Clinical Guidelines for Stroke Management 2017

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Acknowledgements:

- Guidelines Advisory Committee
- Guidelines Content Development Working Groups: leaders and members
- Stroke Foundation staff
- Stroke Foundation Clinical Council and Consumer Council
- All stroke survivors, carers, support groups, consumer groups, health professionals/clinicians, professional associations/organisations, and industry groups who were involved in the development process or provided feedback/comments during the review process

Why are clinical guidelines important?

- Key to establishing effective, high quality, consistent and safe healthcare practices and policies
- Among the most common mechanisms for translating research into practice and policy – they bridge the gap between original research and clinical practice
- Are developed after consideration of an entire body of relevant research evidence on a topic
- Improve health outcomes and save costs, as best-practice is recommended, not ineffective practices

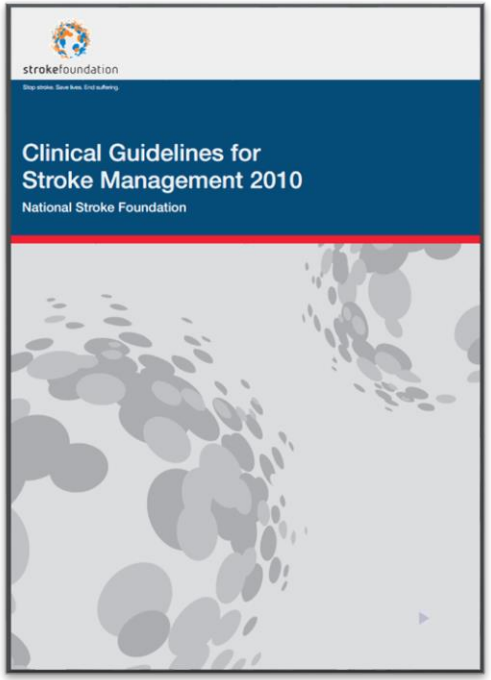
Background

Since 2002: Stroke Foundation has been developing stroke guidelines

September 2010: the *Clinical Guidelines for Stroke Management 2010* were approved by the National Health and Medical Research Council (NHMRC)

Every 5 years: the NHMRC requires clinical guidelines be kept current and relevant

July 2015: Stroke Foundation was contracted by the Australian Government Department of Health to update the *Clinical Guidelines for Stroke Management*



What's so important about the 2017 Clinical Guidelines?

- The last edition was published in 2010 - The Clinical Guidelines for Stroke Management 2017 updates and supersedes the 2010 version
- New research, evidence, practice - A lot has happened in 7 years in terms of research undertaken, evidence published, clinical practices, developments in diagnostics and medicines…
- Recommend best practice for clinicians - The hard work has been done to examine all the new information out there and publish the best recommendations for clinicians in one place
- Digital platform - the Clinical Guidelines will be the first in Australia to be developed and published on a digital platform accessible on mobile, tablet and desktop

Purpose of the new Clinical Guidelines

The *Clinical Guidelines for Stroke Management* provides a series of best-practice recommendations to assist decision-making between patient and clinician in the management of stroke and TIA in adults

Scope of the new Clinical Guidelines

The *Clinical Guidelines* cover the most critical topics of stroke management, relevant to the Australian context:

1. Pre-hospital care
2. Early assessment and diagnosis
3. Acute Medical and Surgical Management
4. Managing Complications
5. Secondary Prevention
6. Rehabilitation
7. Discharge planning and transfer of care
8. Community participation and long-term care

The Process: 1st 12 months

July 2015: Open expression of interest for working party members - almost 100 healthcare professionals and consumers were part of the Guideline development process

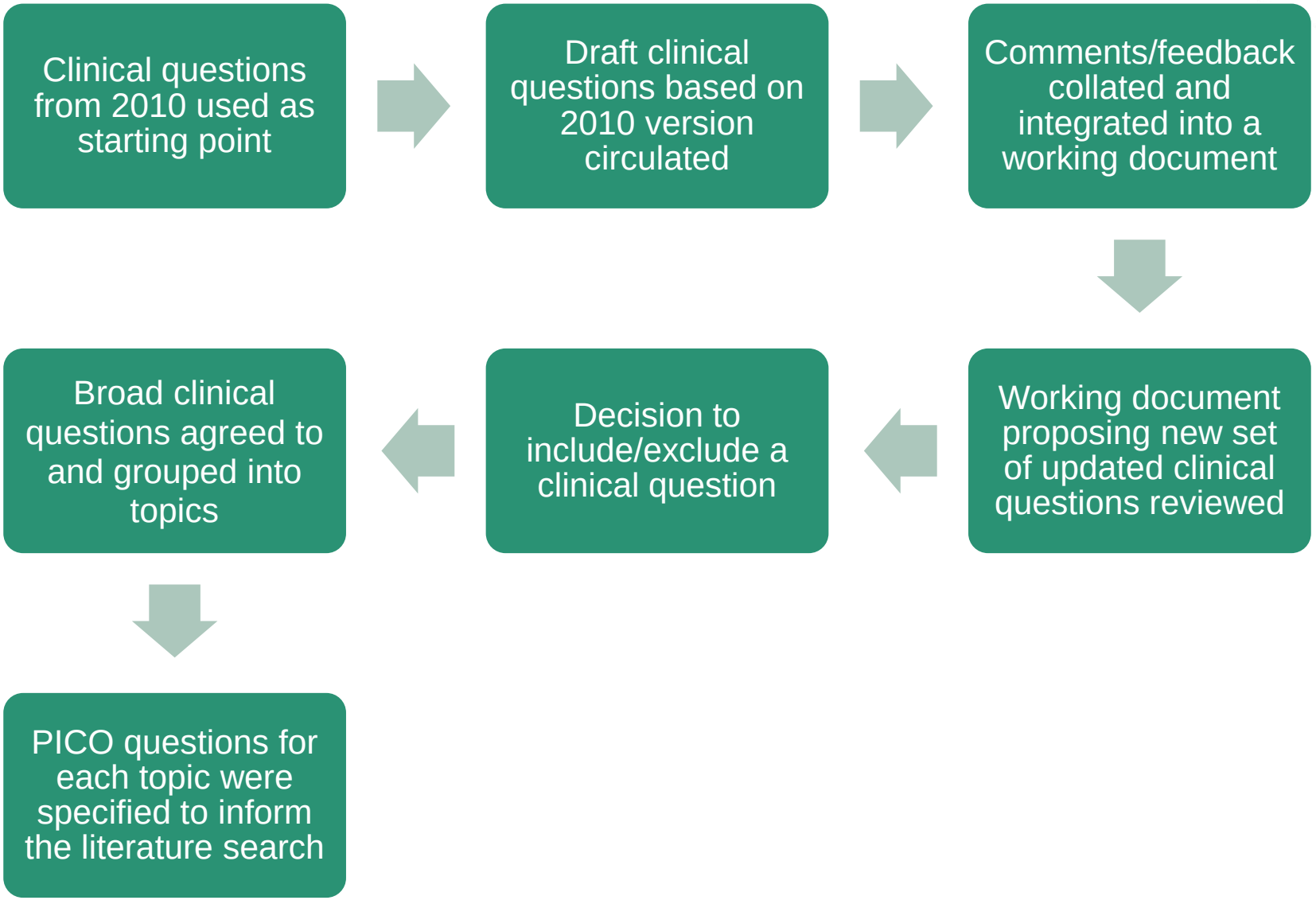
Nov 2015 – Jan 2016: 1st literature search; Jun-Jul 2016: 2nd literature search

Feb – Jun 2016: Working parties responsible for data extraction from the literature into evidence tables; draft recommendations based on GRADE system

Jul 2016: Finalised draft of Guideline recommendations ready for internal & external reviews

Aug 2016: 2 independent external reviews undertaken using the AGREE II instrument (AGREE II is the new (2010) international tool to assess the quality and reporting of practice guidelines)

Evidence Review



Literature search

Search strategy finalized and signed off

Initial search was undertaken Nov 2015-Jan 2016; final search completed June-July 2016

Databases searched: Medline, Embase, Cochrane, CINAHL, EBM Review, PsycInfo, Web of Science

Separate search for Aboriginal and Torres Strait Islander populations conducted

Search results provided in EndNote format

Uploaded into a web-based tool: Covidence

All abstracts and full-text articles were screened by 2 reviewers

An independent third person resolved conflicts

Working Parties responsible for extracting data and assessing the quality of the evidence

The Process: 2nd 12 months

Nov 2016: Public consultation conducted 1-30 Nov; 54 responses received from individuals/organisations - majority from clinicians working in stroke care; remainder being researchers, stroke survivors, pharmaceutical and medical technology industry members, patient advocacy group, and other healthcare related organisations. 300+ individual comments required response.

Mar 2017: First submission to NHMRC for review

May 2017: Final submission to NHMRC for approval

July 2017: Approved by NHMRC Council

4 Sept 2017: Official launch –Parliament House "Stroke Week"

Challenges

Volume of the literature

The literature search returned almost 110,000 citations – this was 267% more than compared to the 2010 guidelines search!

After review of all this evidence a final list of over 800 studies used to develop the recommendations across 8 chapters with 69 topics.

The use of GRADE

The Clinical Guidelines followed GRADE methodology: Grading of Recommendations, Assessment, Development and Evaluation - an internationally recognised guideline development approach

The GRADE framework was a new approach for the Stroke Foundation and the working parties for evaluating evidence and formulating recommendations

Strength of recommendations

The GRADE process uses only 2 categories for the strength of recommendations:

Strong recommendation

1. Strong recommendations: where guideline authors are certain that the evidence supports a clear balance towards either desirable or undesirable effects (ie. Strong ‘for’ recommendation, strong ‘against’ recommendation)

Weak recommendation

2. Weak recommendations: where the guideline authors are not as certain about the balance between desirable and undesirable effects as the evidence base isn’t as robust (ie. Weak ‘for’ recommendation, weak ‘against’ recommendation)

What about when there was a lack of evidence?

Consensus-based recommendation

For questions where there is either a lack of evidence or insufficient quality of evidence on which to base a recommendation but the guideline authors believe that advice should be provided, statements are developed based on consensus and expert opinion (guided by any underlying or indirect evidence)

Practice Point

For questions outside the search strategy (i.e. where no systematic literature search was conducted), additional considerations are provided

250 recommendations!!

GRADE enabled a consistent approach throughout the Guidelines development and allowed for formulation of almost 250 ‘strong’ or ‘weak’ recommendations, consensus-based recommendations and practice points

Research gaps

This list is not exhaustive but identifies areas discussed in the Clinical Guidelines where further research is needed, or where an intervention should be considered within the framework of conducting research:

- Aboriginal and Torres Strait Islander populations
- Early assessment & diagnosis (Imaging)
- Acute medical & surgical management (ICH, neuroprotection, dysphagia)
- Rehabilitationand recovery post-stroke, particularly in relation to interventions related to physical deficits, communication and cognition
- Managing complications (Spasticity, fatigue)
- Community participation & long-term care (self-management, peer support, carer support)

The use of MAGICapp

The Clinical Guidelines used an online guideline development and publishing platform known as MAGICapp:

Making **G**RADE the **I**rresistible **C**hoice

whose built-in templates are based on the GRADE methodology

The Clinical Guidelines have been published in a multi-layered platform on MAGICapp - allows the reader to view the recommendations first, then drill down into the research, key information, rationale and practical information for each recommendation

Why use MAGICapp?

- MAGICapp enabled collaboration between multiple authors across various geographic locations: almost 100 people across Australia and New Zealand were involved in the guideline development process; the use of MAGICapp meant people didn't need to be in the one location at the one time, or meeting via teleconference or videoconference to work on a document; editing could be seen easily and incorporated quickly.
- MAGICapp ensured a standard approach in reviewing evidence and formulating recommendations consistent with GRADE methodology: all working party members were using the same tools, templates and review process; the inbuilt GRADE templates also meant that the evidence base and decision-making process leading to the recommendations is clearer and more transparent for those using the Clinical Guidelines.

- MAGICapp allows for interactive online publication format and easy access to the Clinical Guidelines: the online format allows access anywhere, anytime, by anyone; you don’t need to hunt for a physical hardcopy of the Clinical Guidelines.
- MAGICapp facilitates future Clinical Guideline updates: the online format also allows easy editing, and updating, incorporating new evidence and making changes can occur quickly and be published the same day.

Guidelines in context

Stroke FOUNDATION

strokefoundation

Rehabilitation Stroke Services Framework

2013

strokefoundation

Stop stroke. Save lives. End suffering.

National Acute Stroke Services

Framework 2015

Acute Stroke Services Framework 2011

National Stroke Audit

Rehabilitation Services Report 2016

strokefoundation.org.au

National Stroke Audit

Acute Services Report 2015

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

Clinical Care Standards

strokefoundation

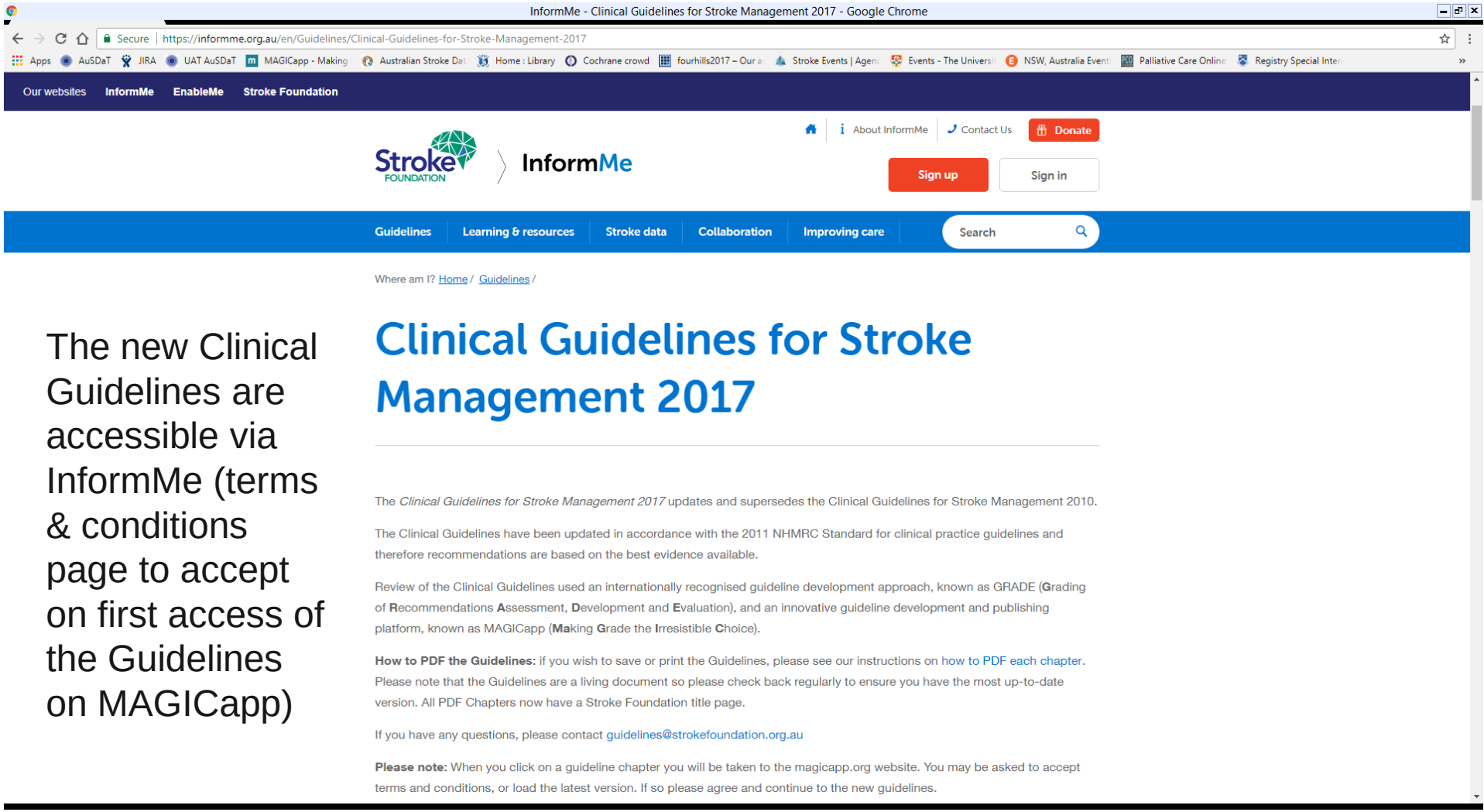
Acute Stroke Clinical Care Standard

* The Stroke Foundation developed the Acute Stroke Services Framework and the Rehabilitation Stroke Services Framework to guide service planning, monitoring and improvement of appropriate acute and rehabilitation stroke services to support the delivery of best practice care → These documents outline where strokes services should be developed, provides a basis for measuring adequacy of current structures and resources, guide decisions about resource requirements and provide an outline for monitoring of quality of acute stroke care

* The Stroke Foundation monitors and measures the delivery of best practice stroke care as described in the Clinical Guidelines for Stroke Management through the National Stroke Audit program. The program is a annual audit of stroke services in Australia that alternates annually between acute services and rehabilitation services. The National Stroke Audit collects both organisational and clinical data, which is analysed at a National, State and Site-level, and is able to reveals gaps in evidence-based practice, and offer opportunities to focus on quality improvement

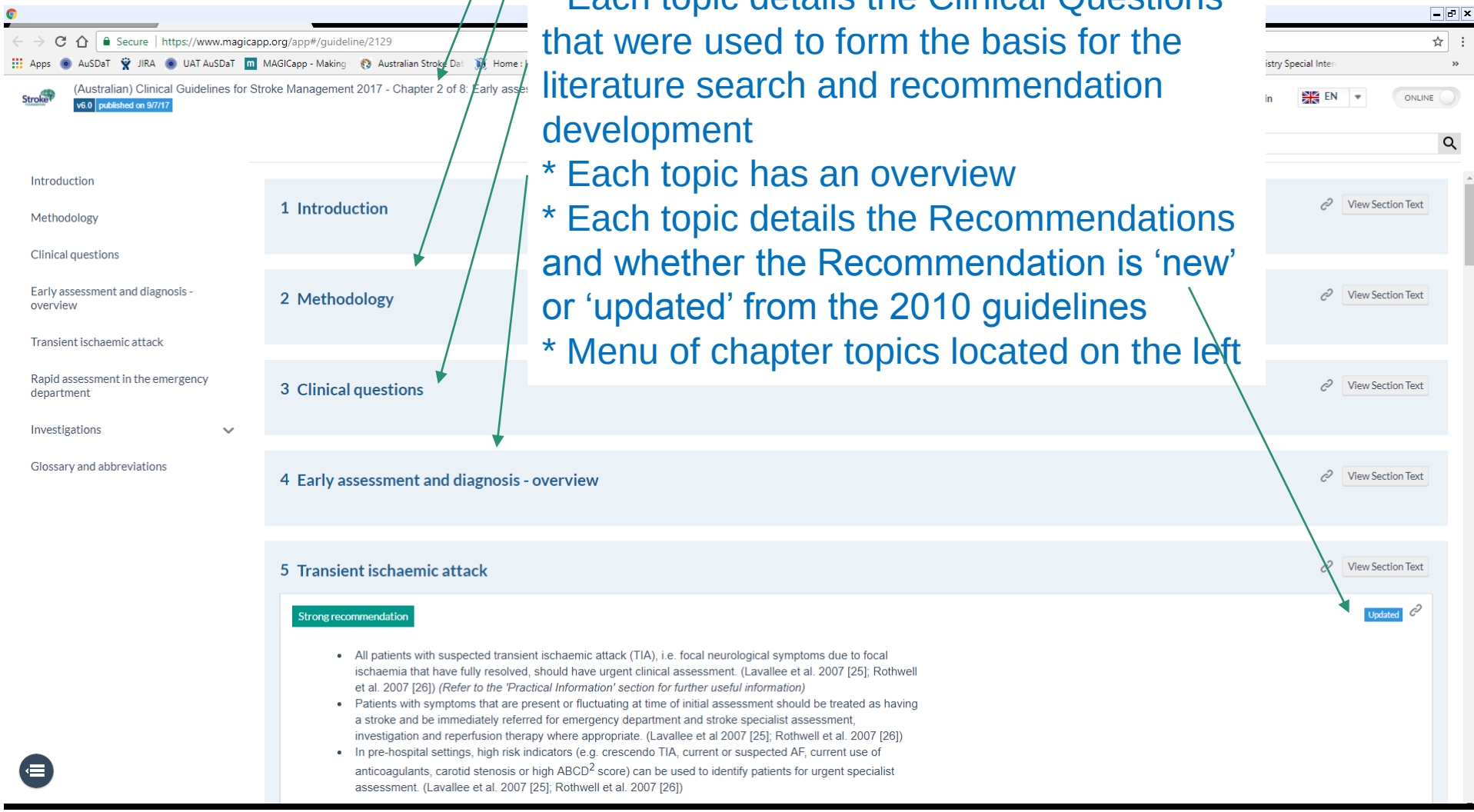
* The Acute Stroke Clinical Care Standard aims to ensure that patients with stroke receive optimal treatment during the acute phase of management. Clinicians and health services can use the Clinical Care Standard to support the delivery of high-quality care. The Clinical Guidelines have incorporated areas that directly align with the Standards statements

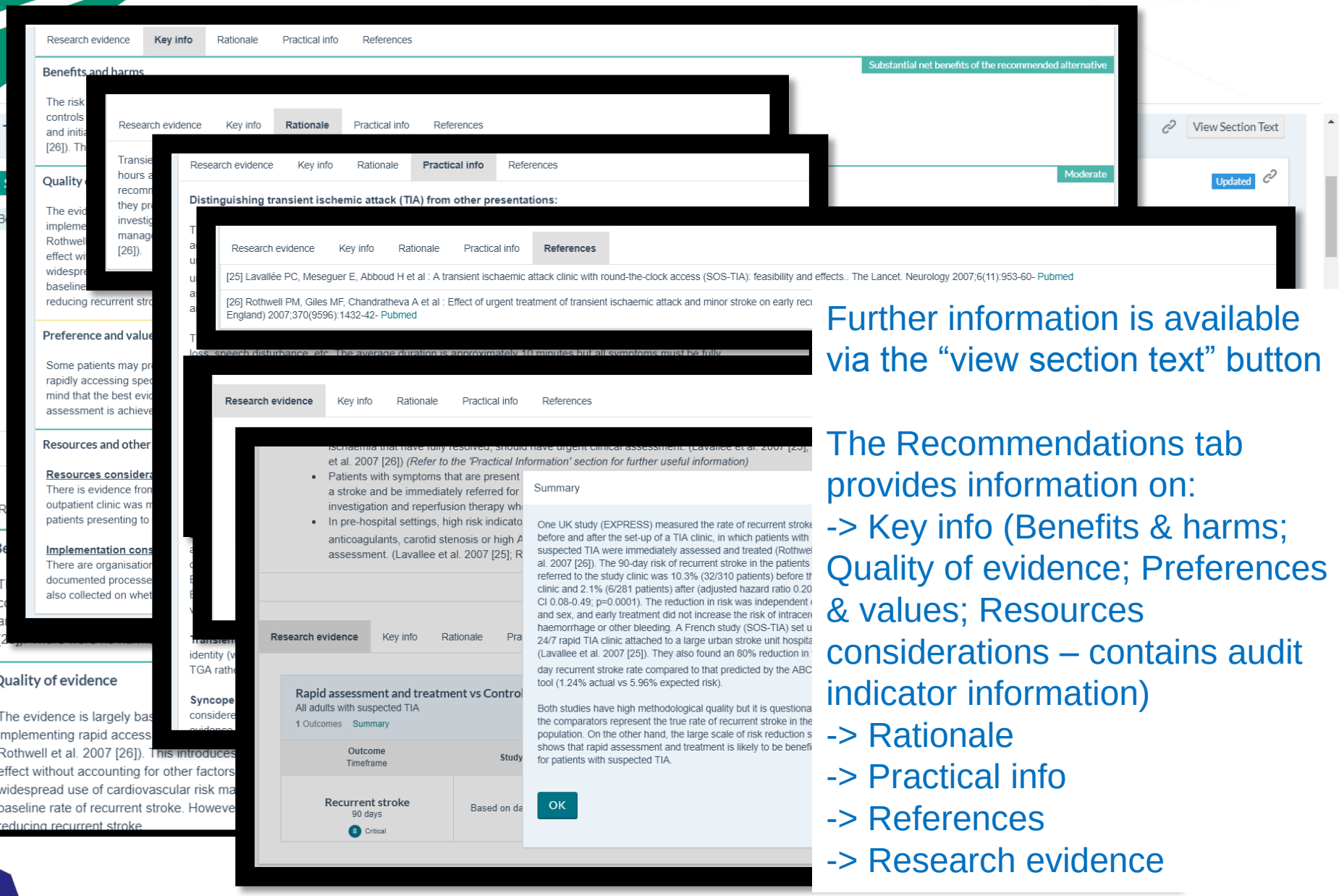
www.informme.org.au



The new Clinical Guidelines are accessible via InformMe (terms & conditions page to accept on first access of the Guidelines on MAGICapp)

* Each Chapter is identified
* Has information about the Guidelines and the Methodology
* Each topic details the Clinical Questions that were used to form the basis for the literature search and recommendation development
* Each topic has an overview
* Each topic details the Recommendations and whether the Recommendation is 'new' or 'updated' from the 2010 guidelines
* Menu of chapter topics located on the left





Further information is available via the “view section text” button

The Recommendations tab provides information on:
-> Key info (Benefits & harms; Quality of evidence; Preferences & values; Resources considerations – contains audit indicator information)
-> Rationale
-> Practical info
-> References
-> Research evidence

Recommendations

Chapter 1:

Covers: pre-hospital care

Chapter 2: Early assessment and diagnosis

Covers: Transient ischaemic attack; Rapid assessment in the emergency department; Investigations: Imaging, Cardiac investigations

Chapter 3: Acute medical & surgical management

Covers: Stroke unit care; Assessment for rehabilitation; Palliative care; Reperfusion therapy – Thrombolysis, Neurointervention; Dysphagia; Antithrombotic therapy; Acute blood pressure lowering therapy; Surgery for ischaemic stroke and management of cerebral oedema; Intracerebral haemorrhage (ICH) management - Medical interventions, Surgical interventions; Oxygen therapy; Neuroprotection; Glycaemic therapy; Pyrexia management

Chapter 4: Secondary prevention

Covers: Lifestyle modification – Smoking, Diet, Physical activity, Obesity, Alcohol; Adherence to pharmacotherapy; Blood pressure lowering therapy; Antiplatelet therapy; Anticoagulant therapy; Cholesterol lowering therapy; Carotid surgery; Cervical artery dissection; Cerebral venous sinus thrombosis; Diabetes management; Patent foramen ovale management; Hormone replacement therapy; Oral contraception

Chapter 5: Secondary prevention

Covers: Early supported discharge services; Home-based rehabilitation; Goal setting; Early mobilisation; Sensorimotor impairment – Weakness, Loss of sensation, Vision; Physical activity - Amount of rehabilitation, Cardiorespiratory fitness, Sitting, Standing up, Standing balance, Walking, Upper limb activity; Activities of daily living; Communication - Assessment of communication deficits, Aphasia, Dysarthria, Apraxia of speech, Cognitive communication disorder in right hemisphere stroke; Cognition and perception - Assessment of cognition, Executive function, Attention and concentration, Memory, Perception, Limb apraxia, Neglect

Chapter 6: Managing complications

Covers: Nutrition and hydration - Early hydration, Early feeding; Oral hygiene; Spasticity; Contracture; Subluxation; Shoulder pain; Swelling of the extremities; Fatigue; Incontinence - Urinary incontinence, Faecal incontinence; Mood disturbance - Mood assessment, Treatment for emotional distress, Prevention of depression, Treatment for depression, Treatment for anxiety; Deep venous thrombosis or pulmonary embolism; Falls

Chapter 7: Discharge planning and transfer of care

Covers: Information and education; Discharge care plans; Patient and carer needs; Home assessment; Carer training

Chapter 8: Community Participation and long-term care

Covers: Self-management; Driving; Community mobility and outdoor travel; Leisure; Return to work; Sexuality; Support - Peer support, Carer support

What has been developed to help implementation?

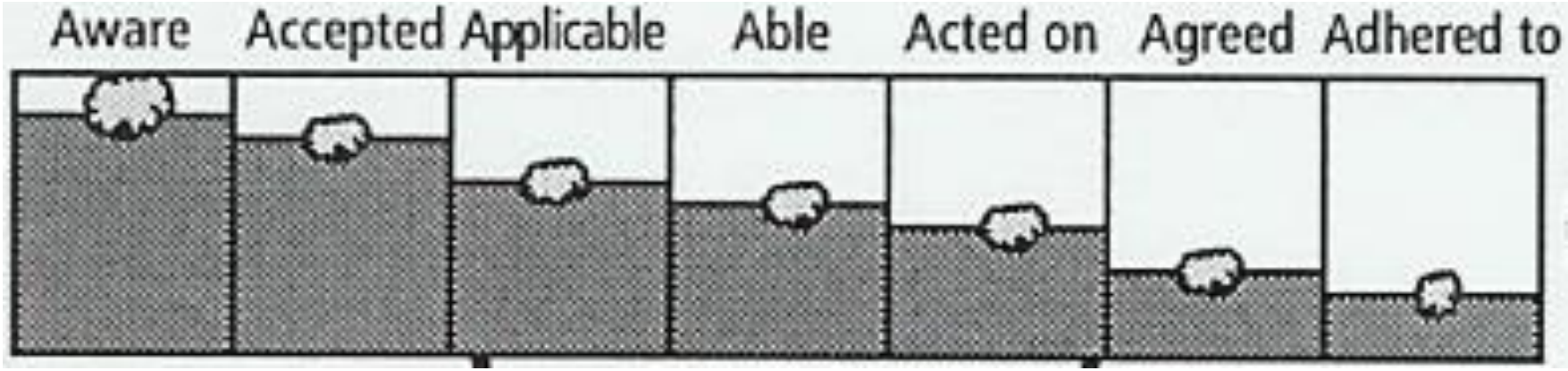
Supporting resources:

- 2-pg summary document for healthcare professionals
- 2-pg plain English summary document for consumer audiences
- Summary document of the recommendations
- Summary document of the 2010 vs 2017 recommendations
- Discipline-specific summary documents

Dissemination plan:

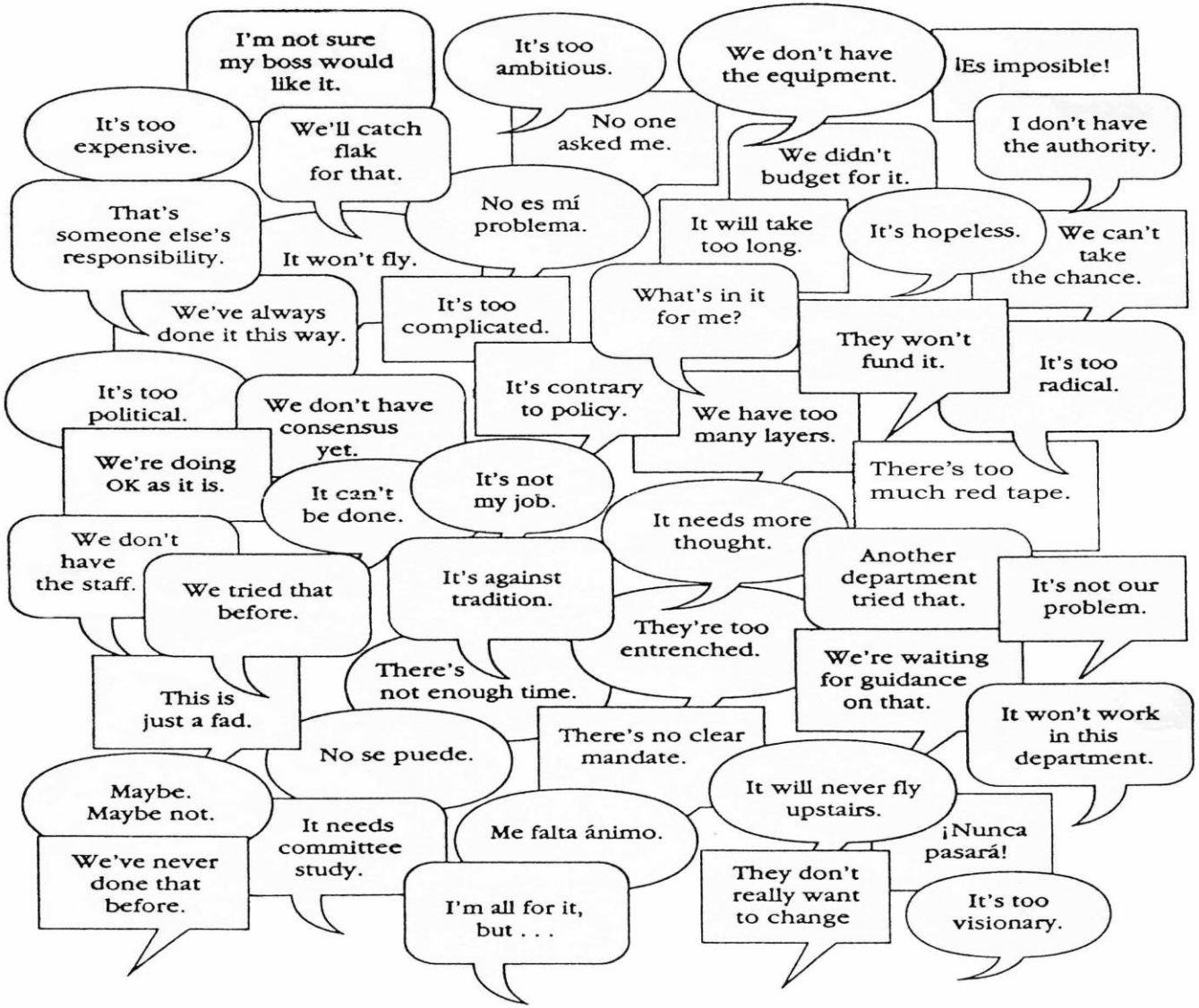
- Official launch during Stroke Week (media)
- Presentations at national and state conferences/seminars
- Circulation electronically to members of the Australian Stroke Coalition; organisations who were approached for review and/or endorsement of the Clinical Guidelines; healthcare professional lists of the Stroke Foundation; research networks including various academic links
- Information on InformMe, the EnableMe website and the main Stroke Foundation website
- Publication within relevant journals (coming in 2018)

Implementation considerations



Lost in translation??

50 Reasons Not To Change



Implementation assistance:

- Education sessions: attending face-to-face meetings/seminars/workshops; hosting internet-based webinars
- Audit and feedback: data from the National Stroke Audits
- Update of the Frameworks: Acute and Rehabilitation Stroke Services Frameworks
- Development of the Quality Improvement and Collaboration sections of InformMe
- Clinical Network QI work

Use the Clinical Guidelines to improve quality of stroke care

- Get a team together
- Understand local context
- Make a clear plan
- Review / evaluate change
- Share / embed

Communicate, listen, learn, educate

- Face-to-face: small groups, larger groups; discipline specific, interdisciplinary
- Webinars
- Email

- Discuss, clarify information, evaluate ideas re areas of focus & suggestions for change/implementation

- Learn from others: use your networks to see what others are doing and how and what lessons they have learnt

Evaluate

- **Audit and feedback**
- Data from the National Stroke Audits will be fundamental to the implementation of the Clinical Guidelines

- Launch of results from the National Stroke Audit Acute Services 2017: Thursday 23 November

Looking to the future?

It’s crucial that clinical evidence is produced in a reproducible and transparent manner, and is easily accessible to those who need it to inform treatment decisions and see where the research/evidence gaps are. Part of why the Clinical Guidelines have been produced on an online web platform that everyone is able to access at any time.

The online tool has helped to standardise the way clinical evidence is stored and displayed, providing a single point of access to existing knowledge and highlighting areas where more research is needed.

The online tool will enable easy updates and new evidence to be incorporated, without having to wait years before a review and update.

Living guidelines

- ✓ **Capacity for a cycle of regular and rapid updates**
- ✓ **Potential to act on new evidence and data**
- ✓ **Frequency of review for each clinical question prioritised based on the rate of change in that area**
- ✓ **Potential to add new clinical questions**

In partnership, the Stroke Foundation and Cochrane Australia propose to revolutionise the translation of research into clinical practice by creating ‘living’ stroke guidelines. This will accelerate world class treatment and care for Australians with stroke.