# A report on the process for developing Clinical Practice guidelines for the physical management of people with a Disorder of Consciousness (DOC)

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## Background

Advances in first response protocols have led to an increased survival following catastrophic brain injury and thus increased prevalence of those with a Disorder of Consciousness (DOC). The main role of physical rehabilitation management in this patient group is prevention of complications such as limb contracture and pressure ulcers.
Currently, in the UK, there is no guidance available for the physical management and there is a need to support and standardise clinical practice.

## Methods

A structured literature review was carried out on MEDLINE, CINAHL Plus and AMED databases in 2017. A multidisciplinary Guideline Development Group (GDG) of experts was convened and two consensus meetings with a nominal group process and final voting round organised to develop recommendations and a management and assessment algorithm.

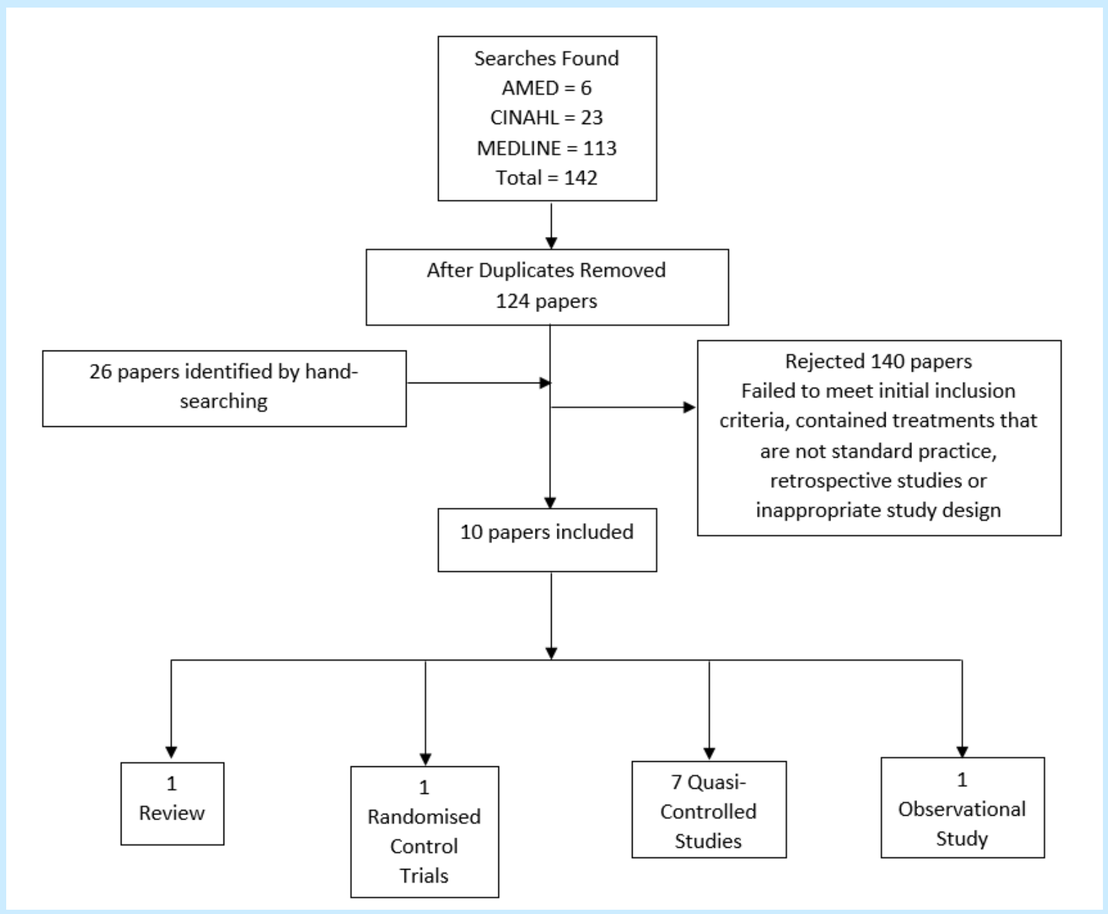


Figure 1: Study Selection chart

- Literature scoping review completed
- The project was publicised through professional forums to increase awareness and participation

- A Guideline Development Group (GDG) formed with eight experienced clinicians and academics from varied backgrounds

- Two consensus development meetings arranged in February and October 2018.
- The literature scoping review and consensus discussions were used by the GDG to develop 25 recommendation statements and a flow chart for timeline for Physical management
- The flow chart and the recommendations were divided into 3 sections
  - *acute-management*
  - *rehabilitation-input and*
  - *long-term care*

- Following the nominal group process, the 25 recommendation statements were refined into 19 statements and the flow chart was revised. The 19 statements and the flow chart were voted on by delegates to obtain consensus

Figure 2: Methods flow chart

## Results

The literature review identified 10 papers and none of these were of a quality that could be used to inform practice. The multidisciplinary GDG (Rehabilitation Physician, Physiotherapists, Occupational Therapist, Nurse, Clinical Scientist, Biomedical Engineer) met twice with 24 and 33 experts to develop consensus guidelines.
The final guideline consists of 19 recommendation statements and these were grouped into 'acute-management' (6), 'rehabilitation-input' (10) and 'long-term care' (3). Please refer to Poster 'Mohammed Meeran et al (2019) A consensus process to agree best practice for managing physical wellbeing in people with a prolonged disorder of consciousness'.
The acute management stage focused on maintaining joint, muscle and skin integrity to enable positioning in bed and wheelchair to achieve appropriate level of care.
The rehabilitation stage aimed at establishing a physical management plan by completing assessments of patient's bed positioning and seating needs.
The long term care stage aimed at consolidating the physical management by translating the physical management plan to a community or care setting and review by a specialist therapist within three months.
The suggestion in all three stages was to consider the need for focal interventions when either progressive loss of ROM is occurring at a joint or is already impacting on care.

## Changes implemented:

This guideline will provide a benchmark for how patients in DOC need to be physically assessed and monitored and suggests treatments that can be provided as part of their physical management.
The guideline could provide the basis for audits and may, in the future, improve management of this patient group.

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2 Putting patients at the HEART of everything we do; NHS London North West University Healthcare NHS Trust; ucl Centre for Nurse, Midwife & AHP Led Research; KING'S College LONDON
3 Royal Hospital for Neuro-disability
4 NHS Barts Health NHS Trust
5 PMG Posture & Mobility Group
6 WARWICK THE UNIVERSITY OF WARWICK; CERU Central England REHABILITATION UNIT
7 Keele UNIVERSITY