

# Systematic Review of Clinical Practice Guidelines in the Rehabilitation Management of Stroke: Is it time for an international guideline?

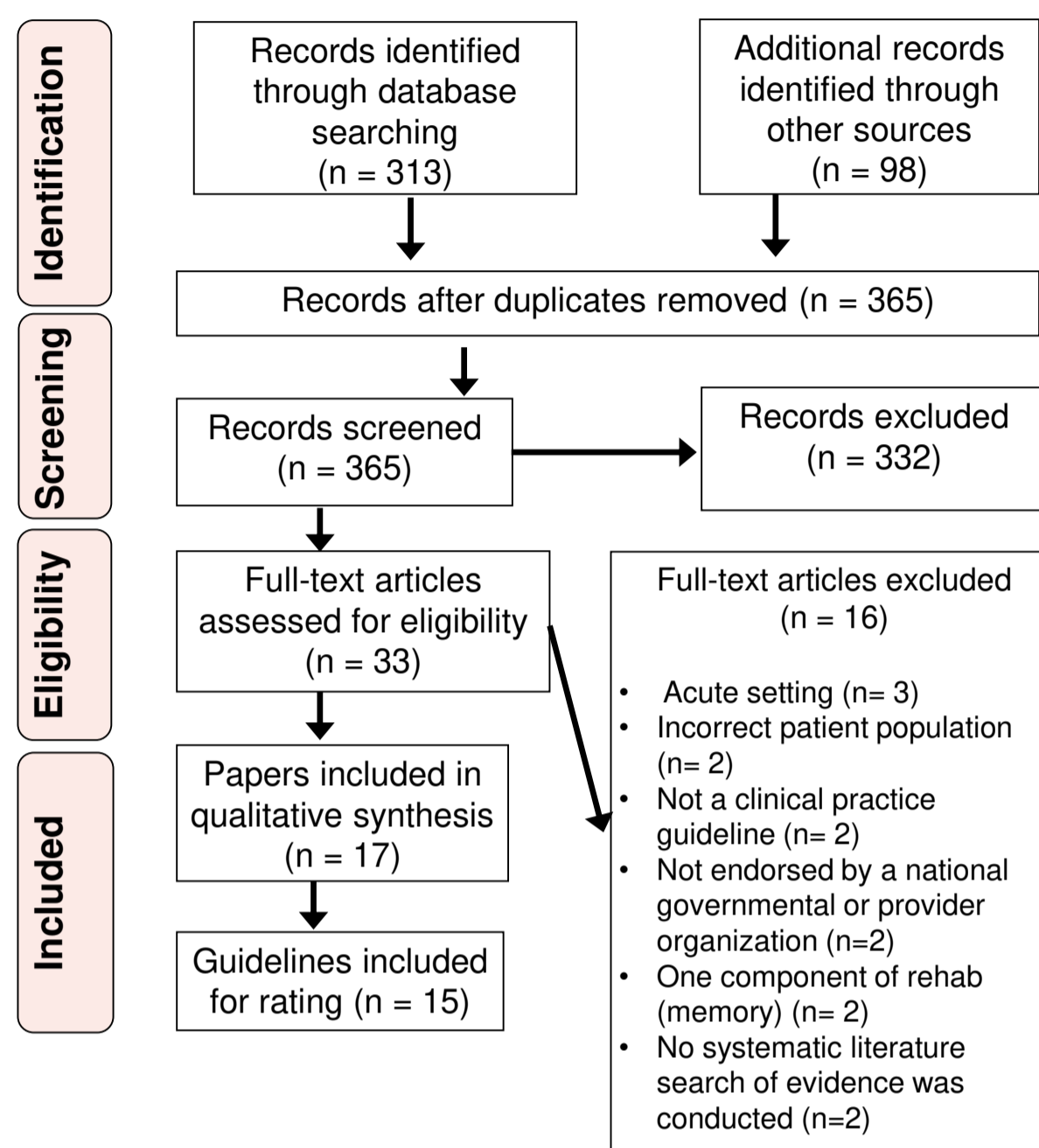
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**Background:** Stroke rehabilitation research is not always implemented in rehabilitation, and variation in practices is acknowledged. Clinical practice guidelines (CPG) aim to facilitate the use of evidence by clinicians, however there are multiple clinical practice guidelines for stroke rehabilitation available and it is unknown which should be applied in practice.

**Aim:** The aim of this study was to determine the quality, scope and consistency of CPG recommendations for rehabilitation after stroke.

**Method:** Systematic review which included clinical practice guidelines for inpatient rehabilitation and / or community rehabilitation for adults with stroke. Electronic databases, guideline organisations, and websites of professional societies were searched up to January 2018. Two reviewers rated each guideline on the Appraisal of Guidelines for Research and Evaluation (AGREE) II instrument. Recommendations were synthesised across CPGs to build universal recommendations for rehabilitation after stroke.



**Results:** From 411 papers, 17 papers comprising of 15 guidelines met the inclusion criteria. Only three guidelines rated high (>75%) across all domains of AGREE-II. Analysis shows that 'scope and purpose' and 'clarity' domains rate highest (87%, SD 9.7 and 73.5%, SD 23.4 respectively) with 'applicability' (domain five) rating the lowest (35%, SD 32.5). Recommendations for 'assessment' and 'motor therapies' were most commonly provided and consistent in CPGs, however, the content of recommendations varied across guidelines which may lead to variation in clinical care.

## Top three scoring CPG's according to AGREE-II domain percentages (>75% in all 6 domains):

1. Stroke Foundation. Clinical Guidance for Stroke Management 2017. Melbourne, Australia.
2. Scottish Intercollegiate Guidelines Network (SIGN). Management of patients with stroke: rehabilitation, prevention and management of complications, and discharge planning. A national clinical guideline. Edinburgh: SIGN; 2010. Publication 118.
3. Stroke Foundation of New Zealand and New Zealand Guidelines Group. Clinical Guidelines for Stroke Management 2010. 2010.

## Implications:

- The review of 15 clinical practice guidelines containing more than 1,820 recommendations demonstrated differences between guidelines which could be expected to substantially influence clinical rehabilitation.
- The low scoring domain of 'applicability' suggests that very few guidelines provide information to clinicians for **how** to implement recommendations into rehabilitation practices.
- Multiple CPGs exist to guide stroke rehabilitation, which makes selecting a guideline difficult for clinicians. It is plausible that both the cost efficiency of producing a guideline as well as the quality of the method of development would improve if countries collaborated to produce an international guideline instead of local guidelines.

**Conclusion:** Stroke guidelines were consistent in scope, but were variable with respect to recommendations, methodological quality and applicability. Whilst clinicians may be more familiar with their own national/local clinical practice guidelines, findings from our systematic review suggest that these may not always be of the highest methodological quality, and we would encourage clinicians to review the guidelines presented in this study.