



The CARI Guidelines
Caring for Australasians with Renal Impairment
www.cari.org.au

ANNUAL REPORT
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Report from the Chair

The CARI Office started 2006 very productively and continued to make this one of the most impressive years yet.

In April, another Supplement to *Nephrology* came out, which contained 50 guideline recommendations, making this the largest publication to date. The recommendations related to 'Prevention of Progression of Kidney Disease', 'Biochemical and Haematological Targets', and 'Management of Bone Disease, Calcium, Phosphate and Parathyroid Hormone' topics. This Supplement was distributed to subscribers in Australia, New Zealand, Hong Kong, South Korea and Taiwan.

The CARI Office is also in the process of working with Guideline Writers to have selected Guideline Summaries published in the Australian Family Practice (AFP) magazine, the main peer-reviewed journal in Australia for General Practitioners. These are expected to be published in early 2007. The guideline recommendations and suggestions for clinical care that have been summarised are for 'Evaluation of Renal Function', 'Nutrition and Growth of Kidney Disease', 'Acceptance onto Dialysis', 'Prevention of Progression of Kidney Disease – Diet and Miscellaneous Factors', 'Prevention of Progression of Kidney Disease – Diabetic Nephropathy' and 'Prevention of Progression of Kidney Disease – Antihypertensive Therapy'. These were deemed to be the topics of most use to general practitioners.

Michelle Irving, the CARI Implementation Research Officer, and the implementation subcommittee, have been involved this year in running the second stage of the Iron Implementation Project. This project performed an audit of current practice at 6 renal units and compared this with recommended practice according to the CARI guideline on Iron management. In the second stage, the selected units were encouraged to implement the CARI guidelines where possible and with analysis of the data collected, help was offered to identify barriers and suggest possible means of overcoming blocks to good practice. This project should be completed by the end of 2007. A manuscript regarding the first stage of this project has been published in the Medical Journal of Australia (MJA 2006; 185 (6): 310-314), if you would like to find out more about it.

CARI is also processing feedback received from a user survey sent out in early 2006. This survey asked CARI guideline users for their thoughts on the CARI guideline process, presentation of the guidelines, use of evidence, the CARI name, the scope of the guidelines, access to the guidelines, and the CARI website. The results are currently being analysed and will be used to help guide our future plans and make the CARI guidelines more accessible, user-friendly and topical.

A Vascular Access Implementation group was also formed in the latter part of 2006. In the next 2 years, the group will commence a before and after study of selected units looking at barriers to arteriovenous fistula use at first dialysis. This project is in its early stages, with the first phase – a clinical audit of chosen units – expected to be completed by the end of 2007.

Allison Tong, the CARI Research Officer, has also begun research to establish patient and healthcare provider experiences in relation to chronic kidney disease. Allison has conducted focus groups with patients at various sites in 2006 as part of this research. The findings from this project will highlight what patients commonly feel should be important research topics in the CKD field and it is expected that this information will be used in the future to both guide research activity and new guideline development.

Two guideline groups are currently working on guidelines, these being the Renal Vasculitis group led by Robyn Langham (new guidelines) and the Living Kidney Donors group led by John Kanellis (revised guidelines). These should be completed at the end of 2007 and are expected to be published as a Supplement to the December issue of *Nephrology*. The Renal Vasculitis group will

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be presenting their draft guidelines at the DNT meeting being held in Queenstown, NZ, in early March 2007.

There have been some changes to the membership of the CARI Steering Committee this year, with Debbie Gregory, Josephine Chow, Paul Snelling, Josette Eris, David Johnson and Jim Dellit standing down. All have made a strong contribution to the Steering Committee over the years, and I would like to thank them for their input and wise counsel. New members in their place include Fiona Brown (DNT representative), Pam Deans, Deirdre Fetherstonhaugh, Martin Gallagher, Kevan Polkinghorne and Rob MacGinley as a NZ representative.

The work of the Steering Committee and the various guideline groups who are revising or creating guidelines *de novo* have all contributed to making CARI a well-founded, accepted and trusted organisation. Hopefully, the production of clear, systematically developed, evidence-based guidelines will lead to improvements in the health of chronic kidney disease patients in Australia and New Zealand and also help create a more evidence-based culture within the health sector at large.

I wish CARI all the best for 2007 and look forward to seeing the results of its various “hands-on” projects.



Rowan Walker
Chair
CARI Guidelines

Activities 2006

CARI Guidelines Critical Appraisal Workshop, May 2006

The Critical Appraisal Workshop was held over 1 day in May at the Qantas Club, Sydney Airport, with the teaching sessions presented by Assoc Prof Jonathan Craig and Dr Vlado Perkovic. The attendees were mainly the two guideline groups whose members are currently working on guidelines – the Renal Vasculitis guideline group and the Living Kidney Donors guideline group. The Workshop was run over 1 day and taught basic critical appraisal skills and also outlined the process involved in writing a CARI guideline, and explained the role and responsibilities of a CARI Guideline Writer.

The format is a mixture of lectures and small group exercises about randomised controlled trials, systematic reviews and diagnostic test studies. Feedback from those who attended was positive.

CARI Guidelines Implementation Projects

Organ donation process project: With the aid of a seed grant from NICS, CARI held a consultation process in October 2005 with representatives from all sectors of the organ donation process. The organ donation process was mapped and barriers to increasing donation rates were documented. CARI is currently looking for support for implementation of this project, which would be expected to run for 2 years.

Iron management guideline project: The second stage of the Iron implementation project was commenced in 2005-06. Three of the 6 renal units that were audited regarding their Iron Management processes are working in collaboration with CARI with the aim of assisting them in implementing agreed practice changes. Part of this includes the use of a decision aid which is being used on a trial basis by 2 of the 3 units. A manuscript about the 1st stage of this project was published in the Medical Journal of Australia in September 2006.

CARI Guidelines Survey of Key Users

All ANZSN members and RSA members have been sent a survey about the CARI Guidelines project. A high survey response (>70%) is being sought so that the results can be analysed and a paper written about the findings.

Guideline Searches

All guidelines need to have a systematic current search of the literature performed to ensure that guideline writers have all of the relevant studies for their topic, from which to write their guideline. Devising a comprehensive search strategy and scanning the search results (to weed out irrelevant studies) is a very time-consuming process. In 2006, the searches for CARI Guideline Writers were conducted by Allison Tong, CARI's part-time Research Officer, who uses the Cochrane Renal Group standard search strategies.

Searches conducted and articles obtained for writers in 2006:

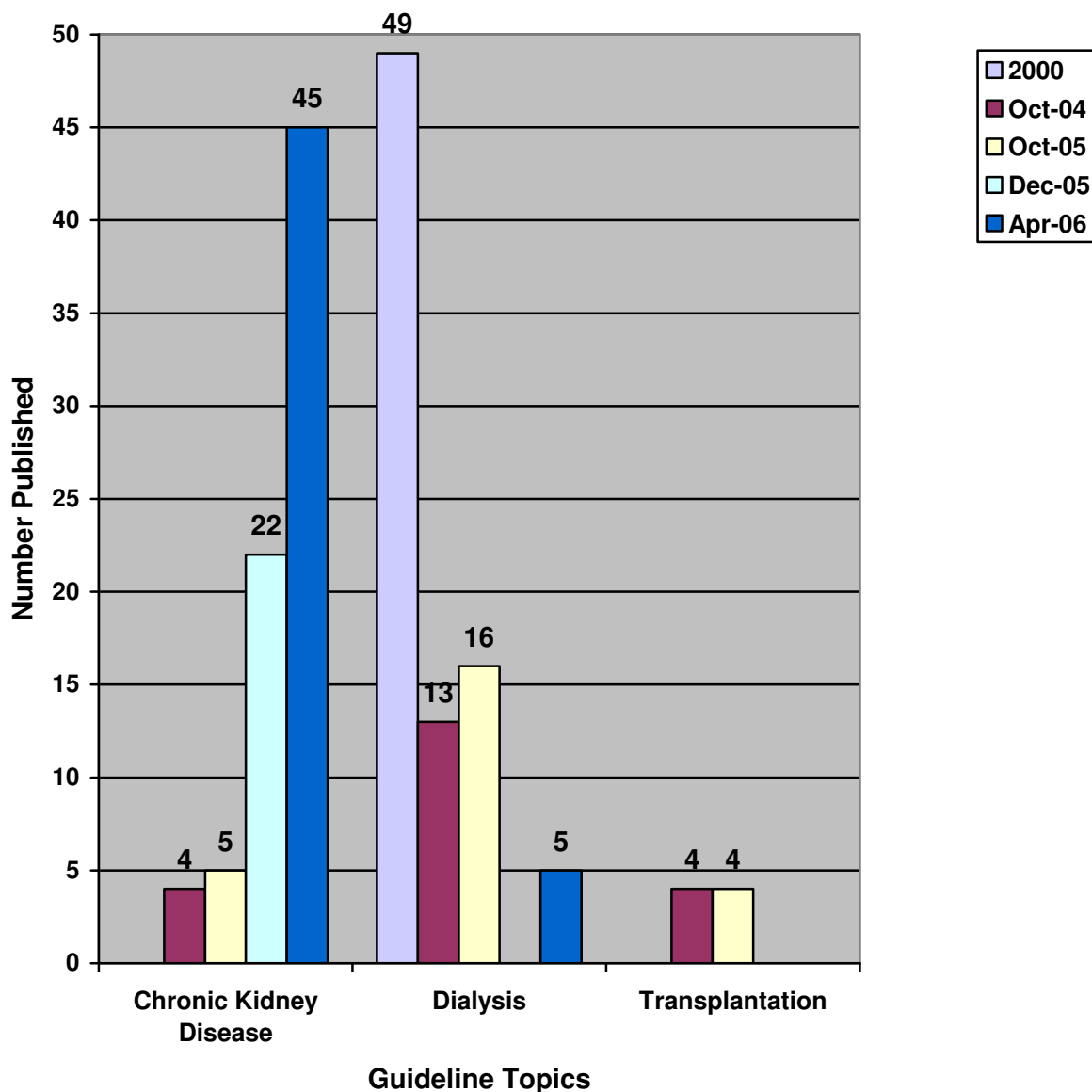
Guideline Group	Renal Vasculitis	Living Kidney Donors	Vascular Access	Biochemical & Haematological Targets
Number of Searches	5	9	6	2
Articles Requested from Search	107	31	nil	1

Publications

In April 2006, a *Nephrology* supplement was published containing CARI Guidelines on: 'Prevention of Progression of Kidney Disease', 'Biochemical and Haematological Targets', and 'Management of Bone Disease, Calcium, Phosphate and Parathyroid Hormone'. The total number of recommendations published in this Supplement was 50.

The figure below shows 130 recommendations have gone to print from 2000–2005 with a further 50 recommendations being published in 2006. After this, there will only be a small number of guideline topics that still need to be developed.

CARI Recommendations Published from 2000- 06



Meetings

National Institute of Clinical Studies (NICS) “Using evidence: using guidelines” Symposium, Melbourne, 19-20 October 2006

Denise Campbell, Michelle Irving and Kevan Polkinghorne attended this symposium which was run by NICS in Melbourne. Over the 2 days we heard from nurses, doctors, allied health practitioners, policy makers and researchers from Australia and overseas, who shared their knowledge and related their experience of putting guidelines into practice. The international keynote speakers were Dr Brian Mittman, a social scientist with the Dept of Vet Affairs, US, and Prof Susan Michie, a psychologist at the University College London, UK.

The symposium had 4 themes, which were: Focus: factors to consider when focusing efforts; Barriers & Enablers: what stops implementation from happening? What helps?; Strategies: finding the right implementation strategy; Action: putting what is known into action and influencing others to get guidelines used.

The meeting focused on the challenge of getting existing guidelines into day- to-day practice rather than on guideline development. The stated objectives were to provide practical solutions for getting guidelines into practice, such as:

- Knowing which guideline recommendations to focus on
- Understanding how to identify and address barriers and enablers to guideline implementation
- Selecting evidence-based strategies to get guidelines into practice
- Planning for change.

The format was a mixture of plenaries, workshops, discussant sessions and panel discussions. Plenary sessions included talks on using psychological theory in implementation, an outline of how guidelines have been used to improve care in the VA Dept (US), the art of writing guideline recommendations, how to choose which recommendations to implement first, finding the right implementation strategy, and targeting multiple levels to get guidelines used.

Kevan Polkinghorne chaired one of the discussant sessions, called “Taking action nationally”, and Michelle Irving gave a presentation at another discussant session called “Approaches to identifying barriers and enablers”. Michelle also had a poster accepted titled “Implementation of clinical practice guidelines: overcoming barriers to implementation of iron management guidelines in chronic kidney disease patients on dialysis”.

NICS is Australia’s national agency for improving health care by helping close important gaps between best available evidence and current clinical practice. NICS is funded by the Australian Government and recently became an institute of the National Health and Medical Research Council (NHMRC).

Meetings cont.

XIV Cochrane Colloquium, Dublin, 23-26 October 2006

Jonathan Craig attended the Colloquium, which is an annual meeting. The meeting is an opportunity to review what has been achieved with the Cochrane Library to date and discuss how the Cochrane Collaboration can continue to grow and evolve to meet its aims.

The Cochrane Colloquium was held in Ireland for the first time, and the Irish Health Sciences Libraries Group and the UK Cochrane Centre in Oxford organised a joint initiative to encourage Librarians to participate in the Colloquium and the development of the Cochrane Library as a whole.

To this end, a competition was run, asking Librarians and Health Information professionals to submit abstracts on the subject of Librarians and the Cochrane Library.

Information about the Colloquium can be downloaded from:

<http://www.cochrane.co.uk/Colloquium%202006.pdf>.

New Guidelines

CARI has 2 new Guideline Groups which are currently working on Renal Vasculitis guidelines and Living Kidney Donor guidelines. These groups started work in May 2006 and are scheduled to have their guidelines published in December 2007.

Renal Vasculitis is a new topic and drafts of these guidelines will be presented at the 2007 DNT meeting in New Zealand in March by some of the group's writers.

CARI has previously published draft guidelines for Living Kidney Donors on the CARI website, but these were written in 2001 and have not been updated. The Living Kidney Donor guideline group has been re-formed and the updated guidelines are expected to be ready for publication at the end of 2007. The Living Kidney Donor guidelines will not be presented at the DNT Workshop.

Published Recommendations in 2006

The following guidelines were published after peer review and feedback from the nephrology community and consumers.

The subtopics covered in the April 2006 Supplement include:

Prevention of Progression of Kidney Disease

1. Diet and Miscellaneous Factors

Dietary protein restriction

Lipids

Uric acid

Phosphate

Exercise

Acidosis

Erythropoietin

Pregnancy

Smoking

Other agents

Other forms of dietary intervention

2. Antihypertensive Therapy

Blood pressure control: targets

Blood pressure control: role of specific antihypertensives

Reducing proteinuria

3. Diabetic Nephropathy

Antihypertensive therapy in diabetic nephropathy

ACE inhibitor treatment in diabetic nephropathy

Angiotensin II antagonists

ACE inhibitor and angiotensin II antagonist combination treatment

Protein restriction to prevent the progression of diabetic nephropathy

Specific effects of calcium channel blockers in diabetic nephropathy

Glucose control and the progression of diabetic nephropathy

Smoking and the progression of diabetic nephropathy

Control of hypercholesterolaemia and the progression of diabetic nephropathy

Multifactorial therapy and the progression of diabetic nephropathy

Published Recommendations in 2006 cont.

Specific Non-diabetic Renal Diseases

Analgesic-associated kidney disease

Renal artery stenosis

Specific management of IgA nephropathy: role of steroid therapy

Specific management of IgA nephropathy: role of fish oil

Specific management of IgA nephropathy: role of triple therapy and cytotoxic therapy

Specific management of IgA nephropathy: role of tonsillectomy

Specific management of IgA nephropathy: role of cyclosporin and other therapies

Membranous nephropathy: role of alkylating agents

Membranous nephropathy: role of steroids

Membranous nephropathy: role of cyclosporin therapy

Treatment of secondary membranous nephropathy

Idiopathic membranous nephropathy: use of other therapies

Reflux nephropathy

Focal segmental glomerulosclerosis: treatment with steroids

Focal segmental glomerulosclerosis: use of cyclosporin A

Focal segmental glomerulosclerosis: cytotoxic therapy

Focal segmental glomerulosclerosis: correction of secondary causes

Focal segmental glomerulosclerosis: use of other therapies

Biochemical and Haematological Targets

1. Biochemical Targets

Calcium

Serum phosphate

Calcium x phosphate product

Parathyroid hormone

2. Haematological Targets

Iron

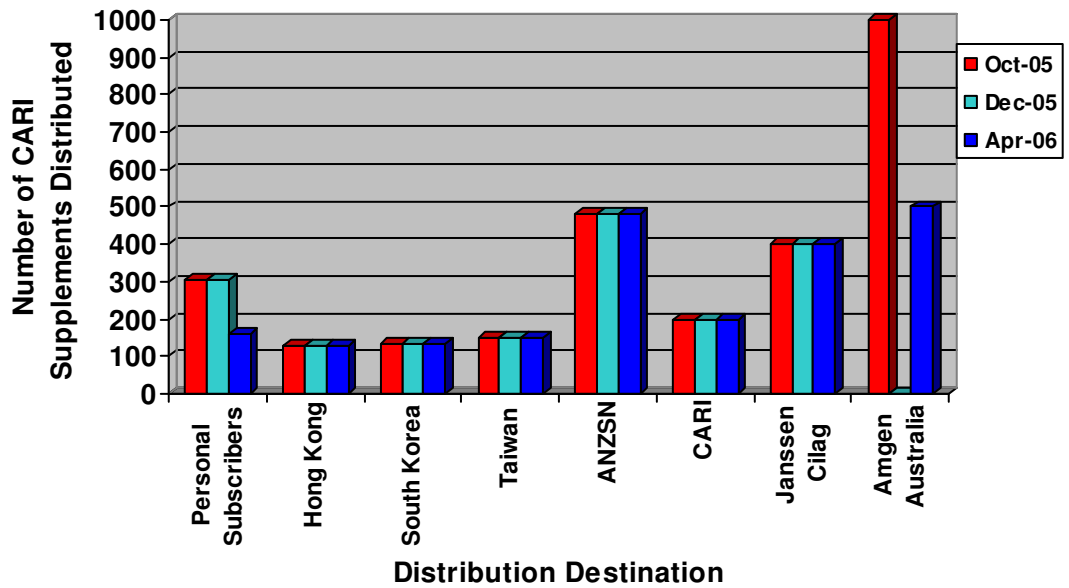
Management of Bone Disease, Calcium, Phosphate and Parathyroid Hormone

Vitamin D in dialysis patients

Use of calcimimetic drugs

Use of phosphate binders in chronic kidney disease

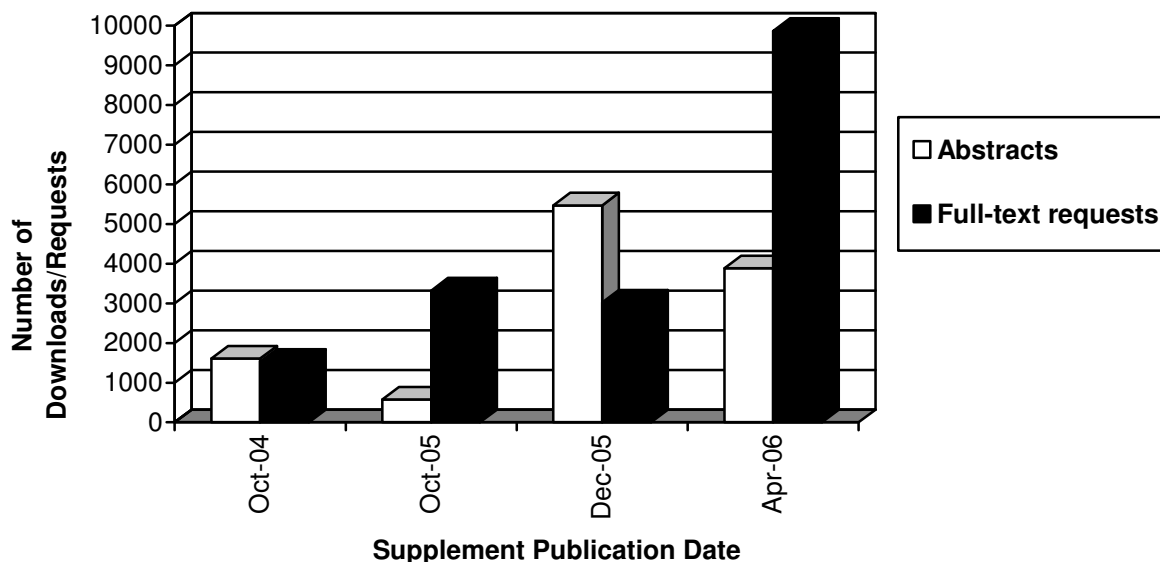
Distribution of CARI Supplements: 2005-2006



This figure shows that nearly 500 copies of each Supplement published in 2005-06 have been sent to subscribers in Australia and New Zealand (members of the ANZSN). Approximately 320 copies of each Supplement were also sent to countries in Asia and a similar number were sent to personal subscribers living in a variety of countries (e.g. UK, USA). Further copies were sent to the CARI office and sponsors as requested.

Nephrology Online Website Statistics for CARI Guidelines

Downloads of CARI Full-text Requests from Nephrology Online from Jan-Dec 2006



Volume content guide:

<p><u>October 2004 Supplement (Vol 9, Suppl 3)</u></p> <ul style="list-style-type: none"> • Proteinuria • Peritonitis • CMV Infection 	<p><u>December 2005 Supplement (Vol 10, Suppl 5)</u></p> <ul style="list-style-type: none"> • Nutrition and Growth in Kidney Disease • Lipid-lowering Therapy
<p><u>October 2005 Supplement (Vol 10, Suppl 4)</u></p> <ul style="list-style-type: none"> • Acceptance onto Dialysis • Dialysis Adequacy • Haemoglobin • Deceased Kidney Donor Suitability • Evaluation of Renal Function 	<p><u>April 2006 Supplement (Vol 11, Suppl 1)</u></p> <ul style="list-style-type: none"> • Prevention of Progression of Kidney Disease • Biochemical and Haematological Targets • Management of Bone Disease, Calcium, Phosphate and Parathyroid Hormone

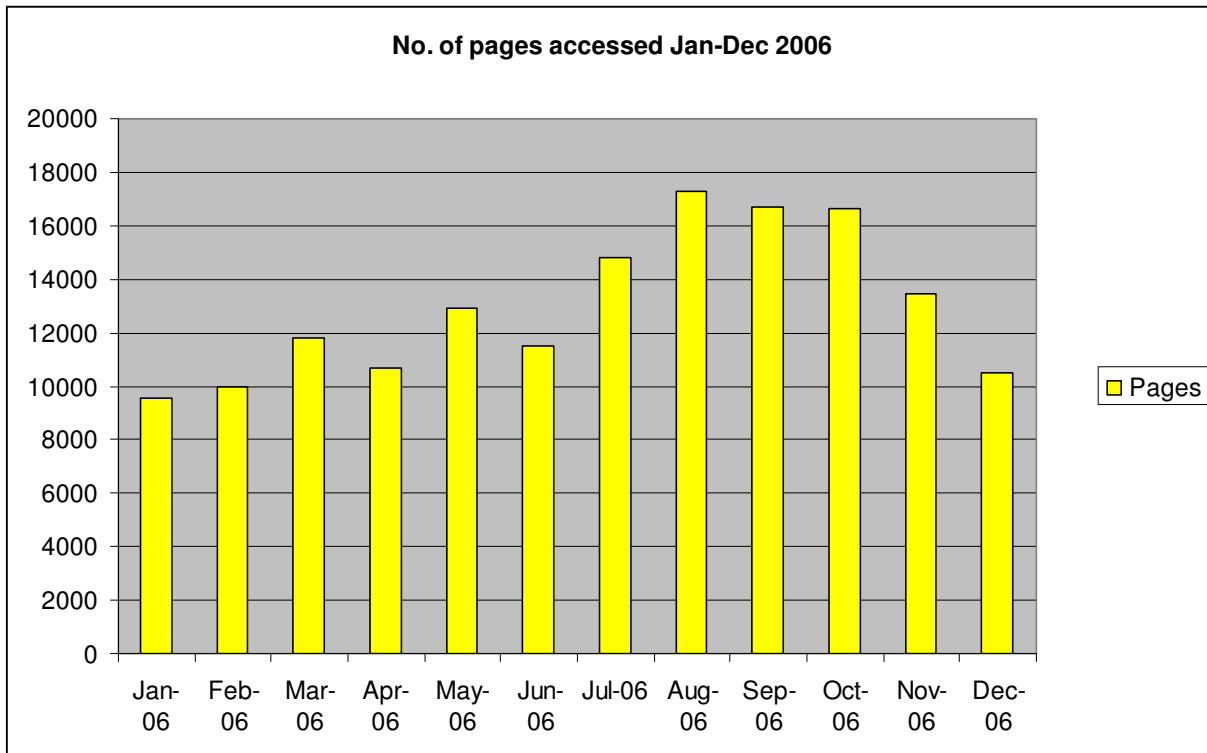
CARI Guidelines Website

Top 10 Pages Accessed on CARI Website from Jan-Dec 2006

Page on website	Viewed	Average size	Entry	Exit
Home page	826	1.58 KB	204	302
Home page	740	94 Bytes	622	147
Guidelines status page	699	38.74 KB	209	147
Prevention of Progression of KD guidelines	247	44.44 KB	57	46
Biochemical & Haematological Targets guidelines	190	36.04 KB	20	37
Dialysis Adequacy guidelines	156	35.98 KB	26	37
Guidelines archives	148	37.31 KB	30	41
Vitamin D, Calcimimetics & Phosphate Binders guidelines	139	35.45 KB	22	25
Evaluation of Renal Function guidelines	128	35.51 KB	34	34
Old website home page	126	33.93 KB	115	106
Others	7114	55.19 KB	3108	3525

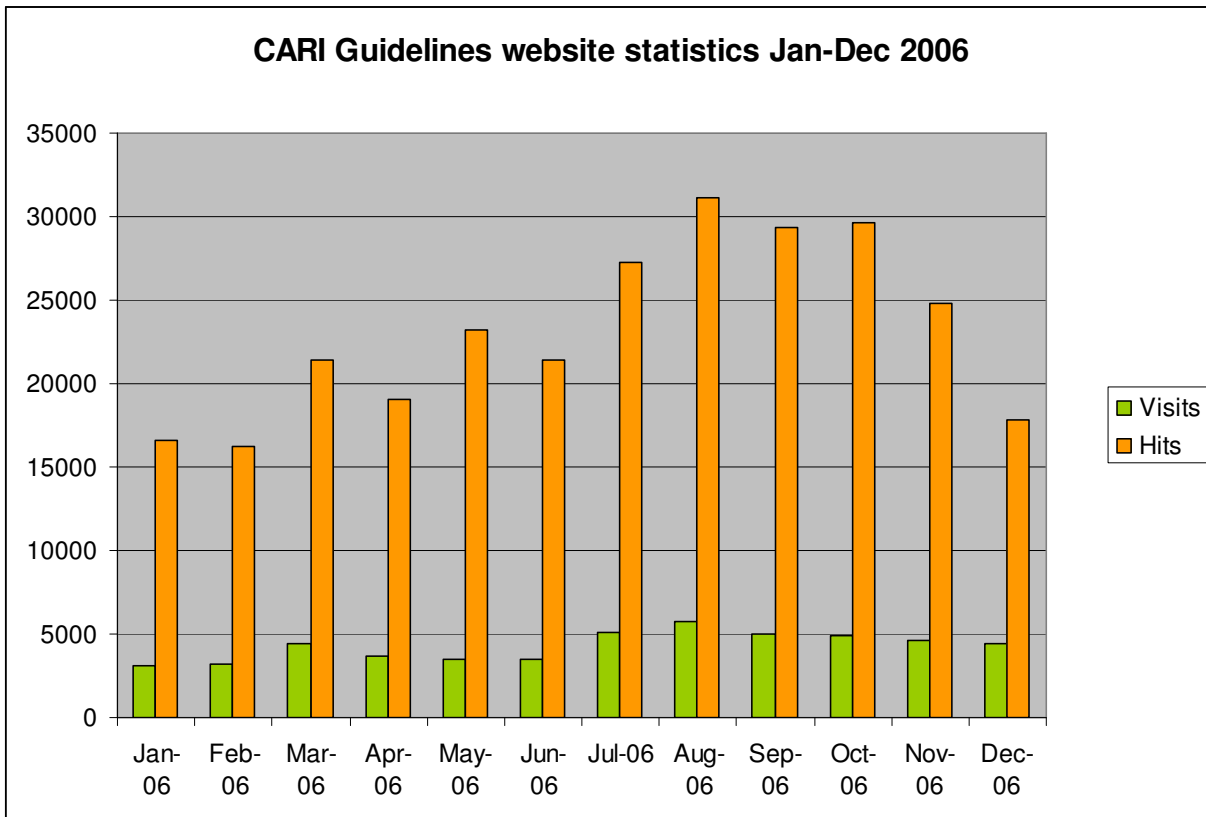
This table shows that the parts of the website most commonly visited are the Home Page, the Guidelines Status page (entry page to specific guidelines), the pages for 5 guideline topics, archived guidelines (published in 2000) and the home page for the previous CARI website. The “Viewed” column shows the number of times a relevant page was requested (i.e. hits). The “Average size” column indicates the average size of the pages downloaded at each visit. The “Entry” and “Exit” pages refer to the first and last pages looked at by the person visiting the website. There were a total of 410 different pages available for viewing.

CARI Guidelines Website cont.



The figure above shows that on average, 12,986 pages were accessed each month during 2006. It also shows there was more access activity in the July to November period. The term “Pages” is defined as: those URLs that would be considered the actual page being requested, and not all of the individual items that make it up (such as graphics and audio clips). Some people call this metric *page views* or *page impressions*, and defaults to any URL that has an extension of **.htm**, **.html** or **.cgi** (we have **.php**).

CARI Guidelines Website cont.



This figure shows that on average, 4,274 visits to the website and 23,165 hits occurred over the 12 months from January-December 2006. The term ‘Visits’ is defined as the total number of requests made to the website during the given time period. The term ‘Hits’ represents the total number of requests made to the server during the given time period. We do not have the ‘Files’ data for 2006, but the ‘Hits’ figures give an approximate indication of the number of requests to the server that actually resulted in something being sent back to the user. The ‘Unique Visitors’ data for 2006 shows that on average, 2,561 visitors made requests to the server each month.

Future Plans & Mission

Over the next few years, CARI will work on the following priority areas:

- Publish more guidelines
- Produce related articles for journal publication
- Change to use the GRADE evidence rating system
- Write guideline Summaries for different audiences (e.g. General Practitioners, consumers)
- Update guidelines every 3 years
- Incorporate quality indicators into guidelines
- Produce electronic clinical decision support for selected guidelines
- Perform active implementation of selected guidelines
- Work cooperatively with other guideline groups (e.g. joint Diabetes Australia/ CKD guidelines in development)
- Include Guideline Summaries in PDA-downloadable format (i.e. pdf)
- Increase range of dissemination strategies used to raise awareness of CARI guidelines – both locally and internationally
- Update and add content to the CARI website on a regular basis

We see our Mission as:

- What: CARI seeks to improve the quality of care and outcomes for patients with chronic kidney disease in Australia & New Zealand

How: By developing and implementing clinical practice guidelines based on the best available evidence

Financial Report 2006

The following is an extract of the Financial Statements received from the accountants at Kidney Health Australia.

Financial Activities: 1 Jan to 31 Dec 2006	A\$
INCOMING RESOURCES	
Income from industry sponsors	229,500
TOTAL INCOMING RESOURCES	229,500
RESOURCES EXPENDED	
Administration fee (KHA)	11,475
Publication costs	20,188
Staff costs	184,478
Travel/ meeting costs	24,675
TOTAL RESOURCES EXPENDED	229,341
Balance of funds	-11,316
Total funds brought forward (2005)	21,071
Total funds carried forward	9,755

CARI Steering Committee

- Rowan Walker (Chair)
Renal Unit
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Kidney Health Australia
Adelaide, SA
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Queen Elizabeth Hospital, SA
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