MALAYSIAN MEDICAL COUNCIL (MMC) FRAMEWORK FOR MEDICAL SUBSPECIALTY TRAINING

Malaysian Medical Council

Prepared by:
Subspecialty Education Subcommittee of the Medical Education Committee for Specialist Medical Qualifications (MEC 2)

Adopted by the Malaysian Medical Council (MPM 467)

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PRESIDENT FOREWORD

Assalamualaikum and Salam Sejahtera.

I am pleased to present the MMC Framework for Subspecialty Training, which represents a significant step towards strengthening the advanced specialty training. In recent years, MMC has launched several Medical Education Standards namely, the Standards for Undergraduate Medical Education (3rd edition 2026), Malaysian Standards for Housemanship Training (2024) and Malaysian Standards for Medical Specialist Training (2019).

MMC is committed to improving the quality and delivery of healthcare services through highly skilled and competent medical workforce. This framework is aligned with the Malaysian Qualifications Framework (MQF) and promotes a competency-based and outcomes-oriented approach to subspecialist education and tailored to our country's healthcare needs.

The development of this framework involved extensive collaboration among senior consultants from different institutions who understand the complexity of Malaysian healthcare service needs. The first section of the framework outlines the key competencies that support the roles expected of a subspecialist and the second section outlines the best practices on the development of a training programme. This framework provides clear guidance on expected competencies, standardised training outcomes, and support the harmonisation of subspecialty education across all training providers.

The framework is not only applicable to the 64 subspecialties currently listed in the Fifth Schedule of the Medical (Amendment) Act 2024, but it also serves as an important guidance document for other field of practices such as advanced specialty training and area of interest which are not listed in the Fifth Schedule.

It is my sincere hope that this framework will serve not only as a benchmark for excellence in subspecialty training but also as a catalyst for continuous improvement, innovation, and collaboration among all stakeholders.

Datuk Dr. Mahathar bin Abd Wahab

President of the Malaysian Medical Council

1.0 BACKGROUND

Historically, advanced specialist training in Malaysia originated in Ministry of Health (MOH), where it was initiated, developed and governed. To date, MOH remains as the largest Educational Training Provider (ETP) for both advanced specialty, subspecialty and area of interest (AOI). These advanced specialty training programmes are also being offered by the public universities, local private institutions and overseas institutions. They provide highly specialised and focused care, which can contribute to improved quality of care and better patient outcomes.

Based on a survey in 2024, there are 126 fields of practice that were categorised as advanced specialist training (64 are listed as subspecialty in the Fifth Schedule of the amended Medical Act 2024) and 206 areas of interest (AOI) across both public and private practice, including the universities.

Subspecialty training occurs after the completion of specialty training. It does not have to comply with the Malaysian Standards for Medical Specialist Training and does not have to undergo a stringent evaluation of an accreditation process. Previously, there were no established national standards for subspecialty training, or any regulatory process to oversee the subspecialty training programmes.

Existing subspecialty training programmes demonstrate variability in structure, learning outcomes, and competency expectations. This inconsistency arises partly due to the absence of a formally recognised competency and training framework for subspecialty training at the national level.

The Malaysian Medical Council (MMC), through their deliberation in MPM 452 meeting (Bil.3/2025) has mandated the establishment of a structured training framework to guide subspecialty training. A working group under Subspecialty Education Committee was subsequently established for the development of the MMC Framework for Medical Subspecialty Training.

This framework comprises of two interrelated components:

(i) Competency Framework for Subspecialty Training, and

(ii) Subspecialty Training Framework.

This framework aims to standardise subspecialty training, ensure alignment with the Malaysian Qualifications Framework (MQF), and promotes a competency-based and outcomes-oriented approach to subspecialist education.

2.0 INTRODUCTION

This framework is divided into 2 sections namely Section One and Section Two as follows.

2.1 Section One: Competencies Framework for Subspecialty Training

This framework describes the key competencies expected of subspecialists practicing in Malaysia, aligned with the country's current and future healthcare needs. It provides explicit guidance for training requirements, and educational and learning outcomes in the development of subspecialty training programmes. It is designed to complement and align with the Malaysian Qualifications Framework (MQF), ensuring a competency-based and outcomes-oriented approach to subspecialist education. Overall, the framework aims to ensure a high-quality, nationally consistent educational experience and to produce subspecialists who are competent, independent, and fit for purpose within the Malaysian healthcare system.

2.2. Section Two: Subspecialty Training Framework

This template for subspecialty training framework is developed with the primary objective of standardising the training structure for all subspecialties in Malaysia. The template is intended to be used by the Education Training Provider (ETP) which intends to develop a subspecialty training programme.

This training framework outlines the structure, minimum requirements and key processes for the Subspecialty Training Programme. The document provides guidance on the essential components of curriculum design, trainer and trainee requirements, assessments, resources, and aspects of governance. It ensures a consistent, high-quality educational experience aligned with the Malaysian Medical Council (MMC) Standards for Medical Specialist Training (2019) and current best evidence in medical education with the aim of producing competent and independent subspecialists.

While this framework is primarily intended to guide the subspecialties listed under the Fifth Schedule of the Medical (Amendment) Act 2024, it is designed to be adaptable and may be applied to other fields of practice as well.

This training framework is designed to be comprehensive yet generic in nature, serving as a guide with the essential structure and components of a training programme. While this guiding document is not exhaustive, compliance is encouraged.

3.0 SECTION ONE: MMC COMPETENCIES FRAMEWORK FOR SUBSPECIALTY TRAINING

Among the many roles and competencies which are relevant to subspecialist practice in Malaysia, there are eleven notable roles and twenty supporting competencies to achieve high-quality subspecialty training.

3.1 Roles of a Subspecialist

1	Medical expert	7	Professional
2	Communicator	8	Educator
3	Collaborator	9	Reflective practitioner
4	Leader	10	Manager
5	Health advocate	11	Scholar
6	Health economist and entrepreneur		

Table 1: Roles expected of a subspecialist

3.2 Key Supporting Competencies

1	Knowledge and understanding	11	Professionalism
2	Cognitive skills	12	Ethical practice
3	Practical skills	13	Entrepreneurial skills
4	Autonomy and responsibility	14	Numeracy skills
5	Communication skills	15	Reflective practice
6	Interpersonal skills	16	Value-based medicine
7	Personal skills	17	Clinical supervision
8	Leadership	18	Scholarship
9	Health advocacy	19	Organisational skills
10	Digital and Information technology skills	20	Innovation skills

Table 2: Twenty key competencies for practicing subspecialist

3.3 Competencies Framework for Subspecialty Training

The following framework is a description of the **key competencies** for the specified role. The various roles may have overlapping competencies.

	Roles		**Competencies**
1.0	Medical expert	1.1	Knowledge and understanding
		1.2	Cognitive skills
		1.3	Practical skills
		1.4	Autonomy and responsibility
2.0	Communicator	2.1	Communication skills
3.0	Collaborator	3.1	Interpersonal skills
		3.2	Personal skills
4.0	Leader	4.1	Leadership
5.0	Health advocate	5.1	Health advocacy
6.0	Scholar	6.1	Scholarship
7.0	Professional	7.1	Professionalism
		7.2	Ethical practice
8.0	Educator	8.1	Clinical supervision
9.0	Health economist and entrepreneur	9.1	Entrepreneurial skills
		9.2	Numeracy skills
		9.3	Digital and information technology skills
		9.4	Value-based medicine
		9.5	Innovation Skills
10.0	Reflective practitioner	10.1	Reflective practice
11.0	Manager	11.1	Organisational skills

Table 3: Competencies framework for subspecialty training

3.4 Brief Description of Roles

3.4.1 Medical Expert

A person who is highly knowledgeable with the ability to integrate advanced knowledge, clinical skills, professionalism, and collaborative practices to deliver safe, ethical, and humanity- centered care.

3.4.2 Communicator

A person who communicates effectively, clearly, and respectfully, ensuring understanding, trust, and collaboration among patients, families, healthcare professionals and other stakeholders.

3.4.3 Collaborator

A person who works effectively within healthcare teams, engaging with multidisciplinary professionals and other stakeholders to improve patient care, optimize processes, and enhance outcomes.

3.4.4 Leader

A person who guides and motivates teams toward a shared vision, integrating clinical expertise into organisational strategy and operations to improve patient care and healthcare system performance.

3.4.5 Health Advocate

A person who uses their knowledge, influence, and expertise to promote patient health, improve healthcare systems, and advance population and community well-being.

3.4.6 Scholar

A person dedicated to lifelong learning, evidence-based practice, and contributes to the advancement and dissemination of medical knowledge.

3.4.7 Professional

A person who demonstrates integrity, accountability, and ethical practice while maintaining excellent conduct in all aspects.

3.4.8 Educator

A person who facilitates learning, development, and understanding by teaching, guiding, and supporting learners in acquiring knowledge, skills, values, and critical thinking abilities.

3.4.9 Health Economist and Entrepreneur

A person who optimises the utilisation of healthcare resources, identifies gaps in service delivery, and develops innovative solutions to improve patient care and system performance.

3.4.10 Reflective Practitioner

A person who reflects systematically on experiences (clinical and non-clinical), applies insights gained through deliberate self-reflection and situational analysis to continuously improve professional performance, clinical care and healthcare systems.

3.4.11 Manager

A person with organisational skills as an administrator and clinical manager. Has the ability to perform critical analysis, enable effective planning, communication, and performance monitoring, while managing the expectations of both providers and patients to deliver high-quality clinical services in support of organisational goals.

3.5 Detail Description of Roles and Key Competencies

3.5.1 Role as Medical Expert

A person who is highly knowledgeable with the ability to integrate advanced knowledge, clinical skills, professionalism, and collaborative practices to deliver safe, ethical, and humanity-centered care.

Key competencies

3.5.1.1 Knowledge and Understanding

Description

This competency refers to the advanced, systematic, and critically integrated mastery of theories, principles, evidence, methodologies, and current developments within a defined subspecialty area, combined with the ability to interpret, contextualize, and apply that knowledge in complex and specialized situations.

This competency includes the ability to:

- demonstrate advanced theoretical and practical knowledge specific to the subspecialty.
- apply knowledge appropriately in complex, uncertain, or high-risk contexts.
- critically evaluate and synthesise evidence, research findings, and emerging developments relevant to the field.
- understand underlying mechanisms, frameworks, and interrelationships within the subspecialty and its connection to the broader discipline.
- recognise limitations of current knowledge and identify areas requiring further inquiry or consultation.

Application

It involves the capacity to:

- apply advanced subspecialty knowledge to complex cases or problems.
- exercise expert clinical/professional judgment in situations involving ambiguity, uncertainty, or high risk.
- integrate research evidence, theory, and practical experience to inform decisions and interventions.

- lead or guide others in the management of complex subspecialty-related issues.
- make defensible, ethical, and accountable decisions grounded in best practice standards.

3.5.1.2 Cognitive Skills

Description

Cognitive skills refer to higher-order intellectual capabilities and the ability to apply knowledge and skills effectively in various contexts, including clinical and professional practice.

Application

- Cognitive skills encompass higher order thinking skills (HOTS) which include:
- critical and creative thinking: analysis, evaluation, synthesis, and application, generate new ideas and formulate innovative solutions, strategies, or practices.
- clinical reasoning and judgement: Ability to manage complex cases and lead specialist care.
- metacognition and insight: Thinking about their own thinking to identify their own biases and recognize the limits of their own knowledge.

3.5.1.3 Practical Skills

Description

Practical skills refer to work-related and operational competencies essential for effective performance in the healthcare environment, in line with the expectations of professional practice.

Application

The practical skills include:

- clinical and procedural skills, including the ability to perform specialised interventions and operative procedures safely and effectively.

- technical proficiency, encompassing the selection, handling, and operation of instruments, tools, and medical equipment appropriate to the subspecialty.
- perceptual expertise: advanced visual processing skills to interpret diagnostic images.
- implementation skills, such as planning, time management, and organisational abilities required to carry out clinical tasks, procedures, and service delivery efficiently.

3.5.1.4 Autonomy and Responsibility

Description

Autonomy and responsibility refer to the ability to make independent, ethical, and evidence-based decisions; to set goals and priorities at the individual, team, unit, or organisational level; and to take ownership of outcomes. This competency includes being accountable for clinical judgement, professional actions, and leadership roles within the healthcare system.

The degree of autonomy exercised may vary depending on the complexity of the situation and the level of responsibility required. Autonomy is not absolute freedom, but a purposeful independence anchored in the medical ethos to promote health and prevent harm.

Application

The autonomy encompasses:

- clinical independence: Freedom to exercise professional judgment without undue influence from outside parties.
- evidence-based practice: Professional autonomy is limited by adherence to established professional rules, standards, and the current evidence base.
- maintaining professional integrity and accountability, even under pressure or in ethically challenging situations.

3.5.2 Role as a Communicator

A person who communicates effectively, clearly, and respectfully, ensuring understanding, trust, and collaboration among patients, families, healthcare professionals and other stakeholders.

Key competency

3.5.2.1 Communication Skills

Description

Communication skills refer to the ability to clearly, accurately and professionally convey information, ideas, decisions, and reports in an appropriate language and format. Effective communication must be tailored to the audience, context and delivered through suitable forms and media.

Application

Communication skills include:

- active listening, ensuring mutual understanding and respectful engagement.
- clear and simple language: Avoiding medical jargon and using plain, understandable terms, adapting to the patient's cognitive level.
- appropriate use of digital platforms and media, including electronic health records, telemedicine tools, and professional correspondence.
- Empathy and compassion: Demonstrating emotional intelligence, showing genuine understanding of own and others' emotional states.
- appropriate choice of communicator, such as delegating or involving translators, advocates, or cultural mediators when needed.

3.5.3 Role as a Collaborator

A person who works effectively within healthcare teams, engaging with multidisciplinary professionals and other stakeholders to improve patient care, optimise processes, and enhance outcomes.

A collaborator partners with nurses, pharmacists, and other specialists to provide multidisciplinary care, engages in respectful shared decision-making with colleagues

and patients. They have the ability to work within the healthcare system to improve processes, manage resources, and resolve differences constructively within the team.

Key competencies

3.5.3.1 Interpersonal Skills

Description:

Interpersonal skills refer to the ability to interact effectively with others, encompassing communication, relationship-building, negotiation, and networking. These skills include working respectfully and empathetically with individuals from diverse backgrounds, cultures, beliefs, social and professional backgrounds.

Application

A subspecialist is expected to:

- work effectively within a team, both as a member and as a leader, contributing to shared goals in multidisciplinary patient centred care.
- communicate clearly and appropriately with various stakeholders, including healthcare professionals across disciplines, patients, families, and members of the community.
- foster trust and collaboration, ensuring respectful and culturally sensitive engagement with all individuals involved in care or service delivery.

These skills are essential for fostering trust, cooperation, and mutual respect in healthcare settings.

3.5.3.2 Personal Skills

Description

Personal skills refer to essential life and self-management skills that support professional growth, effective functioning in the workplace, and overall well-being. These include the capacity for independent learning, self-reflection, intellectual and personal development, and the ability to demonstrate adaptability, resilience, confidence, and emotional regulation.

Application

Personal skills are essential for:

- managing individual daily responsibilities in the workplace, including clinical duties, academic commitments, and professional interactions.
- maintaining healthy interpersonal relationships with colleagues, patients, families, and members of the wider community.
- balancing personal and professional obligations, including managing work-life integration and responding constructively to stress.
- safeguarding personal health and mental wellbeing, recognising personal limitations, and seeking support when necessary.

3.5.4 Role as a Leader

A person who guides and motivates teams toward a shared vision, integrating clinical expertise into organisational strategy and operations to improve patient care and healthcare system performance.

A leader guides, motivates, and influences a group toward a shared vision or goal, builds trust through integrity and dedication, shapes organisational culture, strategy, and operations by bringing clinical insight to administrative decisions, bridging the gap between clinical practice and management, and navigates challenges while resolving conflicts effectively.

Key Competency

3.5.4.1 Leadership

Description

Leadership is the ability to build and maintain effective relationships, collaborate across disciplines, and lead healthcare teams with accountability, confidence, integrity, and resilience. Leadership also includes the ability to effectively follow instructions and visions from leaders above (followership).

Application:

- healthcare system: Assume responsibility for the ongoing operation, evolution, and continuous improvement of healthcare services, ensuring sustainable and patient-centred care.
- non-clinical roles: Extend leadership beyond clinical duties to include administrative, educational, and scholarly responsibilities.
- values-based medical care: Promote values and basic principles of humanity.
- quality improvement: Actively contribute to initiatives aimed at enhancing personal practice, team performance, organizational effectiveness, and healthcare system improvements.

A strong leader demonstrates sound decision-making and fosters an environment of trust and professional growth.

3.5.5 Role as a Health Advocate

A person who uses their knowledge, influence, and expertise to promote patient health, improve healthcare systems, and advance population and community well-being.

A health advocate champions the well-being of both patient and society, especially in the area of their subspecialty practice.

Key competency

3.5.5.1 Health Advocacy

Description

Health advocacy is the ability and commitment of healthcare professionals to use their expertise and influence to promote the health and well-being of individual patients, communities, and populations. This role extends beyond direct clinical care to include addressing broader determinants of health and championing systemic improvements.

Application

Health advocacy includes:

- identifying health needs at individual, community, and population levels.

- addressing health inequities by promoting equitable access to healthcare and resources.
- supporting policies and actions that improve healthcare accessibility, social determinants of health, and overall health outcomes.
- acting beyond the bedside to champion patient rights, public health initiatives, and systemic changes within healthcare organizations and society at large.

3.5.6 Role as a Scholar

A person dedicated to lifelong learning, evidence-based practice, and contributes to the advancement and dissemination of medical knowledge.

This encompasses active engagement in scientific research and meaningful contributions to academic and professional discourse via publications, presentations, and participation in scholarly forums. It also involves the critical appraisal of literature to inform evidence-based clinical decision-making as well as a commitment to continuous professional development by staying abreast of emerging knowledge and best practices and fostering a culture of learning through mentorship of trainees and peers.

Key Competency

3.5.6.1 Scholarship

Description

Scholarship refers to the systematic and critical pursuit of knowledge, understanding, and academic excellence through disciplined research, study, and intellectual inquiry. It entails not only acquiring and applying existing knowledge, but also engaging actively in the creation, integration, dissemination, and translation of knowledge to advance the field of practice.

Application

Subspecialist able to:

- lead or participate in clinical audits, Quality Improvement (QI) projects, and patient safety initiatives. The data is used to improve outcomes and service delivery.

- critically appraise medical literature and apply evidence judiciously by considering the Malaysian population characteristics, resource availability and cost-effectiveness.
- conduct or supervise research relevant to local healthcare needs and national priorities.
- participate in the National Policy and Clinical Practice Guideline (CPG) development.
- participate as clinical supervisor and examiner for specialty and subspecialty training.
- actively participate in the training of healthcare workers to improve the quality of service provided.

3.5.7 Role as a Professional

A person who demonstrates integrity, accountability, and ethical practice while maintaining excellent conduct in all aspects.

They remain committed to patients by maintaining clinical competence and adhering to ethical standards, demonstrating social accountability, maintaining professional conduct through self-assessment, reflection, self-awareness, and personal well-being management. They also support the profession through peer assessment, mentorship, facilitating others and setting standards, and practicing good governance by being accountable for clinical performance.

Key Competencies

3.5.7.1 Professionalism

Description

Professionalism is the demonstration of attitudes, behaviours, and values that reflect a steadfast commitment to ethical practice, high standards of care, respect for others, accountability, and ongoing self-improvement. It integrates knowledge, behaviour, and skills to uphold the trust placed in healthcare professionals.

Application

Professionalism is exhibited through:

- upholding honesty, integrity, confidentiality, and accountability in all clinical decisions and actions.
- demonstrating empathy, cultural sensitivity, and respect toward patients, families, colleagues, and the community.
- pursuing lifelong learning, engaging in reflective practice, and collaborating effectively within healthcare teams to maintain and elevate standards of clinical care.

3.5.7.2 Ethics

Description

Ethics involves the application of moral principles and professional standards to guide clinical decision-making, patient care, and professional conduct. It requires practitioners to uphold integrity, respect, and fairness in all aspects of their practice.

Application

Ethical practice is demonstrated by the ability to:

- act with integrity, respect, and fairness in all interactions with patients, colleagues, and the healthcare system.
- prioritise patient welfare, respecting patient autonomy, confidentiality, and informed consent.
- make justifiable decisions that balance clinical evidence, patient values, legal obligations, and cultural and societal norms.
- navigate ethical dilemmas thoughtfully, seeking appropriate guidance when needed, and maintaining professional accountability.

3.5.8 Role as an Educator

A person who facilitates learning, development, and understanding by teaching, guiding, and supporting learners in acquiring knowledge, skills, values, and critical thinking abilities.

An educator has the ability to provide a positive and safe learning environment, conduct work-based assessments, provide effective feedback, serve as a mentor to trainees, and offer appropriate clinical supervision.

Key Competency

3.5.8.1 Clinical Supervision

Description

Clinical supervision is a structured professional relationship in which a healthcare professional trained to facilitate learning opportunities within clinical settings. This role includes the ability to supervise, guide, support, assess and manage the educational progress of trainees. Effective educators foster a supportive learning environment that promotes professional development and competence.

Application

This competency involves:

- providing structured teaching and learning experiences tailored to the needs of different level of trainees.
- assessing and evaluating trainee performance through formative and summative assessments.
- monitoring educational progress and providing timely feedback.
- mentoring and coaching trainees, fostering professional growth, motivation, and resilience.
- managing both abled trainees and trainees in difficulty.
- supervising clinical work to ensure patient safety while facilitating trainee autonomy and learning.

3.5.9 Role as a Health Economist and Entrepreneur

A person who optimises the utilisation of healthcare resources, identifies gaps in service delivery, and develops innovative solutions to improve patient care and system performance.

They develop entrepreneurial solutions to Improve gaps in healthcare delivery, evaluating healthcare programs using cost-effectiveness, cost-benefit, and cost-utility analyses, demonstrating creativity to drive continuous improvement in healthcare systems. They leverage digital health technologies and integrate evidence-based guidelines aligned with patients' values in clinical decision-making.

Key Competencies

3.5.9.1 Entrepreneurial Skills

Description

Entrepreneurial skills refer to the ability to identify opportunities, innovate, and implement practical solutions within the healthcare environment. It involves managing projects from idea to execution in the related field.

Application

Entrepreneurial skills involve:

- recognising and acting on opportunities to improve clinical practice and healthcare systems
- integrating clinical knowledge with strategic thinking and creativity to design and implement new care models or services.
- leading and influencing multidisciplinary teams to embrace change and drive sustainable healthcare.
- adapting to evolving healthcare challenges by developing flexible, resource-conscious solutions that meet community and organisational needs.

3.5.9.2 Numeracy Skills

Description

Numeracy skills refer to the ability to understand, interpret, and use quantitative data effectively. These skills develop progressively to include advanced

numerical reasoning and the application of statistical and mathematical concepts in clinical and research contexts.

Application

Numeracy skills are demonstrated by the ability to:

- conduct and critically appraise research, including statistical analysis of scientific papers and clinical data.
- interpret epidemiological and population health statistics to inform resource allocation, service planning, and intervention strategies.
- apply principles of value-based treatment, balancing clinical outcomes with cost-effectiveness.
- incorporate health economics data when designing and delivering subspecialist services, ensuring sustainable and efficient healthcare delivery.

3.5.9.3 Digital and Information Technology Skills

Description

Digital and information technology skills refer to the ability to effectively use digital tools, maintaining cyber security and information technologies to support clinical practice, education, research, and administrative tasks.

Application

Digital and information technology skills include proficiency in:

- telemedicine platforms for remote patient consultation and monitoring.
- healthcare information systems and electronic medical records to ensure accurate data management and patient safety.
- educational and learning management systems for continuous professional development.
- communication tools and virtual meeting platforms to facilitate collaboration and interdisciplinary teamwork.
- emerging technologies such as virtual and augmented reality applications for training, diagnosis, and treatment planning.

- adhering to ethical standards and data privacy regulations when handling digital information.

3.5.9.4 Value-Based Medicine

Description

Value-based medicine (VBM) is the practice of integrating scientific evidence, cost-effectiveness, balancing best practice with the patient's personal values and goals into clinical decision-making, incorporating medical evidence of safety and efficacy of the interventions, value to patients and amalgamation of these data with their related costs.

Application

VBM involves:

- using the best available clinical evidence to guide decisions, using clinical practice guidelines in management of patients.
- balancing clinical benefits with the financial cost to maximize value.
- considering the patient's preferences, goals, and values when making treatment choices.
- using data to understand costs, identify best practices, and measuring the impact of intervention.

3.5.9.5 Innovation

Description

Innovation skills refer to abilities to generate, develop, and implement new ideas, processes, or solutions that create value, solve problems, and drive positive change, combining creativity, critical thinking, and practical execution to adapt and improve in complex environments.

Application

Innovation includes:

- generating novel ideas, seeing things from different perspectives, and being inventive.

- analysing situations, identifying root causes, evaluating options, and devising effective solutions.
- asking "why," "why not," and "what if" questions to explore possibilities.
- responding effectively to change and leveraging disruptions for advantage.
- working with others to develop and share ideas.
- and willing to step outside comfort zones to pursue new approaches.

3.5.10 Role as a Reflective Practitioner

A person who reflects systematically on experiences (clinical and non-clinical), applies insights gained through deliberate self-reflection and situational analysis to continuously improve professional performance, clinical care and healthcare systems.

They demonstrate self-awareness by recognising their strengths, limitations, values, and biases, and actively seek and act on feedback from patients, peers, and trainees. Their reflective insights on clinical experiences and outcomes such as errors, morbidity, mortality, and incident reports are being translated into improvements in patient safety, outcomes, and service delivery. Through self-reflection, they identify their learning needs to support continuous professional development while guiding the trainees and colleagues to enhance their own reflective practice.

Key Competency

3.5.10.1 Reflective Practice

Description

Reflective practice involves the ability to think deeply and critically about one's own experiences, actions, and decisions to foster continuous learning and professional improvement.

Application

Reflective practice includes:

- participate in incident reporting and conduct root cause analysis to improve clinical service
- engaging in regular self-reflection to evaluate clinical decisions, professional behaviour, and learning needs.

- guiding and mentoring postgraduate trainees and peers to develop reflective habits that promote growth and patient safety.
- participating in reflective activities, such as feedback sessions, clinical audits, case reviews, morbidity and mortality meetings, and quality improvement projects.

Using insights gained from reflection to inform changes in practice, enhance patient care, and contribute to system improvements.

3.5.11 Role as Manager

A person with organisational skills as an administrator and clinical manager. Has the ability to perform critical analysis, enable effective planning, communication, and performance monitoring, while managing the expectations of both providers and patients to deliver high-quality clinical services in support of organisational goals.

They oversee clinical and administrative management, ensuring patient safety, clinical quality, adherence to guidelines, efficient resource allocation, and policy compliance. They manage the expectations of healthcare providers, patients, and families, while leading service improvement initiatives, implementing new programmes, and driving quality improvement projects.

Key Competency

3.5.11.1 Organisational Skills

Description

Organisational skill is the capability to systematically arrange tasks, people, time, and resources; establish clear processes and priorities; and ensure coordinated action toward strategic and operational objectives to effectively deliver safe, high-quality, efficient, and sustainable healthcare services.

Application

Organisational skills include the ability to:

- plan effectively to prioritise referrals, optimise clinic schedules, and reduce patient waiting times.

- coordinate and lead multidisciplinary teams to ensure seamless, integrated patient management.
- optimise resources allocation including assets, consumables, and human resources to support effective service delivery.
- lead quality improvement activities, including organising morbidity, mortality and incidence reporting meetings, conducting audit cycles, and implementing targeted interventions to improve outcomes.
- lead quality improvement activities, including organising morbidity, mortality, and incidence reporting meetings, conducting audit cycles and implementing targeted interventions to improve outcomes.
- manage research outputs for publications and presentations.
- ensure adherence to guidelines and organisational policies.

4.0 SECTION TWO: TEMPLATE FOR SUBSPECIALTY TRAINING FRAMEWORK

4.1 STRUCTURE AND COMPONENTS

4.1.1 Programme Brief

Subspecialty Training Programme (Subspecialty Name):

Name of Award: .....

Certificate of Completion in (Subspecialty Name)

Educational Training Provider (ETP): .....

(e.g., Ministry of Health, University)

Developed by: .....

(e.g., Subspecialty Training Committee)

Purpose Training Programme .....

(State the key objectives and intended outcomes of the programme)

Table of Contents .....

(Include section titles, subsections, and page numbers.)

Programme Introduction

May include the following elements:

- Historical evolution of the subspecialty
- Overview of the training programme
- Scope of service
- Types of diseases managed
- Procedures performed
- Local burden of disease
- Distinctions from the parent specialty
- Required resources
- National relevance of the subspecialty
- Mapping of services

4.2 CURRICULUM

4.2.1 Curriculum Overview

Example statement:

The programme aims to produce well-rounded, clinically competent, and ethically grounded subspecialists in *(subspecialty)*. Graduates will possess the competencies required for independent practice and for contributing to service development, education, and research.

Key components include:

- **Programme Educational Objectives** and **Programme Learning Outcomes** (aligned with the Competencies Framework for Subspecialty Training)
- **Entry Criteria:** Completion of general specialty training (listed in Fourth Schedule), SR registration, and demonstrated interest/aptitude.
- **Training Pathway:** Minimum three-year structured programme including clinical rotations, continuous assessment, research, and optional external exposure.
- **Key Progression Points:** Annual portfolio review and eligibility for progression.
- **Exit Criteria:** Achievement of clinical and non-clinical competencies and successful completion of summative assessments.

4.2.2 Selection and Recruitment

Entry Requirements

- Certified specialist (SR-listed under Fourth Schedule)
- Relevant clinical experience
- Completed academic and professional portfolio

Selection Process

- Portfolio submission and review
- Structured competency-based interviews
- Referee reports/recommendations
- Transparent merit-based selection

4.2.3 Induction

Conduct a formal orientation covering:

- Curriculum structure
- Expectations and responsibilities
- Assessment methods
- Learning resources
- Professional conduct and ethical standards

4.2.4 Head of Programme

Criteria

- Senior consultant with a minimum of five (5) years experience in the subspecialty
- Recognised trainer
- Demonstrated leadership and administrative skills

Appointment

- Nominated by ETP
- Approved by the ETP governing body (example university or MOH) following interview

Roles

- Oversee programme implementation
- Lead curriculum review and updates
- Monitor trainer and trainee performance
- Liaise with the STC

4.2.5 Trainers

Trainer-to-Trainee Ratio 1:2

Criteria

- Two (2) years or more of active clinical practice in the subspecialty upon completion of subspecialty training
- SR registered
- Completed a “Train-the-Trainer” course within the last 5 years

Appointment

- Recommended by Subspecialty Training Committee (STC)
- Reviewed and approved by a panel

Roles

- Provide supervision and mentorship
- Conduct assessments
- Foster a safe and supportive learning environment

4.2.6 Syllabi

Describe progression of technical and non-technical competencies across training years, using recognised models (e.g., Dreyfus Model of skill acquisition: Five levels of development of expertise, from novice to mastery).

4.2.7 Training Resources

Training Centres

- Defined accreditation criteria (caseload, staff, facilities)
- List approved centres

Online Resources

- Learning management system
- e-Learning modules
- Journal access
- e-Portfolio system

Simulation Training

- Procedures requiring simulation
- High-fidelity simulators
- Task trainers
- Accredited simulation centres

External Opportunities

- **Mandatory:** Required courses, safety training
- **Optional:** Conferences, leadership workshops, non-technical skills courses

Overseas Attachments

- Indicate whether mandatory or optional

- Expected learning objectives
- Duration
- Approved training centres

4.2.8 Exit Criteria

Trainees must demonstrate:

- Core and non-technical competencies as demonstrated under Section One (the competencies framework for subspecialty training)
- Completion of minimum required procedures
- Audit/research/project/publication completion
- Pass all summative assessments

4.2.9 Assessment Methods

Formative (Ongoing)

- Case-Based Discussion (CBD)
- Procedure-Based Assessment (PBA)
- Mini Clinical Evaluation Exercise (Mini-CEX)
- Multi-Source Feedback (MSF)
- Reflective writing

Summative

- Viva voce
- Clinical examination (OSCE, long case)
- End-of-training reflection
- Exit interview

4.2.10 Portfolio Components

- Completed formative assessments
- Supervisor reports
- Continuing Professional Development (CPD) activities
- Research/publications
- Clinical and simulation logbooks
- Courses and workshops attended

- Contributions to advocacy and professional societies

4.2.11 Eligibility for Exit Assessment

- Full completion of training duration
- Satisfactory portfolio and logbook review
- Completion of all required assessments

4.2.12 Utility & Blueprint

- Assessments mapped to curriculum outcomes
- Assessments must be valid, reliable, feasible/cost effectiveness, educational impact and acceptable
- Blueprinting ensures coverage of all competencies

4.2.13 Assessors

Criteria

- Recognised senior trainers with a minimum of three (3) years subspecialty practice (SR in subspecialty)
- Trained in assessment methodology (assessor training course)

Governance

- Conflict of interest declaration
- Examiners to recuse themselves where necessary
- Participation in calibration exercises to ensure consistent standards

4.2.14 Documentation

- Standardised WBA forms
    - Include/attach tools for documentation (e.g., supervisor report forms)
- Digital/physical portfolio system
    - Clear guidance on documentation requirements
    - Minimum case mix and procedural numbers

4.2.15 Discipline & Support

Underperforming/Problematic Trainees

- Early detection and remediation plan
    - Identify deficiencies (knowledge, skill, aptitude, attitude)
- Mentorship and structured review
    - Document remediation meetings
- Exit criteria and termination process
- Appeal mechanism

Extension/Deferment

- Valid reasons (e.g., health, maternity, academic)
- Maximum total training duration: **5 years**

Underperforming Trainers

- Early identification
    - Feedback from trainees and peers
    - Review of training effectiveness
- Identify deficiencies (knowledge, skill, aptitude, attitude and professional conduct)
- Peer mentoring and support
- Documentation of remediation meetings
- Removal from trainer list if necessary

4.2.16 Administration & Governance

- Centralised database (trainers, trainees, centres, assessments)
- Compliance with MMC and ETP policies
- Subspecialty Training Committee (STC)
    - Terms of reference
    - Meeting requirements
    - Reporting to ETP’s Central Training Committee

4.2.17 Programme Monitoring & Quality Improvement Monitoring Tools

- Feedback from trainees, trainers, examiners annually
- Employer and alumni feedback

Quality Improvement

- Curriculum review every 3–5 years
- Self and peer evaluation

5.0 APPENDICES

i. Subspecialty Training Committee (STC) – Chairman and members
ii. Head of Programme – Name and credentials
iii. Trainers – List of supervisors and trainers
iv. Trainees – List their name and stage of training
v. Assessors – List local and international examiners including their credentials
vi. Training Centres – List local and overseas centres including the trainers in each centre
vii. Graduates – Names and dates of completion
viii. Work-Based Assessment Forms
ix. Glossary – Specific to the subspecialty

6.0 GLOSSARY

1. Training Domains

Areas of Interest (AOI)

A focused area within a specialty with a shorter training period than advanced specialty training or subspecialty.

Advanced Specialty

A focused area within a specialty (training programme is similar as subspecialty) but not formally recognised as a subspecialty and not listed under the Fifth Schedule of the Medical (Amendment) Act 2024.

Field of Practice

A broad medical domain encompassing related specialties, subspecialties, and areas of interest.

Specialty

A formally recognised field of practice that is listed under the Fourth Schedule of the Medical (Amendment) Act 2024.

Subspecialty

A formally recognised field of practice (a focused area within a specialty) that is listed under the Fifth Schedule of the Medical (Amendment) Act 2024.

2. Training Roles

Educational Supervisor

A designated trainer responsible for overall supervision and management of a specified trainee’s educational progress.

Educational Training Provider (ETP)

An institution approved to conduct training (e.g., Ministry of Health, universities)

Head of Programme

A qualified Registered Medical Practitioner (RMP) and registered in Specialist Register (SR) specialty who is responsible for managing and overseeing the training programme.

Subspecialty Training Committee (STC)

A subspecialty-specific committee within an ETP that oversees the programme's structure and delivery.

3. Training Programme Components

Blueprint

A table of specifications that specifies, in appropriate detail, the content and competencies need to be covered in an assessment. It ensures alignment between learning outcomes, curriculum content and assessment structure.

Curriculum

A planned learning experience encompassing learning objectives, content and activities, intended learning experiences and competencies, instructional methods, assessments, and required materials to achieve the specified learning outcomes.

Formative Assessment

Ongoing assessments that provide feedback to guide and support learning.

Summative Assessment

A high-stakes assessment usually conducted at the end of training to determine competency for certification.

Syllabi

A detailed list of topics, skills, and knowledge areas to be covered in all the rotations.

4. Training Framework Concepts

Certificate of Completion (CCT)

A certificate awarded by the ETP upon completion of a training programme.

Seamless Postgraduate Medical Training

A structured, continuous, and integrated pathway for postgraduate medical training that minimises interruptions and unnecessary transitional phases. For example, it enables progression from basic to subspecialty training within a single programme or framework, ensuring cumulative competency development without repeated re-application.

5. Competency-Based Assessment Tools

Case-Based Discussion (CBD)

A formative assessment method involving a structured one-to-one discussion between a trainee and a supervisor about a real clinical case managed by the trainee.

Directly Observation of Procedural Skills (DOPs)

A work-based assessment tool to evaluate trainees' performance by directly observing them performing a clinical procedure in real clinical setting.

Logbook

A detailed record of clinical procedures and cases managed by the trainee.

Mini Clinical Evaluation Exercise (Mini-CEX)

A brief, structured evaluation of a trainee's real-time patient interaction.

Multi-Source Feedback (MSF)

An evaluation of professional behaviour based on collated feedback from multiple sources (e.g., peers, various categories and levels of healthcare workers, including nurses and supervisors such as consultants).

Procedure-Based Assessment (PBA)

A structured procedure-based assessment tool for evaluating technical and procedural skills.

Portfolio

A collection of evidence demonstrating learning, performance, and professional development.

Work-Based Assessment (WBA)

Assessment of performance in real clinical settings using structured tools and direct observation. Examples include PBA, DOPs, CBD, Mini-CEX, and MSF. Each specialty or subspecialty may develop its own variant of WBA.

7.0 REFERENCES

Section One: Competencies Framework for Subspecialty Training

1. Academy of Medical Royal Colleges and NHS Institute for Innovation and Improvement (2010). Medical leadership competency framework: enhancing engagement in medical leadership. NHS Institute of Innovation and Improvement.
2. Accreditation Council for Graduate Medical Education (2023). ACGME Common Program Requirements. Chicago: ACGME.
3. Bouttell, L., (2025). Explore the WHO leadership and management framework. Learn how health organisations can apply WHO guidance to strengthen leadership and management capacity. Available at: https://quarterdeck.co.uk/articles/who-leadership-and-management-framework/ [Accessed: 13 March 2026].
4. Boyer, E.L. (1990). Scholarship reconsidered: Priorities of the professoriate. Princeton, NJ: Carnegie Foundation for the Advancement of Teaching.
5. General Medical Council (2017). Generic Professional Capabilities Framework. London: General Medical Council.
6. Kementerian Kesihatan Malaysia (2023). Kertas Putih Kesihatan Malaysia: Demi Masa Depan Kesihatan Kita. Putrajaya: Kementerian Kesihatan Malaysia. Available at: https://www.moh.gov.my (Accessed: 12 March 2026).
7. Kilminster, S., Cottrell, D., Grant, J. & Jolly, B. (2007). AMEE Guide No. 27: Effective educational and clinical supervision. Medical Teacher, 29(1), pp.2–19.
8. Malaysian Health Technology Assessment Section (2016). Value-based Medicine: The Evolution and Beyond. Newsletter, Volume 9, Jan-June 2016, pp 1. Ministry of Health Malaysia.
9. Malaysian Qualifications Agency (2024). Malaysia Qualifications Framework (MQF): 2nd Edition. Cyberjaya: Malaysian Qualifications Agency.
10. Medical Development Division (2016). Specialty & Subspecialty Framework of Ministry of Health Hospitals under 11th Malaysia Plan (2016–2020). Putrajaya:

Ministry of Health Malaysia. Available at: https://www.moh.gov.my (Accessed: 12 March 2026).
11. NHS England (2025). Draft Management & Leadership Framework, 4 September 2025. Available at https://www.england.nhs.uk/wp-content/uploads/2025/09/item-8i-appendix-a-mgmt-and-leadership-full-draft-standards.pdf (Accessed: 12 March 2026)
12. Ramani, S. and Leinster, S., (2008). AMEE Guide no. 34: Teaching in the clinical environment. Medical Teacher, 30(4), pp. 347-364.
13. Royal College of Physicians and Surgeons of Canada Ottawa: (2015). CanMEDS Framework. Royal College of Physicians and Surgeons of Canada.
14. Woo Taek J., Hanna J., Youngjon Kim and Chanwoong K., (2024). The Patient Centered Doctor's Competency Framework in Korea. Korean Medical Education Review, 26(Suppl. 1), pp. S48–S63.
15. Schön, D.A., (1983). The reflective practitioner: How professionals think in action. New York: Basic Books.
16. World Health Organization. (2007). Everybody's business: Strengthening health systems to improve health outcomes – WHO's framework for action. Geneva: World Health Organization.

Section Two: Subspecialty Training Framework

1. Medical Profession Development Section (2022). Training Management Guide: Subspecialty. Kuala Lumpur: Medical Development Division, Ministry of Health
2. Pitt, D. (2015) How to Design and Develop Curriculum: A Practical Introduction. 2nd edn. UK. Creative Learning Associates.
3. Specialty Education Committee of the Medical Education Committee (2019). Malaysian Standards for Medical Specialist Training. Kuala Lumpur: Malaysian Medical Council.
4. Subspecialty Education Committee of the Medical Education Committee 2 (2025). Resolusi Bengkel Halatuju dan Amalan Jaminan Kualiti Subkepakaran. Kuala Lumpur: Malaysia Medical Council.
5. Swanwick, T. (ed.) (2018). Understanding Medical Education: Evidence, Theory and Practice. 3rd edn. Hoboken, NJ: Wiley-Blackwell.

8.0 ACKNOWLEDGEMENT

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We also would like to express our sincere appreciation to Medical Development Division, Ministry of Health, especially Dr. Hirman bin Ismail, for his invaluable assistance in sharing the MOH training template.

This document was developed with the assistance of OpenAI. (2026). ChatGPT (GPT-5.3) for language refinement and drafting support. All content has been critically reviewed, validated, and approved by the authors, who remain fully responsible for its accuracy and integrity.