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This Issue in the Journal

Workplace bullying of junior doctors: cross-sectional questionnaire survey
Joanne Scott, Chloe Blanshard, Stephen Child

This paper summarises the results of a survey carried out at Auckland City Hospital on the topic of the workplace bullying of junior doctors. A set of questions concerning specific ‘bullying behaviours,’ their perpetrators, and frequency, was filled in by 123 House Officers and Registrars. 50% of respondents had experienced at least one bullying episode, usually perpetrated by Consultants (Senior Doctors) or by Nurses. Only a small percentage of these episodes were reported due to either a lack of knowledge on how to report bullying or because of fears over making a complaint. The prevalence of bullying at Auckland City Hospital was found to be in line with international information but the lack of reporting highlights the need for better education and reporting systems.

Bilingual medical students as interpreters—what are the benefits and risks?
Chwan-Fen Yang, Ben Gray

It seems intuitively sensible that bilingual medical students might be a good option to use when doctors see patients who do not have sufficient English to do a full consultation. This study was initiated because Dr Gray heard some anecdotes of students interpreting in situations that had some risk. Bilingual students who had been asked to interpret were interviewed as were interpreters, DHB policy staff, and clinicians to look at the risks and benefits of students interpreting. We found that in some circumstances this worked fine, but in some circumstances there were significant problems. This study supports the international literature that is strongly in favour of the use of professional interpreters for any but the most simple consultations.

Future practice of graduates of the New Zealand Diploma of Obstetrics and Gynaecology or Certificate in Women’s Health
Dawn Miller, Helen Roberts, Don Wilson

The University of Otago’s and University of Auckland’s postgraduate Diplomas of Obstetrics (DipObs), Obstetrics and Medical Gynaecology (DipOMG) and Certificate in Women’s Health provide postgraduate training in women’s health and pregnancy care, and are particularly suitable for general practitioners (GPs) and other primary care practitioners. Seventy percent of 477 graduates from both universities since 1992 responded to the survey. Seventy-three percent had worked as GPs, 10% at Family Planning Clinics, 6% at sexual health clinics; 13% specialised in obstetrics and gynaecology. Eighty percent enrolled to further knowledge in women’s health; 43% to practise obstetrics in general practice. Most respondents who enrolled in the 1990s intended to practise obstetrics in general practice, providing care for women during pregnancy, labour, delivery.
By 2000, most doctors enrolling did not intend to offer this service. Of 137 New Zealand-based GP respondents who enrolled to practise GP obstetrics, only 5 (3.6%) currently provide care for women through pregnancy, labour, and delivery. Twenty-three GPs still provide maternity care shared with a midwife. Of 220 primary care practitioners surveyed, 90% provide pregnancy care in the first 3 months of pregnancy. Ninety-three percent described the course as useful–extremely useful.

Is incidental Meckel’s diverticulum resected safely?
Baris Zulfikaroglu, Necdet Ozalp, Ebru Zulfikaroglu, Mehmet Mahir Ozmen, Mesut Tez, Mahmut Koc

Meckel’s diverticulum (MD) is a small bulge in the small intestine present at birth. It is present in approximately 2% of the population, with males more frequently experiencing symptoms. It is usually discovered later in a person’s life by chance/incidentally during other procedures or examinations. In this study we discuss surgical management of MD. We find that resection (cutting out) of incidentally-found MD does not increase operative morbidity and mortality; thus it is considered to be a relatively ‘safe’ procedure.
The science of medical education

Tim J Wilkinson

Research into current practice and questioning of established dogma are important prerequisites to quality improvement. Just as this is true in the practice of medicine, so it is true for medical education.¹ It is therefore pleasing to see this issue of the Journal features a number of papers related to this discipline.²⁻⁵

Readers will not need to be reminded that not all things that might appear to be commonsense are necessarily found to be what they seem. For example, commonsense might suggest that grades motivate learning,⁶ that use of checklists in assessments might enhance reliability,⁷ and that treating the arrhythmias associated with a myocardial infarction might reduce mortality.⁸ All of these commonsense assumptions have actually been found to have the opposite effects. Dogma always therefore needs to questioned and tested.

The intersection of two disciplines provides fertile ground for research. Medical education has a special place within medicine and within education. Some aspects are common to both disciplines. Good teaching and good medical practice are often found together. This could be for a number of reasons: people who are interested in teaching are often also interested in quality improvement. Providing the environment for health to prosper often requires similar interventions that promote an environment for learning to prosper. Paternalism in telling students what to learn has been modified alongside the concept of paternalism in telling patients what to do. Both still have their place, but (when possible) most patients and students prefer to see their doctor and teacher as partners in a journey.

There are also some aspects of medical education that are more specific to medicine: concepts of the learning and measurement of professionalism have their roots in medicine; integrating science and practice and facilitating independent learning, such as is seen in problem based learning, have been championed by medicine. While there are commonalities between medicine and teaching, being a good clinician does not necessarily equate with being a good teacher and the converse also applies. Furthermore there is more to good teaching than what happens when face-to-face with a student.

Research in medical education is maturing. As in many other emerging areas of research⁹,¹⁰ it has moved along a continuum: there is the purely descriptive—this is what I did, the evaluative—when I did this, I noticed that this happened, the innovative—when I did this, the outcomes seemed to improve, the comparative—when I did this, I found the outcomes were different compared with when I did something else, and the theory building—the best explanation for all these observations. The challenge for all research is to keep moving towards a deeper understanding of what we observe.

Both medical schools in New Zealand are constantly innovating their courses. Alongside these innovations comes the responsibility to ensure the effects are in the
desirable directions. Evaluation, research, and quality improvement are essential partners in innovation. It is therefore gratifying to see some of these research endeavours in this issue of the *Journal*.

A student’s experiences of a week in population health raises some interesting generic issues. Experience, and possibly the passage of time, make clearer the relevance of many aspects of medical practice, particularly the broader determinants of health. This can lead to the conclusion that more of that area should have been learnt earlier: *if only I knew then what I know now*. This contrasts with the known observation that learning occurs best when the learner sees the relevance. This is a common dilemma in medical education—to prepare for practice in the future, while ensuring relevance is apparent in the present.

The assumption that most bullying of doctors comes from other doctors has been challenged. We know that bullying of medical students is just as likely to come from nurses. We now learn that workplace bullying of doctors is also often from nurses. When medical students are used as interpreters, some issues can arise from such a conflict of roles. The production of guidelines for practice in using students as interpreters is important.

An argument has been given that (for a long-case assessment) observing the history might improve the quality of that assessment.

The challenge for all these projects is to go to the next step. For example, is relevance of a topic more apparent if it is within a standalone module or if it is embedded within other disciplines of medicine? If workplace bullying is so prevalent, why is it happening, what has driven this phenomenon, and what interventions might lessen it? Do we know that production of guidelines for practice alters behaviour? We certainly know there are many reasons why it does not. Will the guidelines for interpreters be acceptable and even if they are acceptable, will they have any effect on patient care? We already know that very little of the unreliability of long cases is attributable to inter-examiner disagreement. Much more is related to the known observation that performance on one long case is a poor predictor of performance on another (case-specificity). Examiner opinion is not influenced to a significant degree by the choice of patient so closer observation of the student with the patient may not necessarily improve reliability. Observation, however, is likely to shed light on problems and help in feedback. But like some other commonsense assumptions, this might also be untrue.

We have developed a strong evidence base for much of current medical education practice. We are well on the way to strengthening this even further.

**Competing interests:** None known.

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References:


Postgraduate education in women's health in New Zealand

Cindy Farquhar

For nearly 35 years The University of Otago and The University of Auckland have taught a postgraduate diploma for medical graduates in either ‘obstetrics’ or ‘obstetrics and medical gynaecology’. The content of the diploma broadly covers women’s health and pregnancy care, and was particularly designed for general practitioners (GPs) who wished to provide maternity care for their patients.

In this issue of the Journal, a survey of the 477 diploma graduates from both New Zealand medical schools since 1992 provides us with some insights into the aims of those who enrolled in the diploma as well as the delivery of maternity care in New Zealand. It also highlights that the diploma of obstetrics is more than just maternity care as many graduates describe the usefulness of the diploma in training in sexual health and contraception. For some graduates it was also the step to specialising in obstetrics and gynaecology (O&G). Eighty percent enrolled to further knowledge in women’s health and just under half intended to practise obstetrics in general practice.

Most respondents who enrolled in the 1990s had intended to practise obstetrics in general practice—providing care for women during pregnancy, labour, and delivery—but by 2000 this had changed and most doctors enrolling in the diploma did not intend to offer this service. Less than 4% of those who intended to provide full maternity care were actually currently providing care.

The decline in the practice of obstetrics by general practitioners is reflected by the decline in the enrolments for the diploma. At its heyday in the 1980s, there were over 200 enrolments a year at both universities. In 2007, the enrolments had declined to less than 40 at both universities. Although the reason usually cited for the decline in GPs exiting GP obstetrics was the advent of independent midwifery in the early 1990s, other reasons (including lifestyle, difficulty with scheduling clinics, and remuneration) are also likely to have been factors.

This decrease means that many GPs commence their professional lives in general practice with no more O&G training than the 5 weeks in 5th year and the 5 weeks in 6th year. The undergraduate medical curriculum is generally considered insufficient preparation for general practice. Unfortunately this has meant a loss in postgraduate training in women’s health as there is so much more educational content in the diploma than just intrapartum care.

Prescribing in pregnancy, early pregnancy complications, menstrual disorders, complexities in contraception and hormone replacement therapy, postnatal care, and problems for the newborn infant are all covered in the diploma in far greater depth than can ever be given during the clinical years of medical school.

The decline in diploma enrolments has also meant that not only has the GP workforce become deskilled in all matters relating to pregnancy care but there is also reduced training opportunities in sexual and reproductive health—particularly contraception,
sexual health, and in the postpartum conditions such as depression. Furthermore, the
provision of emergency care in the provincial centres is very much provided by
general practitioners who may never have seen more than the required five births at
medical school.

The Diploma of Obstetrics and Medical Gynaecology is so much more than just
pregnancy care. The course covers a broad range of topics from pre-pregnancy
counselling, abortion medicine, prescribing in pregnancy, common postnatal
conditions, sexual health, medical gynaecology, hormone replacement therapy, and
contraception. Usually at least 6 months of logbook requirements can be fulfilled as a
junior doctor in O&G.

To summarise, the Diploma in Obstetrics and Medical Gynaecology provides an
invaluable training opportunity for those medical graduates commencing general
practice regardless of their intent to provide maternity care. The solution to this is to
encourage more GPs to undertake the Diploma even if they do not wish to get
involved in intrapartum care.

It is possible in the future that there may be a return to the shared care model of the
last few decades, but in order to do this many GPs will have to up-skill. The Royal
New Zealand College of General Practitioners needs to consider making postgraduate
training in women’s health a requirement for all general practitioners.

Competing interests: None known.

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Reference:

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http://www.nzma.org.nz/journal/121-1282/3261
Workplace bullying of junior doctors: a cross-sectional questionnaire survey

Joanne Scott, Chloe Blanshard, Stephen Child

Abstract

Aim Workplace bullying is a growing concern amongst health professionals. Our aim was to explore the frequency, nature, and extent of workplace bullying in an Auckland Hospital (Auckland, New Zealand).

Method A cross-sectional questionnaire survey of house officers and registrars at a tertiary hospital was conducted.

Results There was an overall response rate of 33% (123/373). 50% of responders reported experiencing at least one episode of bullying behaviour. The largest source of workplace bullying was consultants and nurses in equal frequency. The most common bullying behaviour was unjustified criticism. Only 18% of respondents had made a formal complaint.

Conclusion Workplace bullying is a significant issue with junior doctors. We recommend education about unacceptable behaviours and the development of improved complaint processes.

Workplace bullying has been recognised as a major occupational stressor since the early 1980s. However, bullying has become more recognised in the medical profession in recent years. Workplace bullying can have detrimental effects such as decreased job satisfaction, depression, anxiety, and absenteeism which impacts on staff retention and quality of patient care.

The recognition and management of bullying in the workplace is complicated by the lack of a consistent definition. It has been suggested by Rayner and Hoel that bullying can be defined as incorporating any of the following five key elements:

- Threat to professional status
- Threat to personal standing
- Isolation
- Enforced overwork
- Destabilisation

It is generally accepted that bullying incorporates negative behaviour(s) which are carried out repeatedly, rather than a single episode. It is not the perpetrator's intention, but instead the victim's perception, that determines whether the bullying has occurred. Previous studies of UK junior doctors show that 37% have been bullied in the preceding year. An Australian study had this prevalence as high as 50%. More
recently, an Irish study showed a rate of 30%. The studies show that the majority of bullying behaviours were from fellow doctors, in particular, those of greater seniority.

In this study, we attempted to determine the prevalence of bullying at Auckland City Hospital, which is the largest teaching hospital in New Zealand.

**Method**

**Study design**—We conducted a cross-sectional survey of all house officers and registrars (registered medical officers—RMOs) working at a teaching hospital with just under 1000 beds.

An anonymous questionnaire was sent via internal mail to 141 house officers and 232 registrars. A self-addressed internal mail envelope was included.

The questionnaire collected information on the participant’s age, gender, postgraduate year, country of training, ethnicity, and whether they were doing a medical or surgical run.

The participants were presented with a table of 14 bullying behaviours (Table 1). They were asked to identify whether they had experienced any of the behaviours in their previous term (3- or 6-month clinical attachment). If they had, they were asked to identify the staff group who perpetrated the behaviour and rate on a scale of 1–5 how frequently they encountered the behaviour.

If they had experienced any bullying behaviours, they were asked whether they had made a formal complaint, and whether this was effective. If they did not make a formal complaint, they were asked why they did not.

**Statistics**—All analyses were performed using SAS (SAS Institute Inc, v9.1) software. Continuous normally distributed variables were compared using Student’s unrelated groups test and Chi-squared analysis was used for categorical data. All tests were two-tailed and p<0.05 was considered statistically significant.

**Table 1. Questionnaire**

<table>
<thead>
<tr>
<th>Bullying behaviour</th>
<th>Consultant</th>
<th>Registrar</th>
<th>HO</th>
<th>Radiology</th>
<th>Nurse</th>
<th>Pharmacist</th>
<th>Patient/family</th>
<th>Other (specify)</th>
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<tbody>
<tr>
<td>Undermine your work</td>
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<td>Unjustified criticism</td>
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<td>Innuendo and sarcasm</td>
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<td>Verbal threats</td>
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<td>Making jokes about you</td>
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<td>Teasing</td>
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<td>Physical violence</td>
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<td>Violence to property</td>
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<td>Withholding necessary information</td>
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<td>Ignoring you</td>
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<td>Undue pressure</td>
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<td>Setting impossible deadlines</td>
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<td>Undervaluing of your efforts</td>
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<td>Discrimination</td>
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</table>

**Scale:**

1=encountered behaviour once  
2=once a month  
3=once a week  
4=>once a week  
5=every day
Results

We had a response rate of 34% (48/141) from house officers and 32% (75/232) from registrars. 50% (186/373) of these doctors reported at least one episode of bullying behaviour (95%CI: 41–58%, p=0.047).

50% (93/186) of those who were bullied were either first-year house officers, or first-year registrars (p value=0.008). There was a trend for RMOs doing a surgical run to report a higher incidence of at least one bullying behaviour compared to those doing a medical run (59% [27/46] vs 44% [27/62], p=0.17).

RMOs under the age of 25 reported bullying more frequently than those over the age of 25 (72% [17/24] vs 44% [43/99], p=0.024). There were no differences in gender, ethnicity, or whether the RMO was trained in New Zealand or overseas.

Consultants and nurses were the main perpetrators of bullying behaviour (30% [63/214] each) followed by patients (25% [53/214]), radiologists (8% [18/214]), and registrars (7% [17/214]) (Figure 1). Registrars were more often bullied by consultants, and house officers by nurses.

Figure 1. Who does the bullying?

The most widespread bullying behaviour encountered was unjustified criticism from consultants, followed by ’undervaluing of efforts’ (Figure 2).

Only 18% (33/186) of those who had experienced at least one episode of a bullying behaviour made an official complaint. 63%(20/33) of those who complained were house officers, and 83% (27/33) were female (p=0.042). Of those who made a complaint, 54% (18/33) reported some improvement. Of those people who did not make an official complaint, 82% (125/153) were not sure how to complain, and 79% (121/153) were afraid of the consequences. 72% (134/186) of those who had been bullied dealt with it themselves.
Discussion

Our study indicates that junior doctors at Auckland City Hospital perceive that they are bullied at the same prevalence rate as similar studies performed overseas.\(^1,3,5,6\) Studies such as this, however, suffer from problems of definition, perception, and response bias.

Bullying is clearly a difficult behaviour to define. It must be recognised that the medical education system is a hierarchical, high-pressure environment in which differences in knowledge often lead to an imbalance in power. In such an environment it would be common for performance feedback to be misinterpreted as bullying rather than a misguided attempt to improve performance.\(^7\) Irrespective of these qualifying factors, the perception of the victim is still the most important aspect of bullying behaviour. Secondly, in our study, junior doctors have identified instances where they have been bullied on a single occasion which would not meet the accepted definition of bullying.

Finally, the presentation of bullying behaviours in the survey may have prompted respondents to declare bullying behaviours and those who are bullied are possibly more likely to respond (i.e. responder bias).

Despite this, it is reassuring (although still totally unacceptable) that the prevalence of bullying amongst medical staff at our hospital when measured by similar methods and limitations is in line with the reported prevalence (30–50%) as defined from other overseas studies.\(^1,3,5,6\)

In addition, this study identifies two further issues. Firstly, while our medical personnel may be accused of bullying due to the hierarchical nature of the education structure, it is difficult to explain the high frequency of bullying by nurses towards house officers. Secondly, the majority of doctors who had experienced bullying

Figure 2. Most common bullying behaviour (total complaints = 214)
behaviour did not complain and 79% stated that they were afraid of complaining. This is in line with a study by Dickson in which he states, “It is not that the victim cannot complain; it is that they perceive themselves as helpless or they perceive the consequences of complaining as worse than the status quo.”

While the bullying behaviour may not have been of sufficient stature to warrant a formal complaint it is still a major concern that a significant number of doctors did not know the process by which they could address the issue. In contrast, however, it was reassuring to note that 54% of those that did complain noted an improvement which somewhat validates our current processes.

In summary, our study has identified a high prevalence of perceived bullying by junior doctors. While the bullying may be a misperception by the victim, it is still of sufficient concern that it requires further study. Organisational support should be given to all employees to minimise such behaviour and support potential victims. We recommend training sessions on effective communication and delivery of constructive criticism for the main perpetrator groups identified in this study. Possibly a formal complaint process should be identified with a standardised format, open accessibility, and confidentiality restrictions. Following these interventions, a repeat study should be conducted to confirm a positive change in bullying behaviours.

Competing interests: None known.

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Acknowledgements: We thank David Spriggs (Clinical Director, Department of General Medicine, Auckland City Hospital, Auckland); Gill Naden (Manager, CETU, Auckland City Hospital, Auckland); and Medical Council of New Zealand for their assistance.

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Bilingual medical students as interpreters—what are the benefits and risks?
Chwan-Fen Yang, Ben Gray

Abstract

Aims To identify the frequency of medical students interpreting in healthcare settings and to explore the issues related to the use of non-professional interpreters.

Methods All 4th and 5th year University of Otago medical students were surveyed to identify bilingual medical students who have interpreted for patients. Students and key informants were interviewed and audiotaped.

Results Of the 102 bilingual students identified, 59 interpreted for patients. We analysed 39 student interviews. Most reported a ‘good’ interpreting experience and thought student interpreting was ‘a good idea’, but some encountered ‘bad’ experiences. Stakeholders (professional interpreters, DHB policy staff, and clinicians who use interpreters) thought students should not interpret. Issues explored were: student comfort, clinician’s choice, the interpreter’s role, cultural competency, awareness, and provision of interpreting services.

Conclusions A considerable proportion of bilingual clinical medical students have interpreted for patients contrary to Capital and Coast District Health Board policy and professional interpreter recommendations. In conjunction with published literature and after consulting with interpreter trainers, we have developed a document which canvasses the issues involved and proposed practical guidelines, to better prepare healthcare professionals and non-professional interpreters for interpreting situations. More research is required to find out why clinicians are asking medical students and others to interpret rather than engaging professional interpreters.
In spite of this, numerous accounts of non-professional interpreter use (family, friends, healthcare professionals, and non-clinical employees) in non-emergency circumstances have been reported anecdotally, both within C&C DHB and in other NZ healthcare settings. This is reinforced by overseas studies which identify use of non-professional interpreters as common practice in healthcare.\textsuperscript{3,8,10,21,22,25,26} While having the advantage of easy availability, the pitfalls of using non-professional interpreters have been well defined.\textsuperscript{2–4,8,12,15,18,25}

Our study focuses on a specific group of non-professional interpreters: bilingual medical students. As well as being conveniently available and having the relevant language skills, their understanding of medicine and ethics may make their use as interpreters seem more appropriate. We found a US paper that looked into expanding interpretation services by training medical students as interpreters,\textsuperscript{11} but very few other studies have explored issues regarding medical students as interpreters.

This study aims to identify the frequency of medical students interpreting in healthcare settings, and to address the issues related to such practice by interviewing University of Otago clinical medical students and a variety of other stakeholders such as Professional interpreters, DHB policy staff, and clinicians who use interpreters.

**Methods**

Ethics approval was gained from the University of Otago Human Ethics Committee in October 2007. A questionnaire was sent via email to all 4\textsuperscript{th}- and 5\textsuperscript{th}-year medical students at University of Otago (n=462), along with a covering letter detailing the background for the study.

A semi-structured interview schedule was developed. All interviews were conducted by C-FY, audiotaped, with relevant parts transcribed verbatim.

Separate interview schedules were developed for each group of stakeholders: six professional interpreters, an interpreter trainer, two doctors, and staff from C&C DHB, interpreter service management, University of Otago Wellington School of Medicine, and Language Line (a government-funded telephone interpreting service).

Data analysis was guided by framework analysis: transcripts were indexed and reassembled according to a framework developed from predetermined interview topics and emerging themes.

**Results**

Two students had interpreted pre-clinically and three extra interviews were conducted with bilingual students that had not interpreted for patients. They were therefore excluded from analysis, thus leaving a total of 39 interviews to be analysed (Table 1).

**Table 1. Student interviewees**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number</th>
<th>% of total</th>
<th>% of replies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total students</td>
<td>462</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Student replies</td>
<td>180</td>
<td>39%</td>
<td>100%</td>
</tr>
<tr>
<td>Are you fluent</td>
<td>102</td>
<td>22%</td>
<td>57%</td>
</tr>
<tr>
<td>Had interpreted</td>
<td>59</td>
<td>33%</td>
<td>23%</td>
</tr>
<tr>
<td>Interviewed</td>
<td>41</td>
<td>22%</td>
<td>23%</td>
</tr>
<tr>
<td>Interviews analysed</td>
<td>39</td>
<td>22%</td>
<td>22%</td>
</tr>
</tbody>
</table>
This study was done over the summer after the term had ended. The 5th-year students had therefore started work as trainee interns and a quarter of them were away on electives (Table 2).

### Table 2. Location/year of interviewees

<table>
<thead>
<tr>
<th>Location</th>
<th>4th Year</th>
<th>5th Year</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christchurch</td>
<td>12</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>Wellington</td>
<td>7</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>Dunedin</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23</strong></td>
<td><strong>16</strong></td>
<td><strong>39</strong></td>
</tr>
</tbody>
</table>

Thirty-four different languages were spoken (Table 3).

### Table 3. Languages spoken by respondents (102 students)

<table>
<thead>
<tr>
<th>Language/dialect spoken</th>
<th>Number of students who can speak it</th>
</tr>
</thead>
<tbody>
<tr>
<td>European</td>
<td></td>
</tr>
<tr>
<td>French</td>
<td>5</td>
</tr>
<tr>
<td>German</td>
<td>4</td>
</tr>
<tr>
<td>Spanish</td>
<td>6</td>
</tr>
<tr>
<td>Russian</td>
<td>2</td>
</tr>
<tr>
<td>Slovak</td>
<td>1</td>
</tr>
<tr>
<td>Czech</td>
<td>1</td>
</tr>
<tr>
<td>Portuguese</td>
<td>1</td>
</tr>
<tr>
<td>Creole</td>
<td>1</td>
</tr>
<tr>
<td>Catalan</td>
<td>1</td>
</tr>
<tr>
<td>Pasifika</td>
<td></td>
</tr>
<tr>
<td>Māori</td>
<td>1</td>
</tr>
<tr>
<td>Tongan</td>
<td>1</td>
</tr>
<tr>
<td>Fijian</td>
<td>1</td>
</tr>
<tr>
<td>Samoan</td>
<td>1</td>
</tr>
<tr>
<td>Central Asian</td>
<td></td>
</tr>
<tr>
<td>Gujarati</td>
<td>1</td>
</tr>
<tr>
<td>Arabic</td>
<td>6</td>
</tr>
<tr>
<td>Farsi</td>
<td>1</td>
</tr>
<tr>
<td>Sinhalese</td>
<td>3</td>
</tr>
<tr>
<td>Chaldean</td>
<td>1</td>
</tr>
<tr>
<td>Burmese</td>
<td>1</td>
</tr>
<tr>
<td>Hindi</td>
<td>4</td>
</tr>
<tr>
<td>Telugu</td>
<td>1</td>
</tr>
<tr>
<td>Eastern Asian</td>
<td></td>
</tr>
<tr>
<td>Sundanese</td>
<td>1</td>
</tr>
<tr>
<td>Indonesian</td>
<td>2</td>
</tr>
<tr>
<td>Japanese</td>
<td>3</td>
</tr>
<tr>
<td>Korean</td>
<td>2</td>
</tr>
<tr>
<td>Thai</td>
<td>2</td>
</tr>
<tr>
<td>Malay</td>
<td>30</td>
</tr>
<tr>
<td>Hokkien</td>
<td>3</td>
</tr>
<tr>
<td>Mandarin</td>
<td>35</td>
</tr>
<tr>
<td>Taiwanese</td>
<td>1</td>
</tr>
<tr>
<td>Foochou</td>
<td>2</td>
</tr>
<tr>
<td>Cambodian</td>
<td>1</td>
</tr>
<tr>
<td>Cantonese</td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td>Sign</td>
</tr>
</tbody>
</table>
The majority of students had one or two experiences of interpreting for patients (Table 4) and this occurred most frequently ‘on the wards’—i.e. for inpatients (Table 5).

Table 4. Number of patients interpreted for

<table>
<thead>
<tr>
<th>Number of patients</th>
<th>4th year</th>
<th>5th year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 patient (+ family)</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>2 patients (+ families)</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>More than 2 patients</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td><strong>25</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

Table 5. Medical settings in which interpreting took place

<table>
<thead>
<tr>
<th>Ward</th>
<th>ED</th>
<th>OPD</th>
<th>GP</th>
<th>Theatre</th>
<th>ICU</th>
<th>GP after-hours</th>
<th>Procedures: (e.g. endoscopy)</th>
<th>Ambulance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>36</td>
<td>10</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

ED=Emergency Department; OPD=Outpatients’ Department; ICU=Intensive Care Unit.

Interpreting experiences were extremely varied across the 39 students. In most instances, students were involved in interpreting explanations to patients or their family; including aspects of the patient’s condition or treatment. Several students also reported interpreting explanations of complex procedures (e.g. lung/ bone marrow biopsies, surgical procedures).

The second most common situation encountered was brief information relaying such as giving doctors/nurses instructions or short question/answering, mostly occurring during ward rounds. History-taking for LEP (limited English proficiency) patients was commonly reported as well. Other rarer occasions included students providing emotional support for LEP patients or helping with basic English skills.

Eight students had interpreted informed consent;

- Obtain consent for a lung biopsy, for potential Cancer…I was basically relaying information from the house surgeon

In one particular incident, a student was asked to question a parent about non-accidentally injuring her child, an experience that left the student ‘really traumatised.’

The interpreting not only differed in terms of the information relayed, but a range of commitment required was also reported. From brief; ‘a couple of minutes’ to extensive:

- I was beside her (patient) for about 1 or 2 hours. And that evening I returned on their request…I spent another 2 hours interpreting for hospital consultants and registrars

Student’s subjective experiences of interpreting were collapsed into three categories; ‘good’, ‘alright/normal’, or ‘bad’. (Table 6)
Table 6. “How did you find the experience of interpreting?”

<table>
<thead>
<tr>
<th>Student subjective experiences</th>
<th>Number of experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Good’; for example:</td>
<td>24</td>
</tr>
<tr>
<td>Student felt comfortable, useful, helpful</td>
<td></td>
</tr>
<tr>
<td>It was an enjoyable, rewarding, satisfying, or educational experience</td>
<td></td>
</tr>
<tr>
<td>The interpreting was straightforward</td>
<td></td>
</tr>
<tr>
<td>‘Alright/ Normal’</td>
<td>6</td>
</tr>
<tr>
<td>‘Bad’; for example:</td>
<td>14</td>
</tr>
<tr>
<td>Student felt uncomfortable, pressured, unconfident, awkward and unsure, embarrassed, or didn’t want to do it</td>
<td></td>
</tr>
<tr>
<td>The interpreting was difficult</td>
<td></td>
</tr>
</tbody>
</table>

Most students had a ‘good’ experience:
I quite enjoyed it. Yeah, I loved it really. It was quite educational and you felt as if you’re of help

Some found it an ordinary experience:
I found it normal…it’s just another patient, but using another language

A significant proportion of students, encountered ‘bad’ experiences:
I felt like I want to reject it…I didn’t feel that comfortable…But then they didn’t have anyone else, and being on the team you want to feel that you are doing something for the team.

Views on students as interpreters

Students—When asked ‘what do you think of the idea of students interpreting?’ almost all students thought that it was ‘a good idea’, provided the student feels comfortable, is confident with their language skills, only interprets simple information, and does not personally know the patient. The few students that disagreed had reported ‘bad’ interpreting experiences.

It’s a good idea; I mean it’s a very useful resource to have around, especially just to interpret a single sentence or something, don’t need to call an interpreter in

I sometimes get text messages from 5th- or 6th-year students who are also Korean…they text out to all Korean medical students if someone can come up and help some of the patients who needs a Korean interpreter urgently…I think it’s a really good system

In contrast, key informants generally opposed this idea.

Stakeholders—Most did not think students should be interpreting:
I don’t think it’s a good idea at all. In fact I think it compromises you (student) and the patient…it’s recognition of the profession of interpreting (interpreter)

I don’t believe they (students) should be put in that situation of being asked…it’s probably an easy option…but that’s not our policy…it doesn’t ensure that the patient receives appropriate interpreting services (DHB policymaker)

No. I think it’s a big no…I don’t think patients would speak to them as interpreters, because the image of speaking to a medical person would dominate (interpreter trainer)

There was, however, an acceptance by several stakeholders for medical students to interpret under certain situations; during emergencies or when very basic information needs to be relayed:
This is a compromise, but of course we do live in a real world. You don’t call in an interpreter just to ask basic things like ‘push this button when you feel unwell’… But that has to be done with caution, and not for convenience.

Further analysis identified several issues related to the use of students as interpreters:

**Degree of language expertise**—Most students reported adequate fluency in the language that they interpreted in. Those that couldn’t were mainly multilingual students who were interpreting in one of their second languages or had a different accent to the patient. Only a small number of bilingual students had to interpret in a language they were not fluent in.

**Awareness and provision of interpreting services**

When asked ‘are interpreting services adequate?’ the majority of students replied that they don’t have enough understanding of the services to comment. For those that did, most believe it to be inadequate or not fully utilised.

From my personal experience, seeing it from a medical student perspective, it takes a lot of the medical team’s time and also delays procedures quite a bit.

**Clinician’s decision**—The majority of students who interpreted were asked to do so by a health professional (Table 7) and none of them had refused. The clinician’s judgement is therefore central in deciding whether or not the student interprets.

**Table 7. Asked vs volunteered to interpret**

<table>
<thead>
<tr>
<th>Asked by:</th>
<th>Student interpreting experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Professional</td>
<td>28</td>
</tr>
<tr>
<td>Patient</td>
<td>4</td>
</tr>
<tr>
<td>Classmate</td>
<td>3</td>
</tr>
<tr>
<td>Volunteered to interpret</td>
<td>18</td>
</tr>
</tbody>
</table>

**Interpreting medical language**—Almost all students commented on struggling to interpret medical terms:

I can hold a normal conversation very easily, but when it comes to medical terms… it takes me ages just to say a few words.

The few students that did not encounter problems with medical terminology were generally relaying simple messages. And of those students, many acknowledged that they may have difficulty interpreting more complex information. If medical students found this difficult, many other non-professional interpreters may share similar experiences.

**Cultural sensitivity**

More than half the students interviewed had picked up on specific cultural issues. In one particular case, a misdiagnosis had been made due to a cultural misunderstanding and was resolved with the help of a student who explained to both parties (patient and healthcare professionals) their differing cultural beliefs.
Ethical issues

Patient confidentiality—Strict respect for the patient’s confidentiality was highlighted by all interviewees. This is particularly difficult for onsite interpreters from small cultural communities. Of the 39 interviewees, only a very small number knew the patient personally, and those students were all interpreting at the patient’s request.

Patient autonomy—Many commented on the need for patients to be fully informed and give consent for the medical student to interpret.

Conflict with learning—Since most students only had one or two experiences of interpreting, this generally wasn’t a problem. A few students did miss some teaching due to interpreting, but said that they were okay with it. One student experienced considerable conflict because the patient was a personal friend:

I had to take off from ward round earlier… I also missed just a couple of tutorials…it was my intention, it was just my personal pleasure to help

Conflict of roles—When asked if there was any confusion with being in the role of a medical student and interpreter, most students replied ‘no’. However, they found different ways of dealing with their roles, e.g:

I worked purely as an interpreter as opposed to a medical student

compared with

I knew the whole time that I was a medical student. I didn’t think of myself as an interpreter

The few students who did experience a role conflict explained that they had felt pressured to interpret, had felt the extra responsibility or were unprepared.

Understanding the role of an interpreter (including professional codes of conduct)—Several stakeholders emphasised this:

A key requirement of trained interpreters is this complete neutrality

They (untrained interpreters) don’t understand their role…They see themselves as helpers…and they try to do what they think is the best for the patient

Most students were unaware of the principles of interpreting and the discipline required:

Try get along side the patient…team up with them instead of the doctor…it makes the patient feel a little more at home

This reflects patient-centred care by doctors, but is inappropriate if interpreting. Due to their eagerness to help the patients, students often did more than ‘just interpreting’. At times they consulted or became the patient’s support and advocate.

This misunderstanding with ‘what is interpreting?’ is reflected through cases where students reported having interpreted for patients, but had actually obtained the information by themselves and later relayed it to a health professional (Table 8).
Table 8. Interpreting or consulting?

<table>
<thead>
<tr>
<th>Variables</th>
<th>Student experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health professional present (i.e. the student interpreted for the health professional)</td>
<td>35</td>
</tr>
<tr>
<td>Student alone with the LEP patient (e.g. student gained info alone and later relayed it to the health professional)</td>
<td>7</td>
</tr>
<tr>
<td>Mixed (i.e. a health professional was present for some of the time)</td>
<td>9</td>
</tr>
</tbody>
</table>

For the majority of cases, a health professional was present. Those who were alone with the patient were mostly doing quick information relaying, history taking, or were asked by the patient to interpret. One student however, obtained informed consent for an urgent procedure by himself:

…the registrar provided me with a consent form and yeah, that was about it…I was told to explain what the scan is supposed to be, the risks, and the benefits

**Patient expectations**—The tendency to do more than ‘pure interpreting’ was reinforced by patients’ expectations. Many students were approached by patients with questions and felt more was expected of them because of their medical background

- If you’re a medical staff and you can speak the language, they treat you not as an interpreter but a medical staff who speaks their language. So they will be asking all sorts of questions
- In the ward, sometimes if they (patients) see you walking along the hall, they will stop you and tell you what they’ve been wanting for the day. And then you find that…you do the little messenger jobs

She (the patient) was like: “I need this pain killer; I need more fluids, why is my blood pressure going up?” I somehow can explain to her, but then when she needs some stuff, I was like: “I can’t give it to you…"

**Benefits to the student**

The advantages of interpreting were well described. Almost all students found it easier to build rapport with the patients they interpreted for. Many also commented on the educational benefits gained from interpreting.

**Interest and commitment in training**

Almost all students replied ‘yes’ when asked if they would be interested in teaching on general principles and skills of interpreting. However this interest is greatly dependant on what the actual course involves and the commitment required.

**Discussion**

C&C DHB policy and professional interpreter recommendations state that trained interpreters should conduct interpreting except in emergencies. Our study, however, demonstrates a significant proportion of Otago bilingual clinical medical students have interpreted in NZ healthcare settings. Various factors are limiting the extent to which actual practice reflects policy. These need to be addressed through further research exploring the views and experiences of healthcare professionals and policymakers.
A possible reason behind this mismatch may be a lack of awareness by both clinicians and students of the risks involved with students interpreting. Our study has explored a range of issues, including both the benefits and risks related to such practice. As a result, we developed a discussion document (Appendix 1) aimed at informing health professionals and bilingual students of the issues that need to be considered when making a clinical decision for a student to interpret, as well as factors to be conscious of whilst interpreting.

There are several limitations to this study. Firstly, the views put forward by the students are subjective, and since no incentives were provided, those that responded probably had a personal interest in the project. Secondly, only 39% of students answered the original survey. It is likely that a preponderance of non-responders were monolingual, which means the proportion of bilingual students and of those that have interpreted (56.7% and 57.8% respectively) is almost certainly an overestimate.

Also, more 4th year students were interviewed as opposed to 5th years (23 vs 16). This was most likely due to availability as a quarter of the 5th years (now doing their trainee intern year) were away on electives. (However while the response rate was low, the nature of our study is qualitative and thus not necessarily limited by the number of respondents.)

Thirdly, the interviewing researcher is a bilingual medical student herself; which may potentially bias the research process. Finally, the students reported their own level of language expertise; this was not objectively verified.

Our research findings suggest that there is some confusion between students ‘interpreting’ and performing other tasks. Clear risks are associated with interpreting, but when students are undertaking tasks that a medical student would ordinarily do (e.g. taking a history from a LEP patient where a clinician has already done so using an interpreter), then it seems appropriate in those cases for students to use their language skills (e.g. they are able spend more time with the patient and a good rapport may be established where further information can be gained to complement the healthcare team’s understanding of the LEP patient).

There are too many variables in any individual situation to hypothetically determine how appropriate a particular situation is for a student to interpret in. Even if very simple information needs to be relayed, the student may not be fluent in the language, the patient may be uncomfortable, complicated questions may be unexpectedly asked, and so on. Therefore, instead of declaring which circumstances are ‘okay’ or ‘not okay’ to interpret in, we developed some practical guidelines as a way forward (Appendix 1).

Whilst this study looked at bilingual medical students, the issues raised apply to all non-professional interpreters. This could be seen as a study of non-professional interpreting with some controlling for medical knowledge and understanding of roles and ethics. It is likely that the issues for other non-professional interpreters (friends and family members) would be similar and in some circumstances more worrying.

Conclusion

Contrary to DHB policy and professional interpreter recommendations, use of bilingual medical students as interpreters is quite common, and more research is
required to address reasons behind this discrepancy. Interpreting by students is undertaken without any formal preparation and can leave both the student and patient potentially vulnerable.

Devising reliable methods to compare the collective outcomes (i.e. for patients, students, clinicians, hospitals) in using students, family members, or friends as interpreters remains a challenge. Each patient encounter will have a different mix of acuity, availability of professional interpreter (telephone or face-to-face), adequacy of available non-professional interpreter, comfort of patient and clinician, with available alternatives and complexity of content.

We offer some guidelines for clinicians and medical students to use to assist in making judgements in these situations. A greater understanding of interpreting services, awareness of the value of using professional interpreting, and the risks of using non-professional interpreters is needed in healthcare.

**Competing interests:** None known.

**Author information:** Chwan-Fen Yang, Medical Student (5th year); Ben Gray, Senior Lecturer; Department of Primary Health Care and General Practice, Otago University, Wellington

**Acknowledgements:** We thank the Health Research Council for funding this study as well as the Wellington Community Interpreter Service, stakeholders, and students for their participation.

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**References:**


Appendix 1. Bilingual medical students as interpreters

Capital and Coast DHB policy and professional interpreter recommendations suggest that trained interpreters except in emergencies should conduct interpreting.
Our study indicates that interpreting experiences are relatively common amongst bilingual clinical medical students. In those circumstances, based on our own study and the published literature, several issues need to be carefully considered to decide whether or not a student should interpret.

**Issues to be aware of before interpreting takes place**

*(Guidelines/recommendations are in italics)*

Availability of other means (e.g. professional face-to-face or telephone interpreters)

*Use of trained interpreters should always be considered first.*

**Urgency**

*It may be more acceptable for medical students to interpret in emergency situations, if a professional interpreter is not available, if they feel confident and comfortable doing so.*

**The information to be interpreted**

*Students must be well informed of what is to be interpreted beforehand.*

*Information should be brief and uncomplicated*

**Student comfort**

*above all, the student should feel comfortable in that situation*

**Degree of language expertise**

*Students must be confident in their level of fluency if they are to interpret.*

**Patient comfort**

*Patient must give consent for students to interpret.*

**Clinician’s decision-making**

*Health professionals must be fully informed of the student’s level of language expertise and be aware of other issues related to students as interpreters.*

If those issues are addressed and a decision is made for the student to interpret, then further issues to be considered include:

**Issues to be conscious of while interpreting:**

*Difficulties faced with interpreting e.g. Interpreting medical language*

*The student should always clarify any information that they are unsure of interpreting. And the clinician should explain in laymen terms any medical jargon that is harder to interpret.*

**Ethical issues**

*Conflict of roles: medical student, interpreter, friend or relative.*

*There are extra risks involved when more than one role is taken up. Students must distinguish those roles and be prepared to act solely as an interpreter while interpreting.*
Students should never feel pressured and their choice to refuse to interpret must be respected

Patient confidentiality

Patient confidentiality is at risk when students interpret for people they know personally (e.g. a relative, friend etc.)

The role of an interpreter

Students should understand the degree of professionalism (incl. impartiality) involved with interpreting.

Students should not be consulting if they are in the role of an interpreter.

Medical students acting as interpreters need to recognize their limitations and let those boundaries be known, because they are at particular risk of becoming over-involved.

Patient expectations

Students need to be able to decline patient requests.

Conflict with learning

Interpreting should not interfere with the student’s other commitments.

Benefits to the student e.g. educational Benefits

Benefits of face-to-face interpreting (cf. phone interpreting)

Cultural competency of the Healthcare professional and Student

All of the issues discussed influence the quality of the information interpreted, with varying effects on the patient’s health and healthcare.

Additional Issues to Be considered if using Family Member or Friend

Using the patient’s (non adult) child.

This has many potential difficulties. It distorts the child’s role in the family by giving them power over the parent. Some issues cannot be discussed (sexuality, family violence). If the child makes a mistake they may feel responsible for a bad outcome or be blamed by others.

Role Confusion is very likely

It is very likely that the family member or friend will see themselves as the patient’s advocate and supporter rather than their neutral interpreter. This is likely in some circumstances to significantly affect the consultation.

Language Competency

The clinician has no way of assessing the language competency of a non-professional interpreter. If the interpreter sees themselves as a “helper” they may be trying their best with little awareness of their own limitations.
Confidentiality
Sensitive information may not be available. The clinician will only be able to guess when this is happening as they will not be able to judge what information the patient may not wish to share with the interpreter.

Deliberate Misinformation
If the interpreter is the source of the patient’s problems (for example an abusive husband interpreting for his wife) the clinician has no ability to help the patient effectively.

Trust
If the patient brought the interpreter with them there could be an implied trust on the part of the patient that they are happy using that person to interpret. This may enable them to talk of sensitive matters that they would find harder disclosing via an unknown interpreter.

Advocacy/Support
The interpreting friend or family member is likely to be able to help ensure adherence with treatment regimes and follow up appointments more effectively than a professional interpreter.
Future practice of graduates of the New Zealand Diploma of Obstetrics and Gynaecology or Certificate in Women’s Health

Dawn Miller, Helen Roberts, Don Wilson

Abstract

Aim To determine: why Diploma of Obstetrics (DipObs), Diploma of Obstetrics and Medical Gynaecology (DipOMG), or Certificate in Women’s Health graduates enrolled; course usefulness; and subsequent practice.

Methods 588 University of Otago DipObs, DipOMG, and Certificate in Women’s Health graduates (1992–2006) plus Auckland University graduates (1996–2006) were identified. All were doctors. Questionnaires were sent to the 477 with New Zealand medical registration and responses analysed.

Results 334 of the 477 graduates returned completed questionnaires—70% response rate. 73% had worked as GPs, 10% at family planning clinics, 6% at sexual health clinics; and 13% specialised in O&G. 80% enrolled to further knowledge in women’s health, 20% in children’s health, and 43% to practise GP obstetrics. Most respondents who enrolled in the 1990s intended to practise GP obstetrics but by 2000 most did not. Of 137 New Zealand-based GP respondents who enrolled to practise GP obstetrics, only 5 (3.6%) currently practise intrapartum obstetric care. Twenty-three GPs still practise shared maternity care. Of 220 primary care practitioners, 90% provide early antenatal care. 93% described the course as useful/extremely useful.

Conclusions The DipObs, Dip OMG and Certificate in Women’s Health have continued to provide useful postgraduate training in women’s health during a changing time in New Zealand pregnancy care. While many graduates of the 1990s enrolled to practise GP obstetrics, most recent graduates did not, and few GPs still practise intrapartum obstetrics.

The Postgraduate Diploma of Obstetrics (DipObs) was first offered at the University of Auckland in 1972 and at the University of Otago in 1977. These postgraduate courses were established to provide training in women’s health and obstetric care and were developed to be particularly suitable for general practitioners (GPs) and other primary care medical practitioners.

Legislation change in the 1990s led to change in the provision of pregnancy care in New Zealand. The Nurses Amendment Act (1990) gave midwives professional autonomy to act as fully independent pregnancy and childbirth service providers without the need for supervision by medical practitioners.1,2

In 1996 the concept of Lead Maternity Carer (LMC) was introduced. The LMC could be a midwife, GP, or specialist obstetrician, and would be chosen by the pregnant woman. The LMC had overall clinical and budgetary responsibility for a woman’s
primary maternity care and aimed to provide continuity of care throughout a woman’s pregnancy, labour, and up to 6 weeks post-partum.\(^1\)

Funding of maternity services was also reviewed again at this time.\(^3,4\) It was hoped that these changes would enable greater choices in pregnancy care for women and their families. However with these changes, the number of GPs practising intrapartum obstetrics during the 1990s progressively declined.

The DipObs continued to be offered throughout this period. In 2003 both Otago and Auckland Universities renamed these postgraduate courses the Diploma of Obstetrics and Medical Gynaecology (DipOMG) and collaboratively revised the course. The Certificate in Women’s Health was also introduced at this time to provide postgraduate training in women’s health which did not emphasise intrapartum care.

The DipOMG is a year-long course consisting of a 6-month clinical attachment in obstetrics and gynaecology (O&G), four distance-taught papers, and two residential papers—plus assessments. Only medical graduates can enroll.

The Certificate in Women’s Health is a 6-month course including three of the four distance taught papers and one residential, plus assessments. Doctors, midwives and nurses can enroll for the Certificate.

The aim of our study is to determine:

- Why DipOMG, DipObs, and Certificate in Women’s Health graduates initially enrolled in their courses;
- The graduates’ subsequent practice; and
- The usefulness of their postgraduate study in that practice.

**Methods**

All University of Otago graduates from 1992 to 2006 with the DipObs (n=246), DipOMG (n=23), or Certificate in Women’s Health (n=15) were identified from the University of Otago graduate database. In 1992, University of Otago changed the DipObs training to a distance-taught academic programme and therefore 1992 was a suitable starting point for this project.

All University of Auckland DipObs or DipOMG graduates from 1996 to 2006 (n=304) were identified from the University of Auckland graduate database. Accessing University of Auckland graduate records prior to 1996 proved difficult. No Certificate in Women’s Health graduates were identified on the University of Auckland database. All graduates from both universities had a medical degree. 477 of the 588 graduates identified were registered with the Medical Council of New Zealand (MCNZ), and the Council provided their contact details. 200 of these doctors were University of Otago Diploma or Certificate graduates, and 277 were University of Auckland graduates. Where the medical practitioner had requested their address remain confidential, the MCNZ sent the questionnaire on our behalf.

The questionnaire was developed by the academic staff in the Departments of Women’s Health at both universities. It was trialled with clinical O&G staff and GPs at both universities.

All questionnaires were coded then sent with a reply-paid envelope. A further questionnaire was sent to non-responders after 3 weeks.

The MCNZ provided age and gender information of non-responders.
Results

477 graduates of the DipObs, DipOMG, or Certificate in Women’s Health were surveyed, and 334 returned the completed questionnaire—a 70% response rate. Twenty-five questionnaires remained as return-to-sender. Seventy-nine percent of respondents were DipObs graduates, 19% DipOMG grads, and 2% had graduated with the Certificate in Women’s Health. Fifty-seven percent of respondents had graduated with this qualification from University of Otago and 43% from University of Auckland. The response rate was 95% from Otago graduates and 52% from Auckland graduates. Ninety-two percent of respondents were 30–49 years old, 5.4% (n=18) were 50 years and older, and 65% were women. In the non-responder group (n=147), 90% were in the 30–49 year old age groups and 63.2% were women.

Table 1. Ethnicity of survey respondents (N=334)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Zealand European</td>
<td>261 (78.0%)</td>
</tr>
<tr>
<td>Māori</td>
<td>12 (3.6%)</td>
</tr>
<tr>
<td>Pacific people*</td>
<td>6 (1.8%)</td>
</tr>
<tr>
<td>Asian</td>
<td>20 (6%)</td>
</tr>
<tr>
<td>Indian or Sri Lankan</td>
<td>11 (3.3%)</td>
</tr>
</tbody>
</table>

*Mostly of Samoan, Tongan, Niuean, or Cook Islands origin.

While the year of graduation with a medical degree ranged from 1971 to 2005, 87% of participants had graduated in medicine between 1986 and 2000, and 89% had 7 to 21 years in medical practice. 308 doctors (92%) currently lived in New Zealand, 21 (6.3%) in Australia, 2 in United Kingdom, 1 in France, and 1 in USA. Of the 291 respondents answering the question on practice location, 251 (86%) worked in an urban area and 40 (14%) in rural practice. Contact details suggested urban location for 35 of the 43 doctors who did not answer this question.

Almost 73% of the 334 respondents have worked in general practice, with 63% currently working as a GP. Over 10% have worked at Family Planning, 6% at sexual health clinics, and 4% in emergency medicine. Nearly 13% have specialised in O&G or are currently in training in that specialty. Respondents could indicate more than one area of practice.(Table 2)

The self-reported year of graduation with the DipObs, DipOMG, or Certificate in Women’s Health (Table 3) shows a reasonably even spread of respondents throughout the years included in our study cohort up to 2002. The number of respondents who had graduated since 2003 is low. Only Otago graduates were included in the study group before 1996. We expect this self-reported information to be reasonably accurate as these postgraduate papers are usually taken 2 or 3 years after graduation with a medical degree.
Table 2. Current and previous practice of respondents (n=334)

<table>
<thead>
<tr>
<th>Type of practice</th>
<th>Number in current practice</th>
<th>Number in previous practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>General practice</td>
<td>210 (63%)</td>
<td>243 (72.8%)</td>
</tr>
<tr>
<td>Family Planning Association (FPA)</td>
<td>9 (2.7%)</td>
<td>35 (10.5%)</td>
</tr>
<tr>
<td>Sexual health clinic</td>
<td>7 (2.1%)</td>
<td>19 (5.7%)</td>
</tr>
<tr>
<td>O&amp;G specialist/trainee</td>
<td>33 (9.8%)</td>
<td>43 (12.9%)</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>11 (3.3%)</td>
<td>51 (15.3%)</td>
</tr>
<tr>
<td>Emergency medicine</td>
<td>14 (4.2%)</td>
<td>12 (4.0%)</td>
</tr>
<tr>
<td>Hospital medicine</td>
<td>27 (8.1%)</td>
<td>84 (25.2%)</td>
</tr>
<tr>
<td>Surgery</td>
<td>4 (1.2%)</td>
<td>9 (2.7%)</td>
</tr>
<tr>
<td>Other, incl. anaesthetics/intensive care</td>
<td>7 (2.1%)</td>
<td>4 (1.2%)</td>
</tr>
</tbody>
</table>

Table 3. Number of graduates per year of graduation (N=292)

<table>
<thead>
<tr>
<th>Year of graduation</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>1 (0.3%)</td>
</tr>
<tr>
<td>1989</td>
<td>4 (1.4%)</td>
</tr>
<tr>
<td>1990</td>
<td>17 (5.8%)</td>
</tr>
<tr>
<td>1991</td>
<td>20 (6.9%)</td>
</tr>
<tr>
<td>1992</td>
<td>20 (6.9%)</td>
</tr>
<tr>
<td>1993</td>
<td>5 (1.7%)</td>
</tr>
<tr>
<td>1994</td>
<td>5 (1.7%)</td>
</tr>
<tr>
<td>1995</td>
<td>20 (6.9%)</td>
</tr>
<tr>
<td>1996</td>
<td>35 (11.9%)</td>
</tr>
<tr>
<td>1997</td>
<td>29 (9.9%)</td>
</tr>
<tr>
<td>1998</td>
<td>36 (2.3%)</td>
</tr>
<tr>
<td>1999</td>
<td>18 (6.2%)</td>
</tr>
<tr>
<td>2000</td>
<td>19 (6.5%)</td>
</tr>
<tr>
<td>2001</td>
<td>20 (6.9%)</td>
</tr>
<tr>
<td>2002</td>
<td>17 (5.8%)</td>
</tr>
<tr>
<td>2003</td>
<td>6 (2.1%)</td>
</tr>
<tr>
<td>2004</td>
<td>10 (3.4%)</td>
</tr>
<tr>
<td>2005</td>
<td>6 (2.1%)</td>
</tr>
<tr>
<td>2006</td>
<td>3 (1.0%)</td>
</tr>
<tr>
<td>2007</td>
<td>1 (0.3%)</td>
</tr>
</tbody>
</table>

Almost 80% of respondents enrolled in the course to further their knowledge about women’s health, and more than 20% enrolled to increase their knowledge in children’s health and/or family health. Forty-three percent of respondents enrolled intending to practise GP obstetrics, and 14% undertook the course as a step towards specialising in O&G. Respondents could indicate more than one reason for enrolment. (Table 4)
Table 4. Reasons for enrolling in the course (N=334)

<table>
<thead>
<tr>
<th>Reason(s)</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>To further knowledge in women’s health</td>
<td>265 (79.3%)</td>
</tr>
<tr>
<td>To further knowledge in children’s health</td>
<td>70 (21%)</td>
</tr>
<tr>
<td>To further knowledge in family health</td>
<td>76 (22.8%)</td>
</tr>
<tr>
<td>To practise GP obstetrics</td>
<td>144 (43%)</td>
</tr>
<tr>
<td>To specialise in O&amp;G</td>
<td>47 (14%)</td>
</tr>
<tr>
<td>Other including:</td>
<td></td>
</tr>
<tr>
<td>Emergency medicine</td>
<td>2</td>
</tr>
<tr>
<td>Volunteer work overseas</td>
<td>5</td>
</tr>
</tbody>
</table>

Most of the respondents who enrolled in the DipObs in the early 1990s intended to practise obstetrics in general practice. By the early 2000s most of the doctors enrolling did not intend to practise GP obstetrics. (Figure 1) The number of respondents who had graduated since 2003 is low so this more recent data is less reliable.

Figure 1. Enrolling to practise GP obstetrics by year of graduation with DipObs or DipOMG (n=286)

While 144 doctors enrolled in the course intending to practise obstetrics in general practice, only 6 (4.1%) are still practising intrapartum obstetrics including 1 as a GP in rural Australia.

Of the 309 respondents living in New Zealand, 203 doctors are currently working in general practice. 137 New Zealand based doctors enrolled in DipObs/DipOMG to practise GP obstetrics and only 5 (3.6%) are still practising intrapartum obstetrics (these 5 doctors represent just 2.5% of the New Zealand GP respondents).
Twenty-three GPs are still involved in shared care, where the pregnant woman alternates between the midwife and GP for her antenatal care.

Seven respondents commented that the change in legislation in the mid-1990s has made the practice of GP obstetrics difficult, particularly financially. Three expressed regret at withdrawing from GP obstetrics.

- My original intention was to practice intrapartum as well as antenatal obstetric care. Practically and politically it became impossible.
- GPs have been excluded from pregnancy care.
- My obstetric experience was long ago now- I feel many of my skills and much of my knowledge has been eroded by not participating in obstetrics for many years. General practice is much poorer in the loss of this experience and women much worse off without GPs involved in their pregnancy care.

Comments regarding shared care:

- Legislation means can't do!! LMC difficult to delegate pay.
- Rural midwives unable to afford shared care model. (I) provide labour support and emergency care for LMCs. (I) support local midwives.
- Too much administration required for claiming, too many changes over last 10 years.

198 (90%) of 220 primary care practitioners surveyed provide early antenatal care. Early antenatal care includes the woman’s preparation for pregnancy; antenatal screening, support, and referral to an LMC; managing complications of early pregnancy; counselling about unplanned pregnancy; and referral for termination of pregnancy. These respondents work in primary care, as GPs, family planning, or sexual health doctors.

Ninety-three percent of respondents described the course as useful/very useful/extremely useful, with 67% describing it as very useful or extremely useful.

191 (62.8%) of 304 respondents thought that a totally online delivery method for the course would be useful, and 31 (77.5%) of the 40 respondents in rural practice favoured a web based course. Individual comments included need for “regular access to tutors online and/or by phone” with a web-based course.

The Certificate in Women’s Health graduates were analysed as a subgroup as this was a new course, introduced in 2003. Fifteen graduates, all from the University of Otago, were identified from the university graduate databases, and 7 of the 9 graduates on the MCNZ register responded (78% response rate). No graduates were listed on the New Zealand Register of Midwives or with the Nursing Council of New Zealand.

Six graduates are GPs, one also works at a sexual health clinic. One graduate is currently an O&G registrar. All were in urban practice.

The six GPs described the Certificate training as very/extremely useful. The O&G registrar described the course as useful.

Discussion

Only 477 of the 588 DipObs, DipOMG, and Certificate in Women’s Health graduates were identified on the New Zealand Medical Register. Where are the other 111 graduates?
As these postgraduate qualifications are usually undertaken soon after qualifying in medicine, in preparation for practice, most graduates should be in the workforce, and therefore registered as a medical practitioner. However they may not be practising in New Zealand. There is ongoing concern about the migration of New Zealand doctors overseas, attracted by better pay and working conditions.

The New Zealand Medical Workforce Survey shows that from 3 years after graduation, 25–30% of New Zealand trained doctors are no longer practising in New Zealand.² Twenty-five (7.5%) of questionnaires were returned from DipObs, Dip OMG or Certificate graduates living overseas. However this is not representative of overseas based graduates, but only those who have maintained their New Zealand medical registration and were able to be contacted. The number of respondents who had graduated since 2003 was low. This could reflect the move of younger doctors overseas or lower numbers enrolled since 2003.

The 334 respondents were representative of the 477 graduates surveyed by both age and gender. A greater proportion of University of Otago graduates responded to the survey which could influence results. However both universities have run similar DipObs programmes since the 1990s, and since 2003 the two courses have been developed together and still have shared objectives and assessments.

It was difficult to access reliable data on year of graduation from both universities. Therefore it was difficult to determine if the spread of year of graduation of respondents was representative of the population surveyed. However the number of graduates per year was reasonably consistent through to 2003.

As expected, almost 80% of respondents enrolled to further their knowledge in women’s health, and over 20% in children’s health. Most respondents were GPs or have worked in general practice. The course was established as postgraduate training for general practice. Over 10% of respondents have also worked at family planning clinics and 6% at sexual health clinics—a high proportion given the small number of doctors employed in these areas.

The DipObs has always been regarded as good training for these specialties. However, as intrapartum care is not included in these areas of practice, the Certificate in Women’s Health may be more appropriate for these health professionals. In this study, one respondent with the Certificate in Women’s Health was working at a sexual health clinic.

It is interesting to note the number of graduates working in paediatrics or emergency medicine, and how useful the course was for these practitioners. The usefulness of this training extends to many specialities.

In our study, 144 graduates (mostly of the early to mid 1990s) enrolled in the DipObs or DipOMG with the intention of practising obstetrics in general practice.

The 1990s saw major changes in the legislation and funding model for obstetric care in New Zealand, the increasing autonomy of midwives, and introduction of the LMC. It was hoped that these changes would increase women’s choices for care during pregnancy, however there was a progressive decline in the number of GPs practising obstetrics from the mid-1990s. Only five of the doctors we surveyed are still practising intrapartum obstetrics in general practice in New Zealand.
GP respondents who had enrolled in the DipObs or DipOMG intending to practise obstetrics but are not now involved in intrapartum care were not asked specifically for their reasons; however some commented that financial and ‘political’ issues contributed to this decision.

The number of GPs involved in intrapartum obstetric care has dropped in other countries as well—including Australia, United Kingdom, and Canada. Reasons for GPs in these countries withdrawing from intrapartum care include inadequate compensation, lifestyle issues, concern about medicolegal liability, and insufficient numbers of cases per year.6–11

GP trainees in other countries are also choosing not to train in intrapartum obstetrics, listing concern about interference with lifestyle, interruption of regular office routine, insufficient training in obstetrics, cost of malpractice insurance, and fear of litigation as reasons.7

While the legislation, funding and service provision changes for pregnancy care have impacted on GP obstetrics in New Zealand, many of these other issues could also be relevant for New Zealand GPs and GP trainees. More research on GP involvement in intrapartum obstetric care in New Zealand is needed.

Of the five GPs surveyed who are still practising obstetrics in New Zealand, only two are providing this service in rural New Zealand. The low number of GPs practising obstetrics in rural areas is most concerning and needs particular consideration.12

Increasingly midwives are the only providers of intrapartum obstetric care in rural areas, and secondary and tertiary care facilities are usually at a distance.

Midwives provide a good service for normal pregnancy and refer at-risk women to secondary services, however there is little immediate support for emergency care.

At present, many rural GPs are still experienced in intrapartum care from their previous involvement. However as these GPs retire and if younger GPs do not gain obstetric experience, medical support for pregnancy complications (especially emergency care) could be very limited in rural areas.

Increasing postgraduate training in rural medicine is now available. Specific training for rural doctors in obstetric care needs to be available, encouraged, and suitably supported.

The number of GPs involved in shared care of pregnant women with the LMC is also very small. Shared care enables a GP to continue to care for his/her patient throughout pregnancy by alternating antenatal visits between the midwife and the GP. This arrangement can provide added support for the woman and the LMC. And in rural areas this could be particularly helpful and important. However the current funding model for pregnancy care, with the budget held by the LMC, makes shared care complicated and difficult to manage.

While GPs’ involvement in intrapartum obstetrics and shared care has dropped significantly, over 90% of primary care practitioners surveyed are involved in early pregnancy care. This includes the woman’s preparation for pregnancy, antenatal screening and support, managing complications of early pregnancy, and counselling and referral for termination of pregnancy.
Primary care practitioners—including GPs, family planning and sexual health doctors—need to be well trained in the care of women early in pregnancy, and the DipOMG or Certificate in Women’s Health should continue to provide suitable training in this important area. And the funding model for early pregnancy care should ensure that non-LMCs can claim for that service.

Most respondents thought an online DipOMG and Certificate in Women’s Health programme would be useful especially if there was regular access to tutors online and/or by phone. An even greater proportion of rural practitioners favoured a web-based course as access to (or attendance at) any programme was more difficult for them. The distance-taught programme should also be suitable for rural practitioners as only a landline phone connection is required.

The Certificate in Women’s Health was regarded as a valuable option by the small number of graduates surveyed. It is a particularly useful course for GPs and other primary care practitioners who wish to update and up skill in women’s health but are not planning to practise intrapartum obstetrics. As most practitioners who are currently considering postgraduate training in women’s health are in this situation, it is expected that the number of candidates for the Certificate course will increase. GPs are also completing individual papers that can qualify for CME points with the Royal New Zealand College of General Practitioners (RNZCGP).

The Certificate is also available to midwives, nurses (including practice, family planning, sexual health, and public health nurses) and to other health practitioners. Several midwives and nurses have taken individual papers but none have completed the Certificate as yet. Feedback on the Certificate course from non-medical candidates would be useful.

The limitations of this study included only being able to assess the representativeness of the respondents in the cohort studied by age, gender, and university of graduation. The study was also limited to Otago graduates from 1992 and Auckland graduates from 1996 so only the views of more recent graduates are included. The experience of more senior doctors is not well represented in this study as only 18 respondents (5.4%) were older than 49 years.

**Conclusion**

The DipObs, Dip OMG, and Certificate in Women’s Health have continued to provide very useful postgraduate training in women’s health (particularly for primary care practitioners) throughout a time of significant change in pregnancy care in New Zealand. Most doctors used to enrol in the DipObs intending to practise obstetrics in general practice. More recently, most doctors enrolling in the DipOMG do not intend to practise GP obstetrics.

It is important to keep the DipOMG and Certificate in Women’s Health current and relevant, thus meeting the needs of the primary care practitioners in caring for their women patients.

**Competing interests:** None known.
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**Acknowledgements:** The authors thank Gaye Ellis (the research coordinator for this survey), Amanda Phillips, Tony Egan, and Caroline Slater in the development of the project as well as Andrew Gray for his statistical support. We also thank Andrew Cullen from the MCNZ; the DipObs, DipOMG, and Certificate of Women’s Health graduates for participating in this survey; and the University of Otago and the University of Auckland for funding this research.

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**References:**

Is incidental Meckel’s diverticulum resected safely?

Baris Zulfikaroglu, Necdet Ozalp, Ebru Zulfikaroglu, Mehmet Mahir Ozmen, Mesut Tez, Mahmut Koc

Abstract

Aim Meckel’s diverticulum (MD) is the most common congenital anomaly of the small intestine. The majority of MD cases are discovered incidentally. On the other hand, there is disagreement about the management of incidentally discovered asymptomatic MD. The aim of the study was to compare the clinicopathologic characteristics of incidentally found and symptomatic cases of MD, and to compare morbidity and mortality in symptomatic and asymptomatic patients.

Patients and Methods Records of patients whose MD was resected at our institution between 1989 and 2004 were reviewed and 76 patients were found. The patients were divided into two groups. The incidental group included patients in whom the MDs were found incidentally during the course of laparotomy performed for reasons not related to the diverticular complications. The symptomatic group included patients who presented with complications related to the MDs. We compared the clinicopathologic characteristics of the patients between the two groups.

Results The incidental group included 40 patients (34 males) and the symptomatic group included 36 patients (30 males). There was no significant difference between the two groups with respect to age, gender, APACHE scores, postoperative complications, and hospital stay. There were two deaths in the symptomatic group. There was a significant correlation between operative mortality and APACHE II scores.

Conclusions Resection of incidentally found MD is not associated with increased operative morbidity or mortality.

Meckel’s diverticulum (MD) is a true diverticulum, located on the antimesenteric border of the small intestine usually within 100 cm of ileocaecal valve. First described by Fabricus Hildanicus in 1598,¹ its embryonic origin was described as the failure of the degeneration of omphalomesenteric duct by Johannes Friedrich Meckel in 1809.² MD is the most common congenital anomaly of the human gastrointestinal tract. Its main importance lies in the possibility of complications, particularly inflammation and haemorrhage, which may manifest them as symptoms of acute abdomen, intestinal obstruction, or gastrointestinal bleeding. The incidence varies from 0.3 to 3.0% in the general population, but a 2% incidence is commonly accepted.³,⁴ The majority of MD cases is discovered incidentally during laparotomy or radiological procedure and may occasionally cause serious complications such as bleeding, obstruction, and inflammation. Diverticulectomy or segmental bowel resection is clearly the treatments of choice in symptomatic patients.⁵,⁶ On the other hand, there is disagreement about the surgical management of incidentally discovered asymptomatic MD.
This study was designed to compare the clinicopathologic characteristics and outcome of surgical treatment between the incidentally found and symptomatic cases of MD.

Patients and Methods

The medical records of all patients who underwent resection of MD and were managed at Ankara Numune Hospital (Ankara, Turkey) between 1989 and 2004 were reviewed retrospectively. The records of patients were reviewed for age, sex, acute physiology and chronic health evaluation (APACHE) II scores, presentation, surgical therapy, operative findings (distance from the diverticulum to the ileocaecal valve, length of the diverticulum, diameter of the mouth of the diverticulum), presence of ectopic tissue, complications, hospital stay, and mortality.

The patients were divided into two groups. The incidental group included patients in whom the MDs were found incidentally during the course of laparotomy performed for reasons not related to the MDs complications. The symptomatic group included patients who presented with complications related to the MD.

Comparisons between the clinicopathologic characteristics of the patients in the two groups were performed using the SPSS statistical package version 13.0 (SPSS, Chicago, IL, USA). We assessed the statistical significance of the differences by the two-sample t-test for continuous variables and by the Chi-squared test for counts. When the expected number in any of the cells was less than 5, Fisher's exact test was considered. Differences were considered statistically significant at p<0.05.

Results

During the study period we identified 76 patients with histologically documented MD: 64 males (84.2%) and 12 females (15.8%). The incidental group included 40 patients (34 males), and the symptomatic group included 36 patients (30 males). There was no difference in age and sex distribution between two groups. The demographic characteristics of patients in two groups are shown in Table 1.

Table 1. Comparison between two groups

<table>
<thead>
<tr>
<th>Variables</th>
<th>Incidental</th>
<th>Symptomatic</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>40</td>
<td>36</td>
<td>ns</td>
</tr>
<tr>
<td>Age (years)</td>
<td>40 (17–85)</td>
<td>42 (17–71)</td>
<td>ns</td>
</tr>
<tr>
<td>Sex (male/female)</td>
<td>34/6</td>
<td>30/6</td>
<td>ns</td>
</tr>
<tr>
<td>Complications</td>
<td>2</td>
<td>3</td>
<td>ns</td>
</tr>
<tr>
<td>Mortality</td>
<td>0</td>
<td>2</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Hospital stay (days)</td>
<td>5 (2–14)</td>
<td>6 (3–14)</td>
<td>ns</td>
</tr>
<tr>
<td>APACHE II score</td>
<td>8.6±5.7</td>
<td>10.3±6.8</td>
<td>ns</td>
</tr>
</tbody>
</table>

ns=no significance.

In the symptomatic group the most common symptom was intestinal obstruction seen in 24 (67%) cases. Diagnosis was uncertain in 11 cases with rebound tenderness and abdominal pain mainly in the right lower quadrant, and only 1 case was operated for acute gastrointestinal bleeding.

There was no difference in preoperative APACHE II scores between the two groups. The MD was resected in all cases: by diverticulectomy in 53 (69.8%) cases, and by segmental ileal resection in the remaining 23 (30.2%) cases. There was no difference between two groups according to type of surgery.
Operative and the histopathological findings of all 76 MD are shown in Table 2. The mean distance from the MD to the ileocaecal valve was 47 cm (range 25–90 cm) in the overall series. There were no differences in the diameter of the mouth of the diverticulum or its length (Table 2). Of the total, 8 (10.5%) presented with ectopic fundal gastric mucosa, 4 (5.2%) with a mucosal ulcer, and 2 (2.6%) with ectopic pancreatic tissue. Both ectopic fundal gastric mucosa and ulcers were more common in the symptomatic group (p<0.05) and particularly associated with gastrointestinal bleeding (Table 2).

Table 2. Differences between size of the diverticulum and presence of ectopic tissue in the patients with and without preoperative symptoms

<table>
<thead>
<tr>
<th>Finding</th>
<th>Incidental (n=40)</th>
<th>Symptomatic (n=36)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of diverticulum (cm)</td>
<td>2.1 (1.0)</td>
<td>2.5 (1.0)</td>
<td>ns</td>
</tr>
<tr>
<td>Diameter of diverticulum (cm)</td>
<td>1.6 (0.7)</td>
<td>1.2 (0.6)</td>
<td>ns</td>
</tr>
<tr>
<td>No abnormal findings</td>
<td>32</td>
<td>8</td>
<td>p&lt;0.05</td>
</tr>
<tr>
<td>Inflammation</td>
<td>4</td>
<td>20</td>
<td>p&lt;0.05</td>
</tr>
<tr>
<td>Ectopic gastric mucosa</td>
<td>–</td>
<td>8</td>
<td>p&lt;0.05</td>
</tr>
<tr>
<td>Mucosal ulcer</td>
<td>–</td>
<td>4</td>
<td>p&lt;0.05</td>
</tr>
<tr>
<td>Ectopic pancreatic tissue</td>
<td>2</td>
<td>–</td>
<td>p&lt;0.05</td>
</tr>
</tbody>
</table>

ns=no significance; Data are expressed as mean (SD) or number of patients.

Although it did not differ significantly, complications such as wound infection and prolonged paralytic ileus were seen more commonly in symptomatic group. Comparison of incidence of complications after each type of operation showed a higher morbidity after intestinal resection (4/23) than after diverticulectomy (1/53) (p<0.05).

There were no deaths in incidentally group but there were two deaths in symptomatic groups. The mean APACHE II score was 9.9±6.6 in survivors and 22.1±3.4 in those who died in symptomatic group (p<0.0001).

Table 3. Mortality and morbidity figures of some of the reported series of incidental and therapeutic diverticulectomy in asymptomatic and symptomatic patients with Meckel’s diverticulum, respectively
Discussion

MD is the most common congenital anomaly of the small intestine. It occurs equally in both sexes and is found in all age groups. Most frequently, it will be discovered incidentally at time of laparotomy for another surgical problem. MD incidence and prevalence figures in the World literature have been mainly based on autopsy studies and are almost universally accepted. But the rate of complications has been continuously challenged because it is difficult to estimate. The importance of a MD lies in the possibility of related complications, particularly those related inflammation (diverticulitis), gastrointestinal bleeding, or intestinal obstruction (intussusceptions or volvulus).

Ectopic gastric mucosa can be found in 30–50% of cases, although a much lower percentage (around 23%) has been reported. At the same, the presence of ectopic gastric mucosa has traditionally been linked with a higher rate of complications. Ectopic pancreatic tissue has also been reported in 5–16% of cases, although without any apparent clinical relevance. We found ectopic gastric mucosa in 10.5% of the patients and ectopic pancreatic tissue in 2.6%; the former was related to the development of clinical symptoms, particularly gastrointestinal bleeding and ulceration of the mucosa.

In cases of symptomatic presentation with MD there is no doubt that they should be resected but there is disagreement in the surgical management of asymptomatic MD. Some advocate a conservative attitude, whereas others favor being more aggressive and doing a prophylactic diverticulectomy, based on the morbidity associated with postoperative complications being lower than the rate of complications of the diverticulum developing during the patient’s life. Some authors with more conservative approach have advised no resection of asymptomatic incidentally found MD. Soltero et al estimated the lifetime risk of complications from an MD to be 4.2%, with the risk decreasing through life. Leijonmarck et al calculated the risk of a complication from an MD to be 3.7% at age 16, decreasing to zero by 76 years of age. They also reported no complications in 28 asymptomatic MD left in place with follow-up period of 7.8 years. So, authors have proposed leaving the incidentally found MD in place, assuming that the risk of complications from its surgical removal is higher.

Some authors define intraoperative findings that militate in favour resection. Mackey and Dinen reported 50 years follow-up of cases with MD. They consider resection to be necessary only in a subgroup of patients including males, patients less than 40 years of age these with the diverticulum bigger than 2 cm in size, and if there is a mesodiverticular band or the suspicion of ectopic tissue in it. This was based on review of their own series of 402 patients with MD.

In 32 of these patients an asymptomatic MD was left in place and the authors reported no complications during follow-up. Williams documented that wide-mouthed, thin-walled diverticula without bands could be left undisturbed, and those attached by bands, and thickened or narrow-based diverticula should be resected.

Turgeon and Barnett reported additional factors necessitating surgical resection: palpable mass within the diverticulum suggesting ectopic tissue or tumour, a fibrous
connection to the umblicus that predisposes to volvulus and obstruction, presence of a vitelline vessel lacking a mesentery predisposing to incarceration, and a narrow diverticular neck predisposing to inflammation and obstruction.

Recently, Robijn et al proposed a scoring system in order to base the decision for surgery on more objective grounds and weighted criteria. This risk score is based on 4 risk factors: male sex, patients younger than 45 years, diverticula longer than 2 cm, and the presence of a fibrous band.\textsuperscript{13}

On the other hand, Ludtke and Mende\textsuperscript{9} reported a 9\% incidence of postoperative complications after diverticulectomy for both symptomatic and asymptomatic patients. The authors concluded that prophylactic removal was indicated to eliminate future complications. Others\textsuperscript{8} found that adverse outcomes after incidental diverticulectomy were seen in only 1 to 9\% of patients.

Arnold et al\textsuperscript{1} advised resection of every coincidental MD because they could not find any factor that predicted whether a MD would become symptomatic, while the operative morbidity and mortality are extremely low.

The results of the Cullen and Kelly\textsuperscript{3} represent the most accurate study ever published evaluating the dilemma of the prophylactic removal of incidentally discovered MD. They estimated the lifetime risk as 6.4\% and operative mortality and morbidity rates as 1 and 2\%, respectively. The risk of complications of an MD has not been found to decrease with age. So the benefits of incidental diverticulectomy outweighed its attending morbidity and mortality. Mortality and morbidity figures of some of the reported series of incidental and therapeutic diverticulectomy are summarised in Table 3.

MD was much rarer in our group; so that the risk estimation for complications must be much higher than literature. However, complications were seen more commonly in symptomatic patients. These findings are similar with the previous studies.\textsuperscript{7–9,11,13–16} Most complications were minor in both groups suggesting that removal of incidentally found MD does not increase the morbidity. There were two deaths in our study, both of whom were symptomatic and over-all mortality rate was 2.6\%. No patient died in incidental group.

In conclusion, resection of incidentally found MDs does not increase operative morbidity and mortality.

**Competing interests:** None known.

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Shifting perceptions and challenging the profession’s paradigms: reflections from an undergraduate week of population health

Anna J Dare, Chris Bullen

Abstract

The perception that population health is a poor cousin of the clinically orientated medical specialties has occurred despite a growing acknowledgement of the importance of a population health approach to the provision of medical care in the 21st Century. This perception appears entrenched within academic and clinical institutions, and is inherited by undergraduate students as they move through their training. Competing philosophies within modern medical curricula, medical socialisation, and historical professional belief structures have all contributed to both a covert and an overt scepticism towards population based approaches as being ‘soft’ and largely irrelevant. In May 2007, the University of Auckland introduced a new initiative for Year 5 medical students, called ‘Population Health Intensive’. This was a week aimed at increasing medical undergraduate student’s exposure to population health perspectives and initiatives. It challenged students and academic staff alike to reflect on their perceptions of the role of population health in medical practice and raised questions about the relevance of current medical education in light of the changing face of health and healthcare delivery. In this paper we consider the drivers of change and argue that population health has an important and legitimate place in both undergraduate medical training and clinical practice, thus widening the professions’ understanding of health and disease.

‘To meet people’s needs, fundamental changes must occur in the healthcare system, in the medical profession, and in medical schools and other educational institutions.’

Increasingly, doctors, policymakers, and the New Zealand public recognise the importance of population health—a population-based approach to health and illness, health promotion, and disease prevention—as a critical component of both a nation and an individual’s health. Understanding and addressing the determinants of health and the health risks and resilience of populations, not just individuals, is now considered to be within the scope of the medical profession’s duty of care.

Accordingly, medical educators have identified the need to incorporate a population health perspective into modern undergraduate medical programmes. In May 2007 the University of Auckland held a one-week learning experience called ‘Population Health Intensive’ for Year 5 medical students. This initiative was in part a response to a challenge by the Australian Medical Council (the accrediting body for Australasian medical schools) to mirror the successes of the Māori Health Week run by Auckland School of Medicine for several years, together with a desire by the leaders of the medical programme to more deeply embed population health in the curriculum.
The overarching goal of the week was “to bring a population health perspective to 21st Century medical practice” and reflects awareness among local medical educators that the scope of medical practice must adapt to the changing environment in which the next generation of doctors will practice.

The week comprised a keynote address from a New Zealand medical graduate who is now a professor of public health at Harvard University, a symposium of clinicians debating “Why a 21st Century physician needs a population health perspective” and short lecture topics on a range of issues that they were to focus on for the rest of the week.

Students then spent the next 4 days in small group work facilitated by public health medicine registrars in which they were asked to review a set public health issue and develop a strategic approach to addressing this problem within the confines of a notional budget. This was done in consultation with a variety of community agencies and presented on the final day to peers, public health specialists, and representatives of the community agencies.

While population health is considered a key learning domain in the Auckland Medical Programme, and as such is to be integrated across all disciplines, population health teaching had until 2007 been accorded relatively low priority in clinical teaching and lecture blocks. Population Health Intensive was the first dedicated population health teaching Auckland students received outside of a first-year pre-medical introductory course in population health.

In this paper we bring together our reflections as a student and programme convener on the issues and attitudes raised from this experience.

Population Health Intensive was as much a lesson in changing the attitudes and paradigms of our next generation of doctors as it was about the population’s health. By Year 5 of the 6-year medical training programme, students have been exposed to a multitude of attitudes in lecture theatres, on the wards, and amongst their peers.

These interactions, coupled with the historical separation of the post-registration training and career structures of clinical and public health practitioners, mean that population health is often perceived as ‘not real medicine’ and even ‘marginal in the eyes of medical students, and also in the eyes of many of the clinical staff of medical schools’. Indeed, just prior to the start of the week, the programme directorate received a letter from the students expressing their reluctance about the week, its value and timing in regard to ‘other topics of greater importance’.

Thus, population health teaching must first overcome individual, institutional, and professional scepticism in order to capture its audience, in a way that surgery or medicine will never have to. This image problem was summed up during the week by one speaker, now a prominent figure in population health nationally, who recalled writing the comment ‘More rubbish from Community Health’ across his notes as a student.

The week’s conveners set out to tackle this high level of cynicism head-on by involving from the outset practicing clinicians from a range of specialties who were well respected amongst students to speak about their views and experiences of using a population health perspective in their work. While this strategy served to validate the
role of population health, it is somewhat concerning that population health educators must still jump through such hoops to earn the respect and interest of students.

Part of the problem appears to be in the competing philosophies taught within current medical curricula. While Auckland’s preclinical curriculum has incorporated a growing emphasis on the wider determinants of health, and increased teaching time devoted to clinical epidemiology and the behavioural and social sciences in medical practice, the teaching of basic and clinical sciences continues to be founded largely on traditional medical models of disease. Senior medical students then progress to clinical environments, which uphold models of care in which individual treatment predominates.

Students’ views of health and of the role of the doctor are powerfully shaped by these environments and by the philosophy of care modelled by their clinical superiors. As such, their notions of population health were often constructed from views imparted to them by those outside the discipline. Osler’s dictum that ‘medicine should begin with the patient, continue with the patient and end with the patient’ continues to inform the attitudes and behaviour of many senior clinicians.\(^5\) The impact of this focus is further ingrained by early clinical practice where teaching and assessment revolves around the synthesis of knowledge of the basic sciences with clinical disease in the individual.

Coupled with this is the strong drive for clinical relevance within modern curricula, which has translated into earlier patient contact and a focus on clinical and procedural skill acquisition.\(^5\) It could be argued that more than ever a medical education is about preparation for the workforce (one geared towards the individual care paradigm) rather than the development of the critical thinking said to be the hallmark of higher education.

These experiences are at odds with a population health ethos that requires consideration and critique of the broader social, cultural, and political context of health\(^5\) and its determinants, and their uneven impact on patients, families, and communities. Thus population health appears to be a competing abstract philosophy, irrelevant to clinical practice, rather than an overarching framework, essential to competent professional practice.

A week devoted to population health at an undergraduate level may well lead to attitudinal change. Indeed there is evidence from student evaluations that this occurred for many, at least in the short term. For example, 86% of the 147 Year 5 students reported that the week had helped them gain a better understanding of the role of community agencies, primary health care, and public health in medicine.

Eighty percent of the students believed the week had also demonstrated the relevance of broader social and political factors to their future practice. These findings certainly suggest a role for a population health intensive in asking students to consider the wider social, economic, and cultural factors that will shape their future practice, and in doing so, reflect on the moral and social responsibility a doctor has as an advocate for health as well as a healer of disease.\(^6\)

However, an intensive week may also risk reinforcing current attitudes by further isolating population health from the wider continuum of care.\(^5,6\) Interestingly, despite the finding that 61% of students reported acquiring knowledge of relevance to their
future practice during the week, only 28% reported that they would consider changing their future practice as a result. It seems that integrating new knowledge and attitudinal change into the realities of clinical practice may continue to be a challenge while population health is taught in isolation.

Allen et al (2004) recognise that an essential element of any attempt to change a healthcare system and the models of care operating within that system must be the education of future clinicians who will practice new approaches in new contexts. In a profession that reveres hierarchy and a training system that relies on an apprenticeship model of clinical learning, the education of future clinicians clearly extends beyond lessons learnt in the lecture theatre.

Some of the most powerful lessons for undergraduate and early postgraduate trainees occur through role modelling and medical socialisation. Thus, the climate and professional belief structure into which we graduate our medical students has an important bearing on the attitudes they adopt which will shape their future practice. Clinicians cynical and frustrated with the rise of managerialism and economic rationalism in healthcare, which they may see as synonymous with population health, can easily transmit such attitudes to students as they enter clinical medicine.

Eggert et al (1994) observed that in the United States ‘premedical students display initially a high but subsequently declining interest in public health and preventative medicine as they progress through their professional education.’ They argued that the process, content, and setting of undergraduate medical education ‘strongly bias’ against [population health]. Such comments are likely to be as pertinent to the New Zealand situation.

‘Buy in’ for population health and integration of population health into continuia of care so that it is relevant and accessible for clinicians at the coalface, is thus as important as that from the next generation of doctors. Until we integrate population health into all levels of our medical practice, it will continue to compete with an individual-focused philosophy of health.

Medicine is steeped in tradition, and both medical curricula and the environment in which the next generation of doctors train are engineered to support current individualised approaches to health and validate clinical and professional paradigms.

Shifting these paradigms within the profession, so that population health and an individual’s disease are viewed as part of a continuum within the same model of health, is a major challenge that a week of teaching cannot hope to tackle. It requires a supportive profession, an education system which teaches an integrated model of care rather than competing philosophies, a public that demands change, and a government that is prepared to fund it. Furthermore it requires individuals who are prepared to challenge aspects of the current professional paradigm from within, in order to facilitate attitudinal change.

In any event, change may be forced by broader societal and global forces. The populations and conditions tomorrow’s doctors will care for will be markedly different from those of today.

The numbers and proportions of Māori and Pacific New Zealanders will increase dramatically over the next few decades. Unless social inclusion and economic
prospects for these groups improve markedly it is unlikely that we will see a reduction in neither the far-reaching health impacts of inequality and deprivation among them, nor indeed the spill-over effects on the whole population.

Our ageing population also presents challenges. Over the next 50 years, the proportion of the population aged 65 years and over will double,\(^9\) with huge implications for health, welfare, and social services and more broadly on the economy. Chronic diseases will continue an upward trajectory.\(^9\) Globalisation and its impacts on health (positive and negative) are also slated to increase.

We argue that such major demographic and epidemiological shifts will drive a demand for a greater application of the population health approach. In an environment of increasingly limited resources, the way we conceptualise, teach, and deliver healthcare will need to respond by embracing prevention at the population level and incorporating health promotion as a set of strategies for top-down policy change and bottom-up community-driven local action.

Major avoidable health inequalities between population groups are unacceptable and tackling them through advocacy and creative initiatives must be seen as a priority for the profession, with a vision including, but also extending beyond, the health sector. Addressing health solely from a perspective of disease-based, episodic and acute care interventions, delivered in a hospital or general practice setting, will not suffice. A shift in the centre of gravity is required.\(^9\)

Bringing a population health perspective to 21\(^{st}\) Century medical practice does not necessarily mean training more population health physicians. It does mean integrating population health into medical training and practice and shifting professional paradigms such that the profession values and incorporates population health perspectives into their models of care.

The long-term effects on clinician’s attitudes and practices of focused learning weeks such as Auckland University’s Population Health Intensive are as yet unknown. At the least, they have value in keeping population health on the agenda before students enter the workforce. However, if its place in the clinical armamentarium is to be cemented, students must be convinced of the relevance of a population health perspective to clinical decision making, quality of care, diagnostic and treatment algorithms, and informed advocacy throughout their undergraduate and postgraduate training.

The implication for population health specialists is that they must support such an integrated model within curriculum teaching if they are to make the insights and tools of their specialty relevant and accessible to the rest of the profession.

**Competing interests:** None known.

**Note:** This paper was developed from the top Distinction Essay for Population Health Intensive 2007.

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What can the history tell us? An argument for observed history-taking in the trainee intern long case assessment

Anna J Dare, Alexandra Cardinal, John Kolbe, Warwick Bagg

Abstract

History-taking is one of the most important clinical skills for the medical student to learn and remains the core component of a doctor’s diagnostic ‘toolkit’. Yet, it is one of the most difficult clinical skills to assess. Clinical assessment at a trainee intern level has typically focussed on examination skills, and case presentation, which are more easily measured. History-taking is assumed to be of an adequate standard on the basis of the case presentation rather than by direct observation.

In this paper we discuss the importance of assessing the patient-doctor encounter directly through observation, in the context of the trainee intern long case examination. Despite changing assessment trends in medical education, these authors argue for the retention of the long case as an assessment tool for final year medical students on the basis of its high face validity and close resemblance to “real life” patient encounters. However, we believe addition of an observing examiner during the history-taking and physical examination augments the inherent value of the longcase and is recommended in order to increase the reliability of the assessment.

Observation allows for direct assessment of the student-patient interaction and the hypothetico-deductive approach taken by the student to diagnosis. It provides opportunity to reconcile the multiple interactions occurring between the context and the construct (skills and knowledge) measured in an assessment. Importantly, at a trainee intern level it provides students with a final opportunity to receive feedback on their history taking and diagnostic skills, an integral part of all medical practice, prior to their graduation as junior doctors.

The trainee intern year is a transitional year and has a strong focus on developing the clinical competence necessary for practice as a junior doctor. Trainee interns (TIs) at the University of Auckland spend 42 weeks rotating through supervised clinical attachments, including a 6-week attachment to a general medical team.

TIs are expected to become integral members of the team with the focus being on experiential learning. The expectation is that TIs will assume (limited) responsibility for approximately one third of patients on the team, including the clerking of patients when the team is on call, presentation of these patients on post-acute ward rounds, and participation in day-to-day ward work.

The TI general medicine attachment is currently assessed using three tools: a clinical supervisor report, a single written case history, and a single unobserved long case. This paper explores the utility of observed history-taking during the general medicine long case assessment undertaken by final-year trainee interns.
The long case was introduced by the University of Cambridge in 1842 as an assessment tool for the university’s clinicians. Despite the trend to compartmentalise assessment of clinical skills into shorter, more focussed examinations, the long case has remained in use as a tool for assessing global clinical competence. It is based on an authentic task; specifically the clerking of patients at admission and the new case consultation by a physician and is thus a close approximation to daily clinical practice.

It requires students to draw upon a history and examination skill set that will enable them to integrate information, synthesise, and verbally summarise their clinical findings to an examiner. This parallels the skills required when presenting a patient after admission on a ward round or communicating findings after a new case consultation. It is on this basis that the long case is regarded both as a valid and educationally valuable assessment tool.

Prior to 2008, predominantly outpatients with multiple stable comorbidities were selected for the long case assessment. Examiners would first assess the patients by way of a focussed history and examination before students had 45 minutes of uninterrupted and unobserved time with the patient to take a history, perform relevant physical examination, and synthesise a problem list, differential diagnoses and management plan.

After 5 minutes to plan their presentation, the student presented their findings in a semi-structured 30-minute session to a panel of two examiners. Based on this presentation, examiners independently assessed the student’s history taking, examination, and deductive reasoning and attempted to assess the integrated interaction between the (student) doctor and a “real” patient.

Examiners then scored the student according to a pre-defined set of standards, although many reported that a global impression had a significant impact on their final assessment. After a brief period for examiner discussion, students were provided with immediate feedback on their performance.

At the conclusion of the examination session all examiners met to agree on final grades. Examiners were required to discuss the specific performance of students achieving distinction as well as those who raised any concern. Should a student fail the long case (about 5%) they would undertake another long case with two different examiners, with the majority of these students being successful on their second attempt.

**What are we measuring? Clinical competence and the long case**

Defining clinical competence is a topic of debate amongst medical educationalists, clinicians, and vocational colleges. Most define clinical competence around a number of interrelated domains that include medical knowledge, patient care, professionalism, communication, and interpersonal skills. However, clinical competence is contextual; it reflects not just the skill sets brought into an encounter, but the interaction between these and the variables inherent in different patients, different settings and different situations.

Clinical competence may also be content-specific; thus performance in one situation is not generalisable to all situations. Perceived clinical competence will differ
according to areas of familiarity and knowledge. Students and doctors perform better when faced with scenarios in which their knowledge of a presentation or condition is well organised and accessible,\(^7\) and are likely to appear less competent in scenarios in which the presentation or condition are unfamiliar to them.\(^8\) However some important skills in medicine (such as communication and rapport building) are less dependent on content or context and transcend the limitations unfamiliarity or knowledge deficits may impose on the global assessment of competence.

The validity and relevance of the long case assessment is aligned with the strong workplace focussed agenda of TIs. It reflects an acknowledgement of the need to assess students at this stage of training in a clinical environment, rather than assessing their knowledge in isolation from daily practice.

**Reliability and validity: appraising the long case**

Given the debate around the definition, developing a tool to assess clinical competence, has been challenging.

As a tool for assessing clinical competence, the long case is best appraised against the key concepts underpinning good assessment; reliability, validity, feasibility, acceptability, and educational impact.

Reliability reflects the accuracy of the scores obtained with the assessment and is a measure of consistency over time, over different cases (inter-case) and across different examiners (inter-rater).\(^10\) Validity refers to the extent a test measures what it is intended to measure.\(^9\) In order to be functional within the clinical environment and the competing clinical commitments of those involved as examiners, assessment tools must in addition demonstrate adequate feasibility (cost and acceptability). Finally, they must also possess educational impact.

The utility of an assessment instrument (i.e. its practical usefulness) can be thought of in terms of the sum of each of these component parts, which will hold different weighting according to the key aim of the assessment.\(^10\) In the long case, the most important and widely debated parameters, relate to its validity and reliability. Of these, inter-case reliability is perhaps the most important, if the primary aim of the long case is to test clinical competence.\(^6\)

While the virtues of the long case are entitled on the basis of its high face validity, an inherent weakness lies in its poor reliability. Performance, and thus assessment of clinical competence is highly variable across different situations (inter-case) and is therefore every case and content specific.\(^5,7,9\)

If assessment of clinical competence is influenced by context and content, then the current format of the single unobserved long case examination provides significant scope for variability in an individual’s performance across cases. Furthermore, without direct observation of the history taking or physical examination, it provides little opportunity for insight into the process of information gathering and clinical reasoning a student embarks upon to reach his or her conclusions, conclusions which will form the basis of the assessment of competence.

In addition, there is not direct observation of the student-patient interaction. The examiner is left to make inferences during the presentation around a number of key
clinical and professional domains—namely the use of communication skills relevant to the clinical situation, the use of a hypothetico-deductive approach (as opposed to indiscriminate data-gathering), the recognition of and response to “flags”, the use of strategies to elicit sensitive information, management of time pressures, active exploration of the patient’s illness, the ability to direct the interview, the development of the patient relationship and the systematic approach to information gathering.

The extent to which this threatens the reliability of the long case was demonstrated by Wass et al, who showed that examiners observing and marking candidates during the (usually neglected) interaction with the patient rated the candidate differently from those marking only the presentation.\(^5\) This challenges the previously held assumption that the presentation of the history and examination is a good surrogate measure of a candidate’s ability to carry out a medical interview, and apply logical clinical reasoning processes from which to draw a conclusion and decide upon an appropriate course of action.\(^5,9\)

Reliability in the long case is further threatened by inter-rater variability (poor agreement between examiners as to performance).\(^2,5,9\) Wass et al further demonstrated that inter-rater variability was greater in the presentation than for the observed part of the case.\(^5\) However, poor inter-rater reliability has been reported as having a lesser impact than inter-case reliability, though the relationship has not been directly compared.\(^3,5,11\)

Several attempts have been made to improve the reliability of the long case.\(^5\) Gleeson\(^12\) introduced an objective structured long examination record (OSLER) in which the presentation following the history and examination is structured to increase the observations made by examiners on the candidates approach and clinical reasoning in the unobserved portion of the assessment.

Other authors have proposed use of sequential shorter long cases,\(^13\) standardising the patient group, increasing the number of long case assessments (a minimum of eight assessments was required to achieve a reliability of at least 0.8, or ‘moderate reliability,’ with a single examiner)\(^4\) and introducing an observing examiner into the history taking and physical examination part of the assessment.\(^5\)

Perhaps most importantly the TI long case is merely one of many clinical assessments over a number of years, using different “tools” to provide a better “picture” of the individual’s clinical competence. In other words, the long case is considered to be relevant and valid when used alongside other modes of clinical assessment, such as the objective structured clinical examination or the mini-CEX.\(^2–5,9,14\)

While organisations responsible for high-stakes testing may be moving away from the long case as the sole form of assessment of clinical competence, abandoning the long case completely in favour of shorter and more structured assessment formats risks throwing the baby out with the bath water. Recent work suggests that the long case is still a highly relevant tool in that it appears to test a different clinical process to that of the structured short case examination.\(^5\)

**An argument for observation**

There is an increasing body of evidence to support observation of the long case. As clinical competence is defined as incorporating medical knowledge, patient care,
professionalism, communication, and interpersonal skills, much of the information available to assess a student’s competence is lost if the history taking and physical examination components of the assessment remain unobserved by examiners.

Information from observations made during history taking and examination of the long case adds significant value and improves reliability of the assessment as a whole.\(^3\)\(^-\)\(^5\) Arguably far more important than assessing knowledge of a specific condition or clinical presentation (which will undoubtedly improve with time, experience and exposure across a student’s training) is the observation of a student’s ability to recruit the skill set required to gather information from a patient, by following through lines of rational enquiry.

Observation of this process affords examiners insight into the clinical reasoning a student has undertaken to synthesise an accurate problem list and arrive at differential diagnoses. It allows examiners to observe the patient-doctor interaction, affording information on important aspects of professional behaviour.

Observation also allows the examiner to identify both student and patient factors that may have influenced the course of, and conclusions drawn from, the interaction. Patient inconsistency and/or interference by patients who give clues or mask aspects of the history has long been acknowledged as a flaw in the (unobserved) long case.\(^2\)

Observation provides the examiner the important opportunity to compensate for differences in complexity/difficulty across different cases. This may further increase the reliability of the assessment process\(^4\) by adjusting for the content-dependant nature of some aspects of competence.

Some critics have argued that observation of the long case is unnecessary, on the basis that one’s history taking and physical examination are rarely observed in real life, whereas one’s presentation of a patient to colleagues is a central part of routine clinical practice. This argument assumes that the primary purpose of assessment is to provide a situation comparable to clinical practice that can act as a benchmark.\(^9\) However it is the process, as well as the outcome that is important.

If the process is sound, then the student will continue to develop and improve over time. While one of the strengths of the long case as an assessment tool is its close approximation to real clinical practice, its educational value is improved if it is used as a means of providing feedback and direction for future learning. Observation augments the ability of the long case to provide students and examiners alike with a means of directing future learning and improving future performance.\(^7\)

**Recommendations based on the current evidence**

The following are the recommendations for clinical assessment of final year students in their general medicine attachment:

- Retention of the long case because of its validity; resemblance to ‘real life’ patient encounters.
- Addition of an observing examiner during the history-taking and physical examination to improve reliability.
Observation is recommended in order to:

- Directly assess the student-patient interaction (an important domain in the professional qualities curriculum).
- Directly assess the hypothetico-deductive approach taken by the student.
- Provide valid feedback to students based on their approach to the process in order to improve future performance.

**Conclusions**

There is evidence that adding an observing examiner to the history and physical examination part of the long case assessment increases reliability and helps reconcile the complex interactions between the context and the skills/knowledge (construct) that the long case attempts to measure.\(^5\)

Given that the long case provides one of the few opportunities for assessment of student’s clinical skills during their final-year general medical attachment at the University of Auckland, adding an observing examiner is likely to both improve reliability and yield greater information on which to make a global assessment of clinical competence.

While issues around feasibility were of concern to some staff, adding an observing examiner to the assessment process is relatively straightforward, and will add significantly to the educational value of the long case assessment.

**Competing interests:** None known.

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**Acknowledgement:** We thank Professor Tim Cundy for his editorial assistance.

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The folly of rewarding silence while hoping for open reporting of adverse medical events—how to realign the rewards

Nick Chamberlain

Abstract

The recent release under the Official Information Act (OIA) of Capital & Coast District Health Board's (C&C DHB) Serious and Sentinel Event Report, the subsequent national report, and the commitment to fund a New Zealand-wide incident reporting system raise a number of important issues. This paper discusses the barriers to incident reporting and the folly of attempting to reward system improvements while the barriers are still in place. Suggestions are also made to help guide the development of appropriate systems which will eliminate barriers and realign the rewards.

Nearly 3 years ago, I submitted a paper to the NZMJ with the above title and was asked to make a revised submission in the form of a viewpoint article within 2 months. At the time I had a sense that many of the ideas in the paper were being explored anyway, and that the ‘environment’ was improving with the promotion of a low-blame culture and the promise of a New Zealand (NZ)-wide incident reporting system by mid 2005—so the article was never completed.

Two recent events have prompted me to re-visit this paper and emphasise the points made in the original submission. The first event was the media and political storm created by the release under the Official Information Act (OIA) of Capital & Coast District Health Board's (C&C DHB) Serious and Sentinel Event Report, and the subsequent national report. The second is the commitment from the Ministry of Health to fund a NZ-wide incident reporting system and the agreement from District Health Boards (DHBs) to support this and other quality initiatives in order to receive full funding for the 2008/9 year.

This paper aims to identify the barriers to incident reporting and the folly of attempting to reward system improvements while the barriers are still in place. Suggestions are also made to help guide the development of appropriate systems which will eliminate barriers and realign the rewards.

A background of medical adverse events

There is sufficient evidence to indicate that injury as a result of medical treatment is one of the leading contributors to hospitalisation, disability, and death in the Western world.¹⁻⁷ Healthcare is a complex adaptive system; and these systems with their 24-hours a day activity, the need for quick reaction times, team coordination in the context of long hours, and trade-offs between service and safety, have a high potential for error.⁸ Despite this, a review of the literature (refer to next section) reveals there is still very sparse use of incident or near miss reporting systems and even fewer evaluations of the outcomes of implementing these systems.
In 1999, the Institute of Medicine report on medical adverse events *To err is human* documented the surprising and somewhat disturbing estimate that more than a million preventable events (incidents such as adverse drug effects, complications of procedures and medical errors, that result in unexpected harm, unrelated to the patients illness, injury or disease) occur each year in the US, of which up to 98,000 are fatal. This is graphically brought home by the analogy of it being equivalent to a Jumbo jet crashing every 3 days. 

Since then, similar studies in many countries including Australia, UK, Denmark, and more recently NZ, have found adverse event rates ranging from 3.7 (U.S)–16.6% (Australia) of all hospital admissions. NZ sits somewhere in the middle with a rate of 12.9%.

The New Zealand Ministry of Health reports that 27% of all hospitalisations caused by injury are a result of adverse medical events and that about 1000 people die in New Zealand as a result of an adverse medical event annually. Approximately 500 of these deaths are preventable and approximately twice as many people will suffer moderate to severe or permanent impairment. Studies consistently show that around half of all events are preventable, and half are due to system or process faults.

**Incident reporting**

A common recommendation from these studies is that incident reporting systems are set up to ensure health professionals report all adverse events, including serious and sentinel events and near misses.

Both mandatory and voluntary incident reporting systems have been established in the US, Australia, UK and many other countries. In 2003, the Ministry of Health (MOH) released a report ‘Improving quality (IQ): A systems approach for the New Zealand health and Disability Sector’ which required DHBs to have an incident reporting system in place by 30 June 2005. In late 2007, the MOH, with the support of DHBs, committed to a national incident reporting system. Unfortunately, most DHBs have implemented or are implementing their own systems making national consistency a challenge. This was clearly demonstrated by the wide variation in reporting seen in the first publicly available national serious and sentinel event report published in early 2008.

This first report was hastily prepared following widespread OIA requests, to ensure that other individual DHBs would not be picked off as was the case with Capital & Coast DHB. It provided some national context and was released following an education campaign to assist the media in understanding and interpreting the data and information.

There is also ongoing work being undertaken by all DHBs on improving the consistency of classification using a severity assessment code (SAC) which should significantly improve the quality of the next report. A score from 1–4 is calculated by multiplying the outcome or consequence of the event by the likelihood of its recurrence. Scores 1 and 2 are the most serious and will need to be included in the 2008 report. However, serious and sentinel events are only a subset of incidents, The same rigor and consistency needs to occur with all incident reporting, and even an accurate classification system will not guarantee compliance with reporting.
The overriding rationale for establishing incident reporting systems is that they improve the quality of patient care, and measurably improve patient safety. One study showed incident reporting reduced the adverse event rate in hospitals and emergency departments to a half and a quarter respectively over an 8-year period.

Incident reporting systems also encourage the early identification of competency concerns in a supportive rather than a punitive manner; increase knowledge about system errors and the system improvements that could reduce this error rate; support peer review and use comparative data in a safe, quality assurance protected environment; and encourage the development of a low blame culture similar to that developed within the aviation industry.

However, overseas experience has shown that compliance and uptake of incident reporting among health professionals, is extremely low, inconsistent and variable, regardless of whether systems are mandated or not. With fear of litigation, clinicians are disclosing selectively and only one third of hospitals have board approved disclosure policies in place. In an audit of New York State’s well designed web and guideline-based, feedback providing incident reporting system, Tuttle found significant under-reporting. He concludes that although the audit has helped identify previously unreported occurrences, increase institutional awareness of mandatory reporting processes, and stimulate the redesign of concurrent detection process, it is unclear whether it will have any impact on compliance with the mandatory reporting system.

It appears that in many countries, including NZ, the selective use of open disclosure and incident reporting amounts to tokenism. There are a number of reasons for this, but the overriding issue is that there is misalignment between reporting systems and the (dis)incentives that surround them.

Disincentives or barriers

The disincentives or barriers to regular, frank and open reporting include:

**Fear factors—The ‘blame and shame’ culture**—Experience in the aviation industry shows that critical to an incident reporting system working to its full potential is a no or low-blame culture, and a supportive, non-hostile environment. Currently in New Zealand there is a strong sense among health professionals that the opposite is true. A medical practitioner can be “tested” by various organisations which include the media, the legal system, civil proceedings, coroners courts, Medical council, health and disability commissioner, privacy commissioner, Accident Compensation Commission (ACC), Health select committees, etc.. The new Health Professionals Competency Assurance Act (HPCAA) attempts to address this by using the Health and Disability Commissioner as a gatekeeper and clearing house for these claims, however the act has decreased the protection that Quality Assurance activities used to provide, allowing the Minister of Health access to this information. In addition, there is also the potential for punitive action by employers if misconduct or negligence is suspected.

Understanding the widespread medico-legally based behaviour alterations which occur in medical practice, ranging from over-ordering diagnostic tests to being
unwilling to participate in incident reporting is essential; as this more than any other barrier impacts on our ability to implement an effective error reporting system.

**The medical culture factor**—Doctors are extremely influential healthcare team members and usually lead the team and carry the greatest medico-legal burden. The ‘medical culture’ can be fiercely competitive and individualistic, and understandably, can produce a fear of failure and a reluctance to admit fallibility. Doctors are experts and they may not support organizational goals including incident reporting unless they are in line with their viewpoint and supported by their professional colleges.22

**Individual factors**—These factors are those that either do not reward individual practitioners for participating in incident reporting, or in some cases, actively discourage such activity. For example pay schemes often do not reward these quality activities, Colleges and Health Standards auditors and medical indemnity insurance companies do not always encourage or reward this form of self audit within their QA, accreditation or credentialing processes. Those that do not report incidents or near misses may be viewed as the most competent as they have the lowest error rates. A spotless record may even be rewarded by promotion or progression through the pay scales.

In the past, data has been collected but not fed back in a useful, comparative manner. Staff have not had clarity on “what is important to report, event definition codes or criteria, staff resources, disclosure issues, cultural issues, and, most importantly they have not been able to effectively use the information collected.”20

**Organisational factors**—Perverse reward systems also exist at the organizational level. A DHB that reports all incidents may be interpreted by the media and public as having a high error rate. DHBs do not yet have incident reporting as one of their non-financial Performance indicators or targets, and following C&C DHB's recent experience would probably be reluctant to agree to it because of the potential adverse publicity and liability. In C&C DHB's case, even average serious and sentinel event rates seemed high to an un-informed public.

**Knowledge factors**—Some clinicians may believe medical error is not as big a problem as stated, that it won’t happen to them, or that incident reporting is futile and will not bring about constructive change. There may also be a lack of clarity about how or which types of incidents should be reported. Clinicians still view incident reporting as inferior qualitative research23 and their participation in an activity that takes significant time, that could change standard practice patterns, that is unsupported by the organisation, and that will most likely only provide visible results in the long-term, will be limited.8

**Reward systems and motivation**

The problems outlined above are not unique to NZ, but they must be considered and addressed during the planning of a national incident reporting system. It is thought that cultural change may be necessary before either informal reporting or a mandatory system can work optimally.24 Cultural change is difficult and takes time. It would seem more practical to ensure the rewards are in place to encourage behavioural change which will then gradually result in a change in culture. No literature was found on the use and analysis of the reward systems in place to encourage this
behaviour or cultural change. In fact there are very few examples of rewards being used within the public health system.

In 1975 Steven Kerr published a paper entitled ‘On the folly of rewarding A, while hoping for B’. In it he describes “numerous examples of reward systems that are fouled up in that the types of behaviour rewarded are those which the rewarder is trying to discourage, while the behaviour desired is not being rewarded at all.” This seems to reflect accurately the current situation with incident reporting. Kerr suggested managers should “explore what types of behaviour are currently being rewarded. They might find that undesirable behaviour by clinicians may be explained by the reward systems used. The reward system should positively reinforce the desired behaviour, not constitute an obstacle to be overcome”. The paper has since become somewhat of a classic, and a survey of corporate America twenty years after Kerr’s paper suggested that the folly was still prevalent. System focused, non-quantifiable behaviour should be where the rewards are aligned. This requires the revamping and revitalising of performance management processes and systems, but more than that it requires recognition that to get any change in behaviour, there needs to be a change in the rewards.

Realigning the rewards

Organisational Behaviour scholars and managers are well aware of reward systems. McShane and Travaglione describe a number of theories of motivating behaviour. Expectancy theory is one that appears to fit the discussion on reducing adverse medical events well. It is a motivational process theory which advocates the use of rewards and clear guidelines for increasing employee motivation. There is a need to ensure rewards, whether they are individual, team-based, or organisational, are aligned to address the barriers previously identified. The following are some suggestions to achieve this:

A low-blame team culture—A more compliant culture would be fostered by moving away from blaming the individual to proactively identifying system errors. No-blame may be difficult to obtain, however a “low-blame”, open and fair culture should be achievable where clinicians are part of a team and system, and only held responsible if they have acted in a negligent or reckless manner.

The father of the medical error movement, Lucian Leape, states that physicians have been reluctant partners in reporting. There is the “unresolved conflict between the public’s desire for accountability and doctors’ and hospitals’ fear of damage to their reputations and of malpractice liability”. Incident reporting should be anonymous. Medical error reports will undoubtedly be publicly available, and while open disclosure and apologising to patients and families affected by medical error is now becoming part of established medical practice, public disclosure or public reporting of any identifiable data should not occur.

Because of the risk of misinterpretation by the media and the resulting loss of public confidence, even the public release of ‘non-identifiable’ national reports such as the ‘Serious and Sentinel Events Report’ should only be done once there has been public and media education about adverse events, and there is a consistent level of reporting across all DHBs. Trial by media and increasing the blame and shame culture will severely compromise a national incident reporting system. This may be criticised as
preventing accountability and transparency. However, where there has been reckless or aberrant behaviour, evidence can still be obtained, although not through this channel.

The medical culture—This can only be overcome if all clinicians in an organisation consistently report incidents or near misses, and the environment is conducive to the ‘safe’ reporting of adverse incidents. This sort of trust only develops over time and clinical champions and early adopters will need to take the lead. Clinicians, and their unions and professional colleges need to be consulted early and support incident reporting as a valued quality improvement activity. It should be viewed as a vital part of a new concept of professionalism where clinicians are trusted to be more involved in planning and decision-making; while accepting that evaluation and accountability go with this trust and responsibility.

Clinicians are only likely to participate in incident reporting if they believe that their time and effort will result in improved health outcomes. This can be assisted by describing studies where incident reporting has led to a reduction in error, but will gain real momentum with the provision of a supportive environment that provides feedback on progress and outcomes as systems are put in place.

Individual rewards—A number of individual rewards may be effective. The use of an incentive pay scheme where a small percentage of an employees salary is contingent on them participating in quality assurance activities including clinical audit, incident reporting etc. could be considered. Discounted or fully funded medical indemnity insurance should also be dependent on full participation in a quality programme. Simple actions such as changes to local protocols, worksheets, audits and supervision practices, as well as incorporation of checklists and assessment tools and feedback discussion are all low cost activities that have worked and produced impressive results.  

DHBs need to facilitate the reporting of incidents, for example, by a simple 0800 phone number or web-based approaches. Bent describes the use of handheld personal digital assistants for incident reporting. Non-clinical time dedicated to quality assurance activities should be audited and there should be a system that supports and encourages these activities and rewards research in this area by including it as an organisational performance indicator. A more participatory approach in which clinical staff help develop criteria for assessing adverse events, get individualized feedback and comparative data, and help to implement system changes are likely to result in a greater sense of ownership and compliance.

Organisational rewards—This year, DHBs will have funding linked to participation in 5 quality initiatives, one of which is incident reporting. There are also the inevitable savings from decreased hospital length of stay etc. if adverse medical events can be reduced. However, the greatest organisational rewards result from the system changes that can significantly improve the quality of care, the culture and the reputation of the organization. This will only occur if there are consistent reporting standards, otherwise those DHBs that report least will be rewarded most.

Knowledge—Clarity about the purpose of an incident reporting system is necessary. It is not about identifying aberrant individuals. The function should be to identify
whether an error is preventable and how to prevent it happening again. More specifically this involves indentifying:

- Human errors and developing anticipatory systems to prevent these errors or mitigate their impact
- Faulty systems and processes causing or contributing to incidents and suggesting improvements to them
- Latent errors—errors waiting to happen and making recommendations regarding these.

Lack of knowledge can be addressed by education and training as long as the other organisational rewards are in place. However, DHBs are more than just hospitals, and although this paper refers to hospital incident reporting, there is a need for the incident reporting system, education and training to be available to Primary care and other community providers. The possibility of a national web-based system opens up this opportunity and could provide a rich data source for joint primary-secondary clinical governance meetings. Strategic communication must be directed at improving the public’s knowledge, understanding and tolerance of medical error, and reassure them that system changes such as incident reporting will be much more effective than shame and blame of individuals.

Leape identifies the characteristics of successful reporting systems and states they should be non-punitive, confidential, independent, involve expert analysis, timely, systems oriented, and responsive. If this could be achieved, then surely most of the above rewards would follow, and as long as the new national system is implemented intelligently with these characteristics in mind, some of the required behaviour and cultural change, will also follow.

**Conclusion**

It is a number of years since the world and, in particular the health world, became aware that adverse medical events are a significant problem, and that by using a systems approach, an incident reporting system could be put in place to identify, document, and learn from these events. Recommendations have been in place, but the organisational support needed has not eventuated. Silence rather than open disclosure and universal incident reporting are being rewarded.

Error reduction requires detection and this will only occur if incident reporting is widespread and becomes a culturally accepted activity within the health system. As a first step, all reporting activities must be non-punitive and publicly non-discoverable. Mandatory reporting systems will have little chance of success unless this negative incentive is dealt with.

Our blame culture still needs to be addressed. Incentives and rewards need to be realigned or created which will drive a cultural change in incident management as part of a broader quality improvement programme.

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Superior canal benign positional vertigo

Jeremy Hornibrook

The most common cause of vertigo is benign positional vertigo (BPV). Positionally-induced vertigo was recognised early in the 20th Century, but the clinical features of “classical” BPV were not described until 1952 by Dix and Hallpike, based on their provocative positional test. The patient is seated near the end of the examination couch, preferably wearing Fenzel glasses to magnify the eyes for the examiner.

The head is turned 45 degrees to one side and the patient tipped back with the head down. After a few seconds the patient experiences vertigo and has torsional geotropic (fast phase towards the ground) nystagmus seen when the eyes are directed towards the symptomatic side. The nystagmus and vertigo usually last less than 30 seconds. When the patient is sat up, the nystagmus direction reverses.

Dix and Hallpike suspected the disorder was caused by an abnormality of the otolith organs. With the advantage of high quality temporal bone histology Schuknecht thought that the nystagmus was explained by a posterior canal receptor made heavy, most likely by an otoconial particle which had become attached to it.

Early attempts at treatment were based on that assumption. Others, including Epley, made models and concluded that the “classical” signs were better explained by a particle loose in the posterior canal. A photograph of otoconia in a surgically opened posterior canal and the eventual acceptance that repositioning treatments work have confirmed the mechanism.

In the early days of vestibular research (before video cameras) torsional nystagmus was difficult to record. Electronystagmographic recordings favoured nystagmus in the horizontal plane. However, it was by this technique that the first recordings of horizontal canal BPV were made. These confirmed Epley’s prediction that BPV could be caused by otoconia in any semicircular canal. Epley presented a chart showing the likely pattern of nystagmus for each type.

In the 1960s, experiments in cats had defined the unique three-neuron connection between canal receptors and the extraocular muscles. Each receptor is connected to one ipsilateral and one contralateral muscle. The second-order neurons are either excitatory (to the agonist muscles) or inhibitory (to the antagonist muscles). The connections for a posterior canal receptor and a superior canal receptor in a left ear are shown in Figure 1 and Figure 2.

In “classical” posterior canal BPV, a provocative positional test will cause an ampullo-fugal (excitatory) deflection of the posterior canal receptor resulting in a torsional apogeotropic (anatomically downward) deflection of the eyes, followed by their fast-phase return (geotropic or anatomically upward). If there were a particle in a superior canal, a similar ampullofugal receptor deflection could occur during a provocative positional test when the symptomatic ear is upper-most (Figure 2).
Figure 1. Left posterior canal benign positional vertigo. Left ear down
(IR=inferior rectus, SO=superior oblique, SR=superior rectus, IO=inferior oblique)

Figure 2. Left superior canal benign positional vertigo. Left ear up
(IO=inferior oblique, SR=superior rectus, SO=superior oblique, IR=inferior rectus)
Case report

A 51-year-old female had an approximately 10-year history of episodic positional vertigo lasting days which would occur twice a year. In 2000 it was confirmed as being “classical” left posterior canal BPV. In 2004 she presented after having awoken with positional vertigo. When sitting she had no nystagmus.

A Hallpike provocative positional test was performed (Figure 3). With the left ear down there was no response. With the right ear down, after 5 seconds, she experienced vertigo and there was a nystagmus whose fast phase was apogeotropic (anatomically downward), which ceased when she sat up. This implied BPV generated by a superior canal receptor, most likely in the opposite (left, upper) ear.

On that presumption two reverse (beginning with left ear up) Epley canalith repositioning procedure sequences were performed, after which no positional nystagmus could be elicited. She remained free of symptoms until approximately 6 months later when she presented with horizontal canal BPV in the same ear. This patient has now had all three types of BPV in one ear.

Figure 3. Video-clip. Hallpike positional test with right ear down and left ear up. Downbeat nystagmus with a latency of 5 seconds and a small torsional component

Video can be viewed at:

Discussion

Vertical nystagmus, particularly downbeat, should alert the clinician to the possibility of central pathology. Caudal brainstem compression (e.g. Chiari malformation, hereditary spinocerebellar ataxia, and long-term lithium therapy) is in approximately half of the main causes. In the other half no cause is found. Until relatively recently it was assumed that positionally-induced nystagmus that was not "classical" BPV must have a central cause. The discovery of horizontal canal BPV explained most of the variations. In 1995, Epley’s elegant description of superior canal BPV was theoretical.

In 1994, Brandt had alluded to “…the rare anterior [superior] canal BPPV, the spontaneous symptoms occur when the affected ear is uppermost”. However, the first detailed cases are attributed to Susan Herdman who described two patients whose positionally-induced vertigo was accompanied by downbeat and torsional nystagmus likely to be caused by a superior canal receptor, and which ceased after repositioning treatment appropriate for BPV. Subsequently superior canal BPV has been recognised and reported by others in whose series it represents approximately 1% of all BPV diagnoses.
Bertholon et al\textsuperscript{13} reviewed 50 consecutive patients who had positionally-induced Nystagmus. In 75\% there was a central cause (multiple system atrophy, cerebellar degeneration and other miscellaneous causes). In nearly all the downbeat nystagmus was triggered by the Hallpike test, and its onset was immediate.

In 25\% (“idiopathic”) who presented with positional vertigo, the Hallpike test or a head-hanging test elicited vertigo and downbeat nystagmus with a short latency. In half the subjects a torsional component could be seen through Frenzel glasses, but in one it was only discernible by video-imaging. Aw et al\textsuperscript{15} studied forty-four consecutive patients who had not responded to conventional office repositioning treatments with 3-dimensional search coils in a 2-axis whole-body rotator. Seven had downbeat nystagmus with a torsional component assumed to indicate the symptomatic superior canal. All responded to a “head-over-heels” forward rotation in the plane of the identified canal.

Superior canal BPV is assumed to be rare because the posterior arm of the canal descends directly to the common crus, and debris within it should clear easily. For that reason, like horizontal canal BPV, it often resolves quickly with changes in head orientation likely to occur in everyday activities, or turning over in bed.

Differences in the orientation of the ampullary segments of the posterior and superior canals explain why (1) superior canal BPV can be elicited by a Hallpike test to either side, or to a head-hanging test, and (2) the smaller torsional component for superior canal BPV, which is predominantly downbeat.\textsuperscript{13,15}

In summary, superior canal BPV is now recognised as rare form of BPV, observed in approximately 1\% of large series. The presenting symptom is positional vertigo. As with all forms of BPV the patient must experience vertigo on a Hallpike positional test, which may be positive to either side, or on a head-hanging test.

The nystagmus has a short latency and is downbeat, with a torsional component which may be indiscernible to clinical observation. A past history of posterior or horizontal canal BPV supports the likelihood of superior canal BPV. Otherwise, in a patient with positionally-induced downbeat nystagmus, the absence of these features and non-response to repositioning treatment makes a central cause likely.

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**Acknowledgment:** I thank Professor GM Halmagyii (at the Royal Prince Alfred Hospital, Sydney) for verification of the observations and conclusions and for helpful comments.

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**References:**

Fatal tyre blast injuries including bowel evisceration and forearm amputation

Ashraf F Hefny, Hani O Eid, Khalid Salim, Fikri M Abu-Zidan

A 6-wheel tyre exploded while a 34-year-old male was repairing it. When brought to the emergency room, he was unconscious with pulse 140 beats per minute and blood pressure 70/40 mmHg. Chest examination showed multiple rib fractures on the left side.

A large abdominal wall defect was seen on the right side with bowel evisceration (Figure 1). The right upper limb was amputated (Figure 2).

The patient was intubated, resuscitated, and a laparotomy was performed. Injuries included a tear to the infrarenal portion of the inferior vena cava (IVC), and lacerations to the ascending and transverse colon, duodenum, head of the pancreas, and right kidney. Repair of the IVC, a right nephrectomy, a right hemicolectomy, a duodenal repair, and a gastrojejunostomy were performed.

The patient died 7 hours postoperatively.

Discussion

Large tyre blast injuries are similar to grenade injuries but without thermal or chemical effects. The injuries can be caused by the pressure wave of the blast,
directly by the tyre rim or its fragments, or by the victim’s body being thrown away to the ground.  

We think that the injuries to the right side of our patient were caused by the direct impact of the rim and the left side injuries occurred when the patient’s body hit the ground.

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**References:**

An unusual cause of left iliac fossa mass

Robert Lo, Wai K Lai

Clinical

A 57-year-old lady with biopsy-proven Child’s B alcoholic cirrhosis and known oesophageal varices presented with a 6 months history of left lower quadrant abdominal pain. Clinical examination revealed a mobile tender mass in the left iliac fossa. There was no organomegaly or any dilated abdominal veins. Rectal examination and sigmoidoscopy were unremarkable.

Computed tomography (CT) of the abdomen was performed (Figure 1).

Figure 1

What is the diagnosis?
Answer

The CT showed a swelling of the left rectus sheath and within this there were a number of well-defined enhancing lesions suspicious of vascular structures. The CT also showed evidence of widespread porto-systemic anastomoses with varices involving the falciform ligament, gastro-splenic region, and retroperitoneally related to the right kidney. Her spleen was also noted to be mildly enlarged.

A subsequent Doppler ultrasound scan of these rectus lesions confirmed that they were large intramuscular vascular channels measuring up to 10–12 mm in diameter. The diagnosis of varices within the left rectus abdominis muscle presenting as a tender abdominal mass was made. Invasive portal measurement showed that her portal pressure was elevated at 10 mmHg (normal portal pressure <6 mmHg).

This is a rare and unusual way of presentation for porto-systemic collateral vessels in portal hypertension. To our knowledge, this is the first such reported case in the literature.

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Ruptured globe
Truptesh H Kothari, Shivangi Khara, Rajesh Verma

Clinical
A 64-year-old female with no significant past medical history presented to the emergency room with a 20-hour history of swollen right eye associated with severe pain. Physical examination revealed a swollen right eye with no periorbital bruise or skin lacerations.

On retracting the upper lid, minimal blood was visible with loss of contour of the eyeball. The right pupil was not reactive to light and vision was absent. A CT scan or the orbits was performed (Figure 1).

Figure 1

What is the diagnosis?
Diagnosis

The CT images of the orbits show reduced volume and enophthalmus of the right globe compared with the left, and displacement of the lens (arrow, Figure 1).

Appearances are consistent with ruptured right globe with a small amount of intraocular haemorrhage and right ectopia lentis. Globe rupture is seen as the loss of integrity of the outer membranes (i.e. cornea or sclera) by penetrating or blunt trauma. The mechanism of rupture is usually attributed to compression of the globe, increasing the intraocular pressure, leading to anterior rupture at the weakest point.

Clinical symptoms include severe pain, loss of vision, and diplopia. Treatment includes avoiding the application of pressure that may extrude intraocular contents, prophylactic antibiotics to prevent endophthalmitis, and surgical repair. If repair is impossible, enucleation either initially or 7–14 days after trauma.

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Disinfection


In view of the recent prevalence of epidemic infectious disease, more especially in the chief centres of New Zealand, the following rough notes on Disinfection may be of interest.

Taking the definition of a disinfectant to be something which kills micro-organisms capable of causing disease in contradistinction to an antiseptic, merely an inhibitory agent preventing growth but not necessarily killing the micro-organism, “germicidal” would really be a more appropriate adjective to use.

Eliminating deodorants which simply remove smell—sometimes by creating another more or less objectionable one than the first—one may classify the means of disinfection as follows: —

Physical
- Fresh Air
- Sunlight
- Fire
- Dry heat or Hot Heat
- Air, Moist Air
- or Steam
- Saturated Steam
- Superheated Steam

Chemical
- Solid
- Liquid
- Gaseous
UK National Health Service has its sixtieth birthday

Several journals have papers on this event—led by the BMJ which had 6 papers in consecutive weeks. Every viewpoint gets an airing. Tony Delamothe makes many points, 2 of which I shall quote:

“…hardly a week goes by without the government, or one of an array of special interest groups, publicly criticising one or other aspect of the NHS, apparently motivated by the laudable aim of improving the service. Often there’s an ulterior motive that advances the critic’s agenda more than the public good.” And,

“…as long as people’s net satisfaction rating of their 274 million visits a year to primary care services is 62%, and 91% of 17 million hospital inpatients rate their care as excellent, very good, or good, it’s hard for the negativity to have much of an impact.”

Much the same could be said of our national health system which, incidentally, is 67 years old.

BMJ 2008;337:1469–71

And, furthermore—National Health Insurance: could it work in the US?

This editorial by two doyens of the profession start with the proposition that the US health care system, which depends on private, for-profit insurance, is not working. It is time for national health insurance!

They point out a few salient facts. In 2005, the per capita health care expense was $6401 for Americans, compared to an average of $3114 in 30 industrial nations in the Organization for Economic Co-operation and Development.

“The World Health Organization ranked the US health care system the 37th best of 191 countries, and last among 17 industrialised countries in 2000. Our health outcomes: life expectancy, infant mortality, and immunization rates are well behind other industrialised nations. In a 2000 survey, 60% of our citizens said they were dissatisfied with their health care.”

And their solution is to make Medicare available to all Americans.

The American J of Med 2008;121:553–4

A medical horror story from Italy

Doctors from a private hospital in Milan have been arrested for doing unnecessary operations for financial gain and causing the deaths of patients. Thirteen doctors working at Istituto Clinico Santa Rita in Milan are accused of falsifying clinical records and defrauding the Italian national health service of around 2.5 million Euro.
Three of the doctors were also accused of voluntary homicide aggravated by cruelty, for doing unnecessary operations leading to the deaths of at least 5 patients.

The unnecessary operations included a mastectomy done on a woman aged 18 years who only needed a cyst removed, and unnecessary lung transplants in patients with tuberculosis.

Medical malpractice in a big way.

Lancet 2008;371:2159

Public and professional recognition of transient ischaemic attacks (TIAs)

In the UK, clinical guidelines for stroke were developed to allow effective, early management of TIA, and state that TIAs should be assessed and investigated in a specialist clinic within 7 days of the event.

The authors of this paper feel that the guidelines cannot be effected as public and professional knowledge of TIAs is inadequate. They base their viewpoint on a survey of 200 members of the public and a similar number of medical professionals. Their results—the public chose to wait for symptom recurrence before seeking medical advice for amaurosis (41%) and upper limb (UL) monoparesis (51%), sensory loss (68%), or paraesthesia (95%). However medical advice would be sought most often for slurred speech alone (89%) or combined with UL monoparesis (99%).

And—most general practitioners would prescribe anti-platelet therapy, 22–40% would not refer first-time TIA patients, depending upon the presenting symptom.

Their conclusion—stroke guidelines will remain ineffective without public awareness campaigns and physician education.

Clin Med 2008;8:366–70

Prevention of thrombosis after knee arthroscopy: low-molecular-weight heparin (LMWH) versus compression stockings

A prospective trial involving over 1300 patients. They were randomly assigned to wear a full-length graduated compression stocking for 7 days (660 patients) or to receive a once-daily subcutaneous injection of LMWH (nadroparin, 3800 anti-Xa IU) for 7 days (657 patients).

At 3 months the LMWH arm was significantly better off (p=0.005) in all respects—less asymptomatic proximal deep venous thrombosis, symptomatic venous thromboembolism, and all-cause mortality.

Clinically relevant bleeding events were seen in 2 of the stocking group and 6 of the LMWH cohort.

Ann Intern Med 2008;149:73–82
Faculty of Medicine

Postgraduate Scholarship in Obstetrics and Gynaecology

The above Scholarship is open to medical graduates who will normally be Registrars undertaking the Royal Australian and New Zealand College of Obstetrics and Gynaecology (RANZCOG) Integrated Training Programme, or are Members or Fellows of the College who intend to enrol for a research degree, e.g. Master of Medical Science (MMedSc) or PhD.

The Scholarship is $34,000 per annum for one year commencing 1 February 2009.

Further details are available from:

Debbie Moore
Department of Women’s and Children’s Health
Dunedin School of Medicine
P O Box 913
Dunedin 9054

Email: debbie.moore@otago.ac.nz

Applications close on 28 November 2008
Medical Benevolent Fund

NZMA Members, and families of deceased Members, may apply for aid when in situations of financial hardship or distress.

Applications should be directed through the NZMA:

Central Office
P O Box 156
Wellington
Tel: 0800 656161
Doctors in society: medical professionalism in a changing world


A lack of medical leadership is selling the profession short and too often, doctors are regarded as negative, defensive, and self-serving. That was a common view expressed to a Working Party of the Royal College of Physicians of London which aimed to define the nature of modern medical professionalism.

It found that whilst there are many leaders within medicine, there is little leadership of medicine as a whole and there is no coherent vision on many important issues facing healthcare.

The report asked, “How can the inherent tribalism of medicine be turned into a more positive force for public good?.”

The politicisation of the medical profession and the level of industrial action in the health sector over the last few years only serve to highlight the important debate in modern medical practice and begs the question—what does professionalism mean in the 21st Century?

If the term ‘professional’ has become a synonym for paid employment, as it has in sport, then we need a new definition if it is to be useful and supported by both doctors and the society in which they practice.

Early in the 1900s, Justice Brandeis of the United States Supreme Court listed the following as the peculiar characteristics of a profession:1

“First, a profession is an occupation in which the necessary preliminary training is intellectual in character, involving knowledge and to some extent learning, as distinguished from mere skill. Secondly, it is an occupation, which is pursued largely for others and not merely for oneself. Thirdly, it is an occupation in which the amount of financial return is not the accepted measure of success.”

If one or more of these characteristics have been abandoned by many doctors, we now need a new definition of medical professionalism.

Between October 2004 and June 2005, the Royal College Working Party, with membership much wider than medicine, explored the topic in depth and published: 

Doctors in society: medical professionalism in a changing world

The following definition of medical professionalism relevant to the 21st Century was developed.

Medical professionalism signifies a set of values, behaviours, and relationships that underpins the trust the public has in doctors.
The values, behaviours and relationships were defined as:

*Medicine is a vocation in which a doctor’s knowledge, clinical skills, and judgement are put in the service of protecting and restoring human well-being. This purpose is realised through a partnership between patient and doctor, one based on mutual respect, individual responsibility, and appropriate accountability. In their day-to-day practice, doctors are committed to:*

- Integrity
- Compassion
- Altruism
- Continuous improvement
- Excellence
- Working in partnership with members of the wider team

*These values, which underpin the science and practice of medicine, form the basis for a moral contract between the medical profession and society. Each party has a duty to work to strengthen the system of healthcare on which our collective dignity depends.*

The idea that medicine is a vocation caused some discomfort because one definition of vocation is: a divine call to do certain work. But the Working Party resisted the suggestion that medicine is a job because it respected the need for particular dedication to other human beings, and their wish to foster, not destroy, a “sense of passion and ethical commitment.”

Altruism is included in the detailed definition, but with caveats. Although its narrow definition suggests unselfishness or regard for others, altruism should not be about sacrificing oneself entirely for one’s profession, at least in terms of enduring poor working conditions or a withered family life.

However, any implication that doctors are morally superior to other healthcare workers is to be avoided. One witness suggested that a private doctor carrying out cosmetic surgery is a businessman and no more altruistic than Giorgio Armani or Estée Lauder.

New emphasis was given to the importance of a mutually respecting patient-doctor partnership and the need for doctors to work in partnership with the wider healthcare team, including managers.

In today’s properly more egalitarian world, the report moves away from suggestions of control, authority, power, and superiority which are not compatible with the modern view of the patient-doctor relationship.

It is essential to devise methods of “appropriate” accountability for doctors and avoid a culture of blame fuelled by extravagant media stories about “medical scares” where a doctor’s behaviour is somehow presumed to be against the interests of patients.

The Working Party branded as outdated the idea that a profession is a bounded group—bounded by a discrete body of knowledge, a monopoly of service, autonomy over conditions of work, a unique code of ethics. The reasoning is that many other
health workers share similar values and this must be more widely acknowledged by doctors. It noted:

“Most discussions of contemporary medical practice are plagued by manufactured and often false conflicts between doctors and managers, specialists and general practitioners, and employees and employers.”

Professional values must first protect, restore, and strengthen human well-being and dignity, and secondly the healthcare system.

“Doctors plainly see a role for themselves in shaping the system in which they work. But management responsibility is still insufficiently recognised by many doctors. While medical practitioners should certainly influence resource use, they must also accept their share of accountability for how those resources are deployed, and for the difficult choices that inevitably follow when resources are constrained.”

Traditionally, professional ethical codes dealt with the relationship between the profession and individuals, but national health services introduced a third party—the public in its role as the State and the paymaster. The concept of ethical obligations to the State has not been directly addressed by the Working Party, although that will be necessary as the costs of medical and legal services escalate.2

The Working Party recommends that each doctor reflects on its definition and description of medical professionalism, and assesses their values, behaviours, and relationships against those descriptions, recognising that they are a role model for other doctors and health professionals.

The Royal College of Physicians is aiming for a major philosophical shift in attitudes to medical practice, away from rule-based regulation, and believes medicine can be at the leading edge of this cultural shift.

The objective is to bring the regulatory pendulum back from the prevailing orthodoxy that sees good practice as a rigorously enforced dutiful conduct. It seeks a more balanced position that understands that an environment which encourages a doctor’s “goodness” will better promote positive patient outcomes.

This “goodness” is what the College means by professionalism and instead of focussing on doctors’ weaknesses it is preferable to begin with their virtues and find ways to nurture, sustain, and reproduce those.

“Medical professionalism is not optional. It is an essential part of being a doctor, no matter how many challenges face us.”

John Morton
Medical Advisor
RMO Unit
Canterbury District Health Board
Christchurch, New Zealand

References: