Curriculum standards

Advanced Training in Dermatology

DRAFT

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RACP Specialists. Together

About this document

This document outlines the draft curriculum standards for Advanced Training in Dermatology for trainees and supervisors.

The curriculum standards should be used in conjunction with the Advanced Training in Dermatology learning, teaching, and assessment programs.

For more information or to provide feedback contact curriculum@racp.edu.au.

Contents

Program overview

Purpose of Advanced Training

The RACP offers Advanced Training in 33 diverse medical specialties as part of Division, Chapter, or Faculty training programs.

The purpose of Advanced Training is to develop a workforce of physicians who:

- have received breadth and depth of focused specialist training, and experience with a wide variety of health problems and contexts
- are prepared for and committed to independent expert practice, lifelong learning, and continuous improvement
- provide safe, quality health care that meets the needs of the communities of Aotearoa New Zealand.

Specialty overview

A dermatologist specialist is concerned with the diagnosis and treatment of diseases of the skin, hair, and nails. Dermatologists treat patients of all ages, from infants and children to adolescents and adults. Dermatology involves, but is not limited to:

- the study, research, and diagnosis of disorders, diseases, cancers, and cosmetic and ageing conditions of the skin, hair, nails, and the oral and genital mucous membranes.
- the investigation and management of these conditions through the application of expert knowledge and skills in clinical diagnosis, dermatopathology, the prescribing of topical and systemic medications, performing dermatologic and cosmetic surgery, laser therapy, immunotherapy, phototherapy, superficial radiotherapy, and photodynamic therapy.

Dermatologists provide holistic, patient-centred care, participate in multidisciplinary teams, and provide expert consultation and advice to primary care practitioners and medical and surgical colleagues, working flexibly across outpatient, inpatient, and virtual platform settings. The specific nature of care provided by dermatologists includes, but is not limited to:

- **specialist clinical and diagnostic skills.** Dermatologists require an expert understanding of the structure and function of the skin in health and disease. Detailed knowledge of aetiology and pathogenesis, epidemiology, histopathology, clinical features, investigations, differential diagnosis, and prognosis of skin conditions is required. Dermatologists need to be astute observers and physicians. They require good clinical history taking and examination skills to achieve accurate diagnoses.
- **management of skin disorders across the lifespan.** Dermatologists must have an understanding of benign and malignant tumours of the skin and their management, and expertise in the use of dermoscopy and in the diagnosis and management of skin conditions such as acne, eczema, and psoriasis. Dermatologists must also have broad experience of medical specialities, as skin diseases are often complicated by or associated with systemic comorbidities and medication use.
- **use of procedural and surgical skills.** For dermatologists, the accurate diagnosis of skin diseases / lesions requires thorough clinical examinations and, in selected cases,

the use of biopsies to obtain histopathology. These elements form essential initial steps leading to the appropriate selection of therapeutic procedures, and are therefore a prerequisite to proper management in procedural dermatology.

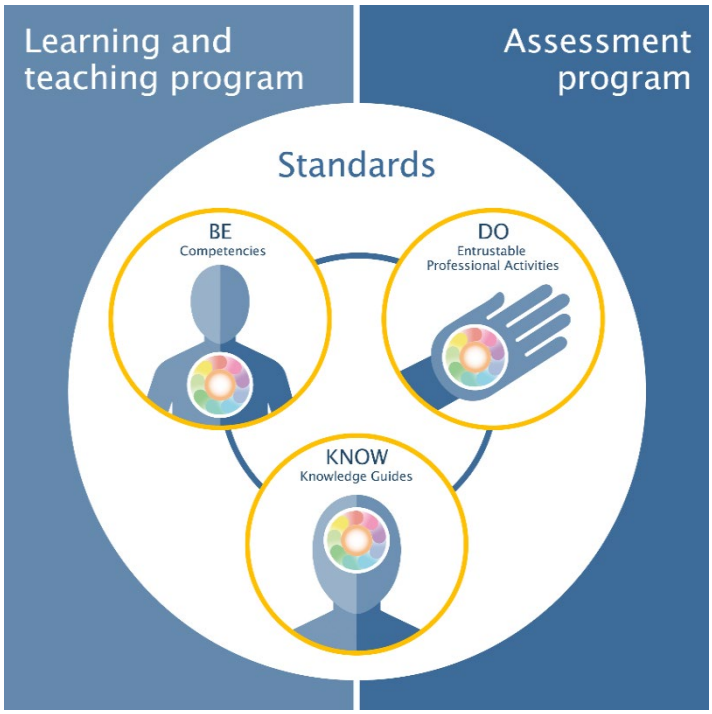
Dermatologists provide person-centred care with a focus on communication, respect, and advocacy, including:

- raising awareness of skin-cancer risks
- helping treat and manage conditions such as acne, alopecia, eczema, psoriasis, skin infections, skin cancer, and vitiligo
- an understanding of the impact of chronic inflammatory skin disorders on mental and spiritual wellbeing.

Some of the key professional skills and qualities dermatologists embody include:

- **the ability to work sensitively with a variety of patients.** Dermatologists appreciate the differences in the presentation of skin conditions in patients of different ethnic origins and all age groups, and develop an ability to care for children suffering with dermatological conditions, and their families, in a professional and empathetic manner.
- **strong communication skills.** Dermatologists must develop a personable interviewing technique and an ability to relate to patients from all walks of life. It is also essential that they appreciate when referral to a more appropriate or more qualified practitioner in a particular subspecialty is necessary.
- **managing resources for the benefit of patients and communities.** Dermatologists apply a biopsychosocial approach to ensure the delivery of cost-effective, efficient, and safe care for the benefit of their patients and communities
- **applying a scholarly approach.** Dermatologists conduct academic research to discover better ways of understanding, diagnosing, treating, and preventing disease. They apply research to improve the treatment and management of patients.

Advanced Training curricula standards



The **RACP curriculum model** is made up of curricula standards supported by learning, teaching, and assessment programs.

Learning and teaching programs outline the strategies and methods to learn and teach curricula standards, including required and recommended learning activities.

Assessment programs outline the planned use of assessment methods to provide an overall picture of the trainee's competence over time.

The **curricula standards** outline the educational objectives of the training program and the standard against which trainees' abilities are measured.

- **Competencies** outline the expected professional behaviours, values, and practices of trainees in 10 domains of professional practice.

- **Entrustable Professional Activities** (EPAs) outline the essential work tasks trainees need to be able to perform in the workplace.

- **Knowledge guides** outline the expected baseline knowledge of trainees.

Professional Practice Framework

The Professional Practice Framework describes 10 domains of practice for all physicians.

Learning, teaching, and assessment structure

The learning, teaching, and assessment structure defines the framework for delivery

Advanced Training learning, teaching, and assessment structure

- An **entry decision** is made before entry into the program.
- **Progress decisions**, based on competence, are made at the end of the specialty foundation and specialty consolidation phases of training.
- A **completion decision**, based on competence, is made at the end of the training program, resulting in eligibility for admission to Fellowship.

Advanced Training is a **hybrid time- and competency-based training program**. There is a minimum time requirement of between three to five years' full-time equivalent experience, depending on the training program undertaken. Progress and completion decisions are based on evidence of trainees' competence.

Curriculum standards

Competencies

Competencies outline the expected professional behaviours, values, and practices that trainees need to achieve by the end of training.

Competencies are grouped by the 10 domains of the professional practice framework.

Competencies will be common across training programs.

Medical expertise

Professional standard: Physicians apply knowledge and skills informed by best available current evidence in the delivery of high-quality, safe practice to facilitate agreed health outcomes for individual patients and populations.

Knowledge: Apply knowledge of the scientific basis of health and disease to the diagnosis and management of patients.

Synthesis: Gather relevant data via age- and context-appropriate means to develop reasonable differential diagnoses, recognising and considering interactions and impacts of comorbidities.

Diagnosis and management: Develop diagnostic and management plans that integrate an understanding of individual patient circumstances, including psychosocial factors and specific vulnerabilities, epidemiology, and population health factors in partnership with patients, families, whānau, or carers[1], and in collaboration with the healthcare team.

[1] References to patients in the remainder of this document may include their families, whānau, and/or carers.

Communication

Professional standard: Physicians collate information, and share this information clearly, accurately, respectfully, responsibly, empathetically, and in a manner that is understandable.

Physicians share information responsibly with patients, families, carers, colleagues, community groups, the public, and other stakeholders to facilitate optimal health outcomes.

Effective communication: Use a range of effective and appropriate verbal, nonverbal, written and other communication techniques, including active listening.

Communication with patients, families, and carers: Use collaborative, effective, and empathetic communication with patients, families, and carers.

Communication with professionals and professional bodies: Use collaborative, respectful, and empathetic clinical communication with colleagues, other health professionals, professional bodies, and agencies.

Written communication: Document and share information about patients to optimise patient care and safety.

Privacy and confidentiality: Maintain appropriate privacy and confidentiality, and share information responsibly.

Quality and safety

Professional standard: Physicians practice in a safe, high-quality manner within the limits of their expertise.

Physicians regularly review and evaluate their own practice alongside peers and best practice standards, and conduct continuous improvement activities.

Patient safety: Demonstrate a safety focus and continuous improvement approach to own practice and health systems.

Harm prevention and management: Identify and report risks, adverse events, and errors to improve healthcare systems.

Quality improvement: Participate in quality improvement activities to improve quality of care and safety of the work environment.

Patient engagement: Enable patients to contribute to the safety of their care.

Teaching and learning

Professional standard: Physicians demonstrate a lifelong commitment to excellence in practice through continuous learning and evaluating evidence.

Physicians foster the learning of others in their profession through a commitment to mentoring, supervising, and teaching.

Lifelong learning: Undertake effective self-education and continuing professional development.

Self-evaluation: Evaluate and reflect on gaps in own knowledge and skills to inform self-directed learning.

Supervision: Provide supervision for junior colleagues and/or team members.

Teaching: Apply appropriate educational techniques to facilitate the learning of colleagues and other health professionals.

Patient education: Apply appropriate educational techniques to promote understanding of health and disease amongst patients and populations.

Research

Professional standard: Physicians support creation, dissemination and translation of knowledge and practices applicable to health.[2]

They do this by engaging with and critically appraising research, and applying it in policy and practice to improve the health outcomes of patients and populations.

Evidence-based practice: Critically analyse relevant literature and refer to evidence-based clinical guidelines, and apply these in daily practice.

Research: Apply research methodology to add to the body of medical knowledge and improve practice and health outcomes.

[2]Adapted from Richardson D, Oswald A, Chan M-K, Lang ES, Harvey BJ. Scholar. In: Frank JR, Snell L, Sherbino J, editors. The Draft CanMEDS 2015 Physician Competency Framework – Series IV. Ottawa: The Royal College of Physicians and Surgeons of Canada; 2015 March.

Cultural safety

Professional standard. Physicians engage in iterative and critical self-reflection of their own cultural identity, power, biases, prejudices, and practising behaviours. Together with the requirement of understanding the cultural rights of the community they serve, this brings awareness and accountability for the impact of the physician's own culture on decision making and health care delivery. It also allows for an adaptive practice where power is shared between patients, family, whānau, and/or community and the physician, to improve health outcomes.

Physicians recognise the patient and population's rights for culturally safe care, including being an ally for patient, family, whānau, and/or community autonomy and agency over their decision making. This shift in the physician's perspective fosters collaborative and engaged therapeutic relationships, allows for strength-based (or mana-enhanced) decisions, and sharing of power with the recipient of the care, optimising health care outcomes.

Physicians critically analyse their environment to understand how colonialism, systemic racism, social determinants of health, and other sources of inequity have and continue to underpin the healthcare context. Consequently, physicians then can recognise their interfacing with, and contribution to, the environment in which they work to advocate for safe, more equitable and decolonised services, and create an inclusive and safe workplace for all colleagues and team members of all cultural backgrounds.[3]

This is a placeholder for the competencies in the cultural safety domain.

This content is in development and will be added at a later date.

[3] The RACP has adopted the Medical Council of New Zealand's definition of cultural safety (below): Cultural safety can be defined as:

- the need for doctors to examine themselves and the potential impact of their own culture on clinical interactions and healthcare service delivery
- the commitment by individual doctors to acknowledge and address any of their own biases, attitudes, assumptions, stereotypes, prejudices, structures, and characteristics that may affect the quality of care provided
- the awareness that cultural safety encompasses a critical consciousness where health professionals and health care organisations engage in ongoing self-reflection and self-awareness, and hold themselves accountable for providing culturally safe care, as defined by the patient and their communities.

Curtis et al. "Why cultural safety rather than cultural competency is required to achieve health equity". International Journal for Equity in Health (2019) 18:174

Ethics and professional behaviour

Professional standard: Physicians' practice is founded upon ethics, and physicians always treat patients and their families in a caring and respectful manner.

Physicians demonstrate their commitment and accountability to the health and wellbeing of individual patients, communities, populations, and society through ethical practice.

Physicians demonstrate high standards of personal behaviour.

Beliefs and attitudes: Reflect critically on personal beliefs and attitudes, including how these may impact on patient care.

Honesty and openness: Act honestly, including reporting accurately, and acknowledging their own errors.

Patient welfare: Prioritise patients' welfare and community benefit above self-interest.

Accountability: Be personally and socially accountable.

Personal limits: Practise within their own limits and according to ethical principles and professional guidelines.

Self-care: Implement strategies to maintain personal health and wellbeing.

Respect for peers: Recognise and respect the personal and professional integrity, roles, and contribution of peers.

Interaction with professionals: Interact equitably, collaboratively, and respectfully with other health professionals.

Respect and sensitivity: Respect patients, maintain appropriate relationships, and behave equitably.

Privacy and confidentiality: Protect and uphold patients' rights to privacy and confidentiality.

Compassion and empathy: Demonstrate a caring attitude towards patients and endeavour to understand patients' values and beliefs.

Health needs: Understand and address patients', families', carers', and colleagues' physical and emotional health needs.

Medical and health ethics and law: Practise according to current community and professional ethical standards and legal requirements.

Judgement and decision making

Professional standard: Physicians collect and interpret information, and evaluate and synthesise evidence, to make the best possible decisions in their practice.

Physicians negotiate, implement, and review their decisions and recommendations with patients, their families and carers, and other health professionals.

Diagnostic reasoning: Apply sound diagnostic reasoning to clinical problems to make logical and safe clinical decisions.

Resource allocation: Apply judicious and cost-effective use of health resources to their practice.

Task delegation: Apply good judgement and decision making to the delegation of tasks.

Limits of practice: Recognise their own scope of practice and consult others when required.

Shared decision making: Contribute effectively to team-based decision-making processes.

Leadership, management, and teamwork

Professional standard: Physicians recognise, respect, and aim to develop the skills of others, and engage collaboratively to achieve optimal outcomes for patients and populations.

Physicians contribute to and make decisions about policy, protocols, and resource allocation at personal, professional, organisational, and societal levels.

Physicians work effectively in diverse multidisciplinary teams and promote a safe, productive, and respectful work environment that is free from discrimination, bullying, and harassment.

Managing others: Lead teams, including setting directions, resolving conflicts, and managing individuals.

Wellbeing: Consider and work to ensure the health and safety of colleagues and other health professionals.

Leadership: Act as a role model and leader in professional practice.

Teamwork: Negotiate responsibilities within the healthcare team and function as an effective team member.

Health policy, systems, and advocacy

Professional standard: Physicians apply their knowledge of the nature and attributes of local, national, and global health systems to their own practices. They identify, evaluate, and influence health determinants through local, national, and international policy.

Physicians deliver and advocate for the best health outcomes for all patients and populations.

Health needs: Respond to the health needs of the local community and the broader health needs of the people of Aotearoa New Zealand.

Prevention and promotion: Incorporate disease prevention, health promotion, and health surveillance into interactions with individual patients and their social support networks.

Equity and access: Work with patients and social support networks to address determinants of health that affect them and their access to needed health services or resources.

Stakeholder engagement: Involve communities and patient groups in decisions that affect them to identify priority problems and solutions.

Advocacy: Advocate for prevention, promotion, equity, and access to support patient and population health needs within and outside the clinical environment.

Resource allocation: Understand the factors influencing resource allocation, promote efficiencies, and advocate to reduce inequities.

Sustainability: Manage the use of healthcare resources responsibly in everyday practice.

Entrustable Professional Activities

Entrustable Professional Activities (EPAs) outline the essential work tasks trainees need to be able to perform in the workplace.

#	Theme	Title
1	Team leadership	Lead a team of health professionals
2	Supervision and teaching	Supervise and teach professional colleagues
3	Clinical assessment and management	Clinically assess and manage the ongoing care of patients
4	Investigations and procedures	Plan, prepare for, perform, interpret, and provide aftercare for important practical procedures and investigations
5	Communication	Communicate effectively and professionally with patients, carers, families, health professionals, and other community members engaging with the health service
6	Care of acutely unwell dermatology patients	Assess, triage, and manage the early care of acutely unwell dermatological patients
7	Quality improvement	Identify and address failures in health care delivery
8	Virtual care	Provide virtual care for dermatology patients or virtual dermatology advice to referrers

EPA 1: Team leadership

Theme	Team leadership	AT-EPA-01
Title	**Lead a team of health professionals**	
Description	This activity requires the ability to: • prioritise workload • manage multiple concurrent tasks • articulate individual responsibilities, expertise, and accountability of team members • understand the range of team members' skills, expertise, and roles • acquire and apply leadership techniques in daily practice • collaborate with and motivate team members • encourage and adopt insights from team members • act as a role model.	
Behaviours		
Professional practice framework domain	**Ready to perform without supervision** Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	**Requires some supervision** Possible behaviours of a trainee who needs some supervision to perform this activity The trainee may:
Medical expertise	• synthesise information with other disciplines to develop optimal, goal-centred plans for patients[4] • use evidence-based care to meet the needs of patients or populations • assess and effectively manage clinical risk in various scenarios • demonstrate clinical competence and skills by effectively supporting team members	• demonstrate adequate knowledge of healthcare issues by interpreting complex information • assess the spectrum of problems to be addressed • apply medical knowledge to assess the impact and clinical outcomes of management decisions • provide coordinated and quality health care for populations or patients as a member of a multidisciplinary team
Communication	• provide support and motivate patients or populations and health professionals by effective communication • demonstrate a transparent, consultative style by engaging patients, families, carers, relevant professionals and/or the public in shared decision making • work with patients, families, carers, and other health professionals to resolve conflict that may arise when planning and aligning goals	• communicate adequately with colleagues • communicate adequately with patients, families, carers, and/or the public • respect the roles of team members

[5] References to patients in the remainder of this document may include their families, whānau, and/or carers.

	• demonstrate rapport with people at all levels by tailoring messages to different stakeholders	
Quality and safety	• identify opportunities to improve care by participating in surveillance and monitoring of adverse events and 'near misses' • identify activities within systems to reduce errors, improve patient and population safety, and implement cost-effective change • place safety and quality of care first in all decision making	• participate in audits and other activities that affect the quality and safety of patients' care • participate in interdisciplinary collaboration to provide effective health services and operational change • use information resources and electronic medical record technology where available
Teaching and learning	• regularly self-evaluate personal professional practice, and implement changes based on the results • actively seek feedback from supervisors and colleagues on their own performance • identify personal gaps in skills and knowledge, and engage in self-directed learning • maintain current knowledge of new technologies, health care priorities, and changes of patients' expectations • teach competently by imparting professional knowledge • manage and monitor learner progress, providing regular assessment and feedback	• accept feedback constructively, and change behaviour in response • recognise the limits of personal expertise, and involve other health professionals as needed • demonstrate basic skills in facilitating colleagues' learning
Cultural safety	• demonstrate culturally competent relationships with professional colleagues and patients • demonstrate respect for diversity and difference • take steps to minimise unconscious bias, including the impact of gender, religion, cultural beliefs, and socioeconomic background on decision making	• demonstrate awareness of cultural diversity and unconscious bias • work effectively and respectfully with people from different cultural backgrounds
Ethics and professional behaviour	• promote a team culture of shared accountability for decisions and outcomes • encourage open discussion of ethical and clinical concerns • respect differences of multidisciplinary team members • understand the ethics of resource allocation by aligning optimal patients and organisational care • effectively consult with stakeholders, achieving a balance of alternative views	• support ethical principles in clinical decision making • maintain standards of medical practice by recognising the health interests of patients or populations as primary responsibilities • respect the roles and expertise of other health professionals • work effectively as a member of a team • promote team values of honesty, discipline, and commitment to continuous improvement

	• acknowledge personal conflicts of interest and unconscious bias • act collaboratively to resolve behavioural incidents and conflicts such as harassment and bullying	• demonstrate understanding of the negative impact of workplace conflict
Judgement and decision making	• evaluate health services and clarify expectations to support systematic, transparent decision making • make decisions when faced with multiple and conflicting perspectives • ensure medical input to organisational decision making • adopt a systematic approach to analysing information from a variety of specialties to make decisions that benefit health care delivery	• monitor services and provide appropriate advice • review new healthcare interventions and resources • interpret appropriate data and evidence for decision making
Leadership, management, and teamwork	• combine team members' skills and expertise in delivering patient care and/or population advice • develop and lead effective multidisciplinary teams by developing and implementing strategies to motivate others • build effective relationships with multidisciplinary team members to achieve optimal outcomes • ensure all members of the team are accountable for their individual practice	• understand the range of personal and other team members' skills, expertise, and roles • acknowledge and respect the contribution of all health professionals involved in patients' care • participate effectively and appropriately in multidisciplinary teams • seek out and respect the perspectives of multidisciplinary team members when making decisions
Health policy, systems, and advocacy	• engage in appropriate consultation with stakeholders on the delivery of health care • advocate for the resources and support for healthcare teams to achieve organisational priorities • influence the development of organisational policies and procedures to optimise health outcomes • identify the determinants of health of the population, and mitigate barriers to access to care • remove self-interest from solutions to health advocacy issues	• communicate with stakeholders within the organisation about health care delivery • understand methods used to allocate resources to provide high-quality care • promote the development and use of organisational policies and procedures

EPA 2: Supervision and teaching

Theme	Supervision and teaching	AT-EPA-02
Title	**Supervise and teach professional colleagues**	
Description	This activity requires the ability to: • provide work-based teaching in a variety of settings • teach professional skills • create a safe and supportive learning environment • plan, deliver, and provide work-based assessments • encourage learners to be self-directed and identify learning experiences • supervise learners in day-to-day work, and provide feedback • support learners to prepare for assessments.	
Behaviours		
Professional practice framework domain	**Ready to perform without supervision** Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	**Requires some supervision** Possible behaviours of a trainee who needs some supervision to perform this activity The trainee may:
Medical expertise	• combine high-quality care with high-quality teaching • explain the rationale underpinning a structured approach to decision making • consider the patient-centric view during consultations • consider the population health effect when giving advice • encourage learners to consider the rationale and appropriateness of investigation and management options	• teach learners using basic knowledge and skills
Communication	• establish rapport and demonstrate respect for junior colleagues, medical students, and other health professionals • communicate effectively when teaching, assessing, and appraising learners • actively encourage a collaborative and safe learning environment with learners and other health professionals • encourage learners to tailor communication as appropriate for different patients[5], such as younger or older people, and different populations	• demonstrate accessible, supportive, and compassionate behaviour

[6] References to patients in the remainder of this document may include their families, whānau, and/or carers.

	• support learners to deliver clear, concise, and relevant information in both verbal and written communication • listen and convey information clearly and considerately	
Quality and safety	• support learners to deliver quality care while maintaining their own wellbeing • apply lessons learned about patient safety by identifying and discussing risks with learners • assess learners' competence, and provide timely feedback to minimise risks to care • maintain the safety of patients and organisations involved with education, and appropriately identify and action concerns	• observe learners to reduce risks and improve health outcomes
Teaching and learning	• demonstrate knowledge of the principles, processes, and skills of supervision • provide direct guidance to learners in day-to-day work • work with learners to identify professional development and learning opportunities based on their individual learning needs • offer feedback and role modelling • participate in teaching and supervision of professional development activities • encourage self-directed learning and assessment • develop a consistent and fair approach to assessing learners • tailor feedback and assessments to learners' goals • seek feedback, and reflect on own teaching by developing goals and strategies to improve • establish and maintain effective mentoring through open dialogue • support learners to identify and attend formal and informal learning opportunities • recognise the limits of personal expertise, and involve others appropriately	• demonstrate basic skills in the supervision of learners • apply a standardised approach to teaching, assessment, and feedback without considering individual learners' needs • implement teaching and learning activities that are misaligned to learning goals • adopt a teaching style that discourages learner self-directedness
Research	• clarify junior colleagues' research project goals and requirements, and provide feedback regarding the merits or challenges of proposed research	• guide learners with respect to the choice of research projects • ensure that the research projects planned are feasible and of suitable standards

	• monitor the progress of learners' research projects regularly, and may review research projects prior to submission • support learners to find forums to present research projects • encourage and guide learners to seek out relevant research to support practice	
Cultural safety	• role model a culturally appropriate approach to teaching • encourage learners to seek out opportunities to develop and improve their own cultural safety • encourage learners to consider culturally appropriate care of Māori (tangata whenua), and Pacific peoples into patients' management • consider cultural, ethical, and religious values and beliefs in teaching and learning	• function effectively and respectfully when working with and teaching with people from different cultural backgrounds
Ethics and professional behaviour	• apply principles of ethical practice to teaching scenarios • act as a role model to promote professional responsibility and ethics among learners • respond appropriately to learners seeking professional guidance	• demonstrate professional values, including commitment to high-quality clinical standards, compassion, empathy, and respect • provide learners with feedback to improve their experiences
Judgement and decision making	• prioritise workloads and manage learners with different levels of professional knowledge or experience • link theory and practice when explaining professional decisions • promote joint problem solving • support a learning environment that allows for independent decision making • use sound and evidence-based judgement during assessments and when giving feedback to learners • escalate concerns about learners appropriately	• provide general advice and support to learners • use health data logically and effectively to investigate difficult diagnostic problems
Leadership, management, and teamwork	• maintain personal and learners' effective performance and continuing professional development • maintain professional, clinical, research, and/or administrative responsibilities while teaching • create an inclusive environment in which learners feel part of the team	• demonstrate the principles and practice of professionalism and leadership in health care • participate in mentor programs, career advice, and general counselling

	• help shape organisational culture to prioritise quality and work safety through openness, honesty, shared learning, and continued improvement	
Health policy, systems, and advocacy	• advocate for suitable resources to provide quality supervision and maintain training standards • explain the value of health data in the care of patients or populations • support innovation in teaching and training	• incompletely integrate public health principals into teaching and practice

EPA 3: Clinical assessment and management

Theme	Clinical assessment and management	AT-EPA-03
Title	**Clinically assess and manage the ongoing care of patients**	
Description	This activity requires the ability to: • identify and access sources of relevant information about patients[6] • obtain patient histories, including medication histories • examine patients • synthesise findings to develop provisional and differential diagnoses • select, plan, and use evidence-based clinically appropriate investigations • interpret the results and outcomes of investigations • discuss findings with patients, and generate management plans • choose appropriate medicines or procedures based on an understanding of pharmacology and clinical sciences, taking into consideration age, benefits, comorbidities, potential drug interactions, risks, and patient preferences • manage chronic and advanced conditions, comorbidities, complications, and disabilities • ensure continuity of care • facilitate patients' self-management and self-monitoring • present findings and collaborate with other health professionals.	
Behaviours		
Professional practice framework domain	**Ready to perform without supervision** Expected behaviours of a trainee who can routinely perform this activity without needing supervision	**Requires some supervision** Possible behaviours of a trainee who needs some supervision to perform this activity
	The trainee will:	The trainee may:
Medical expertise	• elicit accurate, organised, and problem-focused medical histories, considering physical, psychosocial, and risk factors • perform full physical examinations to establish the nature and extent of problems • synthesise and interpret findings from histories and examinations to devise the most likely provisional diagnoses via reasonable differential diagnoses • assess the severity of problems, the likelihood of complications, and clinical outcomes • develop management plans based on relevant guidelines, and consider the balance of benefit and harm by taking patients' personal sets of circumstances into account	• take patient-centred histories, considering psychosocial factors • perform accurate physical examinations • recognise and correctly interpret abnormal findings • synthesise pertinent information to direct clinical encounters and diagnostic categories • develop appropriate management plans • assess patients' knowledge, beliefs, concerns, and daily behaviours related to their chronic condition and/or disability and its management • contribute to medical record entries on histories, examinations, and management plans in a way that is accurate and sufficient as a member of multidisciplinary teams

[6] References to patients in the remainder of this document may include their families whānau, and/or carers.

	• assess common dermatological conditions and common skin tumours • regularly assess and review care plans for patients with chronic conditions and disabilities, based on short- and long-term clinical and quality of life goals • provide documentation on patients' presentation, management, and progress, including key points of diagnosis and decision making, to inform coordination of care • ensure patients contribute to their needs assessments and care planning • monitor treatment outcomes, effectiveness, and adverse events • choose evidence-based investigations and frame them as an adjunct to comprehensive clinical assessments • assess patients' concerns, and determine the need for specific tests that are likely to result in overall benefit • develop plans for investigations, identifying their roles and timing • recognise and correctly interpret abnormal findings, considering patients' specific circumstances, and act accordingly • identify the patients' disorders requiring pharmacotherapy • consider non-pharmacologic therapies • consider age, allergies, chronic disease status, lifestyle factors, potential drug interactions, and patient preference prior to prescribing new medications • plan for follow-up and monitoring	
Communication	• communicate openly, listen, and take patients' concerns seriously, giving them adequate opportunity to ask questions • provide information to patients and their family or carers to enable them to make fully informed decisions from various diagnostic, therapeutic, and management options • communicate clearly, effectively, respectfully, and promptly with other health professionals involved in patients' care	• anticipate, read, and respond to verbal and nonverbal cues • demonstrate active listening skills • communicate patients' situations to colleagues, including senior clinicians • provide healthy lifestyle advice and information to patients on the importance of self-management • work in partnership with patients, and motivate them to comply with agreed care plans

	• encourage patients' self-management through education to take greater responsibility for their care, and support problem solving • encourage patients' access to self-monitoring devices and assistive technologies • communicate with multidisciplinary team members, and involve patients in that dialogue • explain to patients the potential benefits, burdens, costs, risks, and side effects of each option, including the option to have no investigations or treatment	
Quality and safety	• demonstrate safety skills, including infection control, adverse event reporting, and effective clinical handover • obtain informed consent before undertaking any investigation or providing treatment (except in an emergency) • ensure patients are informed of the material risks associated with any part of proposed management plans • use innovative models of chronic disease care, using telehealth and digitally integrated support services • review medicine use and ensure patients understand safe medication administration to prevent errors • support patients' self-management by balancing between minimising risk and helping patients become more independent • participate in quality improvement processes impacting on patients' abilities to undertake normal activities of daily living • identify adverse outcomes that may result from a proposed investigation, focusing on patients' individual situations	• perform hand hygiene, and take infection control precautions at appropriate moments • take precaution against assaults from confused or agitated patients, ensuring appropriate care of patients • document histories and physical examination findings, and synthesise with clarity and completeness • participate in continuous quality improvement processes and clinical audits on chronic disease management • identify activities that may improve patients' quality of life
Teaching and learning	• set defined objectives for clinical teaching encounters, and solicit feedback on mutually agreed goals • regularly reflect upon and self-evaluate professional development • obtain informed consent before involving patients in teaching activities	• need assistance with setting goals and objectives for self-learning • self-reflect infrequently • deliver teaching considering learners' level of training • use clinical practice guidelines for chronic diseases management

	• turn clinical activities into an opportunity to teach, appropriate to the setting • contribute to the development of clinical pathways for chronic diseases management, based on current clinical guidelines • educate patients to recognise and monitor their symptoms, and undertake strategies to assist their recovery • use appropriate guidelines, evidence sources, and decision support tools	
Research	• compile, analyse, interpret, and evaluate information relevant to the research subject • prepare reviews of literature on patients' encounters to present at journal club meetings • search for and critically appraise evidence to resolve clinical areas of uncertainty • provide patients with relevant information if a proposed investigation or treatment is part of a research program • obtain written consent from patients if the investigation or treatment is part of a research program	• refer to guidelines and medical literature to assist in clinical assessments when required • demonstrate an understanding of the limitations of evidence and the challenges of applying research in daily practice • recognise appropriate use of review articles
Cultural safety	• use plain-language, and primary language when available, patient education materials, and demonstrate cultural and linguistic sensitivity • demonstrate effective and culturally competent communication and care for Māori (tangata whenua), and Pacific Peoples, and members of other cultural groups • use professional interpreters, health advocates, or family or community members to assist in communication with patients, and understand the potential limitations of each • acknowledge patients' beliefs and values, and how these might impact on health • recognise and manage unconscious bias • incorporate Māori views on health, including the four cornerstones of	• display respect for patients' cultures, and attentiveness to social determinants of health • display an understanding of at least the most prevalent cultures in society, and an appreciation of their values • appropriately access interpretive or culturally focused services • provide culturally safe chronic disease management

	the Māori health model known as te whare tapa whā	
Ethics and professional behaviour	• demonstrate professional conduct and values, including compassion, empathy, respect for diversity, integrity, honesty, and partnership to all patients • share information about patients' health care, consistent with privacy laws and confidentiality and professional guidelines • use consent processes for the release and exchange of health information • assess patients' decision-making capacity, and appropriately identify and use alternative decision makers	• hold information about patients in confidence, unless the release of information is required by law or public interest • consider patients' decision-making capacity • identify patients' preferences regarding management and the role of families in decision making • prioritise personal interest or professional agendas at the expense of patient or social welfare • share information between relevant service providers • acknowledge and respect the contribution of health professionals involved in patients' care
Judgement and decision making	• apply knowledge and experience to identify patients' problems, making logical, rational decisions, and acting to achieve positive outcomes for patients • use a holistic approach to health, considering comorbidity, uncertainty, and risk • use the best available evidence for the most effective therapies and interventions to ensure quality care • implement stepped care pathways in the management of chronic diseases and disabilities • recognise patients' needs in terms of both internal resources and external support on long-term health care journeys • evaluate the benefits, costs, and potential risks of each investigation in a clinical situation • adjust the investigative path depending on test results received • consider whether patients' conditions may get worse or better if no tests are selected	• demonstrate clinical reasoning by gathering focused information relevant to patients' care
Leadership, management, and teamwork	• work effectively as a member of multidisciplinary teams to achieve the best health outcomes for patients • coordinate whole-person care through involvement in all stages of patients' care journeys • demonstrate awareness of colleagues in difficulty, and work within the appropriate structural	• share relevant information with members of the healthcare team

	systems to support them while maintaining patient safety • use a multidisciplinary approach across services to manage patients with chronic diseases and disabilities • develop collaborative relationships with patients, families, carers, and a range of health professionals	
Health policy, systems, and advocacy	• participate in health promotion, disease prevention and control, screening, and reporting notifiable diseases • apply the optimal cost-effective patient care to allow maximum benefit from the available resources • use health screening for early intervention and chronic diseases management • assess alternative models of health care delivery to patients with chronic diseases and disabilities • participate in government initiatives for chronic diseases management to reduce hospital admissions and improve patients' quality of life • help patients access initiatives and services for patients with chronic diseases and disabilities • select and justify investigations regarding the pathological basis of disease, appropriateness, utility, safety, and cost effectiveness • consider resource utilisation through peer review of testing behaviours	• identify and navigate components of the healthcare system relevant to patients' care • identify and access relevant community resources to support patient care • demonstrate awareness of government initiatives and services available for patients with chronic diseases and disabilities, and display knowledge of how to access them

EPA 4: Investigations and procedures

Theme	Investigations and procedures	AT-EPA-04
Title	**Plan, prepare for, perform, interpret, and provide aftercare for important practical procedures and investigations**	
Description	This activity requires the ability to: • select, plan, and use evidence-based procedures and investigations in partnership with patients[7], their families, and/or carers • obtain informed consent • set up the equipment, maintaining an aseptic field • perform procedures • manage unexpected events and complications during and after procedures and investigations • provide aftercare for patients • communicate aftercare protocols and instructions to patients and medical and nursing staff • interpret the results and outcomes of procedures and investigations, including imaging and reports • communicate the outcome of investigations and procedures to patients and their general practitioner.	
Behaviours		
Professional practice framework domain	**Ready to perform without supervision** Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	**Requires some supervision** Possible behaviours of a trainee who needs some supervision to perform this activity The trainee may:
Medical expertise	• select procedures by assessing patient-specific factors, risks, benefits, and alternatives • confidently and consistently perform a range of common procedures • communicate to team members all allergies / adverse reactions identified, and take precautions to avoid allergies / adverse reactions during procedures • check patients have complied with pre-procedure preparation • confirm the correct position / site / side / level on patients for planned procedures • recognise and effectively manage complications arising during or after procedures	• assess patients, and identify indications for procedures • check for allergies and adverse reactions • consider risks and complications of procedures • interpret results of common diagnostic procedures • organise and document postprocedure review of patients • provide rationale for investigations • understand the significance of abnormal test results, and act on these • consider patient factors and comorbidities • consider age-specific reference ranges

[7] References to patients in the remainder of this document may include their families, whānau, and/or carers.

	• recognise and correctly interpret normal and abnormal findings of diagnostic procedures • set up and perform basic infection control procedures in an office setting • set up for dermatological procedures, and clear up afterwards • choose evidence-based investigations and frame them as an adjunct to comprehensive clinical assessments • assess patients' concerns, and determine the need for specific tests that are likely to result in overall benefit • develop plans for investigations, identifying their roles and timing • recognise and correctly interpret abnormal findings, considering patients' specific circumstances, and act accordingly	
Communication	• accurately document procedures in the clinical notes, including informed consent, procedures requested and performed, reasons for procedures, medicines given, aseptic technique, and aftercare • explain procedures clearly to patients, families and carers, including reasons for procedures, potential alternatives, and possible risks, to facilitate informed choices • counsel patients sensitively and effectively, and support them to make informed choices • address patients', families', or carers' concerns relating to procedures, providing opportunities to ask questions • tailor language according to individual patients' age and capacity to understand • communicate effectively with team members, patients, families, and carers prior to, during, and after procedures • check team members are confident and competent in their assigned roles • explain to patients the potential benefits, burdens, costs, risks, and side effects of each option, including the option to have no investigations / procedures	• explain the process of procedures to patients without providing a broader context • help patients, families, and carers choose procedures • communicate with members of procedural teams so all team members understand who each member is • discuss postprocedural care with patients, families, and carers • complete relevant patients' documentation, and conduct appropriate clinical handovers • discuss the indications, benefits, complications, and risks of investigations with patients before ordering investigations • explain the results of investigations to patients • arrange investigations, providing accurate and informative referrals, and liaise with other services where appropriate

	• use clear and simple language, and check that patients understand the terms used and agree to proceed with proposed investigations • identify patients' concerns and expectations, providing adequate explanations on the rationale for individual test ordering • confirm whether patients have understood the information they have been given and the need for more information before deciding • use written or visual material or other aids that are accurate and up to date to support discussions with patients • explain findings or possible outcomes of investigations to patients, families and carers • give information that patients may find distressing in a considerate way	
Quality and safety	• obtain informed consent or other valid authority before undertaking any procedure • set up all necessary equipment, and consistently use universal precautions and aseptic technique • confirm patients' identification, verify the procedure, and, where appropriate, the correct position / site / side / level for the procedure • check that information on patients' consent forms matches procedures to be performed • identify, document, and appropriately notify of any adverse events or equipment malfunction • identify adverse outcomes that may result from proposed investigations, focusing on patients' individual situations	• provide information in a manner so that patients, families, and carers are fully informed when consenting to any procedures • demonstrate an inconsistent application of aseptic technique • identify patients using approved patients' identifiers before any treatment or intervention is initiated • perform a procedure in an unsafe environment • consider safety aspects of investigations when planning them • seek help with interpretation of test results for less common tests or indications or unexpected results
Teaching and learning	• refer to and/or be familiar with relevant published procedural guidelines prior to undertaking procedures • organise or participate in in-service training on new technology • provide specific and constructive feedback and comments to junior colleagues • initiate and conduct skills training for junior staff	• participate in continued professional development • help junior colleagues develop new skills • actively seek feedback on personal technique until competent • undertake professional development to maintain currency with investigation guidelines

	• use appropriate guidelines, evidence sources, and decision support tools • participate in clinical audits to improve test ordering strategies for diagnoses and screening	
Research	• provide patients with relevant information if a proposed investigation is part of a research program • obtain written consent from patients if the investigation is part of a research program	• refer to evidence-based clinical guidelines • consult current research on investigations
Cultural safety	• consider individual patients' cultural perception of health and illness, and adapt practice accordingly	• respect religious, cultural, linguistic, and family values and differences • consider patients' cultural and religious backgrounds, attitudes, and beliefs, and how these might influence the acceptability of proposed investigations
Ethics and professional behaviour	• confidently perform common procedures • identify appropriate proxy decision makers when required • show respect for knowledge and expertise of colleagues • maximise patient autonomy in decision making • remain within the scope of the authority given by patients (with the exception of emergencies) • discuss with patients how decisions will be made once the investigation has started and the patient is not able to participate in decision making • respect patients' decisions to refuse investigations, even if their decisions may not be appropriate or evidence based • advise patients there may be additional costs, which patients may wish to clarify before proceeding • explain the expected benefits as well as the potential burdens and risks of any proposed investigation before obtaining informed consent or other valid authority • demonstrate awareness of complex issues related to genetic information obtained from investigations, and subsequent disclosure of such information	• perform procedures when adequately supervised • follow procedures to ensure safe practice • identify appropriate proxy decision makers when required • choose not to investigate in situations where it is not appropriate for ethical reasons • practise within current ethical and professional frameworks • practise within own limits, and seek help when needed • involve patients in decision making regarding investigations, obtaining the appropriate informed consent, including financial consent, if necessary

	• acknowledge patients' beliefs and values, and how these might impact on health • incorporate Māori views on health, including the four cornerstones of the Māori health model known as te whare tapa whā	
Judgement and decision making	• identify roles and optimal timing for diagnostic procedures • critically appraise information from assessment and evaluation of risks and benefits to prioritise patients on a waiting list • make clinical judgements and decisions based on available evidence • select the most appropriate and cost-effective diagnostic procedures • adapt procedures in response to assessments of risks to individual patients • select appropriate investigations on the samples obtained in diagnostic procedures • evaluate the benefits, costs, and potential risks of each investigation in a clinical situation • adjust the investigative path depending on test results received • consider whether patients' conditions may get worse or better if no tests are selected	• prioritise which patients receive procedures first (if there is a waiting list) • assess personal skill levels, and seek help with procedures when appropriate • use tools and guidelines to support decision making • recommend suboptimal procedures for patients • choose the most appropriate investigation for the clinical scenario in discussion with patients • recognise personal limitations and seek help in an appropriate way when required
Leadership, management, and teamwork	• explain anticipated events, critical steps, and equipment requirements to teams on planned procedures • provide staff with clear aftercare instructions, and explain how to recognise possible complications • identify relevant management options with colleagues, according to their level of training and experience, to reduce error, prevent complications, and support efficient teamwork • coordinate efforts, encourage others, and accept responsibility for work done • assess the roles that other members of the healthcare team perform, and what other sources of information and support are available	• check that all relevant team members are aware that a procedure is occurring • discuss patients' management plans for recovery with colleagues • demonstrate understanding of what parts of an investigation are provided by different doctors or health professionals

	• check results in a timely manner, taking responsibility for following up results	
Health policy, systems, and advocacy	• discuss serious incidents at appropriate clinical review meetings • initiate local improvement strategies in response to serious incidents • use resources efficiently when performing procedures • select and justify investigations regarding the pathological basis of disease, appropriateness, cost effectiveness, safety, and utility • consider resource utilisation through peer review of testing behaviours	• perform procedures in accordance with the organisational guidelines and policies

EPA 5: Communication

Theme	Communication with patients and health professionals AT-EPA-05	
Title	**Communicate effectively and professionally with patients, carers, families, health professionals, and other community members engaging with the health service**	
Description	This activity requires the ability to: • select suitable contexts and include family and/or carers and other team members • communicate with team members and other health professionals across different contexts and modalities • adopt a patient-centred perspective, including adjusting for cognition and disabilities • select and use appropriate modalities and communication strategies • synthesise clinical information into accurate and safe handovers and summaries • structure conversations intentionally, respectfully and professionally • negotiate mutually agreed plans • verify patients'[8], family members', or carers' understanding of information conveyed • develop and implement plans to ensure actions occur • deliver education to patients, families, and health professionals at appropriate levels of understanding • document conversations.	
Behaviours		
Professional practice framework domain	**Ready to perform without supervision** Expected behaviours of a trainee who can routinely perform this activity without needing supervision	**Requires some supervision** Possible behaviours of a trainee who needs some supervision to perform this activity
	The trainee will:	The trainee may:
Medical expertise	• anticipate and be able to correct any misunderstandings patients may have about their conditions and/or risk factors • communicate clearly the working diagnosis, other possible diagnoses, and rationale behind management plans to patients and other health professionals • inform patients of all aspects of their clinical management, including assessments and investigations, and give them adequate opportunity to question or refuse interventions and treatments	• apply knowledge of the scientific basis of health and disease to the management of patients • demonstrate an understanding of the clinical problem being discussed • formulate management plans in partnership with patients

[8] References to patients in the remainder of this document may include their families, whānau, and/or carers.

	• listen to and discuss the concerns and goals of patients, and plan management in partnership with them • provide information to patients to enable them to make informed decisions about diagnostic, therapeutic, and management options • synthesise clinical information into clear, accurate, safe, and professional summaries and handovers • present succinct clinical cases to colleagues, provide justification for proposed plans, and raise points for discussion	
Communication	• use appropriate communication strategies and modalities for communication, such as emails, face-to-face, or phone calls • elicit patients' views, concerns, and preferences, promoting rapport • provide information to patients in plain language, avoiding jargon, acronyms, and complex medical terms • encourage questions, and answer them thoroughly • ask patients to share their thoughts or explain their management plans in their own words, to verify their understanding • convey information considerately and sensitively to patients, seeking clarification if unsure of how best to proceed • communicate clearly, effectively, respectfully, and promptly with other health professionals and stakeholders involved in patients' care • communicate respectfully and collaboratively in all discussions in the healthcare setting • treat children and young people respectfully, and listen to their views • recognise the role of family or carers and, when appropriate, encourage patients to involve their family or carers in decisions about their care	• select appropriate modes of communication • engage patients in discussions, avoiding the use of jargon • check patients' understanding of information • adapt communication style in response to patients' age, developmental level, and cognitive, physical, cultural, socioeconomic, and situational factors • collaborate with patient liaison officers as required

Quality and safety	• discuss with patients their condition and the available management options, including potential benefits and harms • provide information to patients in a way they can understand before asking for their consent • consider young people's capacity for decision making and consent • recognise and take precautions where patients may be vulnerable, such as issues of child protection, self-harm, or elder abuse • participate in processes to manage patient complaints in an appropriate setting • store documented communication securely with appropriate access and confidentiality	• inform patients of the material risks associated with proposed management plans • treat information about patients as confidential
Teaching and learning	• discuss the aetiology of diseases and explain the purpose, nature, and extent of the assessments to be conducted • obtain informed consent or other valid authority before involving patients in teaching • communicate any research findings to appropriate stakeholders	• respond appropriately to information sourced by patients, and to patients' knowledge regarding their condition
Research	• provide information to patients that is based on guidelines issued by the Health Research Council of New Zealand • provide information to patients in a way they can understand before asking for their consent to participate in research • obtain an informed consent or other valid authority before involving patients in research	• refer to evidence-based clinical guidelines • demonstrate an understanding of the limitations of the evidence and the challenges of applying research in daily practice
Cultural safety	• demonstrate effective and culturally competent communication with Māori, and Pacific peoples • effectively communicate with members of other cultural groups by respecting patients' specific language, cultural, and communication needs • use qualified language interpreters or cultural interpreters to help meet patients' communication needs • provide plain language and culturally appropriate written	• identify when to use interpreters • allow enough time for communication across linguistic and cultural barriers

	materials to patients when possible • acknowledge patients' beliefs and values, and how these might impact on health • incorporate Māori views on health, including the four cornerstones of the Māori health model known as te whare tapa whā	
Ethics and professional behaviour	• encourage and support patients to be well informed about their health, and to use this information wisely when they make decisions • encourage and support patients and, when relevant, their families or carers, in caring for themselves and managing their health • demonstrate respectful professional relationships with patients • prioritise honesty, patients' welfare, and community benefit above self-interest • develop a high standard of personal conduct, consistent with professional and community expectations • support patients' rights to seek second opinions	• respect the preferences of patients • communicate appropriately, consistent with the context, and respect patients' needs and preferences • maximise patient autonomy, and support their decision making • avoid sexual, intimate, and/or financial relationships with patients • demonstrate a caring attitude towards patients • respect patients, including protecting their rights to privacy and confidentiality • behave equitably towards all, irrespective of gender, age, culture, socioeconomic status, sexual preferences, beliefs, contribution to society, illness-related behaviours, or the illness itself • use social media ethically and according to legal obligations to protect patients' confidentiality and privacy
Leadership, management, and teamwork	• communicate effectively with team members involved in patients' care, and with patients, families, and carers • discuss medical assessments, treatment plans, and investigations with patients and primary care teams, working collaboratively with all • discuss patients' care needs with healthcare team members to align them with the appropriate resources • facilitate an environment in which all team members feel they can contribute, and their opinion is valued • communicate accurately and succinctly, and motivate others on the healthcare team	• answer questions from team members • summarise, clarify, and communicate responsibilities of healthcare team members • keep healthcare team members focused on patient outcomes
Health policy, systems, and advocacy	• collaborate with other services, such as community health centres and consumer organisations,	• communicate with and involve other health professionals as appropriate

	to help patients navigate the healthcare system

EPA 6: Care of acutely unwell dermatological patients

Theme	Care of acutely unwell dermatological patients	AT-EPA-06
Title	**Assess, triage, and manage the early care of acutely unwell dermatological patients**	
Description	This activity requires the ability to: • assess seriously unwell patients[9], and initiate management • recognise and triage patients with cutaneous emergencies • recognise clinical deterioration, and respond by following the local process for escalation of care • recognise and manage acutely unwell outpatients who require inpatient care • recognise acutely unwell patients in an outpatient setting • liaise with transport services and medical teams • perform this activity both in inpatient and outpatient settings.	
Behaviours		
Professional practice framework domain	**Ready to perform without supervision** Expected behaviours of a trainee who can routinely perform this activity without needing supervision	**Requires some supervision** Possible behaviours of a trainee who needs some supervision to perform this activity
	The trainee will:	The trainee may:
Medical expertise	• recognise immediate life-threatening conditions and deteriorating and critically unwell patients, and respond appropriately • perform advanced life support, according to resuscitation council guidelines, to a high level of advanced resuscitation skills • demonstrate knowledge of potential risks and complications of resuscitation • effectively assess, diagnose, and manage acute undifferentiated clinical presentations • select investigations that ensure maximum patient safety through excluding or diagnosing critical patient issues • systematically identify causes of acute deterioration in health status and levels of physical and cognitive functioning • manage escalations or transitions of care in a proactive and timely manner	• recognise seriously unwell patients requiring immediate care • apply basic life support as indicated • understand general medical principles of caring for patients with undifferentiated and undiagnosed conditions • identify potential causes of current deterioration, and comply with escalation protocols • facilitate initial tests to assist in diagnosis, and develop management plans for immediate treatment • document information to outline the rationale for clinical decisions and action plans • assess perioperative and periprocedural patients

[9] References to patients in the remainder of this document may include their families, whānau, and/or carers.

	• develop plans of multidisciplinary treatment, rehabilitation, and secondary prevention following acute events • provide clear and effective discharge summaries, with recommendations for ongoing care • optimise medical management before, during, and after operations	
Communication	• communicate clearly with other team members, and coordinate efforts of multidisciplinary team members • use closed-loop and clear communication with other health care team members during resuscitation • facilitate early communication with patients, families, and team members to allow shared decision making • negotiate realistic treatment goals, and determine and explain the expected prognoses and outcomes • employ communication strategies appropriate for younger patients or those with cognitive difficulties • explain the situation to patients in a sensitive and supportive manner, avoiding jargon and confirming their understanding • assess the level of health literacy of individual patients, and their level of understanding of agreed care decisions	• demonstrate communication skills to sufficiently support the function of multidisciplinary teams • assess patients' understanding of their diseases and what they perceive as the most desirable goals of care
Quality and safety	• maintain up-to-date certification in advanced life support • use clinical information technology systems for conducting prospective and retrospective clinical audits • evaluate and explain the benefits and risks of clinical interventions based on individual patients' circumstances • coordinate and encourage innovation, and objectively evaluate improvement initiatives for outcomes and sustainability • identify evidence-based practice gaps using clinical indicators, and implement changes to improve patients' outcomes	• evaluate the quality of processes through well-designed audits • recognise the risks and benefits of operative interventions • raise appropriate issues for review at morbidity and mortality meetings • evaluate the quality and safety processes implemented within the workplace, and identify gaps in their structure

	• analyse adverse incidents and sentinel events to identify system failures and contributing factors	
Teaching and learning	• demonstrate effective supervision skills and teaching methods that are adapted to the context of the training • encourage questioning among junior colleagues and students in response to unanswered clinical questions • seek guidance and feedback from healthcare teams to reflect on encounters and improve future patients' care	• mentor and train others to enhance team effectiveness • provide constructive feedback to junior colleagues to contribute to improvements in individuals' skills • coordinate and supervise junior colleagues from the emergency department and the wards
Research	• select studies based on optimal trial design, freedom from bias, and precision of measurement • evaluate the value of treatments in terms of relative and absolute benefits, cost, feasibility, and potential patient harm • evaluate the applicability of the results of clinical studies to the circumstances of individual patients, especially those with multiple comorbidities • specify research evidence to the needs of individual patients	• demonstrate efficient searching of literature databases to retrieve evidence • use information from credible sources to aid in decision making • refer to evidence-based clinical guidelines and protocols on acutely unwell patients • demonstrate an understanding of the limitations of the evidence and the challenges of applying research in daily practice
Cultural safety	• negotiate health care decisions in a culturally appropriate way by considering variation in family structures, cultures, religion, or belief systems • integrate culturally appropriate care of Māori (tangata whenua), and Pacific peoples into patients' management • consider cultural, ethical, and religious values and beliefs in leading multidisciplinary teams	• practise cultural competency appropriate for the community serviced • proactively identify barriers to healthcare access
Ethics and professional behaviour	• develop management plans based on medical assessments of the clinical conditions and multidisciplinary assessments of functional capacity • advise patients of their rights to refuse medical therapy, including life-sustaining treatment • consider the consequences of delivering treatment that is deemed futile, directing to other care as appropriate • acknowledge patients' beliefs and values, and how these might impact on health	• communicate medical management plans as part of multidisciplinary plans • establish, where possible, patients' wishes and preferences about care • contribute to building a productive culture within teams

	• facilitate interactions within multidisciplinary teams, respecting values, encouraging involvement, and engaging all participants in decision making • demonstrate critical reflection on personal beliefs and attitudes, including how these may affect patient care and health care policy • incorporate Māori views on health, including the four cornerstones of the Māori health model known as te whare tapa whā	
Judgement and decision making	• recognise the need for escalation of care, and escalate to appropriate staff or services • integrate evidence related to questions of diagnosis, therapy, prognosis, risks, and cause into clinical decision making • reconcile conflicting advice from other specialties, applying judgement in making clinical decisions in the presence of uncertainty • use care pathways effectively, including identifying reasons for variations in care	• involve additional staff to assist in a timely fashion when required • recognise personal limitations and seek help in an appropriate way when required
Leadership, management, and teamwork	• work collaboratively with staff in the emergency department, intensive care, and other subspecialty inpatient units • manage the transition of acute medical patients through their hospital journeys • lead a team by providing engagement while maintaining a focus on outcomes	• collaborate with and engage other team members, based on their roles and skills • ensure appropriate multidisciplinary assessment and management • encourage an environment of openness and respect to lead effective teams
Health policy, systems, and advocacy	• use a considered and rational approach to the responsible use of resources, balancing costs against outcomes • prioritise patients' care based on need, and consider available healthcare resources • collaborate with emergency medicine staff and other colleagues to develop policies and protocols for the investigation and management of common acute medical problems	• understand the systems for the escalation of care for deteriorating patients • understand the role of clinician leadership and advocacy in appraising and redesigning systems of care that lead to better patient outcomes

EPA 7: Quality improvement

Theme	Quality improvement	AT-EPA-07
Title	**Identify and address failures in health care delivery**	
Description	This activity requires the ability to: • identify and report actual and potential ('near miss') errors • conduct and evaluate system improvement activities • adhere to best practice guidelines • audit clinical guidelines and outcomes • contribute to the development of policies and protocols designed to protect patients[10] and enhance health care • monitor one's own practice and develop individual improvement plans.	
Behaviours		
Professional practice framework domain	**Ready to perform without supervision** Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	**Requires some supervision** Possible behaviours of a trainee who needs some supervision to perform this activity The trainee may:
Medical expertise	• use population health outcomes to identify opportunities for improvement in delivering appropriate care • regularly review patients' or population health outcomes to identify opportunities for improvement in delivering appropriate care • evaluate environmental and lifestyle health risks, and advocate for healthy lifestyle choices • use standardised protocols to adhere to best practice and prevent the occurrence of wrong-site, wrong-patient procedures • regularly monitor personal professional performance	• contribute to processes on identified opportunities for improvement • recognise the importance of prevention and early detection in clinical practice • use local guidelines to assist patient care decision making
Communication	• support patients to have access to, and use, easy-to-understand, high-quality information about health care • support patients to share decision making about their own health care, to the extent they choose • assist patients' access to their health information, as well as complaint and feedback systems	• demonstrate awareness of the evidence for consumer engagement and its contribution to quality improvement in healthcare • apply knowledge of how health literacy might affect the way patients or populations gain access to, understand, and use health information

[10] References to patients in the remainder of this document may include their families, whānau, and/or carers.

	• discuss with patients any safety and quality concerns they have relating to their care • implement the organisation's open disclosure policy	
Quality and safety	• demonstrate safety skills, including infection control, adverse event reporting, and effective clinical handover • participate in organisational quality and safety activities, including morbidity and mortality reviews, clinical incident reviews, root cause analyses, and corrective action preventative action plans • participate in systems for surveillance and monitoring of adverse events and 'near misses', including reporting such events • raise and appropriately report identified opportunities for improvement • use clinical audits and registries of data on patients' experiences and outcomes, learnings from incidents, and complaints to improve care	• demonstrate understanding of a systematic approach to improving the quality and safety of health care
Teaching and learning	• translate quality improvement approaches and methods into practice • participate in professional training in quality and safety to ensure a contemporary approach to safety system strategies • supervise and manage the performance of junior colleagues in the delivery of high-quality, safe care	• work within organisational quality and safety systems for the delivery of clinical care • use opportunities to learn about safety and quality theory and systems
Research	• use only protocols approved for human research by a human research ethics committee, in accordance with the national statement on ethical conduct in human research	• acknowledge that patient participation in research is voluntary and based on an appropriate understanding about the purpose, methods, demands, risks, and potential benefits of the research
Cultural safety	• undertake professional development opportunities that address the impact of cultural bias on health outcomes	• communicate effectively with patients from culturally and linguistically diverse backgrounds
Ethics and professional behaviour	• align improvement goals with the priorities of the organisation • contribute to developing an organisational culture that enables and prioritises patients' safety and quality	• comply with professional regulatory requirements and codes of conduct

	• acknowledge patients' beliefs and values, and how these might impact on health • incorporate Māori views on health, including the four cornerstones of the Māori health model known as te whare tapa whā	
Judgement and decision making	• use decision-making support tools, such as guidelines, protocols, pathways, and reminders • analyse and evaluate current care processes to improve care	• access information and advice from other health practitioners to identify, evaluate, and improve patients' care management
Leadership, management, and teamwork	• formulate and implement quality improvement strategies as a collaborative effort involving all key health professionals • support multidisciplinary team activities to lower patients' risk of harm, and promote interdisciplinary programs of education • actively involve clinical pharmacists in the medication-use process	• demonstrate attitudes of respect and cooperation among members of different professional teams • partner with clinicians and managers to ensure patients receive appropriate care and information on their care
Health policy, systems, and advocacy	• participate in all aspects of the development, implementation, evaluation, and monitoring of governance processes • participate regularly in multidisciplinary meetings where quality and safety issues are standing agenda items, and where innovative ideas and projects for improving care are actively encouraged • measure, analyse, and report a set of specialty-specific process of care and outcome clinical indicators, and a set of generic safety indicators • take part in the design and implementation of the organisational systems for: » clinical, and safety and quality education and training » defining the scope of clinical practice » performance monitoring and management	• maintain a dialogue with service managers about issues that affect patient care • contribute to relevant organisational policies and procedures • help shape an organisational culture that prioritises safety and quality through openness, honesty, learning, and quality improvement

EPA 8: Virtual care

Theme	Virtual care	AT-EPA-08
Title	**Provide virtual care for dermatology patients or virtual dermatology advice to referrers**	
Description	This activity requires the ability to: • triage referrals, and assess whether virtual care is appropriate for each patient[11] • prepare for virtual consultations with patients and for delivering virtual advice to other health professionals, navigating suitable technology platforms • provide patient-centred and culturally competent telehealth consultations to patients, or provide virtual advice to referrers • appropriately document and communicate consultations or virtual advice provided • complete appointment follow-up actions • evaluate patients' or other health professionals experience of virtual care or advice.	
Behaviours		
Professional practice framework domain	**Ready to perform without supervision** Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	**Requires some supervision** Possible behaviours of a trainee who needs some supervision to perform this activity The trainee may:
Medical expertise	• triage inpatient and outpatient referrals, and provide virtual advice to referrers • locate and verify patient information and records before virtual consultations • apply the same clinical care standards, policies, guidelines, and directives that apply to in-person consultations • share succinct virtual advice and clinical communication with other relevant health professionals, such as general practitioners, in a timely manner following virtual patient interactions	• seek advice regarding whether virtual advice is appropriate when necessary
Communication	• discuss with patients, families, whānau, and/or carers how virtual care can support their health needs, and the limitations of virtual health care • obtain patients' consent to use virtual communication methods • establish a rapport with telehealth participants	

[11] References to patients in the remainder of this document may include their families, whānau, and/or carers.

	• negotiate collaboratively, and agree on management plans • use a communication style designed to compensate for connectivity issues, including asking participants to repeat their understanding • produce a consultation report for referring clinicians	
Quality and safety	• select virtual modalities that reflect clinical standards and guidelines • only offer virtual care when and when it is clinically and culturally safe • use approved devices and secure platforms to ensure safety and privacy	• obtain consent where appropriate, and document this along with the consultation notes in medical records • recognise the limitations of virtual care
Teaching and learning	• apply an educational approach to allow patients and local health professionals to continue with ongoing care	• seek out learning in how to apply virtual care to day-to-day practice
Research		• maintain knowledge of the literature around the differences between virtual and in-person interactions • report on patients' feedback of virtual consultations
Cultural safety	• consider patients' cultural background when deciding whether virtual care is appropriate • use professional interpreters, health advocates, or family or community members to assist in communication with patients, and understand the potential limitations of each • acknowledge patients' beliefs and values, and how these might impact on health • incorporate Māori views on health, including the four cornerstones of the Māori health model known as te whare tapa whā • liaise with cultural advisors about the appropriateness of providing virtual care • assess patients' comfort level with technology, based on their culture and past experiences	
Ethics and professional behaviour	• collect patient information privately in the same way one would for an in-person consultation • send and record patient information on a secure network	• clarify with patients whether their virtual consultation has been satisfactory and met their care needs • ensure patients' privacy and safety is respected during consultations, as if they are attending an in-person consultation

Judgement and decision making	• consider a range of factors when determining whether virtual care is appropriate, including the complexity of care requirements and patients' personal circumstances, such as the ability of family / carers to attend • identify situations where in-person care is the most appropriate option • assess patients' access to technology and local support services • select an appropriate setting for the consultation, such as a private space • assess patients' level of health and digital literacy before and during the consultation • consider and plan how prescriptions will be provided to patients • devise and implement back-up plans in the event of technological issues	
Leadership, management, and teamwork	• recognise, manage, and overcome the inherent limitations of virtual care	
Health policy, systems, and advocacy	• advocate for patients access to appropriate hardware to support virtual care needs • advocate for service models that better meet the needs of patients receiving virtual care • advocate for support for patients to attend in person when virtual care is not appropriate	

Knowledge Guides

Knowledge guides (KGs) provide detailed guidance to trainees on the important topics and concepts trainees need to understand to become experts in their chosen specialty.

Trainees are not expected to be experts in all areas or have experience related to all items in these guides.

#	Title
1	Foundations and clinical sciences of dermatology
2	Paediatric dermatology
3	Medical dermatology
4	Skin tumours and skin cancers
5	Procedural dermatology
6	Dermatology treatments

EPIDEMIOLOGY, PATHOPHYSIOLOGY, AND CLINICAL SCIENCES

Advanced Trainees will have in-depth knowledge of the topics listed under each clinical sciences heading.

For the statistical and epidemiological concepts listed, trainees should be able to describe the underlying rationale, the indications for using one test or method over another, and the calculations required to generate descriptive statistics.

Cutaneous manifestations of systemic disease

- Including, but not limited to:
  - disorders affecting the hair, nails, and skin, such as:
    - autoinflammatory
    - endocrine
    - immunodeficiency
    - inherited
    - metabolic
    - neurocutaneous
    - rheumatological
  - graft-versus-host disease

Dermatology clinical sciences

- Anatomical pathology of the skin
- Embryology of the skin hair and nails
- Developmental changes of skin with age
- Presentation of dermatological problems in different ethnic and cultural populations
- Principles of wound healing
- Principles of skin carcinogenesis
- Role of skin in infection and immunity
- Structure and function of the skin hair and nails, including, but not limited to:
  - hair cycle
  - normal epidermal differentiation
  - skin barrier function

Dermatopathology and laboratory methods

- Alopecia:
  - non-scarring
  - scarring
- Genodermatosis:
  - epidermolytic hyperkeratosis (EHK)
  - ichthyosis vulgaris
  - incontinentia pigmenti (IP)
  - pseudoxanthoma elasticum (PXE)
- Histology of normal skin and its appendages
- Inflammatory dermatoses, including:
  - blistering
  - depositional
  - granulomatous
  - lichenoid
  - neutrophilic
  - perforating
  - psoriasiform
  - spongiotic
  - vasculitis
- Nails
  - melanonychia
  - onychomatricoma
  - onychomycosis

Genetic dermatology

- Cancer predisposition syndromes

- Genetics of skin disorders and broad knowledge of more common genodermatoses, including, but not limited to:
  - epidermolysis bullosa
  - ichthyoses
  - keratodermas
- Mosaic disorders
- Naevi
- Neurocutaneous syndromes
- Principles of medical genetics and genetic testing
- Vascular anomalies

Immunology

- Antigen receptors
- Cell signalling
- Cellular components of the immune system
- Hypersensitivity responses
- Immune responses to infections
- Immune systems:
  - cutaneous
  - mucosal
- Immunity:
  - adaptive
  - innate
- Immunological memory
- Tolerance

Photobiology and phototherapy

- Basic principles of light absorption, including transmission and interaction with human skin
- Cellular responses to apoptosis, DNA damage, immunomodulation, and ultraviolet (UV) radiation
- Common treatment issues, including, but not limited to:
  - burns
  - missed doses
  - non-response
- Electromagnetic spectrum and wavelengths relevant to dermatology, including characteristics of infrared, UV, and visible light
- Indications for use of phototherapy
- Patient selection, contraindications, treatment initiation, and treatment thresholds
- Photobiological mechanisms, including:
  - photoaging
  - photocarcinogenic
  - phototoxicity
- Photobiology, photoimmunology, and photophysics
- Photodynamic therapy
- Photoprotection:
  - modalities of photoprotection
  - sunscreens mechanism of action
- Photosensitivity dermatoses, such as:
  - contact
  - drug-related
  - genetic / metabolic
  - idiopathic disorders
  - immunological
- Phototherapy devices:
  - broadband ultraviolet B (UVB)
  - narrowband UVB
  - PUVA
  - UVA1
- Treatment protocols for:

- cutaneous lymphoma
- eczema
- generalised pruritus
- psoriasis
- vitiligo

Population dermatology

- Epidemiology of dermatological disease
- Ethics, equity, and resource allocation
- Impact of dermatological disease on quality of life, and developmental and psychosocial effects
- Socioeconomic and ethnocultural determinants of health

Psychodermatology

- Dermatological manifestations of psychological problems
- Economic, psychological, and social impact of dermatological disease

Research dermatology

- Critical appraisal of research papers, such as:
  - case reports
  - clinical trials
  - systematic reviews
- Evidence-based medicine in dermatology
- Good clinical practice
- Statistical methods
- Use of physician and patient disease assessment tools, such as:
  - Dermatology Life Quality Index (DLQI)
  - Eczema Area and Severity Index (EASI)
  - Psoriasis Area and Severity Index (PASI)

Skin infections and infestations

- Exanthems
- Infections of the skin:
  - bacterial
  - fungal
  - viral
- Microbiology, such as bacteria, fungi, and yeast, and virology and parasitology relevant to dermatology
- Pediculosis identification, and dermoscopy
- Scabies epidemiology
- Tropical dermatoses

Tumours – benign and malignant

- Keratinolytic neoplasms, such as:
  - adnexal tumours, including:
    - adipose
    - cyst
    - lymphoma
    - sebaceous
    - smooth muscle
    - vascular
  - follicular
  - melanocytic
  - neural
- Metastatic, such as:
  - breast
  - colon
  - endometriosis
  - Paget disease
  - renal
- Physical, such as:
  - chondrodermatitis nodularis helicis (CNH)

	» pernio » polymorphic light eruption (PMLE) » talon noir
INVESTIGATIONS, PROCEDURES, AND CLINICAL ASSESSMENT TOOLS Advanced Trainees will know the scientific foundation of each investigation and procedure, including relevant anatomy and physiology. They will be able to interpret the reported results of each investigation or procedure. Advanced Trainees will know how to explain the investigation or procedure to patients[12], families, and carers, and be able to explain procedural risk and obtain informed consent where applicable.	**Investigations** • Blood and serology tests • Dermoscopy • Examination of the hair, nails, and skin • Head lice, mites, and scabies extraction and microscopic identification • Histopathology • Immunohistochemistry • Microscopic analysis of relevant bacteria and fungi • Radiological investigations, such as: » MRI » ultrasound • Standard light microscope • Wood's lamp examination **Clinical assessment tools** • Disease assessment tools, including, but not limited to: » DLQI » EASI » PASI » Patient Oriented Eczema Measure (POEM) • Laboratory assessments, such as: » biochemistry » genetics » haematology • Photography • Screening requirements prior to use of systemic medications, and managing and interpreting surveillance blood test investigations **Procedures** • Dermatological surgery • Skin biopsy
IMPORTANT SPECIFIC ISSUES Advanced Trainees will identify important specialty-specific issues and the impact of these on diagnosis, management and outcomes.	• Contagious disease in community living • Develop and manage treatment plans • Health and cultural needs of patients from different ethnic and cultural backgrounds • Impact of cosmetic issues on psychosocial wellbeing • Infection screening and vaccination advice prior to immunosuppression • Informed consent • Public health notifications and contact tracing • Taking sexual histories • Tropical conditions that may vary the presentation of skin diseases • Variation in dermatological diseases with age, ethnicity, and pregnancy **Immunodermatology** • Techniques involving desensitisation, including: » indications » limitations » safety of desensitisation techniques

[12] References to patients in the remainder of this document may include their families, whānau, and/or carers.

PCH	• Aotearoa New Zealand immunisation schedules • Common childhood infectious diseases and exanthems • Developmental anomalies affecting the skin • Effect of dermatological disease on normal growth and development in paediatric and adolescent patients and their family / whānau • Genodermatoses presenting in neonatal and early childhood periods • Maternal foetal / neonatal disorders, such as transmission of maternal autoantibodies and transplacental infection • Presentation of neonatal tumours and haematological malignancies • Primary immunodeficiencies • Vascular anomalies

KEY PRESENTATIONS AND CONDITIONS

Advanced Trainees will have a comprehensive depth of knowledge of these presentations and conditions.

Presentations

- Birthmarks
- Erythroderma
- Hair and nail disorders
- Hyperpigmentation
- Hypopigmentation
- Papulonodular
- Papulosquamous eruptions
- Petechiae and purpura
- Photosensitivity
- Pustular eruptions
- Vascular growths
- Vascular lesions
- Vascular rashes
- Vesicobullous conditions

Conditions

- Acne and hidradenitis suppurativa
- Albinism
- Alopecia, including:
  - alopecia areata
  - tinea capitis
  - scarring alopecias
- Autoimmune bullous disorders
- Common benign neonatal cutaneous conditions, including:
  - cradle cap
  - eczema
  - erythema toxicum
  - napkin dermatitis
  - psoriasis
  - seborrhoeic dermatitis
- Common birthmarks, including:
  - cafe au lait macules
  - congenital melanocytic nevi
  - cutis aplasia
  - epidermal nevi
- Common childhood exanthems
- Common vascular anomalies, including:
  - capillary malformation
  - infantile haemangioma
  - lymphatic malformations
  - venous malformations
- Cutaneous signs of child neglect and abuse
- Cutaneous signs of nutritional deficiencies
- Drug eruptions

For each presentation and condition, Advanced Trainees will **know how to:**

Synthesise

- recognise the clinical presentation
- identify relevant epidemiology, prevalence, pathophysiology, and clinical science
- take a comprehensive clinical history
- conduct an appropriate examination
- establish a differential diagnosis
- plan and arrange appropriate investigations
- consider the impact of illness and disease on patients[13] and their quality of life when developing a management plan

Manage

- provide evidence-based management
- prescribe therapies tailored to patients' needs and conditions
- recognise potential complications of disease and its management, and initiate preventative strategies
- involve multidisciplinary teams

Consider other factors

- identify individual and social factors and the impact of these on diagnosis and management

[13] References to patients in the remainder of this document may include their families, whānau, and/or carers.

	• Inflammatory conditions:
	  » cutaneous vasculitis:
	  ○ Henoch–Schonlein purpura
	  ○ Kawasaki disease
	  » dermatomyositis:
	  ○ cutaneous lupus erythematosus
	  ○ systemic lupus erythematosus
	  » granuloma annulare
	  » lichen sclerosus
	  » morphea
	  » urticaria
	• Pyogenic granuloma
	• Vascular malformations
	• Vascular tumours
	• Vesicobullous conditions
	• Vitiligo	

LESS COMMON OR MORE COMPLEX PRESENTATIONS AND CONDITIONS
 	
Advanced Trainees will understand these presentations and conditions.
 	
Advanced Trainees will understand the resources that should be used to help manage patients with these presentations and conditions.
	Presentations
	• Abnormal growth and development in association with skin condition
	• Atypical infections
	• Birthmarks:
	  » collodion
	  » extensive
	  » syndromic
	• Blueberry muffin syndrome
	• Cutaneous tumours in children
	• Developmental anomalies of the skin
	• Ichthyosis
	• Keratoderma
	• Neonatal erythroderma
	
	Conditions
	• Complex inflammatory dermatoses, including:
	  » severe eczema and psoriasis requiring systemic treatment
	• Complex vascular tumours and malformations, including:
	  » kaposiform haemangioendothelioma
	  » LUMBAR syndrome
	  » PHACE syndrome
	  » PROS disorders
	  » SACRAL syndrome
	• Cutaneous infections in immunocompromised children
	• Cutaneous presentations of primary immunodeficiencies
	• Cutaneous presentations of systemic diseases, such as:
	  » autoinflammatory diseases
	  » cutaneous vaculitides
	  » cystic fibrosis
	  » endocrine
	  » metabolic	

- rheumatic syndromes
- vasculitis syndromes
- Genetic conditions with associated vascular anomalies
- Genodermatoses, including, but not limited to:
  - disorders of keratinisation, such as:
    - ichthysoses
    - keratodermas
    - Netherton syndrome
  - ectodermal dysplasia
  - epidermolysis bullosa
  - incontinentia pigmenti
  - malignancy predisposition syndromes
  - neurofibromatosis
  - RASopathies
  - tuberous sclerosis
- Graft-versus-host disease in children
- Haematological and other malignancies in children:
  - childhood melanoma
  - fibromatoses
  - histiocytic disorders:
    - juvenile xanthogranuloma (JXG)
    - Langerhans cell histiocytosis (LCH)
  - mastocytosis
  - skin tumours including
  - transplacentally acquired conditions
- Mosaic disorders, including:
  - congenital melanocytic nevus (CMN) syndrome
  - epidermal nevus syndromes
  - proteus and mosaic overgrowth syndrome
- Mosaic presentations of skin disorders, such as segmental neurofibromatosis (NF) / vitiligo
- Photosensitivity disorders
- Porphyrias
- Polymorphic light eruption
- Rheumatoligical diseases, including:
  - juvenile dermatomyositis
  - juvenile idiopathic arthritis
  - systemic lupus

EPIDEMIOLOGY, PATHOPHYSIOLOGY, AND CLINICAL SCIENCES

Advanced Trainees will have a comprehensive

- Aetiology and associated genetic mutations
- Differences in drug pharmacodynamics and pharmacokinetics in childhood and adolescence, and the related impacts of medication efficacy and safety
- Impact of dermatological disease on normal growth and development of children
- Incidence and prevalence of cutaneous disorders during neonatal period, childhood, and adolescence compared to adults

depth of knowledge of the principles of the foundational sciences.	• Natural history • Systemic associations with conditions
INVESTIGATIONS, PROCEDURES, AND CLINICAL ASSESSMENT TOOLS Advanced Trainees will know the scientific foundation of each investigation and procedure, including relevant anatomy and physiology. They will be able to interpret the reported results of each investigation or procedure. Advanced Trainees will know how to explain the investigation or procedure to patients, families, and carers, and be able to explain procedural risk and obtain informed consent where applicable.	**Clinical assessment tools** • Collateral history from wider family members • Disease severity and quality of life scores, including: » Dermatology Life Quality Index (DLQI) » Eczema Area and Severity Index (EASI) » Patient Oriented Eczema Measure (POEM) • Global developmental assessment **Investigations** • Blood and serological investigations • Genetic investigations • Histopathology and immunohistochemistry • Trichoscopy • Wood's lamp examination **Procedures** • Approach to the paediatric patient for procedures • Dermoscopy • Skin biopsy • Skin scraping for mycology **Vascular abnormalities** • Radiological investigations • Tissue biopsies for histology and genetic evaluation
IMPORTANT SPECIFIC ISSUES Advanced Trainees will identify important specialty-specific issues and the impact of these on diagnosis and management and integrate these into care.	• Assessment and recommended management of associated food allergies with complex inflammatory dermatoses • Awareness of child safety in home environments, including when necessary to raise concerns with relevant personnel / organisations • Assessment of children's ability to give consent • Consent for genetic testing • HEADSSS (home, education / employment, activities, drugs, sex and relationships, self-harm and depression, safety and abuse) assessment • Impact on the wider family of having a child with a dermatological condition • Multidisciplinary approach for management, including vascular anomalies multidisciplinary teams • Normal paediatric and adolescent development, and how this is impacted by dermatological disease • Psychosocial impact of dermatological disease • Significance and implications for genetic screening • Treatment modalities, including laser therapy and sclerotherapy

KEY PRESENTATIONS AND CONDITIONS

Advanced Trainees will have a comprehensive depth of knowledge of these presentations and conditions.

Presentations

- Angioedema
- Blistering eruption
- Blisters
- Drug eruptions
- Eczematous eruption
- Erythematous papules / patches / plaques
- Erythroderma
- Excessive hair growth
- Excoriée
- Facial flushing
- Hair loss
- Indurated plaques
- Itch
- Nail bed inflammation
- Nail discolouration
- Nail plate changes
- Oral ulceration
- Pigmentary changes
- Psychological symptoms of distress
- Pustular eruption
- Scarring
- Skin failure
- Skin injury
- Ulceration of mucus membranes
- Urticaria

Conditions

- Connective tissue diseases and collagen vascular disorders:
  - » dermatomyositis
  - » lichen sclerosus
  - » localised forms of scleroderma
  - » lupus erythematosus
  - » morphea
  - » panniculitis:
    - lobular
    - septal
  - » systemic sclerosis
  - » vasculitis
- Contact dermatitis:
  - » allergic
  - » irritant
  - » non-ezcematous contact dermatoses
  - » photoallergic and phototoxic
- Cutaneous manifestations in the immunosuppressed host / graft-versus-host disease

For each presentation and condition, Advanced Trainees will **know how to:**

Synthesise

- » recognise the clinical presentation
- » identify relevant epidemiology, prevalence, pathophysiology, and clinical science
- » take a comprehensive clinical history
- » conduct an appropriate examination
- » establish a differential diagnosis
- » plan and arrange appropriate investigations
- » consider the impact of illness and disease on patients[14] and their quality of life when developing a management plan

Manage

- » provide evidence-based management
- » prescribe therapies tailored to patients' needs and conditions
- » recognise potential complications of disease and its management, and initiate preventative strategies
- » involve multidisciplinary teams

Consider other factors

- » identify individual and social factors and the impact of these on diagnosis and management

[14] References to patients in the remainder of this document may include their families, whānau, and/or carers.

- Dermatological conditions exacerbated by psychological disease
- Disorders of the dermis:
  - eosinophilic disorders
  - histiocytoses
  - mastocytoses
  - neutrophilic dermatoses
- Disorders of infiltration:
  - acneiform conditions
  - disorders of cornification
  - granulomatous processes:
    - lichenoid eruptions
- Disorders of pigmentation, such as vitiligo
- Immunobullous disease, including, but not limited to:
  - bullous lupus erythematosus
  - bullous pemphigoid
  - cicatricial pemphigoid
  - linear IgA dermatoses
  - pemphigus
- Inflammatory dermatoses:
  - atopic dermatitis
  - dermatitis
  - nummular dermatitis
  - psoriasis
  - seborrhoeic dermatitis

Conditions – hair and nail

- Alopecia:
  - non-scarring
  - scarring
- Chromonychia
- Common congenital and inherited nail diseases
- Cutaneous manifestations of internal malignancy
- Drugs that cause hair loss
- Hirsutism
- Hypertrichosis
- Infections affecting the nails
- Infections affecting the scalp
- Inflammatory conditions affecting the nails
- Systemic conditions presenting with nail and hair symptoms
- Vitamin deficiencies

Conditions – hypersensitivity reactions

- Environmental allergy / sensitisation
- Food allergy / sensitisation
- Physical burn
- Scar:
  - atrophic
  - hypertrophic
  - keloid

Conditions – occupational skin dermatoses

	• Drug eruptions, including, but not limited to: » fixed drug eruption » generalised drug eruption » lichenoid » severe cutaneous adverse reactions: ○ Stevens–Johnson syndrome (SJS) ○ toxic epidermal necrolysis (TEN) • Urticaria and angioedema	
LESS COMMON OR MORE COMPLEX PRESENTATIONS AND CONDITIONS Advanced Trainees will understand these presentations and conditions. Advanced Trainees will understand the resources that should be used to help manage patients with these presentations and conditions.	**Presentations** • Drug eruption in complex medical patients, such as: » those in the intensive care unit » those with immunodeficiency » oncology patients • Hair shaft changes **Conditions** • Drug- or toxin-induced psychiatric or psychological conditions • Genetic syndromes, such as: » aplasia cutis congenita » Netherton syndrome » piebaldism » woolly Hair • Genital and mucosal dermatology • Rare genital or oral dermatological diseases • Rare mucosal premalignant and malignant disease, such as Paget disease	
EPIDEMIOLOGY, PATHOPHYSIOLOGY, AND CLINICAL SCIENCES Advanced Trainees will have a comprehensive depth of knowledge of the principles of the foundational sciences.	**Genital and mucosal** • Anatomy and physiology of normal female and male anogenital regions • Anogenital region diseases, such as: » dermatoses: ○ benign ○ malignant » inflammatory diseases » sexually transmitted infections (STIs) » skin lesions: ○ benign ○ malignant • Skin and subcutaneous anatomy and biology: » genitalia » mucus membranes **Hair and nail** • Anatomy and development of the hair follicle • Microscopic structure of the hair follicle • Nail anatomy and biology **Inflammation** • Cellular and molecular biology • Cellular and molecular biology of inflammation, including:	

- adhesion molecules
- arachidonic acid metabolism
- basophils and eosinophils
- complement system
- cytokines
- human leukocyte antigen system
- immunoglobulin structure and function
- polymorphonuclear leukocytes

- Dermatopathology of:
  - inflammatory dermatoses
- Immunology in relationship to the skin
- Pathology results, including relevant blood and serology tests related to autoimmune diseases and systemic diseases with cutaneous manifestations
- Principles of contact dermatitis
- Principles of different forms of urticaria
- Principles of drug allergy and patch testing
- Principles of wound healing and scar formation

INVESTIGATIONS, PROCEDURES, AND CLINICAL ASSESSMENT TOOLS

Advanced Trainees will know the scientific foundation of each investigation and procedure, including relevant anatomy and physiology. They will be able to interpret the reported results of each investigation or procedure.

Advanced Trainees will know how to explain the investigation or procedure to patients, families, and carers, and be able to explain procedural risk and obtain informed consent where applicable.

Clinical assessment tools

- Dermatology Life Quality Index (DLQI)
- Eczema Area and Severity Index (EASI)
- Hurley staging for hidradenitis suppurativa
- Psoriasis Area and Severity Index (PASI)
- SCORTEN for toxic epidermal necrolysis

Investigations

- Bacterial and viral swabs for culture and/or polymerase chain reaction (PCR)
- Blood tests
- Clinical imaging
- Dermoscopy
- Hair sampling for histological analysis
- Histopathology
- Minimal erythema dose (MED) or minimal phototoxic dose (MPD)
- Monochromator testing
- Patch testing, including a knowledge of New Zealand core series, New Zealand extended series, and specific extended series:
  - ability to select appropriate batteries of allergens based on history and examination findings
- Photo provocation testing
- Radiographic imaging
- Scraping and/or nail clipping for mycology
- Skin biopsy, including:
  - immunohistochemistry
  - immunofluorescence
- Trichoscopy
- Wood's lamp examination

Procedures

- Botulinum toxin for hyperhidrosis
- Iontophoresis
- Photodynamic therapy
- Shave excision
- Triamcinolone injection

IMPORTANT SPECIFIC ISSUES

Advanced Trainees will identify important specialty-specific issues and the impact of these on diagnosis and management and integrate these into care.

- Management of a cutaneous disease in complex comorbid patients in intensive care

Genital and mucosal

- Patient confidentiality issues
- Psychosocial impact of genital and mucosal dermatological disease

Hair and nail

- Adequate samples sent for scalp biopsy:
  - » horizontal sectioning
  - » vertical sectioning
- Counselling of patients regarding risks of long-term nail deformity
- Location of nail biopsies
- Techniques chosen to perform nail biopsies

Immunodermatology

- Indications
- Limitations
- Psychological impact, both short and long term, of severe drug reactions and other dermatological diseases
- Safety of desensitisation techniques
- Techniques in desensitisation

Occupational dermatology

- Allergen avoidance, advanced management of occupational dermatitis, and prevention of skin disease
- Details of function of and occupational exposure to common allergens in extended patch test series, such as hairdressing battery
- Medical reporting
- Medicolegal aspects of contact dermatitis, including Accident Compensation Corporation (ACC) legislation and reporting
- Workplace assessments

Psychodermatology

- Clinical features, assessment, investigation, and management of primary psychiatric disease presenting as skin disease to dermatology
- Clinical features, assessment, investigation, and management of primary skin disease presenting with psychosocial comorbidity
- Features of anxiety, depression, and risk factors for suicide
- Multidisciplinary approach to primary psychiatric disorders:
  - » psychiatric conditions that result in self-induced skin conditions, such as delusions of parasitosis and trichotillomania
- Psychiatric differential diagnosis in skin disease
- Psychophysiological disorders:
  - » skin problems that are not directly connected to the mind but react with emotional states, such as eczema and psoriasis
- Secondary psychiatric conditions:
  - » associated with disfiguring skin disorders that can cause depression or social phobia, such as cystic acne and psoriasis

PCH

- Age- and patient-appropriate techniques for skin biopsies and other painful procedures
- Age-appropriate assessment tools to assess quality of life
- Association between childhood eczema and other atopic disorders, and the importance of developing immune tolerance
- Differences in presentation of inflammatory skin disorders in children and adolescents compared to adults
- Incidence and prevalence of inflammatory skin disorders in childhood and adolescence

KEY PRESENTATIONS AND CONDITIONS

Advanced Trainees will have a comprehensive depth of knowledge of these presentations and conditions.

Presentations

- Erythronychia
- Malignancies:
  - » genital
  - » oral
- Mass:
  - » multiple
  - » solitary
- Melanonychia
- Mucus membrane red / white patch
- Nodule:
  - » multiple
  - » subcutaneous
  - » ulcerating
- Papule, solitary
- Plaque:
  - » multiple
  - » solitary
- Patches, multiple
- Yellow spots

Conditions

- Cutaneous lymphomas
- Cutaneous manifestation of internal malignancies, such as:
  - » bowel cancer
  - » leukaemia cutis
  - » metastatic breast
- Skin tumours:
  - » benign:
    - adipose tissue
    - bone
    - cysts
    - ductal
    - epithelial
    - fibrohistiocytic
    - fibrous
    - follicular
    - melanocytic
    - neural
    - sebaceous
    - nail
  - » malignant:
    - adipose tissue:
      - liposarcoma
    - ductal:
      - Paget disease:
        - » extramammary
        - » mammary

For each presentation and condition, Advanced Trainees will **know how to:**

Synthesise

- » recognise the clinical presentation
- » identify relevant epidemiology, prevalence, pathophysiology, and clinical science
- » take a comprehensive clinical history
- » conduct an appropriate examination
- » establish a differential diagnosis
- » plan and arrange appropriate investigations
- » consider the impact of illness and disease on patients[15] and their quality of life when developing a management plan

Manage

- » provide evidence-based management
- » prescribe therapies tailored to patients' needs and conditions
- » recognise potential complications of disease and its management, and initiate preventative strategies
- » involve multidisciplinary teams

Consider other factors

- » identify individual and social factors and the impact of these on diagnosis and management

[15] References to patients in the remainder of this document may include their families, whānau, and/or carers.

	○ epithelial: ▪ basal cell carcinoma ▪ squamous cell carcinoma ○ fibrous and fibrohistiocytic: ▪ atypical fibroxathoma ▪ dermatofibroma protuberans ▪ malignant fibrous histiocytoma ○ melanocytic: ▪ melanoma ○ Merkel cell carcinoma ○ nail	
	PCH • Common cutaneous and vascular tumours in childhood • Cutaneous presentation of haematological malignancies in children • Presentation of cancer predisposition syndromes in childhood	
LESS COMMON OR MORE COMPLEX PRESENTATIONS AND CONDITIONS Advanced Trainees will understand these presentations and conditions. Advanced Trainees will understand the resources that should be used to help manage patients with these presentations and conditions.	**Presentations** • Nodules: » multiple: ○ cutaneous ○ subcutaneous ○ mucosal » solitary: ○ cutaneous ○ mucosal ○ subcutaneous • Papules: » multiple » solitary **Conditions** • Follicular tumours and associated conditions, such as: » Bazex syndrome » Birt–Hogg–Dube syndrome » Brooke–Spiegler syndrome » Cowden syndrome • Genital premalignant and malignant conditions • Kaposi sarcoma • Muir–Torre syndrome • Oral mucosal premalignant and malignant conditions	
EPIDEMIOLOGY, PATHOPHYSIOLOGY, AND CLINICAL SCIENCES Advanced Trainees will have a comprehensive depth of knowledge of the principles of the foundational sciences.	• Dermatopathology of tumours: » benign » malignant • Genetics of cutaneous tumours: » benign » malignant	

INVESTIGATIONS, PROCEDURES, AND CLINICAL ASSESSMENT TOOLS

Advanced Trainees will know the scientific foundation of each investigation and procedure, including relevant anatomy and physiology. They will be able to interpret the reported results of each investigation or procedure.

Advanced Trainees will know how to explain the investigation or procedure to patients, families, and carers, and be able to explain procedural risk and obtain informed consent where applicable.

Clinical assessment tools

- Developmental factors before undertaking painful procedures and modifying approach

Investigations

- Histology reports – interpreting
- Radiographic imaging data
- Staging

Procedures

- Dermoscopy, such as currently accepted pigmented lesion scoring systems
- Nail unit biopsy
- Removal of skin tumours using methods, such as:
  - cautery
  - curettage
  - excision
  - saucerisation
- Scalp biopsy
- Skin biopsy

IMPORTANT SPECIFIC ISSUES

Advanced Trainees will identify important specialty-specific issues and the impact of these on diagnosis and management and integrate these into care.

- Indications / Criteria for referral to genetic services
- Indications for Mohs micrographic surgery
- Margins of excision in different skin tumours, working knowledge of surgical instrumentation and nomenclature, and suture materials and needles
- Utilisation of different biopsy modalities for different types of lesions

Management

- Non-surgical management:
  - cryosurgery
  - curettage and cautery
  - excisions
  - hyfrecator
  - intralesional injections, such as cytotoxics
  - laser
  - Mohs micrographic surgery
  - photodynamic therapy for solar keratoses and superficial basal cell carcinoma
  - surgical management
- Topical immunotherapy / chemotherapy treatments

CLINICAL SCIENCES

Advanced Trainees will describe the principles of the foundational sciences.

- For each procedure, describe:
  - alternatives
  - complications
  - consent
  - contraindications
  - cure rates
  - indications
  - instrumentation
  - principles
  - risks
  - safety factors
  - techniques

Anaesthesia

- Anatomy relevant to advanced regional blocks, such as:
  - auricular
  - mandibular
  - maxillary
  - occipitoparietal:
    - ankle block
    - arm block
    - wrist block
  - supraorbital
  - trochlear
  - zygomaticofacial
- Pharmacology of local anaesthetics, such as:
  - anatomy relevant to regional blocks around face and digits
  - buffering and tumescent
  - formulations
  - infiltration techniques, including techniques to ameliorate injection discomfort
- Principles of tumescent anaesthesia
- Toxicities and monitoring

Chemical peeling

- Peeling agents

Cosmetic surgery

- Patients and procedures selected in a manner consistent with Medical Council of New Zealand guidelines

Cryotherapy

- Cellular effects
- Different cryogens
- Mechanisms
- Physical factors
- Physiological factors

Curettage

- Dermatopathology and laboratory methods
- Immunopathology
- Microscope operation
- Specimen processing

Disorders of clotting mechanism

- Principles of:
  - ambulatory phlebectomy
  - endovenous laser and radiofrequency closure
  - laser ablation of veins
  - sclerotherapy

Disorders of venous incompetence

- Anatomy relevant to disorders of incompetence of the venous system
- Assessment of venous incompetence via:
  - Doppler ultrasound
  - physical examination

Electrosurgery

- Electrocautery
- Electrodessication
- Electrolysis

Injection therapy

- Bleomycin
- Botulinum toxin
- Cytotoxics
- Intralesional corticosteroids
- Sclerotherapy – injection of dermal filler substances

Laser surgery

- Contraindications and complications
- Clinical indications:
  - acne scarring
  - actinic cheilitis
  - birthmarks
  - laser-assisted epilation and a range of other indications
  - photoaging
  - pigmented lesions
  - scars
  - skin cancer
  - tattoos
  - vascular lesions
  - verrucae
  - wrinkling
- Features of:
  - birthmarks
  - photoaging
  - pigmented lesions
  - removal of benign and malignant skin lesions
  - rhytid formation
  - scar tissue
  - skin resurfacing
  - tattoo removal
  - vascular lesion
- Laser tissue interaction:
  - associated variables
  - selective photothermolysis
  - thermal relaxation times
- Physics of lasers, and how this impacts the skin
- Principles of:
  - analgesia
  - continuous and Q-switching lasers
  - delivery systems
  - intense pulsed light systems:
    - hazards

        - safety
    - laser:
        - ablative
        - Nd:YAG
        - non-ablative
        - pigmented lesion (PLL)
        - Q-switch
        - tattoo
        - vascular
    - laser media
    - post-procedure care
    - power supplies
    - pulsed versus scanned beam
    - stimulated emission of radiation
    - tissue cooling
    - wavelengths

Photobiology

- Assessment of minimal erythema dose for UVB and PUVA

Radiotherapy

- Administration, contraindications, dosage calculation, indications, positioning, safety factors, and shielding of radiotherapy
- Radiation injury
- Radiation protection
- Superficial x-ray therapy for benign skin disorders and skin malignancies

Scalpel surgery

- Biopsy:
    - relevant merits and disadvantages of each technique for various conditions
- Excision
- Excision without margin control
- Excisional biopsy
- Flaps:
    - decision-making process in flap selection
    - factors influencing survival
- Grafts:
    - decision-making process in graft selection
    - factors influencing survival
- Incisional biopsy
- Mohs micrographic surgery
- Punch biopsy

Surgical anatomy

- Classic systems of anatomy
    - facial nerve
    - muscles of facial expression
    - sensory nerves of skin
    - superficial musculoaponeurotic system of head and neck
    - vascular systems, including arteries and veins, in particular in the head, legs, and neck, and lymphatics
- Contraindications
- Funding criteria
- General considerations:
    - anatomy of skin:
        - deep fascia, including structures that may be injured during surgery, such as lymph nodes
    - head and neck anatomy
- Indications

- Regional anatomy:
  - anus
  - cheek
  - chin
  - ear
  - eyelid
  - forehead
  - genitalia
  - leg
  - lip
  - mouth
  - nail unit
  - neck
  - nose
  - perianal
  - scalp
  - thigh
  - tongue
  - upper limb
- Surface anatomy:
  - aesthetics and the anatomy of skin ageing
  - skin tension lines
  - topographic anatomy and surface projections of deep anatomical structures

LESS COMMON OR MORE COMPLEX PATIENT CONSIDERATIONS

Advanced Trainees will understand the resources that should be used to help manage patients[16].

- Complications
- Determining and assessing patients who are not surgical candidates
- Practical aspects of procedure

UNDERTAKING THERAPY

Advanced Trainees will monitor the progress of patients during the therapy.

Anaesthesia

- Adrenaline effects, anaphylactic reaction, and lignocaine toxicity
- Monitoring of local anaesthetic, including ECG and pulse oximetry
- Provide safe and effective local anaesthesia, including mandibular, maxillary, supratrochlear, and trochlear nerve blocks
- Safety dosage calculation

Cryotherapy

- Techniques:
  - freeze thaw principles
  - thermocouples
  - timed spot freeze technique

Dermatopathology and laboratory methods

- Fungal spores and hyphae on direct microscopy of skin scrapings, common abnormalities of hair, and common parasites causing disease in humans
- Laboratory tests
- Microscopic identification of head lice, mites, and scabies
- Standard light microscope to evaluate skin disease

Electrosurgery

[16] References to patients in the remainder of this document may include their families, whānau, and/or carers.

- Electrocoagulation
- Electrofulguration
- Electrosection (cutting)
- Diathermy

Injection therapy

- Intralesional corticosteroid injections for:
  - alopecia areata
  - granuloma annulare
  - keloid scars

Laser surgery

- Advanced practical skills in laser therapy:
  - endovenous laser closure of the saphenous vein
  - erbium / CO^2 laser treatment for removal of benign and malignant skin lesions
  - fractional / erbium / CO^2 laser resurfacing for cosmetic indications
  - laser treatments using pigmented lesion lasers
- Principles of:
  - continuous and Q-switching lasers
  - delivery systems
  - laser media
  - power supplies
  - pulsed versus scanned beam
  - stimulated emission of radiation
  - wavelengths
- Use of intense pulsed light systems – hazards and safety

Mohs micrographic surgery

- Methods and techniques of Mohs micrographic surgery:
  - lesion removal
  - mapping
  - microscopic assessment and interpretation
  - potential complications
  - specimen preparation and processing

Photobiology

- Narrowband phototherapy plans for patients with suitable skin diseases
- Phototesting, including:
  - monchromator testing
  - photoaggravation testing
  - photopatch testing
  - solar simulator
  - UVB and UVA source
- Solar simulator and monochromator testing
- Treatment protocols for:
  - cutaneous lymphoma
  - eczema
  - generalised pruritus
  - photodynamic therapy psoriasis
  - vitiligo

Scalpel surgery

- Biopsy:
  - contraindications, indications, and instrumentation
  - types:
    - excisional
    - incisional
    - punch
    - shave
- Excision:
  - cosmetic unit principles

- lines of excision
- margins of excision for different skin tumours
- M-plasty
- relaxed skin tension lines
- suture materials and needles
- suturing techniques:
  - mattress suture
  - running suture
  - subcutaneous sutures
  - subcuticular suture
- techniques of haemostasis
- undermining
- working knowledge of surgical instrumentation and nomenclature
- wound closure

- Flaps:
  - principles of tissue movement and flap dynamics
  - specific flaps, such as:
    - advancement
    - pedicle
    - rotation
    - subcutaneous
    - transposition
    - Z-plasty
- Grafts:
  - mechanisms of graft survival
  - split thickness, full thickness, and composite cartilaginous grafts

POST-THERAPY

Advanced Trainees will know how to monitor and manage patients post-therapy.

- Manage all post-operative care and complications of procedural work, including complications, postoperative healing, and safety
- Resuscitation procedures

Postoperative wound care

- Dressings
- Management of complications, such as:
  - haematoma
  - hypertrophic scarring
  - infection
  - necrosis
- Second intention healing

IMPORTANT SPECIFIC ISSUES

Advanced Trainees will identify important specialty-specific issues and the impact of these on diagnosis and management and integrate these into care.

Cosmetic surgery

- Approach to managing cosmetic patients
- Cosmetic concerns

Dermatopathology and laboratory methods

- Limitations of cultural identification in pathology laboratories

Disorders of venous incompetence

- Risks and complications of all treatments of venous incompetence

Essential practical skills

- Designing appropriate incision lines
- Designing wound closures
- Excision – elliptical
- Respect for cosmetic units
- Suture

Infection control / Sterilisation

- Aseptic techniques, operating room protocol, and sharp injuries protocol
- Disinfection and sterilisation procedures, and sharp and contaminated waste disposal

- Standard and additional precautions for the protection of staff and patients
- Sterilisation equipment principles and maintenance

Laser surgery

- Regulations and laser licensing
- Safe use of lasers in dermatology:
  - alignment
  - electrical and fire safety
  - eye protection
  - hazard reduction
  - infection control and laser plume
  - laser maintenance
  - record keeping
  - secure key storage
  - signage

Photobiology

- UVB and UVA testing of sunscreens, including Aotearoa New Zealand standards for sunscreens

PCH

- Altered wound healing in young people
- Appropriate anaesthesia, distraction, and procedural techniques to minimise pain and distress
- Informed consent / assent for procedures in paediatric and adolescent patients
- Risk of toxicity with anaesthetic agents in children

CLINICAL SCIENCES

Advanced Trainees will describe the principles of the foundational sciences.

- Pharmacotherapy
- Pathophysiology and complications of skin failure and other severe dermatoses

Clinical pharmacology systemic drugs

- Clinical pharmacology of injectables used in dermatology practice, including, but not limited to:
  - corticosteroids
  - local anaesthetics
- Clinical pharmacology of topical drugs, covering absorption, clinical use, distribution, mechanism of action, and structure, including adverse effects, clinical indications, contraindications, and drug interactions, for specific topical therapies, including, but not limited to:
  - anti-infective agents
  - anti-inflammatory agents
  - cytotoxics
  - emollients
  - immunomodulatory agents
  - keratolytics
  - photosensitisers
  - retinoids
- Pharmacology, covering the absorption, clinical use, distribution, mechanism of action, metabolism and excretion, and structure, including adverse effects, clinical indications, contraindications, and drug interactions, for drugs used in dermatology, including, but not limited to:
  - antiandrogens
  - anti-infective agents
  - anti-inflammatory and immunomodulatory / suppressive
  - biologics
  - new and emerging drugs relevant to dermatology
  - psoralens
  - retinoids
  - targeted therapies
- Photobiology

Photobiology

- Photoimmunology
- Photophysics
- Photosensitivity dermatoses:
  - contact
  - drug-related
  - idiopathic disorders
  - immunological
  - metabolic
- Phototherapy devices
- Treatment protocols for:
  - cutaneous lymphoma
  - eczema
  - generalised pruritus
  - photodynamic therapy
  - psoriasis
  - vitiligo

	PCH • Altered pharmacodynamics and pharmacokinetics of medications in children • Potential effects of medications on normal growth and development, and eligibility for childhood vaccinations
ELIGIBILITY CONSIDERATIONS Advanced Trainees will assess the patient's[17] current condition and plan the next steps.	• Named Patient Pharmaceutical Assessment (NPPA) process • Patient decision making through provision of information regarding treatment choices • Pharmac initial and renewal funding criteria • Unfunded medication availability in Aotearoa New Zealand **Photobiology** • Assessment of minimal erythema dose for UVB and PUVA
LESS COMMON OR MORE COMPLEX PATIENT CONSIDERATIONS Advanced Trainees will understand the resources that should be used to help manage patients.	• Issues around use of medications off-label • Presentation and discussion of complex patients as part of multidisciplinary meetings • Principles of treatment decisions for disorders with limited evidence-base
UNDERTAKING THERAPY Advanced Trainees will monitor the progress of patients during the therapy.	• Appropriate laboratory, physical, and radiological monitoring of treatments prescribed or used • Management of acutely unwell dermatology patients: » investigation and management of causes and complications of skin failure and other severe dermatoses • Recognition and management of acute adverse drug reactions and anaphylaxis • Relevant disease assessment tools • Side effects of phototherapy • Value of shared decision making
	PCH • Safe paediatric drug dose calculation
POST-THERAPY Advanced Trainees will know how to monitor and manage patients post-therapy.	• Clear guidance regarding follow-up requirements for patients and primary care providers
IMPORTANT SPECIFIC ISSUES Advanced Trainees will identify important specialty-specific issues and the impact of these on diagnosis and management and integrate these into care.	• Management of the acutely unwell dermatology patient: » recognition and management of acute adverse drug reactions and anaphylaxis

[17] References to patients in the remainder of this document may include their families, whānau, and/or carers.