Worcestershire Acute Hospitals NHS Trust

Clinical Reasoning for splint provision: Guidance for Occupational Therapy staff members.

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 guidance document should be used to support the clinical reasoning process of Occupational Therapy staff members when providing or making any type of splint. It will be used to:

- Guide Occupational Therapy staff members to ensure that notes encompass the core values of the Occupational Therapy clinical practice strategy and Care Aims Principles
- Support the clinical reasoning process when providing or making splints
- Support the evaluation of quality of clinical practice including audit processes,
- Teach new staff and students,
- Input into monthly and annual Service Performance and Evaluation reviews

This guideline is for use by the following staff groups:

This guidance document should be used to support the clinical reasoning process of any Occupational Therapy staff member or Occupational Therapy student when providing or making any type of splint in outpatient, inpatient or community settings.

Lead Clinician(s)

Rachel Chapman	Occupational Therapy Clinical Specialist – Rheumatology
Sunita Farmah	Occupational Therapy Clinical Specialist – Hand Therapy
Approved by Specialist Medicine DMB ……. on:	20th June 2024
Approved by Medicines Safety Committee on:	N/A
Review Date: This is the most current document and should be used until a revised version is in place	20th June 2027

Key amendments to this guideline

Date	Amendment	Approved by:
20th June 2024	New Document	Specialist Medicine DMB

Rational for document:

Splinting is a treatment which is used by Occupational Therapy staff members in a number of specialities within Worcestershire Acute Hospitals NHS Trust including hand therapy, rheumatology, and neurology.

The Health and Care Professions Council (2023) state that

- "Occupational Therapists must be able to use their skills, knowledge and experience, and the information available to them, to make informed decisions and/or take action where necessary", and
- "make reasoned decisions to initiate, continue, modify or cease treatment, or the use of techniques or procedures, and record the decisions and reasoning appropriately"

This guidance document should be used to support the clinical reasoning process of Occupational Therapy staff members when providing or making any type of splint. Primarily, the guidance will be used to support Occupational Therapy staff members with the clinical reasoning process and to ensure that patient documentation related to splinting, encompasses the core values of the Trust's Occupational Therapy clinical practice strategy and Care Aims Principles, and meets the standards set out by HCPC. This guidance document can also be used to support:

- evaluation of quality of clinical practice including audit processes and clinical supervision
- teaching of new staff and students
- quality assurance monitoring including contribution to monthly and annual Service Performance and Evaluation reviews

Clinical reasoning regarding which splint to provide or fabricate involves many factors which may include any combination of the following:

- consideration of the reason for referral,
- the surgical and rehabilitation protocol (if relevant),
- the therapist's conceptual model,
- the therapist's assessment of the person's needs based on objective and subjective information gathered during the assessment process,
- the person's occupational performance needs including motivation, compliance, and lifestyle.
- Awareness/knowledge of underpinning theory including biomechanics, anatomy, physiology, kinesiology, pathology and psychology,
- splinting protocols and techniques,
- clinical experience.

Appendix 1 is a brief guide to summarise different Clinical Reasoning approaches and includes suggestions of questions for the therapist to either ask the patient or reflect on during splint provision or fabrication. As therapists become more experienced, a combination of these approaches is usually used and therapists can move easily from one to another, but

novice therapists may need to use the guidance in the table in appendix 1 to support them with their reasoning processes.

Appendix 2 is a splinting clinical reasoning tool which can be used as part of the patient documentation to evidence the decision making if the therapist deems this to be appropriate (e.g. in complex or unusual splinting situations). In this case, the completed tool should be uploaded to CLIP as part of the patient record. In all other cases, the document would not be expected to be part of the patient documentation, but can be used to guide the therapist to document their splinting intervention within the usual documentation e.g. initial assessment document, specific speciality splinting assessment documents or in continuation notes. Below are the areas for consideration by the Occupational Therapy staff member in the following areas:

- Patient and splint considerations
- Therapist, resource and environmental considerations
- Evaluation considerations.

Patient and Splint Considerations

- Consideration should be made regarding why a splint is required, and may include the following reasons:
    - Immobilisation (e.g. post-surgery)
    - Pain relief
    - Support
    - Protection
    - Function
    - Prevention or correction of deformity
    - Oedema management
    - Maintenance or restoration of ROM
    - Scar remodelling
- Consideration should be made about how the splint will help to address “What matters to the patient” and their occupational performance needs.
- Consider what type of splint is required and why. Splinting options may include:
    - Pre-fabricated or bespoke
    - Static/serial/dynamic
    - Volar/dorsal/combined
    - Digit/hand/forearm based
    - Resting/working
    - Splint/no splint
- Other considerations relating to the patient and the splinting process may include:
    - Is there a specific protocol which needs to be followed e.g. a post-operative protocol?
    - Will the patient be wearing the splint for short term or long term use?
    - Do any structure(s) need to be immobilised for protection purposes?
    - Which joints should be free to move as normal?
    - Where are the forces resulting from the splint? E.g. flexion forces, extension forces

- Is there a wound/scar, if so where, and what is the condition of it? Are there any dressings to consider? Can they be changed/debulked?
- Have infection control factors been addressed?
- Is there any oedema? If so, what type and how will this affect the choice of splint? Does it fluctuate?
- What are the anatomical and fit considerations? E.g.
  - arches of the hand,
  - bony prominences,
  - potential nerve compression,
  - potential pressure points,
  - altered sensation or proprioception
  - What strapping considerations are there? e.g. position of straps and type of strapping material
- Are there are any concerns regarding skin integrity or hand hygiene?
- Are there are any specific aesthetic/cosmetic considerations?
- What will the wearing regime be for the patient? What instructions need to be provided to the patient (and/or carer if appropriate)? What format is needed?
- Is there any reason to doubt that the patient has capacity? Does the patient understand:
  - the reason for splint provision?
  - splint wear and care instructions?
  - potential risks and benefits of the splint?
  - the required actions to take if experiencing any problems or concerns when wearing the splint?

  If there is any reason to doubt patient capacity related to the splint provision, what actions are required?
- Are there any concerns regarding patient compliance? If so, how can they be addressed?
- Is the patient able to apply and remove the splint safely and independently, if not, what can be done to support with this?
- Have patient expectations been managed? E.g. aim of the splint/intended outcomes
- Where can the patient be offered choice in the splinting process? E.g. splinting material/colour, splint/no splint, splint design

Therapist, resource, and environmental considerations

Considerations relating to the therapist, the resources and the environment may include:

- What splints or splinting materials are available and which would be suitable? Are splinting materials in stock or do items need to be ordered? What is the lightest material appropriate for this splint?
- What level of competence does the Occupational Therapy staff member have to provide and/or make a splint? Is any support or training required?
- What environment is the splinting process taking place in and how will this affect the choice of splint? E.g. OT department, # clinic, ward, patient home
- Has the Occupational Therapy Splinting Health and Safety Document been adhered to?

Evaluation considerations

Considerations relating to how the effectiveness of the splint can be measured include:

- Patient reported functional outcome
- Pain visual analogue scale
- Grip strength
- ROM

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 staff should follow the guidance within this document when issuing or making splints and this should be reflected in patient documentation.	Informal and formal documentation audits.	A minimum of 1 set of notes per therapist to be audited twice per year	Team leaders of each speciality and/or clinical leads	To report to Clinical Leads meeting and OT manager as requested	Minimum of twice per year.
ALL	Clinical Supervision and supervision records, observed practice reviews and records, clinical record reviews and records	Specific case discussion and reflection in supervision, including reviews of patient records	Agreed frequency of supervision between the staff member and Clinical Supervisor	Clinical supervisor	Clinical Leads and OT Manager	When required
ALL	Annual Service quality and performance reviews,	Quality auditing	Annual	Clinical team leads	Clinical Leads and OT manager	Annual

References

Hand and Wrist Orthoses for Adults with Rheumatological Conditions: Practice Guidelines for Occupational Therapists. Royal College of Occupational Therapists. 2nd Edition. 2022.

Spasticity in Adults: Management using Botulinum Toxin. Royal College of Physicians. 2018

Splinting for the prevention and correction of contractures in adults with neurological dysfunction: Practice guideline for occupational therapists and physiotherapists. College of Occupational Therapists and Association of Chartered Physiotherapists in Neurology. 2015

National Clinical Guideline for Stroke for the UK and Ireland. London: Intercollegiate Stroke Working Party; 2023

Keeping Records: Guidance for Occupational Therapists. Royal College of Occupational Therapists. 4th Edition. 2018.

Professional standards for occupational therapy practice, conduct and ethics. Royal College of Occupational Therapists. Version 2. 2021

Standards of Conduct, Performance and Ethics for Occupational Therapists, Health and Care Professions Council, 2023

Standards of Proficiency for Occupational Therapists, Health and Care Professions Council, 2023

Occupational Therapy Health and Safety Procedure for Making Thermoplastic Splints

Clinical Practice Strategy for the Occupational Therapy Service 2023-25

Management of Infection Prevention and Control Policy

Policy for Aseptic Non Touch Technique (ANTT®)

Policy for Assessing Mental Capacity Act and Complying with Mental Capacity Act 2005

WAHNHST Occupational Therapy guidelines for specific conditions:

- Extensor Tendon Mallet Injuries (Zone I & II) Conservative treatment
- Guideline for Occupational Therapy Assessment and Treatment for patients with Upper Limb Fractures
- Guideline for Post Operative Therapy Intervention and Rehabilitation of Rheumatoid Patients following Metacarpophalangeal (MCP) Joint Replacement Surgery and Soft Tissue Realignment
- Guideline for Therapy Intervention Post Trapeziectomy
- Occupational Therapy Procedure for the Completion of Community Visits
- Therapy Intervention for Median Nerve Repair and Neuropraxia Guideline
- Therapy Intervention for Radial Nerve Lesions and Neuropraxia Guideline
- Therapy Intervention for Ulnar nerve Lesions and Neurapraxia Guideline
- Therapy Intervention post Fasciectomy for the correction of Dupuytren's disease Guideline
- Therapy Intervention Post Repair Extensor Pollicis Longus (EPL) Guideline
- Therapy Intervention Post Repair Flexor Pollicis Longus Guideline
- Therapy Intervention with Flexor Tendon Repair Guideline
- Therapy Intervention with Repair Extensor Tendon zone III-IV Guideline
- Therapy Intervention with Repair Extensor Tendon zone V-VII Guideline
- Treatment of closed, stable volar plate injuries to the Proximal Interphalangeal (PIP) joint

Contribution List

Contribution List

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

Designation
Occupational Therapy Outpatient Group
Occupational Therapy Clinical Governance/Team Leads Group
Therapy Management Group

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

Committee

Appendix 1:

Clinical Reasoning Approaches

Reasoning Approach	Summary of Approach	Key questions for the fabrication of splint / Splint provision
Interactive	• Getting to know the patient • Understanding impact of the condition / injury on lifestyle	• How is the patient coping with…? • What areas have been impacted due to condition/injury/surgery? • What are the considerations between lifestyle v's Compliance with splinting regime? • Is there any support needed to assist the patient with…?
Narrative	• Patients Occupational Story / lifestyle • Consider patients Occupation / Hobbies / Habits / Roles	• What is the patient's daily routine? • What roles have been impacted? • What is important to the patient? • What is the impact on your ADL's?
Pragmatic	• Therapist to consider practical factors i.e.: Available Equipment / Knowledge / Skills / Environment	• Have I, the therapist, clearly communicated my Role/reason for splint/Patient guidance and information? • Do I, the therapist, have the competency / skills to fabricate the splint? • Do I, the therapist, have the right equipment/environment to make the splint?
Conditional	• Consider patients ADL's before and after Condition / Injury / Surgery • Patient compliance / cooperation	• Note patients History: Medical / Social • What is the patient's functional status and ability to complete ADL's with their condition/injury/ post surgery? • Will the patient comply with guidelines/advice/treatment programme?
Procedural	• Therapist to Problem solve the best splinting approach	• Does the patient's presenting complaint warrant a splint? • Have I the therapist addressed all the problems identified and issued / fabricated the correct splint? • What is the purpose of the splint? • What precautions will I follow?

		• Do I, the therapist, need to make adjustments and has this been documented?
Scientific	• Therapist to consider how the patient's diagnosis will affect the splinting needs and the approach taken.	• What splinting intervention is needed to address the patient needs resulting from their current diagnosis? • When is the intervention needed? • How will the intervention be carried out?

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Appendix 2:

Splinting Clinical Reasoning tool

Patient Information:

Patient Name Date of birth

Hospital Number NHS Number

Type of consideration	Therapist comments in relation to specific patient and/or splint
Patient and Splint Considerations	
Why is a splint being considered? • Immobilisation (e.g. post-surgery) • Pain relief • Support • Protection • Function • Prevention or correction of deformity • Oedema management • Maintenance or restoration of ROM • Scar remodelling	
How will the splint help to address "What matters to the patient" and their occupational performance needs?	
What type of splint is required? • Pre-fabricated or bespoke • Static/serial/dynamic • Volar/dorsal/combined • Digit/hand/forearm based • Resting/working • Splint/no splint	
Is there a specific protocol which needs to be followed e.g. post operative protocols	
Will the patient be wearing the splint for short term or long term use?	
Do any structure(s) **need** to be immobilised for protection purposes?	
Which joints should be free to move as normal?	
Where are the forces resulting from the splint? E.g. flexion forces, extension forces	
Is there a wound/scar, if so where, and what is the condition of it? Are there any dressings to consider? Can they be changed/debulked? Have infection control factors been addressed	
Is there any oedema? If so, what type and how will this affect the choice of splint? Does it fluctuate?	
What are the anatomical and fit considerations? E.g. • arches of the hand, • bony prominences, • potential nerve compression, • potential pressure points, • altered sensation or proprioception	

What strapping considerations are there? e.g. position of straps and type of strapping material	
Are there are any concerns regarding skin integrity or hand hygiene?	
Are there are any specific aesthetic/cosmetic considerations?	
What will the wearing regime be for the patient? What instructions need to be provided to the patient (and/or carer if appropriate)? What format is needed?	
Is there any reason to doubt that the patient has capacity? Does the patient understand: ▪ the reason for splint provision? ▪ splint wear and care instructions? ▪ potential risks and benefits of the splint? ▪ the required actions to take if experiencing any problems or concerns when wearing the splint? If there is any reason to doubt patient capacity related to the splint provision, what actions are required?	
Are there any concerns regarding patient compliance? If so, how can they be addressed?	
Is the patient able to apply and remove the splint safely and independently, if not, what can be done to support with this?	
Have patient expectations been managed? E.g. aim of the splint	
Where can the patient be offered choice in the splinting process? E.g. splinting material/colour, splint/no splint, splint design	
Therapist, resource and environment considerations	
What splints or splinting materials are available and which would be suitable? What is the lightest material appropriate for this splint?	
What level of competence does the OT have to provide and/or make a splint? Is any support required?	
What environment is the splinting process taking place in and how will this affect the choice of splint? E.g. OT department, # clinic, ward, patient home	
Evaluation considerations	
How can the effectiveness of the splint be measured? E.g. • Patient reported functional outcome • Pain VAS • Grip strength • ROM	

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;

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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	**Rachel Chapman**

Details of individuals completing this assessment	**Name**	**Job title**	**e-mail contact**
	Rachel Chapman	**Occupational Therapy Clinical Specialist – Rheumatology**	**Rachel.chapman11@nhs.net**
	Sunita Farmah	**Occupational Therapy Clinical Specialist – Hand Therapy**	**s.farmah@nhs.net**
Date assessment completed	**18.4.24**		

Section 2

Activity being assessed (e.g. policy/procedure, document, service redesign, policy, strategy etc.)	**Title:** Clinical Reasoning for splint provision: Guidance for Occupational Therapy staff members.			
What is the aim, purpose and/or intended outcomes of this Activity?	This guidance document should be used to support the clinical reasoning process of Occupational Therapy staff members when providing or making any type of splint			
Who will be affected by the development & implementation of this activity?	● Service User ❑ Patient ❑ Carers		● Staff ❑ Communities ❑ Other _____	

	❑	Visitors	❑	
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.	A review of recent documentation audit results and a review of relevant documents outlined in the reference section.			
Summary of engagement or consultation undertaken (e.g. who and how have you engaged with, or why do you believe this is not required)	All Occupational Therapy Staff who are involved in splint provision across all relevant specialities have been consulted.			
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		The guidance will ensure that Occupational Therapists articulate and document the clinical reasoning process for all patients and this will have no impact on patients from any particular equality group
Disability		X		
Gender Reassignment		X		
Marriage & Civil Partnerships		X		
Pregnancy & Maternity		X		
Race including Traveling Communities		X		
Religion & Belief		X		
Sex		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
Sexual Orientation		X		
Other Vulnerable and Disadvantaged Groups (e.g. carers; care leavers; homeless; Social/Economic deprivation, travelling communities etc.)		X		
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
		.		
How will you monitor these actions?				
When will you review this EIA? (e.g in a service redesign, this EIA should be revisited regularly throughout the design & implementation)				

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

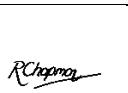
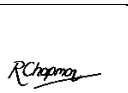
1. Equality Statement

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	
Date signed	18.4.24
Comments:	
Signature of person the Leader Person for this activity	
Date signed	18.4.24
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.