



The Royal Australasian
College of Physicians

Dermatology

Advanced Training Curriculum

Adult Medicine Division
Paediatrics & Child Health Division





The Royal Australasian
College of Physicians

Physician Readiness for Expert Practice (PREP) Training Program

Dermatology Advanced Training Curriculum

TO BE USED IN CONJUNCTION WITH:

Basic Training Curriculum – Adult Internal Medicine
Basic Training Curriculum – Paediatrics & Child Health
Professional Qualities Curriculum

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The following Fellows deserve specific mention for their contribution:

- A/Prof Marius Rademaker, FRACP
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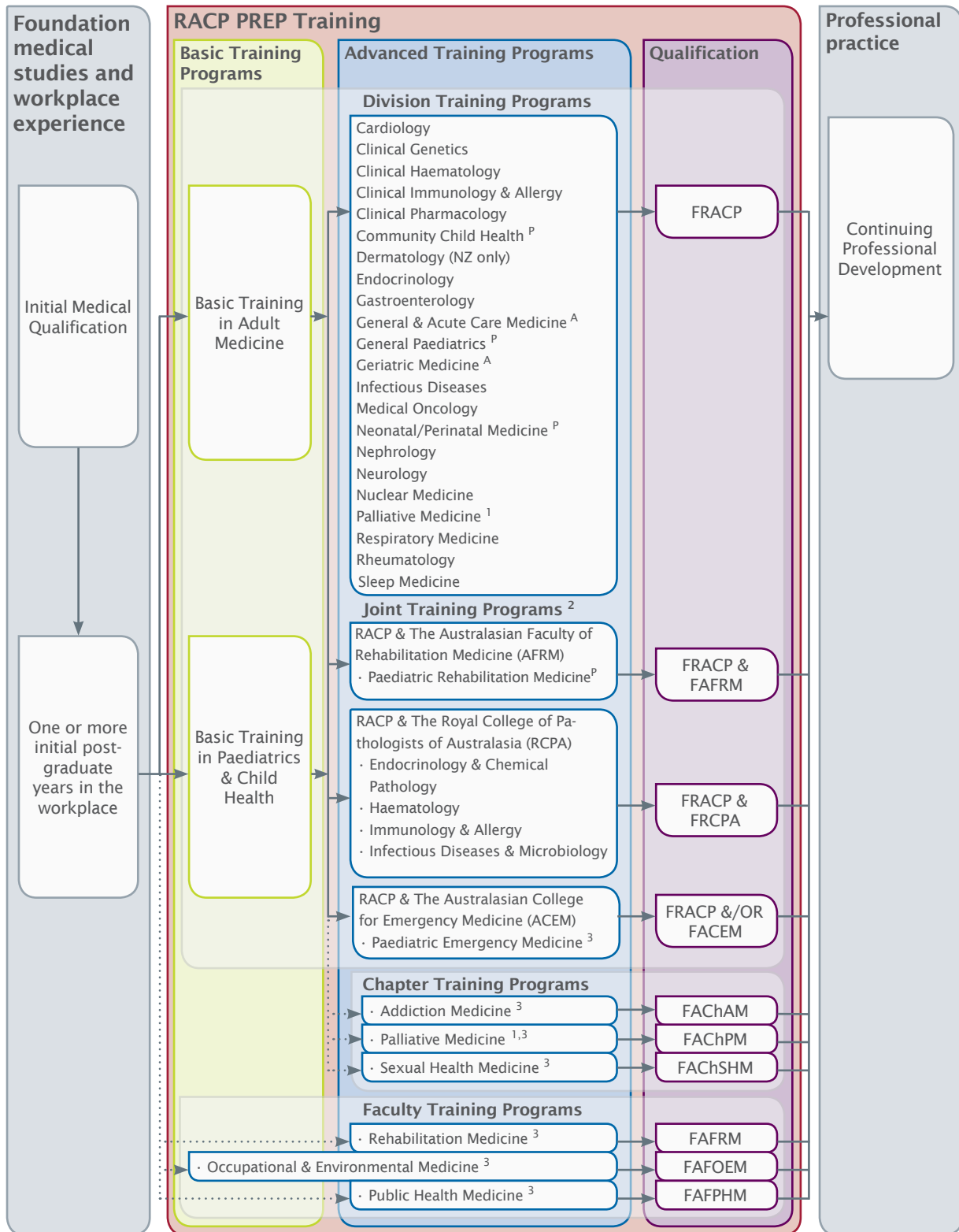
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Please note: No Domains, Themes or Learning Objectives have been updated for this edition; design changes ONLY.

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RACP FELLOWSHIP TRAINING PATHWAYS AND THE CONTINUUM OF LEARNING



^P Trainees must complete Basic Training in Paediatrics & Child Health to enter this program.

^A Trainees must complete Basic Training in Adult Medicine to enter this program.

¹ Trainees who have entered Advanced Training in Palliative Medicine via a RACP Basic Training Program will be awarded FRACP upon completion and may subsequently be awarded FACHPM. Trainees who have NOT entered Advanced Training in Palliative Medicine via a RACP Basic Training Program will only be awarded FACHPM upon completion.

² The Child & Adolescent Psychiatry Joint Training Program with the Royal Australian and New Zealand College of Psychiatrists (RANZCP) is currently under review by the RACP and RANZCP and closed to new entrants at present.

³ Alternative entry requirements exist for these training programs; please see the corresponding PREP Program Requirements Handbook for further information.

NB1: This diagram only depicts training programs that lead to Fellowship. Please see the RACP website for additional RACP training programs.

NB2: For further information on any of the above listed training programs, please see the corresponding PREP Program Requirements Handbook.

OVERVIEW OF THE SPECIALTY

Dermatology is the science concerned with the diagnosis and treatment of diseases of the skin, hair, and nails.

Dermatology involves, but is not limited to, the study, research, and diagnosis of disorders, diseases, cancers, cosmetic and ageing conditions of the skin, fat, hair, nails, and oral and genital membranes. This includes the management of these by different investigations and therapies, including dermatohistopathology, topical and systemic medications, dermatologic surgery and dermatologic cosmetic surgery, immunotherapy, phototherapy, laser therapy, superficial radiotherapy, and photodynamic therapy. Dermatologists treat patients of all ages from infants and children to adolescents and adults.

CURRICULUM OVERVIEW

Dermatology – Advanced Training Curriculum

This curriculum outlines the broad concepts, related learning objectives and the associated theoretical knowledge, clinical skills, attitudes, and behaviours required and commonly used by dermatology physicians within Australia and New Zealand.

The purpose of Advanced Training is for trainees to build on the cognitive and practical skills acquired during Basic Training. At the completion of the Dermatology Advanced Training Program, trainees should be competent to provide at consultant level, unsupervised comprehensive medical care in dermatology.

Attaining competency in all aspects of this curriculum is expected to take three years of training. It is expected that all teaching, learning and assessment associated with the Dermatology Advanced Training Curriculum will be undertaken within the context of the physician's everyday clinical practice and will accommodate discipline-specific contexts and practices as required. As such it will need to be implemented within the reality of current workplace and workforce issues and the needs of health service provision.

There may be learning objectives that overlap with or could easily relate to other domains; however these have been assigned to only one area. In practice, it is anticipated that within the teaching/learning environment the progression of each objective would be explored.

Note: The curricula should always be read in conjunction with the relevant College Training Handbook available on the College website.

Professional Qualities Curriculum

The Professional Qualities Curriculum (PQC) outlines the range of concepts and specific learning objectives required by, and used by, all physicians, regardless of their specialty or area of expertise. It spans both the Basic and Advanced Training programs and is also used as a key component of the Continuing Professional Development (CPD) program.

Together with the various Basic and Advanced Training Curricula, the PQC integrates and fully encompasses the diagnostic, clinical, and educative-based aspects of the physician's/paediatrician's daily practice.

Each of the concepts and objectives within the PQC will be taught, learnt and assessed within the context of everyday clinical practice. Thus it is important that they be aligned with, and fully integrated into, the learning objectives within this curriculum.

EXPECTED OUTCOMES AT THE COMPLETION OF TRAINING

Graduates from this training program will be equipped to function effectively within current and emerging professional, medical, and societal contexts. At the completion of this Advanced Training Program, it is expected that a new Fellow will have developed the clinical skills and have acquired the theoretical knowledge for competent dermatology practice. A new Fellow will be able to:

- apply scientific method, at a level adequate to provide a rational basis for present dermatological specialist practice and to assimilate the advances in knowledge which will occur over their working life
- explain normal development of the human skin, the normal structure and function of the human skin at all stages of life, the interactions between the skin and the body and mind, and the factors which may disturb these interactions
- describe aetiology, pathology, clinical features, natural history and prognosis of dermatological conditions in all age groups
- describe relevant diagnostic procedures, their indications, uses, limitations and complications
- manage dermatological conditions, including pharmacological, procedural, nutritional and psychological therapies
- outline principles of health education, disease prevention, amelioration of suffering and disability, and rehabilitation where relevant
- evaluate health care systems, including their advantages and limitations
- explain principles of ethics related to health care and the legal responsibilities of the medical profession
- take a tactful, accurate, organised and problem-focused medical history and relate this to the general medical condition of the patient
- perform a reliable and appropriate dermatological examination and relevant general physical examination
- interpret and integrate the history and physical examination findings to arrive at an appropriate provisional diagnosis and differential diagnosis
- select the most appropriate and cost effective investigations and diagnostic procedures and interpret the results of investigations
- competently carry out phototherapy, cryosurgery, electrosurgery and cauterisation, and those surgical, physical and laser procedures detailed in the Procedural Dermatology Curriculum
- counsel sensitively and effectively, and provide information in a manner which ensures that patients and families are adequately informed when being advised of their diagnosis and/or consenting to any procedure or treatment
- interpret medical evidence in a critical and scientific manner and to use information sources to pursue independent inquiry
- communicate opinion in oral and written form
- respect every human being, with an appreciation of the diversity of human background and cultural values
- recognise the Treaty of Waitangi and how this relates to the practice of dermatology in New Zealand
- appreciate the complexity of ethical issues relating to human life and death, including the allocation of scarce resources
- communicate with patients and their families and involve them fully in planning management
- achieve optimal patient care and recognise the need for cost effectiveness of the whole treatment program to allow maximum benefit from available resources
- recognise that the health interests of the patient and the community are paramount
- work effectively in a team with other health care professionals, behave honourably towards them and acknowledge and respect their opinions
- appreciate the responsibility of maintaining standards of medical practice at the highest possible level throughout a professional career

- appreciate the need to recognise when a clinical problem exceeds their capacity to deal with it safely and efficiently and refer the patient for appropriate help from others when this occurs
- realise that it is not always in the best interests of patients or their families to do everything which is technically possible to make a precise diagnosis or to attempt to modify the course of an illness.

Experiential learning

Much of the training program is experiential. The majority of training is spent in clinical placements where the trainee is responsible, under supervision, for the care of both outpatients and inpatients.

Trainees work in accredited training programs for all four years of higher training. Specialist dermatologists teach, provide close supervision and ongoing guidance and feedback on the clinical and non-clinical performance of each trainee. Specialists in related fields may teach on various topics, such as dermatopathology, infectious diseases, oncology, and immunology. Trainees' competence is closely monitored, and responsibility for patient care is progressively increased according to skill level. As well as being involved in direct patient care, trainees are encouraged to be actively involved in all learning opportunities available in their place of training, such as discussion of cases in clinics, ward rounds, seminars, clinicopathological sessions, and journal club meetings. These provide opportunities for deeper understanding of clinical issues encountered and for consolidation of learning.

CURRICULUM THEMES AND LEARNING OBJECTIVES

Each of the curriculum documents has been developed using a common format, thereby ensuring a degree of consistency and approach across the spectrum of training.

Domains

The Domains are the broad fields which group common or related areas of learning.

Themes

The Themes identify and link more specific aspects of learning into logical or related groups.

Learning Objectives

The Learning Objectives outline the specific requirements of learning. They provide a focus for identifying and detailing the required knowledge, skills, and attitudes. They also provide a context for specifying assessment standards and criteria as well as providing a context for identifying a range of teaching and learning strategies.

The Dermatology Advanced Training Program requires a minimum of four years full-time (or equivalent) training. The stages of training facilitate the progressive and cumulative acquisition of knowledge and skills.

This curriculum specifies a comprehensive range of learning objectives and their related knowledge and skills which are essential to practice as a specialist dermatologist. It recognises that the characteristics of a dermatologist should reflect more than just clinical competence. Other essential professional qualities, such as communication skills, research ability and ethical behaviours, are considered equally important.

Whilst the training is progressive and cumulative, the curriculum can be looked at in two distinct sections (note: indicative times are given to allow a certain degree of flexibility based on the availability of suitable training options)

Domain 1: Basic Dermatology – Clinical Sciences

This comprises the basic theoretical scientific knowledge underpinning the study of dermatology. It is preferable to acquire this knowledge within the first 24 months of training or at maximum within the first 36 months of higher training.

By the end of the first year, as a minimum, trainees must have a firm understanding of the common benign and malignant tumours of the skin and their management, the role and use of dermoscopy and the diagnosis and management of psoriasis, eczema, and acne. Trainees should expect to spend one year of their basic dermatology training in Auckland and one year in Hamilton. The Specialty Advisory Committee (SAC) recommends that in order to cover the reading required in the first two years of training, the trainee presents weekly or fortnightly to their supervisors on selected topics in dermatology. The trainee is expected to present at each annual meeting of the New Zealand Dermatological Society and to publish at least one paper in a peer reviewed journal over their first two years and at least one other in their second two years.

Domain 2: Advanced Dermatology

Advanced Dermatology builds on the knowledge acquired during Basic Dermatology Training and covers advanced theoretical knowledge and clinical skills. These advanced theoretical knowledge and skills components will be acquired during the final 12 – 24 months of higher training.

Prior to commencement of the advanced dermatology component of their training it is expected that all trainees will have fulfilled the requirements for basic dermatology. Advanced dermatology spans the remaining 12 - 24 months of the Advanced Training Program.

During advanced dermatology training, trainees acquire a significantly enhanced degree of knowledge and skills in the treatment of more complex dermatological conditions and are given increased responsibility for patient management. It is expected that the advanced practical dermatology components of training will be undertaken within the context of specific training programs. Advanced Dermatology Training is undertaken at approved centres offshore. The advanced component of the training program will be considered under the following four themes:

- 2.1 Advanced adult dermatology
- 2.2 Advanced procedural dermatology
Mohs surgery
Cosmetic surgery
- 2.3 Advanced dermatopathology
- 2.4 Advanced paediatric dermatology.

Mohs Micrographic Surgery

Mohs surgery claims extremely high cure rates for skin cancers, therefore the SAC requires that in order to protect:

- the reputation of this technique in New Zealand
- the reputation of those who practise it, and
- the public from poor use of this technique

all trainees wishing to practise Mohs surgery in New Zealand must complete a formal one or two year fellowship such as those administered by the American College of Mohs Surgery (ACMS) or the Accreditation Council for Graduate Medical Education (ACGME) Procedural Dermatology Fellowship. This formal fellowship training must see the trainee perform at least 550 cases of Mohs supervised on-site by the program director.

Details of appropriate curriculum of such fellowships can be found on their website: www.mohscollege.org

Cosmetic Procedural Dermatology

Due to the New Zealand Medical Council guidelines for cosmetic surgery, the SAC requires those trainees wishing to include blepharoplasty, brow-lift, superficial plane rhytidectomy, liposuction, breast reduction or augmentation, otoplasty, fat transfer, hair transplantation, phenol peels and other cosmetic procedures of the skin and fat, to complete a formal 12 month procedural or cosmetic dermatology fellowship such as those administered by the American Academy of Dermatology and Accreditation Council for Graduate Medical Education (ACGME). Some American College of Mohs Surgery Fellowship's may be suitable - trainees should check with the SAC.

The study and practice of advanced cosmetic surgery as outlined in this curriculum includes many invasive procedures and should be carried out simultaneously with, or subsequent to, the requirements for advanced training in Mohs Surgery. The importance of this is recognised in the structure of the AGCME Procedural Dermatology Fellowship. A detailed curriculum can be found on their website: www.agcme.edu

LEARNING OBJECTIVES TABLES

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCE
Theme 1.1	Basic Skin Anatomy and Biology
Learning Objectives	
1.1.1	Establish a core knowledge of skin anatomy and biology for the treatment of patients with skin disorders
Theme 1.2	Clinical Pharmacology
Learning Objectives	
1.2.1	Prescribe systemic drugs and describe their actions pertaining to skin and mucous membranes
1.2.2	Prescribe topical drugs and describe their actions pertaining to skin and mucous disorders
Theme 1.3	Dermatological Medicine
Learning Objectives	
1.3.1	Manage patients with disorders of the skin and mucous membranes
1.3.2	Investigate and treat patients with contact dermatitis
1.3.3	Diagnose and treat sexually transmitted infections and diseases of the genitalia
Theme 1.4	Basic Principles of Laser and Intense Pulsed Light Sources
Learning Objectives	
1.4.1	Describe the physics and therapeutic use of light sources
1.4.2	Describe the physics and therapeutic use of lasers
Theme 1.5	Dermatological Surgery
Learning Objectives	
1.5.1	Perform basic dermatological surgery
1.5.2	Describe the use of radiotherapy in the treatment of skin disorders
1.5.3	Describe the use of injection therapy in the treatment of skin disorders
1.5.4	Explain the importance of infection control/sterilisation
1.5.5	Demonstrate effective and safe use of local anaesthesia

Theme 1.6	Dermatopathology and Laboratory Methods
Learning Objectives	
1.6.1	Use microscopic analysis in the assessment of skin disorders
Theme 1.7	Paediatric Dermatology
Learning Objectives	
1.7.1	Diagnose and manage skin disorders in children
Theme 1.8	Business and Practice Management
Learning Objectives	
1.8.1	Discuss business and practice management issues related to establishment and running of a dermatological practice
DOMAIN 2	ADVANCED DERMATOLOGY
Theme 2.1	Advanced General Dermatology
Learning Objectives	
2.1.1	Demonstrate advanced skills in photobiology
2.1.2	Demonstrate advanced skills in occupational dermatology
2.1.3	Demonstrate advanced skills in genital dermatology
2.1.4	Demonstrate advanced skills in cutaneous oncology
2.1.5	Demonstrate advanced skills in immunodermatology
2.1.6	Demonstrate advanced skills in contact dermatitis
2.1.7	Demonstrate advanced skills in tropical dermatology
2.1.8	Demonstrate advanced skills in advanced laser surgery
2.1.9	Demonstrate advanced skills in advanced anaesthesia
2.1.10	Treat disorders of venous incompetence
Theme 2.2	Advanced Procedural Dermatology
Learning Objectives	
2.2.1	Perform Mohs micrographic surgery
2.2.2	Perform cosmetic surgery

Theme 2.3	Advanced Dermatopathology
Learning Objectives	
2.3.1	Demonstrate an advanced level of knowledge and practice in dermatopathology
2.3.2	Demonstrate an advanced level of competency in the use of immunopathology
Theme 2.4	Advanced Paediatric Dermatology
Learning Objectives	
2.4.1	Diagnose and manage paediatric patients

Learning Objective Tables

Indicate the underpinning knowledge and skills associated with each of the specific learning objectives.

Domain 1: Basic Dermatology – Clinical Science

The basic dermatology curriculum comprises the basic theoretical knowledge underpinning the study of dermatology. It is preferable that this knowledge is acquired within the first 24 months of training or at maximum within the first 36 months of higher training.

Theme 1.1: Basic Skin Anatomy and Biology

At the end of the four year training program trainees should be competent in the diagnosis and management of the full range of dermatological conditions. This includes those which may present in outpatient and inpatient settings, and those arising as a complication of surgical or medical conditions or treatments. Trainees must be able to appreciate the differences in presentation of skin conditions in patients of different ethnic origins and in different age groups. In particular, trainees will need to develop an ability to deal with children suffering with dermatological conditions, and their parents. They will need to become familiar with skin diseases exclusive to, or presenting particular problems for children, and develop an appreciation of different approaches to diagnosis and management. Trainees must have demonstrated a satisfactory interviewing technique and an ability to relate to patients from all walks of life.

The diagnosis and management of skin lesions, including skin malignancies is an integral part of the practice of dermatology, particularly in New Zealand. At the end of the training period trainees should be competent to accurately assess and diagnose all skin lesions with which they may be confronted in practice. They should have attended course(s), gained experience in and become competent in skin surface microscopy. They should also be competent in the performance of basic procedures to deal with those skin lesions encountered. As well, they should have an understanding of the methods and application of cosmetic procedures about which patients may inquire. However, in all aspects of practice it is essential that they appreciate when referral to a more appropriate or more qualified practitioner in a particular subspecialty is necessary.

During the training program, trainees should have developed a basic structure to carry out CPD throughout their career. This includes an ability to critically appraise journal articles.

DOMAIN 1		BASIC DERMATOLOGY – CLINICAL SCIENCES	
Theme 1.1		Basic Skin Anatomy and Biology	
Learning Objective 1.1.1		Establish a core knowledge of skin anatomy and biology for the treatment of patients with skin disorders	
Knowledge		Skills	
<ul style="list-style-type: none"> • discuss the theoretical and applied anatomy of the skin and subcutaneous tissue, including the deep fascia and structures beneath the deep fascia • discuss general skin function • describe the embryology of the skin • describe the structure and function of the epidermis; epidermal differentiation and keratinisation • describe the physiology of the dermoepidermal junction • characterise melanocyte biology • describe the structure and function of the dermis: biology of collagen, elastin, basement membranes, extracellular matrix, proteoglycans, and glycosaminoglycans • describe the structure and basic biology of subcutaneous fat • describe the biology of the oral mucosa • describe the anatomy and physiology of the blood vessels, lymphatics, and nerves of the skin • describe the biology of mast cells, Langerhans cells, and merkel cells • describe the microanatomy and biology of: <ul style="list-style-type: none"> • apocrine glands • eccrine glands • hair • nails • sebaceous glands • describe the histology of the skin • discuss the principles of photophysics, photochemistry, and photobiology • describe the effects of electromagnetic radiation on the skin • relate the basic principles of genetics to skin formation and characteristics • describe the basic mechanisms and aetiology of skin carcinogenesis 		<ul style="list-style-type: none"> • apply basic science knowledge to appreciate significance of pathological skin disease • interpret clinical signs considering the pathological and histological process of skin disorders • perform dermatological surgery. 	

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES	
Theme 1.1	Basic Skin Anatomy and Biology	
Learning Objective 1.1.1	Establish a core knowledge of skin anatomy and biology for the treatment of patients with skin disorders	
<ul style="list-style-type: none"> • discuss the principles of wound healing • describe the skin’s reactions to physical agents, including cold and heat • discuss basic skin microbiology • discuss basic biochemistry as it applies to the skin • discuss immunology in relationship to the skin • describe the cellular and molecular biology of inflammation, including: <ul style="list-style-type: none"> • adhesion molecules • arachidonic acid metabolism • complement system • cytokines • eosinophils and basophils • human leukocyte antigen system • immunoglobulin structure and function • polymorphonuclear leukocytes. 		

Theme 1.2 – Clinical Pharmacology

Trainees require thorough understanding of basic pharmacology and specific pharmacology of drugs used in the treatment of dermatological conditions, detailed understanding of the basic principles of topical therapy and knowledge of the pharmacology of the agents used in topical therapy.

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES	
Theme 1.2	Clinical Pharmacology	
Learning Objective 1.2.1	Prescribe systemic drugs and describe their actions pertaining to skin and mucous membranes	
Knowledge	Skills	
<ul style="list-style-type: none"> describe the structure, absorption and distribution, mechanism of action, metabolism and excretion, and the clinical use, including adverse effects and contraindications, drug interactions and clinical indications, for: <ul style="list-style-type: none"> antiandrogens antihistamines antimalarials dapsone and sulfapyridine drugs for the treatment of relevant infections immunomodulatory, antiproliferative, and ‘biologic’ drugs psoralens retinoids vasoactive and antiplatelet drugs new and emerging drugs relevant to dermatology. 	<ul style="list-style-type: none"> select and prescribe appropriate medication monitor for and recognise potential complications and adverse events, and manage these appropriately. 	

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES
Theme 1.2	Clinical Pharmacology
Learning Objective 1.2.2	Prescribe topical drugs and describe their actions pertaining to skin and mucous disorders
Knowledge	Skills
<ul style="list-style-type: none"> • discuss the pharmacology of topical therapy, including vehicles, principles of emulsions, and types of skin preparations • describe the skin barrier and principles of percutaneous absorption • discuss different types and constituents of salves, ointments, creams, and gels • discuss the structure, absorption and distribution, mechanism of action and clinical uses, including adverse effects and contraindications, drug interactions and clinical indications, of specific topical therapies, including: <ul style="list-style-type: none"> • agents used to reduce skin pigmentation • antibiotics • antifungal agents • antiperspirants and depilatory agents • antiviral agents • calcineurin inhibitors • camouflaging preparations • cleansing agents and bath preparations • corticosteroids • cytotoxic and immunomodulatory agents • germicides and other antibacterial agents • insect repellents and parasiticides • keratolytics • preparations used in psoriasis, including tars, dithranol, and calcipotriol • preparations used in the treatment of acne • retinoids • sunscreens • 'traditional' agents • new and emerging drugs relevant to dermatology. 	<ul style="list-style-type: none"> • select and prescribe appropriate topical medication • monitor for and recognise potential complications and adverse events, and manage these appropriately.

Theme 1.3 – Dermatological Medicine

Trainees require a fundamental understanding of the structure and function of the skin in health and disease. Also expected is knowledge of comparative dermatology and an understanding of basic pathological reactions of the skin and of the methods of dermatological diagnosis. Detailed knowledge of aetiology and pathogenesis, epidemiology, histopathology, clinical features, investigations, differential diagnosis, prognosis, and management (where applicable) is required across the range of dermatological categories.

DOMAIN 1		BASIC DERMATOLOGY – CLINICAL SCIENCES	
Theme 1.3		Dermatological Medicine	
Learning Objective 1.3.1		Manage patients with disorders of the skin and mucous membranes	
Knowledge		Skills	
<ul style="list-style-type: none"> outline aspects of genetics, including: <ul style="list-style-type: none"> basic genetic principles genodermatoses prenatal diagnosis of skin disease/genetic counselling discuss inflammation, including cellular and molecular biology <p>describe the principles of the following conditions and disorders:</p> <ul style="list-style-type: none"> clinical immunology; immunodeficiency disorders dermatitis: <ul style="list-style-type: none"> endogenous exogenous erythroderma irritant and allergic contact dermatitis pruritus reactions to physical agents dermatological complications of stomas dermatological problems in amputees dermatological signs of child/elderly abuse ionising radiation mechanical injury thermal injury sports dermatology photomedicine: <ul style="list-style-type: none"> effects of UV radiation on the skin photosensitivity disorders principles of photobiology infections and infestations: <ul style="list-style-type: none"> bacterial biting arthropods/marine stings emerging diseases with cutaneous manifestations fungal mycobacterial, including leprosy 		<ul style="list-style-type: none"> select and prescribe appropriate medication monitor for and recognise potential complications and adverse events, and manage these appropriately. 	

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES	
Theme 1.3	Dermatological Medicine	
Learning Objective 1.3.1	Manage patients with disorders of the skin and mucous membranes	
<ul style="list-style-type: none"> • rickettsial • scabies • treponematoses • viral, including HIV/AIDS • worms; protozoa • zoonoses • sexually transmitted infections (STIs) • disorders of keratinisation • psoriasis • disorders of pigmentation • disorders of epidermal cohesion: bullous disorders • epidermal and dermal inflammatory conditions of unknown aetiology: <ul style="list-style-type: none"> • annular erythemas • Behcet’s disease • eosinophilic disorders • lichen planus and lichenoid reactions • neutrophilic dermatoses • pityriasis lichenoides • pityriasis rosea • Reiter disease • rosacea • connective tissue diseases, collagenvascular disorders: <ul style="list-style-type: none"> • dermatomyositis • lichen sclerosus • localised forms of scleroderma • lupus erythematosus • pseudo-scleroderma • rheumatoid arthritis and rheumatic diseases • systemic sclerosis • vascular and lymphatic disorders: <ul style="list-style-type: none"> • diseases of the lymphatics • diseases of the veins and arteries; leg ulcers • purpura • urticaria and angioedema • vasculitis • disorders of the dermis: <ul style="list-style-type: none"> • diseases of connective tissue • histiocytoses • mastocytoses • necrobiotic disorders • perforating disorders • sarcoidosis 		

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES	
Theme 1.3	Dermatological Medicine	
Learning Objective 1.3.1	Manage patients with disorders of the skin and mucous membranes	
<ul style="list-style-type: none"> • disorders of subcutaneous tissue • disorders of the appendages: <ul style="list-style-type: none"> • apocrine sweat glands • eccrine sweat glands • follicular syndromes with inflammation and atrophy • hair • sebaceous glands; acne and acneiform eruptions • disorders of the nails • disorders affecting special sites: <ul style="list-style-type: none"> • breast • eyelids • external ears • genitalia - male and female • lips and oral mucosa • disorders of the mucocutaneous integument • cutaneous manifestations of systemic disease: <ul style="list-style-type: none"> • haematological, gastrointestinal, renal, cardiovascular, pulmonary, endocrine disorders • metabolic disorders • nutritional disorders • cutaneous manifestations of internal malignancy • cutaneous manifestations in the immunosuppressed host/graft-vs.-host disease • drug eruptions and cutaneous reactions to systemic drug therapy and drug abuse • neurocutaneous and psychocutaneous disorders • skin tumours; benign/malignant: <ul style="list-style-type: none"> • appendageal • dermal • epidermal • melanocytic • metastatic disease • subcutaneous • lymphomas and pseudolymphomas/parapsoriasis • variation in dermatological diseases with age, race and pregnancy. 		

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES	
Theme 1.3	Dermatological Medicine	
Learning Objective 1.3.2	Investigate and treat patients with contact dermatitis	
Knowledge	Skills	
<ul style="list-style-type: none"> explain the principles of contact dermatitis: <ul style="list-style-type: none"> allergic irritant phototoxic and photoallergic contact dermatitis non-eczematous contact dermatoses describe the principles of patch testing recognise occupational skin dermatoses describe the medico-legal aspects of contact dermatitis, including Accident Compensation Corporation (ACC) legislation and reporting. 	<ul style="list-style-type: none"> take an occupational history perform and interpret patch testing, including the relevance of a positive patch test perform and interpret skin prick tests, scratch tests, and intradermal tests write a medico-legal report relating to a patient with contact dermatitis. 	

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES	
Theme 1.3	Dermatological Medicine	
Learning Objective 1.3.3	Diagnose and treat sexually transmitted infections and diseases of the genitalia	
Knowledge	Skills	
<ul style="list-style-type: none"> describe common STIs identify skin diseases of the male and female genitalia. 	<ul style="list-style-type: none"> take a sexual history apply basic science knowledge in the investigation, diagnosis, treatment, and follow up of skin disorders affecting the genitalia. 	

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES	
Theme 1.4	Basic Principles of Laser and Intense Pulse Light Sources	
Learning Objective 1.4.1	Describe the physics and therapeutic use of light sources	
Knowledge	Skills	
<ul style="list-style-type: none"> outline the electromagnetic spectrum and the physical properties of light and its effects on the skin describe when the following aspects of phototherapy and photodynamic therapy are required: <ul style="list-style-type: none"> photodynamic therapy - therapy based on systemic haematoporphyrin derivative, topical 5-aminolevulinic acid (ALA) or its esters: principles, indications, risks, limitations, cure rates and knowledge of different light delivery systems PUVA - all modalities: bath, cream, paint and systemic mono or combination therapy: principles, risks, limitations and complications UVB phototherapy - broad and narrow band; underlying physical principles, electronics, risks, and limitations. 	<ul style="list-style-type: none"> prescribe, administer, and monitor light therapy, including but not limited to broadband/ narrowband UVB, UVA, PUVA and photodynamic therapy train and supervise phototherapy technicians and ensure safe practice. 	

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES	
Theme 1.4	Basic Principles of Laser and Intense Pulse Light Sources	
Learning Objective 1.4.2	Describe the physics and therapeutic use of lasers	
Knowledge	Skills	
<ul style="list-style-type: none"> describe the following aspects of laser and intense pulsed light sources, including: <ul style="list-style-type: none"> clinical indications - vascular lesions, pigmented lesions, birthmarks, tattoos, acne scarring, scars, skin cancer, verrucae, actinic cheilitis, photoageing, wrinkling, laser assisted epilation, varicose veins, and a range of other indications knowledge of lasers currently available, subject to technological change laser tissue interaction - principles of selective photothermolysis, thermal relaxation times, cryoprotection, and variables associated. 	<ul style="list-style-type: none"> describe laser and intense pulsed light therapeutics. 	
<ul style="list-style-type: none"> <i>NOTE: Trainees are not required to gain practical experience in these procedures. They are required to have a detailed theoretical knowledge of the procedures and to have observed on at least several occasions the performance of such procedures.</i> 		

Theme 1.5 – Dermatological Surgery

The accurate diagnosis of skin diseases/lesions includes thorough clinical examination and, in selected cases, the use of a biopsy to obtain histopathology. These elements form essential initial steps leading to the appropriate selection of therapeutic procedures and are therefore a pre-requisite to proper management in procedural dermatology. They are examined as part of procedural dermatology.

Trainees should have a broad theoretical and practical knowledge of all aspects of procedural dermatology based on:

- theoretical knowledge; reading, attendance of tutorials, meetings, etc.
- observing experienced operators/surgeons
- assisting at procedures/surgery with experienced operators
- operating under supervision with the assistance of an experienced operator
- operating alone with an experienced operator available - if required
- ongoing cases

In the first year of training attendance at supervised dermatological surgery clinics is required. At all stages of training, advanced surgical procedures should also be performed in a setting of supervised dermatological surgery clinics.

Theoretical knowledge of procedures that trainees may not perform themselves directly, either during training or after graduation, is still essential, e.g. electron beam therapy, Mohs micrographic surgery, and laser skin resurfacing. It is the responsibility of training supervisors to ensure that trainees obtain at least observational exposure to these procedures - see: Assessment of Competence Form in the Training Program Record Book.

Levels of practical competence in procedural dermatology are defined:

- Essential - minimal
- Advanced - extra training required

A wide range of technical skills and dexterity will exist in trainees. Dermatology as a specialty may attract medically inclined individuals as well as those with a surgical preference. Some trainees may have low confidence in their technical abilities. Trainees should, with intensive training, be able to achieve a level of technical and practical competence to satisfactorily complete all of the requirements of the Procedural Dermatology section of the curriculum. Assessment of competence by an appropriately qualified and/or experienced dermatologist who is a member of the New Zealand Dermatological Society, or delegated by the SAC, will be carried out on all aspects of procedural dermatology using the Assessment of Competence Form. This form, part of the Training Program Record Book, will need to be completed prior to trainees obtaining FRACP status.

Competence must be demonstrated in the following areas of procedural dermatology:

- dermatological surgery, including cryotherapy
- radiotherapy
- injection therapy
- infection control/sterilisation
- local anaesthesia.

DOMAIN 1		BASIC DERMATOLOGY – CLINICAL SCIENCES	
Theme 1.5		Dermatological Surgery	
Learning Objective 1.5.1		Perform basic dermatological surgery	
Knowledge		Skills	
<p>(a) surgical anatomy:</p> <ul style="list-style-type: none"> a thorough grounding in anatomy of the skin is required. This includes the deep fascia and structures deep to the deep fascia which may be injured during dermatological surgery or which might require excision for diagnostic or therapeutic purposes, e.g. lymph nodes head and neck anatomy requires special attention because of the predominance of skin cancers in these sites general requirements include: <ul style="list-style-type: none"> classic systems of anatomy - muscles of facial expression, superficial musculo-aponeurotic system of head and neck, facial nerve, sensory nerves of skin, vascular systems, including arteries and veins in particular head, neck and legs and lymphatics surface anatomy - topographic anatomy and surface projections of deep anatomical structures, skin tension lines, aesthetics and the anatomy of skin ageing regional anatomy - scalp, forehead, eyelid, nose, ear, lip, chin, cheek, neck, mouth, tongue, genitalia, anus and perianal, leg and thigh, upper limb, and nail unit <p>(b) cryotherapy:</p> <ul style="list-style-type: none"> indications and contraindications mechanisms - physical and physiological factors and cellular effects; different cryogens post operative care and complications techniques - freeze thaw principles, timed spot freeze technique and thermocouples <p>(c) curettage:</p> <ul style="list-style-type: none"> instrumentation, physical principles, techniques, indications, contra-indications, and cure rates <p>(d) cauterisation:</p> <ul style="list-style-type: none"> instrumentation, physical principles, techniques, indications, contra-indications, cure rates, and safety factors 		<ul style="list-style-type: none"> essential practical skills in dermatological surgery: <ul style="list-style-type: none"> perform a skin biopsy (all methods), curettage, cautery and electrosurgery, cryosurgery, basic instrument handling skills, tumour margin planning, haemostasis and management of significant intraoperative bleeding, suturing, dressing techniques, and post operative care designing appropriate incision lines, respect for cosmetic units, ability in designing wound closures, excision (elliptical), and suture perform under supervision during training of split and full thickness skin grafts and a range of basic flaps including simple advancement flaps (unilateral or bilateral and A-T type), simple transposition flaps such as rhombic or nasolabial flap, rotation flaps, and subcutaneous pedicle (island) flaps. 	

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES
Theme 1.5	Dermatological Surgery
Learning Objective 1.5.1	Perform basic dermatological surgery
<p>(e) electrosurgery:</p> <ul style="list-style-type: none"> • electrofulguration, electrocoagulation and electrosection (cutting) and diathermy • instrumentation, physical principles, techniques, indications, contraindications, cure rates and safety factors • define terms electrocautery, electrolysis and electrodesiccation <p>(f) scalpel surgery:</p> <ul style="list-style-type: none"> • biopsy: <ul style="list-style-type: none"> • punch, shave, incisional and excisional • instrumentation, indications, contraindications and relevant merits and disadvantages of each technique for various conditions • excision: <ul style="list-style-type: none"> • lines of excision, cosmetic unit principles, relaxed skin tension lines • margins of excision for different skin tumours, working knowledge of surgical instrumentation and nomenclature, suture materials and needles • principles of wound closure, undermining, suturing techniques, subcutaneous sutures, subcuticular suture, mattress suture, running suture, M-plasty • techniques of haemostasis • flaps: <ul style="list-style-type: none"> • decision making process in flap selection • factors influencing survival • principles of tissue movement and flap dynamics • specific flaps, including but not limited to advancement, rotation, transposition, subcutaneous, pedicle, and Z-plasty • grafts: <ul style="list-style-type: none"> • decision making process in graft selection • factors influencing survival • mechanisms of graft survival • split thickness, full thickness, and composite cartilaginous grafts • manage all complications of procedural work 	

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES
Theme 1.5	Dermatological Surgery
Learning Objective 1.5.1	Perform basic dermatological surgery
<p>(g) post operative wound care:</p> <ul style="list-style-type: none"> dressings, second intention healing, management of complications, including haematoma, infection, necrosis, and hypertrophic scarring <p>(h) dermabrasion and chemical peeling:</p> <ul style="list-style-type: none"> indications, contra-indications, techniques, instrumentation, peeling agents, postoperative healing, complications and safety. 	

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES
Theme 1.5	Dermatological Surgery
Learning Objective 1.5.2	Describe the use of radiotherapy in the treatment of skin disorders
Knowledge	
<ul style="list-style-type: none"> explain the use of superficial x-ray therapy for benign skin disorders and skin malignancies including: <ul style="list-style-type: none"> complications contraindications indications post-treatment care describe the principles of radiation oncology/radiotherapy, including: <ul style="list-style-type: none"> practical aspects of treatment positioning, shielding, indications, contraindications, dosage calculation, administration and safety factors radiation injury describe the principles of radiation protection. <p><i>NOTE: trainees are not expected to undertake radiation treatments.</i></p>	

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES	
Theme 1.5	Dermatological Surgery	
Learning Objective 1.5.3	Describe the use of injection therapy in the treatment of skin disorders	
Knowledge	Skills	
<ul style="list-style-type: none"> explain the theoretical basis of these techniques, complications of treatment and their management: <ul style="list-style-type: none"> botulinum toxin intralesional corticosteroids, bleomycin, cytotoxics, and others sclerotherapy - injection of dermal filler substances. 	<ul style="list-style-type: none"> perform intralesional corticosteroid injections for granuloma annulare, keloid scars, and alopecia areata as required perform cosmetic treatments under supervision. 	

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES	
Theme 1.5	Dermatological Surgery	
Learning Objective 1.5.4	Explain the importance of infection control/sterilisation	
Knowledge	Skills	
<ul style="list-style-type: none"> use standard and additional precautions for the protection of staff and patients outline disinfection and sterilisation procedures, and sharp and contaminated waste disposal outline aseptic techniques, operating room protocol and sharp injuries protocol describe sterilisation equipment principles and maintenance. 	<ul style="list-style-type: none"> set up and perform basic infection control procedures in an office setting set up for dermatological procedures and clear up afterwards. 	

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES	
Theme 1.5	Dermatological Surgery	
Learning Objective: 1.5.5	Demonstrate effective and safe use of local anaesthesia	
Knowledge	Skills	
<ul style="list-style-type: none"> describe the basic pharmacology of local anaesthetics, formulations, including buffering and tumescent, infiltration techniques, including techniques to ameliorate injection discomfort, and anatomy relevant to regional blocks around face and digits 	<ul style="list-style-type: none"> provide safe and effective local anaesthesia, including maxillary, mandibular, trochlear, and supratrochlear nerve blocks complete the New Zealand Resuscitation Council Certificate of Resuscitation (CORE) Level 7 or equivalent. 	

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES	
Theme 1.5	Dermatological Surgery	
Learning Objective: 1.5.5	Demonstrate effective and safe use of local anaesthesia	
<ul style="list-style-type: none"> describe the risks, complications, and alternatives describe the monitoring of local anaesthetic, including pulse oximetry and electrocardiogram (ECG) describe adrenaline effects, lignocaine toxicity and anaphylactic reaction outline resuscitation procedures. 		

Theme 1.6 – Dermatopathology and Laboratory Methods

Experience and training in dermatopathology and relevant laboratory methods are essential to understand diseases of the skin and their management.

Trainees should become competent in the use of a standard light microscope and have knowledge of laboratory methods used in the histopathology laboratory. They are expected to have knowledge and practical experience in cutaneous parasitology, fungal microscopy and culture (mycology). At the end of the training period trainees should be able to assess common dermatological inflammatory disorders and tumours.

Another important aspect of training in dermatopathology and laboratory methods is accurate and appropriate selection and interpretation of pathology results, including relevant blood tests and microbiology related to infectious diseases, autoimmune diseases and systemic diseases with cutaneous manifestations or their treatment.

DOMAIN 1		BASIC DERMATOLOGY – CLINICAL SCIENCES
Theme 1.6		Dermatopathology and Laboratory Methods
Learning Objective 1.6.1		Use microscopic analysis in the assessment of skin disorders
Knowledge		Skills
<ul style="list-style-type: none"> describe the histopathology of the skin describe specimen processing outline microscope operation describe the dermatopathology of: <ul style="list-style-type: none"> genodermatoses inflammatory dermatoses tumours benign and malignant explain immunopathology identify the limitations of cultural identification in pathology laboratories explain mycology, including: <ul style="list-style-type: none"> epidemiology of fungal infections fungal microscopy and culture 		<ul style="list-style-type: none"> use a standard light microscope to evaluate skin disease use and interpret laboratory tests extract and perform microscopic identification of scabies mites and head lice identify fungal spores and hyphae on direct microscopy of skin scrapings, common parasites causing disease in humans and common abnormalities of hair assess common dermatological conditions and common skin tumours microscopically interpret pathology results, including relevant blood and serology tests related to infectious diseases, autoimmune diseases and systemic diseases with cutaneous manifestations.

DOMAIN 1		BASIC DERMATOLOGY – CLINICAL SCIENCES
Theme 1.6		Dermatopathology and Laboratory Methods
Learning Objective 1.6.1		Use microscopic analysis in the assessment of skin disorders
<ul style="list-style-type: none"> explain parasitology, including: <ul style="list-style-type: none"> epidemiology of scabies scabies, pediculosis identification, and dermoscopy. 		

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES	
Theme 1.7	Paediatric Dermatology	
Learning Objective 1.7.1	Diagnose and manage skin disorders in children	
Knowledge	Skills	
<ul style="list-style-type: none"> describe aspects of paediatric dermatology, including: <ul style="list-style-type: none"> disorders seen in neonates infections relevant to dermatology in children inflammatory dermatoses of childhood naevi and other developmental defects skin tumours in children. 	<ul style="list-style-type: none"> apply basic science knowledge in the investigation, diagnosis, treatment and follow up of skin disorders in children. 	

DOMAIN 1	BASIC DERMATOLOGY – CLINICAL SCIENCES	
Theme 1.8	Business and Practice Management	
Learning Objective 1.8.1	Discuss business and practice management issues related to establishment and running of a dermatological practice	
Knowledge	Skills	
<ul style="list-style-type: none"> outline the following aspects related to business management: <ul style="list-style-type: none"> New Zealand employment law taxation requirements ACC legislation accountancy practices health and safety office management marketing commercial leases medical records. 	<ul style="list-style-type: none"> explain business and practice management issues that can arise outline the following legal aspects related to business management: <ul style="list-style-type: none"> hiring and firing of staff engaging in a commercial lease health and safety requirements in a medical practice various medical records and accounting software packages available basic steps in establishing and marketing a practice. 	

Domain 2: Advanced Dermatology

Prior to commencing the Advanced Dermatology training, trainees will have fulfilled the requirements for Basic Dermatology. Advanced Dermatology spans the remaining 12 - 24 months of the advanced program. During Advanced Training, trainees significantly enhance their knowledge and skills in the treatment of more complex dermatological conditions and are given increased responsibility for patient management. It is expected that the Advanced Dermatology components of training will be undertaken within the context of specific training programs. This training is usually obtained at one or more approved centres outside of New Zealand, e.g. United Kingdom, United States of America and Australia.

DOMAIN 2		ADVANCED DERMATOLOGY	
Theme 2.1		Advanced General Dermatology	
Learning Objective 2.1.1		Demonstrate advanced skills in photobiology	
Knowledge		Skills	
<ul style="list-style-type: none"> describe photophysics, photobiology, and photoimmunology select patients for phototherapy describe indications, contraindications, risks, and adverse effects of phototherapy explain the treatment protocols for psoriasis, eczema, vitiligo, cutaneous lymphoma, and generalised pruritus select phototherapy devices outline treatment protocols for photodynamic therapy diagnose and manage photosensitivity dermatoses, including metabolic, drug-related, contact, immunological, and idiopathic disorders describe phototesting, including photopatch testing, photoaggravation testing, solar simulator, and monochromator testing outline UVB and UVA testing of sunscreens, including Australian and New Zealand standards for sunscreens. 		<ul style="list-style-type: none"> design and carry out narrowband phototherapy plan for patient with suitable skin disease perform photodynamic therapy for solar keratoses and superficial basal cell carcinoma perform and interpret photopatch tests perform basic phototests using UVB and UVA source assess minimal erythema dose for UVB and PUVA explain the use of photoaggravation tests describe solar simulator and monochromator testing. 	

DOMAIN 2	ADVANCED DERMATOLOGY	
Theme 2.1	Advanced General Dermatology	
Learning Objective 2.1.2	Demonstrate advanced skills in occupational dermatology	
Knowledge	Skills	
<ul style="list-style-type: none"> recognise occupational skin diseases recognise contact dermatitis describe the use of patch testing identify the details of function of and occupational exposure to common allergens in extended patch test series, e.g. hairdressing battery describe workplace assessments explain medical reporting. 	<ul style="list-style-type: none"> advise on prevention of skin disease, allergen avoidance and advanced management of occupational dermatitis construct medico-legal report perform and interpret extended series patch tests select appropriate tests. 	

DOMAIN 2	ADVANCED DERMATOLOGY	
Theme 2.1	Advanced General Dermatology	
Learning Objective 2.1.3	Demonstrate advanced skills in genital dermatology	
Knowledge	Skills	
<ul style="list-style-type: none"> describe the anatomy and physiology of normal female and male anogenital regions diagnose and manage diseases affecting the anogenital region: <ul style="list-style-type: none"> benign and malignant skin lesions inflammatory diseases STIs. 	<ul style="list-style-type: none"> perform a skin biopsy in genital area explain benign and malignant dermatoses that affect the anogenital region. 	

DOMAIN 2	ADVANCED DERMATOLOGY	
Theme 2.1	Advanced General Dermatology	
Learning Objective 2.1.4	Demonstrate advanced skills in cutaneous oncology	
Knowledge	Skills	
<ul style="list-style-type: none"> diagnose and manage melanoma, basal cell carcinoma (BCC) and squamous cell carcinoma (SCC) diagnose and manage other skin malignancies, including lymphoma diagnose and manage benign skin lesions explain the use of dermatoscopy, including currently accepted pigmented lesion scoring systems. 	<ul style="list-style-type: none"> assess patients using dermatoscopy interpret staging radiographic imaging data. 	

DOMAIN 2	ADVANCED DERMATOLOGY	
Theme 2.1	Advanced General Dermatology	
Learning Objective 2.1.5	Demonstrate advanced skills in immunodermatology	
Knowledge	Skills	
<ul style="list-style-type: none"> recognise and apply the current science of immunodermatology describe the indications, limitations, and safety of desensitisation techniques. 	<ul style="list-style-type: none"> interpret laboratory tests and application to patient management complete techniques in desensitisation. 	

DOMAIN 2	ADVANCED DERMATOLOGY	
Theme 2.1	Advanced General Dermatology	
Learning Objective 2.1.6	Demonstrate advanced skills in contact dermatitis	
Knowledge	Skills	
<ul style="list-style-type: none"> describe the science of contact dermatitis. 	<ul style="list-style-type: none"> select battery of allergens appropriate to the history and examination findings interpret tests and apply to patient management. 	

DOMAIN 2	ADVANCED DERMATOLOGY
Theme 2.1	Advanced General Dermatology
Learning Objective 2.1.7	Demonstrate advanced skills in tropical dermatology
Knowledge	Skills
<ul style="list-style-type: none"> diagnose and manage cutaneous tropical diseases, including systemic and cutaneous infections: <ul style="list-style-type: none"> bacterial infections, including leprosy, lupus vulgaris and tropical ulcer fungal infections, including favus, chromoblastomycosis, histoplasmosis, zygomycosis, coccidioidomycosis and cryptococcosis viral infections, including chikungunya and dengue fever describe how presentation of skin disease may vary in tropical conditions describe how management of skin disease may vary in developing countries. 	<ul style="list-style-type: none"> identify relevant bacteria and fungi on microscopy and in culture.

DOMAIN 2	ADVANCED DERMATOLOGY
Theme 2.1	Advanced General Dermatology
Learning Objective 2.1.8	Demonstrate advanced skills in advanced laser surgery
Knowledge	Skills
<ul style="list-style-type: none"> outline the following, including: <ul style="list-style-type: none"> birthmarks pigmented lesions removal of benign and malignant skin lesions scar tissue skin resurfacing tattoo removal vascular lesion describe the principles relating to: <ul style="list-style-type: none"> continuous and Q-switching delivery systems laser media power supplies pulsed vs. scanned beam stimulated emission of radiation wavelengths describe the principles related to the use of intense pulsed light systems hazards and safety 	<ul style="list-style-type: none"> explain the physics of lasers and how it impacts on the skin select patients and undertake procedures with appropriate laser use applied knowledge to adequately use a laser in a safe environment train and supervise laser technicians to ensure safe practice <p>essential practical skills in laser therapy:</p> <ul style="list-style-type: none"> use lasers for the treatment of vascular lesions. Documented evidence is required demonstrating that these procedures have been performed under supervision and that the trainee has been assessed as being competent to perform such procedures

DOMAIN 2		ADVANCED DERMATOLOGY
Theme 2.1		Advanced General Dermatology
Learning Objective 2.1.8		Demonstrate advanced skills in advanced laser surgery
<ul style="list-style-type: none"> describe the following aspects of laser therapy: <ul style="list-style-type: none"> clinical indications - vascular lesions, pigmented lesions, birthmarks, tattoos, acne scarring, scars, skin cancer, verrucae, actinic cheilitis, photo-ageing, wrinkling, laser assisted epilation and a range of other indications laser safety and regulations - knowledge of regulations and laser licensing is required. A thorough understanding of the safe use of lasers in dermatology, including knowledge of hazard reduction, eye protection, electrical and fire safety, infection control and laser plume, signage, secure key storage, record keeping, laser maintenance, and alignment is essential laser technology - available, subject to technological change laser tissue interaction - principles of selective photothermolysis, thermal relaxation times and variables associated. 		<p>advanced practical skills in laser therapy:</p> <ul style="list-style-type: none"> erbium/CO² laser treatment for removal of benign and malignant skin lesions, fractional/erbium/CO² laser resurfacing for cosmetic indications and laser treatments using pigmented lesion lasers endovenous laser closure of the saphenous vein trainees wishing to pursue laser surgery as their primary interest in dermatology are encouraged to gain practical experience in the performance of these procedures through a formal fellowship or preceptorship.

DOMAIN 2		ADVANCED DERMATOLOGY
Theme 2.1		Advanced General Dermatology
Learning Objective 2.1.9		Demonstrate advanced skills in advanced anaesthesia
Knowledge		Skills
<ul style="list-style-type: none"> identify anatomy relevant to advanced regional blocks, including: <ul style="list-style-type: none"> maxillary, mandibular, supraorbital, trochlear, zygomaticofacial, auricular, occipitoparietal ankle block arm block wrist block explain the principles of tumescent anaesthesia use of sedation, including: <ul style="list-style-type: none"> nitrous oxide parenteral sedation use of narcotics. 		<ul style="list-style-type: none"> use advanced anaesthetic techniques safely and effectively.

DOMAIN 2		ADVANCED DERMATOLOGY
Theme 2.1		Advanced General Dermatology
Learning Objective 2.1.10		Treat disorders of venous incompetence
Knowledge		Skills
<ul style="list-style-type: none"> • identify anatomy relevant to disorders of incompetence of the venous system • describe disorders of clotting mechanism • outline principles of sclerotherapy • outline principles of ambulatory phlebectomy • describe principles of laser ablation of veins • describe principles of endovenous laser and radiofrequency closure • recognise the risks and complication of all treatments of venous incompetence. 		<ul style="list-style-type: none"> • assess venous incompetence by physical examination and Doppler ultrasound • use advanced techniques safely and effectively including: <ul style="list-style-type: none"> • ambulatory phlebectomy • endovenous laser and endovenous radiofrequency closure • foam sclerotherapy • laser treatment of vessels • microvessel sclerotherapy and reticular vessel sclerotherapy • ultrasound guided sclerotherapy.

DOMAIN 2		ADVANCED DERMATOLOGY
Theme 2.2		Advanced Procedural Dermatology
Learning Objective 2.2.1		Perform Mohs micrographic surgery
Knowledge		Skills
<ul style="list-style-type: none"> • establish a Mohs practice • train Mohs laboratory technician • describe the anatomy of the head and neck • describe methods and techniques of Mohs micrographic surgery, including: <ul style="list-style-type: none"> • mapping • microscopic assessment and interpretation • lesion removal • specimen preparation and processing • potential complications • outline the theory of complicated and composite grafts and a wide range of local flaps. 		<ul style="list-style-type: none"> • achieve 550 supervised cases of Mohs surgery in the setting of a formal fellowship, including removal of the tumour, examination of the histologic specimen in all cases and closure of defects • perform complicated flaps and grafts, including interpolated forehead, Mustarde, Tenzel, Hughes, Imre, Vermillion advancements and rotations, Burow's wedge full thickness lip advancements, Abbe Flaps, Ectropion repair, canthoplasty and eclabium repair; during the fellowship, more than 90 percent of repairs should be done by the trainee and supervisor • sound histopathologic skills with respect to neoplasms of the skin • Mohs histotechnician skills to competent level • refer on to other specialties where appropriate • use of regional anaesthetic blocks.

DOMAIN 2	ADVANCED DERMATOLOGY	
Theme 2.2	Advanced Procedural Dermatology	
Learning Objective 2.2.2	Perform cosmetic surgery	
Knowledge	Skills	
<ul style="list-style-type: none"> describe the approach to managing a cosmetic patient assess cosmetic concerns explain the benefits, risks, and management of complications of cosmetic surgical procedures. These may include but are not limited to: <ul style="list-style-type: none"> blepharoplasty breast reduction or augmentation brow-lift fat transfer hair transplantation laser resurfacing liposuction otoplasty prosthetic facial implant superficial plane rhytidectomy trichloroacetic acid and phenol peels. 	<ul style="list-style-type: none"> perform cosmetic dermatology to an acceptable standard select patients and procedures, consistent with NZMC guidelines. 	
<ul style="list-style-type: none"> <i>NOTE: Suitable training fellowships, include ACGME procedural fellowships, cosmetic fellowships approved by the American Academy of Dermatology. Some American College of Mohs surgery fellowships are also suitable. Trainees should check with the SAC.</i> 		

DOMAIN 2	ADVANCED DERMATOLOGY	
Theme 2.3	Advanced Dermatopathology	
Learning Objective: 2.3.1	Demonstrate an advanced level of knowledge and practice in dermatopathology	
Knowledge	Skills	
<ul style="list-style-type: none"> describe laboratory procedures and special stains explain the entire spectrum of cutaneous pathology and other tissue pathology related to skin, e.g. lymphomas expertise in ancillary investigation and techniques, including: <ul style="list-style-type: none"> immunopathology molecular pathology generate pathology reports and communicate with other clinicians. 	<ul style="list-style-type: none"> demonstrate a high level of expertise in all aspects of dermatopathology generate reports on a range of malignant and inflammatory skin diseases use special tests to generate a diagnosis in complex conditions. 	

DOMAIN 2	ADVANCED DERMATOLOGY	
Theme 2.3	Advanced Dermatopathology	
Learning Objective: 2.3.2	Demonstrate an advanced level of competency in the use of immunopathology	
Knowledge	Skills	
<ul style="list-style-type: none"> describe the indications, science, techniques, limitations, and interpretation of immunopathology. 	<ul style="list-style-type: none"> demonstrate laboratory technique and microscopic evaluation across a broad range of conditions. 	

DOMAIN 2	ADVANCED DERMATOLOGY	
Theme 2.4	Advanced Paediatric Dermatology	
Learning Objective 2.4.1	Diagnose and manage paediatric patients	
Knowledge	Skills	
<ul style="list-style-type: none"> describe skin disorders in children explain core and complex paediatric disorders describe conditions particular to children. 	<ul style="list-style-type: none"> investigate, diagnose, and manage all forms of skin disorders pertaining to children. 	

Appendix 1: Sample Log sheets

Separate Excel Worksheets should be used for each category of procedure: e.g. 'vascular laser' or 'skin cancer surgery'

All trainees throughout their training should keep a log of every case of skin cancer excised. These should be saved as excel spreadsheets and submitted with the Supervisors' reports. Analysis should include incomplete excision rate (incomplete excisions/non Mohs total excisions x 100) for the period of the log submitted.

Laser log

Date	Identifier	Indication	Procedure	Location	Size	Laser used	Complications	Facility

Skin cancer surgery

Date	Identifier	Indication	Procedure	Location	Defect size	Closure	Complications	Facility	Path diagnosis	Complete/incomplete

Appendix 2: Program requirements for graduate medical education in procedural dermatology

PROCEDURAL SKILLS ASSESSMENT (PSA): Dermatology

Assessor's NZMC Number

Date (DD/MM/YY)

 / /

Registrar's NZMC Number

Year of SpR Training: 1 2 3 4

Procedure being observed	<input type="checkbox"/> Cryotherapy	<input type="checkbox"/> Punch biopsy	<input type="checkbox"/> Other
	<input type="checkbox"/> Shave biopsy	<input type="checkbox"/> Curettage	
	<input type="checkbox"/> Incisional biopsy	<input type="checkbox"/> Excision	
	<input type="checkbox"/> Flap repair	<input type="checkbox"/> Graft repair	

Please tick one of the boxes for each component of the exercise on a scale of:

1 (Unsatisfactory), 2 (Satisfactory), or 3 (Above expectations).

Please note that your scoring should reflect the performance of the SpR against that which you would normally expect at their stage of training and level of experience. If you score 1, please give a brief example in the comments box. Please feel free to add any other relevant opinions about this doctor's strengths and weaknesses

1. Selection of procedure and treatment planning	<input type="checkbox"/> Not observed or applicable	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
2. Obtaining informed consent	<input type="checkbox"/> Not observed or applicable	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
3. Local anaesthetic	<input type="checkbox"/> Not observed or applicable	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
4. Sterile technique	<input type="checkbox"/> Not observed or applicable	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
5. Excision technique	<input type="checkbox"/> Not observed or applicable	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
6. Handling of instruments	<input type="checkbox"/> Not observed or applicable	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

7. Suturing	<input type="checkbox"/> Not observed or applicable	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
8. Dressing and post-operative counselling	<input type="checkbox"/> Not observed or applicable	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
9. Awareness and management of complications	<input type="checkbox"/> Not observed or applicable	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
10. Professionalism and consideration for the patient during the procedure	<input type="checkbox"/> Not observed or applicable	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
11. Operation Notes: accuracy and detail	<input type="checkbox"/> Not observed or applicable	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
2. OVERALL CLINICAL COMPETENCE IN PERFORMING THE PROCEDURE:				
<input type="checkbox"/> Not observed or applicable				
Assessor's comments on trainee's performance:				
Trainee's comments on their performance:				

Supervisor's Signature:

Trainer's Signature:

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ANNUAL SUMMARY OF PROCEDURES COMPLETED

This is to be completed by the educational supervisor using the generic forms from each assessment finished. Complete a separate form for each type of procedure assessed. If there are concerns a trainee's additional section form (found in the trainee's logbook) can be reviewed at this time

Trainee's NZMC number: _____ Year of SpR training: _____

Hospital: _____ Name of educational supervisor: _____

Number of procedural skills assessments (PSA) completed: _____

Total number of judges assessing these: _____

Names of procedures being assessed: _____

Date of first PSA this year: _____ And last PSA this year: _____

		Range of scores	Mean 'raters' score	Any score of 1?
1	Selection of procedure and treatment planning			
2	Obtaining informed consent			
3	Local anaesthetic			
4	Sterile technique			
5	Excision technique			
6	Handling of instruments			
7	Suturing			
8	Dressing and post-operative counselling			
9	Awareness and management of complications			
10	Professionalism and consideration for the patient during the procedure			
11	Operation notes: accuracy and detail			
12	OVERALL CLINICAL COMPETENCE IN PERFORMING THE PROCEDURE:			

Comments:

ANNUAL SUMMARY OF PSAs COMPLETED

Future recommendations for training:

	Signature:	Date:
Trainee:		
Educational Supervisor:		

Notes on Assessment of Competence in Mandatory Procedures

During the course of their training, trainees must be assessed as competent to perform each of the essential procedures/ treatment modalities listed on the Mandatory Procedures for PSA (Appendix 3). A successful assessment in a particular procedure or modality indicates that the trainee has demonstrated **complete** competence to perform that procedure/ treatment **unsupervised**. There is no fixed timetable for these assessments, some should be completed in the first year as indicated and others in the second or third. They all must be completed before trainees apply for FRACP.

PRINCIPLES

- Assessment should not be undertaken until the clinical supervisor is satisfied that an adequate number of cases have been carried out by the trainee. Details of cases performed in the categories of curettage and cauterisation/ electrosurgery of malignant lesions, cryotherapy of malignant lesions, excisional dermatological surgery and laser surgery should be indicated in the appropriate logbook.
- In general, assessment in excisional dermatological surgery and laser surgery should not be carried out prior to the second year of training.
- Each procedure/treatment modality must be performed by the trainee under the direct observation of an appropriately qualified and/or experienced dermatologist. In the case of excisional dermatological surgery and laser therapy this person needs to be a dermatologist with appropriate additional training/experience.
- Assessment may involve direct observation of a trainee performing a particular procedure/treatment modality on **several** occasions before competence is certified.
- Assessment in each procedure/treatment modality need only be carried out once during a trainee's period of training, hence it is imperative that the assessor be absolutely certain of the competence of the trainee in the particular procedure/treatment modality. If there is any doubt as to competence then reassessment should be recommended.
- If the trainee has an unsatisfactory assessment in a particular procedure/treatment modality then reassessment should be carried out after an appropriate period of time. It is expected that in this period the trainee should gain further experience and training in the particular procedure/treatment modality.

Appendix 3: Mandatory Procedures for PSA

Each of these procedures must have been carried out with the supervisor present and the PSA form completed before training is deemed complete. A minimum of four PSAs, each of a different procedure, should be carried out each year. These reports should be submitted with the trainee's Logbooks and the Annual Summary of Procedures Completed in October with the Advanced Training Supervisor's Report(ATSr)

Year one

Cryosurgery: AK

- Hypertrophic AK
- Skin Tags
- BCC: superficial and nodular

Curettage: seborrhoeic keratosis

Curettage and electrodesiccation: low risk nodular BCC

Punch biopsy

Incisional biopsy

Year two

Excision and Side to Side closure: Nevus

BCC/ SCC

Excision of carcinoma and repair with full thickness graft

Excision of carcinoma and repair with split thickness graft

Excision of carcinoma and repair with simple flap

Appendix 4: Logbooks

Logbooks document trainees' skill acquisition. They should be recorded in Microsoft Excel. The logbook assists the trainee and his/her supervisors to:

- monitor the acquisition of skills
- identify those skill areas which require more exposure.

Logbooks are reviewed by supervisors of training and the SAC at regular intervals during training.

Logbooks

Trainees are required to keep logbooks documenting procedures in:

- clinical cases: all cases seen during a single calendar month. This is repeated for every year of training - essential
- interesting clinical cases. A logbook of all interesting cases should be kept for the entire training period - essential
- dermatological surgery, simple - essential
- dermatological surgery, advanced - when applicable
- curettage and cautery/electrosurgery of malignant lesions - essential
- cryotherapy of malignant lesions - essential
- laser surgery - when applicable
- photodynamic therapy - when applicable
- phototherapy - when applicable
- patch testing - when applicable