the following Equality Statement

1. Equality Statement

1.1. All public bodies have a statutory duty under the Equality Act 2010 to set out arrangements to assess and consult on how their policies and functions impact on the 9 protected characteristics: Age; Disability; Gender Reassignment; Marriage & Civil Partnership; Pregnancy & Maternity; Race; Religion & Belief; Sex; Sexual Orientation

1.2. Our Organisations will challenge discrimination, promote equality, respect human rights, and aims to design and implement services, policies and measures that meet the diverse needs of our service, and population, ensuring that none are placed at a disadvantage over others.

1.3. All staff are expected to deliver services and provide services and care in a manner which respects the individuality of service users, patients, carer's etc, and as such treat them and members of the workforce respectfully, paying due regard to the 9 protected characteristics.

Signature of person completing EIA	C. Moore L. Wedgwood
Date signed	16/05/2025
Comments:	
Signature of person the Leader Person for this activity	
Date signed	
Comments:	

Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

	Title of document:	Yes/No
1.	Does the implementation of this document require any additional Capital resources	No
2.	Does the implementation of this document require additional revenue	No
3.	Does the implementation of this document require additional manpower	No
4.	Does the implementation of this document release any manpower costs through a change in practice	No
5.	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff	No
	Other comments:	

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval.