ADVANCED PRACTICE

The Advanced Practitioner

in Pathophysiology and Diagnostics

Edited by **Ollie Phipps** • **Ian Setchfield**
Barry Hill • **Sadie Diamond-Fox**

WILEY Blackwell

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Dedications

"I helped a fellow human climb a mountain and found that I too had reached the top."

Thank you to the clinical experts who have contributed chapters to this book. We are grateful for the support of our partners, friends, colleagues, and the advanced practice community.

A special thank you to the amazing Wiley publishing team for supporting, developing, and providing opportunities to expand the knowledge and education of both trainees and qualified advanced practitioners. Having this book included in Wiley's Advanced Practice Series is a privilege.

Kindest regards,

Ollie Phipps, Ian Setchfield, Barry Hill, and Sadie Diamond-Fox

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Preface

Pathophysiology and diagnostic decision-making are fundamental to healthcare, enabling advanced practitioners to provide high-quality, evidence-based care. In today's evolving healthcare landscape, a deep understanding of these concepts is increasingly vital. This book aims to enhance practitioners' knowledge and skills in these critical areas.

Pathophysiology involves studying functional changes in the body due to disease or injury, forming the foundation for diagnostic and treatment strategies. Recognising subtle signs and symptoms of diseases allows practitioners to make accurate diagnoses and implement effective, evidence-based treatment plans, directly impacting patient care quality and safety.

Diagnostic decision-making synthesises information from patient history, physical examinations, and diagnostic tests to reach a diagnosis. This skill requires a solid foundation in pathophysiology, critical evaluation of information, and effective communication of findings to patients and healthcare professionals.

As healthcare systems evolve, advanced practitioners play an increasingly crucial role. The shift towards patient-centred care and preventive medicine necessitates a deeper understanding of pathophysiological processes. The rise of multidisciplinary teams demands accurate and timely diagnoses from practitioners, making mastery of these skills essential.

In the UK, the role of advanced practitioners has expanded to address workforce shortages and provide high-quality care in diverse settings. This book supports practitioners in navigating modern healthcare complexities by offering comprehensive insights into pathophysiology and diagnostic decision-making.

Throughout the book, we explore the pathophysiological basis of various diseases, their clinical manifestations, and diagnostic criteria. Practical guidance on the diagnostic process, emphasising critical thinking, pattern recognition, and differential diagnosis, is provided. Real-world case studies illustrate key concepts and offer tangible contexts for application.

In conclusion, pathophysiology and diagnostic decision-making are essential for advanced practitioners to deliver high-quality, evidence-based care. This book aims to empower practitioners to master these concepts, enhancing their ability to provide exceptional patient care, navigate healthcare complexities confidently, and collaborate effectively with colleagues. By engaging with this content, you will deepen your knowledge, refine your diagnostic skills, and embark on a fulfilling and impactful healthcare career.

Interlude

Mapping of Advanced Clinical Practice Chapters to National Frameworks and Specialist Curricula

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2. Clinical Decision-Making and Diagnostic Reasoning	1.1-1.11; 2.3-2.4; 3.1-3.2; 4.2	Acute Medicine: Generic CiPs 1-4; Speciality Clinical CiPs: 3-4 * Autism: Domain A – Capability 1, Domain B – Capability 4 * Community Rehabilitation: Area-specific capabilities: 1.1.2; Generic Capabilities: 1.1, 2.1, 2.3, 3.3 * Critical Care: 2.2; 3.1-3.2; 4.2 * Emergency Medicine: SLO 1-2 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Area-specific capabilities: 1.1; Generic capabilities: 1.1, 1.3, 2.1-2.3 * Neurological Rehabilitation: Domain A – 1.1; Domain B – 2.1-2.2; Domain C – 3.1-3.2 * Mental Health: Domain A: Person-centred therapeutic alliance; Domain B: Assessment and investigations; Domain C: Formulation * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3

(*continued*)

Chapter	Multi-Professional Framework (MPF) Statements	Specialist Curricula and Capabilities
3. Clinical History Taking	1.1-1.7; 2.1-2.3; 2.9; 3.1-3.2; 3.4; 4.1	Acute Medicine: Generic CiPs 1 * Autism: Domain A – Capability 1, Domain B – Capability 4 * Community Rehabilitation: ASC 2.1 * Critical Care: 2.1-2.2; 3.1-3.2; 4.2 * Emergency Medicine: SLO1-4; SLO7; SLO11; SLO12 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Area-specific capabilities: 1.1; Generic capabilities: 1.1, 1.3, 2.1-2.3 * Neurological Rehabilitation: Domain A – 1.1; Domain B – 2.1-2.2; Domain C – 3.1-3.2; Domain D – 4.1 * Mental Health: Domain A: Person-centred therapeutic alliance; Domain B: Assessment and investigations; Domain C: Formulation * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3
4. Physical Examination	1.1-1.7; 2.1-2.3; 2.9; 3.1-3.2; 3.4; 4.1	Acute Medicine: Generic CiPs 1 * Autism: Domain A – Capability 1, Domain B – Capability 4 * Community Rehabilitation: ASC 2.1 * Critical Care: 2.1-2.2; 3.1-3.2; 4.2 * Emergency Medicine: SLO1-4; SLO7; SLO11; SLO12 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Area-specific capabilities: 1.1; Generic capabilities: 1.1, 1.3, 2.1-2.3 * Neurological Rehabilitation: Domain A – 1.1; Domain B – 2.1-2.2; Domain C – 3.1-3.2; Domain D – 4.1 * Mental Health: Domain A: Person-centred therapeutic alliance; Domain B: Assessment and investigations; Domain C: Formulation * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3
5. Interpretation of Clinical Investigations – Blood Tests	1.1-1.7; 2.1-2.3; 2.9; 3.1-3.2; 3.4; 4.1	Acute Medicine: Generic CiPs 1-3; Specialty Clinical CiPs: 3 * Autism: Domain B – Capability 4 * Community Rehabilitation: Area-specific capabilities: 1.1.2; Generic Capabilities: 1.1, 2.1, 2.3, 3.3 * Critical Care: 2.2; 2.4; 2.5; 3.1-3.2; 4.2 * Emergency Medicine: SLO 1-2 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Generic capabilities: 1.3, 2.1-2.3 * Neurological Rehabilitation: Domain A – 1.1 * Mental Health: Domain B: Assessment and investigations * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3

Chapter	Multi-Professional Framework (MPF) Statements	Specialist Curricula and Capabilities
6. Interpretation of Clinical Investigations – Radiology	1.1-1.7; 2.1-2.3; 2.9; 3.1-3.2; 3.4; 4.1	Acute Medicine: Core CiPs: 2-4; General Clinical CiPs: 2, 4 * Autism: Domain B – Capability 4 * Community Rehabilitation: Area-specific capabilities: 1.1.2; Generic Capabilities: 1.1, 2.1, 2.3, 3.3 * Critical Care: 2.3; 2.5; 3.2; 3.5; 4.3 * Emergency Medicine: GP 1-10; GC 1-8; SuP 1-7; SuC 2, 4, & 12 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Generic capabilities: 1.3, 2.1-2.3 * Neurological Rehabilitation: Domain A – 1.1 * Mental Health: Domain B: Assessment and investigations * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3
7. Inflammation and Sepsis	1.2; 1.4; 1.6-1.7; 2.5; 3.1	Acute Medicine: Generic Clinical CiPs: 1; Presentations and Conditions: Infectious diseases, Oncology * Autism: Domain A – Capability 1, Domain B – Capability 4 * Community Rehabilitation: ASC 2.1 * Critical Care: 2.4; 2.5; 3.2; 3.5; 4.3 * Emergency Medicine: SLO1-4; SLO7; SLO11; IP1-3 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Area-specific capabilities: 1.1; Generic capabilities: 1.1, 1.3, 2.1-2.3 * Neurological Rehabilitation: Domain A – 1.1 * Mental Health: Domain B: Assessment and investigations; Domain C: Formulation * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3
8. Neurological Disorders	1.2; 1.4; 1.6-1.8; 3.1-3.2	Acute Medicine: Generic CiPs: 1-4; Speciality Clinical CiPs: 3-4; Presentations and Conditions: Endocrinology and diabetes mellitus, Neurology * Autism: Domain A – Capability 1, Domain B – Capability 4 * Community Rehabilitation: ASC 2.6 * Critical Care: 2.2; 2.4-2.6; 3.1-3.3; 3.5; 3.6-3.7; 3.9-3.11 * Emergency Medicine: SLO1-2; NeuP1-9 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Generic capabilities: 1.1, 1.3, 2.1-2.3 * Neurological Rehabilitation: Domain A – 1.1-1.2; Domain B – 2.1-2.2; Domain C – 3.1-3.2; Domain D – 4.1 * Mental Health: Domain B: Assessment and investigations; Domain C: Formulation * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3

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Chapter	Multi-Professional Framework (MPF) Statements	Specialist Curricula and Capabilities
9. Ophthalmology and associated Disorders	1.1-1.7; 2.1-2.3; 2.9; 3.1-3.2; 3.4; 4.1	Acute Medicine: Generic CiPs: 1-4; Speciality Clinical CiPs: 3-4 * Autism: Domain A – Capability 1, Domain B – Capability 4 * Community Rehabilitation: Area-specific capabilities: 1.1.2; Generic Capabilities: 1.1, 2.1, 2.3, 3.3 * Critical Care: 2.1-2.2; 3.1-3.2; 3.5 * Emergency Medicine: SLO1-2; OptP1-5 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Generic capabilities: 1.3, 2.1-2.3; Area-specific capabilities: 1.1 * Neurological Rehabilitation: Domain A – 1.1-1.2; Domain B – 2.1-2.2; Domain C – 3.1-3.2; Domain D – 4.1 * Mental Health: Domain B: Assessment and investigations; Domain C: Formulation * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3
10. Ear, Nose, and Throat Disorders	1.1-1.7; 2.1-2.3; 2.9; 3.1-3.2; 3.4; 4.1	Acute Medicine: Generic CiPs: 1-4; Speciality Clinical CiPs: 3-4 * Autism: Domain A – Capability 1, Domain B – Capability 4 * Community Rehabilitation: Area-specific capabilities: 1.1.2; Generic Capabilities: 1.1, 2.1, 2.3, 3.3 * Critical Care: 2.1-2.2; 3.1-3.2; 3.5 * Emergency Medicine: SLO 1-2 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Generic capabilities: 1.3, 2.1-2.3; Area-specific capabilities: 1.1 * Neurological Rehabilitation: Domain B – 2.1 * Mental Health: Domain B: Assessment and investigations; Domain C: Formulation * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3
11. Respiratory Disorders	1.1-1.7; 2.1-2.3; 2.9; 3.1-3.2; 3.4; 4.1	Acute Medicine: Generic CiPs: 1-4; Speciality Clinical CiPs: 3-4; Presentations and Conditions: Respiratory * Autism: Domain A – Capability 1, Domain B – Capability 4 * Community Rehabilitation: ASC 2.3; Area-specific capabilities: 1.1.2; Generic Capabilities: 1.1, 2.1, 2.3, 3.3 * Critical Care: 2.1-2.2; 3.1-3.2; 3.5 * Emergency Medicine: SLO 1-2; ResP1-4 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Generic capabilities: 1.3, 2.1-2.3; Area-specific capabilities: 1.1 * Neurological Rehabilitation: Domain B – 2.1 * Mental Health: Domain B: Assessment and investigations; Domain C: Formulation * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3

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12. Cardiovascular Disorders	1.1-1.7; 2.1-2.3; 2.9; 3.1-3.2; 3.4; 4.1	Acute Medicine: Generic CiPs: 1-4; Speciality Clinical CiPs: 3-4; Presentations and Conditions: Cardiology * Autism: Domain A – Capability 1, Domain B – Capability 4 * Community Rehabilitation: ASC 2.4; Area-specific capabilities: 1.1.2; Generic Capabilities: 1.1, 2.1, 2.3, 3.3 * Critical Care: 2.1-2.2; 3.1-3.2; 3.5 * Emergency Medicine: SLO 1-2; CP1-4 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Generic capabilities: 1.3, 2.1-2.3; Area-specific capabilities: 1.1 * Neurological Rehabilitation: Domain B – 2.1 * Mental Health: Domain B: Assessment and investigations; Domain C: Formulation * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3
13. Gastrointestinal Disorders	1.1-1.7; 2.1-2.3; 2.9; 3.1-3.2; 3.4; 4.1	Acute Medicine: Generic CiPs: 1-4; Speciality Clinical CiPs: 3-4; Presentations and Conditions: Gastroenterology and hepatology * Autism: Domain A – Capability 1, Domain B – Capability 4 * Community Rehabilitation: Area-specific capabilities: 1.1.2; Generic Capabilities: 1.1, 2.1, 2.3, 3.3 * Critical Care: 2.1-2.2; 3.1-3.2; 3.5 * Emergency Medicine: SLO 1-2; GP1-10 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Generic capabilities: 1.3, 2.1-2.3; Area-specific capabilities: 1.1 * Neurological Rehabilitation: Domain B – 2.1 * Mental Health: Domain B: Assessment and investigations; Domain C: Formulation * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3
14. Renal Disorders	1.1-1.7; 2.1-2.3; 2.9; 3.1-3.2; 3.4; 4.1	Acute Medicine: Generic CiPs: 1-4; Speciality Clinical CiPs: 3-4; Presentations and Conditions: Renal medicine * Autism: Domain A – Capability 1, Domain B – Capability 4 * Community Rehabilitation: Area-specific capabilities: 1.1.2; Generic Capabilities: 1.1, 2.1, 2.3, 3.3 * Critical Care: 2.1-2.2; 3.1-3.2; 3.5 * Emergency Medicine: SLO 1-2; NepP1-2 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Generic capabilities: 1.3, 2.1-2.3; Area-specific capabilities: 1.1 * Neurological Rehabilitation: Domain B – 2.1 * Mental Health: Domain B: Assessment and investigations; Domain C: Formulation * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3

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Chapter	Multi-Professional Framework (MPF) Statements	Specialist Curricula and Capabilities
15. Endocrine Disorders	1.1-1.7; 2.1-2.3; 2.9; 3.1-3.2; 3.4; 4.1	Acute Medicine: Generic CiPs: 1-4; Speciality Clinical CiPs: 3-4; Presentations and Conditions: Endocrinology and diabetes mellitus, Neurology * Autism: Domain A – Capability 1, Domain B – Capability 4 * Community Rehabilitation: ASC 2.5; Area-specific capabilities: 1.1.2; Generic Capabilities: 1.1, 2.1, 2.3, 3.3 * Critical Care: 2.1-2.2; 3.1-3.2; 3.5 * Emergency Medicine: SLO 1-2; RP8; CP3; EnP2-3; EnC2, 4, 6; PhP1; PhC1; TP1 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Generic capabilities: 1.3, 2.1-2.3; Area-specific capabilities: 1.1 * Neurological Rehabilitation: Domain A – 1.1; Domain B – 2.1-2.2; 3.2 * Mental Health: Domain B: Assessment and investigations; Domain C: Formulation * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3
16. Haematological Disorders	1.1-1.7; 2.1-2.3; 2.9; 3.1-3.2; 3.4; 4.1	Acute Medicine: Generic CiPs: 1-4; Speciality Clinical CiPs: 3-4; Presentations and Conditions: Haematology, Oncology * Autism: Domain A – Capability 1, Domain B – Capability 4 * Community Rehabilitation: Area-specific capabilities: 1.1.2; Generic Capabilities: 1.1, 2.1, 2.3, 3.3 * Critical Care: 2.1-2.2; 3.1-3.2; 3.5 * Emergency Medicine: SLO 1-2; HP1-3 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Generic capabilities: 1.3, 2.1-2.3; Area-specific capabilities: 1.1 * Neurological Rehabilitation: Domain B – 2.1 * Mental Health: Domain B: Assessment and investigations; Domain C: Formulation * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3

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17. Neoplasms	1.1-1.7; 2.1-2.3; 2.9; 3.1-3.2; 3.4; 4.1	Acute Medicine: Generic CiPs: 1-4; Speciality Clinical CiPs: 3-4; Presentations and Conditions: Oncology * Autism: Domain B – Capability 4 * Community Rehabilitation: Area-specific capabilities: 1.1.2; Generic Capabilities: 1.1, 2.1, 2.3, 3.3 * Critical Care: 2.1-2.2; 3.1-3.2; 3.5 * Emergency Medicine: SLO 1-2 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Generic capabilities: 1.3, 2.1-2.3; Area-specific capabilities: 1.1 * Neurological Rehabilitation: Domain B – 2.1 * Mental Health: Domain B: Assessment and investigations; Domain C: Formulation * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3
18. Mental Health	1.1-1.7; 2.1-2.3; 2.9; 3.1-3.2; 3.4; 4.1	Acute Medicine: Generic CiPs: 1-4; Speciality Clinical CiPs: 3-4 * Autism: Domain A – Capability 1 * Community Rehabilitation: ASC 2.8 * Critical Care: 2.1-2.2; 3.1-3.2; 3.5 * Emergency Medicine: SLO1-2; MHC2-8 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Generic capabilities: 1.3, 2.1-2.3; Area-specific capabilities: 1.1 * Neurological Rehabilitation: Domain B – 2.1 * Mental Health: All domains * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3
19. Musculoskeletal Disorders	1.1-1.7; 2.1-2.3; 2.9; 3.1-3.2; 3.4; 4.1	Acute Medicine: Generic CiPs: 1-4; Speciality Clinical CiPs: 3-4 * Autism: Domain B – Capability 4 * Community Rehabilitation: ASC 2.7 * Critical Care: 2.1-2.2; 3.1-3.2; 3.5 * Emergency Medicine: SLO1-2; MuP 1-4 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Generic capabilities: 1.3, 2.1-2.3; Area-specific capabilities: 1.1 * Neurological Rehabilitation: Domain B – 2.1 * Mental Health: Domain B: Assessment and investigations; Domain C: Formulation * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3

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Chapter	Multi-Professional Framework (MPF) Statements	Specialist Curricula and Capabilities
20. Frailty and Care of the Older Person	1.1-1.7; 2.1-2.3; 2.9; 3.1-3.2; 3.4; 4.1	Acute Medicine: Generic CiPs: 1-4; Speciality Clinical CiPs: 3-4; Presentations and Conditions: Geriatric medicine * Autism: Domain A – Capability 1 * Community Rehabilitation: All capability outcomes * Critical Care: 2.1-2.2; 3.1-3.2; 3.5 * Emergency Medicine: SLO1-2; EIC1-4, EIC8 * Learning Disabilities: Domain A – Capability 1 & 2 * Rehabilitation & Long-term Conditions: Area-specific capabilities: 1.1; Generic capabilities: 1.1, 1.3, 2.1-2.3, 3.1-3.2 * Neurological Rehabilitation: Domain B – 2.1 * Mental Health: Domain B: Assessment and investigations; Domain C: Formulation * Older People: Generic Clinical CiPs: 1-4; Specialist Clinical CiPs: 3, 3.3

CHAPTER 1

An Introduction to Advanced Clinical Practice and Scope of Practice

Ollie Phipps and Ian Setchfield

Aim

The aim of this chapter is to introduce advanced clinical practice, explore the governance required to support advanced clinical practice, how to develop an advanced practitioner's scope of practice, and the associated legalities.

LEARNING OUTCOMES

After reading this chapter, the reader will:

1. Gain an overview of advanced practice.
2. Understand the need of governance within advanced practice.
3. Be aware of their own scope of professional practice and how to they should develop and grow it safely, within the law.
4. How own scope of practice should be supported by an appropriate governance framework.

INTRODUCTION TO ADVANCED PRACTICE

The evolution of advanced clinical practice in the United Kingdom (UK), beginning in the 1980s, has seen significant development with the NHS Long Term Plan and the multiprofessional framework (MPF) by Health Education England (HEE) acting as recent key drivers. These roles, designed to complement rather than replace existing medical models, have expanded due to several factors including increased life expectancy and medical staff shortages. Efforts from professional bodies and HEE have led to

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substantial investments in workforce development, highlighting the crucial role of advanced clinical practitioners (ACPs) in transforming healthcare services to meet future needs (HEE 2017). The role of an ACP is increasingly recognised as crucial for the future development of the workforce, as emphasised in the NHS Long Term Plan (NHS 2019) and reiterated in the recent NHS Long Term Workforce Plan, which highlights the necessity for an experienced and capable advanced practice workforce (NHS 2023). The NHS Multiprofessional Framework (2017) outlines the need for a unified approach to ACP role development, ensuring quality, safety, and governance. It is vital for advanced practitioners to be aware of the professional, legal, and ethical challenges they might encounter.

THE MPF FOR ADVANCED CLINICAL PRACTICE

The MPF expands the definition of advanced clinical practice in England (HEE 2017). The framework is designed to enable a consistent understanding of advanced clinical practice, building on work previously carried out across England, Scotland, Wales, and Northern Ireland. The core capabilities of advanced clinical practice are articulated in this framework, and these will apply across all advanced clinical practice roles, regardless of the health and care professional's setting, subject area, and job role (HEE 2017). The MPF requires that health and care professionals working at the level of advanced clinical practice should have developed and can evidence the underpinning competencies (knowledge, skills, and behaviours) applicable to their specialty or subject area (HEE 2017). It must be recognised that every practitioner is responsible and accountable for their actions and omissions, as reflected within each healthcare professional's code of conduct (HCPC 2016; Nursing and Midwifery Council 2018).

DEFINING SCOPE OF PRACTICE

For healthcare professionals, acknowledging one's scope of professional practice is important, as it defines the limits of their knowledge, skills, and experience. This scope, supported by professional activities undertaken in their working role, requires that essential boundaries be identified, acknowledged, and maintained. It is recognised that a professional's scope will evolve over time as their knowledge, skills, and experience develop. Furthermore, no single profession can encompass all the expertise needed to treat and care for patients; not one definition will perfectly fit all advanced practitioners or some work environments. Advanced practice is occasionally described as a blurring of traditional role boundaries among registered healthcare professionals. Yet, this 'blurring' of boundaries, implying the assumption of aspects of a variety of roles, is necessary to provide better, more holistic care to all, which can be seen as a positive evolution of healthcare.

Each advanced practitioner must possess the correct knowledge, skills, and behaviours to undertake their role and demonstrate competence, both professionally and educationally. While embracing the four pillars of advanced practice, as experts, advanced practitioners must be professionally mature and have significant practice experience. They must always work within their scope of professional practice and acknowledge their professional limitations and restrictions.

MULTIPROFESSIONAL REGISTRATIONS AND SCOPE OF PRACTICE

Advanced clinical practice is multiprofessional, differentiating it from other health and care provisions by registered professionals (HEE 2021). It must be acknowledged that there is no single underpinning, preregistration professional training for those developing to work at an advanced level. The scope of practice for different registered professions varies, and not all professional registrations extend to independent or supplementary prescribing (HEE 2021).

EXPANDING SCOPE AND SCOPE CREEP

Those training and working at an advanced level must be aware of their competence and capability. With various curricula and capability frameworks being developed and implemented, advanced practitioners receive guidance on where their knowledge, skills, and professional behaviour should align. However, those beginning their journey as advanced practitioners must recognise that it will take years to acquire the necessary knowledge, skills, and experience. While advanced practice may encompass traditional knowledge and skills associated with medicine, the development of a multiprofessional workforce brings a unique set of knowledge and skills, making the advanced practitioner 'value-added' rather than a role substitute.

THE ROLE OF INDEMNITY INSURANCE AND ORGANISATIONAL RESPONSIBILITY IN ADVANCED PRACTICE

Healthcare professionals, by law, must have in place an appropriate indemnity arrangement to practise and provide care in the UK. The NHS insures its employees for work carried out on their behalf, meaning that you will be covered if a successful claim is made against you in that employment. Outside the NHS, many employers likely have professional indemnity arrangements that provide appropriate cover for all relevant risks related to your job and scope of practice. Each employer carries responsibility and vicarious liability for practitioners and must ensure that all advanced clinical practice roles, both existing and future, do not compromise safety (HEE 2017). Policies will need to be developed and processes introduced to reflect this. Without these, there is a significant risk of 'unconscious incompetence', compromising safe person-centred care, as well as the reputation of advanced clinical practice (HEE 2017).

THE ADVANCED PRACTITIONER AND THE PREGNANT PATIENT

The Royal College of Nursing (RCN) issued guidance in 2021 regarding advanced practitioners treating pregnant women. It must be highlighted that the care of the pregnant woman is primarily the domain of midwives and medical practitioners, as outlined in legislation. However, this does not exclude other healthcare professionals, including advanced level practitioners. It is imperative that all healthcare professionals understand their own roles, limits, and boundaries of practice, always considering their registration and working within their scope/competence (RCN 2021). Non-midwife and non-medical practitioners should advise all pregnant women to seek advice from their named midwife at the earliest convenience, even if the condition appears unrelated to the pregnancy.

CLINICAL INVESTIGATIONS

Laboratory Investigations

Clinicians requesting blood investigations must acknowledge that the responsibility for ensuring results is acted upon rests with the person requesting the test. This responsibility can only be transferred by prior agreement, including when discharging patients before results are back and forwarding to primary care colleagues (BMA 2020). Patients should be informed sensitively and appropriately about investigation results, actions taken, and in accordance with the principles of Duty of Candour (RCEM 2020).

Radiology

In 2021, the Royal College of Emergency Medicine introduced a protocol titled 'Radiology Requesting Protocol for Extended and Advanced Clinical Practitioners in the Emergency Department' (RCEM 2021), setting clear standards for advanced practitioners supported by the Clinical Radiology Faculty of the Royal College of Radiologists. The Ionising Radiation (Medical Exposures) Regulations 2017 (IR(ME)R) outline measures for patient protection from unnecessary or excessive exposure to medical X-rays and provide specific guidance for Employers, Practitioners, Operators, and Referrers regarding their responsibilities. Employers are responsible for implementing policies, protocols, and procedures to govern referrals, ensure justification of exposures, and record a clinical evaluation of all radiographs. The aim is to ensure that radiation doses to patients are as low as reasonably practicable, with diagnostic findings and clinical evaluations recorded in the patient's notes.

Fields of Practice – Paediatrics

Those working and treating children must ensure that they are competent to undertake such a role. The individual must possess the correct knowledge, have the right skills, and demonstrate professional behaviours. Those working with children must ensure that they have the appropriate indemnity and insurance to cover paediatric practice. At the time of writing, an ACP Paediatric curriculum is being developed. HEE, working with the Royal College of Paediatrics and Child Health (RCPCH), are creating a curricular framework consisting of key capabilities and learning outcomes across 11 domains, which map across five patient groups: non-hospital paediatrics, hospital paediatrics, neonatal, critical care, and child with complex needs. This curricular framework encompasses the four pillars that underpin ACP practice.

Source: Adapted from RCPCH (2022).

Fields of Practice – Mental Health

The field of mental health is a specialist area (HEE 2020a). A minimal standard of practice has been established. This curriculum allows the Advanced Practitioner in Mental Health to deliver high-quality, effective care for individuals experiencing mental health illnesses/conditions. It enables regulated healthcare professionals to develop theoretical knowledge and clinical skills to practice in the specialist areas of mental health.

Fields of Practice – Learning Disabilities

Those working with individuals with learning disabilities and autism must ensure that they are competent for such roles. HEE launched frameworks for Advanced Clinical Practice for those working with people with learning disabilities (HEE 2022e) and autism (HEE 2023). These frameworks define advanced clinical practice for allied health professionals and nursing staff in these services. The focus on the learning disabilities and autism workforce, intensified by initiatives like the Transforming Care Programme and the Learning Disabilities Mortality Review (LeDeR) Programme, aims to address preventable health inequalities and significantly improve life expectancy and independence for people with learning disabilities.

Learning Events

A patient presents with shortness of breath and later dies. An advanced practitioner had reviewed the patient's chest X-ray and noted it as '*unremarkable - nothing abnormal detected*'. The coroner asks the advanced practitioner to demonstrate their competence in interpreting a chest X-ray. How would you respond in this situation?

You are tasked with reviewing a patient whose condition tests the boundaries of your clinical knowledge and acumen. Despite your supervisor's confidence in your abilities and encouragement to proceed with the assessment and management, how would you safeguard the patient's well-being and appropriately seek assistance?

RESPONSIBILITY AND ACCOUNTABILITY

All healthcare practitioners working either at their base registration or at an advanced level must understand that they are both responsible and accountable for the decisions they make. Expanding one's scope of practice should follow correct preparation, education, and experience. The concepts of accountability and responsibility are closely linked and are central to the codes of conduct for those professionally regulated by the Nursing and Midwifery Council NMC (2018) and the Health and Care Professions Council (HCPC 2016). Advanced Practitioners have an obligation to undertake their role and associated tasks using sound professional judgement. As their level of practice expands, so does their level of responsibility. Regulated healthcare professionals are responsible for maintaining their competence in practice. They are answerable for their decisions made within their professional practice and the consequences of those decisions. Advanced practitioners should be able to justify their decision-making and understand the associated legislation, ethical principles, professional standards, guidelines, and evidence-based practice.

Case Study 1.1

1. A newly appointed advanced practitioner is undertaking their MSc ACP and working through their capability framework. They have several years clinical experience in their area of speciality and as such have a depth of knowledge and skills related to the patient group. However, they have never been responsible for making diagnosis and planning patient management.
   - What would be the first steps for the trainee to achieve the required capabilities in practice of their advanced role for which they are training?
   - What are the responsibilities of their supervisor, and how might they support the trainee to achieve the capabilities in practice?
   - What is the role of university tutor in facilitating the trainee to achieve the competencies for their advanced role?
2. An ACP has recently been signed off as competent to perform Level One Ultrasound scans within your department. They have started using the skill within their clinical practice.
   - What should be required to deem someone capable and competent to undertake a procedure?
   - Who should be able to assess this?
   - What governance framework should be in place?

CONCLUSION

The development of advanced practice in the UK has altered traditional professional boundaries, necessitating multiprofessional advanced practitioners to be cognisant of professional, legal, and ethical considerations. It is crucial for both trainees and practicing advanced practitioners to understand their competencies, manage scope creep, and adhere to governance. Guidance is provided through various curricula and frameworks. Acknowledging the time needed to acquire necessary skills and knowledge is essential. Advanced practice, often augmenting traditional medical knowledge, adds value to a pressured health service by ensuring that patients see the right person with the right skills.

Take Home Points

- Advanced practitioners must embody the requisite knowledge, skills, and professional behaviours to effectively fulfil their roles within their professional registration.
- They should critically acknowledge their practice limitations and the expanded level of responsibility and autonomy their roles entail.
- Awareness and management of scope creep and its associated legal implications are crucial for maintaining ethical and effective practice.

CHAPTER 2

Clinical Decision-Making and Diagnostic Reasoning

Helen Francis-Wenger, Colin Roberts, and Jo Amy Bailey

Aim

The aim of this chapter is to raise awareness and facilitate an approach to clinical decision-making and reasoning through a process of exploring critical thinking and analytical skills when applied to clinical encounters with a recognition and appreciation of human factors.

LEARNING OUTCOMES

After reading this chapter, the reader will be able to:

1. Understand and apply a range of thought processes and approaches to decision-making and human factors that advanced level practitioners can use to nurture, foster, and develop clinical skills to become sound, confident, decisive clinicians.
2. Enhance existing practice with the aim of providing best quality patient care.
3. Promote an appreciation of lifelong learning in practice, exploring the dynamic recognition that underpins curiosity and reflexive attention to advanced practitioners' well-being and individual learning needs.
4. Facilitate means to promote practitioner well-being by utilising a range of methods of self-care strategies.

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INTRODUCTION

Clinical decision-making is the integration of experience, intuition, knowledge, wisdom, clinical skills, and problem-solving capabilities to guide patients through diagnosis and management of health-related issues. Although initially daunting in advanced practice, this skill is often inherently developed over years of experience. Practitioners in their respective fields naturally acquire unconscious pattern recognition, utilising robust communication and analytical skills to identify various conditions and assess their severity.

CLINICAL REASONING AND CLINICAL DECISION-MAKING

Higgs and Jensen (2019) provide clear definitions of clinical reasoning and clinical decision-making, terms often used synonymously. Clinical reasoning involves the overarching 'thinking' process in clinical practice, while clinical decision-making applies this 'thinking' to determine the outcomes of the clinical encounter. These terms will be used interchangeably to highlight that both 'thinking' and 'decision-making' must occur synonymously in practice. The Roberts & Francis-Wenger Model (Figure 2.1) illustrates the journey of a decision-maker, emphasising the central and challenging role

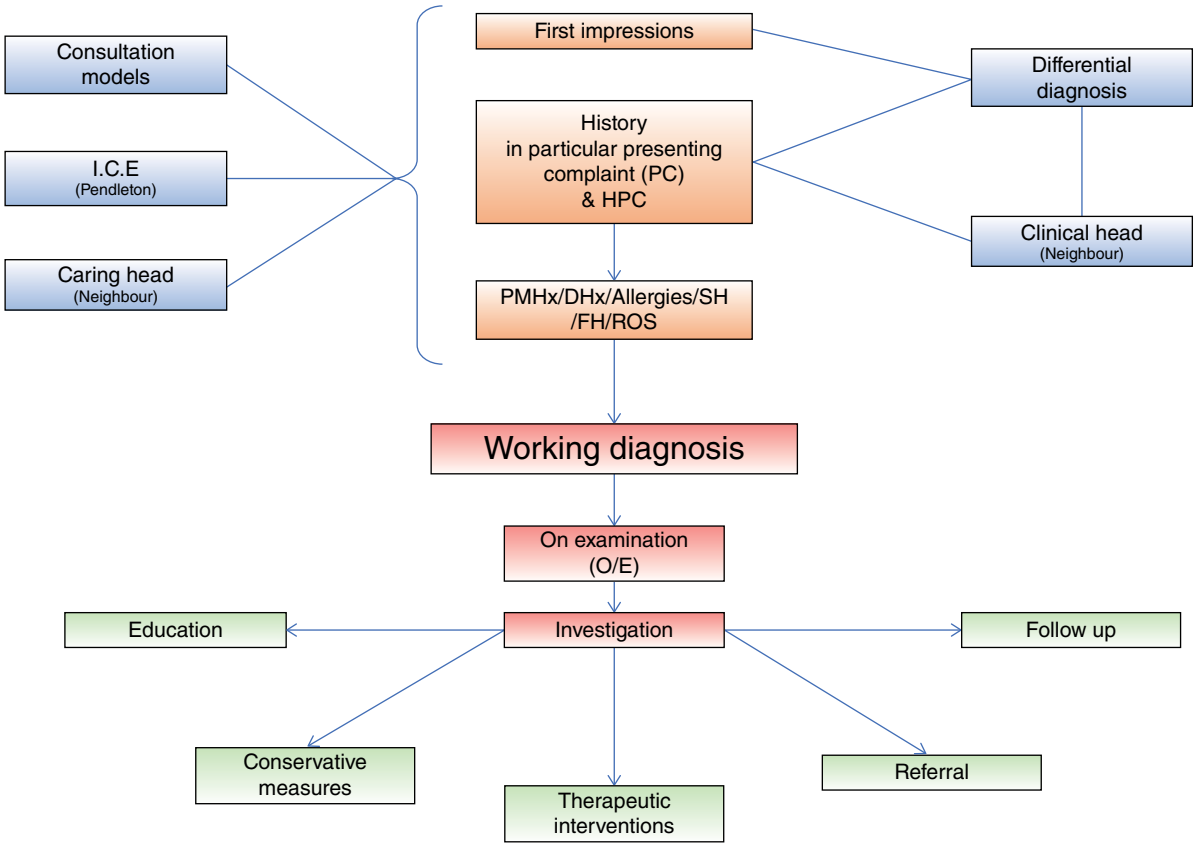

FIGURE 2.1 The Roberts & Francis-Wenger clinical decision-making tree 2022.