UNIVERSITY of OTAGO
TE WHARE WANANGA O OTAGO
Issue 3, May 2002

General Practice

RESEARCH NEWS

Editorial

Welcome again to this the third research newsletter. The last year has been as busy as usual with a raft of new projects and evaluations.

Some of the highlights include the successful first run of the sentinel network on antibiotic resistance in UTI. This elicited considerable national interest and was presented (and well received) at a recent international conference in Finland. The results were also published in the New Zealand Medical Journal in late January. I would like to take this opportunity to thank all of the participating GPs and practice nurses for the time they have put into this project. Following on from this study we were awarded a Health Research Council grant to further explore the optimal general practice management of uncomplicated urinary tract infection. More of this later in the newsletter.

Data for the second BNP heart failure and H. Pylori projects are now all in and are currently being analysed. The first paper has been accepted for publication in the European Journal of Heart Failure. An evaluation of the Pegasus smoking cessation programme (PEGS) has been completed and presented at a national conference with a paper in preparation. The effectiveness of this primary care based initiative was pleasing to see.

A further prospective evaluation of the effectiveness of the Pegasus small group education programme has just started and a study on the effectiveness of feedback on skin surgery has just finished. A significant study in high schools has also been completed looking at the prevalence of asymptomatic chlamydia infection in sixth and seventh formers. A number of smaller evaluations have also been complete.

Alison Parsons and Felicity Beats joined the research team and we continue to rely heavily on Margaret Sutherland who has just been out and about again as we wind up the sentinel network for the next round. We are also extremely grateful to Phillipa Lemon and Toni Carey for their continuing assistance at times of overload. The refurbishments to the East end of the 1st floor are complete and the research space is now very much improved, come and have a look next time you are in for a CME session.

Les Toop

Home intravenous antibiotic treatment for pneumonia and cellulitis:

Two studies due to commence in Christchurch

Many general practitioners will be aware that via the Pegasus Extended Care Programme it is possible to treat patients with cellulitis requiring intravenous antibiotics at home.

Home intravenous antibiotic treatment for cellulitis is commonly used in the US and increasingly in other countries. Home treatment of community acquired pneumonia using intravenous antibiotics has also been used in various countries. There have been almost no studies comparing home versus hospital cellulitis or pneumonia treatment with IV antibiotics. In the near future two studies looking at community-based treatment for these two conditions will commence under the auspices of Pegasus Health, Christchurch Hospital and coordinated by the department.

During the studies all patients requiring iv antibiotics for cellulitis or community acquired pneumonia (of mild to moderate severity) will be initially assessed in the Emergency Department of Christchurch Hospital. If the ED or medical team on call thinks iv antibiotics are indicated the patient will be invited to participate in the studies. Patients will be randomised to either being treated in hospital in the usual manner or will be offered home treatment under the Extended Care Programme using their own GP and Extended Care staff to administer IV antibiotics at home and monitor their illness.

This home treatment will be available to both Pegasus and non-Pegasus patients during the trial. The researchers will be looking at clinical, functional and economic outcomes. We hope to show that home treatment of cellulitis or pneumonia in selected cases severe enough to require IV antibiotics is as safe as hospital treatment. No other studies of GP delivered IV antibiotic treatment for cellulitis or pneumonia have been reported.

This study is being carried out by:

Paul Abernethy, Graham McGeoch, Simon Wynn-Thomas at Pegasus;

Dee Richards, Paul Corwin, Margaret Sutherland, Les Toop at the Department of General Practice;

Ian Town, Mike Hlavac, Mike Epton, Martin Than, Jan Bone, Alan Pithie and Stephen Chambers at Christchurch Hospital

The Department would like to acknowledge the generous sponsorship of

Medlab South

in supporting the activities of the clinical research unit, many of which are reported in this newsletter.

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DTCA in New Zealand

The challenge of finding an acceptable balance

The US and New Zealand are the only two industrialized countries that allow direct to consumer advertising (DTCA) of prescription only medications.

In NZ this situation happened by default because there was no specific legislation preventing it. In the last few years this method of promoting pharmaceuticals has grown exponentially, mainly via television as the industry recognize this medium as the most efficient method of creating and increasing demand. Unlike the US, in NZ the majority of the cost of prescription medication is paid for from general taxation and thus DTCA has raised the issues of equity and distributive justice that will apply in the UK and much of Europe.

Following a high profile advertising campaign for a slimming medication, our Ministry of Health produced a discussion paper and invited public submissions.

As expected, submissions from the pharmaceutical industry and advertising agencies were universally in favour of DCTA; submissions from the drug purchasing agencies were equally predictably in favour of a ban on DTCA. What was perhaps surprising is that three quarters of submissions from the public were against it – equivalent to the proportions from the medical profession.

So how is DTCA evolving in a climate of minimal and ineffective self-regulation? Prime time television is punctuated by ads extolling the virtues of various drugs. Messages are often misleading. Information is brief, usually relating to efficacy with little mention of safety, and none of cost; there is usually a final suggestion to "go and talk to your doctor".

Of the increasing proportion of prescription only medications advertised, many are unsubsidized, mainly lifestyle drugs (such as Viagra and Xenical); others are fully subsidized high-volume drugs such as asthma medications. Because visits to GPs are only partially subsidized, many ads list free "helplines". GPs are faced with extra consultations to discuss the relative risks and benefits of an advertised product.

Mutual trust is a cornerstone of the modern patient-centered doctor-patient relationship and such encounters often leave both patient and doctor feeling dissatisfied. Whatever the arguments against it, increasing DTC advertising, on the internet, in magazines and on TV, seems inevitable. Billion dollar profits are at stake. Voluntary regulation hasn't worked in New Zealand and compliance monitoring is expensive.

So what questions need to be asked? Can DTCA of prescription drugs be of net benefit to the public health (or the public purse)? How can a publicly funded health system with a finite health budget cope with this extra burden? What will be the opportunity costs to the system and to the prescriber's time? Decisions for change within the health system should be evidence based. Is there strong evidence for benefit to anyone except the pharmaceutical companies? Is there evidence that this is the best or indeed an acceptable way to educate and inform consumers in a balanced way? Indications from consumer submissions would suggest this is not their preference.

Is there evidence that the changes in prescribing, which will inevitably result, will offer improved health outcomes? Most importantly, what is the evidence for the harm - to the individual who applies pressure to their GP for a drug they would not have otherwise prescribed, to the GP - patient relationship, and to the publicly funded health system, which must spend money regulating and trying to balance the selective pharmaceutical messages.

Unfortunately, it is difficult for the profession to oppose DTCA without seeming to protect a position of power. However, it must be remembered that unlike HMOs in the USA, GPs in NZ gain no financial advantage from the prescription of a particular drug. Arguably, they are still in a position to take a broad view of the greater public good - acting as a learned intermediary who does not have a pecuniary interest in the product dispensed.

Access to relevant information should not be allowed to exacerbate the increasing medicalisation of health. The promotion of pharmaceutical solutions to lifestyle problems, together with the imbalance of resources available for pharmaceutical versus non-pharmaceutical research, combine to form a powerful driver for the "pharmaceuticalisation" of health.

So we are faced with some choices: "Don't Tell Consumers Anything?", "Drugs To Cure All?", or a common sense compromise?

Les Toop, Derelie Richards.
Reprinted from the British Journal of General Practice.

Teddy bear study draws worldwide interest

Research on the safety of toys in GP waiting rooms done by Eileen Merriman, a medical student was published in the British Journal of General Practice in February this year.

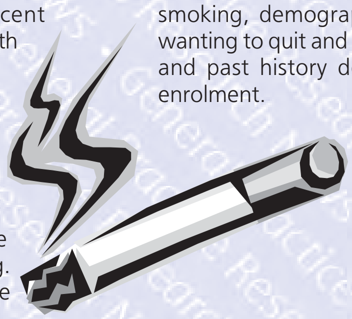
This study showed that soft toys were heavily contaminated with coliforms and other bacteria and were almost impossible to decontaminate. Hard toys had much lower contamination rates and were easily disinfected with bleach. This study drew widespread media interest from around the world including articles in the Reader's Digest, New Scientist as well as radio interviews.

The highlight was a live interview Paul Corwin had with a Darwin Australia talkback host who kept referring to the report that appeared from "Rooters" news agency. The journalist was finally informed that Reuters had a different pronunciation! Poor teddy has finally been given the boot from surgeries around the world.

Smoking cessation study results

There is a lot of discussion around the translation of evidence from clinical trials into real practice in the wider general practice setting.

There is a reasonable amount of international literature surrounding nicotine replacement therapy – a recent Cochrane Systematic review showed an overall 6-12 month quit rate of 14% but suggested that patients in a primary care setting do not do as well as those attending specialist smoking cessation clinics. This would be of concern given the importance we place on smoking cessation in general practice.



Last year we completed a study to assess the effectiveness of a smoking cessation programme delivered in a wider Christchurch general practice setting. The PEGS programme uses supported nicotine replacement therapy delivered within the Pegasus IPA general practice framework. A cohort of 516 patients enrolling consecutively in the programme were contacted 6 months after their quit date.

The questionnaire covered whether patients were currently smoking, demographic details, smoking history and reasons for wanting to quit and for restarting if they did not quit. Some smoking and past history details were also collected from the forms at enrolment.

The results showed a 6 month quit rate of 36% (95% Confidence Interval 31-41), providing evidence for the effectiveness of this kind of programme delivered in a 'real world' general practice setting. The detailed results have been submitted for publication.

Dee Richards

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Nat primary med care survey

Data is being gathered in a National Survey of Primary Medical Care. Practitioners have been selected at random and are being asked to provide some information about themselves and their practices and then to record data on a sample of consultations.

Grouped data will be presented on the characteristics of practitioners, the nature of their practices and the demographics and clinical issues of their patients. Information at this level of detail is not otherwise available.

The team was responsible for a similar study in the Waikato in 1992 and will be able to quantify any changes that have occurred over time. A new focus of the present study is the differences between practice in varied contexts – urban vs rural, traditional vs capitated, GP vs A&M, etc. The study is intended to compare groups of doctors rather than to represent the practice of individuals.

A small payment is made for participation, recognising the opportunity costs of contributing to research, and taking part is accepted as a "practice review activity." Data gathering is 70% complete and will be finished in July. Reports will begin to appear at the end of the year.

Antony Raymont, Community Health, University of Auckland.

Antibiotic resistance

Results from the Christchurch Sentinel GP Network

There was tremendous support from the sentinel network GPs for the urinary tract infection antibiotic resistance project. This project has provided unique information on community levels of antibiotic resistance from the only truly representative network of general practitioners within New Zealand.

The efforts of the Sentinel GPs and practice nurses have produced a very worthwhile piece of research as evidenced by the considerable national and international interest. These results will inform clinical general practice throughout New Zealand. The results of this study appeared recently in the NZMJ. The results indicated that resistance rates in urinary tract infection with E.Coli to trimethoprim were significantly lower than those calculated from routinely collected laboratory data (12% vs 19%) supporting the continued use of trimethoprim as a first line antibiotic in the treatment of urinary uncomplicated tract infection.

Dee Richards

The Management of Diabetes Amongst Residents of Christchurch Rest Homes

Despite the increasing prevalence of Diabetes in New Zealand, there is little information about the impact this disease has on rest homes.

Therefore, during the next 10 months, we will be carrying out research on Diabetes Care in Christchurch Rest Home Residents. The study aims to estimate the prevalence of diagnosed diabetes, establish how diabetes is managed and identify issues associated with this management, in Christchurch rest homes.

We plan to visit half of Christchurch rest homes and use questionnaires to discuss these issues with senior staff members, care-givers and residents with diabetes. Our initial letter of invitation has been received well and the first rest homes have been visited.

This project is being done as part of a Bachelor of Medical Science (B.Med.Sci) within the Department of Public Health and General Practice. The investigators are: Emily Gill, Dee Richards, as primary supervisor, Paul Corwin and Margaret Sutherland.

The Dipstick Study

Christchurch GPs from the Christchurch Sentinel Network have recently been funded by the HRC to launch a world-first study of urinary tract infections in women.

The aim of the research is to explore the effectiveness of the use of antibiotics in women who have symptoms of a UTI but test negative for nitrites and leucocytes on a urine dipstick test used for diagnosis at the surgery.

Most of this group will have no identifiable infection on laboratory testing however some GPs and women feel that antibiotics may still help. Balanced against this is the question 'Would the symptoms have resolved anyway?'

This study will investigate whether any patients will benefit from antibiotics using a placebo-control randomised controlled trial method. Participants will be asked to fill out a questionnaire and record when symptoms disappear.

Christchurch Sentinel GPs are asking women volunteers who have a negative dipstick test if they will consent to be randomly allocated to either a three-day antibiotic treatment or three days of placebo. We will compare the recovery rates of the two groups and relate this to the information women give us in the questionnaire.

If any women do seem to benefit we will examine more closely their symptoms and history (from a questionnaire they fill out) and dipstick result to try and find characteristics which might help to predict which women may benefit from antibiotics. We will be able to see from the results whether there is a subgroup of women who test negative that antibiotics will help, while being able to say to the rest 'we know that antibiotics won't help you get better more quickly'.

We need a significant number of patients to have the statistical power to complete this study. Any GPs who are interested in hearing more about it and possibly participating can contact either Marg Sutherland, Dee Richards or Les Toop for more information (see contact details at the end of the newsletter).

Urine samples from dipstick positive women are also being collected to compare to the last study to monitor trends in antibiotics resistance rates. As part of the study, women who have a leucocyte positive/ nitrite negative dipstick will also be studied in more detail to try and develop an algorithm which better predicts infection in this group (MSU confirmed infection is present in around half of this group).

Dee Richards

Iron Deficiency Study update

This study is progressing well with 500 children now recruited for the study. The response from parents to the invitation to fingerprick test for iron deficiency at 15 months continues to be excellent.

We continue to find a significant number of children with iron deficiency and also a number with elevated blood lead levels on the day of testing. All these children are referred to their GP for further investigation and follow up. Many thanks to all the GPs who support the study following up children with abnormal results and keeping us posted of progress.

The link between iron deficiency severe enough to cause anaemia and impaired cognitive function is well established. Questions remain around the group of children who have low ferritin but are not anaemic and whether there are any lasting consequences for this group. This has led to uncertainty around treatment in this group.

We are delighted to hear recently that we have been successful in obtaining funding from the Health Research Council of New Zealand to follow these 500 children to the age of 6 years to look at the long term outcomes in cognition, psychomotor function, behaviour and physical growth characteristics. A significant proportion of children in the Christchurch cohort have abnormal ferritin but are not anaemic which will allow us to look closely at any 'dose' - response effect. The testing for this study will begin in 2004.

A big challenge for the study will be maintaining contact with members of the cohort during the next few years, even for those moving overseas for whom we have the facility to arrange for testing in other countries. If you have a patient who is a cohort member and you know they are moving house we would appreciate any help you can give us in keeping up to date with their current contact details.

Dee Richards

The phone numbers at St Elmo's have changed, and hopefully we are now easier to contact:

Les Toop	364-3637	Dee Richards	364-3636
Trish Clements	364-3613	Paul Corwin	364-3607
Debra Boyask	364-3601	Lynette Murdoch	364-3609
Jackie Cooper	364-3605	Calder Botting	364-3601
Marg Sutherland	364-3648	Alison Parsons	364-3645

Papers published from the department in the past year:

Preventing cardiovascular disease in primary care. L Toop, D Richards. BMJ Aug 2001; 323:246-247.

Direct To Consumer Advertising in New Zealand. L Toop, D Richards. The British Journal of General Practice, April 2002, 341.

Factors affecting general practitioner involvement in a randomised controlled trial in primary care. A Richardson, M Sutherland, E Wells, L Toop, L Plumridge. NZMJ April 2002, 153.

A memorable patient (A dog's life). M Sutherland. BMJ Aug 2001; 323:270

Improving melanoma detection in general practice. Paul Corwin. NZ Family Physician Vol 28 Issue 3 2001.

Toys are a potential source of cross-infection in general practitioners' waiting rooms. Paul Corwin. British Journal of General Practice. Feb 2002, 138.

Antibiotic resistance in uncomplicated urinary tract infection. D Richards, L Toop, S Chambers, M Sutherland, B Harris, R Ikram. M Jones, G McGeoch, B Peddie, NZMJ, Jan 2002, 12.

Chlamydia trachomatis prevalence and sexual behaviour in Christchurch high school students. P Corwin, G Abel et al. (in press NZMJ).

Rating Waiting (Filler). M Sutherland. (in press BMJ)

Chlamydia study in Chch high schools completed

Members of the department here in conjunction with Dr Edward Coughlan at the Sexual health Clinic, Christchurch Hospital have completed a study looking at the prevalence of Chlamydia and sexual behaviour in high school students aged 16 and older in Christchurch High Schools. Only one other School based study of this sort has been previously reported.

A good mix of public and private schools agreed to participate in the study and a high participation rate from students. Half the students were sexually active. The prevalence of Chlamydia was 2% in males and females. All infected students were asymptomatic. One worrying finding was that although 2.4% of females reported previous Chlamydia infection no males had been previously diagnosed with Chlamydia, which suggests that males are not being tested. The high rate of asymptomatic infection emphasises the need to offer testing to adolescent males and females at risk.

Back: Paul Corwin, Dee Richards, Calder Botting
Front: Margaret Sutherland, Les Toop, Alison Parsons

Feedback

We would appreciate your feedback on our newsletter.

Please E-mail your comments to **Les Toop**, or fax to: **03-364 3637.**

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