

# OCCUPATIONAL THERAPY FOR PROFOUND BRAIN INJURY RESULTING IN PROLONGED DISORDERS OF CONSCIOUSNESS (PDOC)

This guidance does not override the individual responsibility of health professionals to make appropriate decisions 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

Prolonged disorders of consciousness (PDOC)

"a state of diminished or absent responsiveness/awareness persisting for more than 4 weeks following sudden onset profound acquired brain injury"

Disorders of consciousness(DOC)include:

- Coma (Absent wakefulness and absent awareness)
- Vegetative state (Wakefulness with absent awareness)
- Minimally conscious state (Wakefulness with minimal awareness)

These definitions are taken from the Prolonged disorders of consciousness National clinical guidelines-Report of a working party 2020 by Royal college of Physicians.

#### This guideline is for use by the following staff groups:

All occupational therapy staff working with patients who have suspected PDOC.

# Lead Clinician(s)

Beverley Phillips
Laura Biles
Clinical lead trauma and orthopaedics
Senior Occupational Therapist-neuro
Occupational Therapy clinical

specialist -neurology

Approved by Occupational Therapy Clinical

Governance Meeting on: 3<sup>rd</sup> June 2021

Review Date: 13<sup>th</sup> December 2024

This is the most up to date version and should be used until a revised document is in place

Occupational Therapy for Profound Brain Injury Resulting in Prolonged Disorders of				
Consciousness (PDOC)				
WAHT-OCT-024	Page 1 of 15		Version 2.1	

It is the responsibility of every individual to ensure this is the latest version as published on the Trust Intranet



# Key amendments to this guideline

Date	Amendment	Approved by:
19 <sup>th</sup> April 2018	Document Approved	OT Clinical
		Governance Meeting
6 <sup>th</sup> May 2020	Document extended for 6 months during COVID	
	period	
27 <sup>th</sup> November	Document extended for 6 months as per email	Beverley Phillips
2020	from Beverley Phillips	
April 2021	Document extended for 3 months whilst under	Charlotte Jack
	review	
September	Amended job titles, updated references and	OT clinical
2021	added summary report form	governance meeting,
		OT manager,
		specialist consultants.
June 2024	Document extended for 6 months whilst	Beverley Phillips
	document under review	



# OCCUPATIONAL THERAPY FOR PROFOUND BRAIN INJURY RESULTING IN PROLONGED DISORDERS OF CONSCIOUSNESS

# Introduction

The purpose of the guideline is to ensure that individuals with suspected PDOC in the acute/post acute phase of recovery within Worcestershire acute trust are able to receive coordinated, timely and appropriate occupational therapy care in accordance with evidence based practice. These guidelines provide a framework to inform and guide best practice.

# **Details of the Occupational Therapy Guideline**

Referral received from Trauma/Neurosurgical hospital via a rehabilitation prescription or verbal handover to the occupational therapist.

OR

Referral received from WRH/AH Occupational therapist, Physiotherapist or ward staff



Action referral within two working days of receiving the referral.

Document in patient notes Occupational therapist will commence the PDOC pathway acting in patients best interests.

Establish that the patient has been referred to the in patient Consultant Neurologist based at WRH, and if not Occupational therapist to refer patient.

Refer to neuropsychologist (Worcestershire Health and Care Trust) for advice to the next of kin.(as appropriate).

Optimise conditions for behavioural response, assess most appropriate positioning for patient in the bed/chair/wheelchair and develop a 24 hour positioning programme with the MDT.Refer to wheelchair services as appropriate.



Provide intervention to manage tone and alignment and to prevent the development of contractures

Occupational Therapy for Profound Brain Injury Resulting in Prolonged Disorders of Consciousness (PDOC)		
WAHT-OCT-024	Page 3 of 15	Version 2.1

It is the responsibility of every individual to ensure this is the latest version as published on the Trust Intranet





Multidisciplinary goal orientated programme of care to be discussed and timetable to be planned .Educate MDT about Occupational Therapy intervention and management of patients PDOC needs eg fatigue, over stimulation



<u>Clinical Assessment of behavioural responses and administration of structured assessment tools.</u>

Wessex Head Injury Matrix (WHIM) and Coma Recovery Scale Revised (CRS-R) to be applied on at least 6 occasions over a 2-3 week period, when the patient is clinically well and free from current infection.



Within 5 working days from the initial assessment the Occupational Therapist will meet with family to establish the patient's baseline, discuss and issue 'information for my therapy professional', aiding communication leaflet and brain injury leaflet, therapy goals and intervention. Occupational Therapist to continue to meet with the family on a weekly basis as appropriate.

Within initial assessment period Occupational Therapist to ensure patient is exposed to a range of controlled stimuli, within a 24 hour programme



From 3 weeks post admission to Worcester Royal Hospital/Alexandra hospital the Occupational therapist will provide on going intervention as per advice from the consultant Neurologist.

At 4 weeks Occupational therapist to provide a full formal summary of the outcome of the assessments.

Patient is then transferred to a specialist Neuro Rehabilitation unit and Occupational Therapist to liaise with the unit to handover the patient

Occupational Therapy for Profound Brain Injury Resulting in Prolonged Disorders of		
Consciousness (PDOC)		
WAHT-OCT-024	Page 4 of 15	Version 2.1



# **APPENDIX 1-ELECTRONIC REPORT**

# **Worcestershire Acute NHS Trust**

# **Occupational Therapy Report**

<u>Prolonged Disorders of Consciousness (PDOC) Assessment Progress Report.</u>

NAME: NHS No.:	
HOSP No.:	
DOB:	M 🗆 F 🗆
Consultant:	Ward:
Admission date:	Diagnosis:
Date of referral to Occupational Therapy	y:
Reason for referral:	
Date of commencing PDOC Pathway:	
Report sent To:	
Assessments used:	
Assessments completed as per Royal Co	llege of Physicians (RCP) Prolonged Disorders of

Assessments completed as per Royal College of Physicians (RCP) Prolonged Disorders of consciousness National clinical guidelines (2020) over the recommended 4 week period:

The Wessex Head Injury Matrix (WHIM): is a 62- item hierarchical scale, which provides a sequential framework of tightly defined categories of observation covering an individual's level of responsiveness and interaction with their environment. Behaviours may occur either spontaneously or in response to stimulation).

Number of WHIM assessments completed:

**JFK Coma Recovery Scale** (CRS-R):has 25 hierarchically arranged items with 6 subscales auditory, visual, moto, oromotor, communication and arousal. Scoring is based on the presence or absence of specific behavioural response to stimuli presented in a standardised manner, from reflexive response to cognitively facilitated responses.

Number of CRS-R assessments completed:

Occupational Therapy for Profound Brain Injury Resulting in Prolonged Disorders of Consciousness (PDOC)		
WAHT-OCT-024	Page 5 of 15	Version 2.1

It is the responsibility of every individual to ensure this is the latest version as published on the Trust Intranet



#### **Summary of Assessments:**

A summary of PDOC assessments is as follows:
On the WHIM the most advanced behaviour seen wasthe total number of behaviours seen
are
Comments:

On the CRS the range of scores are as follows:

Auditory Function Scale:	/4
Visual Function scale:	/5
Motor Function Scale:	/6
Oromotor/verbal function scale:	/3
Communication scale:	/2
Arousal Scale:	/3
Total	/23

Comments:

#### **Observed behaviours**

## **Recommendations:**

'Following severe brain injury, patients who remain in a state of wakeful non-responsiveness for more than 4 weeks should be referred to or transferred to a unit specialising in the multidisciplinary assessment/ management of prolonged disordered of consciousness (PDOC)' (Royal College of Physicians, 2020).

# Therefore in view of above PDOC assessment period and RCP guidelines recommendations are as follows:

- Aim specialised inpatient Neuro rehab centre
- Ensure referral to appropriate rehabilitation setting.
- Ongoing assessment whilst in an acute setting using WHIM/CRS for regular assessment and monitoring,
- Joint assessment and management with physiotherapy for spasticity, positioning, splinting

Occupational Therapy for Profound Brain Injury Resulting in Prolonged Disorders of Consciousness (PDOC)		
WAHT-OCT-024	Page 6 of 15	Version 2.1

It is the responsibility of every individual to ensure this is the latest version as published on the Trust Intranet



- Ongoing joint occupational therapy and physiotherapy to establish appropriate transfer methods and seating
- Inform Neuro rehabilitation Consultant of this summary.

Signed	Designation
-0	60.0
Date	



# **Monitoring Tool**

This should include realistic goals, timeframes and measurable outcomes.

How will monitoring be carried out? Notes audit

Who will monitor compliance with the guideline? Senior occupational therapists (neuro/trauma and orthopaedics)

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?
Page3	Referral actioned within 2 working days of receiving refferrals.	Notes audit	Twice a year	Senior occupational therapists	OT manager	Twice year
Page 3	Refferal made to rehabilitation consultantand neuropsychologist.	Notes audit				
Page4	WHIM and CSR-R applied on at least 6 occasions over 2-3 week period.	Notes audit				

Occupational Therapy for Profound Brain Injury Resulting in Prolonged Disorders of		
Consciousness (PDOC)		
WAHT-OCT-024 Page 8 of 15 Version 2.1		

It is the responsibility of every individual to ensure this is the latest version as published on the Trust Intranet



# References

- Royal College of Physicians (2020) Prolonged disorders of consciousness National guidelines.
- Joesph.T.Giacino and Kathleen Kalmar CRS-R coma recovery scale-revised administration and scoring guidelines 2004
- Shiel.A, Wilson.B, McLellan.DL et al.WHIM Head injury matrixmanual.London.Harcourt Assessment 2000.

#### **Contribution List**

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

# Designation

Julie Elliott-occupational therapy manager

Charlotte jack occupational therapy manager (from 2019)

Charlie Docker-clinical lead consultant for trauma and orthopaedics

Tom Heafield-consultant neurologist

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

$\sim$			
Com	mi	ttΔ	Δ
COIII		แ	ᆫ

Therapy clinical Governance group

Occupational therapy clinical team leads

Occupational Therapy for Profound Brain Injury Resulting in Prolonged Disorders of				
Consciousness (PDOC)				
WAHT-OCT-024 Page 9 of 15 Version 2.1				

It is the responsibility of every individual to ensure this is the latest version as published on the Trust Intranet



# **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;





Name of Lead for Activity



# 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	х	Worcestershire County Council		Worcestershire CCGs		
Worcestershire Health and Care NHS Trust		Wye Valley NHS Trust		Other (please state)		

**BEVERLEY PHILLIPS** 

Details of individuals completing this assessment	Name Beverley Phillips	Job title Clinical Lead OT	e-mail contact Beverley.phillips6@nhs.net
Date assessment completed	24/5/21		

# Section 2

Activity being assessed (e.g. policy/procedure, document, service redesign, policy, strategy etc.)	Title:WAHT-OCT-024 Occupational Therapy for profound brain injury resulting in prolonged disorders of consciousness(PDOC)				
What is the aim, purpose and/or intended outcomes of this Activity?	COV	9	ablish	date for review has expired during any amendments/updates and see if ctice.	
Who will be affected by the development & implementation of this activity?	□ Service User   x□ Patient   □ Carers   □ Visitors    Staff  Communities  Other				
Is this:	x□ Review of an existing activity □ New activity				

Occupational Therapy for Profound Brain Injury Resulting in Prolonged Disorders of Consciousness (PDOC)				
WAHT-OCT-024	Version 2.1			



It is the responsibility of every individual to ensure this is the latest version as published on the Trust Intranet

	☐ 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 guidelines RCOT specialist section OT clinical governance group Royal College of Physicians –national clinical guidelines.
Summary of engagement or consultation undertaken (e.g. who and how have you engaged with, or why do you believe this is not required)	OT manager OT clinical governance group Specialist consultants
Summary of relevant findings	Minimal changes to staff job titles and added new updated NICE guidelines/ Royal College of Physicians –national clinical guidelines.

Section 3

Please consider the potential impact of this activity (during development & implementation) on each of the equality groups

The section 3

Please consider the potential impact of this activity (during development & implementation) on each of the equality groups

The section 3 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.

<b>Equality Group</b>	Potential	Potential	Potential	Please explain your reasons for any
	positive impact	neutral impact	negative impact	potential positive, neutral or negative impact identified
Age		<b>√</b>		
Disability		<b>✓</b>		
Gender Reassignment		<b>✓</b>		
Marriage & Civil Partnerships		✓		
Pregnancy & Maternity		✓		
Race including Traveling Communities		<b>✓</b>		
Religion & Belief		<b>√</b>		
Sex		✓		
Sexual Orientation		✓		

Occupational Therapy for Profound Brain Injury Resulting in Prolonged Disorders of				
Consciousness (PDOC)				
WAHT-OCT-024	Page 12 of 15	Version 2.1		

Worcestershire Acute Hospitals

It is the responsibility of every individual to ensure this is the latest version as published on the Trust Intranet

Equality Group	Potential positive impact	Potential neutral impact	Potential negative impact	Please explain your reasons for any potential positive, neutral or negative impact identified
Other Vulnerable and		✓		
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)		<b>✓</b>		

## 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?	•	ialist to oversee im with this patient gro	•	of guideline for		
When will you review this	At the next trauma/neuro OT service review					
<b>EIA?</b> (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.

Occupational Therapy for Profound Brain Injury Resulting in Prolonged Disorders of				
Consciousness (PDOC)				
WAHT-OCT-024	Page 13 of 15	Version 2.1		

It is the responsibility of every individual to ensure this is the latest version as published on the Trust Intranet



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	B.Phillips
Date signed	24/5/21
Comments:	
Signature of person the Leader Person for this activity	
Date signed	
Comments:	

























# Supporting Document 2 - Financial Impact Assessment

Occupational Therapy for Profound Brain Injury Resulting in Prolonged Disorders of				
Consciousness (PDOC)				
WAHT-OCT-024	Page 14 of 15	Version 2.1		

It is the responsibility of every individual to ensure this is the latest version as published on the Trust Intranet



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.

Occupational Therapy for Profound Brain Injury Resulting in Prolonged Disorders of				
Consciousness (PDOC)				
WAHT-OCT-024	Page 15 of 15	Version 2.1		