

General
Medical
Council

Regulating doctors
Ensuring good medical practice

Intelligence Unit Research

Specialties, sub-specialties and progression through training the international perspective

August 2011

Introduction

In the UK, it is a legal requirement that a doctor who wishes to practise as a substantive, fixed term or honorary consultant in the NHS must hold specialist registration. Similarly, in order to practise as a GP, a doctor must hold GP registration. A Certificate of Completion of Training (CCT) confirms that a doctor has completed an approved training programme and is eligible for entry onto the GP or Specialist Register. Between the end of the first foundation year, when doctors are fully registered with the GMC, and the granting of a CCT, there is no recognised intermediate 'waypoint' for doctors.

There are approximately 20,000 Staff Grade and Associate Specialist (SAS) doctors not in training who are providing care to patients in specialty areas. The skills, knowledge and experience that these doctors have is not formally recognised by the GMC. Due to the lack of regulatory recognition, no credit is given for prior learning. Furthermore, the movement of doctors between specialties, as well as the ability to stop and, at a later date, re-enter a training programme may not always be suitably efficient or effectively supported. One major strand of this research was, therefore, to find out whether other regulators (or equivalent) recognise clinical training and experience which surpasses compulsory medical education but is not necessarily undertaken in the pursuit and eventual attainment of a specialist qualification.

The second strand of this research was to assess the specialty and sub-specialty systems in other countries. There are 61 CCTs which are formally recognised in the UK, as well as a further 40 or so sub-specialties. However, some 300 specialties are currently listed on the Specialist Register. This is largely due to the 'grandfathering' of previous specialties or sub-specialties that are no longer issued but will remain in place until phased out naturally. In order to gain an understanding of whether the UK specialty or sub-specialty system is typical, the structure of the specialty system in other countries needs to be examined.

Two activities were undertaken in order to consider these issues. The first was a brief literature review, or review of information, published or otherwise, that might draw a more detailed picture of the international pathways through training and specialty structures. Academic databases, search engines and the websites of healthcare regulators or specialty organisations were scoured for information and the results compiled into a document of research. The other endeavour was to send out a questionnaire to European and international regulators, via the International Association of Medical Regulatory Authorities (IAMRA), using the GMC's European

and International Unit. Whilst a good number of questionnaires were completed, there were several countries that did not manage to respond, or who simply answered questions with suggestions to investigate major regulatory documentation. The results of the questionnaire are analysed in below and provide a very helpful base of evidence for specialty and sub-specialty structures, especially in countries which, in part due to language barriers, would not be easily examined by the GMC. However, countries which have attracted attention in the past, or that appeared to have systems of interest, such as the USA, Canada and Australia did not take part in the exercise.

For that reason, the literature review which follows the analysis of questionnaire results focuses on a number of countries in more detail, both to provide a robust evidence base, and to help augment the questionnaire responses. By looking in detail at a number of different approaches to specialty structure, as well as speciality training, it is hoped that a better perspective can be reached on how the UK specialty structures and training pathways operate.

Questionnaire Analysis

Eighteen countries responded to the questionnaire, which was sent out via the International Association of Medical Regulatory Authorities. The returned questionnaires are included in the Appendix.

The regulatory authorities were asked to respond to the following questions:

How many specialties exist in your jurisdiction?

Which specialties are recognised in your jurisdiction (please provide a full list, if possible)?

How are new specialties approved, and by whom (e.g. government, regulator, medical chamber, medical college)?

Is there any recognition of training before the award of the qualification completing specialist training? If there is, at what stage or stages of training does this take place?

Do you have sub-specialties in your jurisdiction?

If you do, how many sub-specialties exist in your jurisdiction?

Which sub-specialties are recognised in your jurisdiction, and how do they relate to main specialties (please provide a full list if possible)?

Is there any recognition of sub-specialties at or before the award of the qualification completing specialist training?

Does training only take place after the award of the qualification completing specialist training?

All countries listed the number of specialties and sub-specialties formally recognised in their jurisdiction. It is important to note that the number of 'grandfathered' specialties or sub-specialties was not given, and such information remains unknown. The data provided by the various regulatory authorities – along with information gained during the literature review – has been used to create the graphs shown below.

Figure 1 – The number of specialties per country

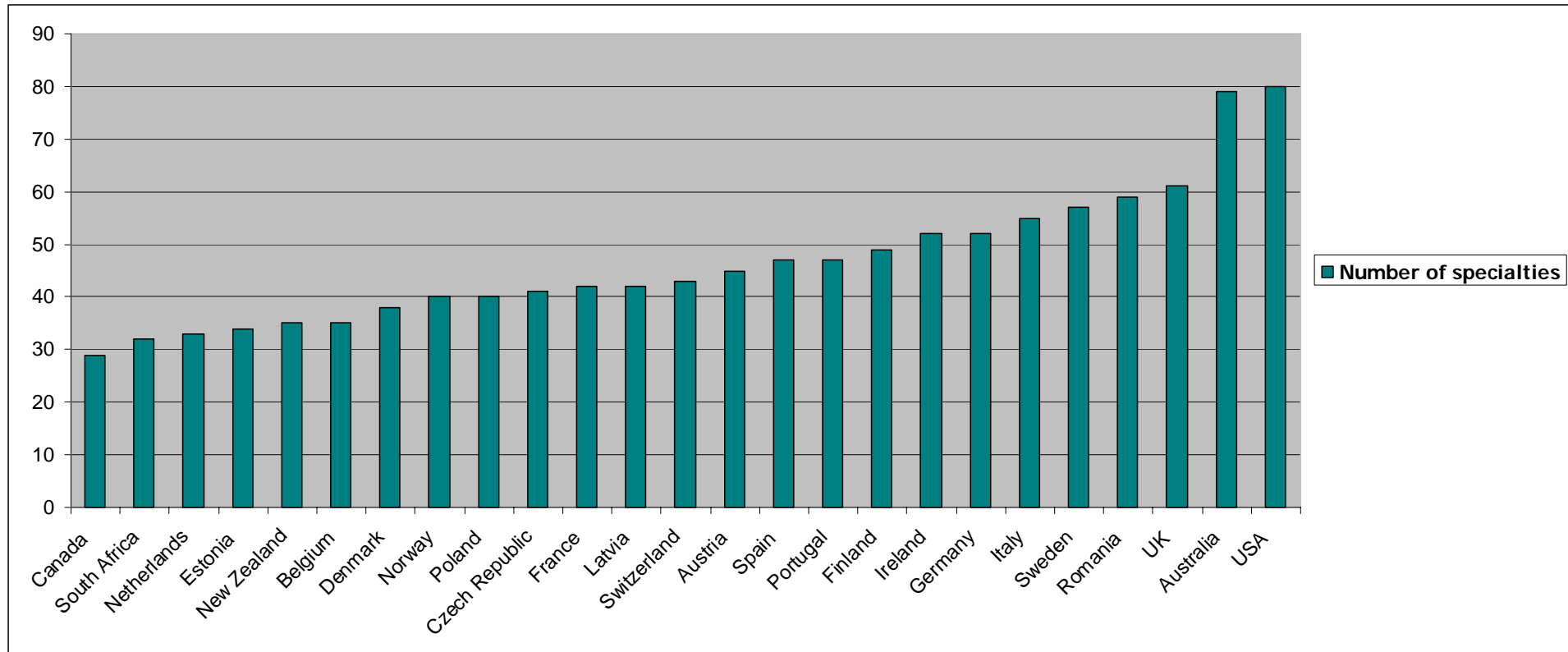


Figure 2 – The number of sub-specialties per country

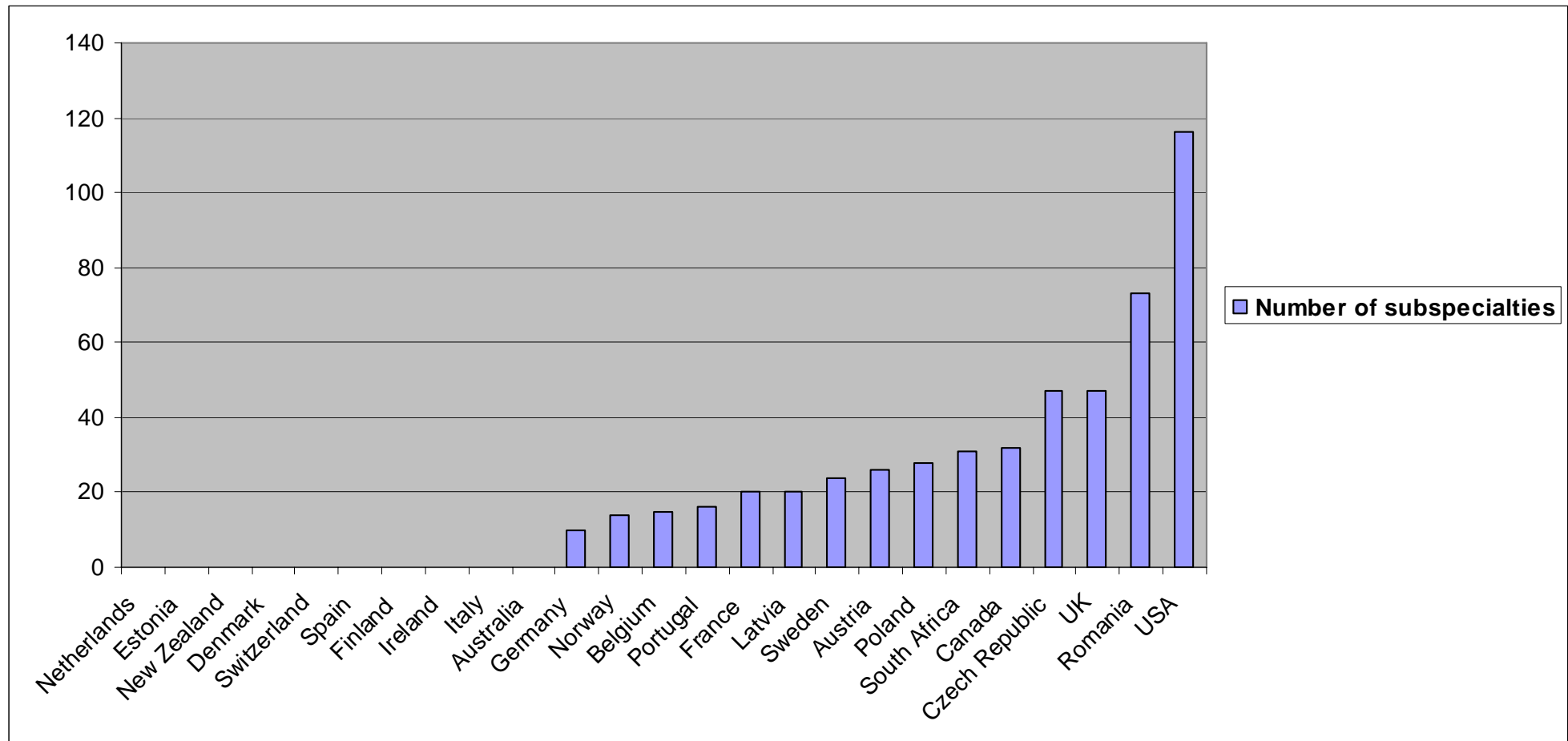
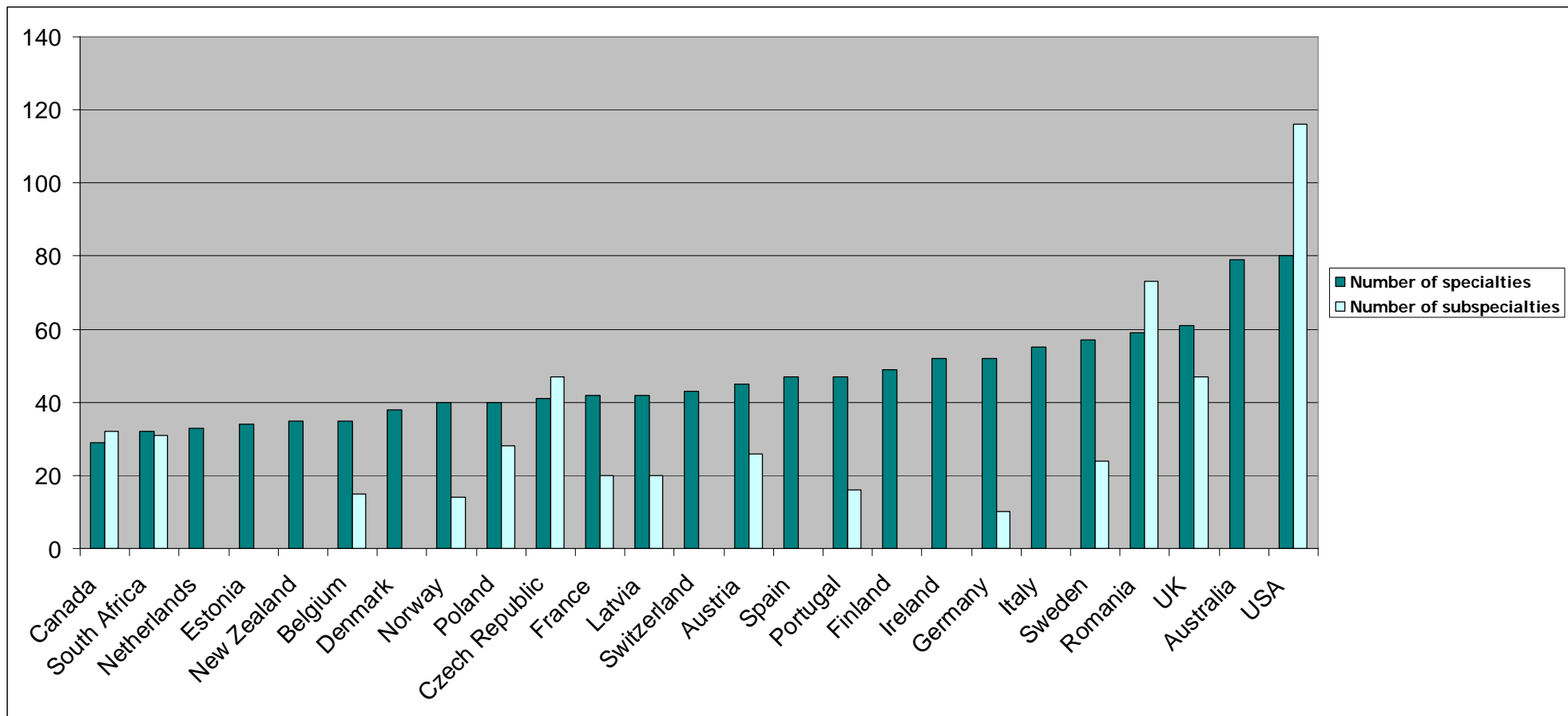


Figure 3 – The relationship between the number of specialties and sub-specialties by country



These graphs show that, with 61 specialties, the UK recognises more specialties than many other jurisdictions. Indeed, only the USA and Australia have more recognised specialties than the UK, although Australia has incorporated its sub-specialties into its list of specialties. The average number of specialties recognised is 47, though Germany, Ireland, Italy, Sweden and Romania all have more than 50 specialties. The UK recognises more than twice as many specialties as Norway.

Most countries have fewer sub-specialties than specialties. The USA is unique in recognising almost 120 sub-specialties, which is fifty more than the next highest country (Romania). The UK, with approximately forty sub-specialties, is again at the higher end of the scale. Interestingly, over a third of the sample – including Australia, New Zealand and Ireland – do not formally recognise sub-specialties.

Answers to many of the questions (particularly those which asked the regulatory authorities to set out details of specialty approval and recognition of training) did not appear to fully engage with the questions asked or were left unanswered. Almost all countries do not recognise specialty or sub-specialty training until training has been fully completed. For example, there is no recognition of training before the award of a specialist diploma in Germany. Uniquely however, the Czech Republic gives a Certificate of Completion to all doctors who complete two years of 'basic' specialist training, which allows a doctor to perform certain medical procedures without supervision.

Key findings from the literature review

Specialties and sub-specialties

The literature review set out below provides a more detailed analysis of specialty and sub-specialty structures than the questionnaires achieved. **The five countries included in this section of the report, USA, Canada, Australia, New Zealand and Ireland, were selected on the basis that each was in the process of implementing, or had implemented, systems of interest to the GMC.**

The review finds that whilst the USA has high numbers of specialties and sub-specialties, it is not known exactly how many there are, as no single body oversees their formal recognition. The high numbers of sub-specialties exists because bodies such as the American Board of Medical Specialties (ABMS) have been quick to grant recognition of sub-specialties. The President and Chief Executive of the AMBS recently stated that '...new sub-specialties will enable patients to receive the highest

quality care from the most qualified specialists.¹ This suggests that in the USA, greater subspecialisation has been linked to improved patient outcomes. Indeed, the term sub-specialisation is in use amongst physicians and academics in the USA, which is indicative of the drive towards more and more precise areas of medical practice in the country. Nevertheless, as the review shows, there is great debate in America regarding to increasing specialisation of doctors. Of particular concern is the continuing lack of generalists.

There is evidence that Canada also views specialisation and subspecialisation as being able to improve health care outcomes. However, the increase in specialties and sub-specialties in Canada has been much slower than it has in the USA. For example, since 1999, only four new specialties or sub-specialties have been formally introduced.

The questionnaire found that many countries do not recognise sub-specialties. There is little available information as to why this is, although the review of literature did uncover evidence from Australia which set out the reasons for the rejection of the term 'sub-specialty'. Guidance issued by the Australian Medical Council states that 'the terms *specialty* and are used inconsistently (and even interchangeably) within the regulatory environment of the Australian health system and the medical education sector. For the purposes of the AMC's recognition process, the term *specialty* is used pragmatically and inclusively to signal' all areas of recognised medical practice.² Therefore, the sub-specialties in Australia have simply been incorporated into the specialty framework.

In New Zealand and Ireland sub-specialties are not formally recognised. As opposed to incorporating sub-specialties into the specialty framework – or further specifying areas of medical practice – these countries have chosen to keep the specialty framework fairly broad. Therefore, in New Zealand, all specialist doctors are registered as belonging to one of 35 specialties. Though doctors may in effect subspecialise in a certain medical area, no formal list of sub-specialties is used by the Medical Council of New Zealand.

The ways in which regulatory bodies recognise new specialties or sub-specialties is detailed in the review of literature. All the countries examined have thorough systems for approving new areas of practice, which usually takes place in various stages. There is active approval of new specialties internationally. In Australia, new specialties currently under consideration are cosmetic medical practice and genetic pathology. In America, epilepsy medicine, complex general surgical oncology, and

female pelvic medicine and reconstructive surgery have all been approved since 2010.

Pathways through training

There were a number of significant findings the literature uncovered with regard to pathways through training. The pathway through training that exists in the UK is common in other countries. One or two years of basic training (i.e. FY1 and FY2) are usually followed by over five years of specialist training. In Canada there is currently no requirement for an internship or foundation year that is separate from specialty training in Canada. Since 2005, a Core Competency Project has been running in Canada, which looks likely to implement a foundation year system similar to that which is used in the UK.

As the questionnaire found, the UK is not unusual in having no 'way point' in training, or for not rewarding prior experience or learning. Nor is the UK unusual in considering whether such recognition should be given to prior learning. Some countries, such as Australia and Ireland have set up systems to attempt to ensure that the experience doctors gain is rewarded.

The Royal College of Physicians in Ireland (RCPI) has commented that 'trainees and training bodies have tended to view time spent in registrar posts as an unregulated "gap"', which is 'the only period prior to independent practice in which doctors are not formally enrolled on a structured, supervised training programme.'³ To combat these issues, the RCPI has been piloting an initiative called the Registrar Training Programme (RTP). RTP recognises the experience and training of registrars by giving them credits which can reduce the time of their higher specialist training. Doctors who are on the RTP can gain credits which reduce their higher specialist training by up to twelve months.

The RTP is still being piloted in Ireland. It will be useful to monitor its progress over the next year, to see if the scheme is more widely implemented.

In Australia, a Recognition of Prior Learning (RPL) scheme is run, although it is currently under review. The RPL scheme acknowledges the skills and knowledge a doctor has already gained through work experience, formal training and life experience. Doctors who wish to change specialty or training pathways can use RPL

to shorten the length of time of their training programme. The Australian General Practice Training organisation has also released documentation on RPL which states that:

Recognition of prior learning relevant to general practice may be used for two purposes. It may enable the registrar to reduce the overall time spent in Australian General Practice Training or it may reduce the time the registrar needs to spend on skills they have already gained and instead use that time to pursue additional training in particular areas during training.

The review of literature did not find particularly detailed information on the RPL scheme in Australia and more detailed analysis of the RPL scheme in Australia would be worthwhile, particularly in light of the Australian Medical Council's review of its progress.

Analysis of the Department of Health/MACE literature review

In 2007, the GMC Specialist Register Review Group reported their findings to Council on possible advantages to introducing specialist credentialing. These included the following:

- The registration of specialist credentials could enable the chronicling of skills gained throughout a doctor's specialist career and not just at the end of specialist training, i.e. the award of a CCT.
- There is an increasing 'modularisation' of specialist training, which could be effectively developed by credentialing. Credentialing could also aid more flexible training opportunities that will become increasingly necessary because of the changing demographics of the medical profession.
- Credentialing would provide a synchronized way of awarding formal recognition to the additional, optional training undertaken and the qualifications acquired by doctors.
- Specialist credentials might enable the recognition of specialist competences in specialties for which it is not possible to obtain a CCT and where regulation has been identified as weak.
- Credentialing may also be useful for general practitioners with special interests.

Following the Department of Health's invite to PMETB to lead exploratory work on credentialing in 2008, a Credentialing Steering Group (CSG) was set the following year, chaired by Dr John Jenkins. The final report of the CSG was published in April 2010 and included as a major appendix a literature review produced by *MACE* and commissioned by the Department of Health. The aim of the literature review was to survey national and international uses of credentialing in order to establish whether there was evidence of credentialing being used in the progression of medical training, or in the support of revalidation. As was stated in the report, there was 'little literature' found 'which related directly to the concepts of credentialing' that were relevant to the CSG's work.⁴

A detailed study of the *MACE* literature review does not, unfortunately, locate significantly relevant findings for this GMC research project. A slight sense of confusion can occur given that, although a specific definition of credentialing is dictated and substantiated in the Report, the credentialing for the purposes of the literature review 'can mean anything from checking the checking of a doctors

qualifications on appointment to a position, all the way through to revalidation and the granting of clinical privileges' (p.3). Because of this, the review ends up assessing a large collection of very varied measures, often in fairly minimal detail. The rather restricted methods for searching for literature (including search terms and search resources) may have hindered the ability to collect robust evidence, but it is also the case that there are few academic articles or studies which assess credentialing per se. Many of the instances of credentialing appear, as the report uncovers, and by their own admission, to have little relevance to the CSG's remit, or indeed the scope of this research.

Unfortunately, the review does not find a single instance of the use of credentialing for SAS doctors outside of the UK. However, it is worth mentioning a few of the more significant areas which may be pertinent in terms of specialty structure more generally. The review finds, for example, that there is evidence supporting the role of credentialing in the granting of clinical privileges in a procedure specific way, for example the Canadian process of credentialing endoscopic procedures. The literature review also suggests that there is an urgent need for recognition of competence attained in discrete areas of practice, not covered by either CCTs or by PMETB recognised sub-specialty training, for example forensic and legal medicine, breast disease management, remote and rural medicine and cosmetic surgery. It argues that it would be difficult to justify the establishment of a separate specialty or subspecialty in pre-hospital care.

Beyond various overviews of the arguments for and against new specialty recognition, the *Mace* review contains little of real significance or usable evidence, and is now, with regards to many regulatory systems, outdated. It is hoped the assessment given below on the systems of five countries (Ireland, America, Canada, Australia and New Zealand) will provide a reasonable, up-to-date overview of the international picture of specialties and medical training. The research has used the questionnaire topics as a foundation, but has, at times, cast its net wider in order to locate areas of possible interest for the GMC. The overall reach of this project is therefore quite broad, and it may be that further exploration of various aspects of this report will be fruitful.

The paper assesses each country in turn, so as to provide a clear representation of how systems operate. Key points are listed at the start of each section.

The international perspective

United States of America



Key findings:

- There is no central regulatory body for doctors (physicians) in the USA. Instead, State medical boards license doctors, investigate complaints and discipline those who break the law.
- It is not known exactly how many specialties or sub-specialties there are in the US. Whilst there are common routes to recognition of specialties or sub-specialties, no one pathway is formally recognised, and it does not appear that a national database of specialties or sub-specialties is maintained.
- An umbrella organisation called the American Board of Medical Specialties (ABMS) maintains the standards for the certification of the most common specialties and sub-specialties. Its' Boards alone cover 150 specialties or sub-specialties, some 50 more than in the UK.
- The number of sub-specialties in the USA is still growing, despite very real concerns over the serious decline of the primary care work force in the USA. There are numerous reasons for this, but one of the biggest appears to be that specialists and subspecialists are far better remunerated than generalists.
- There is no recognised 'waypoint' between foundation year training and the completion of specialty certification.

Pathway through training

There are over 200 specialist medical boards (similar to the UK colleges) in America, many of which confer doctors with specialty and sub-specialty certification. The number of physician specialties and sub-specialties recognised and certified in America has not been calculated, but is likely to be several hundred.

Gaining a certificate in a specialty (including generalist specialty) or sub-specialty in the USA is entirely voluntary. Having successfully completed a BA, an MD or DO degree and one or two years in a medical residency training program, doctors can apply for a State License to Practice. **It's important to note that, should a doctor wish to subsequently work as 'a specialist', their medical residency training programme must be recognised by the Accreditation Council for Graduate Medical Education (ACGME).** A State License of Practice is the minimum level of competency a doctor needs to undertake clinical work. Importantly, a doctor is free to work as a specialist in the USA without certification from a particular specialist Board. However, as one recent article put it, 'twenty-five years ago, board certification was admirable, but not essential to practice medicine. Today it is imperative.'⁵

In order to gain certification in a particular specialty or sub-specialty after finishing a medical residency training program, a doctor first has to complete three to five years in a specialist board accredited residency training program. Once complete, the doctor has to pass a written, and sometimes an oral, examination which is administered by the specialist board. If successful, the doctor will acquire specialist certification. Many boards limit the duration of their certificates (usually between 6 – 10 years), which requires that doctors periodically undergo recertification. Recertification, which has been used in the USA for several decades, has now been rolled out by many of the most common specialist boards. A system of 'grandfathering' usually exists, whereby those who gained specialty or sub-specialty certification before a certain date are not required to recertify.

The majority of doctors do decide to become specialty certified. One article suggests that close to 90% of physicians in the USA are certified.⁶ Another study focusing on one of the largest boards, the American Board of Internal Medicine (ABIM), stated that 96% of internists who completed an accredited training program between 1990 and 2007 successfully achieved certification with the ABIM. There are more than 200,000 AIBM Board Certified physicians.⁷ According to a survey undertaken in

2006, the majority of doctors sought certification and recertification because they desired to uphold and maintain a 'professional image'.⁸

Several recent studies have found a positive association between board certification and the quality of clinical care (Ramsey et al. 1989; Norcini, Lipner, and Kimball 2002; Silber et al. 2002; Chen et al. 2006; Holmboe et al. 2008; Turchin et al. 2008). As Cassel & Holmboe (2008) point out, specialist health plans and health care institutions, in order to 'distinguish themselves', may well dictate that doctors require specialist board certification to be employed.⁹ Furthermore, the ABMS has recently launched a new website (www.certificationmatters.org) which allows patients to easily check whether a doctor has Board certification. This is likely to increase the pressure on doctors to become certified.

An umbrella organisation called the American Board of Medical Specialties (ABMS) maintains the standards for the certification of the most common specialties and sub-specialties. Another umbrella body, the American Osteopathic Association, is the main representative body for osteopathic physicians in America. In order to gain better understanding of the specialties system in America, it is worth looking in slightly more detail at the ABMS.

American Board of Medical Specialties

Founded in 1933, the American Board of Medical Specialties (ABMS) is the 'pre-eminent entity' which supervises the certification of many medical specialties and sub-specialties in the USA.¹⁰ It is made up of 24 medical speciality Member Boards, who joined the organisation over a period of years. Through ABMS, the specialist boards collaborate in order to establish common, consistent standards for physicians to achieve and maintain board certification. The 24 Member Boards, (together with, in parentheses, the dates of their approval by the ABMS) are given below:

- American Board of Allergy and Immunology (1971)
- American Board of Anesthesiology (1941)
- American Board of Colon and Rectal Surgery (1949)
- American Board of Dermatology (ABMS Founding Member)
- American Board of Emergency Medicine (1979)
- American Board of Family Medicine (1969)
- American Board of Internal Medicine (1936)
- American Board of Medical Genetics (1991)
- American Board of Neurological Surgery (1940)

- American Board of Nuclear Medicine (1971)
- American Board of Obstetrics and Gynecology (ABMS Founding Member)
- American Board of Ophthalmology (ABMS Founding Member)
- American Board of Orthopaedic Surgery (1935)
- American Board of Otolaryngology (ABMS Founding Member)
- American Board of Pathology (1936)
- American Board of Pediatrics (1935)
- American Board of Physical Medicine and Rehabilitation (1947)
- American Board of Plastic Surgery (1941)
- American Board of Preventive Medicine (1949)
- American Board of Psychiatry and Neurology (1935)
- American Board of Radiology (1935)
- American Board of Surgery (1937)
- American Board of Thoracic Surgery (1971)
- American Board of Urology (1935)

The ABMS states that its primary mission is 'to maintain and improve the quality of medical care by assisting the Member Boards in their efforts to develop and utilize professional and educational standards for the certification of physician specialists. The intent of both the initial certification of physicians and the maintenance of certification is to provide assurance to the public that a physician specialist certified by a Member Board of the ABMS has successfully completed an approved educational program and evaluation process...The ABMS serves to coordinate the activities of its Member Boards and to provide information to the public, the government, the profession and its Members concerning issues involving certification of physicians.'¹¹

There are 150 specialty and sub-specialties currently recognised and certified by ABMS boards, with another 7 sub-specialties due to be introduced and certified over the next few years, three of which were announced in April 2011. It would appear that the number of sub-specialties will continue to grow in the USA. A statement recently issued by the President and Chief Executive of the AMBS appears to link the introduction of new sub-specialties with improved quality of patient care ('...new sub-specialties will enable patients to receive the highest quality care from the most qualified specialists.')12 As one example of a likely future sub-specialty, a May 2011 article in the *American Journal of Physical Medicine & Rehabilitation* proposed that cancer rehabilitation has the capacity to become a stand alone sub-specialty.¹³

The entire list of specialties and sub-specialties, together with the relevant Member Boards, is provided in the table below.

<u>GENERAL CERTIFICATES</u>	<u>SUB-SPECIALTY CERTIFICATES</u>
American Board of Allergy and Immunology	
Allergy and Immunology	No Sub-specialties
American Board of Anesthesiology	
Anesthesiology	Critical Care Medicine Hospice and Palliative Medicine Pain Medicine Pediatric Anesthesiology ¹ Sleep Medicine ²
American Board of Colon and Rectal Surgery	
Colon and Rectal Surgery	No Sub-specialties
American Board of Dermatology	
Dermatology	Dermatopathology Pediatric Dermatology
American Board of Emergency Medicine	
Emergency Medicine	Emergency Medical Services ³ Hospice and Palliative Medicine Medical Toxicology Pediatric Emergency Medicine Sports Medicine Undersea and Hyperbaric Medicine
American Board of Family Medicine	
Family Medicine	Adolescent Medicine Geriatric Medicine Hospice and Palliative Medicine Sleep Medicine Sports Medicine
American Board of Internal Medicine	
Internal Medicine	Adolescent Medicine Advanced Heart Failure and Transplant

	<p>Cardiology</p> <p>Cardiovascular Disease</p> <p>Clinical Cardiac Electrophysiology</p> <p>Critical Care Medicine</p> <p>Endocrinology, Diabetes and Metabolism</p> <p>Gastroenterology</p> <p>Geriatric Medicine</p> <p>Hematology</p> <p>Hospice and Palliative Medicine</p> <p>Infectious Disease</p> <p>Interventional Cardiology</p> <p>Medical Oncology</p> <p>Nephrology</p> <p>Pulmonary Disease</p> <p>Rheumatology</p> <p>Sleep Medicine</p> <p>Sports Medicine</p> <p>Transplant Hepatology</p>
American Board of Medical Genetics	
<p>Clinical Biochemical Genetics*</p> <p>Clinical Cytogenetics*</p> <p>Clinical Genetics (MD)*</p> <p>Clinical Molecular Genetics*</p>	<p>Medical Biochemical Genetics</p> <p>Molecular Genetic Pathology</p>
American Board of Neurological Surgery	
Neurological Surgery	No Sub-specialties
American Board of Nuclear Medicine	
Nuclear Medicine	No Sub-specialties
American Board of Obstetrics and Gynecology	
Obstetrics and Gynecology	<p>Critical Care Medicine</p> <p>Female Pelvic Medicine and Reconstructive Surgery¹</p> <p>Gynecologic Oncology</p> <p>Hospice and Palliative Medicine</p> <p>Maternal and Fetal Medicine</p> <p>Reproductive Endocrinology/Infertility</p>
American Board of Ophthalmology	
Ophthalmology	No Sub-specialties

American Board of Orthopaedic Surgery	
Orthopaedic Surgery	Orthopaedic Sports Medicine Surgery of the Hand
American Board of Otolaryngology	
Otolaryngology	Neurotology Pediatric Otolaryngology Plastic Surgery Within the Head and Neck Sleep Medicine
American Board of Pathology	
Anatomic Pathology and Clinical Pathology* Pathology - Anatomic* Pathology - Clinical*	Blood Banking/Transfusion Medicine Cytopathology Dermatopathology Neuropathology Pathology - Chemical Pathology - Forensic Pathology - Hematology Pathology - Medical Microbiology Pathology - Molecular Genetic Pathology - Pediatric
American Board of Pediatrics	
Pediatrics	Adolescent Medicine Child Abuse Pediatrics Developmental-Behavioral Pediatrics Hospice and Palliative Medicine Medical Toxicology Neonatal-Perinatal Medicine Neurodevelopmental Disabilities Pediatric Cardiology Pediatric Critical Care Medicine Pediatric Emergency Medicine Pediatric Endocrinology Pediatric Gastroenterology Pediatric Hematology-Oncology Pediatric Infectious Diseases Pediatric Nephrology Pediatric Pulmonology Pediatric Rheumatology Pediatric Transplant Hepatology Sleep Medicine Sports Medicine

American Board of Physical Medicine and Rehabilitation	
Physical Medicine and Rehabilitation	Hospice and Palliative Medicine Neuromuscular Medicine Pain Medicine Pediatric Rehabilitation Medicine Spinal Cord Injury Medicine Sports Medicine
American Board of Plastic Surgery	
Plastic Surgery	Plastic Surgery Within the Head and Neck Surgery of the Hand
American Board of Preventive Medicine	
Aerospace Medicine* Occupational Medicine* Public Health and General Preventive Medicine*	Medical Toxicology Undersea and Hyperbaric Medicine
American Board of Psychiatry and Neurology	
Psychiatry* Neurology* Neurology with Special Qualification in Child Neurology*	Addiction Psychiatry Child and Adolescent Psychiatry Clinical Neurophysiology Epilepsy ⁴ Forensic Psychiatry Geriatric Psychiatry Hospice and Palliative Medicine Neurodevelopmental Disabilities Neuromuscular Medicine Pain Medicine Psychosomatic Medicine Sleep Medicine Vascular Neurology
American Board of Radiology	
Diagnostic Radiology* Radiation Oncology* Medical Physics*	Hospice and Palliative Medicine Neuroradiology Nuclear Radiology Pediatric Radiology Vascular and Interventional Radiology
American Board of Surgery	
Surgery* Vascular Surgery*	Complex General Surgical Oncology ¹ Hospice and Palliative Medicine Pediatric Surgery

	Surgery of the Hand Surgical Critical Care
American Board of Thoracic Surgery	
Thoracic Surgery	Congenital Cardiac Surgery
American Board of Urology	
Urology	Female Pelvic Medicine and Reconstructive Surgery ¹ Pediatric Urology

*Specific disciplines within the specialty where certification is offered.

¹Approved 2011; first issue to be determined

²Approved 2011; first issue November 2011

³Approved 2010; first issue to be determined

⁴Approved 2010; first issue 2013

In 2006, the ABMS discovered that there were over 180 medical boards which were not members of the ABMS. It is therefore likely that there are more specialties or sub-specialties that doctors are able to practise in, although no in depth study of the actual number of specialties and sub-specialties in the USA has been undertaken. The Federal Trade Commission has stated that non-ABMS boards can provide legitimate board certification as an indication of advanced training and skill. American Medical Association (AMA) guidelines state: 'Non-affiliation with ABMS does not indicate that an organization has inadequate review criteria and procedures.' The office of the American Medical Association General Counsel in 1991 described 'boards which use the same building blocks of quality as ABMS, but which are not included within the ABMS umbrella. Most of these boards cover a sub-specialty of an existing AMBS board or are duplicative of existing boards. A few are new specialties...'¹⁴

Recognition of new specialties

Though not the only route to specialty recognition, since 1934, many new medical specialty boards have been approved jointly by the American Medical Association Council (AMAC) on Medical Education and the American Board of Medical Specialties (ABMS). New specialty boards are firstly reviewed by the Liaison Committee for Specialty Boards (LCSB). The LCSB consists of four voting members from the

Council on Medical Education and four from the ABMS Board of Directors. 'The LCSB receives and evaluates applications for approval of new medical specialty boards according to the current version of the Essentials for Approval of Examining Boards in Medical Specialties (Essentials). The last revision to the Essentials (the eleventh) was approved by the House of Delegates at the 2000 Annual Meeting.'¹⁵

A medical specialty board is defined by the LCSB as 'a separately incorporated, financially independent body that determines its requirements and policies for certification, selects the members of its governing body in accordance with the procedures stipulated in its bylaws, accepts its candidates for certification from persons who fulfill its stated requirements, administers examinations, and issues certificates to those who submit to and pass its evaluations.'¹⁶

There are several key criteria for the approval of new examining boards:

1. The differentiation of a new specialty must be based on major new concepts in medical science and represent a distinct and well-defined field of medical practice.
2. A single standard of preparation for and evaluation of expertise in each specialty must be recognized by only one medical specialty board for each specialty.
3. The training needed to meet certification requirements by the applicant must be distinct from that required for certification by approved ABMS Member Boards so that it is not included in established training programs leading to certification by approved ABMS Boards.
4. A medical specialty board must demonstrate that candidates for certification will acquire, and its diplomates will maintain, capability in a defined area of medicine and demonstrate special knowledge and competencies in that field.
5. Evidence must be presented that the new board will establish defined standards for training and that there is a system for evaluation of educational program quality.
6. The applicant medical specialty board must demonstrate support from the relevant field of medical practice and broad professional support.¹⁷

American Medical Association and state medical boards have also agreed that a medical certifying board, ABMS or non-ABMS, must meet three criteria:

- Require an accredited residency that includes training in the area of medicine for which certification is offered;
- Require peer review of clinical practice experience; and,
- Require completion of a rigorous examination of knowledge in the area of medicine for which certification is offered.¹⁸

An important hurdle to be overcome by a newly organizing specialty board is 'to satisfy the Federal Trade Commission that the proposed new board does not represent an attempt to establish a monopoly by means of exclusionary requirements. It is also helpful to have representation in the American Medical Association House of Delegates, usually through a specialty society active in organizing the new board.'¹⁹

The criteria given above for recognition of specialties/sub-specialties, focuses on evidence that the new discipline has a definable body of knowledge and a substantial number of clinical training programs with the reasonable expectation that clinical services in the sub-specialty will play a beneficial role in patient care. Sub-specialty applications including clinical pharmacology, vascular medicine, addiction medicine and obesity have not been approved to date because they failed to meet one or more of these criteria.²⁰

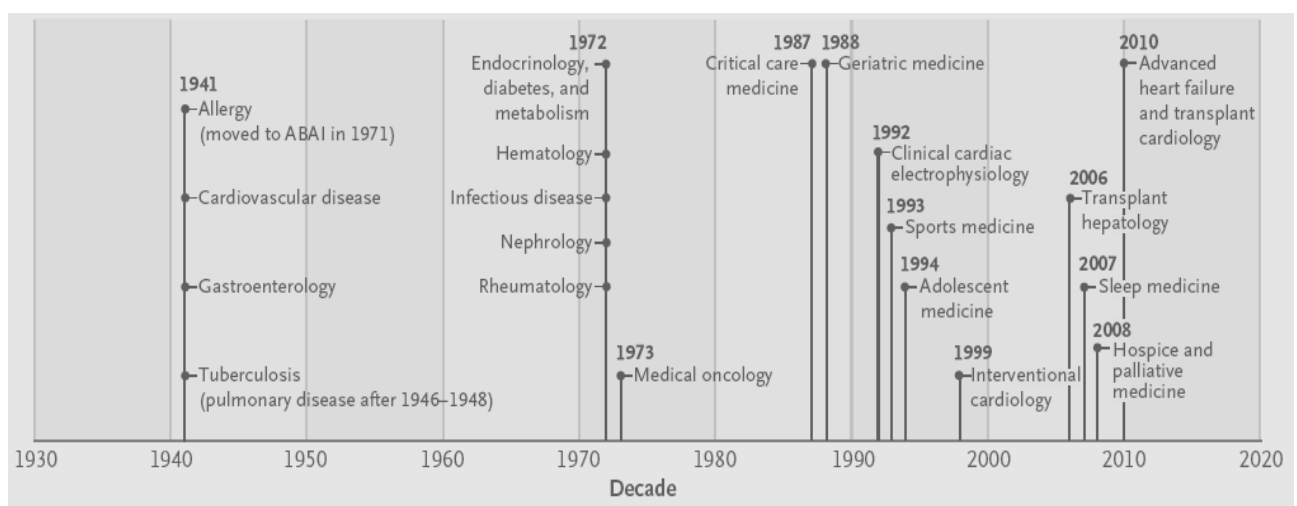


Figure 1. Timeline of Subspecialties Approved by the American Board of Internal Medicine.

The American Board of Allergy and Immunology (ABAI) was founded in 1971.

Cassel & Reuben (2011)

Debate in USA regarding specialism

Despite the above diagram showing the recent addition of new sub-specialties in the US, the quantity of specialties and sub-specialties has come under intense scrutiny in the USA. Cassel and Reuben (2011), in analysing specialization and subspecialisation in Internal Medicine, state that there is a 'resurgence of interest in new specialty designations and a simultaneous eruption of concern about diminishing strength and numbers of in primary care specialties.'²¹

The Council on Graduate Medical Education's Twentieth Report, published in December 2010 stated that:

The current U.S. primary care physician workforce is in jeopardy of accelerated decline because of decreased production and accelerated attrition. A review of questionnaires administered to all 2008 allopathic and osteopathic medical school graduates revealed that only 17 percent chose any of the primary care specialties as their first choice. This decreased medical student interest in primary care is caused by multiple factors including the high workload and insufficient reimbursement of this field of practice relative to the earnings of many specialists. These factors, in addition to the "hidden curriculum" in many medical schools that actively discourages student interest in the adult primary care specialties, the lack of strong primary care role models, and dynamic practice environments in other specialties often absent onerous administrative requirements, contribute to the reluctance to enter primary care disciplines. This workforce is also in jeopardy because of the substantial reduction in the production of primary care physicians from graduate medical education. Expansion of sub-specialty training options, loss of primary care training positions (especially in family medicine), and alternate career options (such

as general internal medicine graduates choosing to work as hospitalists) have effectively reduced primary care production by one-third over the last decade. Additive is the overall aging of the current primary care workforce and its anticipated retirement.²²

Jeanne Lenzer, writing in the BMJ in April 2011, described how the number of students in America who plan to go into primary care has been steadily decreasing. 'Money figures prominently in the choices made by graduating students' Lenzer writes. She references Mark Schwartz, lead author of the analysis and associate professor of medicine at New York University, who 'said that the income gap between generalist and specialist doctors has widened over the years. Over a 40 year career a specialist can expect to make \$3.5m more than a primary care physician'²³ According to another article, 'between 1997 and 2005, the number of U.S. medical graduates entering family-practice residencies fell by 50 percent, as young doctors headed for more-lucrative specialties like orthopedic surgery and radiology.'²⁴

Lasser, Woolhandler, & Himmelstein in a 2008 article entitled, 'Sources of U.S. Physician Income: The Contribution of Government Payments to the Specialist–Generalist Income Gap', suggest that there is significant research to state that 'primary care reduces illness and death, promotes equity in health, and reduces cost.' The authors comment that 'greater reliance on primary care in Canada and the United Kingdom may explain part of those nations' lower health care costs relative to the US.' Yet, the article continues 'too few US medical students and internal medicine trainees are entering primary care fields. Several states have recently reported a shortage of primary care doctors and', significantly, ' the American College of Physicians has described primary care as being "at grave risk of collapse."'²⁵ Echoing other views, Lasser, Woolhandler, & Himmelstein believe that low remuneration for primary care 'relative to specialty practice...underlies this problem. In concluding, the authors recommended changes in government reimbursement policy in order to 'narrow income differentials and thus bolster primary care.'²⁶

Of particular concern is the national shortage of geriatricians, the lowest paid specialty. The American Geriatrics Society estimates there are 7,600 certified geriatricians in the U.S. despite a need for approximately 20,000 geriatricians.

Ironically, Medicare's priority population, the elderly, is vastly underserved, in part because of Medicare's own payment policies.

Canada



Key Points:

- There is no requirement for an internship or foundation year that is separate from specialty training in Canada. This means that medical graduates often decide their speciality profession before completion of a primary medical degree.
- The Royal College of Physicians and Surgeons in Canada recognizes 29 specialties, 30 sub-specialties and 2 special programs. This represents a much smaller recognition of specialties/sub-specialties than is the case in the UK.
- Since 2005, a Core Competency Project has been running in Canada, which aims to consider the quality of postgraduate medical education in Canada,

how to overcome barriers to switching career paths in medical training and what to do to prevent overly premature career decision-making.

- The Core Competency Project delivered its final report, along with many recommendations in 2010. It remains to be seen if the Project's findings will revolutionise the way medical education in Canada is provided.

The Medical Council of Canada, established in 1912, maintains and implements methods for evaluating the competence of doctors, and maintains a national register of physicians and their qualifications. As in the USA, each provincial and territorial government in Canada has the responsibility for licensing doctors to practise medicine within its boundaries. Licensure to practise medicine in Canada requires the successful completion of an accredited postgraduate training program, as well as the completion of national qualifying exams. Individual province and territory may have different requirements.

The Medical Council of Canada issues national licenses under the qualification in medicine known as the Licentiate of the Medical Council of Canada (LMCC). Graduate physicians who have satisfied the eligibility requirements and passed the Medical Council of Canada Qualifying Examination Parts I and II will be registered in the Canadian Medical Register. The LMCC is not a license to practise medicine. Licenses to practise medicine are issued by the medical regulatory authority in the territory where the doctor will practise. However, all provinces and territories will accept the Licentiate of the Medical Council of Canada and certification in a specialty certified through the Royal College of Physicians and Surgeons of Canada. Provinces and territories also accept other qualifications for licensure on an individual basis.

There is currently no requirement for medical practitioners to undertake a foundation or internship year, which is a significant difference to other training pathways and one that has caused much internal debate in Canada. After gaining a primary medical degree granted by an approved university, students apply for residency in a post-graduate specialist training programme. Therefore students progress from MD to specialty training immediately. By completing specialist training, which usually lasts five years – but, in the case of family medicine, can be as little as two – medical practitioners can complete Fellowship exams in order to become specialists.

The qualifications for sub-specialties are usually called Certificate of Special Competence Programs. These programmes commonly take two years to complete and are taken after completion of a relevant primary certification programme, usually the primary speciality training. It is, currently, 'necessary for the trainee to become certified in a relevant primary discipline before being eligible to take the examination leading to the Certificate of Special Competence in the . In virtually all of these programs, one of the years of training can be applied towards completing the primary certification requirements. For example, if an individual wishes to be a Pediatric Endocrinologist, one could achieve that objective in five years. The first three years of training would be in General Pediatrics and the last two in Pediatric Endocrinology. At the end of the first year of training, the individual would have completed the required four years of General Pediatric training and therefore be eligible to take the General Pediatric examination. If successful in this examination, one would then be eligible to take the examination in Pediatric Endocrinology at the end of the fifth year.'²⁷

The Royal College of Physicians and Surgeons of Canada oversees postgraduate medical education in Canada, by defining the requirements for specialty education in over sixty areas of medical, surgical and laboratory medicine, including two special programs. For each area of specialization, the College:

- accredits residency programs,
- assesses the acceptability of residents' education,
- conducts certifying examinations (except in Quebec where it shares this responsibility with the Collège des médecins du Québec), and
- assures a high standard of specialist care through its Maintenance of Certification [CPD] Program

Specialties in Canada

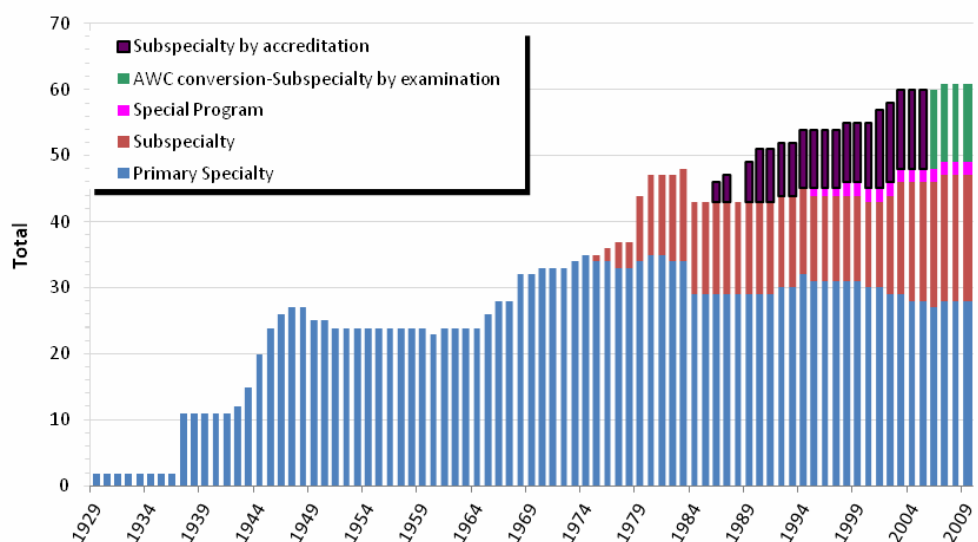
Physician specialty certification in Canada is managed by the Royal College of Physicians and Surgeons of Canada. The requirements for certification in Canada are nearly identical to those in the U.S., and therefore Canadian and U.S. physicians can move fairly easily between the two countries.

According to a recent report published by the Royal College of Physicians and Surgeons of Canada (RCPSC):

It is widely accepted that...specialization (and subspecialization) has significantly enhanced the quality of health care outcomes by allowing physicians to develop and maintain expertise and competence within highly sophisticated fields of medicine. A clear indication of the progressive specialization of medicine in Canada is the proliferation of specialties and sub-specialties that are recognized by the RCPSC. When the RCPSC was first formed in 1929 it offered only two specialty qualifications: Fellowship in General Medicine and Fellowship in General Surgery.²⁸

Now, in 2011, the RCPSC recognizes 29 specialties, 30 sub-specialties and 2 special programs. Though this represents real growth in an 80 year period, the number of specialties and sub-specialties in Canada has only increased by ten since the 1980s. Indeed, bringing about change to the specialty system in Canada can be a laborious process. In 2010, after more than 30 years of debate, the RCPSC finally agreed to recognize general internal medicine as a sub-specialty of internal medicine.

Figure 1: Historical recognition of medical specialties and subspecialties in Canada, 1919-2009



Historical recognition of medical specialties and sub-specialties in Canada, 1919 – 2009

The full list of medical specialties and sub-specialties as of 2011 in Canada is set out below:

SPECIALTIES

Anatomical Pathology	Neurology
Anesthesiology	Neuropathology
Cardiac Surgery	Neurosurgery
Community Medicine	Nuclear Medicine
Dermatology	Obstetrics and Gynecology
Diagnostic Radiology	Ophthalmology
Emergency Medicine	Orthopedic Surgery
General Pathology	Otolaryngology — Head and Neck Surgery
General Surgery	Pediatrics
Hematological Pathology	Physical Medicine and Rehabilitation
Internal Medicine	Plastic Surgery
Medical Biochemistry	Psychiatry
Medical Genetics	Radiation Oncology
Medical Microbiology	Urology

SUB-SPECIALTIES

Adolescent Medicine	Infectious Diseases
Cardiology	Maternal-Fetal Medicine
Clinical Immunology and Allergy	Medical Oncology
Clinical Pharmacology	Neonatal-Perinatal Medicine
Colorectal Surgery	Nephrology
Critical Care Medicine	Neuroradiology
Developmental Pediatrics	Occupational Medicine*
Endocrinology and Metabolism	Pediatric Emergency Medicine
Forensic Pathology	Pediatric General Surgery
Gastroenterology	Pediatric Hematology/Oncology
General Surgical Oncology	Pediatric Radiology
Geriatric Medicine	Respirology
Gynecologic Oncology	Rheumatology

Gynecologic Reproductive Endocrinology and
Infertility
Hematology

Thoracic Surgery
Transfusion Medicine
Vascular Surgery

*As of July 1, 2006, the College changed the status of Occupational Medicine from a 5-year specialty to a 2-year sub-specialty "Certificate of Special Competence."

SPECIAL PROGRAMS

Clinician Investigator Program
Palliative Medicine

Committee on Specialties

The RCPSC has a Committee on Specialties (COS), which is the body responsible for:

- defining the requirements for the recognition of specialties and sub-specialties,
- reviewing the status of recognized specialties and sub-specialties,
- evaluating applications for new specialties and sub-specialties and passing decisions, and
- overseeing the activities of the individual committees for each specialty and sub-specialty recognized by the Royal College.

The criteria for specialties and sub-specialties include the specialty being broad based and one which actively contributes to new knowledge in the field; is a foundation for additional competencies; is clearly needed societally; and must not adversely affect other existing primary specialties. The table below shows the full criteria:

Table 1: Criteria for Specialty and Subspecialty Recognition

	SPECIALTY	SUBSPECIALTY
	A SPECIALTY MUST BE CHARACTERIZED BY ALL OF THE FOLLOWING CRITERIA:	A SUBSPECIALTY MUST BE CHARACTERIZED BY ALL OF THE FOLLOWING CRITERIA:
CRITERION 1 <i>Descriptor</i>	BROAD BASED, APPLICABLE BODY OF KNOWLEDGE <ul style="list-style-type: none"> ▪ distinct medical knowledge and skills ▪ actively contributes to new knowledge in the field 	IN-DEPTH, APPLICABLE BODY OF KNOWLEDGE BEYOND SCOPE OF FOUNDATIONAL SPECIALTY <ul style="list-style-type: none"> ▪ in-depth medical knowledge including specific and advanced skills ▪ length of training to acquire high-level of knowledge is normally 12 or 24 months duration ▪ actively contributes to new knowledge in the focused field
CRITERION 2 <i>Descriptor</i>	FOUNDATION FOR ADDITIONAL COMPETENCIES <ul style="list-style-type: none"> ▪ provides the fundamentals of a field of medicine (knowledge, skills, attitudes) to support additional competencies 	IDENTIFIABLE CONTENT/COMPETENCIES BUILDING ON FOUNDATIONAL SPECIALTY TRAINING <ul style="list-style-type: none"> ▪ unique and specialized body of knowledge and competencies that build upon training and experience acquired in foundational specialty
CRITERION 3 <i>Descriptor</i>	EVIDENCE OF NEED FOR SPECIALISTS/SUBSPECIALISTS <ul style="list-style-type: none"> ▪ multiple applicable practice settings (tertiary, community, etc) ▪ well-defined and recognized health need (currently not being satisfied by any other recognized specialty/subspecialty) ▪ positive contribution towards improving medical care and health outcomes 	<ul style="list-style-type: none"> ▪ focused practice profile
CRITERION 4 <i>Descriptor</i>	CHANGE IN SCOPE OF PRACTICE MUST NOT ADVERSELY AFFECT PRIMARY SPECIALTY(IES) OR ANY OTHER FIELD OF MEDICINE AND RELATED DISCIPLINES <ul style="list-style-type: none"> ▪ field of medicine must not reduce the quality of core resident training and should provide an appropriate breadth of exposure ▪ recognition of field of medicine will enhance and strengthen the ability to provide effective care and not lead to significant fragmentation of patient care ▪ creation of new field of medicine must not threaten the long-term viability of specialty practices 	
CRITERION 5 <i>Descriptor</i>	ADEQUATE INFRASTRUCTURE TO SUSTAIN SPECIALTY/SUBSPECIALTY <ul style="list-style-type: none"> ▪ sufficient number and geographic spread of physicians to devote significant proportion of time to the practice and to provide sustainable base for the practice ▪ identifiable group of experts with capacity to provide a high quality residency infrastructure ▪ existence of professional organization(s) capable of managing and sponsoring physician activities ▪ projected physician growth ▪ recognition nationally and in other jurisdictions 	

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Core Competency Project

One relevant development to the GMC is the Core Competency Project (CCP), a Canadian initiative which submitted its final report in 2009. The CCP, an ‘unprecedented national medical education policy initiative’, considers many of the same issues that the GMC is currently asking, particularly with regard to the question of whether enough flexibility exists in the post graduate medical education system to allow the stepping off and on of specialist training.²⁹ Other significant topics are raised in the CCP and it is certainly useful to spend some time providing an overview of the CCP.³⁰ A major impetus behind the CCP is the matter of the lack of intern or foundation study on the Canadian medical training pathway.

In 2005, the Canadian Medical Forum asked the Royal College of Physicians and Surgeons (RCPS) and the College of Family Physicians of Canada (CFPC) to assess a number of complex, interconnected and recurring issues in Canadian medical

education. There were three major questions that the Canadian Medical Forum felt needed to be addressed:

- Does the PGME admissions system allow medical students to make appropriate career choices (“Career Decision-Making”)?
- Does the PGME system allow for appropriate switching of residents or physicians between career disciplines (“Flexibility”)?
- Are the structures and processes of the PGME system, within the scope of the Royal College and the College of Family Physicians of Canada (CFPC), designed for the best possible output of physicians to meet societal needs (“Quality PGME”)?

More concisely, the issues the CCP were to assess were the quality of postgraduate medical education, barriers to switching career paths and premature career decision-making. The CCP was tasked with providing robust, evidence-based information on these core issues in order to encourage further discussion and ‘help to build wider collaboration and consensus.’ Between 2005 and 2008, evidence was gathered in order to produce a full-scale report. The methods of enquiry included:

- a literature review
- policy analysis (electives and re-entry policies)
- the CCP survey
- a qualitative review of medical expert commentaries and focus groups
- database analysis (CAPER data, the 2007 National Physician survey and the CaRMS post-match surveys)
- a systematic review on competency-based education.

The questions that the CCP was tasked with exploring have in fact been debated in Canada for many years. In many ways, it was the culmination of various reports in Canada that appeared over a number of decades. In 1996, the Maudsley Report was published, which pushed for the development of a more generalist base in specialty training. A better generalist foundation, the report argued, would bring about ‘a broad base of general knowledge, skills and attitudes common to all physicians’ as well as provide ‘a substantial foundation or base upon which specialty and sub-specialty medicine is built.’³¹

Following on from this, in 1998 'A Re-examination of the Royal College Specialties and Sub-specialties' – which is referred to as the Langer Report – was published. Echoing the Maudsley Report, the Langer Report called for the establishment of a core training model, which would result in specialties being grouped together 'in generic categories where there are areas of strong commonalities of principles and approach.'³² Based on the recommendations of these reports, the COS developed its own *Principles of Decision Making*. Their recommendations included:

- All primary specialties must include a period of core training in order to develop a base of generalist competencies. This will facilitate flexibility in training and emphasize the progression from generalism to specialization.
- Generalist competencies are to be incorporated in the specialty-specific objectives of training throughout residency.
- There will always be some areas of overlap in defining specialties and sub-specialties. However, disciplines that share significant overlap within the objectives of training should be aligned, amalgamated or combined.³³

Regarding the recommended period of core training, the report mentions that the First National Invitational Conference on Flexibility in Career Choice in Medicine (1997) recommended the adoption of "more generic and basic clinical training and no sub-specialty options so that residents would be more informed and better prepared to choose training in a specialty or Family Medicine." It was argued that such core training would also allow residents to "switch training programs" if they decided they had made a mistake with their initial training choice.

There is clearly support for a common and basic foundation year (PGY-1) in Canada, which was confirmed by a CCP survey, which showed that most believed the current medical education system in Canada produces too few generalists. Over 75% of physicians surveyed agreed that all first-year residents should do a broad-based common PGY-1 such as a rotating internship.

The CCP also found that there was 'a definite lack of flexibility in the current system'.³⁴ There were clear perceptions of significant barriers to re-entering training and many felt these barriers were linked 'to provincial funding arrangements, the number of re-entry spots available and provincial needs. Provincial funding arrangements generally concerns the availability of courses – the fewer courses available, the more difficult it is for practitioners to re-enter onto a training course. In 2007, for example, there were only 14 government-funded training positions for Dermatology in Canada and 'virtually no possibility to change career paths by

transferring between programs and precious few re-entry options'. That said, some provinces have more re-entry positions for physicians in practice than others, and because methods of entry to residency training are often governed by provincially specific requirements, a 'uniform, pan-Canadian model, that includes all possible entry options, may never be possible.'³⁵

The most significant factors perceived to be preventing residents from changing specialties were:

- lack of a training spot to change in to (73.4% of respondents thought this a significant barrier);
- being unfamiliar with the process needed to accomplish a change (54.9%);
- fear of losing credit for training already completed (52.0%);
- fear of reprisal from faculty or supervisors (47.7%)

The Report also noted that there is widespread:

...concern that the current structure of the PGME [post graduate medical education] system impedes residents' ability to change career paths (switch specialties) once they have commenced their residency training is not new. As noted earlier, system rigidity has primarily been attributed to changes in medical education training and licensure requirements that occurred in 1993. Thurber and Buske have further elaborated on the lack of flexibility and its impact in PGME:

We see the results of a tighter, more rigid post-M.D. training system in 1994, with fewer physicians interrupting training to spend some time in practice and fewer physicians making career path changes during training.³⁶

The recommendations that all primary specialties must include a period of core training in order to develop a base of generalist competencies; generalist competencies are to be incorporated in the specialty-specific objectives of training throughout residency and that disciplines that share significant overlap within the

objectives of training should be aligned, amalgamated or combined will now be disseminated through scholarly publications and presentations.³⁷ It is likely that the next few years will see great changes in the Canadian postgraduate medical education system.

Republic of Ireland



Comhairle na nDoctúirí Leighis
Medical Council

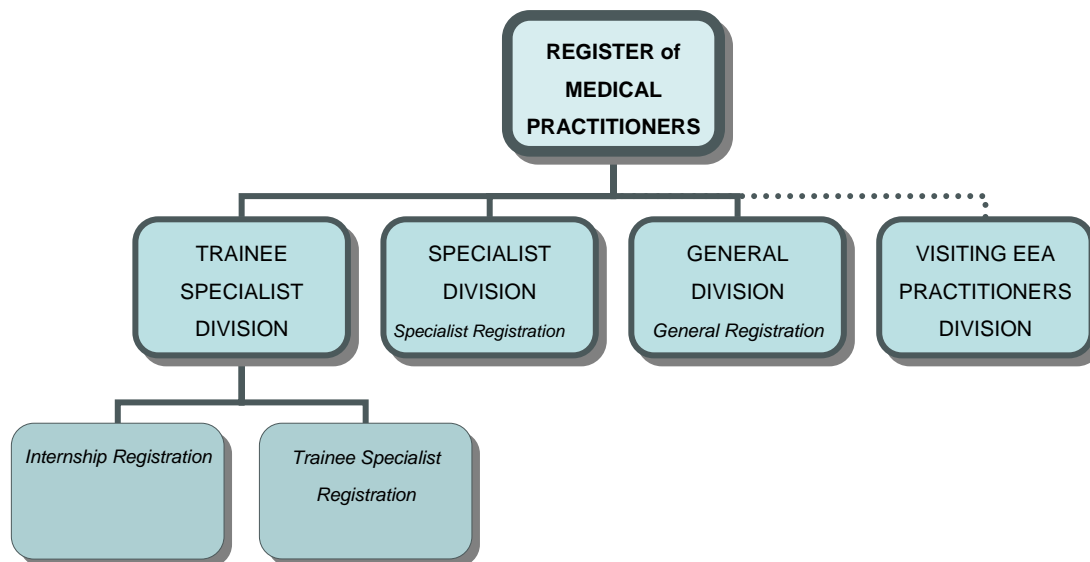
Key Points

- A new Register of Medical Practitioners was established in 2009, which includes a specific Trainee Specialist Division for the registration of interns and trainee specialist medical practitioners in recognised training posts.
- There is no separate General Practitioner Register: GPs are classed as specialists and as such, are granted specialist registration.
- Having completed Basic Specialist Training, many medical practitioners may work as 'in limbo' registrars, because competition to gain entry to a Higher Specialist Training post (and subsequent consultant position) is extremely fierce in Ireland.
- A recent national audit of SHO and Registrar posts in Ireland revealed that there was a significant cohort of doctors – especially at registrar level – whose work was neither formally recognised nor structured.
- In July 2010, a pilot scheme called the Registrar Training Programme was launched. It was set up in order to recognise the training and experience of 'in limbo' registrars and award training credits for their previously unacknowledged training.
- There are 52 specialties recognised by Medical Council in the Republic of Ireland. Thirteen bodies are recognised by the Council for the purpose of granting evidence of satisfactory completion of specialist training.
- The Medical Council does not recognise any sub-specialties, but has responsibility for approving new specialties.

Register of Medical Practitioners: recent developments

Until recently, Comhairle na nDochtúirí Leighis – Medical Council (the Medical Council for Ireland) maintained two registers, which had been established under the Medical Practitioners Act 1978. The General Register of Medical Practitioners was a compulsory register for doctors wishing to practise medicine in Ireland. The Register of Medical Specialists was a voluntary register for doctors (including GPs) who had completed specialist training recognised by the Council.

In 2007, the Department of Health and Children introduced the Medical Practitioner Act 2007, which, amongst other things, reformed the structure of doctor registration.³⁸ Under Section 43 of this act, a new Register of Medical Practitioners was set out. The Register of Medical Practitioners was designed to contain the following four Divisions: the General Division, the Trainee Specialist Division, the Specialist Division and the Visiting EEA Practitioners Division. After two years of planning, on 16 March 2009 (the Register Establishment day) the Medical Council implemented the new Register of Medical Practitioners. From this point on, it became a statutory requirement for a doctor wishing to practise medicine in Ireland to be registered in one of the four Divisions.



According to Section 41 of the Act, a doctor cannot 'falsely represent to be registered in a Division of the register other than the Division in which the person is registered.'³⁹ Therefore, a doctor registered in the General Division may not falsely

represent themselves as being a registered specialist. Penalties for false representation can include imprisonment and monetary fines. Whilst doctors with general registration may not represent themselves as being registered specialists, many doctors will work in a specialty as registrars or senior house officers in hospitals, while registered in the General Division.

One of the most important changes to the registration structure is the introduction of the Trainee Specialist Division. The Trainee Specialist Division includes all registrants who are taking part in individually numbered, identifiable internship training or specialist training programmes which are recognised by the Medical Council. The Division includes two types of registration:

- i. **Internship Registration** allows a doctor to carry out internship training in a hospital recognised by the Medical Council and is open to both graduates of Irish and EU member State Medical Schools.
- ii. **Trainee Specialist Registration** is specifically for medical practitioners who practise in postgraduate training posts which are recognised by the Medical Council for training, while they are completing all or part of their medical specialist training in Ireland. Ideally, registrants will remain registered in the Trainee Specialist Division until they have completed their specialist training and are registered in the Specialist Division.

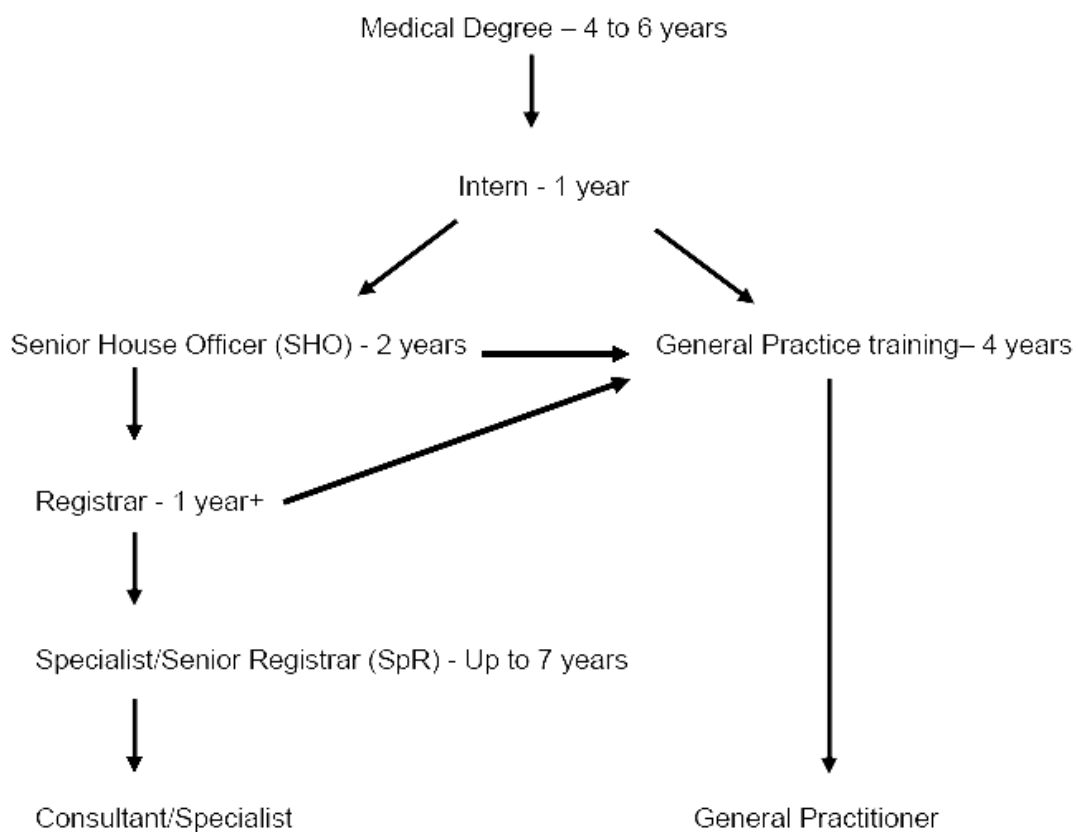
General registration in the General Division is specifically for medical practitioners who have not completed specialist training and do not occupy an individually numbered, identifiable postgraduate training post. Medical practitioners registered in the General Division may practise independently without supervision, but, as stated above, must not falsely represent themselves as being a registered specialist.

Specialist registration in the Specialist Division is specifically for medical practitioners who have completed specialist training recognised by the Medical Council. Doctors with specialist registration can practise independently as a specialist. Since 1997, General Practitioners have been classed as specialists by the Medical Council, and as such, all qualified GPs are now registered in the Specialist Division.⁴⁰

Visiting EEA Registration in the EEA Division is only available to eligible EU/EEA/Swiss citizens who are fully established (hold “full registration” or equivalent) in another EU/EAA member state or in Switzerland and wish to practise medicine in Ireland on a temporary and/or occasional basis.

Once registration has been granted, a medical practitioner will be issued with a Certificate of Registration. The Certificate of Registration displays the name, qualifications and year of conferral, registration number, registered address, division of the Register and any other terms or conditions attached to their registration. It is a statutory requirement that the Certificate of Registration be displayed at the medical practitioner’s place of work.

Progression through training (Irish graduates)



Basic pathway through training (see below for pathway linked to registration/certification).

Having gained a basic medical qualification – a medical degree from a Medical Council approved medical school – all graduates in Ireland must then complete Internship Training. Internship Training usually lasts 12 months and leads to the granting of a Certificate of Experience, which is the minimum qualification a doctor in Ireland needs in order to practise medicine independently. Each year the Health Service Executive in Ireland assesses the number of internship training posts that are required by the health service and shares this information with the Medical Council. The Medical Council then specifies the number of intern training posts approved for the purposes of intern training. In July 2010, only 512 intern training posts were approved for the year, all of which were identifiable and individually numbered. When an individual has been allocated an intern training post, they will, on application, be issued with Internship registration by the Medical Council.

According to the Medical Council's 'Standards for Training and Experience Required for the Granting of a Certificate of Experience to an Intern', an Intern Year must include 'a minimum of a total of twelve months, which should normally be consecutive, of which at least three months must be spent in Medicine in general and at least three months in Surgery in general. As part of this twelve-month period, an intern may also be employed for not less than two months and not more than four months in the following specialties: Emergency Medicine, General Practice, Obstetrics and Gynaecology, Paediatrics, Psychiatry, Anaesthesia (to include perioperative medicine), Radiology.'⁴¹ Certificates of Experience are soon (late in 2011) due to be issued directly by the Medical Council, but have been issued by the Head or Dean of a medical school in the past.

Having completed an Intern Year and gained a Certificate of Experience, a medical practitioner is eligible to undertake specialist training so they can specialise in hospital-based medicine, or general practice training in order to become a GP. There are 52 specialties, including General Practice, which are recognised by the Medical Council for the purposes of granting trainee specialist and specialist registration.

In order to become a registered Specialist, medical practitioners firstly undergo two years of **Basic Specialist Training (BST)** at Senior House Officer, which is overseen by one of thirteen accredited specialist bodies and takes place in accredited training hospitals.⁴² On completion, the medical practitioner receives a BST Certificate of Completion. A BST Certificate of Completion is an internationally recognised postgraduate qualification and a requirement for entry to **Higher Specialist Training (HST)**, which is the final stage of training a doctor requires in order to qualify as a specialist. HST lasts between four and seven years and is

performed at Specialist Registrar grade. As with BST, HST is overseen by accredited specialist bodies and occurs in accredited training hospitals.

As with internship posts, once the Health Service Executive has decided how many and what type of specialist medical training posts are required by the health service, the Medical Council specifies the number of specialist BST and HST posts approved for this purpose. In July 2010, there were 3,044 individually numbered, identifiable specialist training posts available in Ireland. Once a doctor secures a training post, they must register in the Medical Council's Trainee Specialist Division as a Trainee Specialist. A Trainee Specialist is only permitted to practise medicine or prescribe drugs within the clinical site stated on their Certificate of Registration. In the final year of specialist training, these permissions can be relaxed.

Whilst most medical practitioners are able to gain a BST post, competition for an HST post is often fierce, with many posts requiring applicants to have passed postgraduate examinations relevant to their chosen specialty. For example, applicants to HST in many specialties are required to have successfully completed the MRCPI (Membership of the Royal College of Physicians of Ireland) or its equivalent (a similar examination is run by the UK colleges). Postgraduate examinations can be taken by doctors during the course of their BST.

A medical practitioner wishing to specialise as a **General Practitioner** takes a slightly different path. They will generally undertake two years training in an (SHO) hospital clinical post, then two years of specific general practitioner training in a GP training practice as a GP Registrar. There are fourteen recognised GP training programmes in Ireland and in 2010, only 157 places were available. Demand far exceeds supply and many doctors travel to the UK in order to qualify as GPs.⁴³

On completion of HST or General Practice training, a medical practitioner will be awarded a Certificate of Satisfactory Completion of Training (CSCST) by their training body. The medical practitioner who has been awarded a CSCST is eligible to register in the Specialist Division.

National audit of SHO and registrar posts and the Registrar Training Programme

Due to the limited number of HST posts, as well as the fierce competition for places, after completing their BST, many medical practitioners work in non-recognised registrar or SHO posts for a few years, until they gain an HST post. Medical

practitioners in these posts are often referred to as Non-Consultant Hospital Doctors (NCHD). In these cases, as the medical practitioner is no longer in an identifiable training post, their registration will move from being in the Trainee Specialist Division to the General Division.

In 2006, two significant, policy-shaping reports were published which reviewed the state of undergraduate and postgraduate medical education in Ireland. These were the Fottrell Report (2006) and the Buttimer Report (2006). The Buttimer Report emphasised how 'the lack of data on SHO and Registrar posts at a national level was a significant obstacle to improving the training opportunities available to doctors in these posts, or indeed, to identifying their training needs in the first instance.'⁴⁴ One of its conclusions recommended 'independent, expert evaluation of the training value of NCHD posts.'⁴⁵ On the day of the publication of the two reports, the Irish Government announced a €200 million initiative for 'major reform of medical education and training from undergraduate level through to postgraduate specialist training.'⁴⁶

In direct response to the Reports the Health Services Executive also commissioned a National Audit of SHO and Registrar Posts. The Audit was published in April 2007. Chaired by Leo Kearns, the CEO of the RCPI, the Audit found that there was a significant cohort of doctors – especially at registrar level – who were in self-directed specialist training that was neither part of a recognised nor structured training programme. A large number of these doctors had finished their BST and were attempting to increase their clinical experience in order to gain entry to an HST programme. Whilst at all other stages of their career doctors in training have 'the protective, educational benefits associated with established postgraduate medical training programmes', it was found that there was very little recognition of NCHD work and few educational opportunities associated with it.

Amongst others, the audit included the following recommendations:

- Devising of re-entry schemes or re-training schemes for those doctors in long term posts;
- Streamlining of training programmes and enhanced flexibility for research
- In relation to rotation programmes, the development and implementation of transparent recruitment procedures and matching schemes for all NCHDs

- Reviewing the position of doctors in long-term registrar posts
- Creating only NCHD posts that are part of a formal specialty training scheme
- Facilitation of time-limited schemes for entry onto the Register of Medical Specialists
- Strengthening of the system for ensuring explicit approval for all training posts
- Promotion and implementation of the flexible training strategy.⁴⁷

The conclusions of the Buttimer Report and the Audit are confirmed by the Royal College of Physicians of Ireland (RCPI), who state that there exists 'a lack of structure surrounding [the NCHD] status and many registrars find that they are in a training/service limbo, with little formal mentorship, competence assurance, or guidance on career options and no credit which can be applied to further training.'⁴⁸ The College further contends that 'trainees and training bodies have tended to view time spent in registrar posts as an unregulated 'gap' in the course of specialist training - the only period prior to independent practice in which doctors are not formally enrolled on a structured, supervised training programme.'⁴⁹

In order to address some of the problems, since July 2010 the RCPI has been piloting an initiative called the **Registrar Training Programme (RTP)**. The RTP has been formally recognised by the Medical Council and is supported by the HSE. The aim of the RTP is to provide structured training to doctors at registrar level who have a view to progress to Higher Specialist Training. It also recognises the experience and training of registrars by giving them HST credits. Although there is at present real competition for the RTP programme, if successful it likely that it may be rolled out more widely.

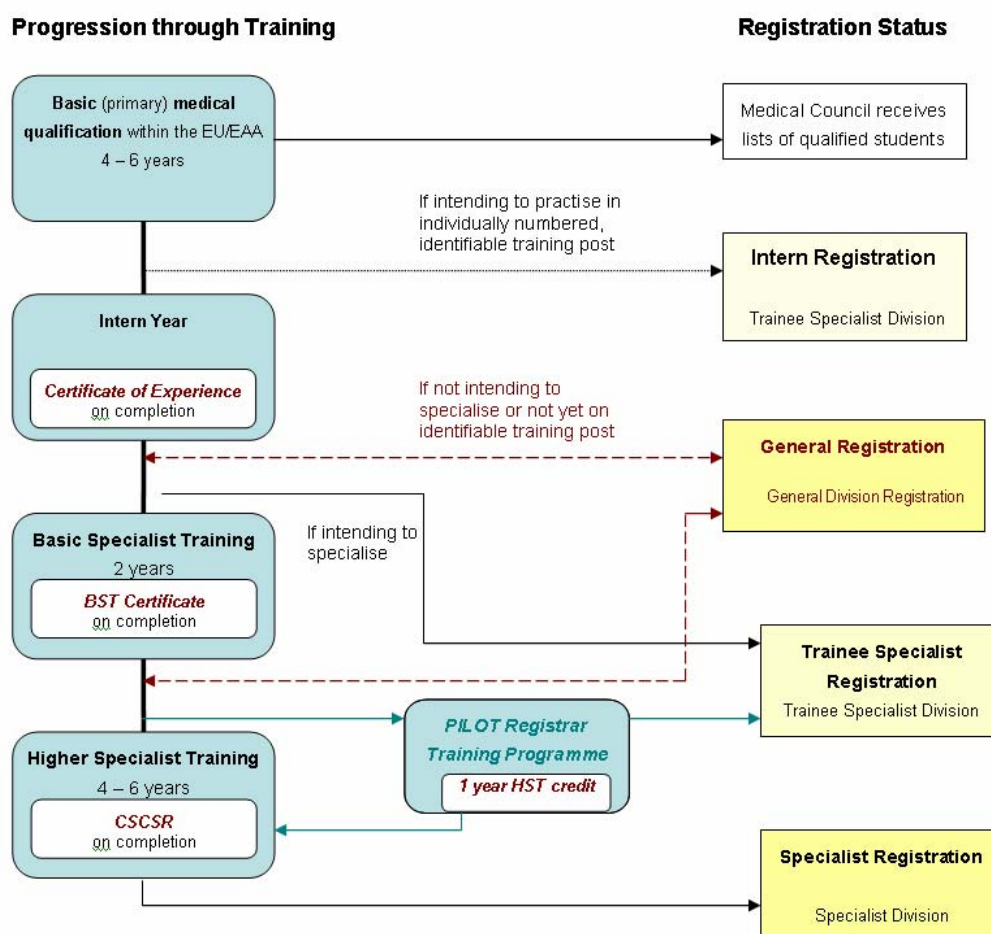
RTP is intended for doctors who have recently completed BST and are furthering their training in order to gain entry to HST. However, applicants must not have spent more than two years in Irish NCHD posts following completion of BST (excluding time spent in research/lecture posts). Currently the RTP is limited to doctors who have completed relevant BST in General Internal Medicine, Paediatrics, Pathology and Obstetrics and Gynaecology and wish to specialise in these areas. Trainees secure a place in RTP for one year initially.

Halfway through their first year on the programme, and subject to meeting entry criteria, trainees are required to apply for entry to HST in their chosen specialty. If unsuccessful, trainees may continue in the programme for a second year as deemed appropriate by the relevant training body. Doctors who are accepted into RTP will be entitled to be registered on the Trainee Specialist Division of the Register with the Irish Medical Council in the first year of RTP only. Doctors who are unsuccessful in their application to HST and require the second year on the RTP will be registered on the General Division for the duration of second year.

Importantly, trainees who gain entry to HST, following completion of RTP, may receive a maximum of six months HST credit for each year of RTP, up to a maximum of 12 months. Credit will only accrue for time spent on the programme post-Membership with the relevant training body. This credit can be used to shorten the duration of training at HST level. A certificate of completion is issued by the relevant training body as evidence of success.

During this pilot phase, the RCPI has announced that RTP will 'undergo continuous review, with a view to extending the programme and making it a permanent, but not mandatory, element of the specialist training process.'⁵⁰ Given that the RCPI has now announced that registration is open for the second cohort of first-year RTP medical practitioners, it would seem that the initiative has thus far been successful.

Training Pathway (non-GP specialist) including RTP:



Specialties in Ireland

There are 52 specialties in Ireland which are recognised by the Medical Council and the HSE. These specialties were set out prior to the Medical Practitioners Act 2007. Similar to the UK, specialties recognised before the changes are 'grandfathered', though no data is available to confirm exactly how many grandfathered specialties are on the register. Officially, no sub-specialties are recognised. The 52 specialties are listed below, along with the approved postgraduate training bodies for each:

Anaesthesia – College of Anaesthetists

- Anaesthesia

Emergency Medicine – Royal College of Surgeons

- Emergency Medicine

Psychiatry – College of Psychiatry

- Child & Adolescent Psychiatry
- Psychiatry
- Psychiatry of Learning Disability
- Psychiatry of Old Age

General Practice – Irish College of GPs

- General Practice

Medicine – RCPI

- Cardiology
- Clinical Genetics
- Clinical Neurophysiology
- Clinical Pharmacology & Therapeutics
- Dermatology
- Endocrinology & Diabetes Mellitus
- Gastroenterology
- General (Internal) Medicine
- Genito-Urinary Medicine
- Geriatric Medicine
- Infectious Diseases
- Medical Oncology
- Nephrology
- Neurology
- Palliative Medicine
- Pharmaceutical Medicine
- Rehabilitation Medicine
- Respiratory Medicine
- Rheumatology
- Tropical Medicine

Paediatrics – RCPI

- Paediatric Cardiology
- Paediatrics

Pathology – RCPI

- Chemical Pathology
- Haematology (Clinical & Laboratory)
- Histopathology
- Immunology (Clinical & Laboratory)
- Microbiology
- Neuropathology

Public Health Medicine – RCPI

- Public Health Medicine

Radiology – Royal College of Surgeons (RCS)

- Radiation Oncology
- Radiology

Sports and Exercise Medicine – RCS

- Sports and Exercise Medicine

Surgery – RCS

- Cardiothoracic Surgery
- General Surgery
- Neurosurgery
- Ophthalmic Surgery
- Oral & Maxillo-Facial Surgery
- Otolaryngology
- Paediatric Surgery
- Plastic, Reconstructive & Aesthetic Surgery
- Trauma and Orthopaedic Surgery
- Urology

Obstetrics & Gynaecology – RCPI

- Obstetrics & Gynaecology

Occupational Medicine – RCPI

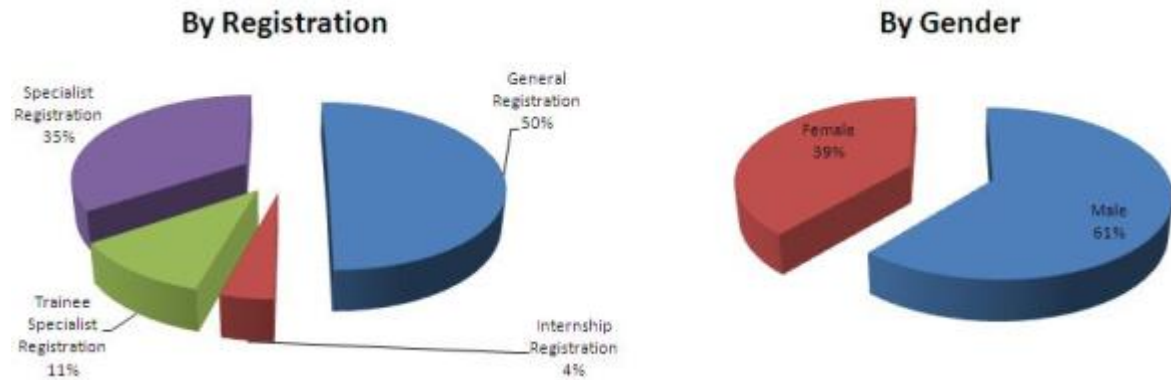
- Occupational Medicine

Ophthalmology – Irish College of Ophthalmologists

- Ophthalmology

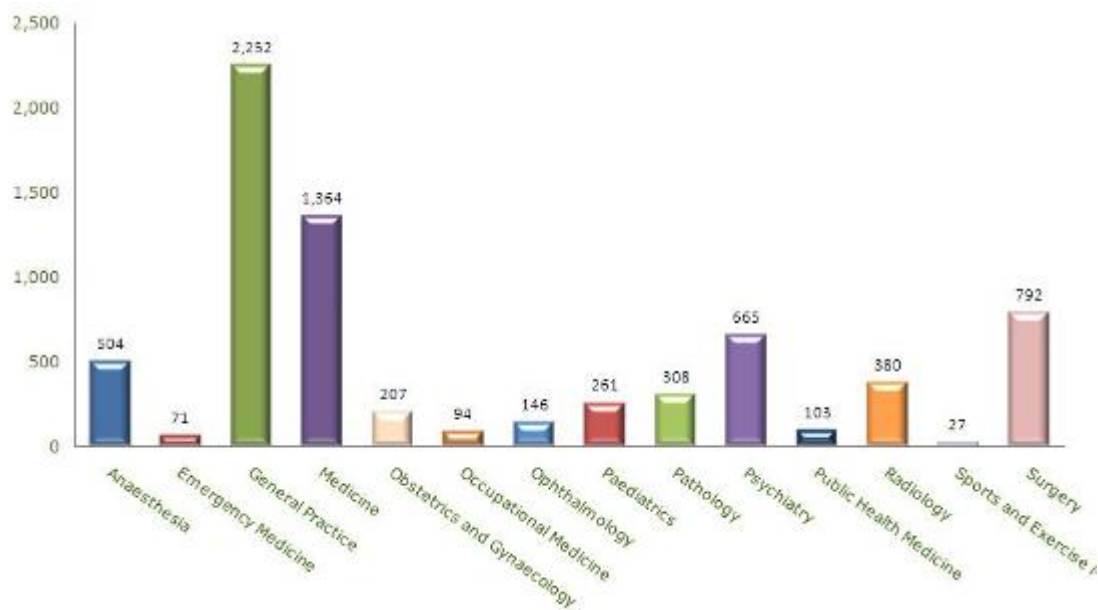
Specialties recognised in the UK but not in Ireland include: Intensive Care Medicine; Acute Internal Medicine; Allergy; Audiological Medicine; Nuclear Medicine; Renal Medicine; Community Sexual and Reproductive Health; Medical Virology; Forensic Psychiatry and Psychotherapy. Whilst Neuropathology is classed as a sub-specialty in the UK, in Ireland it is recognised as a specialty in its own right.

Registration figures as of November 2010 show that half of the doctors in Ireland had General Registration, whilst 35% of doctors had full Specialist registration. The remainder of doctors were in identifiable, individually numbered training schemes.



Source: Medical Council of Ireland

Spread of (simplified) specialties as of November 2010



Recognition of Specialties

The Medical Council's remit includes responsibility for determining, with the approval of the Minister for Health and Children, the medical specialties that are recognised under the Medical Practitioners Act. According to the Medical Practitioners Act, the Council may 'approve, approve subject to conditions attached to the approval of,

amend or remove conditions attached to the approval of, or withdraw the approval of— (i) programmes of specialist training in relation to that medical specialty, and (ii) the bodies which may grant evidence of the satisfactory completion of specialist training in relation to that medical specialty.’ The Council may also ‘refuse to approve a body as a body which may grant evidence of the satisfactory completion of specialist training.’⁵¹

There is a clear process for recognising aspirant specialties (AS), as well as the approval of postgraduate programmes and bodies, and the Medical Council issues guidance on this. The onus is on the applicant for an AS to demonstrate that the proposed specialty ‘is a well-defined, distinct and legitimate medical practice with a sustainable base in the medical profession’; that ‘specialisation in this area of medicine is demonstrably contributing substantial improvements in the quality and safety of healthcare’; that ‘specialisation in this area of medicine is demonstrably contributing to substantial improvements in the standards of medical practice’; and that ‘recognition of the specialty would be a wise use of resources.’⁵²

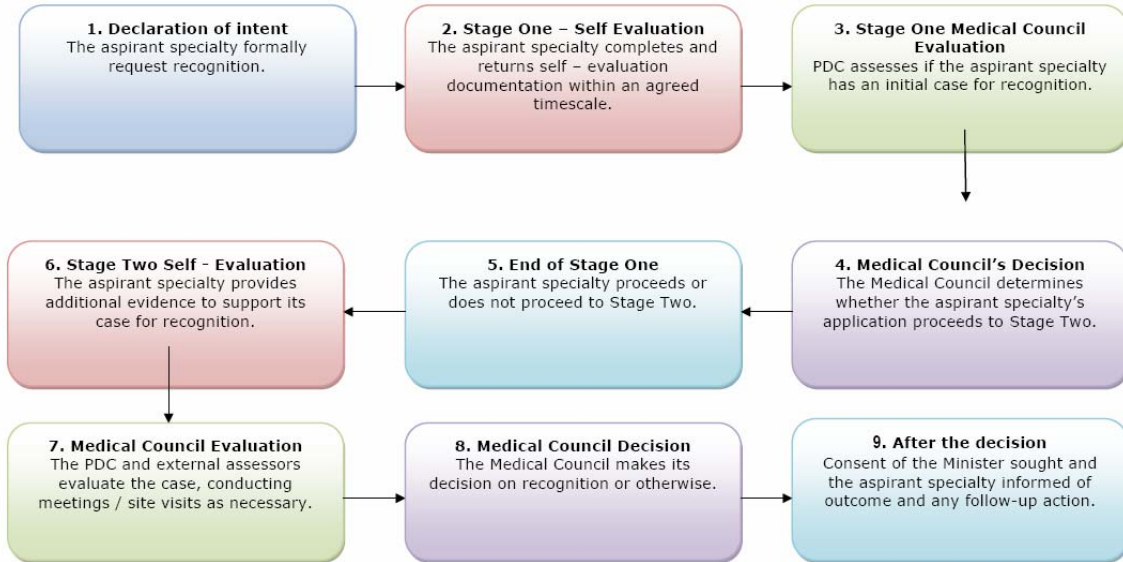
There are two stages of AS recognition:

- i. Stage One of the recognition process is an initial evaluation of an application against the criteria listed above. Stage One gives the applicant the opportunity to establish their case for full assessment. The evaluation is undertaken by the Professional Development Committee (incorporating Education and Training) of the Medical Council (PDC) and the PDC takes its recommendations.
- ii. If the Medical Council decide that an initial case for recognition has been demonstrated, applicants will proceed to Stage Two. This is the full recognition process which is undertaken under the guidance of the PDC, but with consultation of internal and external assessors. The Council will either recognise the specialty, defer recognition until specified conditions are met, or refuse recognition. If a specialty is recognised, ministerial consent will be sought.

The Council states that it will complete a ruling on the Stage One application within six months of start of process. Stage Two is to be completed within nine months of the end of Stage One. The Council charges the applicants fees in order to offset the cost to Council, which include covering the costs of the necessary administration associated with the recognition process. This fee is payable in two

parts; an initial fee is charged in advance for Stage One and a further fee is charged if the aspirant specialty proceeds to Stage Two. The fee scale is only available on request. Recent aspirant specialties added to the list of recognised specialties include Sports and Exercise Medicine, which was added in May 2004.

Flow chart for Recognition of Medical Specialties under the MPA 2007



Australia



Key Points

- In 2010, the regulatory framework for the registration of doctors and the accreditation of medical education underwent huge change in Australia. The registration of doctors, together with all health professionals, has been centralised under a national body, and the assessment and accreditation of basic and specialist medical education courses is moving toward centralisation.
- There is no recognised way-point between the completion of an internship and the specialist fellowship, but a scheme of Recognition of Prior Learning is run by some specialist bodies to reward previous experience, such as experience working in a clinical post between training.
- There is no standard CCT qualification: the awarding of a Fellowship from a medical college is usually needed for
- There are nearly 80 specialties in Australia, none of which are structured as sub-specialties.

Register of medical practitioners: recent developments

Sweeping changes to the regulatory framework of doctors in Australia have occurred recently. Up until July 2010, more than 85 health profession boards in eight States and Territories were governed by 66 Acts of Parliament. Doctors were regulated on a state/territory-specific basis, and no uniform, national system of regulation was in place. The registration and regulation of medical practitioners, including specialists, 'was governed by the relevant state and territory Acts which established medical boards in each of the individual jurisdictions.'⁵³

In 2008, the Council of Australian Governments 'agreed to establish both a single national registration board and a single national accreditation board for the registration, education and training of health professionals.'⁵⁴ Australia became the first country in the world to introduce a National Registration and Accreditation Scheme regulating health practitioners. The Medical Board of Australia was established under the Health Practitioner Regulation Act 2008 to be the national regulator of doctors.

From 1 July 2010, the National Law (the *Health Practitioner Regulation National Law Act 2009*) came into effect, meaning that every doctor practising medicine in Australia had to be registered with the Medical Board of Australia. The Medical Board of Australia is a sub-organisation of the Australian Health Practitioner Regulation Agency (AHPRA). The AHPRA oversees the regulation of all health professionals in Australia (Dental, Medical, Nursing and Midwifery, Optometry, Osteopathy, Pharmacy, Physiotherapy, Podiatry and Psychology).

The Medical Board of Australia keeps up-to-date public registers of all registered medical practitioners. There are five different types of registration that are used: General Registration, Specialist Registration, Provisional Registration, Limited Registration and Non-Practising Registration. Once an individual has graduated from medical school and has applied to undertake an approved intern position, they will be admitted to the Provisional Register. Upon completion of their intern year, doctors, as is a similar case in the UK, are able to apply to be registered on the General Register. Doctors will generally stay on the General Register unless they complete approved specialist training, at which point they will be eligible for Specialist Registration. Limited Registration is for to medical practitioners whose medical qualifications are from a medical school outside of Australia or New Zealand.

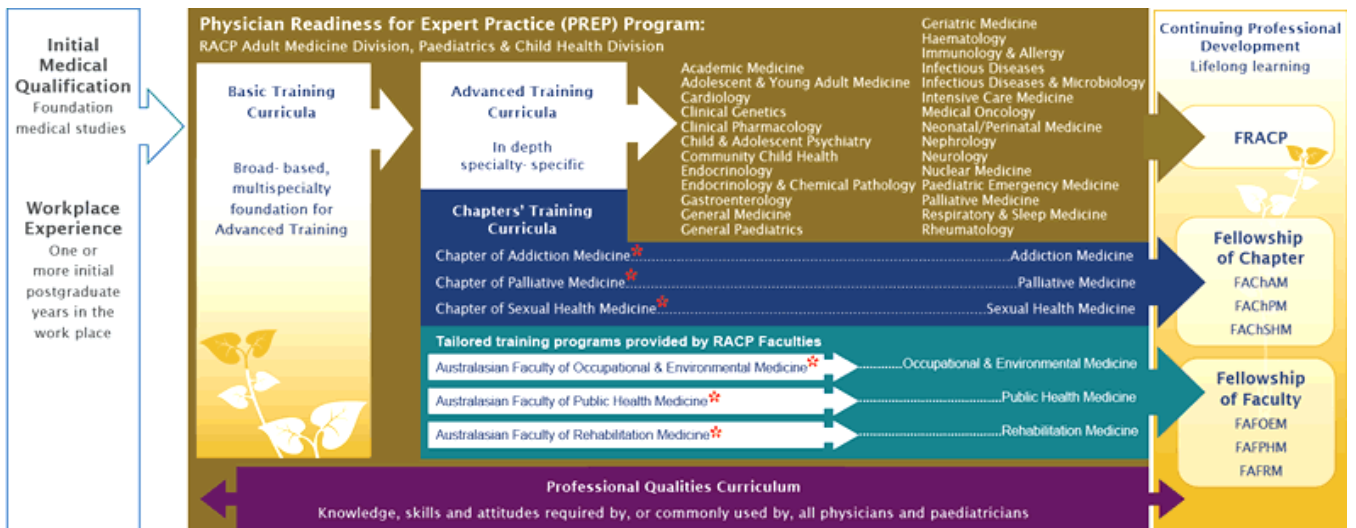
Pathway through training

The pathway through training in Australia is similar to that which exists in UK, with the Australian Medical Council, an independent national standards body, overseeing the medical education and training in Australia. A certificate is awarded to a medical practitioner after the intern year, at which point doctors can enter into specialist and GP training programmes. The training organisations are the specialist medical colleges in Australia, and all participate in a Medical Council quality assurance and quality improvement process voluntarily: all the colleges have agreed to undergo review by the AMC. The Colleges in turn accredit training hospitals. The Royal Australasian College of Physicians (RACP), which is made up of numerous specialty organisations (known either as Divisions, Faculties or Chapters), has two main pathways for medical practitioners.

The first is through the Physician Readiness for Expert Pathway (PREP) Program, which was first introduced in 2008. The PREP program is an attempt to standardise and improve the training given by the majority of the medical specialties represented by the College. The PREP program entails 36 months of broad-based, multi-specialty Basic Training. Having passed the written and clinical examinations, medical practitioners are able to progress to the Advanced PREP Training program. A number of the smaller specialties (Public Health, Rehabilitation Medicine) use alternate training pathways which are delivered by the College's Faculties or Chapters.

The main drive toward the PREP program was to increase the level of supervision provided to medical trainees, as well as introduce regular formative assessments of clinical doctor and patient interaction (called Mini – CEX assessments). As Kevin Forsyth points out in an editorial in the *Medical Journal of Australia*, 'the core aspect of this program is effective educational supervision provided by consultants to help trainees construct learning goals, reflect on their learning needs, work with their developing medical professionalism, and closely link their learning experience with the curricula objectives for training.' Unfortunately, Forsyth believes that 'this grand design has a fundamental flaw — it requires extensive supervision in the health sector. Currently, the health sector is struggling to provide the human and financial resources required for effective supervision.'⁵⁵ It remains to be seen how successful or sustainable the PREP program is.

The diagram below shows the specialist training pathway for those studying specialties represented by the RACP:



There is no recognised way point between the internship year and specialty Fellowship. However, some Colleges will retrospectively recognise previous clinical experience or training and adapt (and possibly shorten) the specialty training programme to take account of this. The scheme is referred to as Recognition of Prior Learning (RPL).

Recognition of Prior Learning

According to its website [May 2011] the Royal Australasian College of Physicians is currently reviewing its (RPL) process and detailed information is not readily available on how RPL works in Australia. The Australian College of Rural and Remote Medicine does, however, offer the following guidance:

Recognition of Prior Learning (RPL) is a term that refers to the acknowledgement of skills and knowledge already attained in the context of awarding credit/recognition against a course of study or qualification. RPL acknowledges skills and knowledge already attained through:

1. Prior work experience, including paid and voluntary work;
2. Formal training or study; and
3. Life experience.

ACRRM Fellowship pathways [i.e. pathways to consultancy/specialist registration] are designed to be flexible and to recognise prior learning and experience, while maintaining academic rigour. A wide range of doctors with a great diversity of knowledge/experience may apply for RPL. ACRRM encourages candidates in the Vocational Preparation Pathway through the Australian General Practice Training (AGPT) program, Independent Pathway and Remote Vocational Training Scheme (RVTS) to apply for RPL where relevant. ACRRM will assess applications for RPL in the following circumstances:

- On entry to or during the training program, to ascertain the total amount of training time needed to attain Fellowship*
- When changing from one Fellowship pathway to another (also known as equivalence), e.g. changing from FRACGP to FACRRM training*
- When changing training pathways, e.g. moving from Independent pathway to RVTS.*

While ACRRM will accept an application for RPL at any time during a candidate's training, early applications facilitate clear expectations and goals that can be used to inform a candidate's learning experiences.

Experience acquired during a candidate's intern year cannot be used towards an application for RPL. Where doctors wish to undertake clinical posts during a period of leave from the training program, they may wish to apply for RPL for that post. ACRRM strongly advises candidates to discuss their plans with Vocational Training at ACRRM, who can refer the matter to the ACRRM Censor. This is to ensure that the proposed clinical post has relevant educational content and appropriate supervision. This in turn will provide a greater likelihood of the post being accepted for RPL purposes. ACRRM is happy to facilitate information and documentation of educational activities for candidates who wish to apply for RPL in other training or professional development programs.⁵⁶

The Australian General Practice Training organisation has also released documentation on RPL:

As an adult learner, the registrar may have had previous experience in accredited hospital or other posts that may be recognised as relevant prior learning for general practice. In order to facilitate registrars' access to flexibility, efficiency and self direction in relation to learning choices and time spent in training, GP registrars may apply for Recognition of Prior Learning (RPL). RPL may be used for shortening the

length of time in training or for recognising content of prior learning. Applications for RPL must be made in the first 12 months of training. The purpose of RPL is to ensure that a rigorous and adequately documented process is followed in the application for, and granting of, recognition of prior learning, which provides evidence of the relevance of prior learning to the learning objectives of Australian General Practice Training (AGPT). Recognition of prior learning relevant to general practice may be used for two purposes. It may enable the registrar to reduce the overall time spent in AGPT or it may reduce the time the registrar needs to spend on skills they have already gained and instead use that time to pursue additional training in particular areas during training.

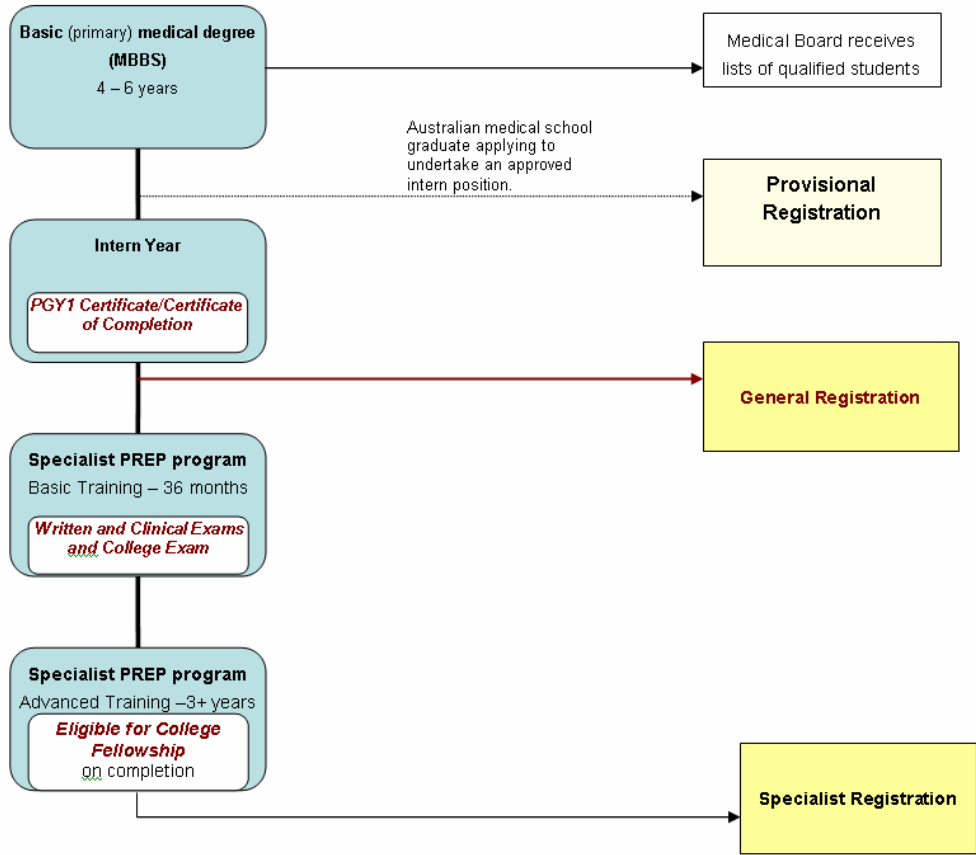
Eligibility

To be eligible for Recognition of Prior Learning GP registrars must have at least one year of post-intern hospital experience and be unconditionally medically registered in Australia for that post-intern experience before enrolment in training. GP registrars whose prior hospital experience has been given RPL are eligible to apply and be considered for an exemption from some or all of the time requirements for Hospital Terms in recognition of their prior learning. For hospital experience to be considered for Recognition of Prior Learning it must have occurred in hospital posts accredited by the RACGP. GP registrars whose prior experience includes Special Skills posts are eligible to be considered for an exemption from some or all of the time requirements for Special Skills terms in recognition of their prior learning. This prior experience in Special Skills posts must have been obtained in accredited posts. Satisfactory documentation of employment in the post(s) must be provided.

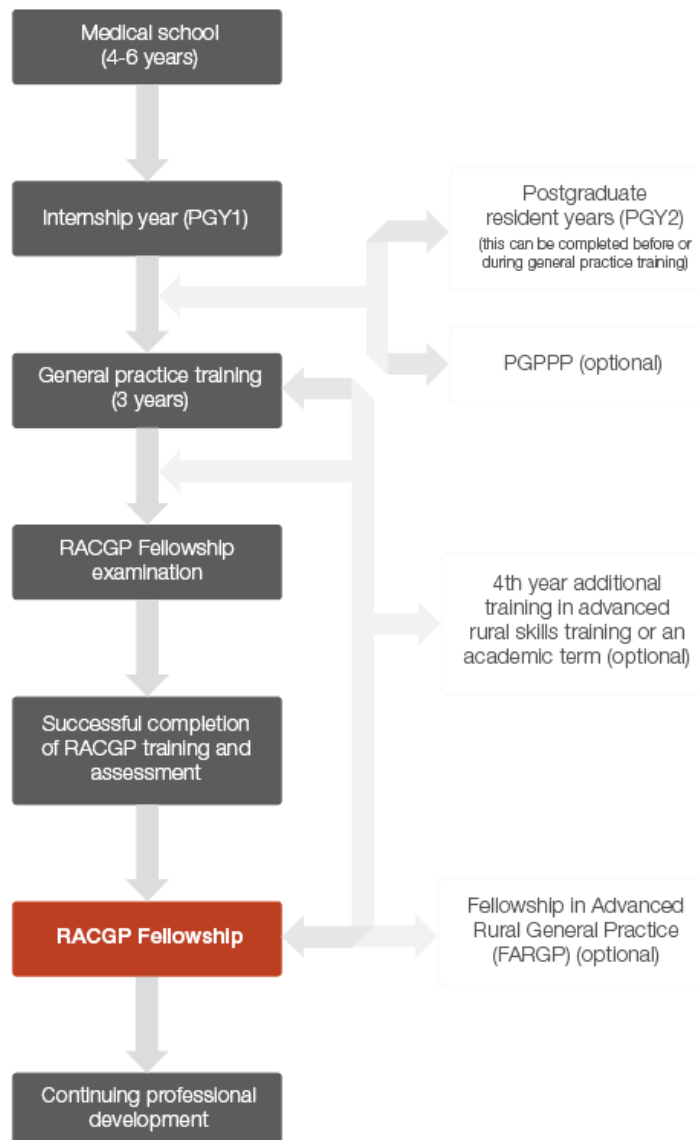
Applicants who are successful in gaining Recognition of Prior Learning for either hospital or Special Skills, or both, will be eligible for up to a maximum of 52 weeks exemption from the time requirements of training, depending on the number of weeks they have completed and have had recognised in the respective areas in their post-intern hospital year(s).⁵⁷

Progression through Training

Registration Status



The RACGP journey towards general practice:



Specialties in Australia

There are almost 80 specialties recognised by the Australian Government (more specifically the Department of Health and Ageing). In 2002, the Australian Medical Council took on the responsibility for advising the Department of Health and Ageing on which disciplines of medical practice should be recognised as medical specialties in Australia. The final decision to recognise a medical specialty lies with the Commonwealth Minister for Health and Ageing.

The AMC manages a process that assesses applications for recognition against specific criteria and standards. The proposed specialty must be well-defined and grounded in widely recognised medical and scientific concepts; specialisation in the proposed area of medicine must have led to significant and quantifiable improvements in health outcomes; the applicant body must fill the role of setting and assessing standards in the discipline, and oversees a postgraduate program of training, education and assessment; the specialty must be likely to comply with AMC accreditation standards; the members of the applicant body must be providing specialist clinical services in the proposed specialty that meet a real and identifiable health need; the application for specialty recognition must be in concordance with public health priorities (e.g. relevant to one or more of the national health priorities).

The recognition of new specialties is a two-stage process:

- i. **Stage 1** of the recognition process is overseen by the AMC's Recognition of Medical Specialties Advisory Committee. Applications for recognition are assessed against specific criteria and standards.
- ii. **Stage 2** of the recognition process is overseen by the AMC's Specialist Education Accreditation Committee. In this stage, the standards of the specialist education, training programs and continuing professional development programs available for the medical specialty are assessed.

Recognition 'as a specialty is conditional upon successful completion of both stages of the process, and on the Minister having made a decision to recognise a specialty. Between 2002 and 2007, the AMC provided advice to the Minister for Health and Ageing on six separate applications for the recognition of a medical specialty.⁵⁸ The AMC undertakes assessments on a cost-recovery basis. Applicants pay the direct cost of the assessment. Currently, Cosmetic Medical Practice, Genetic Pathology and Clinical Pathology are being assessed for their suitability for specialty status. More information on the process for specialty recognition can be found in the AMC's 'Recognition of Medical Specialties: Policy and Process' document.⁵⁹

Sub-specialties are no longer formally recognised in Australia. As the 'Recognition of Medical Specialties: Policy and Process' document states, guidance 'no longer makes reference to medical sub-specialties. The terms *specialty* and are used inconsistently (and even interchangeably) within the regulatory environment of the Australian health system and the medical education sector. For the purposes of the

AMC's recognition process, the term *specialty* is used pragmatically and inclusively to signal those areas of medical practice that are referred to either in the *Health Insurance Act 1973* (Cth) or its regulations, or the AMC's *List of Australian Recognised Medical Specialties*. The criteria contained in these Guidelines are those against which applications are assessed for the purpose of new inclusions in one or both of these.⁶⁰

Full list of specialties in Australia

Addiction medicine

Anaesthesia

Dermatology

Emergency medicine

General practice

Intensive care medicine

Medical administration

Obstetrics and gynaecology

- Gynaecological oncology
- Maternal–fetal medicine
- Obstetrics and gynaecological ultrasound
- Reproductive endocrinology and infertility
- Urogynaecology

Occupational and environmental Medicine

Ophthalmology

Paediatrics and child health

- Clinical genetics
- Community child health
- General paediatrics
- Neonatal and perinatal medicine
- Paediatric cardiology
- Paediatric clinical pharmacology
- Paediatric emergency medicine
- Paediatric endocrinology

Pathology

- General pathology
- Anatomical pathology (including cytopathology)
- Chemical pathology
- Haematology
- Immunology
- Microbiology
- Forensic pathology

Physician

- Cardiology
- Clinical genetics
- Clinical pharmacology
- Endocrinology
- Gastroenterology and hepatology
- General medicine
- Geriatric medicine
- Haematology
- Immunology and allergy
- Infectious diseases
- Medical oncology
- Nephrology
- Neurology
- Nuclear medicine
- Respiratory and sleep medicine
- Rheumatology

Psychiatry

Public health medicine

Radiation oncology

Radiology

- Paediatric gastroenterology and hepatology
- Paediatric haematology
- Paediatric immunology and allergy
- Paediatric infectious diseases
- Paediatric intensive care medicine
- Paediatric medical oncology
- Paediatric nephrology
- Paediatric neurology
- Paediatric nuclear medicine
- Paediatric palliative medicine
- Paediatric rehabilitation medicine
- Paediatric respiratory and sleep medicine
- Paediatric rheumatology

Pain medicine

Palliative medicine

- Diagnostic radiology
- Diagnostic ultrasound
- Nuclear medicine

Rehabilitation medicine

Sexual health medicine

Sport and exercise medicine

Surgery

- Cardio-thoracic surgery
- General surgery
- Neurosurgery
- Orthopaedic surgery
- Otolaryngology – head and neck surgery
- Oral and maxillofacial surgery
- Paediatric surgery
- Plastic surgery
- Urology
- Vascular Surgery

The most notable specialties that are recognised in Australia but not in the UK are Addiction Medicine and Medical Administration. Many of the approved surgical subspecialties recognised in the UK do not appear on the Australian list, as well as stroke medicine.

New Zealand



Key Points:

- Specialties in New Zealand are referred to as vocational scopes of practice.
- The Medical Council of New Zealand formally recognises 35 quite broad vocational (specialist) scopes of practice, such as pathology. It may be that doctors work in more specific areas of the vocational scope they are registered in, such as forensic pathology, but such specialisation is not contained in any list of approved specialties.
- Understandably, because New Zealand shares many colleges with Australia, the pathway through training is similar in both countries. As with Australia, there is usually no certificate of completion of training: the prescribed qualification for becoming a specialist is a Fellowship from one of the accredited colleges or associations.
- The Medical Council of New Zealand is the body that rules on the creation of new vocational scopes.

In New Zealand, doctors do not have a particular type of registration. Instead they are registered within one or more scopes of practice. A scope of practice is defined in legislation as 'the professional service that the doctor is permitted to perform'.⁶¹ The Medical Council of New Zealand has broadly defined three main scopes of practice:

- General
- Vocational
- special purpose scopes

As well as a further two provisional scopes:

- provisional general scope
- provisional vocational scope.

Generally speaking, a general scope of practice (including provisional general scope) only allows a doctor to practise medicine under supervision. On completion of a primary medical degree, the individual is registered within the provisional general scope of practice. All new registrants, such as IMGs, regardless of seniority, must work under supervision for at least their first 12 months in New Zealand to become familiar with the culture. During these 12 months, the doctor is registered under the provisional general scope. Having completed the internship period, doctors are registered within the general scope.

Those in the general scope include junior doctors who have completed their internship and may be in vocational (specialist) training, doctors who have not started, or have chosen not to do, vocational training or doctors nearing retirement who are no longer meeting the requirements for registration within a vocational scope of practice.

Registration in the Provisional Vocational scope of practice allows a medical practitioner to practise medicine within a vocational (specialty) scope, and is usually for IMGs who have specialist qualifications and must work under supervision for 12 – 18 months. Registration in a vocational scope allows a medical practitioner to work in a specific scope of practice for which he or she has the appropriate vocational training, qualifications and experience. Medical practitioners registered within a vocational scope must take part in a CPD programme approved by the council.

A Special Purpose Scope is defined as the practice of medicine, defined or limited reasons, undertaken within a New Zealand hospital, general practice educational institution or other organisation approved by the council and under the supervision of a registered medical practitioner approved by the Council. The special purpose scopes of practice are: teaching as a visiting expert; research; working as a locum tenens up to 6 months; postgraduate training; assisting in an emergency or other unpredictable, short-term situation; assisting in a pandemic or disaster; providing teleradiology services to New Zealand patients for up to 12 months.

Under the Health Practitioners Competence Assurance Act (2003), the Medical Council of New Zealand is required to define the separate areas of medicine and specialties that make up the practice of medicine in New Zealand. For each of these areas, which are known as scopes of practice, the council must identify the aspects of practice of medicine covered by each scope. The Vocational Scope of Practice includes 35 specialist scopes of practice.

Vocational scopes of practice:

- | | |
|---|--------------------------------------|
| Accident and Medical Practice | Oral and Maxillofacial Surgery |
| Anaesthesia | Orthopaedic Surgery |
| Cardiothoracic Surgery | Otolaryngology Head and Neck Surgery |
| Clinical Genetics | Paediatric Surgery |
| Dermatology | Paediatrics |
| Diagnostic and Interventional Radiology | Palliative Medicine |
| Emergency Medicine | Pathology |
| Family Planning and Reproductive Health | Plastic and Reconstructive Surgery |
| General Practice | Psychiatry |
| General Surgery | Public Health Medicine |
| Intensive Care Medicine | Radiation Oncology |
| Internal Medicine | Rehabilitation Medicine |
| Medical Administration | Rural Hospital Medicine |
| Musculoskeletal Medicine | Sexual Health Medicine |
| Neurosurgery | Sports Medicine |
| Obstetrics and Gynaecology | Urology |
| Occupational Medicine | Vascular Surgery |
| Ophthalmology | |

Exceptions to the UK specialist register include: Allergy; Audiological Medicine; Clinical Neurophysiology; Clinical Pharmacology and Therapeutics; Endocrinology and Diabetes Mellitus; Gastroenterology; Genito-urinary Medicine; Geriatric Medicine; Haematology; Immunology; Infectious Diseases; Neurology; Nuclear Medicine; Pharmaceutical Medicine; Tropical Medicine; Chemical Pathology; Histopathology; Medical Microbiology and Virology and Psychotherapy. The notable inclusions on the New Zealand register that is not on the UK register is Rural Medicine.

The Medical Council of New Zealand is the body that decides new vocational scopes of practice. For the Medical Council to recognise a new vocational scope, there must be:

- a defined body of knowledge and practice
- a recognised health need
- a group of doctors capable of providing an appropriate professional environment
- an acceptable training programme with a nationally recognised qualification
- an acceptable recertification programme
- a national organisation with the authority to advise the Medical Council on vocational scopes
- initial and ongoing assessment by the Medical Council.

The Medical Council considers applications in two stages. The first stage involves the council consulting with health practitioners and organisations who may be affected by the proposal, along with a consultation exercise that lasts up to two months. The Education Committee of the Medical Council will then report to Council with their initial response as to whether the proposal has met the criteria. If the proposal meets the criteria, it will progress to stage two. At this point, two panel members will be appointed by the Education Committee based on nominations from vocational scopes (specialties) that are related to the applicant's scope. The panel will assess the application document and prepare a report, which will be provided to the applicant to check for omissions or errors of fact before being presented to the EC. The Education Committee will then make a recommendation to council.

The process is expected to take 18 months. \$3750 is payable by the applicant at stage one. Should the application progress, a further \$3750 is paid. The most recent addition to the vocational scopes was Rural Medicine, which was recognised in 2007.

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Despite the Vocational Scopes of Practice being much broader in New Zealand than in the UK, the New Zealand Medical Association, together with the Association of Salaried Medical Specialists, recommended in 2003 that:

Scopes of Practice be removed from the [Medical Act], or that the [Act] be changed to emphasise broad Scopes of Practice and avoid focus on narrow or individual scopes. Although the preamble to the [Act] when it returned from the Select Committee talked of broad scopes, the numerous amendments within the Act make it clear that the opportunity exists for narrow, codified descriptions of each individual's practice to be developed...the NZMA continues to have strong reservations about the effects on scopes of practice of the decisions of future authorities appointed by the Minister of Health, determinations by case law and consequent changes in other statutes. We fear that, with time, these will make scopes of practice more restrictive and task oriented. Already, we are seeing examples of this. A letter from the Ministry of Health was sent out on 17 September setting out a proposed new regulatory framework for designated prescribers. The proposal states, 'for each designated scope of practice' a list of approved medicines would be developed. This, by implication, will codify and limit an individual practitioner's scope of practice.⁶³

Brief Methodology

Firstly, a deep search of international healthcare regulators and specialty organisations was undertaken, with an obvious focus on English-language countries. The regulator and specialty websites were then themselves searched for documentation relating to medical education, specialty pathways and the structures of specialties and sub-specialties.

To support this research, further searches for relevant material were undertaken using the following resources:

British Library Catalogue
Newton Library Catalogue (Cambridge)
Orbis (Yale)
New York Public Library
Harvard University Library
Sydney University Library
EBSCO Academic Search Complete
Oxford Journals Online
Science Direct
Bodleian Library (Oxford)
SAGE Premier
Web of Science on Web of Knowledge
King's Fund Library Catalogue
Internet Search Engines (inc. Google/Google Scholar/Google Books)

The following key words (but not limited to those given below) were searched using the above resources:

& or	Specialties → sub-specialties → scopes of practice → generalist → primary care → secondary care → specialists → subspecialists → consultants → number of specialties → formal recognition → regulatory recognition
& or	Doctors → Physicians → Medical Practitioners → junior doctors → registrars → senior / house officers → SAS → staff grade → postgraduate physicians → trainees → medical trainees
& or	Medical training → medical education → postgraduate medical education → specialist/subspecialist training → pathway → certification → certificates of experience → CCT → board certification → Fellowship → credentialing → deaneries → accredited → medical courses

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- ¹http://www.abms.org/News_and_Events/Media_Newsroom/Releases/release_ThreeNewSub-specialties04112011.aspx [accessed 10 May 2011]
- ² <http://www.amc.org.au/images/Recognition/recognition-guidelines.pdf>
- ³ [http://www.rcpi.ie/News/Pages/RegistrarTrainingProgramme\(RTP\).aspx](http://www.rcpi.ie/News/Pages/RegistrarTrainingProgramme(RTP).aspx)
- ⁴ Credentialing Steering Group Report, p.9.
- ⁵ Avery, DM 2011, 'A new certification for FPs', *Journal of Family Practice*, 60, 3, pp. E1-E3
- ⁶ Cassel, C & Holmboe, E., 'Professionalism and Accountability: The Role of Specialty Board Certification', *Trans Am Clin Climatol Assoc.* 2008; 119: 295–304 (p.297).
- ⁷ <http://www.abim.org/about/default.aspx> [Accessed 15 May 2011]
- ⁸ Lipner RS, Bylsma WH, Arnold GK, Fortna GS, Tooker J, Cassel CK. Who is maintaining certification in internal medicine — and why? A national survey 10 years after initial certification. *Ann Intern Med* 2006;144: 29-36.
- ⁹ Cassel, C & Holmboe, E., 'Professionalism and Accountability: The Role of Specialty Board Certification', *Trans Am Clin Climatol Assoc.* 2008; 119: 295–304 (p.296).
- ¹⁰ http://www.abms.org/About_ABMS/who_we_are.aspx [accessed 16 May 2011]
- ¹¹ http://www.abms.org/About_ABMS/who_we_are.aspx [accessed 16 May 2011]
- ¹²http://www.abms.org/News_and_Events/Media_Newsroom/Releases/release_ThreeNewSub-specialties04112011.aspx [accessed 10 May 2011]
- ¹³ Gamble, G, Gerber, L, Spill, G, & Paul, K 2011, 'The Future of Cancer Rehabilitation: Emerging Sub-specialty', *American Journal of Physical Medicine & Rehabilitation*, 90, pp. S83-S94, Academic Search Complete, EBSCOhost, viewed 17 May 2011
- ¹⁴ <http://www.ishrs.org/articles/medical-boards.htm>
- ¹⁵ <http://www.ama-assn.org/resources/doc/hod/i05cmepdf.pdf>
- ¹⁶ <http://www.ama-assn.org/resources/doc/hod/i05cmepdf.pdf>
- ¹⁷ http://www.abms.org/About_ABMS/ABMS_History/Extended_History/Approving_New_Boards.aspx
- ¹⁸ <http://www.ishrs.org/articles/medical-boards.htm>
- ¹⁹ <http://www.ishrs.org/articles/medical-boards.htm>
- ²⁰ <http://healthpolicyandreform.nejm.org/?p=14005>
- ²¹ <http://healthpolicyandreform.nejm.org/?p=14005>
- ²² <http://cogme.gov/20thReport/cogme20threport.pdf>, p.7.
- ²³ BMJ 2011; 342:d2684, <http://www.bmj.com/content/342/bmj.d2684.extract>
- ²⁴ <http://www.newamerica.net/node/8199>
- ²⁵ Lasser, K, Woolhandler, S, & Himmelstein, D 2008, 'Sources of U.S. Physician Income: The Contribution of Government Payments to the Specialist–Generalist Income Gap', *JGIM: Journal of General Internal Medicine*, 23, 9, pp. 1477-1481, Academic Search Complete, EBSCOhost, viewed 18 May 2011, p.1478
- ²⁶ Lasser, K, Woolhandler, S, & Himmelstein, D 2008, p.1480
- ²⁷ http://www.med.ualberta.ca/Library/Documents/Education/StudentAffairs/residency_fair.pdf
- ²⁸ Directions for Residency Education, 2009, RCPSC, p.3.
- ²⁹ <http://cimonline.ca/index.php/cim/article/viewArticle/2778>
- ³⁰ For more detail, the CCP's final report ([online here](#)) is clearly written and a worthwhile read.
- ³¹ The Royal College of Physicians and Surgeons of Canada. Final Report of the Task Force to Review Fundamental Issues in Specialty Education (Maudsley Report). Ottawa: RCPSC; 1996. p. 1.

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- ³² Royal College of Physicians and Surgeons of Canada. *A Re-examination of the Royal College specialties and sub-specialties* [Langer Report]. Ottawa: The College; 1996.
- ³³ The Royal College of Physicians and Surgeons of Canada. Final Report of CCP, Ottawa: RCPSC; 2009, p. 9.
- ³⁴ The Royal College of Physicians and Surgeons of Canada. Final Report of CCP, Ottawa: RCPSC; 2009, p. 16.
- ³⁵ The Royal College of Physicians and Surgeons of Canada. Final Report of CCP, Ottawa: RCPSC; 2009, p. 11.
- ³⁶ The Royal College of Physicians and Surgeons of Canada. Final Report of CCP, Ottawa: RCPSC; 2009, p. 11.
- ³⁷ The Royal College of Physicians and Surgeons of Canada. Final Report of CCP, Ottawa: RCPSC; 2009, p. 9.
- ³⁸ The full Medicinal Practitioners Act 2007 can be viewed on the Department of Health and Children website at http://www.dohc.ie/publications/pdf/medical_practitioners_act_2007.pdf?direct=1.
- ³⁹ Medical Practitioners Act 2007, 41, 1c, (p.40).
- ⁴⁰ http://www.icgp.ie/go/become_a_gp/frequently_asked_questions?page=2
- ⁴¹ <http://medicalcouncil.ie/Professional-Development/Intern-Year/Approved-Guidelines-on-Medical-Education-and-Training-for-Interns.pdf>
- ⁴² Not all specialties in Ireland require completion of BST.
- ⁴³ <http://www.medicalcouncil.ie/Professional-Development/Postgraduate-Medical-Education/GP-training-posts-in-the-UK/>
- ⁴⁴ National Audit of SHO and Registrar Posts, 2007
- ⁴⁵
- ⁴⁶ <http://www.dohc.ie/press/releases/2006/20060201.html>
- ⁴⁷ National Audit of SHO and Registrar Posts, 2007, p.2
- ⁴⁸ [http://www.rcpi.ie/News/Pages/RegistrarTrainingProgramme\(RTP\).aspx](http://www.rcpi.ie/News/Pages/RegistrarTrainingProgramme(RTP).aspx)
- ⁴⁹ [http://www.rcpi.ie/News/Pages/RegistrarTrainingProgramme\(RTP\).aspx](http://www.rcpi.ie/News/Pages/RegistrarTrainingProgramme(RTP).aspx)
- ⁵⁰ [http://www.rcpi.ie/News/Pages/RegistrarTrainingProgramme\(RTP\).aspx](http://www.rcpi.ie/News/Pages/RegistrarTrainingProgramme(RTP).aspx)
- ⁵¹ http://www.dohc.ie/publications/pdf/medical_practitioners_act_2007.pdf?direct=1, pp.73 – 74.
- ⁵² <http://www.medicalcouncil.ie/Professional-Development/Postgraduate-Medical-Education/Recognition-of-Specialties-/Recognition-of-Medical-Specialties.pdf>
- ⁵³ Forrester, Forrester and Griffiths, *Essentials of Law for Medical Practitioners*, p.252
- ⁵⁴ Forrester, Forrester and Griffiths, *Essentials of Law for Medical Practitioners*, p.252
- ⁵⁵ http://www.mja.com.au/public/issues/191_04_170809/for10720_fm.pdf
- ⁵⁶ <http://www.acrrm.org.au/files/uploads/pdf/advocacy/Policy%20ACRRM%20Vocational%20Training%20RPL%20Policy.pdf>
- ⁵⁷ <http://www.getgp.net.au/imies/documents/AGPT%20-%20Information%20for%20Recognition%20of%20Prior%20Learning.pdf>
- ⁵⁸ <http://www.amc.org.au/images/Recognition/recognition-guidelines.pdf>
- ⁵⁹ <http://www.amc.org.au/images/Recognition/recognition-guidelines.pdf>
- ⁶⁰ <http://www.amc.org.au/images/Recognition/recognition-guidelines.pdf>
- ⁶¹ <http://www.mcnz.org.nz/Registration/Howtobecomearegisteredoctor/Beforeapplying/Scopesofpractice/tabid/141/Default.aspx>. More exactly, according to the Health Practitioners Competence Assurance Act of 2003, a scope of practice may be described in any way the authority thinks fit, including, without limitation, in any 1 or more of the following ways:
- o (a) by reference to a name or form of words that is commonly understood by persons who work in the health sector:

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- (b) by reference to an area of science or learning:
 - (c) by reference to tasks commonly performed:
 - (d) by reference to illnesses or conditions to be diagnosed, treated, or managed.

⁶² For a brief history of the pathway towards the recognition of Rural Medicine, see:

<http://www.nzma.org.nz/journal/120-1259/2654/>

⁶³ NZMJ 10 October 2003, Vol 116 No 1183 Page 2 of 2, URL: <http://www.nzma.org.nz/journal/116-1183/621/> © NZMA