Prevocational Training Requirements for Doctors in New Zealand: a discussion paper on options for an enhanced training framework

Medical Council of New Zealand

Protecting the public, promoting good medical practice
Te tiaki i te iwi whānui me te whakatairanga pai i te mahi e pā ana ki te taha rongoā

Foreword

The prevocational (PGY 1 and 2 or house surgeon) years are a crucial link in the training of our young doctors. They are the first real foray into independent professional life. They bridge the gap between medical school and vocational training. They help establish young doctors' careers and lead them into supervised practice in the application of their growing knowledge and skills.

The MCNZ is responsible for regulating the first post graduate year (PGY1) and the training therein. We have been aware of the growing clamour about the unsatisfactory nature of both of the first 2 years in relation to experience, training and the question as to whether they will equip our young doctors to function well in our changing healthcare landscape. Our recent workforce reports have clarified an urgent need for change.

This document breaks new ground. It begins the conversation about not whether, but how change is to be implemented. It sets out the desired outcomes and principles that will drive this change.

At this time, there is an opportunity that presents infrequently. Significant differences to the way we are doing things now can be instituted. In my view, we need to do it and we need to do it right. This means that everyone inside the profession and those intimately involved with the provision of health care and medical training, need to take this excellent document seriously, have the discussion that is required, and give the Council considered responses. This is the opportunity to be involved.

It is exciting to think that after years of talking about these issues something tangible can emerge that will enhance the quality of medical training in these prevocational years and hence improve the health care for New Zealanders.

I wish to thank the hard working team that produced this document, with particular acknowledgement to Rebecca Blackmore. We are also very grateful that Professor John Collins agreed to share his wealth of knowledge and recent experience in this area in the UK with us.

Dr John Adams
Chairperson
Medical Council of New Zealand

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Executive summary

Introduction

The Medical Council of New Zealand (the Council) is a statutory body that operates under the Health Practitioners Competence Assurance Act 2003 (HPCAA). The Council's purpose is to ensure that doctors are competent and fit to practise medicine in order to protect the health and safety of the public. The Council has a number of responsibilities which include ensuring doctors who are registered are competent and fit to practise, and overseeing the education of doctors.

The Council, with support from Health Workforce New Zealand (HWNZ), is reviewing prevocational training. The review builds on the work of previous groups charged with exploring workforce education and training. It explores the issues and drivers behind the need for change, the purpose and objectives for the first two postgraduate years (referred to throughout this paper as intern or PGY1, PGY2 and prevocational), recommends key features of a prevocational training framework and proposes a number of possible options for change.

The Council seeks your feedback. We have included a number of questions listed on page 9 of this paper. Following further discussion and feedback, our intention is to further develop the education and training framework for all PGY1 and PGY2 doctors (including international NZREX graduates). As a result, future PGY1 and PGY2 doctors may experience modifications to the curriculum, modifications to the clinical runs and different settings for training.

Issues and problems

Building on the work of previous reviews, the Council has identified a number of problems with current prevocational training arrangements. It is the Council's view that **the status quo cannot continue**. Problems that we have identified which lie behind our need to look at this issue are as follows:

- ***Lack of vertical integration along the continuum of education and training****:* It is widely accepted that medical education is a continuum with important transitions between university, prevocational training, and vocational training. However, there is currently a lack of integration along this continuum in part due to the number of organisations involved in medical education and training each of which, prior to the establishment of HWNZ, have not had the sole mandate to systematically coordinate programmes.
- ***Balancing increasing service demand with increasing training needs:*** There are inherent tensions between service delivery and the training needs of doctors that are placing the traditional apprenticeship model under increasing pressure. Rather than gaining valuable experience in diagnostic and treatment processes, many doctors have reportedly felt that they were regarded as 'units of labour' to be deployed to cover service need including low level administrative tasks[1].

[1] Commission on the Resident Medical Officer Workforce. *Treating People Well: Report of the Director-General of Health's Commission on the Resident Medical Officer Workforce*. Wellington: Ministry of Health; 2009.

- ***A hiatus in training:*** Despite the fact that most doctors do not enter vocational training until they have completed at least two postgraduate years, there is no regulated requirement for formal training in place for doctors during their second postgraduate year (PGY2).
- ***More emphasis needed on obtaining broad based core competencies:*** Much of New Zealand's population is located in regional centres and are disproportionately increasing in age, meaning that there will be a growing proportion of people with long-term age-related conditions. Doctors in these regions must provide services across a broad range of accident and illness and require core general competencies in order to do so.
- ***Training too hospital focussed:*** With the current and projected increase in the incidence of age-related and chronic conditions a greater share of medical services will need to be provided in community settings with a focus on prevention and long-term management[2].
- ***Locums and safety concerns:*** There is evidence that the use of PGY2 locums has been increasing over the past 10 years and continues to rise. In this situation, the doctor could have limited or no experience in the area of medicine in which they undertake the locum and supervision could be from a distance. Both of these issues raise concerns over the safety and quality of services PGY2 locums are providing and the training they receive.
- ***Funding and Accountability:*** There is currently no accountability mechanism, such as key performance indicators, linked to the funding provided for prevocational training. It is therefore difficult to determine to what extent funding is actually invested in training and to quantify its value.

Clarity on the purpose and objectives for PGY1 and PGY2

From our review of the literature, observations, and discussions with stakeholders, it is clear that there is a **lack of shared understanding and appreciation of the purpose of the prevocational years, in particular PGY2**. Without a commonly understood and accepted purpose statement, it is difficult to get 'buy in' to nationally consistent objectives for the two postgraduate years and thereby determine the value of the training provided.

Purpose

The intent of the purpose statement is to provide a description of the **outcomes** to be expected for doctors completing this period of their education and training based on the proposed prevocational training framework. The Council proposes that the following purpose statement be adopted, promulgated widely and actively supported by PGY1 and PGY2 doctors, their supervisors, intern supervisors, hospital administration, management and executive, and other relevant stakeholders.

> *In order to satisfactorily complete prevocational training, be registered by the Council in a general scope of practice[3], and be prepared for entry into a vocational training programme doctors will have demonstrated proficiency, through an enhanced model of 'supervised learning'[4], across a range of competencies in the domains of clinical care, communication and professionalism as specified in the Council's prevocational curriculum.*

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[2] Medical Training Board. *The Future of the Medical Workforce: First Annual Report November 2007 – December 2008.* Wellington: Ministry of Health; 2008.

[3] For recertification requirements for doctors registered in a general scope of practice, see Appendix 1.

[4] Throughout this paper we refer to 'supervised learning' rather than 'apprenticeship'. See page 27 for further explanation.

Objectives

To achieve this purpose the Council proposes the following objectives for prevocational training:

- The PGY1 and PGY2 years will build on the education and training that doctors receive at medical school.
- PGY1 and PGY2 doctors, supervisors, other health professionals, hospital administration, management and executive are all involved in training and will have a clear understanding of the purpose of PGY1 and PGY2.
- Those involved in training will share a clear and common understanding of their respective obligations and role.
- Training over PGY1 and PGY2 will be through an integrated training programme.
- Education and training requirements are widely regarded to be of equal importance to service provision.
- PGY1 and PGY2 doctors will have sufficient access to high quality supervision from senior colleagues and supervisors.
- Training will be primarily experience-based with supervision from senior colleagues supported by other learning methods.
- Doctors will have access to training in a number of clinical settings which include hospital and community care settings.
- Doctors will receive broad-based training which will serve as an appropriate foundation for vocational training in any specialty including general practice.
- Training for PGY1 and PGY2 doctors will adhere to a national curriculum whereby doctors must demonstrate competence in the domains of clinical care, communication, and professionalism.
- Training will be based on a curriculum and will include acute illness and an increased focus on long term and age related illness.
- Every doctor registered with a provisional general scope of practice should have specific learning objectives established for each "run" that are consistent with achieving the competencies required at the time they are eligible to apply for registration in a general scope of practice.
- All senior doctors should participate in the supervision and training of those doctors registered with a provisional general scope and who are within their area of medical or clinical responsibility.

The development of options for change to meet the objectives and fulfil the purpose stated above is based on the following principles:

- Safety and quality of patient care is paramount.
- Promotion of good medical practice.
- Recognition of the principles of Adult Learning[5] throughout education and training.
- The process should be efficient and provide good value for money.

[5] Adult Learning Theory recognises that adult learners are self-directed, require a degree of autonomy, need clear goals and objectives, need regular feedback and space for reflection, bring to their learning prior experience, knowledge and skills.

Key features of the prevocational framework

The Council proposes a set of core features be introduced into the prevocational framework. These features are included in the objectives above and listed separately below. The rational for including these features is explained throughout the paper.

- Extending the length of runs from 3 months to 4 months
- Introducing additional mandatory runs of community care[6], emergency medicine and psychiatry. Not all options include all three additional mandatory runs.
- Introducing a revised curriculum adapted from the Australian Curriculum Framework for Junior Doctors. **This curriculum**, where doctors must demonstrate competence in the domains of clinical care, communication, and professionalism, **will overarch ALL runs**[7].

Options [8]

Council have identified the following options. As noted above these options apply for all PGY1 and PGY2 doctors training in New Zealand (including international NZREX graduates):

Option one

Run lengths are 4 months. Registration in a general scope of practice gained after demonstrating competence in the following mandatory runs over a 12 month period:

- Medicine in general.
- Surgery in general.
- A choice of community care[1] or emergency medicine.

As with all options, to gain registration in a general scope doctors must also be certified in advanced cardiac life support.

Option two

Run lengths are 4 months. Registration in a general scope of practice gained after demonstrating competence in the following four mandatory runs over a 16 month period:

- Medicine in general.
- Surgery in general.
- Community care.
- Emergency medicine.

Again, to gain registration in a general scope doctors must also be certified in advanced cardiac life support.

[6] By 'community care' the Council refers to care in the community that is non-inpatient care. Community care can include a number of settings such as general practice, community mental health, drug and addiction, accident and medical practice. As is the case now with all runs, these runs will need to meet standards for accreditation.
[7] Provision of education and training based on the curriculum will be a requirement for accreditation.
[8] It should be noted that, due to the lack of educational and training opportunities, four month relief runs would not meet the requirements for accreditation by the Council.

Option three

Run lengths are 4 months. Registration in a general scope with limitations after demonstrating competence in the following mandatory runs over a 12 month period:

- Medicine in general.
- Surgery in general.
- One additional run of their choice.

After successfully completing PGY1, the doctor will gain registration in a general scope of practice that is limited to preclude general practice and emergency medicine until they successfully complete a training run in each of these areas of medicine.

During PGY2 the doctor will satisfactorily complete three 4 month runs compatible with and geared towards their vocational training. If general practice and emergency medicine were not satisfactorily completed in the first postgraduate year, then the doctor in training must satisfactorily complete a general practice and an emergency medicine run in the second post graduate year to complete the programme. Once they successfully complete a run in general practice and emergency medicine, doctors will gain registration in a general scope without limitations.

Option four

Run lengths are 4 months. Registration in a general scope after successfully completing PGY1 and PGY2 over a 2 year period. Mandatory runs include:

- Medicine in general.
- Surgery in general.
- Community care.
- Emergency medicine.
- Psychiatry.
- One additional run of their choice.

Again, to gain registration in a general scope doctors must also be certified in advanced cardiac life support.

Key questions

1. Are there any important issues and drivers that we have either omitted or overstated?

2. Do you agree with the objectives and principles? Would you delete or add any?

3. Should there be mandatory runs? If so, what should these be?

4. What is the appropriate length of the internship that will ensure training in a variety of clinical settings and allow for assessment of competence?

5. What are the consequences of each option?

6. What is your preferred option and why?

7. Is there an alternative option that is not outlined in this paper that would be consistent with the objectives and principles outlined in this paper?

Introduction

Medical education, training and workforce development have received increasing attention over the past 2 decades. This discussion paper is a further contribution, but focuses more narrowly on issues relating to the education and training of doctors during the first 2 years following graduation from medical school. This period is referred to as the prevocational years or PGY1 or intern year and PGY2 throughout this paper.

The intention of the Council is to further develop the framework for the education and training of doctors during PGY1 and PGY2. As a consequence, all future PGY1 and PGY2 doctors may experience modifications to the curriculum, modifications to the clinical runs, and different settings for training.

This discussion paper has been prepared after internal discussion and in consultation with (HWNZ), for further sector discussions and feedback. The Council seeks your feedback on how the prevocational education and training framework can be modified to help medical graduates receive the best and most relevant education, training, and learning experiences.

Building on previous work

The review of prevocational training being undertaken by the Council builds on the work of previous groups charged with exploring medical workforce matters, principally the work of the now disestablished Medical Training Board (MTB), and the Commission on the Resident Medical Officer Workforce (RMO Commission). It has been undertaken by the Council with support from HWNZ.

In 2008 the MTB released the following three reports for comment:

- The Future of the Medical Workforce,
- Integrated and Co-ordinated Medical Training, and
- The Curriculum Framework.

Following feedback from the sector on these reports, the MTB released the document 'Foundations of Excellence'.

In 'Foundations of Excellence' the MTB identify a series of issues with the current system for educating and training doctors. These issues are well documented in the RMO Commission report 'Treating People Well' (2009), as well as previous reports produced by the Ministry of Health and the former Workforce Taskforce[9].

Underpinning those reports was a significant amount of dialogue and agreement with stakeholder organisations and groups on the most important issues involved. There was however, more divergence on how to resolve these issues. This discussion paper seeks to extend this dialogue and ensure that no important issues will be missed out and that the constructive feedback on workable solutions will be collected and agreed upon.

[9] Doctors in Training Workforce Roundtable. *'Training the Medical Workforce 2006 and Beyond', Reshaping Medical Education and Training to Meet the Challenges of the 21st Century: A Report to the Ministers of Health and for Tertiary Education from the Workforce Taskforce 2007.* Wellington: Ministry of Health; 2006.

The time is right

As alluded to above, a number of reports have been released over the past decade on the looming workforce crisis. Each of these reports concurs, to a more or less extent, on the identification of industrial and environmental factors affecting the education and training of PGY1 and PGY2 doctors. There is general agreement in these reports that **the status quo cannot continue**. A series of sound recommendations have been put forward but have not yet been implemented.

The primary obstacle to moving forward with these recommendations has been the lack of a national integrated health workforce planning and development governance body to lead and coordinate the fragmented health workforce 'sector'. A recent review states that "the planning and funding of the training of the New Zealand health and disability services workforce has been iterative, ad hoc, and poorly coordinated"[10].

There are multiple organisations involved in prevocational training. There is a complex training environment. There are numerous challenges that exist. It is the Council's view that a focussed national governance infrastructure is necessary to oversee the implementation and operation of an enhanced prevocational training framework.

In 2009, HWNZ was established to provide national leadership on health and disability workforce development. HWNZ has overall responsibility for the planning and development of the health workforce. HWNZ has a number of initiatives planned or underway that respond to many of the shortcomings of the training environment for PGY1 and PGY2 doctors.

In recognition of the need to "improve training opportunities, support trainees, and restore an apprenticeship model of learning[11]" HWNZ has launched a significant initiative to develop regional postgraduate training hubs to coordinate training for all health professionals. The four regional training hubs will coordinate and facilitate the various groups involved in training health professionals – employers, education providers, and professional bodies. This will include coordinating a core of common training elements across medical colleges and clinical placements[12].

Other innovative HWNZ initiatives include a career guidance and mentoring scheme and the introduction of the 'Physician Assistant' role. The establishment of the hubs and the initiatives currently being worked on are considered as vital components of the infrastructure necessary to support a model of high quality supervised training. The Council believes that many of the issues with the current prevocational training arrangements identified throughout this discussion paper will be addressed by this enhanced infrastructure and support.

Scope of this paper

This is the first stage of the review of the prevocational framework. For this stage of the review, **the following aspects of the prevocational training framework are considered**:

- Purpose of the PGY1 and PGY2 years.
- Objectives for prevocational training.

[10] Minister of Health's Taskforce. *A review of how the training of the New Zealand health workforce is planned and funded: a proposal for a reconfiguration of the Clinical Training Agency.* Wellington: Ministry of Health; 2009. Pg 5.
[11] Health Workforce New Zealand. *Regional Postgraduate Training Hubs.* 2010. Retrieved from: http://www.healthworkforce.govt.nz/working-in-health/regional-postgraduate-training-hubs
[12] Ibid.

- Requirements and length of experience necessary for registration with general scope of practice.
- Education and training curriculum.
- The type of placements and the length of runs.

It is important to note that the Council has not considered changes to the structure and content of undergraduate education or vocational training programmes.

Subsequent stages will focus on:

- An assessment framework.
- Training and support for supervisors.
- A framework for assessment and accreditation of training providers.

It is also important to bear in mind whilst reading this paper that the elements of assessment, supervision and accreditation are fundamental to the success of the prevocational training framework. In drafting this paper, the Council is acutely aware that these elements will need to be reviewed and revised to complement changes to the framework as a result of this review.

HWNZ has jurisdiction to lead the following topics which are **out of scope** for this phase of the review:

- Oversight of the implementation of the framework.
- Investment in training.

Approach

The approach to developing this discussion paper is as follows:

Literature review

A series of reports, articles and other documents have been reviewed and are listed in the bibliography.

Key stakeholder discussions

A limited number of key stakeholders were contacted to discuss the current prevocational training issues, gain an understanding of current arrangements, and explore possible solutions.

As discussed previously, the purpose of sending out this discussion paper with our preliminary findings and set of options is to solicit wider stakeholder engagement and input. It should also be noted that previous reviews were built on extensive stakeholder engagement and the key themes of the feedback received have been incorporated in this review.

Support from expert working group

A working group has been formed consisting of both members of the Council's Education Committee and external experts. The working group comprises the following members:

- Ms Liz Hird – Medical Council Education Committee member.
- Dr Allen Fraser – Medical Council Education Committee member.
- Dr Andrew Connolly - Medical Council Education Committee member.
- Dr Peter Ellis – Medical Council Education Committee member.
- Professor John P Collins – external adviser.
- Dr Alice Febery – Medical Council Education Committee member and intern.

The role of the working group is to support the Council staff undertaking the review through providing strategic direction and advice via group meetings, individual interviews, review of draft material, and options developed and consideration of those options.

Report structure

This discussion paper is structured as follows:

1. The context for review – what New Zealand and others currently do.
    a. A summary of New Zealand's medical training continuum.
    b. A description of New Zealand's current prevocational training requirements.
    c. Themed issues consistently identified with current prevocational training arrangements.
    d. An overview of prevocational training in Australia, the UK and Canada.
    e. The Council's reflections on the issues identified.

2. Options for prevocational training.
    a. The purpose of the PGY1 and PGY2 years, and objectives for prevocational training.
    b. Key features of a prevocational training framework.
    c. Options for addressing the issues.
    d. Evaluation and comment on preferred options.
    e. An invitation to comment.

The context for review – what New Zealand and others currently do

The scene for the discussion paper is set out in this section. The topics are as follows:

1. A summary of New Zealand's medical training continuum.
2. A description of New Zealand's current prevocational training requirements.
3. Themed issues consistently identified with current prevocational training arrangements.
4. An overview of prevocational training in Australia, the UK and Canada.
5. The Council's reflections on the issues identified.

A summary of New Zealand's medical training continuum

Medical education and training is a continuum beginning with entry to university, proceeding through the prevocational years, vocational training and continuing with lifelong learning via continuing professional development activities. Those who have chosen to enter the profession will typically spend between 11 and 16 years of dedicated education and training before gaining registration in a vocational scope of practice. With rapid changes in technological and pharmaceutical innovation, epidemiological shifts and changes to the model of service delivery, doctors at all stages require the capacity to continually learn.

The medical training continuum is summarised below.

New Zealand students can enter undergraduate medical programmes at the University of Auckland or the University of Otago. Both universities offer 6 year programmes though it should be noted that entry to medical school officially begins in the second year, after students successfully complete a year of health sciences. Programmes are funded through the Tertiary Education Commission (TEC).

While the medical schools determine their own curriculum, they must meet the Council's standards for accreditation. The student curriculum focuses on developing theoretical and clinical knowledge as well as professional skills. There is a strong emphasis on patient-centred learning and both universities provide many opportunities for 'work based' learning in primary care, rural and regional environments, and in secondary and tertiary hospitals[13].

The sixth or final year is the trainee intern year: a year of closely supervised clinical experience. The intern trainee year is unique to New Zealand and is intended to assist the transition of students into the workplace and better equip them for their first postgraduate year[14]. Trainee interns work as part of the health care team developing skills in clinical assessment and prioritisation, some medical procedures and the principles and practice of professionalism. University of Otago is currently reviewing the trainee intern year in terms of its objectives and curriculum.

After graduating doctors usually spend 2 years in clinical training before they commence vocational training, although there are exceptions to this. Some doctors are accepted into vocational training programmes at the end of PGY1, some do not commence vocational training until much later, and

[13] Medical Training Board. *Foundations of Excellence Building Infrastructure for Medical Education and Training.* Wellington, Ministry of Health; 2009.
[14] Ministry of Health. *Training the Medical Workforce 2006 and Beyond.* Wellington: Ministry of Health; 2006.

others may not undertake vocational training at all. During the first year, the new doctor undertakes an internship while registered in a provisional general scope of practice in which they undertake a programme of supervised practice. Aspects of this model of learning have been referred to as the 'apprenticeship model'.

The purpose of the intern year is to provide doctors in training with the opportunity to further learn and develop their clinical and professional skills under the close supervision of senior doctors and more senior trainees. Through exposure to differing clinical settings, it is also intended to help doctors plan their career path before entering a vocational training programme[15].

The Council's goals for interns are set out in their publication 'Education and Supervision for Interns' as follows:

- Apply the theoretical knowledge they have learned as an undergraduate.
- Develop sound clinical skills.
- Take increasing responsibility for patient care, including support for patients, their families and sometimes colleagues.
- Start to develop professional judgement in the appropriate care of patients and use of diagnostic and specialist services.
- Work within ethical and legal boundaries developed for the medical profession.
- Contribute to a multidisciplinary health-care team.
- Explore personal career development.
- Learn about dealing with the professional and personal pressures of being a doctor.

The Council accredits hospitals for the provision of education, training and supervision for interns. Intern supervisors are contracted at each DHB to help establish an education programme for interns and assist with their assessment of these interns.

On the successful completion of the requirements of the internship, doctors are eligible to apply for registration in a general scope of practice[16]. Once registered in a general scope of practice, doctors continue to train in a variety of settings during PGY2. Whilst the Council provides a list of desired skills that doctors should gain by the end of PGY2, there is no formal specification of the content, structure and supervision of training[17]. This lack of specification has been regarded as both positive and negative by varying groups and is addressed throughout this paper.

After completing 2 postgraduate years doctors can apply to enter one of the vocational training programmes and these vary in length. New Zealand has 14 medical colleges that are each individually responsible for setting standards, accrediting training posts and approving supervisors[18]. The Council assesses and accredits postgraduate training programmes.

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[15] Medical Training Board. *Foundations of Excellence Building Infrastructure for Medical Education and Training.* Wellington, Ministry of Health; 2009.

[16] Medical Council of New Zealand. *Education and Supervision for Interns.* Wellington: Medical Council of New Zealand; 2006.

[17] Medical Council of New Zealand. *Education and Supervision for Interns.* Wellington: Medical Council of New Zealand; 2006.

[18] Workforce Taskforce. *Reshaping Medical Education and Training to Meet the Challenges of the 21st Century: A report to the Ministers of Health and for Tertiary Education from the Workforce Taskforce*. Wellington: Ministry of Health; 2007.

The following diagram provides a schematic of the education and training continuum including funding sources. It is sourced from the Health Workforce Advisory Committee's 2008 document *Fit for Purpose and for Practice: Advice to the Minister of Health on the issues concerning medical workforce in New Zealand* and adapted.

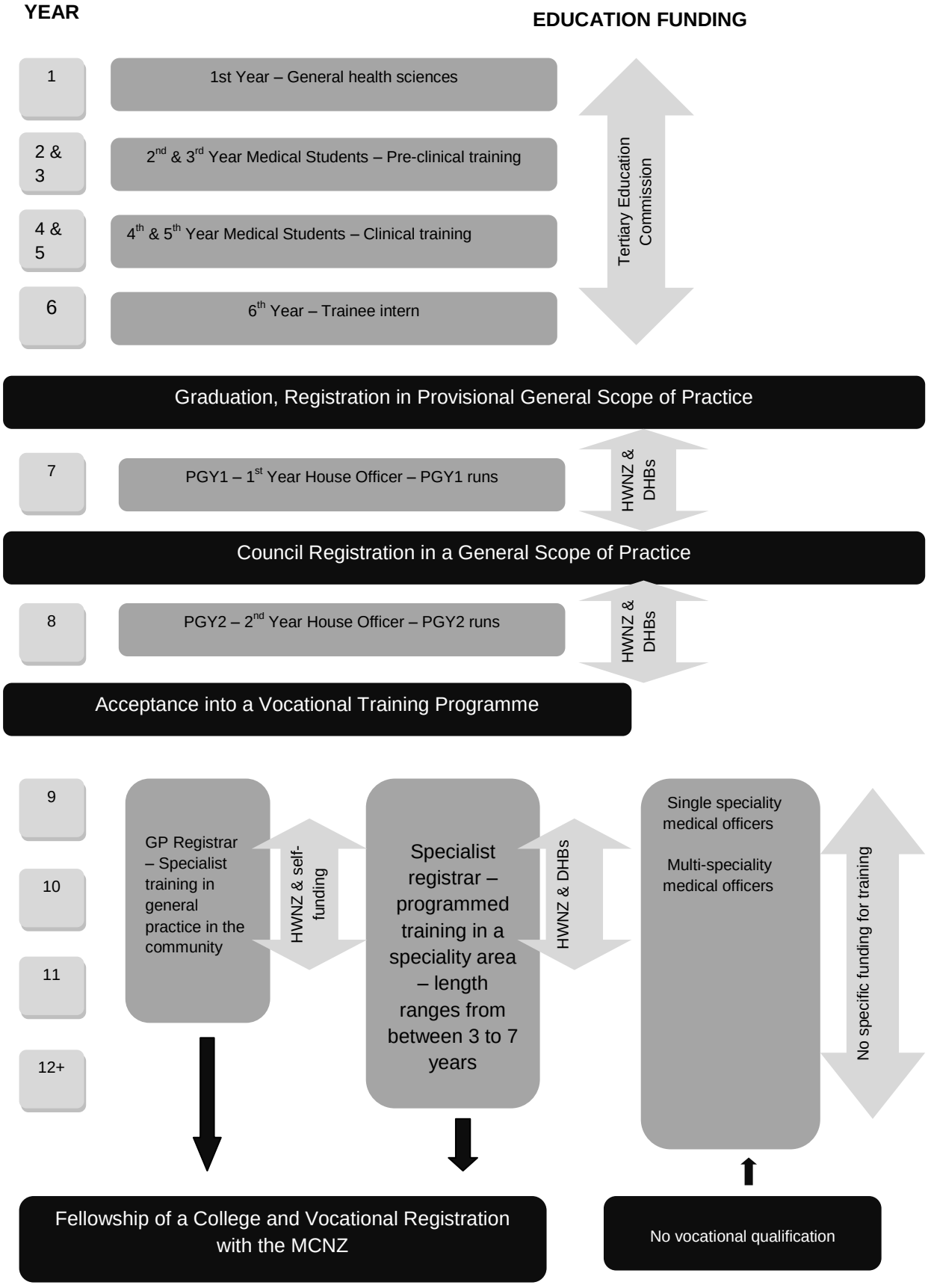

Diagram 1: Overview of the medical education system, including funding sources

A description of New Zealand's current prevocational training requirements

As previously stated, medical education for interns is currently based on the apprenticeship model of learning where doctors work in a clinical setting as part of a team under supervision from senior doctors. The Council's handbook sets out the requirements for intern training and provides guidance for those involved in the training including intern supervisors, specialist supervisors, registrars and interns. The handbook sets out the learning objectives for interns that are grouped under the following six domains of competence as follows:

1. Clinical expertise
2. Communication
3. Collaboration
4. Management
5. Scholarship
6. Professionalism

As well as setting out the objectives, the handbook lists a series of skills that doctors are expected to demonstrate competence in after both the PGY1 and PGY2 years. Whilst training occurs mostly in a team based clinical setting during scheduled runs, the Council stipulates that interns must participate in structured learning sessions for a minimum of 2 hours per week.

Interns are required to complete four 3 month runs during PGY1. Each run must be no less than 10 weeks in duration and must include at least:

- One category A medical run +
- One category A surgical run #
- Two other runs, which may be category A or B runs

In addition, doctors must complete a certificate in advanced cardiac life support.

+ Category A runs are usually restricted to runs in which there is a substantial content of general medical training or training in basic surgical principles. They include but are not limited to: general medicine, paediatrics, general surgery, orthopaedic surgery.

Category B runs include: general practice, psychiatry, oncology, relieving duties (in category A or B), emergency department (where supervision is direct and continuous), obstetrics and gynaecology (where there is teaching of general surgical principles), anaesthesia (where there is close and continuous supervision and an opportunity for experience in perioperative care, intensive care medicine and pharmacology), neurosurgery, urology, ear, nose and throat surgery, and ophthalmology (where there is a good breadth of work supervision, and training and experience in basic surgical principles)[19].

The Council contracts intern supervisors to ensure that interns experience high standards of clinical training during their intern year. Each hospital that is accredited by the Council to provide training will have at least one intern supervisor (larger hospitals may have more than one). Intern

[19] Medical Council of New Zealand. Education and Supervision for Interns. Wellington: Medical Council of New Zealand; 2006.

supervisors have a statutory role to report to the Council on interns' satisfactory completion of the requirements and competence to be registered in a general scope of practice. The Council's handbook provides guidance on the general attributes intern supervisors should possess and outlines their statutory requirements.

Supervising specialists provide the immediate supervision of interns. They are responsible for ensuring adequate time is set aside for training and that an appropriate balance between education and service commitments is maintained. There is guidance for supervising specialists on orientating interns, creating a learning environment, time commitment required of them, and how to provide feedback.

HWNZ funds DHBs to provide the training for PGY1 and PGY2 doctors. The service agreement is permissive in that it sets out the minimum requirements for training leaving the 'how to' largely at the discretion of individual DHBs, although the Council assesses the quality of training via its accreditation processes. Among other things, the service agreement sets out in broad terms the purpose for training, very general requirements for clinical placements, mandatory run requirements, supervision requirements, and expected outcomes.

At the beginning of a run, the supervising specialist and intern meet to develop a personalised training plan. Progress is assessed midway through the run with a formal assessment taking place at the end of the run. End of run assessment reports are completed by the supervising specialist and sent to the intern supervisor who will consider the reports and assess whether they have successfully completed their internship and achieved a general level of competency consistent with the Council's learning objectives. Intern supervisors recommend to the Council a change to an intern's scope of practice from provisional general to a general scope.

Consistency in issues raised from previous reviews

Throughout the previous reports a series of themes have emerged. In addition, the Council has identified a number of issues it considers most relevant to the range of topics it seeks to address. These are as follows:

Lack of vertical integration along the continuum of medical education and training

It is widely accepted that **medical education is a continuum** with important transitions between undergraduate, prevocational training, vocational training and subsequent continuing professional development activities. However, there is currently a lack of integration along this continuum. This is in part due to the number of organisations involved in medical education and their lack of mandate to systematically coordinate programmes. The two universities and 14 medical colleges in New Zealand each respectively determine their course content and length[20].

Calls have been made for increased integration between undergraduate, prevocational and vocational years to avoid repetition of learning and allow those doctors that want to transfer to another speciality to do so without having to start over again. The Council supports initiatives to increase collaboration and integration across the colleges, harness synergies and thus avoid unnecessary duplication. However, it is also important to acknowledge that repetition is

[20] Although the Council has the authority to say whether a course is sufficient for the training of doctors.

fundamentally necessary to further develop competencies. The UK Foundation Programme recognises this through their use of a 'spiral curriculum' approach whereby:

> "Competencies successfully demonstrated by students in medical school are demonstrated again as a professional in the workplace and at a higher level… This involves revisiting clinical and professional practice and recognising that levels of expertise generally increase with practice and reflection"21.

The Council supports the use of a spiral curriculum where repetition is for the purposes of advancing the doctor's competency level. We also note that some nationally consistent means of recording skills and knowledge acquired at different levels will better aid the transition of the doctor along the continuum of learning. As the Doctors in Training Roundtable[22]note:

> "Some means of recording the acquisition of practical skills, such as a 'skill passport' or' personal training portfolio', would facilitate a doctor's orientation into a new post of a new hospital and help to ensure that the educational and training aspects of each post were maximised".

Balancing increasing service demand with increasing training needs

There are **inherent tensions between service delivery and the training needs** of doctors that are placing the apprenticeship model under increasing pressure. A range of factors contribute to this tension:

- Existing and projected net population growth, increases in the acuity of patient's illness, the availability of increasingly sophisticated diagnostic and treatment options coupled with increasing patient expectations have placed demands on those providing the service. This has led to conflicting pressure on time for teaching and supervision of learning. Sustaining apprenticeship learning has become increasingly difficult under these circumstances.
- An aging population with the growing proportion who require care for long term conditions and other age-related health problems provided in the community. Currently apprenticeship style training during PGY1 is provided almost exclusively in the hospital setting.
- Changes to case-mix where less complex cases are seen in outpatient clinics or community settings.
- A serious and urgent global medical workforce shortage.
- Changes to RMO working hours and rosters.

Increasing service demand and changes in service delivery means that **interns are often not exposed to the training they need.** According to submissions made to the RMO Commission, the requirements of service delivery frequently take precedence over doctor training needs. Rather than gaining valuable experience in diagnostic and treatment processes, many doctors felt they were

[21] Medical Education England. *Foundations for Excellence: An Evaluation of the Foundation Programme*. Oxford: Medical Education England; 2010. pg 10.
[22] Doctors in Training Workforce Roundtable. *Training the Medical Workforce 2006 and Beyond*. Wellington: Ministry of Health; 2006. pg 11.

regarded as 'units of labour' to be deployed to cover service need including low level administrative tasks[23]. It is important to recognise that PGY1 doctors are both service providers and postgraduate learners. However, the reported lack of quality and training during PGY1 and PGY2 raises concern over the quality of our future medical workforce, particularly as cohorts of senior doctors leave the labour market.

DHBs have a statutory role to train health care workers and receive public funding to do so. Yet they are not currently held accountable for the quality of the training they provide PGY1 and PGY2 doctors. The RMO Commission raised the lack of accountability mechanisms as a critical concern and recommended that clear accountabilities be established at each level from the Minister, the Ministry of Health, DHBs, services, colleges, and professional associations[24].

With the projected increase in medical graduates per year, the necessary increasing capacity for continual learning across the continuum, and the increasing service pressures on DHBs to meet service demand through innovative means, this ongoing tension must be resolved if we are to develop and maintain a high quality medical workforce.

The Council notes and supports HWNZ's intentions to introduce key performance indicators that will make DHBs accountable for the training they provide health professionals. The performance indicators will need to be accompanied by significant investment as well as national and regional initiatives that encourage and support DHBs to find innovative ways to ensure PGY1 and PGY2 doctors receive the training they require. The teaching workforce is a scarce resource with many conflicting demands on their time. Equipping and supporting these teachers will be crucial.

A hiatus in training

Despite the fact that generally doctors do not enter vocational training until they have completed 2 post graduate years, there is **no formal training in place for doctors during their second postgraduate year**. This has been widely criticised in recent years with calls for a clear training pathway through the prevocational years[25].

There seems to be **no clearly defined purpose for PGY2**. Whilst it is regarded as an opportunity for doctors in training to further advance their knowledge and skills, gain more experience in various specialties before deciding on a career pathway, and take time out of structured learning, in reality for a number of doctors it is an abrupt departure from a relatively more supportive, regulated training environment.

In submissions to the RMO Commission, a number of doctors in training reported dissatisfaction with their level of training, support and experience throughout their second and subsequent post graduate years. The RMO Commission concluded that there was a "**serious deficiency in the level of pastoral care for RMOs, especially in PGY2 and PGY3**"[26].

[23] Commission on the Resident Medical Officer Workforce. *Treating People Well: Report of the Director-General of Health's Commission on the Resident Medical Officer Workforce*. Wellington: Ministry of Health; 2009.
[24] ibid pg 17 – 18.
[25] Commission on the Resident Medical Officer Workforce. *Treating People Well: Report of the Director-General of Health's Commission on the Resident Medical Officer Workforce*. Wellington: Ministry of Health; 2009.
[26] ibid, pg 8.

On the other hand, a large percentage of RMOs reported that they relished their new found freedom and the flexibility it afforded them after so many years of prescribed training[27]. Ultimately however, the current deficiencies have arguably contributed to an increasing number of doctors moving into locum work or leaving New Zealand's medical workforce. The RMO Commission recommended that "training and employment arrangements be revisited in a way that would encourage permanent positions and reduce the need for and appeal of locum work"[28].

More emphasis needed on obtaining broad based core competencies

Over recent decades New Zealand, as with other developed countries, has experienced an increasing trend in sub-specialisation and a decline in general medicine[29] and surgery in general. However, much of New Zealand's population is located in the provinces and served by smaller local hospitals supported by regional centres. These populations are also disproportionately increasing in age meaning that there will be a growing proportion of people with long-term and age-related conditions. Doctors in these regions must provide services across a broad range of accident and illness and require core general competencies in order to do so. The MTB recommended that a set of general core competencies be incorporated into any new national curriculum and that they be a necessary requirement for entry into vocational training.

Training too hospital focussed

With the current and projected increase in the incidence of age-related and chronic conditions **a greater share of medical services will need to be provided in community settings[30] with a focus on prevention and long-term management**[31]. This means that New Zealand will need a substantial increase in general practitioners over the next 3 decades

There have been some positive developments in recent years: the medical schools have shifted their focus towards providing more training opportunities in the community and rural settings, and the Royal New Zealand College of General Practitioners has a structured training programme for PGY2 and PGY3 doctors who want to complete a run in a rural general practice. Given the projected New Zealand demand for general practitioners, the number of general practice training runs in the prevocational years needs to be substantially increased.

Regardless of whether an intern decides to specialise in general practice or another vocation that takes them into the community (e.g. accident and medical practice), the Council agrees with other working groups that gaining some experience in this area will benefit them in the future when communicating with community care providers and gaining a general understanding of service integration across both community and hospital settings.

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[27] Commission on the Resident Medical Officer Workforce. *Treating People Well: Report of the Director-General of Health's Commission on the Resident Medical Officer Workforce*. Wellington: Ministry of Health; 2009.
[28] ibid pg 12.
[29] Ministry of Health. *Training the Medical Workforce 2006 and Beyond.* Wellington: Ministry of Health; 2006.
[30] Community settings may include accident and medical practice, primary care organisations/general practice, marae-based health services, aged care facilities and mental health care facilities. This list is not exhaustive.
[31] Medical Training Board. *The Future of the Medical Workforce: First Annual Report November 2007 – December 2008.* Wellington: Ministry of Health; 2008.

Locums and safety concerns

According to the RMO Commission**, there is evidence that the use of 'doctor in training' locums has been increasing over the past 10 years and continues to rise**. There are a few key factors driving the demand and supply of doctor locums:

- The RMO MECA requires regulation of working hours which means that more doctors are required to provide adequate cover.
- DHBs need to provide adequate cover for increasing service demand.
- Doctors who have satisfactorily completed PGY1 and gained registration in a general scope of practice are able to practise medicine without the requirement for regulatory supervision. No longer required to work under supervision, locuming can be seen to offer a sense of freedom to explore different specialties of medicine.
- Locuming offers higher remuneration and can provide more flexibility than permanent positions appealing to those juggling family commitments[32].

There are a number of concerns for the increasing reliance on PGY2 doctors to locum. In addition to the unsustainable financial burden this places on DHBs we note the following:

- There is no formal regulatory supervision, oversight or support (other than meeting the Council's recertification requirements) for this which raises **concerns over the safety and quality of services they are providing and the training they receive.**
- There is currently no mechanism in place to monitor whether a locum has just come off a shift and how many hours they have worked during the week. For the relatively inexperienced doctor this places them in a particularly vulnerable position and again raises safety concerns.
- The **increasing size of the locum market potentially diverts doctors away from vocational training[33].**

The RMO Commission recommended that locum positions not be considered part of resident doctor training.

Funding and Accountability

Under section 23(1)(j) of the Public Health and Disability Act, DHBs have a statutory function to participate in the training of health practitioners and other health care workers. DHBs are funded through two different means to provide training: population based funding and directly through service agreements with HWNZ.

HWNZ fund DHBs directly for the provision of training PGY1 and PGY2 doctors. DHBs are paid $34,200 per PGY1 and $20,200 per PGY2. Funding is paid directly to DHBs for providing training, for resources, slowdown in service provision and to back-fill when PGY1 doctors are in structured training sessions[34]. DHBs report twice a year against this service agreement on the number of PGY1

[32] Commission on the Resident Medical Officer Workforce. *Treating People Well: Report of the Director-General of Health's Commission on the Resident Medical Officer Workforce*. Wellington: Ministry of Health; 2009.
[33] ibid pg 12.
[34] Medical Training Board.*Foundations of Excellence Building Infrastructure for Medical Education and Training.* Wellington: Ministry of Health ; 2009.

and PGY2 doctors for funding purposes only. Again, this limited reporting makes it hard to determine the quality of training provided throughout the country.

As mentioned earlier in this paper, there are currently no accountability mechanisms linked to funding. It is therefore difficult to determine to what extent funding is actually invested in training and quantify its value[35]. Clearer accountability and reporting requirements would assist DHBs to recognise their statutory requirement to provide training and provide transparent information on how they link funding to the training provided.

An overview of the key features of prevocational training in Australia, the United Kingdom (UK) and Canada

Having outlined a range of issues with existing prevocational training in New Zealand, we briefly reviewed prevocational training in several other jurisdictions. The countries reviewed include Australia, the UK and Canada.

Australia

In Australia the undergraduate medical course is between four and six years duration depending on whether the student entered the course direct from secondary school or – as is now far more common – as a university graduate. Following this, doctors must complete a 1 year internship in accredited posts to receive registration in a general scope of practice.

Both the first and second postgraduate years are designed to provide broad based clinical experience, with the second year geared more towards the vocation the doctor wishes to specialise in. Vocational training commonly includes basic and advanced training over a period from 3 to 7 years, depending on the specialty.

Across all seven Australian states, doctors must complete five runs that vary in duration from between 5 to 12 weeks. The following runs are mandatory:

- General medicine
- General surgery
- Emergency medicine (with the exception of the Northern Territories, Western and South Australia where accredited general practice runs can substitute emergency medicine as a core run).

The Australian Curriculum Framework for Junior Doctors was introduced in 2005 to provide a "blueprint for a nationally coordinated and collaborative approach to the education and training of prevocational trainees"[36]. This framework is loosely based on the UK Foundation Programme. The framework, still in the early stages of development and implementation, is intended to provide a "bridge between undergraduate curricula and the curricula that underpin college training programs"[37].

[35] Joint MTB and MCNZ Working Party.*NZ Education Framework for Prevocational Training.* Wellington: Ministry of Health; 2008.
[36] Confederation of Postgraduate Medical Councils. *Background to the Australian Curriculum Framework for Junior Doctors.* Retrieved from http://curriculum.cpmec.org.au/background.cfm.
[37] ibid.

The Australian Curriculum Framework for Junior Doctors competencies are based on the following three key learning areas:

- Clinical Management
- Professionalism
- Communication

These learning areas are categorised into topics that have a list of competencies under each. The framework distinguishes those competencies that are more likely to be learnt in PGY2 or above. In contrast to the UK Foundation Programme, there was a strong philosophical push in Australia not to distinguish between those competencies that ought to be demonstrated by the end of the PGY1 as opposed to PGY2. This is in recognition that not all people learn at the same pace.

As with New Zealand, the UK and Canada, Australia has identified a greater need to ensure the framework is supported through putting the necessary infrastructure is in place such as providing the necessary funds to enable adequate senior medical supervision[38]. A significant amount of work is also underway to further develop the curriculum as well as a national system for setting standards, assessment and accreditation of posts.

United Kingdom

Undergraduate training spans 4 to 6 years with clinical placements in hospitals and community settings. Following graduation all UK medical graduates enter the time capped 2-year Foundation Programme. Doctors must complete the Foundation Programme satisfactorily before entering vocational training.

The length and nature of vocational training depends on the specialty chosen. Some colleges have 'run-through' training consisting of between 5 and 7 years of uninterrupted training, whereas others have divided the training into a 2 to 3 year period of Core Training followed by upwards of 3 years in higher specialist training[39]. Doctors continue to build their skills through Continuous Professional Development.

During the first year of the Foundation Programme doctors must complete 1 year of clinical training and whilst there are no core mandatory runs, the majority complete runs in general medicine and general surgery[40]. Ninety percent of Foundation School runs comprise three placements of 4 months over both years[41]. After successful completion of the first year doctors gain full registration and enter the second year of the Foundation Programme. During this year the doctor will complete at least one run that offers experience in acute care. Experience in general practice or in the community is offered wherever possible.

The Foundation Programme was introduced in 2005 as a result of reviews of post graduate and vocational training. The programme is based on the apprenticeship model "…set within effectively

[38] *Paltridge,D.* Prevocational medical training in Australia: where does it need to go? *Medical Journal of Australia 2006 184:* 349-352.
[39] Medical Education England. *Foundations for Excellence: An Evaluation of the Foundation Programme*. Oxford: Medical Education England; 2010.
[40] Medical Education England. *Foundations for Excellence: An Evaluation of the Foundation Programme.* Oxford: Medical Education England; 2010.
[41] ibid pg 9.

managed, quality assured training programmes…"[42] Patient safety is at the heart of the curriculum and competencies are set out under the following key areas:

- Good clinical care
- Maintaining good medical practice
- Teaching and training
- Relationship with patients and communication skills
- Working with colleagues
- Probity, professional behaviour and personal health
- Recognition and management of the acutely ill
- Practical procedures

A review of Modernising Medical Careers by Sir John Tooke found the implementation of the Foundation Programme was "beset with problems"[43]. This lead to a formal evaluation of the Programme by Professor John Tooke and a subsequent formal evaluation by Professor John Collins during 2010. The findings of this evaluation are presented in the report *Foundations for Excellence: An Evaluation of the Foundation Programme.*

Foundations for Excellence provides a thorough analysis of the strengths and weaknesses of the Foundation Programme, from which New Zealand can learn. Some of the highlighted strengths included the establishment of a UK-wide 2 year time capped programme: the establishment of an educational infrastructure including the Foundation Schools which focus on the first two post graduate years, a national curriculum and exposure of PGY1 doctors to a range of medical specialties[44].

Many of the issues experienced in the UK are familiar to New Zealand. For instance, in the UK there was confusion about the role of the PGY1 doctor, and significant tensions between service delivery and training putting in question the over reliance on the traditional apprenticeship model of learning. One of the most significant findings pointed to the assessment system that is regarded as "excessive, onerous and not valued"[45]. Concerns were also expressed about the lack of focus on long term conditions in the curriculum. Thirty three recommendations were made based on the design, content and safety and quality aspects of the programme. These are attached in appendix 2.

Canada

It is relatively more difficult to compare the New Zealand and Canadian systems because like the USA, there is no prevocational training in Canada. This means doctors can move directly from medical school through to vocational training. While this may appear to shorten the period of overall study, it is important to note that most provinces require that applicants to medical school must first complete a university degree.

[42] The Foundation Programme. *Foundation Programme Curriculum.* United Kingdom: The Foundation Programme; 2007. pg 6
[43] Medical Education England. *Foundations for Excellence: An Evaluation of the Foundation Programme.* Oxford: Medical Education England; 2010.
[44] ibid
[45] ibid pg 18

Medical school spans 4 years: half of this time is spent in the basic subjects relevant to medicine whilst the other half is spent in 'clerkships' where students spend supervised time in clinical runs. The specialty area is chosen in the final year of undergraduate training.

Each postgraduate programme has its own curriculum that is mapped to the competency based CanMEDS framework. This framework is organised thematically around seven key physician roles:

- Medical Expert
- Communicator
- Collaborator
- Manager
- Health Advocate
- Scholar
- Professional

Each key competency has been further outlined into multiple enabling competencies that specify the behaviours, skills and attitudes that must be displayed by the postgraduate learner.

The CanMEDS initiative began in the 1990s in response to the rapidly changing health care environment and the identified need to better equip doctors to work in this environment. Whilst the framework has evolved over the years, it has retained at its core competency based learning. The CanMEDS framework is used widely internationally, including New Zealand, in vocational training programmes.

Reflections of the Council

- **Patient safety and quality of care is of paramount importance** and at the core of the health system's integrity at large. Whilst New Zealand medical graduates are regarded as being of international standing, there are a number of concerns about the quality of the training they receive during their first two postgraduate years. Patient safety and quality of care will need to be at the centre of any revised curriculum framework. Doctors must be fit to provide high quality care across a range of settings and must not practise beyond their level of competency.

  Anecdotally, there are concerns about PGY2 doctors practising unsupervised in areas or settings of medicine that they have had no assessment and have not demonstrated competence during their internship. Having gained registration in a general scope, there is no regulatory requirement for them to work under supervision. In hospital settings, PGY2 doctors work in a team environment with senior colleagues and therefore ought to receive supervision, training and support from more senior doctors. However, this level of support is more tenuous for locums and likewise for doctors working fixed runs in settings where the same level of support may not be readily available from more senior doctors - for instance in some general practice and emergency department settings.

  Serious consideration needs to be given to the training, supervision and support PGY2 doctors require when working in general practice and emergency departments when they have not previously been assessed and demonstrated competence in these settings. Likewise, urgent consideration needs to be given to the support requirements for PGY2 locums in all settings, and whether limitations need to be put in place to ensure PGY2 doctors don't locum in general practice.

- **The traditional apprenticeship model of learning is no longer viable – it needs to be redefined, reinvigorated and supported by additional alternative learning methods.** For centuries the apprenticeship model has been used for training whereby the junior doctor observes, practises and gradually acquires competence through delegated responsibility and graduated supervision, the competencies of a senior doctor. However, it is noted that for a number of reasons including those outlined in this paper, this satisfactory model of learning may no longer be sustainable. On its own, this approach does not meet the needs for training doctors in today's rapidly changing environment. Not only do doctors reportedly often not receive the training they require, it is placing unsustainable stress on senior doctors who have inadequate capacity and support to provide the training. The problem is relatively complex to solve, and not unique to New Zealand.

  There is merit and wide support for retaining core components of the apprenticeship model in particular the system of 'supervised learning'. The Council supports the concept of **'supervised learning supported by additional methods of learning'**. Supervised learning, at the core of the apprenticeship model, refers to 'the education and training of a doctor through experience-based learning under direct and graduated supervision from senior doctors and/or clinical team'. This concept recognises that through ongoing supervised experience and reflection, doctors are able to learn tacit knowledge, the arts and nuances of

clinical practice, not easily codified and taught through more structured methods of learning. It also recognises that alternative methods of learning are required.

- Supervised learning, by its very definition, requires the commitment from senior doctors to provide ongoing high quality education and training. **All senior doctors have a collective professional responsibility to actively participate in training more junior colleagues**.

- **Senior doctors require more support** to develop the skills required for clinical teaching and assessment. In addition, they need protected non-clinical time to carry out structured teaching sessions. At the same time, DHBs must be held accountable for the quality of the training provided.

- **Experience-based supervised learning must be supported with additional alternative methods for training.** HWNZ is exploring more innovative approaches to using the workforce to deliver services – for example through the Physician Assistant role and is investigating a broader range of training sites to include private hospital, general practice, community care settings, rural hospitals and non-profit organisations. Whilst some of these initiatives are yet to be developed and implemented, others such as the Physician Assistant role are currently being trialled and await a full evaluation.

  Other initiatives could include increasing the use of alternative teaching methods that are already being used to varying degrees, such as team based discussion groups, skill laboratories and simulated training. We note there is plenty of scope for DHBs to collaborate in the development and sharing of information, resources and tools and encourage initiatives to do so.

- In addition, as was recommended in the evaluation of the UK Foundation Programme, **the purpose of the PGY1 and PGY2 doctor as a 'doctor in training' must be made explicit** so that colleagues, supervisors and those managing the rosters are aware of the doctors' training requirements.

- Furthermore, **clear accountabilities need to be put in place** that are reported on and monitored.

- The Council continues to support the use of **competency-based training,** whereby certain skills and knowledge are codified, assessed and credentialed at a determined level of expertise**.** Training can be reproduced leading to the potential development of common core competencies along the medical continuum. Competency-based training lends itself towards alternative methods of learning that will be increasingly needed in the future, for instance simulation learning.

  There are limitations of solely using competency-based approaches. A recent Australian Medical Council consultation paper on competence-based medical education argued that whilst knowledge and skills can be codified as competencies:

> …knowledge is acquired throughout medical education and training that is not able to be made fully explicit. The knowledge forms the basis of judgements required for dealing with complex clinical problems and the uncertainty that is often present in clinical situations where patients rarely present in a standard way.[46]

- As with the MTB (2006) **The Council supports an amalgam of supervised learning and competency-based training.** The Council's current competency-based curriculum *Education and Supervision for Interns* needs to be further developed and structured to more clearly articulate the outcomes expected of PGY1 and PGY2 doctors. The curriculum also needs to give greater emphasis to long-term conditions and the increasing role of community care. The Curriculum needs to stand alone as an easy to use reference tool for setting learning objectives and for tracking and assessing progress towards gaining both registration in a general scope of practice and readiness to enter a vocational training programme. The Australian Curriculum Framework for Junior Doctors is a user friendly example, where it is available as a small concise handbook, and as an online tool.

- In 2008, the MTB and Council developed a draft curriculum adapted from the Australian Curriculum Framework for Junior Doctors. Whilst the Council did not support the content of the Curriculum Framework in its entirety – in particular the complexity of the assessment framework, we do support a **curriculum based on the Australian Curriculum Framework for Junior Doctors**. Appendix 3 provides an edited version of this draft Curriculum Framework developed by the joint MTB and the Council working group as a starting point for discussion. Clearly, further work is required to develop an assessment framework that is fit for purpose.

- We need to carefully consider **what, if any, runs are mandatory** in order to gain registration in a general scope. In doing so, we need to revisit what we mean by 'general scope'. As we discussed earlier in this paper, we are concerned that doctors registered in a general scope of practice are able to practise without supervision in areas of medicine where they have no previous relevant training experience, specifically general practice and emergency medicine. Due to the unique nature of these settings, the level of supervision is likely to be low where, unlike hospital ward runs, the ability to defer to team members in a reflective manner of learning is most likely not possible within the timeframe necessary to make clinical decisions. This potentially has significant safety and quality of care implications for patients, and places such doctors in a vulnerable position.

  As well as maintaining the core PGY1 runs of general medicine and general surgery, in order to gain a broad base of learning the Council supports **extending mandatory runs to include community care and emergency medicine** over the PGY1 and PGY2 years. Another run that we support doctors to take is **psychiatry** given the increasing extent of mental illness in the community. We have provided an option that includes a psychiatry run in this paper for consideration. However, what needs to be considered is how these additional core runs are incorporated into the 2 year programme and the implications of doing so. The benefits and

[46] Australian Medical Council. *Competence-based Medical Education – AMC Consultation Paper.* Kingston, ACT: Australian Medical Council; 2010.

disadvantages/consideration of adding these runs is discussed in more depth further in this paper under each option.

- Ultimately the Council would like all doctors to complete a general practice run during their PGY1 or PGY2 year. However, due to the vast logistical and financial implications of ensuring supervisory capacity as well as the physical facilities in order to train PGY1 and PGY2 doctors, this option will not be possible in the short term. We acknowledge that an evolutionary approach will need to be taken in this regard and have broadened the concept to community care that can include a wide range of possible settings (for example general practice, community mental health, drug and addiction, accident and medical practice), and a rich community based experience.

- The Council continues to note the **benefits of working in provincial and rural hospitals** where PGY1 and PGY2 doctors have greater access to senior doctors and more opportunity to be involved in clinical training that would more often be done by registrars in the larger hospitals. In rural hospitals in particular, there is also access to a much wider range of patient conditions, more contact with local Māori communities and a closer relationship with general practitioners thereby enabling a better understanding of the interface between hospital and community care[47]. As mentioned above, this could in turn relieve the pressure on larger hospitals to meet training needs. For the placements to be of more use to the service, placements should occur towards the end of PGY1 or during PGY2.

- Currently interns must complete a minimum of 10 weeks in each of their four runs. In reality, those who take sick or annual leave over the period of their run are likely to spend less than 10 weeks in a run. There are varying views on the ideal length of a run, and getting the right balance between depth of experience in a particular speciality versus gaining exposure to a wider range of specialties[48]. The evaluation of the UK Foundation Programme recommended that "[a] Foundation doctor is in a **single placement for a minimum of 4 and a maximum of 6 months** by 2012, with the precise configuration within each year to be discussed by the Deaneries/Foundation schools".

  We support **extending the length from 3 months per run out to 4 months**. However, we are aware that extending the run length out to 4 months is not without its consequences where there may be a trade off between breadth and depth of experience. By extending the length of runs out to 4 months, PGY1 and PGY2 doctors will gain experience in six rather than eight runs over the 2 year prevocational period.

  Furthermore, doctors applying for a vocational programme are currently required to submit their applications during the first half of their PGY2 year. Lengthening the run to 4 months automatically reduces the variety of runs that a doctor will be able to train in before having to apply for a vocational training programme in the timeframe currently specified.

[47] Medical Council of New Zealand. *Education for Interns and Supervisors:* Wellington: Medical Council of New Zealand; 2008.
[48] Medical Education England. *Foundations for Excellence: An Evaluation of the Foundation Programme*. Oxford: Medical Education England; 2010.

The consequences of lengthening the runs are, in the Council's view, not insurmountable. Possible modifications to the vocational training application process, as well as enhanced career counselling during the PGY1 and PGY2 years may help mitigate any negative consequences of lengthening the duration of runs.

- Relief runs are a necessary arrangement to ensure ongoing service provision. However, relief runs are 'transient' in nature where doctors are only temporarily posted to ensure adequate staffing levels and therefore have limited continuous time with the same patients and the same supervisors. For these reasons, **the Council does not consider a 4 month relief run adequate to meet the requirements for accreditation for prevocational training.**

- Previous reviews have considered the duration of provisional registration, with options ranging from shortening the undergraduate years, incorporating the trainee intern and PGY1 years thereby reducing the timeframe required before entering vocational training, to extending the period of provisional registration out to the end of PGY2[49]. Indeed, this matter was thoroughly reviewed as part of the evaluation of the UK Foundation Programme with majority support for retaining the current 1 year postgraduate internship[50].

  Rather than focus on the number of runs required for gaining registration in a general scope of practice, we believe it is more appropriate to explore **what is meant by 'general scope of practice'** specifically in respect to PGY2 doctors working unsupervised in general practice and emergency medicine[51]. As mentioned earlier in this paper, currently doctors registered with a general scope are able to work unsupervised in a general practice and emergency departments with no prior experience in these settings. We believe that demonstrating competence in both a general practice and emergency medicine run is required to be able to practise unsupervised in these settings.

- As with the UK, we support **an integrated 2 year postgraduate programme**. Further consideration needs to be given to the right mix of requirements and incentives for doctors to complete the 2 year programme. There are various options that need further consideration. For instance, eligibility to apply for registration in a general scope, some recognition of completion of the programme on their practising certificate, preferential placement in PGY2 runs, preferential placement in vocational training programmes or a financial incentive such as subsidy towards a course or conference not met by current funding streams.

[49] Joint MTB and MCNZ Working Party. *NZ Education Framework for Prevocational Training.* Wellington*:* Ministry of Health; 2008.
[50] Medical Education England. *Foundations for Excellence: An Evaluation of the Foundation Programme*. Oxford: Medical Education England; 2010.
[51] For recertification requirements for doctors registered in a general scope of practice, see Appendix 1.

Options for prevocational training

This section of the paper provides a proposed purpose statement for PGY1 and PGY2, a number of objectives for the training framework, some guiding principles and a selection of possible options for change. The advantages and disadvantages/considerations of each option are discussed.

Clarity on the purpose and objectives for PGY1 and PGY2

As noted earlier in this paper, the Council's handbook 'Education and Supervision for Interns' sets out a number of goals for the intern year and the expectations of those involved in training. There is no clearly articulated purpose for PGY2. It is the Council's view that **a shared understanding about the purpose of the prevocational years is required**. Without a commonly understood and accepted purpose statement, it is difficult to get 'buy in' to nationally consistent objectives for the 2 post graduate years and thereby determine the value of the training provided.

The intent of the purpose statement is to provide a description of the **outcomes** to be expected for doctors completing this period of their education and training based on the proposed prevocational training framework. The Council proposes that the following purpose statement be adopted, promulgated widely and actively supported by PGY1 and PGY2 doctors, their supervisors, intern supervisors, hospital administration, management and executive and other relevant stakeholder:

> *In order to satisfactorily complete prevocational training, be registered by the Council in a general scope of practice[52], and be prepared for entry into a vocational training programme doctors will have demonstrated proficiency, through an enhanced model of 'supervised learning', across a range of competencies in the domains of clinical care, communication and professionalism as specified in the Council's Prevocational Education and Training Curriculum.*

Objectives

To achieve this purpose the Council proposes the following objectives for prevocational training:

- The PGY1 and PGY2 years will build on the education and training that doctors receive at medical school.
- PGY1 and PGY2 doctors, supervisors, other health professionals, hospital administration, management and executive are all involved in training and will have a clear understanding of the purpose of PGY1 and PGY2.
- Those involved in training will share a clear and common understanding of their respective obligations and role.
- Training over PGY1 and PGY2 will be through an integrated training programme.
- Education and training requirements are widely regarded to be of equal importance to service provision.
- PGY1 and PGY2 doctors will have sufficient access to high quality supervision from senior colleagues and supervisors.
- Training will be primarily experience-based with supervision from senior colleagues supported by other learning methods.
- Doctors will have access to training in a number of clinical settings which include hospital and community care settings.

[52] For recertification requirements for doctors registered in a general scope of practice, see Appendix 1

- Doctors will receive broad-based training which will serve as an appropriate foundation for vocational training in any specialty including general practice.
- Training for PGY1 and PGY2 doctors will adhere to a national curriculum whereby doctors must demonstrate competence in the domains of clinical care, communication and professionalism.
- Training will be based on a spiral curriculum[53] and will include acute illness and an increased focus on long term and age related illness.
- Every doctor registered with a provisional general scope of practice should have specific learning objectives established for each 'run' that are consistent with achieving the competencies required at the time they are eligible to apply for registration in a general scope of practice.
- All senior doctors should participate in the supervision and training of those doctors registered with a provisional general scope and who are within their area of medical or clinical responsibility.

The development of options for change to meet the objectives and fulfil the purpose stated above is based on the following principles:

- Safety and quality of patient care is paramount.
- Promotion of good medical practice.
- Recognition of the principles of Adult Learning[54] throughout education and training.
- The process should be efficient and provide good value for money.

Key features of the prevocational framework

As outlined throughout this paper, the Council proposes a set of core features be introduced into the prevocational framework. These features are included in the objectives above and listed separately below.

- Extending the length of runs from 3 months to 4 months
- Introducing additional mandatory runs of community care[55], emergency medicine and psychiatry. Not all options include all three additional mandatory runs.
- Introducing a revised curriculum adapted from the Australian Curriculum Framework for Junior Doctors. This curriculum, where doctors must demonstrate competence in the domains of clinical care, communication, and professionalism, will overarch ALL runs[56].

Options

Building on the discussion above, the Council has identified the following options listed below. As already noted these options apply for all PGY1 and PGY2 doctors training in New Zealand (including international NZREX graduates, doctor):

[53] Readiness to learn is at the core of a spiral curriculum. A spiral curriculum allows students to revisit a subject matter's content at the different levels of development of the subject matter being studied.
[54] Adult Learning Theory recognises that adult learners are self-directed, require a degree of autonomy, need clear goals and objectives, need regular feedback and space for reflection, bring to their learning prior experience, knowledge and skills.
[55] By 'community care' the Council refers to care in the community that is non-inpatient care. Community care can includes a number of settings such as general practice, community mental health, drug and addiction, accident and medical practice. As is the case now with all runs, these runs will need to meet standards for accreditation.
[56] Provision of education and training based on the curriculum will be a requirement for accreditation.

Option one - Run lengths are 4 months. Registration in a general scope of practice gained after demonstrating competence in the following mandatory runs over a 12 month period:

- Medicine in general.
- Surgery in general.
- Community care or emergency medicine.

As with all options, to gain registration in a general scope doctors must also be certified in advanced cardiac life support.

Advantages

This option enables doctors to still gain registration in a general scope of medicine at the end of 12 months of their postgraduate training. It provides doctors with a choice between community care and emergency medicine and allows them to select a non-core run during the first quarter of PGY2 in order to inform their choice of vocational training programme. The flexibility to choose the third core run may make the addition of a further core run more acceptable.

Introducing a further core run in either community care or emergency medicine will add to the general core competencies that doctors will acquire before entering vocational training and better equip them to work in these unique settings.

In the UK and Australia there is emphasis on recognising and managing acute illness. In Australia emergency medicine is a core run in four states. The Australian Medical Council of Doctors in Training has developed a position paper that reaffirms the importance of emergency medicine training[57]. An important aim of the emergency medicine run is the "appreciation of which patients and conditions require hospital admission and which are best management within outpatient, community or other ambulatory settings"[58].

Diversifying training settings may also assist to reduce the 'bottle neck' pressures on providing training runs for an increasing number of interns and assist meeting service demands in general practice.

Disadvantages/Considerations

With this option doctors will still encounter a trade off between depth and breadth of experience where three of the six prevocational runs over the 2 years being mandatory.

Many community care facilities, for instance general practice, will not currently have the facilities or capacity to train interns and, as discussed adequate infrastructure and capacity will need to be built up which will take time and investment.

[57] Confederation of Postgraduate Medical Education Councils. C*linical Training in Prevocational Years Second Report to the Clinical Training Subcommittee of the Medical Training Review Panel*. Confederation of Postgraduate Medical Education Councils: Australia; 2008.
[58] ibid pg 18.

Due to the nature of emergency departments there are particular responsibilities on hospitals to ensure that interns are supervised adequately and are not practising above their experience and competency levels. We note that HWNZ is currently exploring options for prevocational training in general practice and private hospitals that may provide innovative solutions to this issue.

Having received registration in a general scope doctors are essentially 'free' to choose what they do in PGY2 and indeed, whether they will continue to train. Suitable incentives will need to be put into place for PGY2 doctors to complete the 2 year training programme. Some suggestions have already been offered, such as having the completion of the programme recorded on their medical registration and/or some financial incentives. Furthermore, employers receiving state funding to train PGY2 doctors ought to be accountable for ensuring that training is provided in accordance with the national curriculum developed.

Option two

Run lengths are 4 months. Registration in a general scope of practice gained after demonstrating competence in the following four mandatory runs over a 16 month period:

- Medicine in general.
- Surgery in general.
- Community care.
- Emergency medicine.

Again, to gain registration in a general scope doctors must also be certified in advanced cardiac life support.

Advantages

This option has the advantage that all doctors will have trained in a community care setting **and** emergency medicine prior to gaining registration in a general scope. This option mandates both runs be successfully completed.

Disadvantages/Considerations

This option extends the period for gaining registration in a general scope out by 4 months which may impact on retaining our medical graduates and attracting overseas doctors if they see they can gain full registration in another country sooner. Although Australia will be imposing restrictions on international interns in the future, in the short term there is still a risk of losing doctors from at least one or two cohort of graduates.

As discussed above, by lengthening the duration of runs to four months a trade off between depth and breadth emerges. This trade off is exaggerated by requiring two further core runs be completed in order to gain registration in a general scope. Only two of the six runs will be elective, and possibly not experienced by the time the doctor has to apply for vocational training.

Again, there are also issues to do with ensuring sufficient capacity for training across community care and emergency medicine settings and the cost and logistical arrangements of enabling this.

Option three

Run lengths are 4 months. Registration in a general scope with limitations after demonstrating competence in the following mandatory runs over a 12 month period:

- Medicine in general.
- Surgery in general.
- One additional run of their choice.

After successfully completing PGY1, the doctor will gain registration in a general scope of practice that is limited to preclude general practice and emergency medicine until they successfully complete a training run in each of these areas of medicine.

During PGY2 the doctor will satisfactorily complete three 4 month runs compatible with and geared towards their vocational training. If general practice and emergency medicine were not satisfactorily completed in the first postgraduate year, then the doctor in training must satisfactorily complete a general practice and an emergency medicine run in the second post graduate year to complete the programme. Once they successfully complete a run in general practice and emergency medicine, doctors will gain registration in a general scope without limitations.

Advantages

This option allows doctors with a general scope more freedom to practise medicine with the exception of two settings: general practice and emergency medicine. The focus is on safety to the patient, and protection for the doctor.

There is an 'incentive' to complete training in general practice and emergency medicine in order to receive registration in a general scope without limitations.

Disadvantages/Considerations

PGY1 and PGY2 doctors may view the limitations placed on their general scope as punitive. There would need to be availability of sufficient runs in those settings to accommodate each PGY1 and PGY2 doctor, otherwise the length in which they would remain on a limited general scope would be beyond their control and politically unacceptable. Should they choose doctors could potentially remain registered in a general scope of practice with limitations indefinitely. It may also be considered that placing limitations in this way is informally establishing a new scope of practice. This restriction for doctors could also have an impact on recruitment and retention of graduates.

Option four

Run lengths are 4 months. Registration in a general scope after successfully completing PGY1 and PGY2 over a 2 year period. Mandatory runs include:

- Medicine in general.
- Surgery in general.
- Community care.
- Emergency medicine.
- Psychiatry.
- One additional run of their choice.

Again, to gain registration in a general scope doctors must also be certified in advanced cardiac life support.

Advantages

This option requires that doctors complete the 2 year programme in order to gain registration in a general scope. In this scenario doctors will have an 'incentive' to stay within a structured and regulated training programme where the focus is on gaining broad based training in preparation for vocational training.

The addition of the mandatory psychiatry run will serve to strengthen the broad based competencies that doctors will require regardless of which field of medicine they specialise in.

Disadvantages/considerations

As with option two, extending the period of training required to apply for registration in a general scope out by 12 months may impact on the ability to retain our medical graduates and attract overseas doctors if they see they can gain full registration in another country sooner. As noted above, although Australia will be imposing restrictions on international interns in the future, in the short term there is still a risk of losing doctors from at least one or two cohort of graduates. Further consideration will need to be given to the impact that this extended internship will have on trans-Tasman migration.

Prospective interns and PGY2 doctors may find the number of mandatory runs overly prescriptive and an imposition on their ability to choose runs in an area of medicine that they plan to specialise in.

Consideration will also need to be given to the extra resources the Council will require to carry out its regulatory functions for PGY2.

A request for comment

The Council is seeking comment on this discussion paper and would welcome your views. The closing date for comment is **22 July 2011**. You may provide submissions by either using the online form on the homepage of our website www.mcnz.org.nz or by emailing your submission to prevocationalconsultation@mcnz.org.nz.

In responding, the Council is particularly interested to obtain your views on:

1. Are there any important issues and drivers that we have either omitted or overstated?

2. Do you agree with the objectives and principles? Would you delete or add any?

3. Should there be mandatory runs? If so, what should these be?

4. What is the appropriate length of the internship that will ensure training in a variety of clinical settings and allow for assessment of competence?

5. What are the consequences of each option?

6. What is your preferred option and why?

7. Is there an alternative option that is not outlined in this paper that would be consistent with the objectives and principles outlined in this paper?

Bibliography

Australian Medical Council. *Competence-based Medical Education – AMC Consultation Paper.* Australian Medical Council; 2010.

Commission on the Resident Medical Officer Workforce. *Treating People Well: Report of the Director-General of Health's Commission on the Resident Medical Officer Workforce*. Wellington: Ministry of Health; 2009.

Confederation of Postgraduate Medical Education Councils. C*linical Training in Prevocational Years Second Report to the Clinical Training Subcommittee of the Medical Training Review Panel*. Confederation of Postgraduate Medical Education Councils: Australia; 2008.

Confederation of Postgraduate Medical Councils. Retrieved from http://curriculum.cpmec.org.au/background.cfm.

Doctors in Training Workforce Roundtable. *Training the Medical Workforce 2006 and Beyond.* Wellington: Ministry of Health*;* 2006*.*

Fraser, Allen. *Mentoring resident doctors*. The New Zealand Medical Journal. 22 October 2004. Retrieved from http://www.nzma.org.nz/journal/117-1204/1124/ (27 January 2011).

Health Workforce New Zealand. Retrieved from http://www.healthworkforce.govt.nz/working-in-health/regional-postgraduate-training-hubs. (February 2011).

Joint MTB and MCNZ Working Party.*NZ Education Framework for Prevocational Training.* Wellington: Ministry of Health; 2008.

Medical Council of New Zealand. *Education and Supervision for Interns*. Wellington: Medical Council of New Zealand; 2006.

Ministry of Health. *Training the Medical Workforce 2006 and Beyond.* Wellington: Ministry of Health; 2006.

Medical Education England. *Foundation Programme Curriculum United Kingdom: The Foundation Programme*; Oxford: Medical Education England; 2007.

Medical Education England. *Foundations for Excellence: An Evaluation of the Foundation Programme.* Oxford: Medical Education England; 2010.

Minister of Health's Taskforce. *A review of how the training of the New Zealand health workforce is planned and funded: a proposal for a reconfiguration of the Clinical Training Agency.* Wellington: Ministry of Health; 2009.

Medical Training Board. *The Future of the Medical Workforce: First Annual Report November 2007 – December 2008.* Wellington: Ministry of Health; 2008.

Medical Training Board*. Foundations of Excellence Building Infrastructure for Medical Education and Training.* Wellington: Ministry of Health; 2009.

Modernising Medical Careers Inquiry. *Aspiring to Excellence: Findings and Final Recommendations of the Independent Inquiry into Modernising Medical Careers led by Professor Sir John Tooke.* London: Modernising Medical Careers; 2008.

Paltridge,D. Prevocational medical training in Australia: where does it need to go? *Medical Journal of Australia 2006 184:* 349-352.

The Royal College of Physicians and Surgeons of Canada. *The CanMEDS 2005 Physician Competency Framework.* Ontario: Canada; 2005.

Sheehan, D, Thwaites, JH, and Byrnes, I. General practice rotations for post graduate year 1 and 2 house officers – how feasible? The New Zealand Medical Journal. 26 October 2007. Retrieved from http://www.nzmz.org.nz/journal/120-1264/2770/ (27 January 2011).

Workforce Taskforce. Reshaping *Medical Education and Training to Meet the Challenges of the 21st Century: A report to the Ministers of Health and for Tertiary Education from the Workforce Taskforce*. Wellington: Ministry of Health; 2007.

Zarkovic, A, Child, S, and Naden, G. 2007. *Career choices of New Zealand junior doctors.* The New Zealand Medical Journal; 17 February 2006. Retrieved from http://www.nzma.org.nz/journal/119-1229-1851/ (27 January 2011).

Appendix 1

Recertification requirements for doctors registered in a general scope of practice.

Council has recently reviewed and approved strengthened recertification requirements for doctors registered in a general scope of practice. These doctors will be required to participate in a recertification programme accredited by the Council. The programme will be based around a professional development plan developed from the individual doctor's identified learning needs and will include 50 hours of continuing professional development (CPD) per year made up of:

- A collegial relationship requirement (delivered through the accredited recertification programme provider).
- Regular practice review (a collegial review of a doctor's practice by peers, in a doctor's usual practice setting).
- Clinical audit (at least one audit per year).
- Peer review activities (a minimum of 10 hours per year).
- Assessment of professionalism and cultural competence.
- Assessment of compliance with specific Council standards.
- Educational conferences, courses and workshops.

Appendix 2

Foundation for Excellence
An Evaluation of the Foundation Programme
Professor John Collins
October 2010

Recommendations

Issue 1: Lack of a clearly articulated purpose for the Programme

1. MEE (through the MPB) – working with its counterparts in the other UK countries – should confirm the purpose of the Foundation Programme as those set out in this Report by 2012.

2. By the end of 2011, the GMC should define, in a revised edition of The New Doctor, the outcomes required to complete the second year (F2) of the Foundation Programme.

3. The success of the Foundation Programme in achieving the purposes outlined and in providing value for money should be evaluated by the MPB working with UK FPO, on a regular basis. The MPB will need to develop appropriate indicators by 2011 so that performance data can be prospectively collected by Deaneries and Foundation Schools and be made available for external evaluation. Deaneries should self-assess against these indicators.

Issue 2: Misgivings about the selection of trainees into the programme

4. The Evaluation supports the action being taken by the Improving Selection into Foundation Project Group to identify the best approach for selection of applicants into the UK Foundation Programme and allocation to Foundation Schools and recommends that a decision is made by 2012 so as to inform those candidates applying to commence in August 2013.

5. A standardised and uniform process should be developed for the recruitment, selection and appointment of Foundation doctors by 2012, taking into account the guidance provided by the GMC in Tomorrow's Doctors and The New Doctor.

Issue 3: Confusion over the role of the trainee

6. MEE should work with its members and partners to develop a consensus statement on the role of the trainee by 2012. NHS Trusts and the HR departments which draw up service rotas must have a detailed understanding of the role of Foundation doctors.

7. The GMC should consider producing guidance to support the development of professionalism among trainees, given the particular ethical and professional challenges that they face. This could be carried out as a component of its planned review of Good Medical Practice in 2011 and completed by 2012.

Issue 4: Questions about GMC registration of trainees and medical students

8. The GMC should review the timing of full registration. It should also review the merits of marking on the Medical Register the successful completion of the Foundation Programme. Wider consultation including with NHS Employers is recommended. The GMC should review the issues involved in student registration, including the options of registering all medical students or confining this to students who are in their clinical years. It is recommended that these important issues be addressed by 2012.

Issue 5: Dissension over the length of the Programme and its rotations

9. The length of the Programme should remain at two years for the present, and be reviewed in 2015 when the changes in undergraduate medical programmes required by the GMC in Tomorrow's Doctors (2009) will have been fully implemented and evaluated. In the meantime F2 must demonstrate that it is a step-up in experience from F1 and be able to prove its overall value beyond doubt.

10. The length of rotations must ensure that a Foundation doctor is in a single placement for a minimum of four and a maximum of six months by 2012, with the precise configuration within each year to be discussed by the Deaneries/Foundation Schools. The length and content of the rotational programme must be clearly disclosed in Foundation School materials.

Issue 6: Perceived deficiencies in careers information and advice

11. All of the appropriate organisations must work together to define good practice for the provision of careers information and advice. Such information must be easily accessible, simple to understand and contain transparent data on each specialty, including competition ratios and a potential applicant's "likelihood of success".

Issue 7: Lack of flexibility in the Programme

12. Greater flexibility should be available within a single programme, allowing F1 trainees to have greater input into the allocation of their F2 specialty placements and rotations. The generic, broad based experience of F1 and F2 should be retained, with F2 placements aligned as far as possible to the broad areas in which trainees hope to pursue their careers. This should be balanced by the future workforce needs of the NHS and its patients, and the requirement to meet all Foundation Programme generic competences. This should be achieved by 2013.

13. Flexibility must be accompanied by actively addressing the current mismatch between expectation and reality which exists in the minds of some trainees about career prospects in different specialties. Flexibility must also take into account the importance of ensuring that Foundation doctors undertake community placements.

14. Deaneries/Foundation Schools should make a greater effort to meet one of the important purposes of the Programme – to ensure that trainees experience many different specialties – by maximising and simplifying access to Tasters and by implementing organised "swap shops" for trainees to exchange rotations by 2013. Foundation Schools should disclose through their local Deanery website the degree of flexibility allowed by their programme in a standardised format.

Issue 8: Gaps in the curriculum

15. The Foundation Programme curriculum should be revised to give greater emphasis to the total patient, long-term conditions and the increasing role of community care. It should also reflect the changing ways of working, in particular the need for team-working skills within a multi-professional environment. This revision should be completed by 2013, which will allow time for the content of the revised edition of The New Doctor (due in 2011) to be considered. Those involved in the revision of the curriculum must ensure that the new curriculum integrates fully with medical school curricula.

Issue 9: Maldistribution of placements by specialty

16. The successful completion of the Foundation Programme should normally require trainees to complete a rotation in a community placement, e.g. community paediatrics, general practice or psychiatry. The GMC should consider whether this aspiration should be reflected in The New Doctor (due in 2011) and be able to obtain evidence of its implementation by 2012.

17. The distribution of specialty posts in the Foundation Programme is predominantly in two specialties and this must be reviewed by 2013 to ensure broader based beginnings, to share the supervision of trainees among a wider number of supervisors and to ensure closer matching with current and future workforce requirements. Transitional arrangements may need to be put in place – at least in the short term – to ensure that service delivery is not adversely affected by such change.

Issue 10: Shortcomings in technology-enhanced learning

18. The importance of learning resources including skills labs and simulated patient environments, as described in paragraph 5.9 of The UK Foundation Programme Reference Guide and in paragraph 115 in The New Doctor, is reaffirmed. The strategic group currently reviewing the appropriate use and provision of technology to enhance learning in England is requested to provide advice by 2011 on the more widespread use of technology in the Foundation Programme. Concerted efforts need to be made across the different organisations involved to co-invest in facilitating innovations in the delivery of education and training.

Issue 11: Equipping and approval of trainers is necessary

19. A framework for the approval of trainers involved in teaching and assessing trainees is a high priority and the professional standards developed and published by the Academy of Medical Educators provides a useful resource for this. The work commissioned by DH and recently commenced by the Academy of Medical Educators should be taken forward in partnership with the GMC and completed by 2012.

Issue 12: Assessment is excessive, onerous and not valued

20. The range of assessment tools and the number of times assessment must be repeated in the Foundation Programme should be reviewed, with a view to reducing these to the minimum required by 2013. The opportunity to avoid repetitive assessments, by improved transfer of information between undergraduate and postgraduate schools, should be actively explored.

21. NHS Trust employment plans for consultants should take account of the time and commitment necessary to undertake proper training and assessment of trainees.

22. Feedback from patients who have been in contact with the Foundation doctor should be part of assessment by 2013 and the GMC should be invited to oversee research to identify best practice in this regard.

23. All Foundation Programme assessments should be conducted and signed off by resourced and trained assessors by 2013. Assessors should undergo regular review of their performance for this role.

Issue 13: Variability in the deployment and supervision of trainees

24. Methods must be developed to ensure that all health professionals and employers understand the objectives of the Foundation Programme, become quickly conversant with the prior clinical experience and level of competence of individual F1 and F2 trainees, and support the standard that no Foundation doctor will be required to practise beyond their level of competence or without appropriate supervision. This should be achieved by 2012.

25. The factors determining the quality of clinical and educational supervision should be explored further by MEE through the MPB by 2012; in particular, the time required for quality supervision needs to be identified. The structure of the Programme at local level should ensure a more even demand on clinician time for teaching and supervision, consistent with successful delivery of the curriculum.

26. The GMC must ensure that the standards for training for the Foundation Programme relating to patient safety as outlined in Domain 1 of its document The New Doctor (2009) are understood and achieved by all Foundation School Directors and by NHS Employers.

27. The GMC should establish clear guidelines on the level of supervision required by trainees at each stage of their training by 2013; graded responsibility should be allowed with some degree of clinical discretion based on clear communication of the individual trainee's capability and informed by its two publications Tomorrow's Doctors (2009) and The New Doctor (2009).

Issue 14: Variability in the quality of education and learning

28. The Postgraduate Deans, the GMC and NHS Trusts must clarify the appropriate balance between service and education during F1 and F2 and ensure that the effective monitoring of this balance is being achieved by 2012. Clear pathways must be available for trainees to obtain satisfactory resolution if the appropriate balance is being eroded.

29. The GMC should define measures of quality and require Deaneries to collect performance data on an ongoing basis. Results should be published and be publicly available at programme and hospital level. Educational performance measures should be a required element of senior manager evaluation in Trusts receiving funding for a Foundation Programme. Institutions receiving such funding should identify the educational lead in the Trust as a prerequisite for receiving this funding. These recommendations should be implemented by 2012.

Issue 15: Lack of pastoral support for trainees

30. Each institution training Foundation doctors must have well defined and functional procedures to escalate any quality and safety issues related to education and training. Good practice with regard to pastoral care needs to be defined and the GMC should require evidence of its availability in Foundation Programmes in accordance with Domain 6 of The New Doctor (paragraph 96) by 2011.

Issue 16: Inadequate transfer of information about trainees

31. In the interests of patient safety and in order to help trainees to address issues which have been identified, the transfer of relevant information about medical students and trainees across the continuum of education and training must take place (within carefully defined limits) by 2012

32. Guidelines must be developed by 2012 by the relevant organizations with input from student and trainee representatives on the appropriate information relating to the knowledge, skills and professional behaviour of medical students and trainees which should be made available, who can request and receive this information and how it will be shared and stored.

33. Medical schools should explore how best to share information with the GMC about medical students by 2012.

Appendix 3

Edited Curriculum Framework

Competency Definitions

It is agreed that a combination of competency definitions will be reflected in the Education Framework for Prevocational Training and the design of the Assessment System. The MCNZ definitions of competence and performance have also informed the discussions of the Joint Working Party. In simplistic terms the MCNZ regards competence as 'can do'; and performance as 'does do'.

Definitions

The literature gives no consistently adopted definition of what constitutes a competency, or how it differs from an objective, goal or task.

Govaert's (2008) conceptual definition includes:

> "Competency is an individual's ability to make choices from a repertoire of behaviours for handling situations and tasks in specific contexts of professional practice."
>
> "Competencies are context-dependent and always imply integration of knowledge, skills, judgements and attitudes."
>
> "Knowing is not enough for doing and nor is doing enough for learning; competencies require experience of, and reflection on, professional practice at any level of experience."

Albanese et al (2008) take a more task-focused approach, which fits well with the detail of the Competency Framework

> "Propose 5 criteria that define a competency:
>
> – It focuses on the performance of the end-product or goal-state of instruction
> – It reflects expectations that are external to the immediate instructional programme
> – It is expressible in terms of measurable behaviour

–It uses a standard for judging competence that is not dependent upon the performance of other learners

–It informs learners, as well as other stakeholders, about what is expected of them."

Harden et al (1999), note that competency-based education focuses on the result of the educational process, not the process itself.

Determining competence and performance

For most professional (and other) situations there is a useful series of key questions that can be applied to elicit understanding, outcomes and responsibilities. They are:

- What to do? (task-oriented, performance- and practice-based)
- Why to do it? (knowledge-based; cognitive-based, clinical reasoning-base)
- When to do it and when not to do it? (clinical reasoning, limits of personal practice et al)
- Where to do it? (e.g. rural, primary, community, secondary, tertiary, quaternary; referral process)
- How to do it? (task-oriented, performance- and practice-based, alone or with team/supervisor)

When considering competence and performance, the Working Party identified some shortcomings in the ACFJD approach as follows:

- it doesn't adequately capture key aspects of a professional doctor's role, such when to do and when not to, why it is done and where;
- it is possible to do discrete tasks without necessarily being a good doctor; hence it is important to foster the integration of learning;
- it provides no indication of the level of competence expected;
- it doesn't give adequate context, nor does it relate tasks to scopes of practice.

The proposed NZ Education Framework for Prevocational Training attempts to overcome these shortcomings.

Domains

The three domains used in this New Zealand Education Framework for Prevocational Training are those of the *Australian Curriculum Framework for Junior Doctors:*

1. Clinical management
2. Communication
3. Professionalism

While a unanimous decision has been made to use the Australian Domains, especially for benchmarking and equivalence purposes, these domains align very closely with the set of Domains currently informing the work and publications of the MCNZ. Its current set of domains is:

- Clinical Expertise/ Medical Care
- Communication
- Collaboration
- Management
- Scholarship
- Professionalism

The following table demonstrates the clear links between the two sets of domains.

MCNZ domains and subsets	**Match with Proposed NZ Prevocational Training Framework**
Clinical expertise/ Medical care • diagnostic and management skills (skills that may be specific to each branch of practice, but may be generic to several - such as prescribing, surgical skills, psychotherapy) • expert adviser skills	Clinical management

MCNZ domains and subsets	Match with Proposed NZ Prevocational Training Framework
Communication • with patients and families • with colleagues • medical recordkeeping	Communication
Collaboration • teamwork	Professionalism
Management • personal management (including insight and recognising limits) • management within systems • use of time and resources	Professionalism
Scholarship • life long learning • teaching • research • critical appraisal	Professionalism
Professionalism • honesty • integrity • probity • respect for patients (including cultural competence with respect to gender, ethnicity, boundaries, and New Zealand's biculturalism) • respect for colleagues • moral reasoning & ethical practice	Professionalism

The Medical Council's core document, *Good medical practice* is now used, variously modified, by many regulatory authorities around the world. Perceived gaps in the Prevocational Training Framework, compared with the material currently outlined by MCNZ in *Good medical practice* are the central role of the general practitioner, financial and commercial dealings, conflicts of interest (hospitality, gifts, inducements) and financial interests in hospitals, nursing homes and other medical organisations.

Attitudes and Behaviours

The Australian Medical Council (AMC) attributes and behaviours (with minor adaptations) will be used in the New Zealand Education Prevocational Framework, as these transcend and are intrinsic across all three domains. Some aspects of the ACFJD are included here instead of in the Competency Framework, to give a consistent approach.

- Recognition that the doctor's primary professional responsibilities are the health interests of the patient and the community.
- Recognition that the doctor should have the necessary professional support, including a primary care physician, to ensure his or her own well-being.
- Respect for every human being, including respect of sexual boundaries and sexual orientation.
- Respect for community values, including an appreciation of the diversity of human background and cultural values.
- A commitment to ease pain and suffering.
- A realisation that it is not always in the interests of patients or their families to do everything that is technically possible to make a precise diagnosis or to attempt to modify the course of an illness.
- An appreciation of the complexity of ethical issues related to human life and death, including the allocation of scarce resources.
- A realisation that doctors encounter clinical problems that exceed their knowledge and skills, and that, in these situations, they need to consult and/or refer the patient for help, in clinical, cultural, social and language related matters as appropriate.
- An appreciation of the responsibility to maintain standards of medical practice at the highest possible level throughout a professional career.
- An appreciation of the responsibility to contribute towards the generation of knowledge and the professional education of junior colleagues.
- An appreciation of the systems approach to health care safety, and the need to adopt and practise health care that maximises patient safety including cultural safety.
- A commitment to communicating with patients and their families, and to involving them fully in planning management.
- A desire to achieve the optimal patient care for the least cost, with an awareness of the need for cost-effectiveness to allow maximum benefit from the available resources.
- A preparedness to work effectively in a team with other health care professionals.

- A realisation that one's personal, spiritual, cultural, sexual orientation or religious beliefs should not prevent the non-judgemental provision of adequate and appropriate information to the patient and/or the patient's family, or the provision of appropriate management including referral to another practitioner.

New Zealand Doctor in Training Competency Framework

The New Zealand framework is closely aligned with Australia's, in recognition of the Australasian collaboration for accreditation between the AMC and MCNZ for the undergraduate and vocational training phases on either side of the training continuum.

The framework's structure and content has largely been adopted from the *Australian Curriculum Framework for Junior Doctors (*ACFJD), but also takes cognisance of the standards of the MCNZ. The key changes are:

- Repositioning of most attitudinal aspects into overarching structure, using AMC attitudes with minor adaptations
- Broad adoption of ACFJD, especially to encompass and retain domains and breadth
- Merging of statements to reduce redundancy / overlap, and to even out granularity
- Re-ordering of the components of the ACFJD to reflect the Working Party members' strong desire to have the primacy of a doctor's role in the first section of the Framework.

The following section closely aligns with the ACFJD, together with adopting a better balance of doing (task-focused work) with other essential cognitive skills of the doctor in training, and emphasising practice in New Zealand.

Clinical Management

Patient assessment

Through the application of knowledge, skills, clinical reasoning and organisational procedures, perform comprehensive patient assessment for a range of problems and conditions, to the expected level (See Appendix 1a, 1b and 2 for lists of conditions and problems with expected levels of performance for each stage)

- Apply the stages of a verification process to ensure the correct identification of a patient and to avoid patient misidentification

• Describe the modes of presentation of a range of problems and conditions, and elicit relevant symptoms and signs for each
• Perform comprehensive patient assessments, including obtaining histories and targeted examinations
• For each assessment: – generate a ranked problem list and provisional diagnosis – propose/ confirm differential diagnosis for the main problem(s) • Identify and select (with justification) the initial investigations relevant to a patient's presenting problem or condition • Prepare a patient management plan using the outcomes of history, examination and initial test investigations • Demonstrate clinical reasoning by regularly re-evaluating the patient's problems, based on outcomes of investigations and natural history • Describe the criteria and processes for any relevant referral or consultation • Prepare relevant, succinct information for use by a range of health professionals in the referral / consultation process

Patient management

Management Options • Describe, justify, implement and monitor optimal management plans for a range of common problems and conditions, together with a rationale for the importance of considering alternative management options.
General Patient Care Monitor and prevent complications from changes in patient status - hydration, nutrition, mobility, excretion and mentation. • Manage supplemental feeding and its complications
Fluid & electrolyte management • Apply individualised plans of fluid and electrolyte management, using knowledge of the requirements for all age groups.
Therapeutics (also See Appendix 4 prescribing) • Review the actions, indications, contraindications and adverse effects of medicines and monitor the effects of therapies • Outline the respective roles of nurses, pharmacists and allied health professionals in medication management • Prescribe appropriately and safely
Pain management • Describe the hierarchy of therapies and options for pain control • Explain why pain therapies need to match a patient's analgesia requirements • Apply a plan of timely pain control appropriate to an individual patient's needs
Blood products • Prescribe blood products only when indicated, and in accordance with local guidelines • Recognise and manage transfusion reactions

Glycaemic control • Propose, institute and monitor appropriate regimens for glucose control in a range of settings (perioperative, hyperglycaemic crisis, elderly, comorbidities, etc)
Oxygen and Ventilation • Prescribe oxygen when indicated • Propose, institute and monitor oxygen delivery in Type 1 and 2 respiratory failure • Initiate ventilation when indicated
Anticoagulation • Prescribe DVT prophylaxis where appropriate • Propose, institute and monitor anticoagulant therapy (e.g. DVT/ PE , atrial fibrillation)
Primary and Integrated Care[59] • Manage patients with common self-limiting disorders, chronic illnesses, and non-specific illnesses • Describe the importance of primary care teams, comprehensive records and prolonged therapeutic relationships in the promotion of continuity of care • Identify and describe the roles of healthcare and community services available, and select appropriate service for patient referrals • Describe the indications for and implications of a change to a palliative approach to management • Identify patients suitable for rehabilitation programmes and older people's health services and other integrated care programmes

[59] Renamed from Sub-acute Care to reflect NZ Context

• Communicate effectively with the health care professionals involved with patient's ongoing care
Ongoing care planning • Demonstrate the various elements of effective and safe ongoing care planning (e.g. early, continuous, multidisciplinary) within local guidelines • In liaison with the multidisciplinary team, identify and arrange appropriate external services to ensure an efficient and safe transition from the inpatient to community setting for patients • Describe indication for and regulatory requirements of various levels of residential care • Determine appropriate follow-up arrangements.
Health promotion • Identify environmental and lifestyle risks to health and advocate for healthy lifestyles • Incorporate health and wellness promotion into patient management plans • Explain the positive and negative aspects of health screening and prevention programmes

Safe Patient Care

Apply a range of practices and resources to ensure health care is optimally safe • Describe the essential features of risk management in health care, including audit and its uses • Differentiate between systemic, system, and individual error, and compare and contrast the responsibilities and responses to each

• Work within institutional guidelines to minimise medication errors and adverse effects • Identify and manage adverse events and near misses
• Outline and use the procedures to be followed in real and potential public health emergencies, including notification to public health bodies • Use best-practice methods to minimise transmission of infection between patients and to reduce antibiotic/antiviral resistance, especially hand-washing • Request radiological investigations and procedures prudently with regard to risk and safety • Negotiate a management plan with patients

Common Problems and Conditions

See Appendices 1a, 1b and 2 for New Zealand list of problems and conditions, and the performance levels. The list is provided to GUIDE learning and the construction of suitable junior doctor terms.

Skills and Procedures

(see Appendix 3 for Procedures and expected level of performance)

Decision-making • Demonstrate knowledge of the listed procedures by describing their indications and contraindications and appropriately explaining the proposed procedure to the patient • Consider and select procedures necessary to diagnose and manage individual patients • Recognise one's own limitations in regard to selection and performance of the listed procedures
Informed Consent

• Describe and apply the principles of informed consent in day-to-day practice, and recognise self-limitations in this role
Preparation and anaesthesia • Position and prepare the patient appropriately, including provision of appropriate sedation and / or pre-medication where required
• Identify the need for and arrange local / general anaesthesia as appropriate
Procedures • Demonstrate the appropriate technique using correct equipment • Arrange appropriate support staff and orientate to their roles
Post-procedure • Monitor the patient and provide appropriate aftercare, including the identification and management of common complications • Interpret, explain and evaluate the results of treatment

Emergencies

(see Appendix 4 for New Zealand list of emergencies.)

• Describe and recognise the clinical features of acutely ill, deteriorating or dying patients
• Describe and recognise critical and potentially critical physiological disturbances
• Identify situations where resuscitation may need to precede full assessment
• Describe and apply the principles of medical triage
• Recognise the need for immediate resuscitation and display the ability to call for prompt, appropriate assistance
• Certify as competent in basic and advanced cardiac life support (ACLS)

• Identify and appropriately manage transport and patient factors that need to be addressed prior to transfer • Explain the rationale for and importance of maintaining or increasing the level of care provided during patient transport

Communication

Patient interaction

Apply the principles of good to communication to healthcare relationships with patients, families and other carers, including active listening, the use of interpreters and appropriate use of language • Identify and explain the impact of the environment on communication, e.g. privacy, location • Develop and explain strategies to deal with the challenging or vulnerable patient • Provide clear, honest information to patients, respect their treatment choices and maintain their privacy and confidentiality • Recognise the language differences between doctors, patients and colleagues • Recognise and explain the impact of family dynamics on effective communication • Include relevant family / carers appropriately in healthcare decisions and meetings • Identify the key features of loss and bereavement • Participate in breaking bad news to patients and carers • Support patients after an adverse event

Complaints

• Explain and demonstrate the principles of ‘open disclosure’

• Identify and explain the roles of the office of the Health and Disability Commissioner, Medical Council of New Zealand, Health Practitioners Disciplinary Tribunal (HPDT), and Advocacy Services. • Describe the key aspects of the Code of Health and Disability Services Consumers' Rights • Identify factors likely to lead to complaints and practice behaviours that appropriately minimise the risk of complaints • Respond appropriately to complaints, including notifying more senior staff

Information management

Apply information management appropriately and in accordance with legal and institutional requirements to optimise patient care • Identify and comply with organisational policies and the NZ Health Information Privacy Code • Demonstrate concise, timely, legible written skills in all correspondence and written requests • Explain the uses and limitations of electronic patient information and decision-support systems • Document and communicate drug prescriptions • Explain the role and importance of the health records for appropriate coding and continuity of care • Identify and demonstrate the use of evidence-based practice in clinical decision-making • Critically appraise information sources

Working in teams

• Identify the purposes and functions of a range of healthcare teams, their leadership and the roles of patient and carers in the team • Explain the characteristics of effective teams and team members, apply to self and adapt in response to feedback • Participate in a range of teams and adopt a variety of roles • Concisely present structured cases to senior medical staff and other health professionals in a range of contexts • Communicate effectively with team members in a variety of situations (range to include team meetings, telephone consultations, ward rounds) • Describe the importance of and perform effective written and verbal handover at different stages of medical care, (e.g. team-member to

team-member, hospital to general practice) for patient safety and continuity of care

Professionalism

Doctor and Society

Provide equitable access to and through culturally appropriate and non-discriminatory health care while adhering to professional responsibilities and standards. • Explain ethnic inequalities in health, especially Māori Health, and how these have been created and maintained at both systemic and individual levels (includes colonisation and racism) • Identify the impact of Māori tradition, culture and spirituality on illness and health • Identify and respect traditional Māori practices such as Karakia (prayers), Tangihanga (mourning and burial rites) and whānau involvement • Describe potential barriers to accessing healthcare services (range includes physical, educational, economic, social, geographic and cultural) • Critically reflect on own cultural values that may impact on your role as a doctor, including stereotyping • Respect patients' cultural beliefs, values and practices and identify how these may impact on health • Demonstrate prudent use of finite healthcare resources to achieve the best outcomes, using knowledge of the nature and costs of healthcare

Professional behaviour

• Explain and apply the appropriate standard of professional responsibilities and contractual requirements relevant to your position, including punctuality • Reflect on personal experiences, actions and decision-making • Demonstrate integrity and honesty in own practice, including working within personal capabilities • Comply with the legal requirements of and professional standards associated with being a doctor, including the completion of appropriate medicolegal documentation • Comply with national standards regarding professional boundaries, e.g. sexual and financial boundaries in doctor-patient relationships, providing care to yourself and those close to you • Respect patient privacy and confidentiality • Prioritise daily workload and meet multiple demands within a limited timeframe • Identify and minimise personal health risks of medical practice • Optimise personal health and well-being to minimise risk to others • Explain the ethical complexity of medical practice and apply professional and ethical codes of practice • Accept responsibility for own ethical decisions, including the need to consult colleagues about ethical concerns • Identify the services available for practitioners in difficulty, recognise when they are needed and refer appropriately and with empathy (e.g. Doctors Health Advisory, MCNZ) • Identify the leadership roles and leadership qualities that may be required of a doctor

Teaching and Learning

• Demonstrate commitment to continuous learning by identifying and addressing personal learning needs • From the use of varied approaches to learning and teaching as part of your professional practice, identify the relative strengths and weaknesses of various methods • Participate in effective supervision, learning, assessment, and feedback to others, using elements of good educational practice • Predict and plan your future career options using a range of resources, experiences and mentors • Evaluate and present research findings, based on common research methodologies and processes