

Workforce education issues for international medical graduate specialists in anaesthesia

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Abstract. International medical graduate (IMG) specialists in anaesthesia need education to be part of the assessment process for pre-registration college fellowship. Fellowship of the anaesthetic college is required in Australia for registration as a specialist in this field. Marked differences exist between local trainees and IMG specialists in terms of training, stakes of the exam and isolation of practice. We have examined the reasons for the low pass rate for IMG specialists compared to the local trainees in the Australian and New Zealand College of Anaesthetists (ANZCA) final fellowship examinations. We also offer an IMG specialists' view of this perceived problem. It highlights their difficulties in obtaining adequate supervision and education.

What is known about the topic? There has been a worldwide shortage of doctors over the last decade. In Australia this shortage has been attributed to government policy in the 1990s limiting the number of medical school places. Other factors that may have contributed to this shortage are changes in the practice of medicine, increasing specialisation, growth in population and patterns of population settlement at the coastal fringes of Australia. The use of international medical graduates and reliance on them is associated with several problems and challenges. A key factor relates to their performance at a standard acceptable to the country.

What does the paper add? This paper offers an examination of the issues that present to IMG specialists located at rural and remote areas of Australia. The global aim of this study is to understand the workforce education issues that present to IMG specialists as a basis for supporting this group, having migrated to Australia, to better prepare for assessment of their practice in this country. Results of a survey of IMG specialists in Anaesthesia are included to contribute to an overall view. It highlights their understanding of the issues that present when preparing for specialist assessments.

What are the implications for practitioners? This information will be useful for policy practitioners who determine critical elements that influence workforce planning and education support. Decision makers will be able to make more informed decisions on the need to integrate education into planning for workforce efficiencies. There are currently no published data explaining why the pass rate for IMG specialist in anaesthesia is so different from local trainees and this paper also offers a viewpoint of present issues from those who are attempting these examinations.

Introduction

After migrating to Australia, many international medical graduate (IMG) specialists have conditional registration and work in a rural hospital that has been declared as an area of need. They often are professionally isolated from their peers who are preparing for the same examinations. There is an expectation that IMG specialist practice is comparable to a locally trained specialist; however, an IMG specialist does not enter an alternative training program to local registrars upon commencement of their assessment process. IMG specialists migrating to Australia, working in isolated areas, face considerable challenges including an assessment process forced on them with higher stakes than for local candidates. They have also performed poorly at this assessment process as a result of various factors.

The worldwide shortage of doctors extends to specialists where reports show that in 2001 the overall number of specialists in the Australian medical workforce was 162 per 100 000 persons.^{1,2} This is only expected to increase by 44 more specialists per 100 000 persons by 2012. The response to the shortage includes an increase in the number of university placements and the employment of overseas trained doctors also referred to as IMGs.³ The shortage has a particular impact on rural practice and outer metropolitan hospitals and it is in these areas where most IMGs are employed.^{2,4} Currently IMGs comprise 35% of the health workforce in rural areas of Australia.^{4,5} There is a similar pattern for IMG specialists in anaesthesia. It takes up to 13 years for a doctor to be fully educated, and longer to specialise as an anaesthetist, so the shortage of anaesthetists will continue.⁵ This implies a continual reliance on IMG specialists in anaesthesia.

Specialist registration is available to medical graduates who hold a prescribed qualification in the speciality field to which the application relates.⁶ A separate pathway to specialist registration is available through recognition of qualifications obtained overseas. The Australian Medical Council (AMC) has mandated the need for an assessment of the ability of the IMG specialists to deliver anaesthesia in Australia. The AMC in turn has charged the Australian and New Zealand College of Anaesthetists (ANZCA) with the responsibility of this determination, and this monopoly exists as ANZCA is the only body responsible for training and assessing local graduates. ANZCA conduct a set of final examinations for its trainees and consider this to be equivalent for the IMG specialist. Unfortunately the fact is that the IMG specialists have a poor pass rate in this exam when compared with local trainees. The basic question to be answered is why do IMG specialists have a lower pass rate than locals at the ANZCA exam?

The use of IMG specialists and reliance on them is associated with several problems and challenges. A key factor relates to IMG specialists performing at a standard acceptable to the country. This has been noted as a source of problems in almost every country.^{7–10} Individuals coming over from other cultures perceive the concepts, beliefs and values of their new country very differently from the locals.⁹ The employment of a large number of IMG specialist places stresses on various authority bodies relating to immigration, registration and supervision. These have, on occasion, led to problems such as

the Bundaberg Hospital problem, where the clinical work of an IMG specialist surgeon was allegedly negligent and resulted in adverse publicity. A commission of inquiry investigated the issues associated with the appointment of this particular IMG specialist as well as the registering and monitoring of overseas-trained doctors in general.^{11,12}

Methods

An investigation of the pathway taken by IMG specialists in anaesthesia for registration was performed to understand where and how this group of specialists practice when they arrive in Australia. The current Australian process for assessment of these specialists' practice is described and an analysis of the pass rates for pre-registration college fellowship examinations was completed. This is intended to provide an understanding of the extent of any disparity that may exist between results for specialists that have trained overseas and local trainee candidates. A review was undertaken to assess the range of nationalities of IMG specialists in anaesthesia and their educational background. The effectiveness of support for IMG anaesthetists practicing in rural and remote locations was also investigated.

This study was based upon the experience of IMG specialists that were members of a self help organisation called Overseas Trained Specialist Anaesthetists' Network (OTSAN). We conducted a survey asking IMG specialist candidates to present their assessments of the reasons for failure at the college final examinations. The survey was provided by OTSAN and previously piloted to ensure that it was understandable and that questions related to their intended concepts. The survey design was based upon a study of AMC candidates preparing for general registration by the Postgraduate Medical Council of Victoria in 2001.¹⁰ The questions posed to the IMG specialist candidates included personal details, medical and anaesthetic qualifications, Australian employment, education and training, supervision and feedback, workload, professional development, communication skills and the Australian health system. Additional questions asked for the number of attempts at the final examinations and their intended date to sit or resit the finals. Education was categorised into learning support and ability using a three point scoring scale of agree, disagree and undecided.

Results

Immigration involves a major change in the life of the IMG specialist and their family. Resettlement, in practical terms, includes finding accommodation, schooling for children and often a spouse will seek employment in their own field. It involves changes in professional work and employment, social and cultural adjustments, financial hardship, as well as the isolated new environment of a rural clinical placement. They all have to adapt and adjust to the Australian culture.

Many IMG specialists have conditional registration through the AMC and work in a rural hospital that has been declared as an area of need. This type of position has been created by the employing body that is either a hospital or relevant Health Department that has been unable to recruit an Australasian-trained specialist. A specialists' college is required to

undertake an assessment of 'fitness for task'. This is an assessment of an IMG specialist's qualifications and experience as related to a specific job description. The Australian and New Zealand College of Anaesthetists (ANZCA) may support an IMG specialist anaesthetist for such a position but this is limited to 12 months.¹³ A total of 77% of IMG specialist are placed in a small regional hospital with the remainder in tertiary hospitals, 63% have their registration linked to a position at an area of need hospital. Between January 2005 and December 2006 more than 112 doctors applied to ANZCA for the IMG specialist assessment process. Their country of origin is presented in Table 1.

The examination format or process differs for qualifications gained in separate countries or between varying institutions in one country. Anaesthetic delivery techniques also vary from country to country. IMGs that have specialised in anaesthesia overseas apply to the AMC for recognition of their training in this speciality and its compatibility with Australian requirements.¹⁴ Upon ANZCA receiving a referral from the AMC, the college then assesses applications, but it is the Australian state or territory medical boards that make the final decision on the appropriate category of registration.^{15,16}

Assessment of IMG specialist practice includes the period and content of training, work following training as a specialist and continuing professional development is confirmed using a paper application and an interview. A decision is then reached for doctors who are deemed to have substantially or partially completed a total of 7 years (or compatible) of clinical practice after completion of their basic medical degree, and are therefore suitable to enter the IMG Specialist Assessment Process or they are registered and need to apply through the general registration process of the AMC. The college recommendation will be for no longer than 24 months oversight of practice, satisfactory completion of clinical practice workplace assessments and passing the modified final part of the Fellowship Examinations (the multiple choice questions are optional).

ANZCA final examination reports show that the IMG specialist pass rate is considerably lower than local candidates. For example, the average IMG specialist pass rates of the May and September 2006 college finals was 39% compared with 86% for local candidates. On successful completion of the assessment process, the candidate will be supported for full registration and hence autonomous practice. Recent changes in early 2006 resulted in UK and Irish trained IMG specialist

Table 1. Numbers of international medical graduate (IMG) specialist and country of origin 2005–2006 (*n* = 112)^{17,26}

| Country of origin | <i>n</i> | Country of origin | <i>n</i> | Country of origin | <i>n</i> |
|-------------------|----------|-------------------|----------|-------------------|----------|
| India | 48 | Saudi Arabia | 2 | France | 1 |
| UK | 19 | Sweden | 2 | Iran | 1 |
| Germany | 8 | USA | 2 | Kuwait | 1 |
| South Africa | 7 | Austria | 1 | Pakistan | 1 |
| Czechoslovakia | 4 | Canada | 1 | Poland | 1 |
| Egypt | 3 | Chile | 1 | Sri Lanka | 1 |
| China | 2 | Belgium | 1 | Vietnam | 1 |
| Philippines | 2 | Finland | 1 | Zimbabwe | 1 |

being exempted from the exam considering that all criteria have been fulfilled. Tables 2 and 3 show the average IMG specialist pass rates of the May and September 2006 college finals as 39% compared with 86% for local candidates.¹⁷

IMG specialists have completed between 4.5–7 years for their basic medical degree. They have not all stated their initial qualification for anaesthesia, but 32% have completed 3 years of postgraduate training, 41% have completed 5 years and 7% have completed 7 years or more. The mean period of time since qualifying in anaesthesia is 9 years (s.d. = 4.41); 40% have completed further qualifications. Table 4 shows medical qualifications of surveyed IMG specialist having recently arrived in Australia.

Qualifications such as a Diploma in Anaesthesiology from Europe may be similarly titled to that from India, but the latter is a very different qualification.^{18,19} In contrast, groups of

Table 2. Australian and New Zealand College of Anaesthetists (ANZCA) international medical graduate (IMG) specialist final examination outcomes May 2004–May 2007

| Date | Total IMG specialist applicants | Successful | Overall pass rate (%) |
|----------------|---------------------------------|------------|-----------------------|
| May 2007 | 21 | 7 | 33 |
| September 2006 | 30 | 15 | 50 |
| May 2006 | 34 | 10 | 29 |
| September 2005 | 33 | 17 | 52 |
| May 2005 | 28 | 11 | 39 |
| September 2004 | 40 | 21 | 53 |
| May 2004 | 30 | 12 | 40 |

Table 3. ANZCA final examination outcomes May 2006–May 2007

| Date | Total local applicants | Successful | Overall pass rate (%) |
|----------------|------------------------|------------|-----------------------|
| May 2007 | 164 | 144 | 87 |
| September 2006 | 84 | 67 | 80 |
| May 2006 | 128 | 116 | 90 |

Table 4. Anaesthetic qualifications by country

| Country | Basic medical degree | Number of years to qualify |
|------------------------|------------------------------|----------------------------|
| Australia | FANZCA | 5 |
| Bosnia and Herzegovina | Specialist anaesthetist | 5 |
| China | M.B.B.A. | 5 |
| Germany | Specialist anaesthetist | 5 |
| India ^A | Diploma in Anaesthesia | 2 |
| India | Diploma of National Board | 3 |
| India | M.D. | 3 |
| Nigeria ^A | Diploma in Anaesthesia | 5 |
| Nigeria | FMCA | 5 |
| Philippines | Board Certified anaesthetist | 6 |
| Poland | Specialist anaesthetist | 5 |
| Ireland | FFARCSI | 6 |
| South Africa | FCASA | 5 |

^AVarying levels of qualifications may exist in this country. (Source: OTSAN.)

Australian trainees appear to have much greater levels of comparability between each state and territory of Australia.²⁰ Similarly-titled qualifications may even vary in a single country. For example, the Diploma of the National Board (DNB) is a nationwide exam in India and more uniform in comparison to the variable Medical Doctor (MD) qualification.²¹ The Medical Board of India unconditionally recognises qualifications from 74 out of 188 Indian medical colleges that provide the postgraduate degree of Medical Doctor in Anaesthesiology (e.g. Medical Council of India, see Courses & Colleges at <http://mciindia.org/index.htm>).

The survey was administered to remotely-located IMGS specialists who were preparing for specialist examinations. This was a face-to-face completion by all at OTSAN education meetings that were held every 3 months and therefore represents 100% return rate. The number of times that IMGS specialists took to complete their finals ranged between one and five attempts. This may be related to a lack of effective study where 59% of IMGS specialists surveyed state that they do not study in a group setting. IMGS specialists' reasons for not studying in groups appear to be related to a lack of other candidates to study with and geographical isolation. Some have also stated that they had difficulty in getting time to study with work being too busy (Table 5).

Once migrated to Australia, an IMGS specialist in anaesthesia interacts with five large bureaucracies: (1) the hospital administration; (2) registration board; (3) Australian Medical Council; (4) Department for Immigration and Multicultural and Indigenous Affairs; and (5) the anaesthetic college. There is a general failure of communication between these authorities, placing the stress on an IMGS specialist to ensure multiple copies of forms and duplicates of certificates are provided. Furthermore, many of the authorities do not clearly delineate their needs, and many IMGS specialists complain that the system loses their application or supporting copies of certificates. This is sometimes compounded when original certificates are in the IMGS specialist's native language and new translations are required (Table 6).

Discussion

There are no published data explaining why the low pass rate at college exams occur, but reports in the published literature have examined related problems and suggest a variety of factors involved, causing difficulties. These include

Table 5. International medical graduate (IMGS) specialist learning support (*n*=73)

| Survey question | Agree (%) | Disagree (%) | Undecided (%) |
|--|-----------|--------------|---------------|
| I find it difficult to get time to study | 69.4 | 22.2 | 8.3 |
| Family and social responsibilities prevent me from studying | 52.1 | 28.2 | 19.7 |
| Clinical work is isolating, boring and does not help me with learning about anaesthetics | 15.3 | 58.3 | 26.4 |
| Learning new material at my age is difficult | 34.7 | 50.0 | 15.3 |

geographical isolation, lack of a single source of information, communication difficulties, variability in knowledge, insufficient orientation and supervision, and additional workloads for hospital staff in training IMGS.^{22–24} However, these views do not fully recognise the experiences of IMGS specialists or their perception of these problems, and these views have not been published in Australia.

It has been reported that the majority of IMGS specialists need to both update and extend their knowledge base.²⁰ However, education support for this section of the workforce is in stark contrast to local Australians. Training for local registrars is a 5-year program on a full-time basis. It is structured into a 2-year basic training and 3-year advanced training program following completion of 2 immediate postgraduate years, Post Graduate Year 1 and Year 2. Training in these hospitals or health services must provide a full range of sub-speciality training as well as the opportunity for a rural or remote rotation.²⁵

It may be argued that IMGS specialists have successfully completed a training program elsewhere and should not require further training. However, given that we will be dependant upon these specialists for some time it appears reasonable to suggest that we support our workforce with education and the necessary upskilling to practice under Australian conditions. The ANZCA Final Examinations are at Advanced Trainee Year 2 level. Trainee registrars are trained within a local context and are examined by a body of peers who are also teachers. There is a relative uniformity among graduates as each organisation or health facility in each state or territory provides similar training under ANZCA supervision and duration.

Interestingly, over 42% of IMGS specialist anaesthetists felt that they were well supervised in their work. This appears at odds with reports of limited supervision and feedback processes.²² McGrath has also stated that there is no single source of information for overseas-trained doctors. This is identified as a

Table 6. International medical graduate (IMGS) specialist integration (*n*=73)

| Survey question | Agree (%) | Disagree (%) | Undecided (%) |
|--|-----------|--------------|---------------|
| I am or was able to gain information about registration and immigration from one central point | 23.9 | 69.0 | 7.0 |
| I have communication problems with patients and professionals | 11.1 | 77.8 | 11.1 |
| I have a good grasp of the Australian Healthcare system | 25.0 | 20.8 | 54.2 |
| I am employed in a hospital where the work matches my strong abilities | 49.3 | 32.9 | 17.8 |
| I am well supervised at work | 42.5 | 41.1 | 16.4 |
| I get good feedback in my work from my manager | 53.5 | 35.2 | 11.3 |
| I am provided with extra training that I require at my work | 38.0 | 42.3 | 19.7 |
| I am allowed to take leave to go to professional development activities | 83.3 | 5.6 | 11.1 |
| If I had to do all this again I would not go through with it | 21.1 | 47.9 | 31.0 |

key issue for exam candidates for generalist registration in Victoria. Although the majority of IMG specialists agreed with this, they do not concede that they have had communication problems with patients and professionals, and indeed have higher requirements for proficiency of English language. Furthermore, just under half of the IMG specialists surveyed disagreed with the statement that overseas-trained doctors are employed in positions where there is almost no matching to previous experience.

Supervision for IMG specialists in Australia is different to that provided for local Australians. IMG specialists often work in rural or remote area-of-need hospitals and, therefore, work alone or in an isolated practice. Although, by their nature, such anaesthetic departments are often small. Unlike local trainees, IMG specialists are often supervised at a distance. The college assessment process often requires supervised practice, but this is often lacking due to the difficulties supervisors face from their high workload. This lack of adequate supervision further alienates IMG specialists from the system. The college frequently requires that a duration of time be spent in supervised practice at a tertiary level. For an IMG specialist whose visa, employment and registration are linked to the rural hospital, this becomes an exceedingly difficult task. Better support and facilities needs to be provided for these doctors to successfully integrate them into the Australian workforce. These IMG specialists will provide crucial services for the people of Australia with an excellence that is intrinsic to Australian anaesthetists.

Conclusion

There is an expectation that an IMG specialist's practice be comparable to that of a locally trained specialist. As such, future policy should incorporate an understanding of the workforce education issues that are presented to IMG specialists located at remote health facilities. The task to ensure a minimum standard of practice in anaesthesia has been assigned to ANZCA. However, the college Final Examination reports show that the IMG specialist pass rate is considerably lower than local candidates and this is of particular concern.

Limitations of this study include the modest number of 73 completed surveys and the range of the scale used for scoring minimised statistical analysis. The findings presented have implications for support of all IMG specialists that are practicing in a rural or remote area, but there is a need for further research in the area of distance education-support for IMG specialists and the continuing education needs for this workforce. IMG specialists come from many different backgrounds and training programs in comparison to local trainees. There is also a high variability in anaesthetic training and number of years. In addition, these specialists have had a different exam focus in the past that was more in keeping with the anaesthetic education provided in their own country.

Acknowledgement

This work was funded by the Australian Government Department of Health and Ageing IMG specialist Upskilling Program and Queensland Health. It was completed during postgraduate study at University of Queensland. The support of the Australian Government Department of

Health and Ageing is very much appreciated and acknowledged by all the IMG specialists who have been involved. We hope that the Department's interest and support will continue and be further developed. We also acknowledge and thank Queensland Health for their backing and additional funding, and also their progressive and genuine support for IMG specialists.

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Manuscript received 10 June 2009, accepted 9 February 2010