Making manuals meaningful—are we on the right page

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Introduction

The development and implementation of evidence based clinical guidelines is considered one of the most promising and effective tools for improving quality of care. They can make care more consistent and efficient, improve clinical decision making, reduce the use of unnecessary, ineffective or harmful interventions, and close the gap between what clinicians do and what the current evidence supports. 1,2,3 This results in improved patient outcomes and consumer confidence, staff having more positive attitudes, and organisations using available resources more efficiently through tools such as recall systems and standardised equipment and impress lists. 3,4 From a quality improvement perspective clinical guidelines provide a common point of reference for audits of clinicians’ or health services’ activities and practices. They can also promote public goodwill by sending a message of commitment to excellence and quality.1

Clinical practice guidelines are “systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances”. 5 They are designed “to make explicit recommendations with a definite intent to influence what clinicians do”, 6 in particular those who are unsure how to proceed. 1 But this can only be achieved if the guidelines are being used and not gathering dust on the clinicians’ shelves. So how do the producers of clinical practice guideline manuals ensure they are meaningful to their target audience—that they are on the right page.

One successful strategy has been to take a knowledge based practice approach which considers not only the available evidence, but also the target context, service capacity and health profile.

Background

The Central Australia Rural Practitioner Association (CARPA) was formed in 1984 as a peer support and clinical practice education forum for remote and rural practitioners across professions, services, and state borders. It arose out of a shared recognition of the need to support professional development and clinical practice in remote and rural communities in Central Australia. The formation of a CARPA working group by a “group of remote practitioners with fire in their bellies” 7 culminated in the release of their first Standard Treatment Manual (STM) in 1992. It was a pocket sized set of clinical practice guidelines developed for clinicians by clinicians in an era when guidelines were rare, and in rural or remote practice were non-existent. It grew out of a shared concern for how best to manage the crippling diseases that killed and harmed in unacceptable proportions, such as acute pneumonia and gastroenteritis in babies and children, and infections, respiratory disease, trauma and syphilis in adults. Taking a knowledge based practice approach and deliberately designed to fill an identified need, they didn’t have a chance to gather dust but instead became a ‘bible’ for remote practitioners.

Since that time the use of the CARPA STM has steadily increased in Australian primary health care services catering to remote communities, and rural and urban Aboriginal and Torres Strait Islander health. It is also used in New Zealand and internationally in remote and developing countries—it was recently seen in Angola. Now in its fifth edition, the manual contains over 90 protocols reflecting the continuing burden of disease, and is utilised as policy across the Northern Territory and Central Australia (Northern
Territory, South Australia and Western Australia), in remote South Australia, and in the Kimberley Region of Western Australia.

It is now also part of a suite of companion manuals including:

- **The CARPA Manual Reference Book.** Provides the evidence base for the protocols in the CARPA STM
- **The Clinical Procedures Manual for remote and rural practice (Council of Remote Area Nurses of Australia).** Provides details on ‘how to do’ activities referred to in the CARPA STM
- **The Women’s Business Manual (Congress Alukura and Nganampa Health Council).** Covers women’s health issues including well women’s screening, obstetrics, gynaecology, infertility, menopause, and contraception.
- **Medicines Book for Aboriginal Health Workers.** A guide to the medications suggested in the CARPA STM, produced in an easy to read format with illustrations, aimed primarily at Aboriginal health workers with a low to moderate English literacy level.

Although clinical guidelines are now more widely available, the CARPA STM has maintained its multiprofessional and population health focus, and knowledge based approach with the intention of making best practice evidence accessible and meaningful to all remote and rural practitioners in the primary health care context. A deliberate choice has been made not to develop a comprehensive range of guidelines but to concentrate on the most needed protocols—those related to the daily, the deadly and the daunting. For this reason the focus of the manual is on conditions that:

- are common in remote practice
- have different presentations and management issues to those in ‘mainstream’ practice
- are life threatening and can benefit from emergency procedures
- are dangerous or frightening for practitioners
- have important public health implications
- need coordinated, standardised care.

**Process**

The CARPA ‘by the user for the user’ guideline development model of combining evidence review, expert advice, and user participation—arrived at out of necessity and extreme health need—has stood the test of time and been validated by the literature. In line with best practice recommendations, this multi level process for updating the manual has ensured a quality product that is appropriate to the circumstances. The multiprofessional and iterative nature of the review brings the considerable collective experience and wisdom of content experts, local and context specialists, and remote area practitioners to bear on the recent literature. All the guidelines are reviewed by remote practitioners (end users) for clarity, practicality and acceptability before finalisation, ensuring that it remains a manual by remote practitioners for remote practitioners.
The CARPA STM uses a knowledge based approach to provide scientifically sound yet realistic guidelines that are culturally appropriate for use in remote and Aboriginal and Torres Strait Islander communities. The standardised format, at the request of the users, remains:

- a brief, easy-to-read ‘cookbook’ style
- plain language without compromise in the content
- one simple, easily portable manual for Aboriginal health workers, nurses, doctors, allied health professionals and visiting specialists.

The result is a well respected clinical guidelines manual that has the capacity to improve health care in remote communities through:

- the promotion of appropriate clinical practice with both acute care and public health perspectives
- support for clinicians faced with a range of health, social and work conditions for which their training may have left them ill-prepared.

**Outcome**

Formal evaluations were carried out on the second, third and fourth editions of the CARPA STM. These have consistently shown that the manual is used widely and regularly, with higher than average acceptance and adoption by the target group. This is due in no small part to the involvement of multiprofessional primary health care practitioners in the development, evaluation, updating and implementation of the guidelines, and the resultant sense of ‘ownership’ of the manual.

Other implementation strategies that have contributed to the acceptance of the CARPA STM and its widespread integration into practice include:

- its acceptance as the professional ‘norm’ with local champions, peer pressure and client expectations contributing to its uptake
- its formal adoption as policy by health service providers and health care organisations
- its use as the clinical basis for the orientation of medical practitioners and specialists, nurses, and allied health professionals entering remote practice, and in ongoing professional development
- its protocols being incorporated into Aboriginal health worker training, benchmarking, and credentialing against Aboriginal health worker competencies
- its promotion by professional support organisations such as the Council for Remote Area Nurses of Australia and Divisions of General Practice
- being linked to the Northern Territory Poisons Legislation governing the appropriate supply and dispensing of medication by remote area nurses and Aboriginal health workers, and to drug imprest lists for remote clinics
- being used to inform audit tools for continuous quality improvement programs and research, such as the Audit for Best Practice in Chronic Disease project
- identification of gaps in knowledge and evidence, and linking to local research, allowing updates to reflect new innovations.
The CARPA STM has been adopted by many health services around Australia including Aboriginal Medical Services in the Northern Territory, South Australia and Western Australia, the Northern Territory Department of Health and Families and the South Australian Department of Health Country Health Services. It has also been endorsed by organisations and groups such as the Royal Flying Doctor Service, Council for Remote Area Nurses of Australia, Australian College of Rural and Remote Medicine, Royal Australian College of Physicians, and the Central Australian and Barkley Aboriginal Health Worker Association.

The CARPA STM supports the Australian Government’s commitment to the supply and distribution of appropriate support materials for health professionals to ensure improved access by Aboriginal and Torres Islander people to effective health care and population health programs. The Department of Health and Aging, in particular the Office of Aboriginal and Torres Strait Islander Health, has acknowledged the CARPA STM as part of the essential underpinnings for primary health care in remote areas and in aboriginal and Torres health care settings across Australia. In recognition of this they have provided funding for the printing of the CARPA STM and for project staff to support the army of volunteers and to coordinate the editorial and administrative aspects of reviewing and updating the manuals.

One of the key enablers for the CARPA STM is the high need for remote practice support driven by high morbidity and mortality rates, different diseases and presentations to mainstream practice, and high staff turn over. One of the key barriers to its effective use remains lack of staff orientation and professional education. Although it is included in complete orientation programs, staff staying for short periods may not receive adequate orientation and those relieving from an acute care setting may not be aware of the role of multiprofessional practice in remote health care, and be unfamiliar with the conditions or context. The evaluations found that many existing staff are not orientated to new editions and so do not realise that what they ‘learnt’ from an earlier edition is no longer best practice.

Remote health care practice needs to contend with numerous challenges beyond client presentations. These include geographic and social isolation; a diverse multiprofessional work team; various service delivery models; high staff turn over and short term agency or locum staff; access to resources, supervision and training; and a mobile client base. “Within the shifting sand a rock stands” was used by a remote practitioner to describe the importance of the CARPA STM in providing a consistent unified approach to clinical management and underpinning quality assurance within this transient context.

Discussion

Overarching challenges for producers of clinical guidelines are to maintain their currency and accuracy, improve accessibility, establish and retain user credibility, and deal with the increasing complexity of health care. Guidelines are only useful when they are up-to-date, and reviewing clinical guidelines can be as time and resource intensive as creating them. This make sustainability an ongoing concern for guidelines that are reviewed and updated by voluntary editorial groups—and yet user participation has been demonstrated to be the key to their success. Similarly, while the development of a suite of cross-referenced manuals has ensured more complete guidelines it has also made their management more complex.

The evaluations have shown that the CARPA STM is accessed multiple times every day within remote government and non-government clinics in the Northern Territory, across Central Australia, and other remote areas, representing many hundreds of clinicians across the region, accessing many thousands of pages on any given day. Further, the success of the uptake of the CARPA STM has led to an increased demand from specialty areas for their materials to be included, and increased expectations from users about the manual’s ability to meet their expanding needs. To some extent it has become a victim of its own success.
The uptake of clinical guidelines is strongly linked to their relevance and usability, so to increase the probability that the page the clinician finds is the right one, CARPA has taken the lead in moving to an electronic content management system (CMS) that will enable increased accessibility and interconnectivity through computer access. This environment not only provides the most appropriate tools for distribution and access, but also for the management, development, tracking and auditing of content. The increased and increasing access to technology in remote area health services makes the electronic editing and presentation of the CARPA STM, and ideally the whole suite of manuals, a logical and necessary next step.

CMSs are now generally accepted as necessary tools for any organisation that is managing and publishing content. Benefits of an electronic CMS include:

- **Accessibility**—Electronic distribution via the web or CD-Rom is available. CD-Rom content can be linked and presented within health systems. Hard copy versions can also be printed on a regular basis for situations where electronic versions are not appropriate or accessible.

- **Linkages**—Content can be linked to other areas of the publication, meaning it can be used many times but only has to be maintained once, contributing to the quality of the tool. There is an increased opportunity to link with other resources and Patient Information and Recall Systems (PIRS) already in use in the target area (eg Medical Director, Ferret, Communicare), providing electronic decision support to enhance patient quality and safety.

- **Review process**—The content development and review process is much more structured and efficient, resulting in less chance of errors or omissions, and more timely completion of updates. Content cannot be published without having gone through the correct editorial process.

- **Updating**—Updating becomes easier and can be undertaken more frequently, providing the capacity for electronic content to remain current and relevant to needs. Electronic updates will not need to be linked to the release of a hard copy version.

- **Audit trails**—ability to track changes and the people making those changes, and the capacity to ‘roll back’ the system, should unauthorised changes occur, to a point in time pre changes.

The opportunity a CMS will provide to develop a single, combined and cross-linked electronic reference of all protocols, procedures and references is seen as a positive step by all the organisations involved in developing the current suite of manuals. It is expected to further strengthen the uptake of the guidelines and so enhance patient quality and safety in rural and remote settings. It will contribute significantly to streamlining the editorial process by enabling the coordination of ongoing review and updating by authors and reviewers who are geographically isolated. A single CMS for all manuals would also ensure consistency across the manuals as well as context-sensitive cross-linking.

In the spirit of Margaret Mead’s “Never doubt that a small group of thoughtful, committed people can change the world. Indeed, it is the only thing that ever has.” CARPA has demonstrated that grass roots innovation, initiated by volunteers, can be both evidence-based and enduring. Most importantly for its target group, the CARPA STM acknowledges that remote and rural practice is different, and demonstrates that effective clinical guidelines can be developed that are fit for service in this environment. Ongoing challenges for the organisation are to manage this into the electronic era, support health literacy, and stimulate better understanding of the complexities of remote practice.
Policy implications

Creators of clinical guidelines can ensure they are on the right page and thus improve uptake and return on their investment by using a knowledge based practice approach considering both the evidence and the context, and by involving the end users in guideline development and review.

Funders need to acknowledge how resource intensive it is to maintain accurate, current guidelines with high user credibility and uptake.

References

7. Hope A. CARPA (1984-1999) RIP: How CARPA died while we were all at another meeting. CARPA Newsletter, 2000; January.

Presenters

Janet Struber has a background in physiotherapy, having held clinical roles in the public, private, education and aged care sectors. She worked primarily in regional and rural areas, with remote outreach. Since completing her Master of Health Studies in Primary Health Care Janet has focused on non-clinical roles, which have incorporated primary health care management, models of rural and remote health service provision, chronic disease, information systems, clinical governance, and Aboriginal and Torres Strait Islander health. Janet is currently a Senior Research Fellow and Coordinating Editor CARPA, based at the Centre for Remote Health in Alice Springs.

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(CARPA) editorial committee producing the internationally recognised CARPA best-practice guidelines for remote practitioners and the CRANA Clinical Procedures for Remote and Rural Practice. A recipient of the Louis Ariotti Award, the CRANA Aurora Award and Centenary Medal, Sabina is a Fellow of the Australian Rural Leadership Foundation, the Royal College of Nursing Australia, a member of the Deputy Prime Minister’s Regional Women’s Advisory Council, the Northern Territory Health Minister’s Advisory Council, a director of the board of the Rural Health Education Foundation and a Commissioner on the National Health and Hospitals Reform Commission.