

Clinical Guidelines for Stroke Management

Administrative report

June 2022

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1. Background

The Stroke Foundation has been developing stroke guidelines since 2002. The *Clinical Guidelines for Stroke Management 2017* were approved by the National Health and Medical Research Council (NHMRC) in July 2017, with further changes approved in November 2017, July 2018, November 2019, February 2021, July 2021 and September 2021.

For the Australian Government to ensure that healthcare professionals have up-to-date, best practice clinical advice, the NHMRC requires clinical guidelines be reviewed and updated at least every five years. As a result, the Stroke Foundation in partnership with Cochrane Australia tested a model of continually reviewing and updating recommendations in response to new evidence. This project commenced in July 2018 and concluded in June 2021 and was funded by the Australian Government Department of Health via the Medical Research Future Fund. The Stroke Foundation is continuing to review literature monthly while further sustainable funding is secured.

This Administrative report details the information required by the NHMRC in accordance with the requirements of the *2016 NHMRC Standards for Guidelines*.

2. Content Development Group (CDG)

In September 2018, the Stroke Foundation called for an Expression of Interest (EOI) for healthcare professionals to be involved in the development of the guidelines. Requests for EOI were sent to all previous people involved in the 2017 update, as well as stroke care-related professional organisations (via representatives on the Australian Stroke Coalition). The EOI was also advertised on the Stroke Foundation's website and in our healthcare professional newsletter. Further EOI's have been circulated annually. The criteria for selection were:

- Good working relationship with their professional organisation,
- Extensive networks of peers to seek input as needed,
- Strong clinical expertise/experience with a very good practical knowledge of current practice,
- Detailed knowledge of research design and critical appraisal of evidence,
- Familiarity with systematic reviews and development of clinical guidelines, and
- Willingness and ability to commit to the necessary time commitment of this project (over a minimum 24-month period).

Applications in writing were assessed against the selection criteria by members of the Stroke Foundation Project Team and discussed with the co-chairs, who also co-chaired the previous update: Professor Bruce Campbell and Professor Coralie English.

The Content Development Group (CDG) and associated working groups are responsible for:

- reviewing the framework of the existing guidelines
- determining the clinical questions for the guideline update
- identifying, reviewing and classifying relevant literature;
- reviewing extracted data from the literature including evidence summaries, rationale and practical information
- reviewing draft updates to existing guidelines or new recommendations

- evaluating and responding to feedback from the consultation process.

An overview of the roles and responsibilities and guidelines governance is provided in the Methodology Paper.

Review of the current topics (pre-hospital care, assessment of rehabilitation, aphasia, dysarthria, prevention of depression, treatment for depression, treatment for anxiety, personality and behaviour, and pressure injury) was undertaken by the work group members outlined in Table 1. In addition, all consumers and specifically the acute medical working group members were asked to review draft changes and provide comments. Finally, the multidisciplinary Content Steering Committee signed off on the content prior to public consultation and discussed and agreed to the final copy after feedback was considered. A list of Steering Committee members is located at:

<https://informme.org.au/guidelines/clinical-guidelines-for-stroke-management/guidelines-development-process>

Table 1: Content Development Working Group Members specifically involved in the current topics

Prof Hugh Grantham	Ambulance	Researcher Curtin University and Flinders Medical Centre, SA
Mr Lachlan Parker	Ambulance	Queensland Ambulance Service, QLD
Mr Wayne Loudon	Ambulance	Ambulance Metro North – QLD, QLD
Prof Bruce Campbell	Neurologist	Royal Melbourne Hospital and University of Melbourne, VIC
Dr Bindu Joseph	Nursing	Federation University, VIC
Jessica Morton	Nursing	Osborne Park Hospital, Raine Medical Research Foundation and WA Department of Health, WA
Jane O’Connell	Occupational therapy	Gold Coast Health, QLD
Vicky Lam	Occupational therapy	Gold Coast Health, QLD
Prof Coralie English	Physiotherapist	University of Newcastle, NSW
Dr Elizabeth Lynch	Physiotherapist	University of SA, SA
Mrs Madeleine Stone	Psychology	St Vincent’s Hospital, NSW
Prof Maree Hackett	Psychology	The George Institute for Global Health, NSW
Dr Sabine Allida	Psychology	The George Institute for Global Health, NSW
Ms Anne-Louise (Annie) Dent	Speech Pathology	Royal Prince Alfred Hospital, NSW
A/Prof Deborah Hersh	Speech Pathology	Edith Cowan University, WA
A/Prof Erin Godecke	Speech Pathology	Edith Cowan University, WA
Dr Emily Brogan	Speech Pathology	Edith Cowan University, WA

Dr Jessica Campbell	Speech Pathology	University of Queensland, QLD
Dr Kirstine Shrubsole	Speech Pathology	Southern Cross University
Prof Natalie Ciccone	Speech Pathology	Edith Cowan University, WA
Dr Rachel Wenke	Speech Pathology	Gold Coast Health, QLD
Dr Sonia Brownsett	Speech Pathology	Queensland University of Technology, QLD
Toni Arfaras, Clive Kempson, Kim Draper, Julie Davey	Consumers (Pre-hospital care)	
Sue Bowden, Brenda Booth, Kathryn Moffat, Jenny Holmes	Consumers (Aphasia)	
Jessica D'Lima, Hannah Derwent	Consumers (Dysarthria)	
Kathryn Moffat, Shelagh Brennand, Julie Davey, Karen Bayly	Consumers (Prevention of depression, treatment for depression and treatment for anxiety)	
Toni Arfaras, Jessica D'Lima, Keven English, Christine Owens	Consumers (Personality and behaviour)	

3. Consumer involvement

Based on feedback from consumers on the Stroke Foundation Consumer Council an innovative model of consumer involvement is being used which involves involving a panel of consumers as 'lived experts' and who are active members of the CDG. The Guidelines CDG Consumer Panel will ensure options, values and preferences of consumers are central to the review and update of any clinical recommendations.

For each topic being updated, 2-4 individuals from the panel with experience of the topic are co-opted to join clinical experts to update the recommendations. The whole panel will then be invited to review and comment on the draft changes.

Responsibilities

People involved on the panel will be responsible for:

- Periodically providing input into questions the guidelines answers (and the research literature is searched specifically for). This may involve helping rank the most important outcomes we want to search for in the research.
- Review and comment on updated summaries of research, specifically information related to patient values and preferences
- Input into draft updates to any background text, specifically related to practical considerations and consumer considerations

- Respond to feedback from the public consultation (in cooperation with the interdisciplinary group).
- Assist in the evaluation of the model as needed

4. Managing conflicts of interest

The Guidelines are managed in accordance with the Stroke Foundation *Conflict of Interest Policy*, which is based on the NHMRC *Identifying and Managing Conflicts of Interest of Prospective Members and Members of NHMRC Committees and Working Groups Developing Guidelines* documents. Working group members were asked to review and update (at least annually) their previously disclosed potential conflicts of interest (COI). The form and policy will be provided to NHMRC for review along with summary of potential COIs (Att 2).

5. Systematic literature review

Any stroke related randomised controlled trials or systematic reviews are screened monthly and allocated to each relevant PICO. CDG members advise the final inclusion and determine the potential impact of the evidence to determine if it is a high or low priority workflow. High priority occurs when the new evidence is assessed to potentially impact the overall body of evidence and recommendations. A low priority is given where the new evidence is deemed to not change the recommendation/s or body of evidence.

Clinical question	Patient	Intervention	Comparator	Outcomes
What interventions by paramedics improve outcomes for people with acute stroke?	All people with suspected stroke	Pre-hospital intervention	No Pre-hospital intervention	Onset to treatment time Door to needle time Institutionalisation rate
What interventions improve outcomes for patients with aphasia?	All stroke patients with aphasia	Interventions to improve communication	Usual care	Improved communication QOL Carer burden
What interventions improve outcomes for people with dysarthria?	All stroke patients with dysarthria	Interventions to improve communication	Usual care	Improved communication QOL Carer burden
What interventions prevent depression and/or anxiety?	All people with stroke	All interventions	No intervention	No depression and/or anxiety

What interventions manage depression and/or anxiety?	All people with stroke	All interventions	No intervention	Reduced depression and/or anxiety
What interventions manage personality and behaviour changes?	All people with stroke with changes to personality and behaviour	Interventions to manage changes to personality and behaviour	No intervention	Reduction of problematic behaviour Quality of life
What interventions improve outcomes for those with, or at risk of, pressure sores?	All people with stroke	Interventions to reduce risk of pressure sores	No intervention	Reduced risk of pressure sores

6. Practice Statements (Consensus-based recommendations) and Practice Points

For some topics, a systematic review of the available evidence was conducted, but there was either a lack of evidence or insufficient quality of evidence on which to base a recommendation. In cases where the CDG determined that recommendations were important, statements and advice about topics were developed based on consensus and expert opinion (guided by any underlying or indirect evidence). These statements were labelled as 'Practice statements' and correspond to the 'consensus-based recommendations' outlined in the NHMRC procedures and requirements. These statements should be regarded with greater discretion by guideline users.

For topics outside the search strategy (i.e. where no systematic literature search was conducted), additional considerations are provided. These are labelled 'Info Box' and correspond to 'practice points' outlined in the NHMRC procedures and requirements.

Final decisions about Practice Statements (Consensus-based recommendations) and Practice Points were made using informal group processes after open discussion facilitated by the Co-Chairs. If there was divergent opinion with respect to Practice Statements (Consensus-based recommendations) and Practice Points, they were not included in the guideline.

7. Public consultation

The Stroke Foundation conducted the public consultation process in accordance with Section 14A of the *Commonwealth National Health and Medical Research Council Act 1992* and accompanying regulations.

We advertised the 'Notice of public consultation' publicly on the Stroke Foundation websites – www.strokefoundation.com.au; www.informme.org.au and www.enableme.org.au from 8 November to 20 December (aphasia and pressure injury) and 18 March to 6 May 2021 (mobile stroke units, dysarthria, depression, anxiety, personality and behaviour topics). Electronic communications were also sent to all organisations identified by the NHMRC as being mandatory to consult with, advising of the public consultation period (refer to Appendix 1 for a list of these organisations). Electronic communications were also sent to all professional and consumer organisations via the Australian Stroke

Coalition and Stroke Foundation newsletter list (~18,000 health professionals). Feedback was received via email.

The Stroke Foundation received a small number of responses from individuals and organisations (refer to consultation summary).

All individuals and organisations that provided feedback during the public consultation period will be contacted via letter and thanked for their input and advised of the action taken by the CDG in response to their feedback.

Appendix 1: Names of organisations contacted for Public consultation

Organisation
The Director-General, Chief Executive or Secretary of each state, territory and Commonwealth health department
Pharmaceutical Benefits Advisory Committee (PBAC)
Stroke Foundation consumer council
Content development group - NZ
Consumer panel
Australian Stroke Coalition – representatives of the member organisations which includes all relevant professional colleges/associations and state-based stroke clinical networks

Appendix 2: Summary of Conflict of Interest Declarations

Clinical Working Groups (Note: COI is formally reviewed annually)

Name	Discipline	Organisation	Conflicts declared	Date initially provided COI
Ms Anne-Louise (Annie) Dent	Speech pathology	Royal Prince Alfred Hospital	<i>Office holder:</i> NSW health – RPA speech pathology	May 2022
Dr Bindu Joseph	Nursing	Federation University of Australia	None declared	Mar 2021
Prof Bruce Campbell	Neurology	Royal Melbourne Hospital	None declared	Dec 2018
Prof Coralie English	Physiotherapy	University of Newcastle	<i>Office holder:</i> Member, Board of Directors, Stroke Foundation	May 2022
A/Prof Deborah Hersh	Speech pathology	Edith Cowan University	<i>Office holder:</i> I am Deputy Chair of the Australian Aphasia Association. This is a voluntary position and should not be a conflict of interest.	Dec 2018
Dr Elizabeth Lynch	Physiotherapist	University of SA	<i>Other financial and support for travel/meals etc</i> Receives salary from NHMRC (fellowship) Receives travel support from University of Adelaide.	Dec 2018
Dr Emily Brogan	Speech pathology	Edith Cowan University	None declared	Nov 2021
A/Prof Erin Godecke	Speech pathology	Edith Cowan University	<i>Office holder:</i> Aphasia WA (Private, Non-for-Profit organisation) (2019 - current) Clinical Council, Stroke Foundation (2019-2020)	May 2022
Prof Hugh Grantham	Ambulance	Flinders University	None declared	Dec 2018
Jane O'Connell	Occupational therapy	Gold Coast Health	None declared	Mar 2021

Dr Jessica Campbell	Speech pathology	University of Queensland	None declared	Jan 2021
Jessica Morton	Nursing	Flinders Medical Centre	None declared	Apr 2021
Dr Kirstine Shrubsole	Speech pathology	Southern Cross University	<i>Other interests:</i> Recipient of a Stroke Foundation ECR grant in 2020 Collaborated with Stroke Foundation on developing implementation priorities Current member of the Living Guidelines Knowledge Translation working group (from 2019) Has published a manuscript reviewing international guideline recommendations for aphasia	Apr 2021
Mr Lachlan Parker	Ambulance	Queensland Ambulance Service	None declared	May 2022
Mrs Madeleine Stone	Psychology	St Vincent's Hospital	None declared	Mar 2021
Prof Maree Hackett	Psychology	The George Institute of Global Health	<i>Office holder:</i> Associate Editor Cochrane Stroke <i>Travel and accommodation and other financial:</i> Registration fees have been waived and accommodation paid for being an invited speaker at the European Stroke Organisation Conference, Indian National Stroke Conference, UK Stroke Forum, AHA/ASA International Stroke Conference, AHA ASA International Stroke Nursing symposium, World Stroke Congress	Dec 2018
Prof Natalie Ciccone	Speech pathology	Edith Cowan University	<i>Office holder:</i> Member of the Board for a WA State government high school in Perth – Kent St Senior High	Dec 2018
Dr Rachel Wenke	Speech pathology	Gold Coast Health	None declared	Nov 2020
Dr Sabine Allida	Psychology	The George Institute of Global Health	None declared	Jan 2019

Dr Sonia Brownsett	Speech pathology	Queensland University of Technology	<p><i>Office holder:</i> Research Associate at Queensland University of Technology</p> <p><i>Grant funding:</i> Has applied for Stroke foundation funding to complete research. The outcome of this should be determined Dec 2018</p>	Dec 2018
Vicky Lam	Occupational therapy	Gold Coast Health	None declared	Mar 2021
Mr Wayne Loudon	Ambulance	Metro North - QLD	<p><i>Office holder:</i></p> <ul style="list-style-type: none"> - Queensland Ambulance Service (public) - Queensland University of Technology (private) 	May 2022

Consumer Panel

Name	Description	Conflicts declared
Brenda Booth	Stroke survivor	<i>Office holder:</i> <ul style="list-style-type: none"> - Stroke Foundation RAC – Consumer - Agency for Clinical Innovation NSW Executive - Consumer
Christine Owens	Carer	None declared
Clive Kempson	Stroke survivor	<i>Office holder:</i> <ul style="list-style-type: none"> - Director, Secure Systems Australia Pty Ltd
Hannah Derwent	Stroke survivor	None declared
Jessica D’Lima	Carer	None declared
Julie Davey	Stroke survivor	None declared
Karen Bayly	Stroke survivor	None declared
Kathryn Moffat	Carer	None declared
Kevin English	Stroke survivor	<i>Office holder:</i> <ul style="list-style-type: none"> - Member of Stroke Foundation Consumer Council
Kim Draper	Stroke survivor	None declared
Shelagh Brennand	Stroke survivor	<i>Office holder</i> Director of husband’s company – Fibre Test & Repair – Data Cabling/Fibre Optic Installation Ltd Company A Stroke of Poetry – Motivational speaking/book registered sole trader business <i>Other business interests</i> Volunteer Stroke Safe Ambassador for the past 2 yrs – no conflict with her own business
Sue Bowden	Stroke survivor	None declared
Toni Arfaras	Stroke survivor	None declared