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Experiences and preferences of general practitioners regarding continuing medical education: a qualitative study
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This study involved semi-structured telephone interviews with twenty four general practitioners from Auckland and the rural North Island about their continuing medical education. Generally, doctors preferred educational sessions where they met with colleagues, rather than learning through methods such as reading or Internet use. Lack of time was identified as a major barrier to ongoing education. Most doctors responded opportunistically to educational courses on offer rather than identifying areas in which they needed to update their knowledge and engaging in self-directed learning.

Does the admitting officer system reduce the time taken to arrange an emergency admission to hospital?
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The process by which general practitioners arrange for assessment of acutely ill patients in hospital varies between New Zealand and Australia. The two systems have not previously been compared. This study finds that the time taken to arrange such a specialist assessment is longer in New Zealand, and recommends that the emergency admissions process in New Zealand hospitals be improved.

Availability of urgent ultrasonography to emergency departments in New Zealand
M Woo

This study looks at the current availability and use of ultrasonography to emergency departments in New Zealand. With the advent of portable, high-resolution ultrasound machines, ultrasonography is becoming the ‘stethoscope of the future’ for emergency physicians to assess the unstable patient. In order to provide the best possible care for patients, 24-hour access to urgent ultrasonography could be improved with the proper training and support for emergency physicians performing focused ultrasonography.

Major abdominal surgery in octogenarians
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Immediate outcome and long-term survival are reviewed for patients above the age of 80 years after undergoing major abdominal surgery. Emergency surgery is associated with a high rate of complications and mortality; however, once discharged from the hospital, patients’ survival is comparable to the rest of the population. These patients should not be denied operations on the basis of their age alone.
Severe acute respiratory syndrome: a storm in a teacup?

Tim Blackmore

The recent discovery of severe acute respiratory syndrome (SARS) has produced widespread concern, if not panic, in Southeast Asia and the rest of the world, with resulting economic damage. Is the media coverage all just hype and scaremongering, and is New Zealand well prepared to cope with this epidemic?

It is worth looking back at the setting at the start of the epidemic to place SARS into context. The global response began around 18 March 2003, when the World Health Organization (WHO) declared SARS to be of global concern. This was in response to cases of severe pneumonia being admitted to hospitals in Hong Kong. What made SARS unique was that 90% of those affected were healthcare workers and that many of them ended up on ventilators and some died. With so many expatriate doctors working in Hong Kong, the news spread instantly around the world by email. Communication of the outbreak was further enhanced by ProMED, an electronic discussion group that alerts people to outbreaks of disease of public- and animal-health importance.

The response to the threat of SARS occurred against the background of global concerns regarding pandemic influenza, driven by a poorly characterised outbreak of pneumonic disease in southern China since November 2002. A family in China was affected by H5N1 avian influenza, resulting in two deaths. In response, WHO declared a Level One status of preparedness for pandemic influenza. The implication was that countries should intensify their surveillance for influenza and prepare a response to a novel influenza strain to which there was absolutely no herd immunity. At the same time, there was an epidemic of Ebola virus in the Republic of Congo, an outbreak of Congo-Crimean haemorrhagic fever in Mauritania, and highly infectious influenza appeared in poultry flocks in the Netherlands and Connecticut, USA (more than 10 million chickens have been ‘depopulated’). In addition, the war in Iraq and tensions on the Korean peninsula added to concerns, and diverted journalists’ attention from these infectious disease emergencies.

Last year, the Ministry of Health (MOH) ran ‘Operation Virex’, a planning exercise that examined the ability of the NZ health system to cope with a pandemic of influenza that, hypothetically, originated in Asia. This exercise clearly identified areas of weakness, including the following difficulties: communicating with all healthcare providers, especially in primary care; establishing the trigger points to instigate Draconian public-health measures such as closing borders and preventing public gatherings; and delivering healthcare to large numbers of people away from hospital. These weaknesses were being addressed before the SARS epidemic unfolded and, of course, are under constant review at present.

When the WHO alert for pandemic influenza was announced, the MOH responded appropriately and rapidly convened its National Pandemic Planning Committee. The lack of transmission of H5N1 influenza was fortunate, and when SARS was
announced officially to the world in mid March (several weeks later) the MOH continued with the pandemic influenza model, which has served us well so far.

Figure 1. Cumulative cases and percentage death rates – worldwide to 11 April 2003 (from WHO and ProMED reports\textsuperscript{1,2})

The number of cases of SARS initially increased dramatically when cases of atypical pneumonia from southern China were included that dated back as far as early November 2002 (Figure 1).\textsuperscript{1,2} Since then, there has been a steady increase in global numbers, driven mainly from Hong Kong, China, Singapore and Toronto. It is interesting that with such rapid reporting and counting of cases some pundits have been making bold statements about mortality, epidemiology and control for a disease that has barely been through three or four cycles of infection. All statements must be tempered by the observation that the cases best described have occurred in travellers and healthcare professionals, ie, healthy, affluent, young people. Mortality is likely to be much higher in elderly persons or those with pre-existing illnesses and, as expected, has increased as time goes on.

Similarly, the modes of transmission are still uncertain, but it does appear that some of those affected are much more infectious than others. One infected doctor staying in a hotel in Hong Kong infected 13 other guests,\textsuperscript{3} and a group of medical students was infected when examining a patient with an interesting murmur across the room from a person with SARS who was receiving treatment with a nebulizer.

Serological and nucleic acid tests (NAT) have been developed for a novel coronavirus, which is the most likely pathogen, but they have yet to be properly validated.\textsuperscript{4,5} Auckland, Wellington and Christchurch Hospital laboratories and ESR laboratories were about to introduce a NAT at the time of writing. Serology will be useful for establishing the range of symptoms and extent of disease, and may help to detect the origin of the virus (be it a previously unrecognised human virus or of animal origin).

The high rate of progression of pneumonia to respiratory failure means that probable SARS cases must have rapid access to intensive care facilities. The high nursing demands of looking after very ill patients while maintaining the use of gloves, gowns,
masks and eye protection will severely stretch NZ’s ICU facilities. It will also be difficult for laboratory, cleaning, radiology and other hospital services to provide care to other patients if normal workflow is disrupted by SARS cases. It may even be necessary to allocate one national ICU for SARS if more than one patient requires ventilation in NZ.

Could NZ contain a local epidemic of SARS? Our low population density may offer a degree of protection to the community, but the spread of SARS in hospitals in which full infection control measures have been implemented demonstrates that we cannot afford to be complacent. Public health interventions at the country’s borders are our best protection while the threat of SARS in NZ remains entirely from travellers returning from affected areas. The MOH is to be commended on its recent decision to place nurses at airports to ensure that all travellers are fully informed about SARS. It is critical that at-risk travellers are aware of the symptoms for which they need to look out, the numbers to call if they develop symptoms, and how they can obtain medical attention without exposing others to infection. Wherever possible, travellers developing fever with or without cough within 10 days of travel to affected areas should telephone their general practitioner, regional public health unit or local emergency department. Arrangements can then be made for affected persons to be seen in a controlled environment, with everyone wearing a mask, without them being made to feel self-conscious by wearing a mask in a waiting room.

Similar advice applies to those in contact with travellers who develop symptoms within 10 days. It is hard to determine whether or not people have been in contact with travellers, and this seems to be a major factor in raising the general public’s concern about SARS. For this reason, we must have faith that travellers entering NZ are questioned at least as much about possible exposure to SARS as to whether they are carrying food or dirty tramping boots.

The MOH web site contains several important guidelines for the management of SARS, including infection control, clinical guidelines and laboratory guidelines. These will be updated regularly and were based on guidelines established by experts in the major hospitals.  

The problem with SARS is that at the time of writing it remains a syndromic diagnosis, which depends on the patient presenting with fever and the appropriate 10-day contact history. The case definitions will almost certainly prove to be inaccurate once serological and other tests are validated and become available (Table 1). At present, other causes of febrile illness and pneumonia in recent travellers need to be excluded. This provides a challenge for both the clinician and laboratory staff, who must maintain extreme adherence to both contact and airborne infection-control precautions when caring for the patient and processing laboratory specimens. Normal care must be provided so as not to miss other, treatable, conditions, yet healthcare workers and other contacts must be protected from what is indisputably a highly infectious disease that results in at least 25% of symptomatic patients requiring management in the ICU.  

Moreover, some staff in Hong Kong hospitals became infected even after the introduction of Draconian infection control measures, presumably from minor lapses in practice, perhaps as a result of exhaustion.
Table 1. WHO case definitions for SARS

<table>
<thead>
<tr>
<th>Suspect case</th>
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<tbody>
<tr>
<td>1. A person presenting after 1 November 2002 with history of high fever (&gt;38 °C) AND cough or breathing difficulty AND one or more of the following exposures during the 10 days prior to onset of symptoms:</td>
<td></td>
</tr>
<tr>
<td>• close contact with a person who is a suspect or probable case of SARS;</td>
<td></td>
</tr>
<tr>
<td>• history of travel, to an affected area;</td>
<td></td>
</tr>
<tr>
<td>• residing in an affected area.</td>
<td></td>
</tr>
<tr>
<td>2. A person with an unexplained acute respiratory illness resulting in death after 1 November 2002, but on whom no autopsy has been performed AND one or more of the following exposures during the 10 days prior to onset of symptoms:</td>
<td></td>
</tr>
<tr>
<td>• close contact with a person who is a suspect or probable case of SARS;</td>
<td></td>
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<tr>
<td>• history of travel to an affected area;</td>
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<tr>
<td>• residing in an affected area.</td>
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<table>
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<tr>
<th>Probable case</th>
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<tr>
<td>1. A suspect case with radiographic evidence of infiltrates consistent with pneumonia or respiratory distress syndrome (RDS) on chest X-ray (CXR).</td>
<td></td>
</tr>
<tr>
<td>2. A suspect case with autopsy findings consistent with the pathology of RDS without an identifiable cause.</td>
<td></td>
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<table>
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<th>Exclusion criteria</th>
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<tr>
<td>A case should be excluded if an alternative diagnosis can fully explain their illness.</td>
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New Zealand’s isolation has become one of its most attractive features in a time of concerns regarding bioterrorism, war and pestilence. The rapid dissemination of fact and conjecture has resulted in a response fluctuating between over- and under-reaction in both the public and health professionals. A natural tension may arise between those who wish to maintain and promote trade and those who wish to maintain and promote public health. However, trade concerns must not be used as an excuse to avoid being proactive about identifying, treating and isolating sick travellers. The Asian economic region is in turmoil, and it is hard to conceive that we will miss any trading opportunities by giving clear advice to travellers in both verbal and written form. The best antidotes to public panic are accurate information and belief in a health system that has planned for any realistic possibility.

Author information: Tim Blackmore, Infectious Diseases Physician and Microbiologist, Capital and Coast District Health Board and Institute of Environmental Science, Kenepuru, Wellington

Correspondence: Dr Tim Blackmore, Clinical Leader, Laboratories, Capital and Coast District Health Board, P O Box 7902, Wellington. Fax: (04) 385 5814; email: Timothy.Blackmore@ccdhb.org.nz

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Opportunities to improve cancer care in Australia and New Zealand

Mark Elwood, Brian McAvoy and John Gavin

The report ‘Optimising cancer care in Australia’ provides an overview of issues in cancer care in Australia and recommendations for change. It results from widespread consultations and was produced by the Clinical Oncological Society of Australia (COSA), The Cancer Council Australia (TCCA) and the National Cancer Control Initiative (NCCI), which is a Commonwealth-funded expert group with a mandate to look at new approaches to the control of cancer. These three organisations commissioned an independent consultant to produce a preliminary report, which was then followed by extensive consultation; two workshops involving health professionals, health planners and consumer representatives; and reviews of relevant literature. The report has been supported by the Cancer Strategies Group, which is the key committee at Commonwealth government level that plans cancer policy. Support for the report has come from consumer groups, professional colleges, and the Australian Medical Association. It is likely to have a major influence on cancer care provision in Australia. The report is available, in full and summary form, on the NCCI web site (www.ncci.org.au).

There have been several steps in developing a systematic approach to cancer control in Australia. Cancer was designated as one of five National Health Priority Areas in 1996. In 1997, the NCCI conducted an extensive, nationwide consultation on cancer control, which considered an initial list of 276 interventions, culminating in 21 agreed priority interventions in cancer control. The Cancer Strategies Group expanded this by conducting an evidence-based and cost-benefit assessment of selected new developments, resulting in recommendations for new or expanded programmes related to aspects of cancer control from prevention to palliative care. TCCA has produced a comprehensive prevention policy for cancer.

The report complements these initiatives by addressing issues of routine cancer care and achieving quality and equity. The recommendations in the report fall into four key areas. First, integration of care: the report highlights the need for incentives to encourage integrated multidisciplinary cancer care based around the needs of the patient. Second, improvements in quality of care: methods proposed are a voluntary accreditation system for facilities providing cancer care, and greater support for clinical trials; the evidence that clinical outcomes improve when patients are treated in high volume centres is reviewed. Third, resources: workforce needs in regard to nurses, radiation therapists, pharmacists, and specialist clinical oncologists are highlighted, along with the need for extended services in psycho-oncology and training needs in regard to primary care and communication skills. Fourth, achievement of appropriate and equitable access to cancer care is stressed, including issues of access to drugs in hospitals and the community, support for patient travel for necessary care, and access to palliative care. The final recommendation is for an
implementation strategy; a high-level, national task force in cancer to implement and guide changes is proposed.

The development of the report has taken over a year and key health service planners have been involved throughout the process, so that even before its publication many of the issues were receiving increased attention at federal and state level. The two largest states in Australia, New South Wales and Victoria, have announced ambitious cancer care plans that are consistent with many of the recommendations in the report. At federal level, the Commonwealth is setting up a National Service Improvement Framework structure for cancer.

The report notes that clinical outcomes, assessed by five-year survival rates, are good in Australia; survival for women is the best recorded in the world, and survival for men is second only to the United States. Despite this, healthcare professionals and consumer groups feel strongly that considerable changes are required that could improve patient outcomes both in terms of survival and quality of life. It is also emphasised that many effective reforms could be achieved without a massive increase in the cancer healthcare budget.

In New Zealand, parallel developments are underway and, as in Australia, both government and non-government agencies are involved. A widely representative Workshop on Cancer Control in 1999 recommended the development of a national cancer control strategy for New Zealand, a concept strongly advocated by the World Health Organization. Reducing the incidence and impact of cancer is one of the 13 population health objectives highlighted for action in the short to medium term in the New Zealand Health Strategy.

In 2001, the New Zealand Cancer Control Trust was established with funding from the Cancer Society of New Zealand and the Child Cancer Foundation to represent the non-government sector in the strategy development process. Following a review of previous local and current overseas initiatives, the Trust has been working, in partnership with the Ministry of Health through a Cancer Control Steering Group and six expert working groups, to develop a New Zealand strategy. Public consultation on a discussion document, ‘Towards a cancer control strategy for New Zealand Marihi Tauporo’ has just been completed. It contains the foundations of the strategy, and its 25 proposed objectives and possible actions span the entire cancer control continuum from prevention to palliative care.

The definitive New Zealand Cancer Control Strategy is expected to be launched by the Minister of Health in July this year. At the end of September, there will be a workshop on the implementation of the Strategy sponsored by the Genesis Oncology Trust and involving key stakeholders. Thus, there are interesting parallels and differences in the Australian and New Zealand approaches to controlling cancer. It is particularly important that the New Zealand Cancer Control Strategy is effectively implemented, monitored and periodically reviewed because cancer mortality and incidence in New Zealand compare unfavourably with Australia: in the order of 800 excess deaths per year. Australia could provide benchmarks against which the success of the New Zealand Cancer Control Strategy could be judged.

Author information: Mark Elwood, Director; Brian McAvoy, Deputy Director, National Cancer Control Initiative, Carlton, Victoria Australia; John B Gavin, Executive Director, New Zealand Cancer Control Trust, Auckland, New Zealand
Acknowledgements: The authors are grateful to the President and Past President of the Clinical Oncological Society of Australia (Dr Liz Kenny and Professor Lester Peters), and the Chief Executive Officer of The Cancer Council Australia (Professor Alan Coates) for permission to report on this joint project, and to Mr Brian Wall (Oceania Health Consulting), Ms Sally Crossing (Chair, Cancer Voices NSW), and all who contributed to the report. The National Cancer Control Initiative is an independent expert body funded by the Commonwealth Department of Health and Ageing, and supported by The Cancer Council Australia.

Correspondence: Professor Mark Elwood, Director, National Cancer Control Initiative, 1 Rathdowne St, Carlton, Victoria 3054, Australia. Fax: +61 (0)3 9635 5320; email: Mark.Elwood@ncci.org.au

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Comment

The above editorial is a timely overview of the differences and similarities between the two countries’ quest toward national strategic plans that address the continuum of cancer control. The New Zealand Cancer Control Strategy, due to be released by the Minister of Health in July 2003, must have its own implementation strategy. Cancer services, particularly in relation to workforce, are at crisis point and the current health environment is devolved and financially stretched. Cancer control involves a wide variety of providers including many non-government agencies outside Vote Health, thus coordination and leadership are paramount or the goals of the Strategy will remain disjointed and unachievable.
The problems of other countries must be avoided by providing, from the outset, a mechanism and workforce to oversee and coordinate the implementation of the Cancer Control Strategy. This must have buy-in from the whole sector, including NGOs. A New Zealand strategy that is not effectively implemented would be a disaster.

Chris Atkinson
Associate Professor of Oncology
Christchurch Hospital
Experiences and preferences of general practitioners regarding continuing medical education: a qualitative study

Felicity Goodyear-Smith, Melanie Whitehorn and Ross McCormick

Abstract

Aim To explore the experiences and preferences of general practitioners (GPs) regarding their continuing medical education (CME).

Methods Qualitative study using semi-structured interviews of twenty four GPs from Auckland and North Island rural areas assessing GPs’ experiences and preferences.

Results The need for CME was emphasised. Primary themes identified were: the value of personal interaction; the perception that CME that did not involve personal interaction was adjunctive; an opportunistic rather than needs-based approach to learning; a preference for succinct, evidenced-based, GP-focused content; and lack of time as a major barrier to obtaining optimal CME.

Conclusions Interactive formats are generally preferred, but identification of which elements of interactive formats facilitate learning is not established. Most GPs do not direct their CME according to the adult learning model. The challenge for CME providers is to provide avenues to facilitate needs identification and self-directed learning.

New Zealand General Practitioners (GPs) undergo re-certification to maintain their vocational registration. This is usually achieved through the Royal New Zealand College of General Practitioners’ (RNZCGP) Maintenance of Professional Standards Programme (MOPS). This is a credit-based system drawn from two primary sources: practice review activities and continuing medical education (CME). Credits are mostly obtained from attending registered courses or peer review groups, but reading and approved Internet activities can give credits. The system has strong similarities with the British Postgraduate Educational Allowance (PGEA) system.

Traditionally, GPs have obtained their CME through didactic lectures and written material. Although these mechanisms may increase their knowledge, there is no evidence that they change performance. Recently, there has been a move, in the literature at least, towards application of the Kolb adult learning cycle: identifying learning needs, addressing those needs and evaluating the outcome, with reflection inherent in the process. CME is undergoing change in many countries, in part because of this move. Obtaining views regarding CME from GPs may facilitate this change. Proposed changes are most likely to succeed when compatible with existing beliefs.

Within this context, the aim of this study was to explore GPs’ current preferences and views regarding CME to help inform future provision of their professional development needs, including their continuing education.
Methods

Qualitative research methodology was used to explore the complexity of, and relations between, issues relating to GPs’ experiences of and preferences regarding CME. The study was conducted in November and December 2001. Initially, GPs were randomly selected from a database of Auckland GPs to obtain a diverse range. Purposive sampling was used to deliberately include ‘outliers’ with respect to their gender, age, ethnicity and the socioeconomic nature of their practice. GPs were also selected from a list of rural GPs practising in the central regional of the North Island, again choosing GPs who increased the diversity of our sample. This permitted a focus on ‘cases that are rich in information because they are unusual or special’.

Twenty four GPs were interviewed by telephone by a GP researcher. Only one of the GPs approached declined to be interviewed. The GPs were paid for their time. The interviews were scheduled at the GP’s convenience and rescheduled if the GP was unavailable at the predetermined time. Interviews were typically of thirty minutes’ duration and took place over a six-week period.

Semi-structured, open-ended questions were progressively focused to more structured questions using a topic guide. As well as demographic details, questions included assessment of CME needs, CME sources, format and content preferences and perceived barriers to obtaining optimal CME. An iterative sampling process was used in which earlier interviews informed the sampling and content of later interviews. Interviewing ceased once no new themes emerged. The conversations were tape-recorded and although the recordings were not transcribed hand-written responses were double-checked against them.

A general inductive approach to the data analysis was used. Interview responses were analysed for emerging categories. These were reduced to major themes through ongoing discussions between the researchers and re-reading of the transcripts until consensus was reached. The data were independently double-coded as a consistency check for inter-rater reliability (to reduce individual researcher bias) and discrepancies resolved by adjudication (discussion between all three researchers).

The study was approved by the University of Auckland Ethics Committee.

Results

The subject group comprised sixteen urban GPs from the Auckland region and eight rural GPs from the central North Island area. There were sixteen males and eight females with an age range of 37 to 75 years and an average age in the mid-forties. The majority of doctors were trained in New Zealand and of European extraction, but the group included several overseas-trained immigrants and doctors of Maori and Asian ethnic groups. Their mean number of years in general practice was 16 years (range 2 to 39) and 18 were Fellows of the RNZCGP.

Overwhelmingly, a need for CME was expressed.

‘It’s essential, I cannot think of another word for it, otherwise I would become a fossil.’

Five primary themes emerged:

1. Need for personal interaction

There was a strong feeling that personal interaction is important in the provision of CME and was overwhelmingly the preferred format of delivery. The need for interaction was expressed equally amongst urban and rural GPs.

‘Nothing better than face to face.’

‘Better face to face rather than through a magazine or Internet page. Can’t beat in person – with a delivery of a topic and then discussion. I think that is the best.’

Within personally interactive formats there was significant diversity of preference. Formats ranged from the specialist lecture with questions, to leaderless small groups...
equally sharing input, engaged in activities such as problem solving, journal club or critical event analysis. Many liked audience participation as part of a lecture presentation, particularly the facility to ask questions.

‘I like the ability to ask questions to someone who knows their subject well.’

‘If I could only have one thing I would like a short 15- to 20-minute presentation of formative, semi-dogmatic type followed by group discussion. That is the form I found most useful for the utilitarian purpose of picking up information and turning it into everyday practice.’

‘I would prefer to hear from an infectious disease expert about antibiotics rather than a group of GPs giving their opinions.’

Some recognised that preferring lectures could be construed as ‘being lazy’, as interaction was not essential, but each wanted the facility to be able to participate. Some favoured small groups where they felt less inhibited to ask questions. Adequate time (at least 15 minutes) for questions was important. A view was expressed that live presentations with interaction had more credence.

‘I think when it comes down to changing behaviour it is better to hear about it from someone who is already doing it, rather than reading about studies in Connecticut that have shown that…’

Others preferred leaderless small groups with shared input.

‘We talk about things like antibiotics for respiratory infections. These discussions are much more influential than someone telling us what we should do.’

‘Dogmatic teaching is exciting but doesn’t stick as much as something that has been discussed and thrashed out.’

Discussion was valued by many.

‘Discussion should be the main emphasis with some input from expertise, with short updates.’

For others, discussion groups were perceived as not innately beneficial.

‘Most people who practise medicine, particularly if they have been doing it for long enough, have fixed ideas. GPs like to have a natter, but still go away and do what they think. It is interesting to get another viewpoint, but I don’t think it actually changes the way you practise.’

‘Discussion does not always add, but it gets rid of our frustration.’

Many GPs belonged to peer groups and the benefit of these most often mentioned was the support they afforded. These are typically regular, small-group meetings of GPs to discuss problem cases or mutually agreed topics. Many peer groups had been operating for several years with a stable membership.

‘We share experiences, it is more informal…There are a lot of emotional gains from a peer group that you don’t gain from formal education.’

‘There is an atmosphere of trust and confidentiality, so you feel you can bring problems that might be sensitive or controversial.’
‘We know each other pretty well, as we have been going for a long time, if we do have any tricky cases or even sometimes any ethical dilemmas then it is a really good forum for discussing it. People can feel quite comfortable and be quite open and feel safe doing so in that environment.’

2. Perception of CME that did not involve personal interaction Many viewed CME that did not involve personal interaction as adjunctive. Reading did not feature highly as a preference. Most ‘flipped through’ what was sent to them, and few subscribed to journals.

‘I tend to cheat and read the summary. It is trying to find out what is relevant and important and getting to the gist of the matter quickly. You can spend hours reading how they have done the study. Often it is a waste of time.’

There was variable use of the Internet. This was due to a difference in interest, expertise and availability. Most used the medium to search for answers to specific questions. Many thought they would use it more in the future.

‘If you look at the sea and you are not quite sure if it is cold, you stay out of it in case it is too cold. That’s where I am at the moment, I need to try it.’

There was limited knowledge or interactive use of the Internet such as the Goodfellow Unit RNZCGP-endorsed CME Clubsite www.cmeclub.auckland.ac.nz (which provides interactive material earning CME credits). Some rural GPs liked the concept. There were a few enthusiasts who enjoyed using the Internet to read particular journals or for CME.

3. Opportunistic approach to learning GPs’ choice of CME depended on what was provided locally or at centres; what they were paid for attending; their personal interests; need for CME credits for the College; or, less commonly, what area of weakness had been identified. Some had a vague idea as to areas in which they were deficient or in which they perceived an opportunity for improvement.

‘Something you know yourself, something you have never been confident in.’

‘I basically go to what I can go to and have an idea of what I need to have a refresher in, because I have not been to something for sometime. I don’t do it in a very scientific way. You basically go to what you can go to or what might take your fancy.’

Some thought all GPs’ learning needs were the same and therefore would be addressed in what was provided. It was voiced that it was important for GPs to have input into provision of CME and therefore deficient areas could be addressed. This input was usually involvement in the construction of the programme. It was noted that, whatever the subject, something could always be learnt and that addressing all common areas of general practice would cover learning needs. Most, on discussion, reported that patient contact elicited areas of lack of knowledge. Two doctors kept a list.

‘When I identify a lack of knowledge when encountering patients, I make a list and look out for information.’

These needs were generally addressed by discussion with colleagues, contacting a specialist, consulting books, journals or the Internet, or in an informal way, although a few would also seek to address their deficiencies with courses.
‘Well, commonly I go to a text book or visit a site such as Clinical Evidence.’
‘May need to ring up the consultant on the spot.’
‘If it is something urgent I look it up in a textbook. If it is a general lack of knowledge such as a topic like Paget’s disease, that is not urgent, I would look out for a CME course that relates to that topic.’

Some did participate in learning activities that would identify educational needs such as problem solving, case discussion, quizzes etc, but most did not cite these as methods they used to identify needs. Therefore, whether or not these needs were addressed is unknown.

Some GPs perceived the most useful CME was that structured around learning needs, but few had a structured approach to their identification of needs, although there was a recognition of the issue.

‘I realise that my needs are from my likes.’
‘I think because it is something I don’t have to do, I don’t do it very well.’
‘Quality can be judged on quality of service provided, but often the best quality CME is how much you learn yourself, which depends on your needs.’

None mentioned a structured evaluation of the CME undertaken. Changes in practice that had taken place because of CME were often difficult to identify. Most GPs were happy with the current focus of CME.

4. GP-focused content
The preference reported most commonly fitted the traditional model of CME and was for relevant, GP-orientated, succinct, evidenced-based material that dealt with common conditions and affected patient management.

‘I don’t want anything too academic. Practical, quick, easy, short and relevant…common everyday stuff, not minutiae. There is too much complicated stuff rather than the basics, for example glue ear, treatment of acute asthma, bronchiolitis. Concentrate on the sparrows not the canaries.’

‘Something that is not ‘airy fairy’. I need something practical. I need to know what to refer. It has got to be relevant to the average condition I see. It’s pointless going on about stuff that is high and mighty and rare. We have got to have common things and appropriate treatment for those common things. In other words – simple.’

‘Got to be relevant to general practice. A presentation with three good, take-home points – that’s all anyone can ever absorb.’

However, GPs also showed discrimination in weighing up the evidence that was presented.

‘I like to know the relevant effectiveness of various treatment strategies. Increasingly, I want to know the answers in a quantitative sense, not just knowing whether a treatment is effective, but how effective. So we can make intelligent decisions with our patients as to whether it is worth following that track or not.’

There was evidence that GPs enjoyed a wide range of content including debating ethical issues, problem solving and developing support networks.
5. Barriers to obtaining optimal CME

Lack of time was seen as the biggest barrier to obtaining optimal CME. All CME was carried out in personal time. GPs were perceived as working hard and long hours. Personal time is precious.

‘It means night-time or weekends. Has to fit in with on call and family. Being a rural GP is an all-encompassing job. It is important to have time when not at work. So the attraction of kayaking down a river appeals much more than going to a CME meeting.’

‘I am a working mother, time is the essence.’

Time efficiency of meetings was seen as important. Ways of being more time efficient were mentioned, including the availability of good summaries of recent, relevant changes and efficient use of ‘downtime’ such as educational cassettes for use in the car. While the concept of providing CME in conjunction with other members of the primary healthcare team (such as practice nurses, managers or pharmacists) was supported in principle, concern was expressed that their time was not wasted attending presentations that were not GP-relevant.

‘The nurse’s angle is going to be different from the pharmacist’s which is going to be different from mine. So if I’m going to take the time to do CME I would prefer it is tailored to me and my needs.’

Motivation and fatigue were other barriers to CME. Distance, availability and cost were seldom raised as issues for urban GPs. However, distance precluded attendance for many rural practitioners, as did difficulty obtaining locums, cover for single days, availability of CME and financial considerations. The perceived challenge was to increase the accessibility of personally-interactive CME.

Discussion

The GPs in this study valued CME and partook in a wide variety of CME activities. Their preference for personal interaction concurs with several studies reporting favoured formats. Some studies have shown a preference amongst physicians for lectures but this may include interaction. Others have found journals the most popular source of information but interactive formats were still highly rated. Preference depends on the type and quality of personal experience of this type of format. Pendleton differentiated the academic and professional approach to CME. He postulated that the academic prefers the written medium and the clinician prefers face-to-face.

Davis reviewed randomized controlled trials on CME interventions and found personal interaction to be central to effectiveness in change in practice. Several studies have reported that physicians seek confirmation and validation of current and new medical practices through their peers. Other studies have confirmed the importance of interaction in changing professional behaviour. However, it has not been established which elements of the interactive process enable learning. Interaction allows for clarification, personalisation of information, exploration, feedback, and reflection. It can also address other needs of doctors that may not be recognised or quantified – the need for support, recognition, motivation and fulfilment, and the ‘need’ to belong to a professional community.
Interactive formats are not inherently beneficial nor always produce change. Some formats may be more conducive to specific changes in behaviour and some to support. Group dynamics, facilitation, personal agendas, and internal and external influences contribute to the complexity of the format.

In general, the focus was on choice of CME as opposed to other elements of the learning cycle. This approach has been documented previously and reflects the traditional approach to learning. It is well established that CME should follow the principles of androgogy – adult, self-directed learning. The term ‘androgogy’ has been coined to describe the learning culture appropriate to adult education. Whereas the term ‘pedagogy’ describes the teacher-centred approach to the education of children, androgogy ‘recognises education to be a dynamic lifelong process’ that ‘is learner-orientated’. This is grounded in experiential learning – identifying and addressing needs and applying learning with continuing reflection.

Although much has been written about the theory and benefits of this model, GPs do not appear to adopt it. This is not unique to GPs – a study of physicians’ CME found that ‘unstructured ad hoc reading and postgraduate activities predominate over methods based on specific, individual needs or on current patient problems’. Some GPs in our study did recognise that tailoring their CME to their identified, specific needs was better than the opportunistic approach, but few attempted this in any structured way. Discussions with colleagues one-to-one and in small groups may serve as an informal process of reflection, even though the benefits may not be easily quantifiable. The process of reflecting on issues, debating problem areas and formalising opinions may be helpful to the clinician, even where there has not been a specific updating of knowledge.

Lack of time may be one reason GPs have not embraced the adult learning model. Clinical experience is abundant in general practice, yet many may be too busy to learn from it. Al-Shehri suggests that GPs should set aside time each day for reflection, but most GPs are likely to view this as unfeasible. Lack of time has been well documented as a significant barrier to obtaining optimal CME, a finding borne out strongly in this study. Perceived high workload and stress lead not only to lack of time, but also de-motivation. Motivation is a complex issue, however one role of CME is to sustain motivation.

GPs may not be very good at identifying their needs unassisted. The current system of CME credits rewards application of the traditional model, one of updating knowledge and skills, with no focus on utilisation of the adult learning cycle. Without evaluation of CME undertaken, GPs are likely to be unaware of any failings of the current system. Few tools are available to facilitate this process of reflection and evaluation. Personal development plans and mentorship have been suggested but need to be evaluated. Practical, evidence-based, user-friendly ways of addressing this issue are awaited.

Pendleton argues that most doctors want to improve the quality of their action as painlessly as possible. They wish to maximise the return on their investment of time and this becomes a matter of cost-benefit analysis based on the likely yield of the activity. Personally interactive formats are costly on time, especially when travelling is taken into consideration, yet most GPs prefer these formats. This was also true for rural GPs for whom the inaccessibility of these events was a significant problem.
Clearly GPs consider time spent in this way to be beneficial. They may find that the scheduled nature of these events ensures their participation, whereas spending the equivalent time on their own reading or accessing the Internet may require more personal discipline. One study looking at alternative sources of knowledge found internal medicine physicians have a greater preference for consulting the medical literature, while family physicians more often rely on colleagues and specialists as sources of information.\textsuperscript{34}

A focus on factual content as a preference has been reported elsewhere\textsuperscript{35} and agrees with the traditional model of CME. Again, the emphasis was on the best use of time – information presented in succinct form relevant to everyday patient management – and concurs with earlier research.\textsuperscript{11} Uni-professional learning was considered more time effective and hence was generally preferred.

CME cannot be entirely focused on GP preference. However, it is clear from this study that interactive formats were generally preferred in accordance with evidence of what changes GP behaviour. More research is needed into which elements of interactive formats facilitate learning. Most GPs are not directing their CME according to the adult learning model. This situation needs to be addressed, bearing in mind the barriers of lack of time and motivation, in order to change the status quo.

In conclusion, GPs in this study displayed a strong preference for personally interactive formats and non-interactive formats were viewed as adjunctive. What this demonstrates is the value GPs place on personal contact with their colleagues, despite the added demand this places on their time. Their approach to learning was mainly opportunistic. This paper highlights the discrepancy between learning theory and GP practice. It emphasises that the challenge for CME providers is to provide avenues to facilitate needs identification and self-directed learning, taking GPs’ views and preferences into consideration.

**Author information:** Felicity Goodyear-Smith, Senior Lecturer; Melanie Whitehorn, Honorary Research Assistant; Ross McCormick, Director, Goodfellow Unit, Department of General Practice and Primary Health Care, Faculty of Medical and Health Sciences, University of Auckland

**Acknowledgements:** We thank all the general practitioners who participated in this project. In addition, Dr Stephen Buetow, Senior Research Fellow, for his helpful editorial assistance.

**Correspondence:** Dr Felicity Goodyear-Smith, Department of General Practice and Primary Health Care, Faculty of Medical and Health Sciences, University of Auckland, Private Bag 92019, Auckland. Fax: (09) 373 7006; email: f.goodyear-smith@auckland.ac.nz

**References:**


Does the admitting officer system reduce the time taken to arrange an emergency admission to hospital?

Alan O’Connor, Michael Roberts, David Ramrekha and Greg Williams

Abstract

Aim Communication is an important feature of admitting acutely ill patients to hospital in both New Zealand and Australia. The mechanisms used to facilitate communication between the general practitioner (GP) and the admitting hospital differ between the two countries. The relative effectiveness of each of these systems has never been formally studied.

Our aim was to compare the efficiency of the admitting officer system for arranging hospital admissions (used in Australia) with that of direct referral by the GP to the specialist registrar (the system used in New Zealand).

Methods Five metropolitan hospitals of comparable size from each country were selected and the time taken to contact the relevant doctor in order to arrange admission of an acutely ill patient was documented.

Results A total of 120 contact attempts were made, 60 in each country. The total time taken to contact the admitting doctor in order to arrange an emergency assessment for a patient was significantly longer in New Zealand than it was in Australia (p <0.05).

Conclusions When arranging an emergency patient assessment for a patient in the community, the total time taken to contact the appropriate doctor is less in Australia, where the admitting officer system is used, than it is in New Zealand, using the specialist registrar system. Consideration should be given by acute hospitals in New Zealand to streamlining their communications processes in order to minimise delays to referring doctors and their patients.

Arranging emergency assessment for admission of acutely ill patients in hospital can be one of the most frustrating aspects of a GP’s workload.1,2 Communication is an important feature of the process and this usually takes the form of a telephone conversation with the relevant doctor in the receiving hospital.3

In many Australian hospitals, the relevant doctor with whom emergency admissions are discussed is the admitting officer (AO), who is usually the duty emergency physician.

In most hospitals in New Zealand, the relevant doctor for emergency admissions is the in-patient specialist registrar (SR), and that registrar or a member of that team sees the patient on arrival in hospital.

The relative effectiveness of each of these systems has never been formally studied.

Our aim was to compare the efficiency of the admitting officer system for arranging hospital admissions, with that of direct referral by the GP to the specialist registrar.
Methods

Five metropolitan hospitals of comparable size from each country were selected. Separate attempts were made to arrange admission for a general surgical patient and a general medical patient through the approved mechanism of each hospital. The study was carried out over a period of three weeks, on three separate days of the week and at three different times of the day. Where the SR system was in place (New Zealand), an equal number of attempts were made to contact the medical and surgical registrar. An equal number of calls (12) were made to each hospital over the three-week period.

Once the relevant doctor (the AO or SR) was contacted, they were informed of the study and consent was obtained for the phone call to be included in the study. The doctor was then thanked for his or her time and the call was terminated.

The time taken for the hospital switchboard to contact the AO or SR was documented. On completion of the study, the results were analysed using an Excel spreadsheet (Microsoft).

Results

A total of 120 contact attempts were made, 60 in each country. Contact was made with the relevant doctor on 119 occasions.

The total time taken to contact the admitting doctor in order to arrange an emergency assessment for a patient, within office hours, was significantly longer in New Zealand than it was in Australia (p <0.05, Figure 1).

Figure 1. Time taken for doctor to answer admission call (in office hours)
This difference was maintained when phone calls outside of normal business hours were analysed separately (Figure 2). In New Zealand, the average time taken to contact the surgical registrar (83.7 seconds) did not differ significantly from that taken to contact the medical registrar (81.5 seconds).

**Figure 2. Time taken by doctor to answer call (out of office hours)**

Discussion

One of the most frustrating aspects of arranging an emergency assessment in hospital for a patient in the community is the time taken to organise the assessment. One of the key steps in this process is contacting the relevant doctor who will accept the patient for assessment on behalf of the hospital. Two main systems have been developed for this process: the admitting officer system, which is the predominant system used in Australia; and the specialist registrar system, predominant in New Zealand.

This study shows that the time taken to contact the designated doctor is significantly shorter in Australia than it is in New Zealand.

The main shortcoming in this study is that the total time taken to arrange the admission cannot be extrapolated, as this will involve a discussion with the accepting doctor who may or may not wish to accept the patient. However, this time period would be very difficult to study, as there are many variables that may affect it – for example, how sick both doctors perceive the patient to be and, if they agree on this, how busy the hospital is, whether the patient was a previous inpatient of the hospital, and if the patient would be more appropriately managed in another facility.

It is also important to avoid an over-simplification of the complete admissions process for patients. It is likely that the time taken to contact the receiving doctor is not the major cause of delay in the admissions process – this is likely to occur once the patient actually arrives in hospital.
In the Australian system, regardless of whether or not a patient is assessed as requiring admission by their family doctor, the patient is again assessed in the emergency department, culminating in an onward referral to a specialist registrar. In New Zealand, where a patient is assessed as requiring admission by the family doctor, the specialist team is involved from the outset.

The latter system appears likely to minimise delay to inpatient team assessment but not necessarily to definitive treatment, which would normally be commenced in the emergency department once a working diagnosis has been reached, irrespective of which team the patient is under.

In summary, when arranging an emergency patient assessment for a patient in the community, the total time taken to contact the appropriate doctor is less in Australia, using the admitting officer system, than it is in New Zealand, using the specialist registrar system. The admitting officer system, however, has the potential to prolong the admissions process for patients admitted to hospital.

No studies have been performed that show any benefit in outcomes for patients admitted under either system.

The authors recommend that consideration be given by acute hospitals in New Zealand to streamlining their communications processes, in order to minimise delays to referring doctors and thus to decrease the delay for patients in receiving definitive care.

**Author information:** Alan E O’Connor, Director of Emergency Services, Latrobe Regional Hospital, Victoria, Australia; Michael J Roberts, Emergency Physician, Wellington Hospital, Wellington; David K Ramrekha, Medical Student, Canberra Hospital, ACT, Australia; Greg Williams, Medical Student, Wellington Hospital, Wellington, New Zealand

**Correspondence:** Dr Alan E O’Connor, Director, Emergency Department, Latrobe Regional Hospital, Traralgon, Vic 3844, Australia. Fax: +61 3 51738480; email: alan.oconnor@bigpond.com

**References:**


Availability of urgent ultrasonography to emergency departments in New Zealand

Michael Woo

Abstract

Aim To determine the availability and use of urgent ultrasonography to emergency departments in New Zealand.

Methods A questionnaire used in Canada was modified for New Zealand and mailed to all emergency department clinical directors in New Zealand who are listed by the Australasian Society for Emergency Medicine.

Results The response rate was 92% (24/26). Most clinical directors found it difficult to obtain an ultrasound scan during ‘off-hours’. Only one emergency department had the facility to get an ultrasound scan within 15 minutes. Seventy nine per cent of clinical directors felt that emergency physicians should perform ultrasonography, yet only 29% were actually doing so. Of those not performing ultrasonography, 47% had plans to do so in the future.

Conclusions Most clinical directors feel that it is difficult to get an urgent ultrasound scan and that emergency physicians should be performing ultrasonography. With the proper training and support most clinical directors had plans to use ultrasonography in the future.

Emergency bedside ultrasonography has rapidly evolved in the past decade. The use of ultrasonography in trauma started in Europe and quickly spread to North America. The first published curriculum in the use of ultrasonography in the emergency department appeared in 1994. In Canada, there was limited access to emergency ultrasonography and emergency physicians showed substantial interest in training in and performing focused ultrasonography.

The first Australasian workshop on bedside ultrasonography was held in Auckland, New Zealand, in 1998. In response to the rapid progress of emergency ultrasonography, this study evaluated the current availability and use of urgent ultrasonography to emergency departments (EDs) in New Zealand.

Methods

A MEDLINE literature search was performed on the availability and use of ultrasonography in New Zealand. A questionnaire designed and used in Canada was modified for use in New Zealand and mailed to all 27 EDs as listed by the Australasian Society for Emergency Medicine (ASEM). The survey consisted of 14 questions regarding demographics, availability, accessibility, and present and future use of ultrasonography by emergency physicians. A second mail-out and subsequent fax was sent to those departments that had not responded. The results were presented collectively to ensure anonymity. The paediatric hospital was excluded from analysis.
Results

The response rate was 92% (24/26). The respondents indicated that 63% (15/24) of EDs had at least one emergency specialist. The majority, 54% (13/24), classified themselves as secondary hospitals, while 29% (7/24) were lower tertiary and 17% (4/24) were higher tertiary hospitals. Fifty four per cent (13/24) of EDs had between 10 000 and 30 000 patient visits a year. Twenty five per cent (6/24) of EDs had 30 000 to 50 000 patient visits a year and 8% (2/24) of EDs had greater than 50 000. Only 13% (3/24) of EDs had fewer than 10 000 patient visits a year.

Although 96% (23/24) of respondents felt that urgent (within 1–2 hours) ultrasonography should be available 24 hours a day, only 58% (14/24) actually indicated that it was available. Radiology coverage 24 hours a day was available at 71% (17/24) of EDs, however 71% (17/24) rated it difficult to obtain ultrasonography during ‘off-hours’ (Figure 1).

Figure 1. Comparison of 24-hours-a-day radiology coverage with ability to obtain ultrasonography during ‘off-hours’

![Figure 1](image_url)

US=ultrasonography

Ultrasonography during ‘off-hours’ was almost never obtainable at 25% (6/24) of EDs and took greater than 1 hour at 29% (7/24) of EDs. Only one ED was able to provide ultrasonography in less than 15 minutes during ‘off-hours’ (Table 1).

Table 1. Time taken to obtain ‘urgent’ ultrasonography during ‘off-hours’

<table>
<thead>
<tr>
<th>Time</th>
<th>Respondents</th>
<th>n (total = 24)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;15 minutes</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>15–60 minutes</td>
<td>42</td>
<td>10</td>
</tr>
<tr>
<td>1–3 hours</td>
<td>25</td>
<td>6</td>
</tr>
<tr>
<td>&gt;3 hours</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Never</td>
<td>25</td>
<td>6</td>
</tr>
</tbody>
</table>
Seventy nine per cent (19/24) of clinical directors agreed emergency physicians should perform ultrasonography, yet only 29% (7/24) actually used ultrasonography in the ED. None of the respondents disagreed that ultrasonography should be performed by emergency physicians. Of the 71% (17/24) who were not performing ultrasonography, 47% (8/17) had plans to use ultrasonography in the future with the proper training and support.

**Discussion**

Emergency ultrasonography allows a quick and accurate assessment of the acute patient in the ED. The most common uses of focused emergency ultrasonography are in the trauma patient and the patient with suspected abdominal aortic aneurysm (AAA). Focused abdominal sonography for trauma (FAST) is used to determine the presence or absence of free fluid. In the suspected AAA patient, ultrasonography is used to determine the presence or absence of an aneurysm. Ultrasonography in this setting is significantly different from the complete ultrasonography performed by radiologists. From this study, it is apparent that most radiology departments in New Zealand are unable to provide timely access to ultrasonography for the acute patient 24 hours a day. The advent of portable and high-resolution ultrasound machines, coupled with the demand for urgent ultrasonography 24 hours a day, has led to a rapid evolution in emergency bedside ultrasonography.

The use of focused emergency ultrasonography by surgeons and emergency physicians has been shown to be effective and accurate, and their expertise comparable to that of radiologists. FAST and emergency ultrasonography for AAA help in the clinical decision-making process for diagnosis and further management. Emergency ultrasonography can also be performed while an unstable, or potentially unstable, patient remains in the ED for active resuscitation.

Many New Zealand EDs are already using focused bedside ultrasonography and many more plan to institute its use in the future with the proper training and support. Within Australasia, there are training programmes in Auckland, New Zealand, and Adelaide, Gold Coast and Sydney, Australia. The Australasian College for Emergency Medicine (ACEM) has developed a policy document to equip ED physicians with credentials in ultrasonography specifically for FAST and AAA. Early studies of this credentialling process have shown it to be effective in tertiary care hospitals.

Ongoing research is being conducted with regards to other uses of emergency ultrasonography, patient outcomes, learning curves, and cost effectiveness. Measures for continuing education and quality control need to be in place so that emergency physicians performing focused ultrasonography continue to provide the best possible care for patients.

**Author information:** Michael Y Woo, Emergency Physician, Department of Emergency Medicine. Tauranga Hospital, Tauranga

**Acknowledgements:** Dr Gurgit Bajwa, William Osler Health Centre, Toronto, Canada, and Dr Peter Freeman, Clinical Director, Department of Emergency Medicine, Auckland Hospital, New Zealand. The abstract of this paper was presented at the ACEM/ASEM Winter Symposium, Wellington, New Zealand, July 18–20, 2002.
Correspondence: Dr Michael Y Woo, Assistant Professor, University of Ottawa, Department of Emergency Medicine, Ottawa Hospital – General Campus, 501 Smyth Road, Ottawa, ON  K1H 8L6. Fax: +1 613 737 8967; email: mwoo@ottawahospital.on.ca

References:


Major abdominal surgery in octogenarians
Saleh Abbas and Michael Booth

Abstract

Aims To evaluate long-term survival after major abdominal surgery in patients who are 80 years and over and to assess possible predictors of outcome: age, acute vs elective surgery, associated comorbidities and type of surgical procedure.

Methods Patients who had surgery between 1 July 1997 and 1 July 1999 were reviewed. We reviewed 30-day mortality, major complications, hospital stay, intensive care unit (ICU) stay and long-term survival. General practitioners (GPs), family members or patients were contacted.

Results One hundred and eighty patients had surgery, median age 84 (80–97), 115 females. Seventeen patients were lost to follow up. One hundred had an emergency procedure and 80 had elective procedures. Thirty-day mortality with emergency procedures was 29% and with elective operations, 7.5% (p <0.0001). Overall morbidity was 33.3%.

Long-term survival data were analysed using Kaplan-Meier survival curves and compared with the age-matched population obtained from Statistics New Zealand. They showed that long-term survival is similar between emergency and elective procedures after adjustment for peri-operative mortality. There was no survival difference between procedures.

Conclusions Elective surgery is generally well tolerated by the elderly. There is high in-hospital morbidity and mortality in the emergency group; however, long-term survival in those patients who leave hospital is not significantly different to the age-adjusted population. Age should not be used as the only criterion when deciding suitability for surgery in this age group.

Ageing of the population presents an increasing demand on the healthcare dollar. This is due to increasing costs of treatment, the availability of more therapies and advances in technology that allow sicker and older patients to survive major surgery. The surgeon is commonly faced with a sick, elderly patient who requires an emergency operation. This situation frequently requires a decision to be made accompanied by little information about the patient and can, therefore, represent an ethical dilemma. Ten per cent of surgical admissions at North Shore Hospital are patients of 80 years or over. They present a challenge to the surgical team when a major surgical procedure is required. Previous studies have shown that mortality rates in emergency situations vary from 13–30%.1,2 There is frequently a need for intensive care admission and prolonged hospital stay.3
Methods

This study examined the immediate outcome and long-term survival of a group of patients of 80 years and over who had major abdominal surgical operations at North Shore Hospital. Long-term survival was compared with the New Zealand age-matched population (survival data obtained from Statistics New Zealand).

Patients who underwent elective or emergency major abdominal surgery at North Shore Hospital over a two-year period, from 1 July 1997 to 1 July 1999, were studied. No patients had trauma or vascular procedures, as these patients are treated elsewhere. The operating theatre database (GQL Software), surgical audit (Otago Surgical Audit) and patient files were reviewed. Demographics, clinical presentation, diagnosis, operative treatment and outcome were collected by review of medical records, theatre audit and surgical audit. Long-term survival data were collected by GPs, family members and patients themselves. ASA class was recorded for each patient at the time of the operation by the anaesthetist. Outcome parameters that were analysed included morbidity, in-hospital mortality, duration of ICU stay, post-operative hospital stay and long-term survival. Operative mortality was defined as death within 30 days of the operative procedure or in-hospital death in the instance of prolonged hospital stay. Morbidity was defined as any event that required diagnostic or therapeutic intervention, or resulted in prolonged hospital stay.

Statistical analysis Analysis was performed using StatsDirect for Windows. Group contingency analysis was performed by chi-square test and Fisher exact test. Mann-Whitney test was used for non-parametric variables. Actuarial survival was calculated using Kaplan-Meier analysis and comparison between groups was performed using the log rank test. Logistic regression was used for categorical outcome analysis including the impact of demographics and clinical, emergency, comorbidity and operative intervention on post-operative mortality.

Results

Patient demographics One hundred and eighty patients (17 lost to follow up) of 80 years or over had a major abdominal operation (Table 1). One hundred and fifteen were females and 65 were males. Median age was 84 (range 80–97). Ninety nine patients were aged between 80 and 84 years, and 81 were 85 years and over. Emergency operations were performed on 100 patients and 80 patients had elective procedures. One hundred and thirteen patients had ASA class 3 and higher at the time of the operation. Median hospital stay was 12 (range 2–61) days.

Operative treatment The major operations performed are listed in Table 1.

Table 1. Patient demographics

<table>
<thead>
<tr>
<th>Operation</th>
<th>Total</th>
<th>Elective</th>
<th>Emergency</th>
<th>F</th>
<th>M</th>
<th>Complications (%)</th>
<th>Mortality (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorectal resections</td>
<td>101</td>
<td>62</td>
<td>39</td>
<td>64</td>
<td>37</td>
<td>31 (31)</td>
<td>18 (18)</td>
</tr>
<tr>
<td>Adhesiolysis with or without bowel resection</td>
<td>33</td>
<td>2</td>
<td>31</td>
<td>18</td>
<td>15</td>
<td>12 (36)</td>
<td>4 (12)</td>
</tr>
<tr>
<td>Biliary procedures</td>
<td>17</td>
<td>7</td>
<td>10</td>
<td>13</td>
<td>4</td>
<td>6 (36)</td>
<td>4 (23)</td>
</tr>
<tr>
<td>Peptic ulcer related complications</td>
<td>12</td>
<td>0</td>
<td>12</td>
<td>7</td>
<td>5</td>
<td>5 (41)</td>
<td>4 (33)</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>17</td>
<td>9</td>
<td>8</td>
<td>13</td>
<td>4</td>
<td>6 (35)</td>
<td>5 (29)</td>
</tr>
</tbody>
</table>

Peri-operative outcome Median post-operative stay was 12 days (range 2–61). There were 34 ICU admissions with a median stay of 4 days (average 0–30). Sixty patients (33.3%) had complications. Overall, 30-day mortality was 19.4%. There was
significantly higher mortality in patients who had emergency operations than those who had elective operations (29% vs 7.5%, p = 0.0026). Patients with ASA class 4 and 5 had significantly higher mortality (46% and 33% respectively) than ASA class 2 and 3 patients (8% and 13 %), p <0.0001. The difference in mortality between ASA class 4 and 5 was not statistically significant; nor was the difference between ASA class 2 and 3.

Simple logistic regression for factors affecting peri-operative mortality showed ASA class 4 and 5 have a significant effect, with odds ratio of 1.9 and 0.7, compared with ASA 2 and 3 (p <0.0001). Emergency surgery was associated with a significantly higher peri-operative mortality (OR 2.4, p = 0.0026). Operative procedure, age at the time of operation and pre-operative diagnosis did not influence complications or peri-operative mortality (Table 1).

**Long-term survival** Median follow up was 31.5 months. At 30 months of follow up, 50% of these patients were still alive. The median survival for patients of 80–84 years was 32 months and for patients 85 years and over, 12 months, p = 0.011. This included in-hospital mortality (Figure 1).

**Figure 1. Survival by age group**

<table>
<thead>
<tr>
<th>Time (months)</th>
<th>6</th>
<th>12</th>
<th>24</th>
<th>36</th>
<th>48</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number at risk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80–84 years</td>
<td>68</td>
<td>55</td>
<td>50</td>
<td>29</td>
<td>10</td>
</tr>
<tr>
<td>85–97 years</td>
<td>47</td>
<td>37</td>
<td>31</td>
<td>20</td>
<td>3</td>
</tr>
</tbody>
</table>

There was no significant difference in survival between patients who had surgery for malignant disease (77 patients) and those who had surgery for benign disease (88 patients). The median survival for the malignant group was 11 months and for the benign group, 25 months, p = 0.37 (Figure 2).
Long-term survival was significantly affected by the presence of associated comorbidities. The median survival for patients in ASA class 2 was 48 months, and for ASA class 3, 4 and 5, 23 months, 7 months and 3 months respectively (Figure 3, Table 2). However, having an emergency operation did not adversely affect long-term survival compared with having an elective operation.
Table 2. Survival by ASA class (163 patients followed up)

<table>
<thead>
<tr>
<th>ASA class</th>
<th>Emergency</th>
<th>Elective</th>
<th>Total</th>
<th>Median survival (months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>23</td>
<td>35</td>
<td>58</td>
<td>48</td>
</tr>
<tr>
<td>3</td>
<td>31</td>
<td>33</td>
<td>64</td>
<td>23</td>
</tr>
<tr>
<td>4</td>
<td>31</td>
<td>4</td>
<td>35</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

Long-term survival of these patients was compared with the New Zealand age-matched population (data obtained from life table analysis and analysed using the log rank test). There was a significant difference: p <0.0001. However, when we excluded patients who died in the peri-operative period the long-term survival was similar (Figure 4).

Figure 4. Survival compared with age-matched population, showing the upper and lower limits of 95% CI. Uppermost curve shows survival of age-matched general population. (click here to see larger version of Figure 4)

Fewer than 10% (17) of patients were lost to follow up. Eleven of these were in the 80–84 age group. Seven had complications and nine underwent acute procedures. Eight had colorectal procedures, six adhesiolysis with or without bowel resection, two cholecystectomies and one closure of a perforated duodenal ulcer. Eight were classified ASA 2, six ASA 3 and three ASA 4. The patients in this group appear to be
representative of the entire group, although relatively more ASA 2 patients were lost to follow up. It is unlikely that the exclusion of this group from our data would have had any impact on the reported long-term survival of either the emergency or elective surgery patients as a whole (Figure 5).

Figure 5. Survival by elective or emergency operation (p = 0.06)

<table>
<thead>
<tr>
<th>Time (months)</th>
<th>6</th>
<th>12</th>
<th>24</th>
<th>36</th>
<th>48</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number at risk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>61</td>
<td>48</td>
<td>39</td>
<td>27</td>
<td>8</td>
</tr>
<tr>
<td>Emergency</td>
<td>54</td>
<td>45</td>
<td>42</td>
<td>24</td>
<td>5</td>
</tr>
</tbody>
</table>

Discussion

There is much evidence in the literature to suggest that elderly patients do well after major abdominal surgery.\(^4\text{-}^8\) In the 1970s, patients over 70 were regarded as elderly and age was often used as an important criterion to determine access for major surgery. Published reports often included those patients over 65 and 70 in the ‘elderly’ group.\(^4\text{-}^8\) As it became apparent that these patients were doing well after major surgery, attention focused more on patients over 80 years to see how well they respond to major surgery and how this surgery affects their survival. This shift has become more pertinent as the population ages.

Patients over 80 who have had colonic surgery have reported mortality rates of 9–10%.\(^4\text{-}^9\) Pancreaticoduodenectomy is also well tolerated in the elderly, with mortality rates as low as 4%.\(^8\text{-}^{10}\text{-}^{12}\) Similarly, major gastric resections have a published mortality of 9%.\(^5\) Even major hepatic resection in the elderly carries mortality rates of 7–11%.\(^13\) It would, therefore, be reasonable to say that elderly patients should not be denied major elective abdominal surgery on age criteria alone.

Age may be regarded as a selection criterion for urgent or emergency laparotomy.\(^6\) There is a significantly higher mortality attached to this procedure – 29% in our series. However, long-term survival is similar to the age-matched population once peri-operative mortality figures are excluded. ASA status is also of predictive value.\(^6\)
No ASA 5 patient in our series survived longer than three months. ASA 4 and 5 patients had a significantly higher mortality than ASA 2 and 3 patients.

An 80-year-old female has a mean life expectancy of 9.2 years and an 80-year-old male, 7.2 years. An 85-year-old female has a mean life expectancy of 6.6 years and a male of the same age, 5.3 years. Therefore, many elderly patients can look forward to several more years of life.

Quality of life is a factor that is often difficult to assess but is important when decisions regarding major surgery need to be made. This study did not look at quality of life before or after surgery. However, most clinicians faced with decisions regarding major surgery in the elderly do take quality of life into consideration. It is often more difficult for the surgeon and family to take the decision not to operate than to operate. New palliative techniques such as colonic stenting, interventional radiology and therapeutic endoscopy may reduce the need for major surgery and hence reduce the number of difficult decisions to be made with regards to these patients.

In summary, the decision to treat a sick, elderly patient requires consideration of ASA status, quality of life and expectations of the patients and family following surgery. For those patients who are prepared to accept the risks of emergency surgery, surgery should not be denied on the basis of age alone.

Author information: Saleh Abbas, Surgical Registrar; Michael Booth, Upper GI Surgeon and Endoscopist, North Shore Hospital, Auckland

Correspondence: Mr Saleh Abbas, Department of Surgery, North Shore Hospital, 51A Francis street, Takapuna, Auckland. Fax: (09) 377 9656; email: Salehabbas@clear.net.nz

References:


Intussusception of a normal appendix: how to avoid a right hemicolectomy

Richard Flint and Tim Wright

Acute abdominal pain is a problem frequently encountered in clinical practice, yet intussusception of the appendix is rarely considered as the cause. This is because of its very low incidence, as suggested by a study of 71,000 human appendix specimens in which only seven cases of intussusception were found. Another reason is because of its tendency to present with symptoms similar to more common surgical conditions, such as constant or colicky abdominal pain with or without altered bowel habit, or asymptomatic rectal bleeding. In this paper we describe a case of intussusception of a normal appendix that presented as acute appendicitis and led to an unnecessary right hemicolectomy.

Case report

A previously well, 34-year-old, Caucasian male presented to the emergency department with a 24-hour history of severe abdominal pain. The pain had a gradual onset in the periumbilical region and was described as a vague discomfort. It had since migrated to the right iliac fossa and was constant in nature. There were no exacerbating factors and the only relief was from narcotic analgesia. He had associated anorexia and nausea but reported no alteration in bowel habit.

On examination, he was mildly dehydrated with a sinus tachycardia. He was afebrile. He had tenderness but no guarding in the right iliac fossa.

He had an emergency laparoscopy that revealed a mass that was thought to arise from the caecum at the base of the appendix.

There was no free pus, nor were there inflammatory adhesions. Caecal malignancy was diagnosed, and a right hemicolecotomy performed through a transverse laparotomy incision. Histology of the specimen revealed intussusception of the appendix that was otherwise normal without any caecal pathology.

The patient recovered uneventfully and was discharged four days later. At six-week follow up he reported no problems and was discharged from the outpatient clinic.

Discussion

Intussusception of the appendix is a rare condition that ranges from partial invagination of the appendix to involvement of the whole colon where the appendix may protrude from the anus. There have been various classifications devised, all of which assume some appendiceal pathology (eg, parasites, endometriosis, polyps, mucocoele, or malignancy) with anatomical features (eg, funnel-shaped appendix, a mesoappendix devoid of fat, or an appendicectomy stump) that predisposes the appendix to invagination.
It occurs predominantly in adults with an equal male to female ratio,\textsuperscript{2} and may be more common than first believed as transient appendiceal intussusception has been reported on barium enema in asymptomatic patients.\textsuperscript{3}

The treatment of appendiceal intussusception is influenced by its mode of discovery. If identified at barium enema it may be reduced by this investigation alone and surgery is not necessary if asymptomatic and transient.\textsuperscript{4}

If discovered at surgery, however, the correct management depends upon its recognition, for an erroneous assumption of malignancy will lead to an unnecessary hemicolectomy as in the case described here. If intussusception is suspected, attempts should be made to reduce it by gentle traction and compression.\textsuperscript{4} In retrospect, we believe that this would have been possible laparoscopically in the case described. Once reduction has been completed a decision has to be made about the presence or absence of any other pathology. If no other pathology can be identified appendicectomy is all that is required,\textsuperscript{5} but we would recommend a follow-up colonoscopy due to the high incidence of intraluminal pathologies associated with this condition.

Intussusception of the appendix is a rare condition that should be considered in the differential diagnosis of right-sided abdominal pain if unnecessary hemicolectomies are to be avoided.

**Author information:** Richard Flint, General Surgery Registrar; Tim Wright, General Surgeon, Department of General Surgery, Taranaki Base Hospital, New Plymouth

**Correspondence:** Dr Richard Flint, Department of General Surgery, Taranaki Base Hospital, David Street, New Plymouth. Email: r.flint@auckland.ac.nz

**References:**

Septic arthritis due to a toxigenic strain of *Corynebacterium diphtheriae gravis*

Shihab Faraj, Gary French and Alexander McAuslan

We report a case of septic arthritis of the hip caused by toxigenic *Corynebacterium diphtheriae* in a healthy, immunized child. *C. diphtheriae* causes diphtheria and, occasionally, localised respiratory tract infections, bacteraemia, endocarditis, meningitis, and abscesses of the liver and spleen.\(^1\)

**Case report**

A four-year-old boy was admitted to our hospital with a four-day history of right thigh pain, with inability to bear weight on the right leg and sore throat of one-day duration. He was born in New Zealand, lived with his parents, had no other siblings and had been immunized against diphtheria, tetanus and pertussis vaccines at six weeks, three months, five months and 15 months.

On admission, his axillary temperature was 37.3 °C, his throat was congested, and his chest was clear on auscultation.

The right hip was flexed and externally rotated and any movement of the right leg created muscle spasms in the thigh. Laboratory investigations revealed a normal white cell count with an ESR of 62 mm in 1 hour and a C-reactive protein level of 98 mg/l (normal 0–5 mg/l).

Ultrasound examination demonstrated fluid in the right hip and the radiographic examination was normal.

Percutaneous aspiration of the hip under general anaesthesia yielded 8 ml of yellow turbid fluid (45 741 x 10^6/l leucocytes; 77% neutrophils).

Microscopic examination of Gram-stained smears of the joint fluid showed small numbers of Gram-positive bacilli; and a culture yielded *Corynbacterium* species, subsequently identified as *C. diphtheriae* biotype gravis.

Toxigenicity was confirmed by the national reference laboratory using a polymerase chain reaction test. The result of blood culture was negative and a throat swab yielded only mixed oral flora. Intravenous therapy with flucloxacillin, started after aspiration and after arthrotomy of the right hip, was changed to amoxycillin.

The patient’s condition improved rapidly after the second wash out of his hip, which was performed two days after the initial arthrotomy. After 10 days of intravenous amoxycillin, he was discharged on oral amoxycillin to complete three weeks of treatment. At six weeks’ follow up there was full recovery of range of motion of the right hip.
Discussion

Our patient had a history of immunization to diphtheria and this induces protective levels of antibodies against the toxin but does not prevent the bacteria from invading the bloodstream and causing infection. This is to our knowledge the first reported case of septic arthritis caused by toxigenic *C. diphtheriae*.  

Acute septic arthritis results from bacterial invasion of the joint space. The infecting organism can invade the joint through the bloodstream, from adjacent osteomyelitis, or through direct inoculation of the wound. It is often difficult to distinguish septic arthritis from other similar conditions like irritable hip but, according to Del Beccaro et al, the combination of an ESR of more than 20 mm/hr and a temperature higher than 37.5 °C can identify 97% of cases of septic hip arthritis.  

Ultrasonography is of diagnostic value when there is uncertainty about the presence of septic effusion and it was found to have a sensitivity of 100% in detecting a joint effusion. Aspiration usually confirms the diagnosis and treatment in most cases is with surgical drainage and intravenous antibiotics. The duration and the type of antibiotic depend on the infecting microorganism.

Author information: Shihab Faraj, Orthopaedic Registrar; J Gary French, Orthopaedic Surgeon; Alexander McAuslan, Orthopaedic Surgeon, Orthopaedic Department, Middlemore Hospital, Auckland

Correspondence: Dr Shihab Faraj, Middlemore Hospital, Private Bag 93311, Otahuhu, Auckland. Fax: (09) 533 6555; email: faraj@wave.co.nz

References:

This extract is taken from the discussion following a presentation by Fred de Lisle at the Seventh Annual Meeting of the British Medical Association (New Zealand Branch), held at Nelson on 2 March 1902 and published in the New Zealand Medical Journal 1903, Volume 3 (9), p33–8

Dr. Frengley said the matter that more especially concerned him was the supply of water for drinking and other purposes in connection with the schools. It had struck him that the essentials of an apparatus in connection with a school must be simplicity combined with a minimum of cost. It would be too much to expect the authorities to go in for any elaborate system. In reporting upon one school recently, he proposed what he thought might be a simple and effective method of meeting the requirements of schools as regards water-supply. One of the chief difficulties was how to get rid of the various deposits on the roof of a school-building. He had, to meet this difficulty, suggested what he called a “torpedo-tank,” a rough sketch of which he now asked members to inspect. It would be noticed that this tank was in the form of a narrow cylinder, conical at the top and bottom. This had the advantage that any material that got into the tank settled at the apex of the bottom cone, and was flushed out by the water itself. A child or the teacher had only to turn on the tap for a short time to allow the dirty water to run out and the water was then fit for drinking. School tanks, he believed, were very rarely cleaned out, and this would be a means of getting rid of impurities in the water. The lid could be readily taken off to allow of the tank being swept out. There might be engineering difficulties urged against the adoption of such a design, and the chief difficulty that occurred to him was, How [sic] was the tank to be supported?
An unusual rash

A 77-year-old man presented with an ischaemic right upper limb and was shown on duplex ultrasound to have a tight ostial right subclavian arterial stenosis. This was treated by percutaneous dilatation and stent placement through the ipsilateral brachial artery. The following day, the arm was well perfused and there were wrist pulses; however, the patient was complaining of visual impairment, left upper limb dyspraxia, abdominal pain and the rash shown below.

The diagnosis can be found on the following page.
Diagnosis

The patient suffered a rare complication of percutaneous dilatation known as cholesterol embolisation, causing small areas of ischaemia in his visual cortex, transient pancreatitis, and a rash as shown in the images above. In this case, all the clinical manifestations resolved except for a small, residual, visual deficit.
Adjuvant chemotherapy in colon cancer: what is the evidence?

The pathological staging of colon cancer remains the most important determinant of outcome following surgical resection of the primary tumour. The vast majority of randomized studies of adjuvant chemotherapy have enrolled patients with either stage II or III disease. Stage II cancers are those that have penetrated the muscularis propria (T3–4) without involvement of local lymph nodes (N0) or distant metastases (M0), and are associated with a 5-years survival of 70–80%. Stage III disease refers to tumours that, irrespective of their depth of invasion (T1-4), have involvement of local lymph nodes (N1-3) without distant metastases (M0). Stage III disease is associated with a 5-years survival of 40–60%.

Over the last 12 years, numerous randomized trials have addressed the role of adjuvant chemotherapy in resected colon cancer. Together, these studies give conclusive evidence of the benefit of adjuvant 5-fluorouracil combined with folinic acid in stage III (node positive) disease and this is now considered the standard of care.

However, doubt remains as to the role of adjuvant chemotherapy in stage II colon cancer. To date, most of the randomized trials have demonstrated a relative reduction in tumour recurrence but have not shown any significant impact on survival. It seems likely that this inability to demonstrate a survival benefit from adjuvant chemotherapy in stage II disease relates to the fact that the trials have been underpowered to do so. Nevertheless, the absolute survival advantage is only about 2% and clinicians need to weigh this against the costs and toxicities of the treatment when managing these patients.

However HIV spreads, conventional syringes have had their day

At least 150 years have passed since an Edinburgh doctor called Alexander Wood and the French surgeon Charles Gabriel Pravaz independently hit on the idea of using hollow, pointed needles to inject medicines. Over that time the hypodermic syringe has become both saint and sinner, symbolising life-saving vaccinations on the one hand and the miseries of intravenous drug addiction on the other. But the latest charge against the hypodermic syringe marks a new low. Is it really to blame for Africa’s AIDS pandemic?

The accepted view is that sexual activity accounts for around 90 per cent of the spread of HIV in Africa and dirty needles just 5 per cent, with blood transfusions and mother-to-baby infections making up the rest. But in three papers in the International Journal of STD & AIDS, an international team has re-analysed previously published figures and trends, and concludes that unsafe sex is to blame for no more than one-third of HIV infections while dirty needles account for up to half.

More research is obviously needed. But this should not be an excuse for postponing action on the ground: whether dirty needles account for 5 per cent of Africa’s HIV
infections or 50 per cent (or, as common sense would suggest, a figure in between) they are clearly exacting a terrible toll.

New Scientist, 1 March 2003

**Under-reporting of clinical trials is unethical**

Six years ago the Danish Research Ethics Committee System, after considering what influence the results of existing research should have on the ethical evaluation of proposals for new clinical trials, declared that researchers should review all relevant evidence before they submitted a new protocol for ethical assessment.

One of the problems researchers face in complying with this principle, however, is that there is no general access to “all relevant evidence”. J Pich and colleagues from Spain show that less than a third of clinical trials approved by an ethics committee at a large hospital had been reported in peer-reviewed journals 3 years after completion. These investigators endorse a view published in *The Lancet* last year that ensuring public dissemination of the results of clinical trials falls within the scope of research ethics committees, and that, to the extent that they are not fulfilling these expectations, these committees are failing the public.

Not only does under-reporting breach implied contracts with the patients who participate in these studies (who assume that they are contributing to a growth in knowledge); it can also lead to biased and unnecessarily imprecise estimates of the effects of treatments. Because these unreliable estimates sometimes harm patients, some consider under-reporting of research to be a form of scientific as well as ethical misconduct.

*Lancet* 2003;361:1015–16

**The hospitalist: a US model ripe for importing?**

A hospitalist is a clinician who safely manages a patient’s acute hospital course and who specialises in hospital medicine, free of any compelling priorities of ambulatory care. Hospitalists work only with inpatients, taking over care from primary care physicians after admission to hospital. They are site-defined specialists with skills in general internal medicine, who care for patients with a wide range of organ derangements, illnesses (and ages) within the specific location of an acute hospital.

The hospitalist movement is most active in the United States, with adherents soon to be comparable in numbers to cardiologists. Many leading US hospitals now have active hospitalist programmes, and, in this setting, the hospitalist is usually a specialist physician. About half are general physicians rather than single-system specialists; the others are often specialists in intensive care. The US movement is establishing its own credentials as well as its own areas of research and teaching.

The major “driver” for this trend in the US was initially related to funding. Hospitalists represent a rationalisation of the medical workforce within an acute hospital, appealing to a cost-oriented, managed-care model. The evidence for the impact of hospitalists is so far unconvincing, although there is some evidence that patient length of stay is decreased when hospitalists manage care. The evidence for improved quality of care and patient satisfaction is equivocal.
The death of pharmacy as we know it

I am alarmed to learn of PHARMAC’s planned changes to the frequency of prescription dispensing – from one-monthly to three-monthly – in particular with regard to the impact this will have on community pharmacies.

As each three-month prescription will now attract only one dispensing fee rather than three, this will slash pharmacy income (by up to two thirds in some pharmacies), leading to the closure of numerous pharmacies, particularly in rural and ‘economically-deprived’ (ie, poor) communities. Any consolidation/amalgamation of pharmacies will have a negative impact on those without access to (or who are unable to afford) transport.

As each prescription will attract a pitiful dispensing fee, the time a pharmacist will be able to spend explaining medication issues to patients will fall, reducing patient compliance and possibly placing more strain (and expense) on other parts of the health system.

Furthermore, Auckland University will produce its first graduating pharmacy class at the end of this year. They will be forced to leave New Zealand (as will a significant proportion of the graduating class at the University of Otago), as there will not be sufficient internships available to enable them to complete their requirements for registration as pharmacists. It seems somewhat contradictory for the Government (ie, taxpayers) to be spending more money on the training of pharmacists while at the same time reducing the number of pharmacy positions available.

It is also a blatant act of bad faith that this proposal has been released just after most pharmacies have signed dispensing contracts with the various district health boards, in which the fees negotiated were based on monthly dispensing.

I urge the Minister of Health to reject this proposal to ensure that isolated and/or deprived communities retain their pharmacies (and that New Zealand does not become a significant exporter of pharmacists).

Christopher Jones
Timaru
Last chance to fix the holes in proposed legislation for smoke-free environments

Parliament’s Health Select Committee has recently reported on the Smoke-free Environments (Enhanced Protection) Amendment Bill. The Bill has some major improvements over its original 1999 form and the Supplementary Order Paper of 2001. The provisions for smoke-free interior workplaces are highly desirable on the grounds of public health and workers’ rights. However, the Bill as it was reported back can be significantly upgraded during the parliamentary opportunities provided before it is enacted. The potential areas for major improvement are:

1. The removal of displays of tobacco products, as was required in the original 1999 Bill. This is practically feasible (as seen in Saskatchewan) and is necessary to help limit the uptake of smoking by youth. Such displays are needed by the tobacco industry to maintain sales and are a substitute for advertising. Any display loophole is likely to be used by the tobacco industry for tobacco promotion. The removal of displays will also be of help to those trying to quit. The argument that displays are needed to allow market entry for new brands or companies should not be accepted for products that are both hazardous and addictive. The only retail advertising of tobacco that might be justifiable is a list of the tobacco products available and their prices.

2. The removal of the Bill’s proposed fine on smokers who persist in smoking in smoke-free places. Fining smokers is much less practical and appropriate than penalties for those operators who have authority over particular settings covered by the Bill (eg, the managers of pubs). Already, the operators of pubs and other premises can evict people for a variety of reasons, and a refusal to go outside to smoke is merely another valid reason for such eviction. In the rare situations in which such evictions are not successful, then the police could be summoned to enforce existing trespass law.

3. The reduction of the proposed 12-month period until the commencement of the provisions for smoke-free interior workplaces. We suggest that the Act be in place from 1 January 2004. This would be a similar timeframe to that used for the enforcement of the 1990 Smoke-free Environments Act. Such a move would lower the number of deaths and hospitalisations caused by second-hand smoke at work during the intervening time. The number of these deaths has been estimated at over 100 a year.

George Thomson
Research Fellow, Wellington School of Medicine

Nick Wilson
Public Health Physician, Wellington
References:


Professional misconduct

Charge: A Complaints Assessment Committee charged Dr Leon van Rhyn with disgraceful conduct in a professional respect. The particulars of the charge alleged Dr van Rhyn:

1. Failed to obtain Margaret van Rhyn’s informed consent to forcibly administer psychotropic medications and antidepressants to her when no committal order was in existence at the time and/or;

2. Failed to inform Waikato Hospital by admission note when Margaret van Rhyn was admitted on or about 3 February 1997 that he had been prescribing benzodiazepines for a prolonged period and/or;

3. Failed to keep a full and accurate record of Margaret van Rhyn’s mental state, his diagnosis and his prescribed treatment plan for her;

4. Self prescribed Imovane, a sleeping tablet, for a few months without any supervision or monitoring by another practitioner, and/or;

5. Administered to Margaret van Rhyn, psychoactive drugs, antidepressants and tranquillisers from drug company samples without the drugs being formally prescribed and documented;

6. Treated Margaret van Rhyn in circumstances where his clinical judgment was or could have been impaired, and where it was in the best interests of the patient to refer on to an independent general practitioner.

Background: In the latter half of 1996 and early 1997 Mrs van Rhyn had a major depressive illness. Dr van Rhyn was Mrs van Rhyn’s general practitioner. Dr van Rhyn maintained he had no alternative other than to treat his wife. He said that his wife failed to appreciate the seriousness of her illness and resisted all of his efforts to have her assessed and treated by other doctors. He treated her with a variety of medications including Aropax (an antidepressant) and Oxazepam (a benzodiazepine). Mrs van Rhyn’s condition did not improve. On 3 February 1997 Mrs van Rhyn went to a psychiatrist in Hamilton who concluded Mrs van Rhyn was very depressed and needed assistance urgently. The following day Dr van Rhyn took his wife to Waikato Hospital, where she remained until 2 April 1997. For a part of that period she was admitted under the Mental Health (Compulsory Assessment and Treatment) Act 1993. She was administered ECT on 8 occasions whilst in hospital.

The CAC alleged Dr van Rhyn continued to act as Mrs van Rhyn’s general practitioner when she was in hospital and provided input into Mrs van Rhyn’s care whilst she was in hospital. After Mrs van Rhyn’s discharge from hospital Dr van Rhyn continued to provide psychiatric care to his wife even though she was at that stage under the care of the Community Mental Health Service, an outpatients clinic of Waikato Hospital.

The CAC alleged Dr van Rhyn administered medication to his wife in a haphazard way and that he failed to keep proper records of the treatment he was providing.
Dr van Rhyn prescribed Imovane, a sleeping tablet, for himself without supervision or monitoring from another practitioner. He denied his conduct justified a disciplinary finding against him because the medication he took was for a short period of time.

**Finding:** The Tribunal found Dr van Rhyn guilty of professional misconduct.

The Tribunal was in no doubt Dr van Rhyn was fully cognisant of his ethical duty not to treat his seriously ill wife. He could not simultaneously discharge his functions as a husband and comply with his professional obligations as a doctor when he elected to treat his wife from at least September 1996 to December 1997. The Tribunal was unanimously of the view Dr van Rhyn seriously breached his ethical obligations by treating his wife’s serious illness during that period. However, it was of the view that while his breaches of his ethical obligation were serious his conduct did not deserve ‘the strongest reprobation’ which a finding of disgraceful conduct in a professional respect would have indicated.

A majority of the Tribunal was satisfied that Particular 1 was established. The Tribunal considered there was a minor deficiency in the wording of this aspect of the charge. Antidepressants are ‘psychotropic medications’. It would have been better to describe the medication administered to Mrs van Rhyn as ‘psychoactive drugs’.

Dr van Rhyn cajoled, threatened and intimidated Mrs van Rhyn into taking Aropax and Oxazepam. He did not physically restrain her and physically force her to ingest these drugs but he did go to extraordinary lengths to ensure she took the medication he was prescribing her.

A majority of the Tribunal was of the view Dr van Rhyn failed to adhere to the standards which the profession and the community expect of a doctor when he forced his wife to take medication against her wishes. The Tribunal considered he could not suggest that when he forced his wife to take medication he was acting solely in his capacity as her husband. When it came to the administration of medication he could not say that he was her husband for some purposes and her doctor for others. The Tribunal found it was Dr van Rhyn’s failure to draw appropriate boundaries between his role as husband and his role as a doctor, which was the central point of this case.

A majority of the Tribunal believed Dr van Rhyn’s actions and omissions relating to Particular 1 of the charge constituted professional misconduct and justified a disciplinary finding.

The Tribunal found that Particular 2 was not established. The Tribunal noted that while it was correct Dr van Rhyn did not provide Waikato Hospital with an admission note concerning his wife, he did attend with his wife when she was admitted and explained to the Registrar on duty the circumstances which led to her admission, including the medication she had been prescribed. The Tribunal found the failure to record this in an admission note did not constitute a disciplinary offence.

The Tribunal was satisfied Particular 3 was established. It considered the records Dr van Rhyn kept on his wife were totally inept. He appeared to have made only two clinical notes relating to his wife’s treatment during the period he was managing her very serious illness. The Tribunal considered it is a fundamental component of a doctor’s duty to fully and accurately record their diagnosis and treatment plans – particularly in cases of serious mental illness.
A majority of the Tribunal found that Particular 4 was not established. It was not satisfied to the requisite standard Dr van Rhyn was taking sleeping tablets for a few months and/or that his taking of sleeping tablets in the circumstances without supervision or monitoring by another practitioner constituted a disciplinary offence. Although Particular 4 was not established the Tribunal wished to stress that any medical practitioner taking sleeping tablets on a regular basis should consult with another practitioner to ensure they are safely prescribing.

When considering Particular 5 the Tribunal considered a formal finding in relation to this particular would in essence constitute a repetition of the findings made in relation to the third particular of the charge. Accordingly made no finding in relation to Particular 5 of the charge.

The CAC explained that the allegation contained in Particular 6 was the ‘crux of the case’ against Dr van Rhyn. The Tribunal was in no doubt Dr van Rhyn was under considerable stress during the latter part of 1996 and 1997. His family were struggling to come to terms with their new country. Mrs van Rhyn’s health deteriorated to the point where she became seriously unwell. Dr van Rhyn was endeavouring to establish a medical practice in a new environment. The van Rhyns' marriage may also have been under stress at this time.

Dr van Rhyn blurred the boundaries that he needed to maintain between being a doctor and fulfilling his role as Mrs van Rhyn’s husband. His judgment in these circumstances could well have been impaired. It was certainly not in Mrs van Rhyn’s best interest for her husband to continue to be her general practitioner. The circumstances surrounding her being coerced into taking medication illustrate the difficulties in Dr van Rhyn treating his wife.

The Tribunal was satisfied Particular 6 was established and that Dr van Rhyn’s acts and omissions constituted professional misconduct.

Penalty: The Tribunal ordered Dr van Rhyn be censured, fined $5000 and practise subject to a condition that for a period of one year from the date of the Decision he identify and manage ethical issues in a manner consistent with the standards expected of a general medical practitioner in New Zealand as part of the continuing education component of general oversight.

He was further ordered to pay costs of $28 054.83 (25% of the total costs in relation to the inquiry, prosecution and hearing of the charge).

The Tribunal further ordered publication of the above orders in the New Zealand Medical Journal.

The full decisions relating to the case can be found on the Tribunal web site at www.mpdt.org.nz Reference No: 01/74C.
Professional misconduct

**Charge:** The Director of Proceedings charged Dr Bodiabaduge Camillus Leonard Annesley Perera with professional misconduct in that:

1. He failed to investigate, or adequately investigate, causes of the patient’s clinical presentation at any time following the Computerised Topography (CT) scan of her head; and/or
2. He failed to act upon suspected meningococcal disease and/or meningitis by commencing treatment with the administration of antibiotics; and/or
3. Between 4.00 am and 6.00 am on 17 July 1999 he failed to consult with, and/or transfer care of the patient to an appropriately qualified specialist in a timely manner; and/or
4. Prior to leaving the hospital between 5.00 am and 6.00 am on 17 July 1999 he failed to adequately communicate his diagnosis and management plan to family and staff.

**Background:** On 14 July 1999, the patient, then aged 14 years, had an accident at school during a PE class. Her friend let go of a barbell which landed on the bridge of the patient’s nose. On the evening of 15 July, she had a headache. She took some Panadol and was fine the next morning.

Around midnight on 16 July 1999 the patient started vomiting and she had a very bad headache. Her mother, an enrolled nurse, took her to hospital where she was put into a wheelchair as she was unable to walk. At around 2.00 am on 17 July 1999 a senior house officer (SHO) saw the patient. He noted that when she arrived at the hospital she had had normal observations for blood glucose, oxygen saturation, respiratory rate, heart rate, and temperature. Her Glasgow Coma Score (GCS) was initially 13/15. Her blood pressure was recorded in the notes initially as 74/49. The nurse’s notes showed a deteriorating GCS score: at 0200 it was 12, at 0340 it was 6, and then 5.

The SHO considered that the patient’s deterioration in consciousness was probably due to a space-occupying lesion, most likely a haemorrhage, or perhaps a brain tumour. Meningitis was his second differential diagnosis but he felt it was unlikely in view of the history of head trauma, normal temperature and absence of haemorrhagic rash or neck stiffness.

By about 3.30 am the patient was not responding to verbal commands and her oxygen saturation level was poor. It was decided to put in a guedal airway to assist her breathing and to call an anaesthetist as she would need intubating and ventilating in order to manage the CT scan. The patient was too restless to lie still for a long enough period.

The SHO telephoned the on-call anaesthetist, Dr Perera. Dr Perera said that at the Emergency Department he immediately assessed the patient and conducted a physical assessment. He said that on examination she was in extreme extensor spasm and in
decrebrate rigidity. He noted her Glasgow Coma Score to be 4–5/15. He said he looked at her face and those areas not covered by clothes but could not see any rash.

The CT scanning was completed at 4.25 am. The result of the scan was that it was a normal scan, there was no compression of the brain, no evidence of bleeding, and the ventricles were normal. As they were moving out of the CT unit the patient’s mother recalled a male voice saying while Dr Perera was present that the patient must be suffering from some sort of infection. She asked ‘What sort of infection?’ but no-one responded. Dr Perera said he had no recollection of that being said at that time.

The SHO said he was surprised at the time that the scan was normal and asked Dr Perera if a lumbar puncture for meningitis was indicated. The SHO recalled Dr Perera’s reply was ‘No, not at the moment.’ Dr Perera said he would take the patient to the Intensive Care Unit where she would spend the night ventilated.

The patient was transferred to the Intensive Care Unit (ICU) where she arrived some time between 4.30 and 4.40 am. A nurse (Nurse C) helped to transfer her from the Emergency Department bed to the ICU bed. She noted that the patient did not respond to being moved. She enquired about her sedation and was told she had been given no further sedation since being intubated. She thought it unusual that the patient did not respond to being moved if she had not received further sedation.

Nurse C checked her pupils as she was concerned about the patient’s failure to respond. They were dilated, 4 mm in diameter and reacted sluggishly. She connected the patient to the ECG monitor leads and printed out one or two ribbon strips. Her heart rhythm was sinus tachycardic (a normal beat but a fast rate) with ventricular ectopics (where every third or fourth beat was abnormal). Nurse C was concerned as it was unusual for a previously fit and well young person to have a heart rhythm like that in the absence of any underlying heart condition. The patient was connected to a non-invasive blood pressure cuff (NIBP), which showed a very high blood pressure of 180/110 and mean arterial pressure (MAP) of 130.

Nurse C noted that Dr Perera administered intravenous morphine and intravenous labetolol following which the patient’s blood pressure dropped to 150/93, MAP 115.

Nurse C brought the ECG trolley to the patient’s bed as she wanted a 12-lead ECG to obtain baseline data of her heart rhythm given that it was in runs of normal and abnormal rhythms. She said that Dr Perera asked her what she was doing and why. She said she explained and Dr Perera replied that the patient was now in a normal rhythm and told her not to activate this. She said she showed him a copy of the heart trace but no orders were given.

She requested an arterial and central line be inserted into the patient and brought the necessary equipment trolleys to the bedside. She explained that an arterial line gives a continuous blood pressure reading as well as a port for drawing blood. The NIBP can be read every minute. The patient had only one peripheral line in her left arm on arrival and Nurse C thought it would be better to insert a central line as it would give a wider line in a blood vessel to give fluids or drugs to the patient. She explained most drugs to control heart rate must go through a central line. Dr Perera declined to insert the lines saying that the patient was to be ventilated for a short time only and that she would be weaned and woken in the morning.
Nurse C said she asked Dr Perera ‘Weaned from what?’ to which he did not answer and walked away. She said she asked that question because the patient was not on a sedation infusion and she was concerned about her condition at that stage. The management plan of ‘wake and wean’ did not, to her, seem congruent with the patient’s condition. All she was aware of regarding the patient was that her CT was normal and she was for wake and wean in the morning. Dr Perera said in his view the patient was critically ill but stable.

The patient was assigned to Nurse CD, who was new to the ICU. He believed that because it had been said that the patient would be in for intubation for a short time only and for ‘wake and wean in the morning’ it was appropriate to assign her to his care. He too noted that the patient was sedated and unconscious but was twitching. He had not seen twitching before in sedated patients. He remembered the nurses commenting on it and he knew it was mentioned while Dr Perera was still in the ICU. He said the patient’s pupils were 3–4 mm in size and reacted sluggishly.

Nurse CD said it was apparent before Dr Perera left the ICU that the patient had very high blood pressure, her heart rate was tachycardic with some ectopic beats which, to him, was a sign of concern in a 14-year-old child and that those readings were evident from the screen monitor to which she was connected. He said he expressed his concern about her blood pressure to Dr Perera who then gave the patient an anti-hypertensive drug and more sedating and paralysing drugs.

Nurse CD said that other nurses asked Dr Perera to insert an arterial line and an indwelling catheter and a nasogastric tube but that Dr Perera declined saying that those measures were not necessary because the patient was for wake and wean in the morning.

The patient’s mother said that on arrival at ICU, the nursing staff were ready with all necessary emergency equipment but Dr Perera said that the patient’s oxygen saturation levels were fine and there was no need for an arterial line. She said he told her that the patient ‘was fine’ and that she would be woken in the morning. She said that was the only plan she knew of and that Dr Perera did not say anything further to her about the patient’s condition nor make any mention of meningitis.

Nurse CD said that he was not told of a diagnosis and had no views regarding one. He was busy getting the patient settled when he suddenly realised Dr Perera was not in the Unit. He did not know Dr Perera was leaving and first became aware he had left the Unit about 20 minutes after the patient had arrived in the ICU. He was uncomfortable that Dr Perera had gone without telling him and without talking to him about the patient’s condition. He did not feel that Dr Perera had completed things and he was not really sure what he was supposed to be doing. Dr Perera did not give him any management plan. He checked the medical notes but found Dr Perera had not left him any instructions there either.

After Dr Perera had left, Nurse CD continued to examine the patient. Her pupils were dilated and barely reacting. Her pulse was high (160 bpm) and her blood pressure was very high. He became so concerned he consulted the other ICU nurses, who advised him to call Dr Perera at home. Nurse CD called him and communicated his concerns. He told Nurse CD to administer morphine and labetalol and to keep the MAP at 80.
Nurse CD administered the doses of both drugs at the lower end of the range following which the patient had wildly fluctuating blood pressure, either very high or very low. Her pupils were virtually non-reactive and appeared to be enlarging slightly.

Nurse CD spoke to Nurse C who told him to ring Dr Perera again and tell him to come back to the ICU. Nurse CD did so, and from then on other senior nurses assisted in the patient’s care. Nurse C catheterised the patient and collected a urine sample. As she did this she noticed for the first time a small cluster of little red spots on the patient’s inner right thigh. On returning to the patient’s bedside she noticed that her oxygen saturation level had dropped and that there was white, frothy liquid in her endotracheal tube. She immediately suctioned the patient and obtained a large amount of white, frothy aspirate, which quickly dissolved into dirty brown liquid. She noticed that the patient’s blood pressure was very labile.

Dr Perera returned to the ICU between 5.40 and 5.50 am. He asked Nurse C what she was doing and she explained. The patient’s oxygen saturation reached 100% after being suctioned. Dr Perera listened to the patient’s chest, said it was clear and told her to put the suction catheter away. At that point he commenced to manually ventilate the patient. More liquid was noted in the endotracheal tube and she was suctioned again. Nurse C suggested a chest X-ray be done in order to ascertain underlying cause and obtain baseline data. A radiologist was called.

Nurse C tried to connect the 12-lead ECG again in order to obtain baseline readings of the patient’s heart rhythms. As she was connecting the leads, the patient’s heart rhythm deteriorated dramatically and began a very slow, ventricular rhythm. Resuscitation was commenced immediately.

A paediatrician was called around 6.00 am and arrived around 6.15 am. She took charge. After the first resuscitation, Nurse C pointed out the spots on the patient’s thigh to the paediatrician who immediately diagnosed meningitis. Treatment of intravenous antibiotics was then commenced.

Between 6.15 am and 7.00 am there were four resuscitations. Sadly, the patient did not stabilise and, at around 10.50am, was pronounced dead.

**Finding:** The Tribunal found Dr Perera guilty of professional misconduct.

The Tribunal was satisfied Particular 1 was established. The Tribunal found Dr Perera failed to appreciate the significance of the results of the CT scan and the need to investigate urgently his alternative diagnosis of meningitis. He failed to do any other investigation which might have elucidated the cause of the patient’s deep unconsciousness and he failed to follow up the results of an investigation which had already been carried out (the blood tests ordered by the SHO) and which would have assisted in deciding an appropriate management plan.

Dr Perera stated in his evidence he expected the patient to wake by morning. The Tribunal accepted the evidence of an expert who opined it may have been reasonable to forgo invasive procedures on that expectation but not in the circumstances where Dr Perera ‘had not taken reasonable care to establish a clear diagnosis nor exclude important other diagnoses which could have been reasonably treated.’

The Tribunal was satisfied Particular 2 was established. Dr Perera’s clinical notes recorded meningitis as a second differential diagnosis. One of Dr Perera’s explanations for failing to commence treatment with antibiotics was that, even though
the patient showed no evidence of intracranial bleed in the CT scan and little or no evidence of raised intracranial pressure, he still considered a head injury the most likely explanation for her condition. He said he considered it appropriate therefore to wait until after the lumbar puncture before empirical antibiotic therapy.

The Tribunal considered if the lumbar puncture were to be delayed, and meningitis was a potential diagnosis, then the patient should have been administered some intravenous antibiotics at the time that the diagnosis of meningitis was first considered and as soon as possible after intracranial mass lesions were excluded. The Tribunal found Dr Perera was unable to advance any reasonable explanation why he failed to commence treatment of antibiotics in view of his own admissions that meningitis was his second differential diagnosis.

The Tribunal was satisfied that Particular 3 was established. Dr Perera maintained he had assumed the general surgeon on call would have been informed about this matter by the SHO prior to the SHO asking Dr Perera to come into the hospital to anaesthetise the patient. The Tribunal considered there was no evidence to establish such an assumption could be safely made.

The Tribunal found that Dr Perera was the senior medical officer primarily responsible for the patient’s care while she remained in the ICU unless and until he transferred her care to another senior medical officer. He was the only doctor who had up-to-date knowledge of the patient’s condition when he left the ICU. He did not transfer her care to any other senior medical officer nor did he ensure that anyone else did so. Until the paediatrician arrived no other senior medical officer was aware of the patient’s admission or responsible for her care.

The Tribunal was satisfied Particular 4 was established. Dr Perera assumed that the patient’s mother, having had some involvement with her daughter’s management and having been present, was well aware of the management strategy and the treatment plan.

The Tribunal considered the patient’s mother was present, not as an involved health professional, but as an anxious mother with a very sick child. She was not responsible for her daughter’s management. Dr Perera had a responsibility to communicate with the family his understanding of the seriousness of the patient’s illness, the difficulty with a diagnosis, and his planned approach.

The Tribunal concluded that, at best, the staff were given a partial management plan, that is of extubating the patient and waking and weaning her in the morning.

Penalty: Dr Perera was censured and fined $12 000.

Dr Perera is no longer practising in New Zealand. The Tribunal ordered that if Dr Perera should return to New Zealand and apply for a Practising Certificate in New Zealand then the following conditions are imposed:

- The Tribunal recommends that the Medical Council of New Zealand undertake a competence review of Dr Perera including specific emphasis on intensive care medicine and acute anaesthesia practice.
- On resumption of practice as an anaesthetist in New Zealand, Dr Perera is required to work under close supervision until the Medical Council has undertaken its competence review and issued an annual practising certificate.
That on resumption of employment as a consultant anaesthetist within New Zealand Dr Perera be required to advise his employer and senior staff at his place of employment of the conditions that are attached to his practice.

Dr Perera was ordered to pay 25% ($19 122.44) of the costs and expenses of the investigation, prosecution and hearing of the charge.

The Tribunal further ordered publication of the hearing in the *New Zealand Medical Journal*.

The full decisions relating to the case can be found on the Tribunal web site at [www.mpdt.org.nz](http://www.mpdt.org.nz) Reference No: 01/86D.
Edwin Robert Fawcett

Edwin Fawcett had a unique double role in the Otago University Medical School, being both a physiologist and an anaesthetist. At medical school he attended as a zoology graduate, and responded well to the eccentric physiology lectures of John Eccles coloured by his enthusiasm for experimentation.

Ted embraced this view of medicine and when he returned to Dunedin, in 1964, it was as Lecturer in Physiology as well as ‘Visiting Anaesthetist’ at the public hospital. In both roles, he demanded of his students that they should think clearly and confidently and probe to understand the mechanisms of what they could observe. He was Fellow of the Anaesthetic Faculty of the Royal College of Surgery of London and that of Australasia. He was always looking for involvement in research during his periodic sojourns in England, but when he was a full-time anaesthetist for four years in New Plymouth was unable to pursue research there; hence his return to Dunedin.

Arriving in Dunedin in 1974, I found Ted a very welcoming, valuable colleague and this continued until his retirement in 1991. His publications were wide ranging; the last research topic he started was with Roland Broadbent (an ex-student) on surfactant replacement in respiratory distress syndrome. This expanded into a very fruitful field within physiology and paediatrics. He taught in virtually all the courses at the University that included physiology, undergraduate and postgraduate, as well as giving dedicated service to the community of St Matthews Church, Dunedin. He died on 5 January 2003, aged 75, and is survived by his wife, Kath, and his children, John, Michael, Christopher and Jane.

We are grateful to Dr David Boulton for this obituary
American Drug Index, 47th edition


This is the 47th edition of the American Drug Index (ADI). It is primarily a catalogue of the drugs available for the use of medical, pharmaceutical and other health professionals in the United States. All drugs are listed by both their generic and trade names, and are also listed under their therapeutic groups. Unlike other compendiums, such as the British National Formulary, no additional pharmacological properties, for example, interactions, adverse effects or contraindications, are provided with any of the medicines named. The ADI does, however, provide comprehensive lists of agents that are sold as over-the-counter medicines for minor disorders. Thus, all the combination products with paracetamol (acetaminophen) are listed. Pronunciations have also been included for many of the generic drugs. Because all preparations of any drug that is available are listed, the Index allows one to find individual drugs or drug combinations when only one major ingredient is known.

The ADI also provides information under one roof, as it were, which can be very difficult to find. This includes lists of medications that should not be crushed and drug names that sound alike or look alike. For the pharmacist, there is information relating to the container and storage requirements for a number of drugs from the United States Pharmacopoeia (USP). Information is provided for the more common calculations required in pharmacology and there is also information regarding normal laboratory values, conversion factors that may be required, and weights and measures. There is a simple, medical terminology glossary.

This book is a necessity for all medical libraries, but it is also one for the bookshelf of the pharmacist, clinical pharmacologist and the physician who is keen on therapeutics.

Carl Burgess
Professor of Medicine
Wellington School of Medicine and Health Sciences