Stroke FOUNDATION

# Clinical Guidelines for Stroke Management

## Administrative report

May 2025

## Table of Contents

## 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, December 2021, August 2022, December 2022, July 2023, December 2023, January 2025 and April 2025.

To ensure the currency of recommendations 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. Following on from this funding was secured by the Australian Living Evidence Consortium allowing the Stroke Foundation to continuing to review literature monthly and maintain the Australian and New Zealand Living Stroke Guidelines. However, from 2024 the Stroke Foundation has been funding the living guidelines from public donations while it advocates for ongoing government funding.

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 living 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, currently Professor Bruce Campbell and Associate Professor Elizabeth Lynch.

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

- reviewing the framework of the existing guidelines
- determining any new clinical questions
- 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 (intravenous thrombolysis, acute blood pressure lowering therapy and ICH management – medical interventions) was undertaken by the work group members outlined in Table 1. In addition, all consumers and relevant discipline 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 intravenous thrombolysis, acute blood pressure lowering therapy and ICH management – medical interventions topics

| | | |
|---|---|---|
| A/Prof Andrew Wong | Neurology | Royal Brisbane & Women's Hospital, QLD |
| Prof Bruce Campbell | Neurology | Royal Melbourne Hospital, VIC |
| Dr Chloe Mutimer | Neurology | Royal Melbourne Hospital, VIC |
| Dr Duncan Maddox | Neurology | The Princess Alexandra Hospital, QLD |
| Dr Felix Ng | Neurology | Royal Melbourne Hospital, VIC |
| Dr Henry Zhao | Neurology | Royal Melbourne Hospital, VIC |
| Melissa Brooks | Nursing | The Princess Alexandra Hospital, QLD |
| A/Prof Nawaf Yassi | Neurology | Royal Melbourne Hospital, VIC |
| Mrs Nicola Chappelow | Nursing | Liverpool Hospital, NSW |
| A/Prof Philip Choi | Neurology | Box Hill Hospital, VIC |
| Shegaw Baih | Nursing | University of Wollongong, NSW |
| Dr Teddy Wu | Neurology | Christchurch Hospital, NZ |
| Karen Bayly, Tony Finneran | Consumers (intravenous thrombolysis) | |
| Clive Kempson, Jessica D'Lima | Consumers (acute phase blood pressure lowering therapy) | |
| Jessica D'Lima, Kevin English, Toni Arfaras, Tony Finneran | Consumers (ICH management – medical interventions) | |

## 3. Consumer involvement

Based on feedback from consumers on the Stroke Foundation Lived Experience Council an innovative model of consumer involvement is used which involves a panel of consumers as 'lived experts' and who are active members of the CDG. The Guidelines CDG Consumer Panel ensures 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 included along with clinical experts to update the recommendations. The whole consumer panel are then invited to review and comment on the draft changes.

**Responsibilities**

People involved on the consumer 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).

## 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 are 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. The working group in collaboration with CDG members identify if a new publication is likely to impact the overall body of evidence and lead to a change of the recommendations in which case it is fast tracked as a high priority. For new evidence that is unlikely to require a change to recommendations monthly allocation accumulates for six months at which point the CDG members are requested to review and advise the final inclusion and determine the potential impact of the evidence. Questions (PICO structure) specifically used in the current update are noted below.

| Clinical question | Patient | Intervention | Comparator | Outcomes |
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|---|---|---|---|---|
| Does the administration of thrombolysis improve outcomes after acute ischemic stroke? | All people with ischaemic stroke | Thrombolysis | No thrombolysis /control | Death<br>Institutionlisation rate<br>sICH/complications<br>Disability (mRS)<br>Recanalisation |
| Does the use of acute blood pressure lowering therapy improve outcomes for people with stroke? | All people with stroke | Acute BP lowering therapy | No BP lowering therapy | Death<br>Institutionlisation rate<br>Disability (mRS)<br>sICH/complications<br>Recurrent / secondary stroke |
| Does the administration of medical interventions improve outcomes after acute intracerebral haemorrhagic stroke? | All people with ICH | Medical interventions | No intervention | Death<br>Institutionlisation rate<br>Disability (mRS)<br>Haemorrhage expansion<br>Serious adverse events<br>ADL |

## 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 direct 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 17 December

2024 to 28 February 2025. 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 (~27,000 health professionals). Feedback was received via email and the MAGICapp website.

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) |
| Therapeutic Goods Administration (TGA) |
| Congress of Aboriginal and Torres Strait Islander Nurses and Midwives (CATSINaM) |
| Stroke Guidelines 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 COI initially provided/ last updated |
|---|---|---|---|---|
| A/Prof Andrew Wong | Neurology | Royal Brisbane & Women's Hospital | *Office holder:*<br>Australian and New Zealand Association of Neurologist ANZSO<br>Director of company for my neurology private practice "Company at Dawn" (ACN 130 540 000)<br>*Other interests:*<br>Honoraria or other support from: Abbott, Amgen, AstraZeneca, Bayer, Boehringer Ingelheim, Bristol Myers Squibb, Gore Medical, Lilly, Medtronic, Pfizer.<br>I declare these for transparency but do not believe any of these relationships constitute a genuine conflict of interest. | Nov 2018 / Apr 2025 |
| Prof Bruce Campbell | Neurology | Royal Melbourne Hospital | None declared | Feb 2018 / Dec 2018 |
| Dr Chloe Mutimer | Neurology | Royal Melbourne Hospital | None declared | Aug 2023 / Mar 2025 |
| Dr Duncan Maddox | Neurology | The Princess Alexandra Hospital | None declared | Mar 2024 |
| Dr Felix Ng | Neurology | Royal Melbourne Hospital | None declared | Oct 2022 |
| Dr Henry Zhao | Neurology | Royal Melbourne Hospital | *Other interests:* | Jun 2020 |

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| | | | Received honorarium from Boehringer Ingelheim for travel expenses to the Stroke Units Heading meeting convened independently from the company. | |
| Melissa Brooks | Nursing | The Princess Alexandra Hospital | *Shareholdings and other business interests:*<br>Shares in EM vision held by myself and my son. | Jan 2024 |
| A/Prof Nawaf Yassi | Neurology | Royal Melbourne Hospital | *Office holder:*<br>Yassi Consulting Pty Ltd - My private neurology practice operates under this company (half day per fortnight). He would not consider this to conflict with his duties as a guidelines content expert. | Nov 2018 |
| Mrs Nicola Chappelow | Nursing | Liverpool Hospital | *Office holder:*<br>Royal Prince Alfred Hospital, Neurosciences; ACI stroke unit access working group | Nov 2018 |
| A/Prof Philip Choi | Neurology | Box Hill Hospital | None declared | Oct 2018 / Mar 2025 |
| Shegaw Baih | Nursing | University of Wollongong | None declared | Sep 2024 |
| Dr Teddy Wu | Neurology | Christchurch Hospital | None declared | Feb 2023 |

## Consumer Panel

| Name | Description | Conflicts declared |
|---|---|---|
| Clive Kempson | Stroke survivor | *Office holder:*<br>Director, Secure Systems Australia Pty Ltd |
| Jessica D'Lima | Carer | None declared |
| Karen Bayly | Stroke survivor | None declared |
| Kevin English | Stroke survivor | None declared |
| Toni Afaras | Stroke survivor | *Office holder:* |

| | | |
|---|---|---|
| | | Member of Stroke Foundation Lived Experience Council |
| Tony Finneran | Stroke survivor | None declared |