

CLINICAL PRACTICE GUIDELINES FOR STROKE REHABILITATION AND LONG-TERM MANAGEMENT: SIMILARITIES AND DIFFERENCES IN RECOMMENDATIONS FOR MOOD, APHASIA AND COGNITIVE DEFICITS

Elizabeth Kreit¹, Dominika Pindus¹, Ricky Mullis¹, Sarah Chowienczyk², Jonathan Mant¹

¹Department of Public Health and Primary Care, University of Cambridge

²School of Clinical Medicine, University of Cambridge



BACKGROUND

National guidelines for long-term rehabilitation after stroke focus mainly on physical outcomes, whereas the majority of stroke survivors also report emotional, cognitive and speech and language needs. As clinical guidelines set the standards for long-term stroke rehabilitation and management, they influence how these are addressed.

AIM

The aim of this review was to compare psychological and pharmacological treatment recommendations for long-term management of emotional, cognitive and speech and language problems after stroke.

METHODS

Search strategy: A grey literature search modelled on that developed by Godin *et al* 2015 was performed using the advanced Google search engine for guidelines on the rehabilitation and long-term management of post-stroke needs. The scope was narrowed to countries with well-established primary care systems and guidelines available in English. Web-wide searches and searches of websites from national and international health organisations responsible for producing clinical practice guidelines were performed.

Quality assessment: Guideline quality was assessed using the validated Appraisal of Guidelines for Research and Evaluation (AGREE II) tool. This assesses guidelines on: Scope and Purpose; Stakeholder Involvement; Rigour of Development; Clarity of Presentation; Applicability; and Editorial Independence. Two reviewers independently assessed all documents. Ratings are based on their combined scores.

Data extraction: To identify areas of agreement and contradiction across guidelines a comparison of the assessment, referral and treatment recommendations for emotional, cognitive and speech and language problems was performed.

Table 1: Inclusion and Exclusion criteria for the grey literature search for guidelines

Inclusion Criteria	Exclusion Criteria
Full guideline or recommendation with information on development and evidence.	Journal articles or reviews.
English language documents.	Not available in English.
Issued by a national body.	Not intended for health care professionals, for example booklets for patients.
Covers areas of long-term stroke care.	Specific to Transient Ischaemic Attack only.
The most current version of the document.	Archived guidelines, draft or summary documents.
Countries with well-established primary care systems.	

RESULTS

1,882 titles and Google descriptors were screened resulting in the identification of 207 potentially relevant results. After removal of duplicates full texts were reviewed and six guidelines were identified: National Institute for Health and Care Excellence (NICE), Stroke Foundation of New Zealand (SFNZ), Scottish Intercollegiate Guidelines Network (SIGN), American Heart Association (AHA), National Stroke Foundation of Australia (NSF) and Canadian Stroke Best Practice Recommendations (CSBPR).

NSF, SFNZ and NICE guidelines scored highly across all domains of the AGREE II tool whereas AHA and SIGN scored poorly. NICE, SIGN, AHA and CSBPR focused specifically on long-term rehabilitation.

For aphasia all guidelines recommend Speech and Language Therapy with varying degrees of specificity, but differ with regards to pharmacotherapy (table 2). Guidelines also vary in recommended referrals and treatments for cognitive deficits (table 3). There is agreement on antidepressant use for post-stroke depression however discrepancies occur in recommendations for psychological therapies (table 4).

Table 2: Comparison of the recommendations for communication difficulties

Recommendation	SFNZ	CSBPR	AHA	NSF	NICE	SIGN
Assessment						
Assessment using a valid tool	✓	✓	✓	✓	✓	✗
Referral						
Referral to a specialist clinician	✓	✗	✗	✓	✗	✗
Referral to a Speech and Language Therapist	✗	✓	✓	✗	✗	✓
Referral to the voluntary sector	✗	✓	✗	✗	✗	✗
Treatment						
Pharmacotherapy may be considered on a case-by-case basis	✗	✗	✓	✗	✗	✗
Group therapy	✓	✓	✓	✓	✗	✗
Computerized therapy	✓	✓	✓	✗	✗	✗
Constraint-induced language therapy	✓	✓	✗	✓	✗	✗
Training in specific aspects of language (e.g. sentence level processing)	✓	✗	✗	✓	✗	✗
Specific approaches (e.g. PROMPT therapy)	✓	✗	✗	✓	✗	✗
Compensation and environmental adaptations	✗	✗	✓	✗	✗	✗
Brain stimulation	✗	✗	✓	✗	✗	✗
Behavioural techniques	✗	✗	✓	✗	✗	✗

Table 3: Comparison of the recommendations for cognitive difficulties

Recommendation	SFNZ	CSBPR	AHA	NSF	NICE	SIGN
Assessment						
Assessment using a valid tool	✓	✓	✗	✓	✗	✗
Referral						
Referral to a specialist clinician	✗	✗	✗	✗	✓	✓
Referral to a Neuropsychologist	✓	✗	✓	✓	✗	✗
Referral to an Occupational Therapist	✗	✗	✗	✗	✗	✓
Treatment						
Pharmacological treatments	✗	✗	✗	✗	✗	✗
Compensatory strategies	✓	✗	✓	✓	✗	✗
Cues to draw attention to the affected side for neglect	✓	✓	✗	✓	✗	✗
Mental imagery training for neglect	✓	✗	✗	✗	✗	✗
Specific therapies for neglect (e.g. visual scanning training)	✗	✗	✓	✓	✓	✗
Repetitive transcranial magnetic stimulation for neglect	✗	✗	✓	✗	✗	✗
Music therapy for memory	✗	✗	✓	✗	✗	✗
Compensatory strategies and use of aids to improve memory	✗	✗	✗	✗	✓	✗
Errorless learning techniques for memory deficits	✗	✗	✗	✗	✓	✗

Table 4: Comparison of the recommendations for problems with mood

Recommendation	SFNZ	CSBPR	AHA	NSF	NICE	SIGN
Assessment						
Assessment using a valid tool	✓	✓	✓	✓	✗	✓
Patient Health Questionnaire-2	✗	✗	✓	✗	✗	✗
Stroke Aphasic Depression Questionnaire (SAD-Q)	✗	✗	✗	✗	✗	✓
General Health Questionnaire of 12 items (GHQ-12)	✗	✗	✗	✗	✗	✓
Referral						
Referral to trained personnel	✓	✗	✗	✓	✗	✗
Referral to Psychiatrist	✗	✗	✓	✗	✗	✗
Referral to Psychologist	✗	✗	✓	✗	✗	✓
Treatment						
Antidepressants to treat depression	✓	✗	✓	✓	✗	✓
Antidepressants to treat emotional lability	✓	✗	✗	✓	✗	✓
Psychological therapies to prevent depression	✓	✗	✗	✓	✗	✗
Psychological therapies to treat depression (with antidepressants)	✓	✗	✓	✓	✗	✓
Psychological therapies alone to treat depression	✓	✗	✗	✓	✗	✓
Exercise programme to treat depression	✗	✗	✓	✗	✗	✗

DISCUSSION

Differences in treatment recommendations occur across guidelines for emotional, cognitive and speech and language difficulties after stroke. Potential reasons for these differences include: guideline publications date; make-up of the guideline working group; differences in the health care context of the country; insufficient evidence and differences in interpretation of evidence.

CONCLUSION

Although it is likely that there will always be differences between national guidelines, inconsistencies across guidelines may reduce compliance with and impact of recommendations. As insufficient evidence is a common cause of differences, more research on emotional, cognitive and speech and language aspects of long-term stroke management is needed to address the gaps in recommendations.