

Better pathways for people with aphasia

INTRODUCTION

Integrated care pathways, clinical pathways, patient journeys and care maps are interchangeable terminology to describe tools which promote organised and efficient patient care based on the best available evidence and guidelines (Kwan et al., 2004). A care pathway can further be described as a 'complex intervention for the mutual decision making and organisation of care processes for a well-defined group of patients during a well-defined period' (European Pathway Association, 2007). The use of care pathways allows continuous assessment of clinical processes and outcomes against current best practice and guidelines.

As evidence-based practice become progressively more important for effective health delivery, increased research use within aphasia rehabilitation is paramount. Currently, stroke clinical guidelines offer very little in the form of aphasia-specific recommendations to inform practice. Our systematic review of clinical practice guidelines revealed a paucity of high-quality aphasia rehabilitation guidelines internationally (Rohde et al, in press). Integrated care pathways are gaining increasing popularity in health care delivery and offer a potential solution to the lack of evidence-based recommendations within aphasia rehabilitation.

The AARP aims to improve the overall patient journey for people with aphasia through providing clinicians with access to the best evidence in a dynamic and user-friendly format. In addition to the principles of integrated care pathways, the AARP utilises the theory of evidence-based practice through combining the best available evidence with family/client perspectives and clinical expertise. The AARP is also underpinned by the principles of knowledge transfer and exchange (KTE) which aims to close the research-practice gap in order to realise and maximise the benefits of research within the practice setting.

Hence the aims of this paper are to:

- a) Present results of the systematic review of clinical guidelines in stroke and aphasia
- b) Describe the consensus document that maps the AARP.
- c) Describe the translation of a highly complex system to a user-friendly web-based system.

METHODS

This is knowledge synthesis design within a Knowledge Transfer and Exchange (KTE) framework by Graham et al (2006) adapted for aphasia rehabilitation (Power et al., 2012) (see Figure 1).

To determine if there were any quality clinical guidelines available for stroke and aphasia, a systematic review was undertaken and revealed 19 multidisciplinary stroke and speech pathology specific clinical practice guidelines. These were evaluated using the Appraisal of Guidelines and Research and Evaluation II (AGREE II) tool (2009) (see Figure 2). Higher quality guidelines (those obtaining a rigour of development score above 66.67% in AGREE II evaluations) were then further analysed using the ADAPTE Collaboration tool (2009) (see Table 1). Aphasia related recommendations were extracted from the guidelines, categorized into topics and graded using the National Health and Medical Research Council levels of evidence (2009). These levels of evidence are similar to those of the American Academy of Neurology. The evidence, along with a draft design of potential areas to be included in the pathway was presented to key CCRE Investigators and then discussed with major stakeholders as part of the KTE plan.

A community of practice (CoP) approach to Knowledge Transfer and Exchange was used to engage stakeholders, share ideas and collaboratively develop the AARP. The Community of Practice for the CCRE in Aphasia Rehabilitation consists of 12 investigators, 24 research affiliates, 33 doctoral students and almost 200 clinical affiliates. All were invited to take part in two Community of Practice meetings to contribute to the development of the pathway. Following these initial meetings, versions of the AARP were circulated for comment using Google documents. The aim of this process was to obtain consensus on the AARP resulting in an evidence-based model of care for people with

aphasia. In addition, these discussions were aimed at developing a web interface for all stakeholders to access all components of the pathway.

RESULTS

Systematic review

The systematic review found that there was significant variability in both the methodological rigour and reporting of the clinical practice guidelines development processes and also the scope and depth of recommendations about aphasia rehabilitation provided within the guidelines. The Australian Clinical Guidelines for Stroke Management (2010) and New Zealand Clinical Guidelines for Stroke Management (2010) scored highest in both AGREE II and ADAPTE evaluations (see Figure 1 & 2). Overall, the majority of stroke guidelines had limited information about aphasia rehabilitation specifically, and often contained broad recommendations, for example, that communication disorders should be assessed. Recommendations about aphasia-specific processes (e.g. which is the best non-speech pathology administered aphasia screening assessment, best methods for modifying patient education material for people with aphasia) were lacking. The Royal College of Speech and Language Therapists (2005) aphasia guideline provided the most comprehensive coverage for aphasia management, however had poor methodological rigour in the AGREE II and ADAPTE evaluations. The aphasia chapter of the Evidence-Based Review of Stroke Rehabilitation (Salter et al., 2008) and the ANCDs evidence reviews (Beeson & Robey, 2006) are reviews of interventions rather than clinical guidelines.

Consensus document

During the Community of Practice meetings, a variety of perspectives on the content, design and process headings were collected which informed subsequent versions of the pathway design. The resulting AARP commences from recognition that a stroke is occurring through to community reintegration for the person with aphasia. It incorporates the tenets of the ICF, the management

processes, target outcomes, treatment approaches and service delivery models (see Figure 3). It provides a broad overview of the various processes involved in stroke-induced aphasia.

User friendly web based system

Each major process was then distilled and simplified into a practical format which will allow the AARP to be used as a web-based interface for speech pathologists (see Figure 4). For example, the process of stroke recognition and diagnosis of stroke was placed under the speech pathology task of 'receiving the right referrals'.

CONCLUSION

The Australian Aphasia Rehabilitation Pathway provides summaries of evidence including graded recommendations, clinician and client perspectives and resources, across the continuum of care for Australians with aphasia. To enhance Knowledge Transfer and Exchange, consultation with speech pathology researchers and clinicians throughout the process has occurred.

Future research and development will conduct a systematic review in each topic area (e.g. goal setting, discharge and transfer) to ensure all evidence is included. Further Community of Practice meetings will ensure consensus of the design and evidence along with providing a format to collect the perspectives of consumers and expert clinicians for each topic. Research will also identify remaining barriers to implementation and adopt evidence-based strategies to overcome such barriers. Evaluations of the AARP will determine the uptake and effectiveness of the AARP as well as the overall effect on aphasia rehabilitation in Australia.

REFERENCES

- AGREE Next Steps Consortium. (2009). The AGREE II Instrument [Electronic version]. Available from <http://www.agreetrust.org>
- Beeson, P. M. & Robey, R. R. (2012) Academy of Neurologic Communication Disorders and Sciences Aphasia Treatment Evidence Tables. Available from:
<http://www.u.arizona.edu/~pelagie/ancds/index.html>
- European Pathway Association. (2013). Clinical/care pathways. Retrieved from <http://www.e-p-a.org/index2.html>
- Graham, I.D., Logan, J., Harrison, M.B., Straus, S.E., Tetroe, J., & Caswell, W. (2006).
Lost in knowledge translation: Time for a map? *The Journal of Continuing Education in the Health Professions*, 26, 13–24.

Kwan, J., Hand, P., Dennis, M., Sandercock, P. (2004). Effects of introducing an integrated care pathway in an acute stroke unit. *Age and Ageing*; 33, 362-267.

National Health and Medical Research Council. (2009). Additional levels of evidence and grades of recommendations for developers of guidelines 2008-2010. Retrieved from https://www.nhmrc.gov.au/_files_nhmrc/file/guidelines/developers/nhmrc_levels_grades_evidence_120423.pdf

National Stroke Foundation. Clinical Guidelines for Stroke Management 2010. Melbourne, Australia ISSN0-978-0-9805933-3-4; 2010.

Power, E., Godecke, E., O'Halloran, R. and Worrall, L. (2012). Very early aphasia screening and therapy: a knowledge transfer and exchange plan. In: Special issue: Abstracts of Stroke 2012 Conference. *Stroke 2012 Conference - A combined event of the Stroke Society of Australasia 2012 Annual Scientific Meeting and the 8th Smart Strokes Australasian Nursing and Allied Health Stroke Conference*, Sydney, Australia, (9-9). 29 - 31 August 2012.

Rohde, A., Worrall, L., Le Dorze, G., (In Press). Analysis of the quality of clinical guidelines for aphasia in stroke management. *Journal of Evaluation in Clinical Practice*.

Royal College of Speech Language Therapist. (2005). Royal College of Speech and Language Therapists Clinical Guidelines. Retrieved from http://www.rcslt.org/account/login?d=http%3A%2F%2Fwww.rcslt.org%2Fmembers%2Fwelcome%2Fmembers_section

Salter, K. Teasell, R., Bhogal, Sanjit, Zettler, L., & Foley, N. (2011). The Evidence-Based Review of Stroke Rehabilitation (EBRSR) Module 14. Aphasia. Available from: http://www.ebrsr.com/uploads/Module-14_Aphasia.pdf

Stroke Foundation of New Zealand and New Zealand Guidelines Group (2010). Clinical Guidelines for Stroke Management. Wellington: Stroke Foundation of New Zealand.

The ADAPTE Collaboration. The ADAPTE Process: Resource Toolkit for Guideline Adaptation.

Version 2. 2009. Available from: www.adapte.org.

FIGURES

Figure 1. Knowledge-to-Action-Process Framework (Graham et al, 2006)

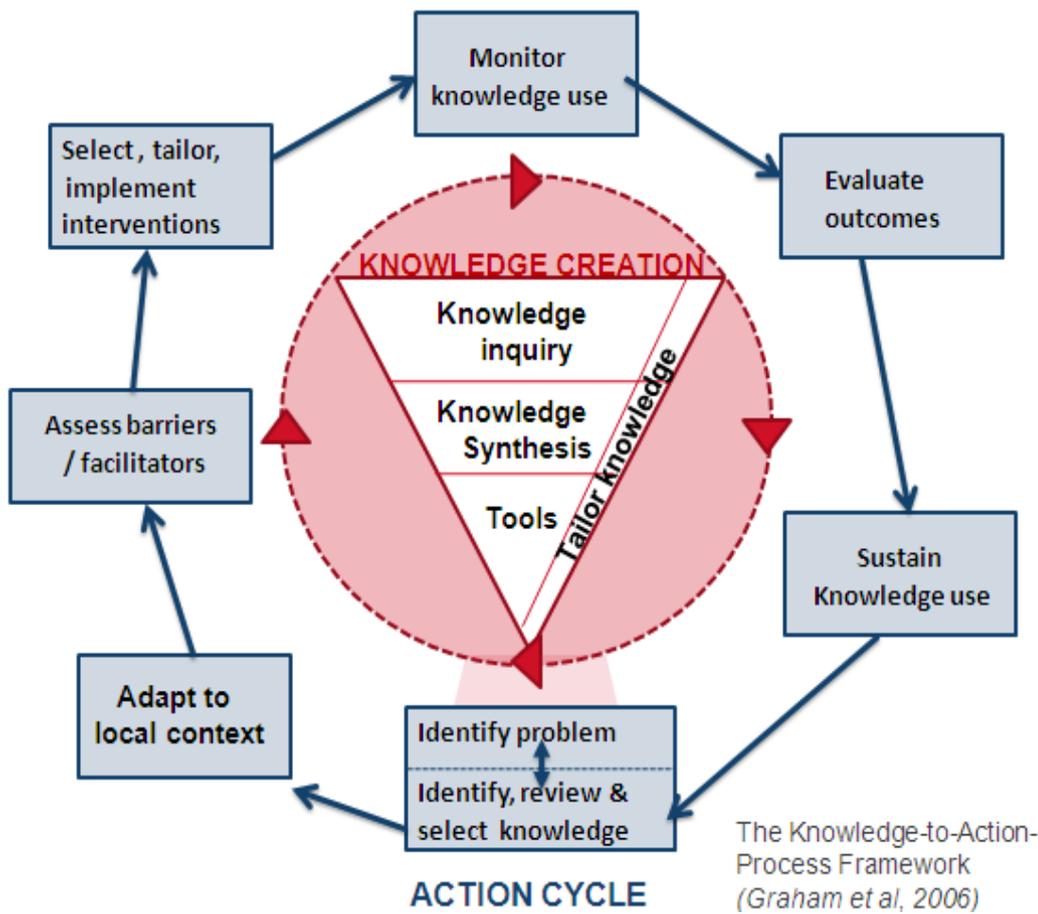


Figure 2. Rigour of Development scores on AGREE II evaluation

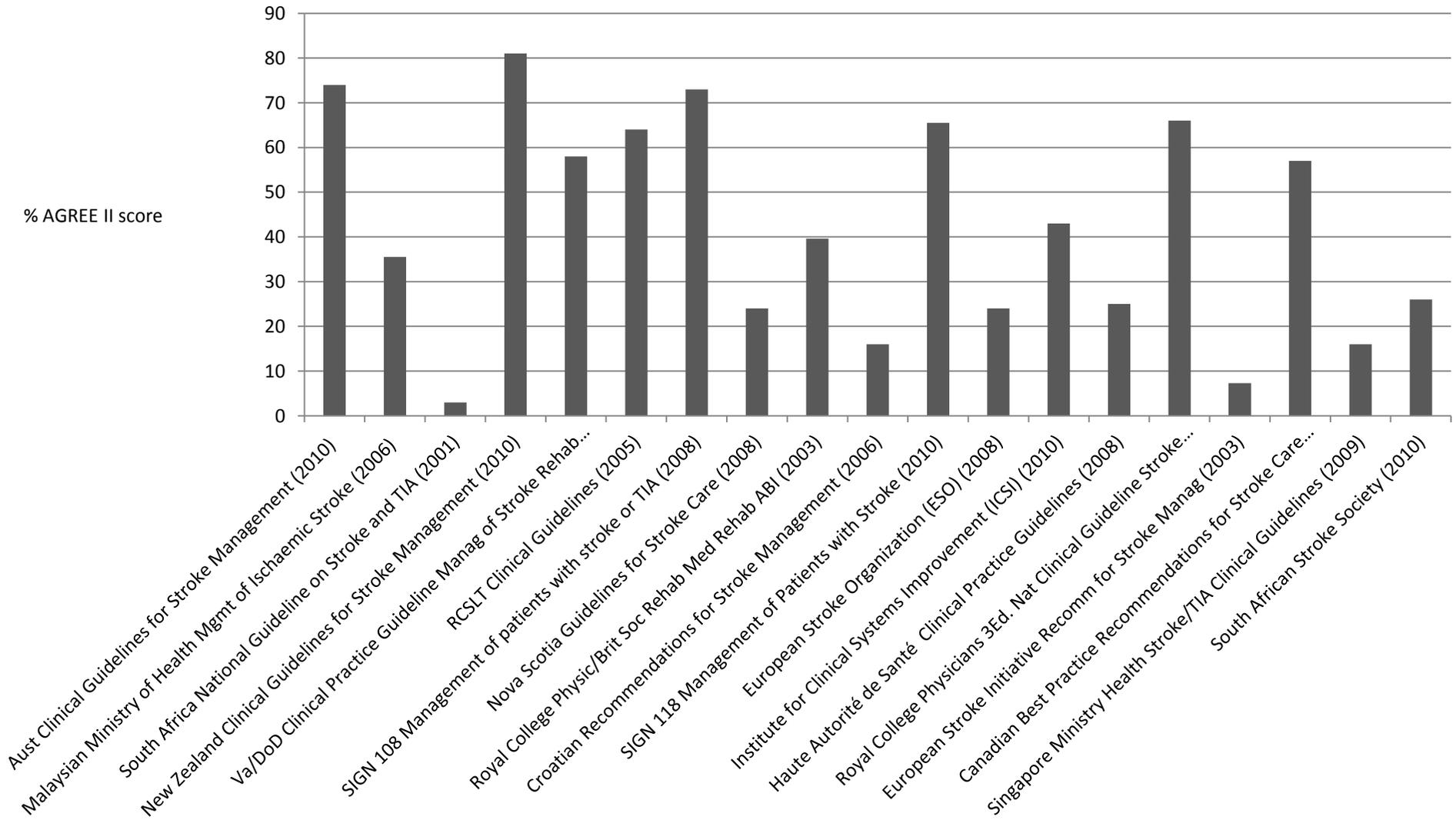


Figure 3. Overview of the Australian Aphasia Rehabilitation Pathway (AARP)

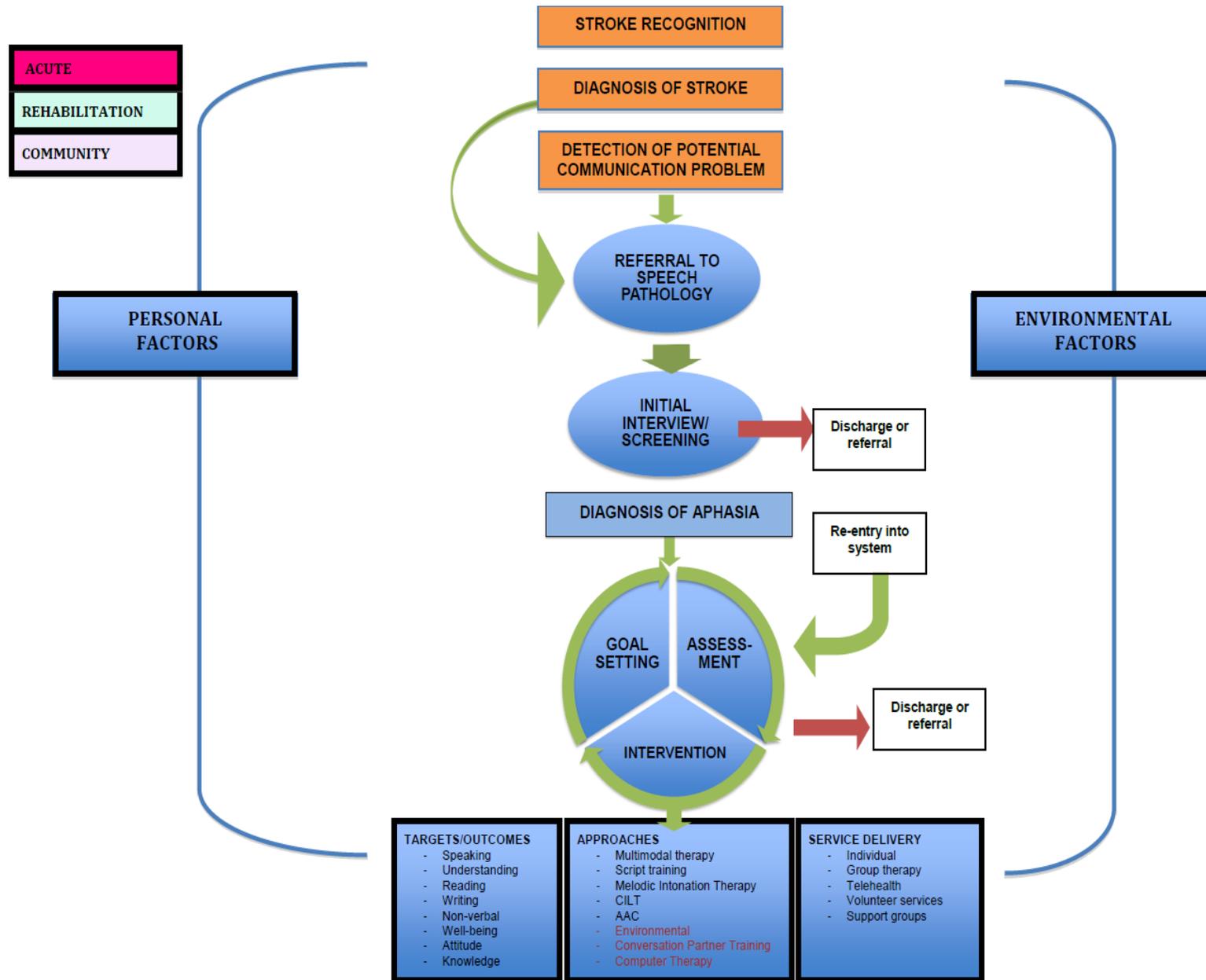


Figure 4. User-friendly interface for AARP.



TABLES

Table 1. ADAPTE overall quality and applicability evaluation

Clinical Practice Guidelines		Australian/ New Zealand Clinical Guidelines for Stroke Management (2010)	SIGN 108 (2008)	Royal College of Speech and Language Therapists (2005)
Search and Selection of Evidence	Overall, was the search for evidence comprehensive?	Yes	Yes	Unsure
	Overall, was the bias in the selection of evidence avoided?	Yes	Unsure	No
Scientific Validity	Overall, the evidence was valid?	Yes	Yes	Unsure
	Coherence between the evidence and recommendations?	Yes	Yes	Yes
	Overall, the scientific quality of the recommendation does not present risk of bias?	Yes	Yes	Unsure
Acceptability/ Applicability	Overall, the recommendation is acceptable?	Yes	Yes	Yes
	The recommendations are applicable?	Yes	Yes	Yes