MALAYSIAN MEDICAL COUNCIL

SPECIALTY-SPECIFIC REQUIREMENTS (SSR)

(ANATOMICAL PATHOLOGY)

1ST REVISION

Prepared By:

Specialty Education Subcommittee (SEC)

of the Medical Education Committee (MEC),

Malaysian Medical Council

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Preface

1. The Specialty-Specific Requirements (SSR) pertain to requirements within each specialty and specify the minimum requirements pertaining to the training curriculum, trainers, educational resources and head of programme.

2. The Specialty-Specific Requirements (SSR) are intricately linked to the MMC Malaysian Standards for Medical Specialist Training 2019, and the Standards and SSR must be read and applied together.

3. These Specialty-Specific Requirements (SSR) are an update from the first edition, incorporating improvements in structure of training, specialty competencies, which are compiled as the First Revision.

Attachment 2

Specialty-Specific Minimum Requirements for Training Curriculum (Based on Area 1.2.4 of Malaysian Standards for Medical Specialist Training) - Anatomical Pathology

<table>
<tr><th>Specialty-Specific Requirements

(Reference Standard)</th><th>Criteria</th></tr>
<tr><td>1) Minimum entry requirements for postgraduate training

(Standard 3.1.)</td><td>1. Fully registered with the Malaysian Medical Council with a current annual practicing certificate.

2. Successful entry evaluation into the programme.</td></tr>
<tr><td>2) Minimum duration of training programme

(Standard 1.2.4 - Table 2)</td><td>Completion of a minimum of 48 months of specialised training in the specialty programme.</td></tr>
<tr><td>3) Structure of training (rotation/modules)

Training overview

Training rotation/modules and case mix</td><td>The programme should have a clear pathway encompassing phases of training which shall include the basic and advanced components in Anatomical Pathology.

<table><tr><th>Areas</th><th>Minimum Duration (months)</th></tr><tr><td>Core areas of diagnostic histopathology (surgical pathology), and diagnostic</td><td>36</td></tr></table></td></tr>
</table>

<table>
<tr>
<td>(Standard 1.2.4 - Table 3 & Table 4)</td>
<td>
<table>
<tr><td>cytopathology and autopsy pathology)</td><td></td></tr>
<tr><td>Relevant training in areas which may enhance anatomical pathology practice, such as, but not limited to haematology, medical microbiology, chemical pathology, autopsy pathology, molecular pathology, digital pathology, laboratory techniques, laboratory management and research.</td><td>12</td></tr>
</table>
*Effective learning period per year or 12 months is 48 weeks
</td>
</tr>
<tr>
<td>4) Assessments

(Standard 2.2.1)</td>
<td>Assessments should

i. Employ appropriate methods and levels that are well-aligned with learning outcomes. These include a variety of methods and tools such as written assessments, clinical assessments, supervisor’s report, logbook, attendance, training attended, practice diary, research report, communication skills including methods appropriate to assess ethics and professionalism.
ii. Include formative and summative assessments throughout each rotation, semester, or year of study.
iii. Include clear criteria for progression to next year of study.
iv. Include an exit evaluation/assessment.</td>
</tr>
<tr>
<td>5) Additional requirements for completion of training

(Standard 1.2.4)</td>
<td>i. Completion of graduate-level research or clinical audit project.</td>
</tr>
</table>

6) List of competencies to be acquired upon completion of training (Standard 1.1.4)	**Generic competencies** Able to: i. Diagnose, investigate and manage common anatomical pathology cases whilst considering social, health economics and preventive aspects ii. Anticipate and manage complications in the laboratory diagnostic services iii. Work independently and in teams competently and professionally iv. Practice good ethical conduct v. Practice good and effective communication skills vi. Perform critical review, plan and conduct scientific research vii. Exemplify self-advancement through continuous academic and/or professional development including digital health viii. Apply evidence-based medicine in the field of anatomical pathology ix. Demonstrate exemplary leadership qualities in the multi-disciplinary team management of anatomical pathology cases x. Demonstrate an entrepreneurial mindset, creative problem-solving and resilience **Specific specialty competencies** i. Manage tissue specimens for histopathology, including grossing, microscopy and the appropriate use of ancillary tests (e.g. histochemistry, immunohistochemistry, in-situ hybridization, molecular tests) ii. Report histopathology findings iii. Manage and report frozen section findings iv. Report cytopathology findings v. Perform fine needle aspiration vi. Report basic autopsy findings vii. Critically evaluate and discuss diagnostic anatomic pathology and autopsy findings with healthcare providers involved in patient care. viii. Conduct clinical audit and quality assurance activities to

	improve anatomical pathology laboratory services. ix. Identify occupational health hazards and safety requirements for the safe provision of anatomical pathology laboratory services. x. Critically evaluate research findings and to contribute towards medical research, education and training in anatomical pathology.

Note: These criteria represent the minimum standards. Each educational programme provider may exercise their autonomy to state criteria above and beyond these minimum standards.

Attachment 4

<table>
<tr><th colspan="3">Specialty-Specific Minimum Requirements for Training Centres and Head of Programme (Based on Areas 3-6 of Malaysian Standards for Medical Specialist Training) - Anatomical Pathology</th></tr>
<tr><th>Item No</th><th>Specialty-Specific Requirements
(Reference Standard)</th><th>Criteria</th></tr>
<tr><td>4</td><td>Trainer-to-trainee ratio

(Standard 3.1.3)</td><td>1:4</td></tr>
<tr><td>5</td><td>Minimum qualifications and experience of trainers

(Standard 4.1.2)</td><td>i. Registered with National Specialist Register.

ii. Completed training-of-trainer course/equivalent</td></tr>
<tr><td>6</td><td>Minimum requirements for educational resource

(Standard 5.1.1)</td><td>The diagnostic facilities and equipment requirement of the programme training centres must collectively be able to accommodate the following minimum requirement:

i. Physical facilities:

<table><tr><th>Physical facilities</th></tr><tr><td>Seminar/ tutorial rooms</td></tr><tr><td>Trainee workspace</td></tr><tr><td>Computers and internet facilities</td></tr><tr><td>Library of reference books or journals (physical and/or virtual)</td></tr></table>
ii. Service areas:

The laboratory(ies) must be accepted or approved by relevant body(ies)* for diagnostic anatomical pathology laboratory or equivalent services.</td></tr>
</table>

Services
Laboratory information system and a case-indexing system (eg. SNOMED or ICD-10.)
Use of histochemical, immunohistochemical and immunofluorescence stains.
Ancillary techniques such as in-situ hybridization, and molecular testing

iii. Equipment:

Equipment
Teaching facilities: i. Dual-viewing or multi-headed microscopes ii. Computer with internet facility iii. Microscope-linked or digital image projection for multidisciplinary team discussions
Diagnostic laboratories: i. Cut-up stations ii. Biosafety cabinets (at least BSC-2) iii. Tissue processor iv. Microtomes v. Cryostat microtome vi. Centrifuges and cytocentrifuges vii. Automated or manual staining equipment viii. Instruments for organ evisceration and dissection

iv. Case load:

The case load of the programme training centres must **collectively** be able to accommodate the following minimum requirements:

Areas	Minimum Quantity (cases/trainee/year)
Surgical pathology with frozen sections	500 Surgical Histopathological Examination (HPE) including 12 frozen sections
Gynaecology cytology	100
Non-homicidal autopsies	10
Non-gynaecology cytology	100
Fine needle aspiration	25

v. Case mix:

Areas	Details
Histopathology (The practice shall include the use of histochemical and immunohistochemical stains, and other ancillary techniques or testing where applicable)	i. Both tumour and non-tumour pathology from both adults and paediatric patients ii. Common organ-specific pathology such as, but not limited to, breast, gastrointestinal, genital tract, haematolymphoid, lung, renal, liver, skin, nervous system head and neck and musculoskeletal pathology
Cytopathology (The practice shall include liquid-based cytology and the use of cell-blocks)	i. Gynaecological and non-gynaecological cytology ii. Fine needle aspiration cytology

		Autopsy pathology (The practice shall include autopsy histopathology)	i. Clinical autopsies ii. Non-homicidal medico legal autopsies
7	Minimum qualifications and experience of Head of Programme (Standard 6.2.2)	i. 5 years or more of working experience after national specialist registration. ii. Experience in administration and/or academic management.	

Note: These criteria represent the minimum standards. Each educational programme provider may exercise their autonomy to state criteria above and beyond these minimum standards.

Glossary for Lab Based

*Relevant body(ies) refers to Department of Standards Malaysia, SIRIM and etc.

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