

# The Centre for Advancing Practice Musculoskeletal advanced practice area specific capability and curriculum framework

Endorsed 2024



# **Endorsement by NHS England's Centre for Advancing Practice**

This framework has met the Centre for Advancing Practice's criteria for endorsement as a multi-professional area specific capability and curriculum framework and is ready for delivery.

It will be kept under periodic review to ensure that it remains current and responsive to changing population, patient care, service delivery and workforce needs.

Further information on the Centre's approach to area specific capabilities is available here: <u>https://advanced-practice.hee.nhs.uk/</u>

#### Note:

This document has been rebranded in line with NHS England branding guidelines.

Minor amendment in language from 'Credential' to 'area specific capability'.

No other changes to this document have been made.



Musculoskeletal advanced practice area specific capability and curriculum framework

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# **Purpose of the Framework**

The Advanced Practice Musculoskeletal Curriculum and Capabilities Framework (referred to as 'the Framework' in this document) has been produced to define the requirements of multiprofessional advanced practice education. Its use should support the development and delivery of musculoskeletal (MSK) advanced practice education programmes.

The Framework focuses on addressing workforce needs across adult MSK services in both NHS settings and other healthcare sectors. It aims to standardise the provision of advanced practice education for regulated healthcare professionals who specialise in providing MSK care for adult populations.

Increasing advanced practice MSK capability and capacity should help to address the following:

- Workforce transformation.
- New models of care, across clinical pathways and integrated healthcare systems.
- Current and projected population health needs relating to MSK, including unmet need.
- Improving MSK service delivery and its responsiveness, effectiveness and efficiency.

The Framework's implementation should achieve patient benefit. This includes through its strong focus on the following aspects of MSK workforce development, service delivery and patient care:

- Addressing equality, diversity and inclusivity (EDI) issues.
- Respecting individuals' cultures, choices and preferences.
- Contributing to achieving sustainable service provision.

The Framework is designed to enable experienced, regulated MSK healthcare practitioners to undertake an advanced practice education pathway to meet MSK needs. It brings the following key capabilities within MSK to the fore:

- Critical evaluation.
- The synthesis of knowledge and advanced practical, evaluative and clinical-reasoning skills.
- Integration of the four pillars of advanced practice (clinical practice, leadership and management, education and research).

The Framework is designed to prepare practitioners for roles that involve the following:

- Leading adult MSK service development.
- Advancing the knowledge base of MSK practice.
- Disseminating knowledge and learning within both practitioners' own profession and across multi-professional groups.

• Working independently and autonomously across different patient pathways, service delivery models and multi-professional contexts.

### **Background to the Framework**

MSK pain and disability present a significant challenge to the population, clinicians and commissioners of healthcare services. MSK conditions affect over 20 million people in the United Kingdom (Musculoskeletal health, NHSE, 2025). They are commonly associated with several comorbidities. These include diabetes and depression (Versus Arthritis, 2021a). MSK conditions can also have a significant impact on individuals' quality of life and ability to work independently.

Key factors relating to current and projected need are outlined below:

- Over 30 million working days were lost due to MSK conditions in 2019 (ONS, 2021).
- MSK conditions are more prevalent as we get older.
- With an ageing population, the impact of MSK conditions on healthcare services is only likely to increase (Versus Arthritis, 2021a).
- Risk factors, such as physical inactivity and excess weight, can exacerbate MSK conditions.
- Practitioners have a key role to play in supporting people with health behaviour change and prevention (Davies et al., 2019).

MSK conditions are also the leading cause of chronic pain in England, with this linked to health inequalities. There is increased prevalence of chronic pain in deprived areas, while chronic pain disproportionately affects minority ethnic groups. This highlights the importance of the MSK workforce being able to address local population needs (Versus Arthritis, 2021b). To ensure MSK services are available to all and are truly person-centred, healthcare provision needs to adopt a universal personalised care approach that ensures care is delivered based on the principles of **"what matters to me"**.

To be able to deliver safe, evidence-based, high-quality, personalised care, the NHS needs the right number of people in the right place, with the right knowledge, skills and behaviours. The NHS Long Term Plan (NHS, 2019) and the subsequent We are the NHS: People Plan for 2020/21 (NHSE, 2020) set out that investing in workforce education and training is central to enabling the ongoing development of improved care delivery and service transformation. This needs to happen at a system-level throughout England to meet changing population needs.

Advanced practice roles in MSK have existed in the UK for over 30 years (Byles and Ling, 1989). They have played an integral part in delivering MSK health services. Advanced practitioners' use of their full scope of practice at master's level across all four pillars of practice has been shown to be clinically and cost-effective across MSK patient pathways (Heisenbug et al, 2015).

MSK practice covers a diverse range of clinical specialties. This includes the following:

- Orthopaedics.
- Urgent and emergency care
- Rheumatology
- Pain management
- Paediatric
- Therapies services.

MSK practice also occurs in diverse healthcare settings. These include primary and secondary care services and the interface between the two (Noblet et al., 2020). The emergence of MSK advanced practice roles in response to population health needs within the NHS has led to the expanded development of education and training programmes to better prepare the workforce within the UK (Noblet et al., 2021).

MSK education and training at advanced practice level can be provided on a multiprofessional basis to meet needs across all healthcare settings. The approach requires robust quality assurance to reduce unwarranted variation in educational standards. This Framework captures agreed, standardised learning outcomes and capabilities (including knowledge, skills and behaviours). Its use should inform the core content and approach of curricula, thereby contributing to high-quality services, new models of care, and upholding patient safety.

# **Engaging with the Framework**

The Framework is designed to support education providers in England develop adult MSK advanced practice programmes or pathways of study within their advanced practice education master's degree provision. Its learning outcomes, domains and capabilities are applicable to all regulated health professionals working in, or towards, an advanced practice role that is focused on managing the care of adults who present with a diagnosed or undiagnosed MSK condition(s). They are also intended to be applicable across different types of service provision and settings.

The Framework's MSK capabilities fully map to the 'core' capabilities set out in the Multiprofessional framework for advanced practice in England (2025). Their achievement supports practitioners to engage in specialised care planning and service delivery to MSK adult patient populations.

Practitioners working at advanced practice level manage people who present with high levels of complexity and whose care presents high levels of uncertainty and risk. This includes individuals who have multiple long-term conditions and/or multiple healthcare needs. Practitioners working at advanced practice level therefore need to:

- Hold advanced-level practice capabilities relating to examination, assessment and diagnosis.
- Draw from and synthesise a range of information and evidence sources.
- Develop and implement person-centred management plans relating to:
  - Delivering treatment and advice, including relating to self-management and prevention.
  - Discharge and making onward referrals to other services in primary, secondary or community settings.

The Framework defines the standard for education and training required for advanced MSK practice across the MSK professions in England. However, it allows for local context to be considered in how it is engaged with, implemented and applied. It also recognises that there are further, sub-specialty capabilities that are required of practitioners who work in specific areas of advanced-level MSK practice. This includes in areas such as orthopaedic surgery, rheumatology, pain management, urgent and emergency care, primary care, paediatrics and frailty. The Framework focuses on the broad advanced practice capabilities required within MSK adult care. It does not define all possible aspects of MSK advanced practice. Practitioners may therefore need to achieve additional capabilities to practise at advanced level within a discrete specialism.

The Framework relates to advanced practice education and workforce development across the regulated MSK professions. The educational approach outlined in this Framework was informed by The Quality Assurance Agency (QAA) level 7, (2014); the Multi-professional framework for advanced practice in England (2025); and the MSK Advanced Practice Standards developed by the UK MSK partnership group (see **Appendix 5**).

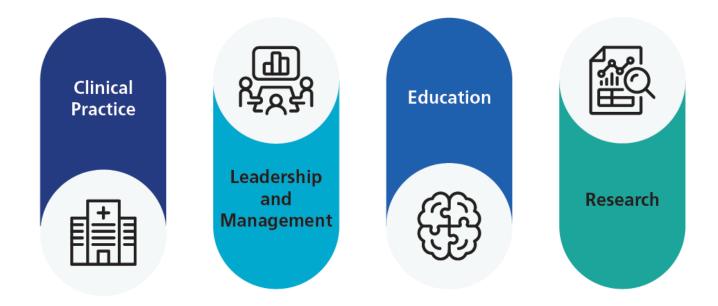
The professional values, capabilities and conditions of registration for all regulated healthcare professionals (regardless of level) to practise their profession sit outside of the scope of this Framework. These requirements are defined by the relevant professional bodies and statutory regulators.

This Framework builds on these requirements and reflects the additional demands of advanced practice within MSK practice and service delivery. **Appendix 6** provides information on the prerequisite MSK knowledge and skills that practitioners need to hold to be ready to engage with the Framework.

# Structure of the Framework

The Framework articulates the specific education requirements for multi-professional advanced-level practice in MSK settings. It does this by building on the Multi-professional framework for advanced practice in England (2025) and the work of the UK MSK partnership group.

The Framework defines the capabilities that practitioners need to achieve for practice in MSK at advanced practice level. This includes across the four pillars of practice (see **Figure 1** below). The learning outcomes and capabilities need to be demonstrated in ways that align with individual practitioners' personal scope of practice, job role and contribution to meeting service delivery, patient care and population health needs.



#### Figure 1. Four Pillars of Practice

The Framework also sets out the following:

- The eligibility criteria for practitioners to engage with its requirements as advanced practice trainees.
- The learning and teaching opportunities and the workplace-based supervision and assessment arrangements that need to be provided to support trainees' fulfilment of the learning outcomes and capabilities.
- The integration of academic and workplace-based learning that trainees need to demonstrate to meet the full demands of advanced MSK practice.

# **Overarching Framework learning outcomes**

The overarching learning outcomes broadly articulate what experienced healthcare practitioners, as trainees, need to achieve through successfully completing this Framework within their advanced practice education. The outcomes have a strong focus on trainees developing and demonstrating the following:

- Critical reflection and evaluation.
- The synthesis of knowledge, skills and behaviours across the four pillars of practice and within MSK practice.
- Strengthening their contribution to multi-professional teamworking and service delivery to meet MSK-related population health and patient care needs.

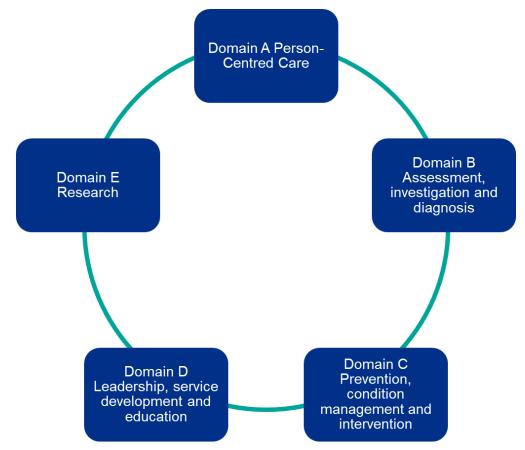
The Framework's overarching learning outcomes are set out below.

- Demonstrate a critical understanding of the impact of inclusive, person-centred MSK care, including the evidence and application of advanced communication skills, shared decision-making, ethical and cultural awareness to meet the changing health and social care needs of diverse, multi-cultural populations.
- 2. Exhibit mastery and synthesis of the knowledge and skills underpinning evidencebased MSK practice, incorporating advanced clinical-reasoning and critical reflection to inform clinical assessments, differential diagnosis, the interpretation of diagnostic data and contemporary management strategies.
- 3. Demonstrate independent working in a changing MSK environment within multiprofessional teams and make sound judgements within personal scope of practice to manage situations safely that involve high levels of complexity, risk and uncertainty and the absence of complete data.
- 4. Critically apply the principles of preventative approaches, such as lifestyle factors, health promotion and behaviour change, to improve MSK-related health outcomes and reduce health inequalities across agencies and boundaries.
- Demonstrate advanced level capability to manage own and others' educational needs within MSK and multi-professional teams through the critical application of experiential learning, learning needs analysis, educational theory/models in practice and supervision theory.
- 6. Equip individuals to lead by critically examining their own leadership capabilities alongside team and global factors through an analytical and creative approach to improving the quality, effectiveness and efficiency of patient care within and allied to MSK practice.
- 7. Apply a high level of critical evaluation and synthesis of research methods, evidencebased practice and the dissemination of information through systematic enquiry, research projects, and the integration of scientific knowledge within MSK practice.

# Core MSK advanced practice capabilities

The capabilities articulated in this Framework underpin the overarching learning outcomes. They provide more detail on what practitioners need to be able to do on successful completion of this Framework within their advanced practice education. The capabilities map fully to the capabilities defined by the Multi-professional framework for advanced practice in England (2025) and therefore to the four pillars of practice (see **Appendix 5**).

The capabilities are expressed within five inter-related domains (see **Figure 2**). They define both what practitioners should be able to do on successful completion of the Framework and should inform how advanced practice MSK education is designed and delivered.



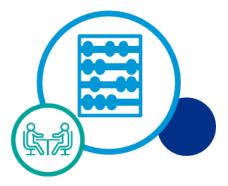
#### Figure 2. The Five domains of MSK Advanced Practice

The Framework capabilities build on the competencies and capabilities required of all practitioners, including those working in MSK services, to meet professional body and statutory regulator standards of proficiency (or their equivalent). The latter are therefore prerequisites to engaging with this Framework. MSK-specific knowledge, skills and behaviours that practitioners need to hold as prerequisites to engaging with this Framework are listed in **Appendix 6**.

# Domain A – Person-centred care

#### By the end of the programme of study, the successful trainee will be able to:

- 1. Integrate and critically apply evidence-informed approaches in health promotion and preventative care programmes within and beyond MSK practice.
- Lead enhancement and promotion of the rights of the patient, being an advocate for inclusive, person-centred care and for fostering active patient participation in care planning, respecting individuals' wishes, goals, attitudes, beliefs and personal circumstances, and challenging practice when felt to not meet the standards of individualised care.
- Demonstrate advanced verbal, non-verbal, written and technological communication skills that include empathy, active listening, questioning strategies and interpersonal skills to obtain pertinent information from individual patients, inform a critical review of processes, and enable safe and effective MSK practice.
- 4. Discuss complex information in their MSK assessment findings and clinical diagnosis appropriately with individual patients to enable a collaborative, person-centred consideration of management options and facilitate effective shared decision-making.
- Critically evaluate and select appropriate person-centred approaches, applying advanced knowledge of psychological and social determinants of health to build effective therapeutic relationships and inform assessment and management strategies in MSK practice.
- 6. Demonstrate advanced awareness and critical evaluation of the influence of their own lived experience and behaviour on the therapeutic alliance and promote person-centred care within multidisciplinary teams (MDT).
- 7. Lead feedback on, and evaluation of, MSK services to meet the needs of individual patients, their families and carers in response to population health needs, setting the direction for the MDT and working across professional boundaries, where required.



# Domain B - Assessment, investigations and diagnosis

#### By the end of the programme of study, the successful trainee will be able to:

- 1. Use critical thinking to inform assessment, diagnosis and decision-making related to differentiated and undifferentiated MSK conditions, synthesising information from multiple sources to make appropriate, evidence-based judgements.
- 2. Critically appraise and apply person-centred consultation styles to actively involve patients, carers and families in shared decision-making, exploring patient expectations and preferences alongside the risks, benefits and consequences of available assessment and management options.
- 3. Demonstrate a critical understanding of contemporary MSK sciences using a biopsychosocial framework in the examination of people with MSK conditions that also considers the impact on fitness to work, health inequalities and the wider social and environmental determinants of health in line with local/national population health needs and the World Health Organisation's International Classification of Functioning, Disability and Health (ICF) (WHO, 2001).
- 4. Critically apply advanced clinical-reasoning and decision-making models to the diagnosis and prognosis of MSK conditions, demonstrating an awareness of common decision-making errors through critical reflection of their own and others' practice and acting on any learning.
- 5. Critically synthesise and apply knowledge relating to common pathology and pain mechanisms to mitigate diagnostic uncertainty amongst complex, undifferentiated presentations, taking account of the MSK system and related body systems and when information may be incomplete, ambiguous and conflicting in nature.
- 6. Integrate and apply the critical evaluation of assessment techniques and tools' diagnostic and evaluative qualities (e.g., their reliability, validity, responsiveness, and diagnostic accuracy) to assess complex MSK conditions and other contributory factors, such as lifestyle factors (e.g., physical activity, smoking, weight), frailty and mental health.
- 7. Demonstrate the integration of advanced knowledge and clinical-reasoning to critically evaluate all relevant clinical information to consider the potential for MSK symptoms to be features of non-MSK conditions (e.g., infectious, metabolic, oncological, inflammatory/autoimmune, neurological, vascular) and manage any potential risk through multi-agency collaboration across organisations or systems by recognising and acting when an early referral and diagnosis may be particularly important for optimising individuals' long-term outcomes.
- Critically appraise and lead the application of health-related measures (e.g., patient-reported outcome measures (PROMs), patient-reported experience measures (PREMs) and digital technology, such as wearable devices) to inform the assessment

of MSK conditions at an individual and service level and to improve quality of care, service delivery, and meeting local population health needs.

- 9. Demonstrate a critical understanding of the indications and limitations diagnostic tools used in the assessment of MSK conditions (e.g., imaging, blood tests and neurophysiology), the ability to interpret findings, and using a shared decision-making approach.
- 10. Demonstrate a critical approach to managing risk, uncertainty and complexity in assessing and diagnosing previously undifferentiated and undiagnosed conditions, support others to do the same, and prioritise patient safety through using existing links and developing new pathways across the organisation and healthcare settings.



# Domain C - Prevention, condition management and intervention

#### By the end of the programme of study, the successful trainee will be able to:

- Use expertise and person-centred approaches to critically evaluate the results of treatment, synthesising information from multiple sources and reflecting on own practice to review and modify management plans (considering treatment frequency, dosage parameters and progression) and evaluating the effectiveness of MSK practice using appropriate outcome measures.
- Implement effective, person-centred management plans through shared decisionmaking with patients who have complex or previously undiagnosed MSK conditions, providing them with appropriate rehabilitation programmes and promoting wellbeing and self-management through educating patients, carers/caregivers, the public and other healthcare professionals.
- 3. Critically appraise, apply and evaluate a range of rehabilitative and preventative interventions (e.g., information-sharing, psychological strategies, manual therapies, motor-learning, exercise prescription and ergonomic strategies within the social and cultural context) as components of multi-modal, evidence-informed MSK practice to optimise individuals' pain management, functional ability and wellbeing.
- 4. Integrate evidence-informed practice, reflective practice and person-centred approaches into a collaborative, shared decision-making process with patients, carers and other health professionals to determine individual management goals, interventions and measurable outcomes when dealing with complexity, uncertainty and risk in MSK practice.
- Exercise professional judgement and use expertise to critically apply knowledge of psychological, social and behaviour change theory to MSK assessments and management, demonstrating advanced communication skills and a critical awareness of population health needs.
- 6. Apply advanced clinical-reasoning skills in reviewing and monitoring patients to identify the potential for MSK symptoms to be features of non-MSK conditions in dealing with complexity, uncertainty and risk in patient management and work collaboratively with individuals, carers and other health professionals to agree appropriate management plans.
- Integrate, apply and communicate an advanced knowledge of preventative, prognostic and predictive factors of both MSK conditions and broader population health needs to ensure patients can make informed choices about their MSK management.
- 8. Apply advanced-level treatment techniques and intervention skills using clinicalreasoning with precision, demonstrating critical reflection of own scope of practice, understanding of risk, personal and professional accountability for actions and

adapting practice, when required, to enable safe and effective MSK practice that is responsive to individual patients' needs and goals.

- 9. Act as a clinical role model for using the effective integration of MSK knowledge, skills and expertise, current evidence-informed best practice from a range of appropriate sources and demonstrate cognitive and meta-cognitive proficiency within person-centred advanced-level MSK clinical-reasoning.
- 10. Use sound clinical judgement, self-awareness, person-centred approaches and advanced-level critical consideration of risks and benefits when selecting management options appropriate to individual patients' changing circumstances, environment and biopsychosocial presentation.
- 11. Critically apply efficient, effective and safe interventions in patients with complex MSK presentations (e.g., multiple inter-related or separate conditions and/or comorbidities), working collaboratively with an appropriate range of multi-agency and interprofessional resources to address individuals' holistic health and social care needs.
- 12. Demonstrate a critical, evaluative understanding of pharmacotherapy and its potential risk and benefits, including to inform decision-making on when to seek appropriate support or make an onward referral. (NB The acquisition of independent prescribing rights would require additional training if this a requirement to fulfil service needs, are not already held by individual practitioners, and is permissible within their regulated profession.)
- 13. Demonstrate a critical and evaluative understanding of the role of joint and soft tissue injections, informed by the evidence base in MSK practice, and the ability to communicate this information effectively to patients to help them make informed decisions about their care. (NB Performing injection therapy would require additional training should this be a requirement to fulfil service needs and does not already sit within individual practitioners' personal scope of practice.)
- 14. Demonstrate a critical and evaluative understanding of surgical interventions in the management of MSK conditions, including their expected benefits, risks and limitations and the importance of shared decision-making with patients that includes consideration of alternative management options, rehabilitative interventions and social prescribing.

# Domain D - Leadership, service development and education

#### By the end of the programme of study, the successful trainee will be able to:

- Critically apply underpinning leadership theory, change models and methods of developing self and others in the context of leading people within multi-professional MSK services and across organisational boundaries.
- 2. Demonstrate the critical knowledge and skills needed to improve the environmental sustainability of health systems and how the environment and human health interact at diverse levels through horizon-scanning and influencing others to implement new ways of working.
- 3. Provide relevant information and resources to lead members across the multidisciplinary team to optimise their service contribution in compliance with all relevant legislation, policies, procedures and best practice at a national, regional and organisational level.
- 4. Critically evaluate and audit their own and others' practice across all pillars, identifying and addressing learning needs relevant to MSK advanced practice, and role-model a culture of learning within teams and wider organisational settings.
- Provide leadership, education and coaching to facilitate professional and personal development within MSK service teams and across organisational boundaries, including through designing, planning and delivering multi-professional learning activities.
- 6. Demonstrate leadership in nurturing innovation, the development and implementation of policy and governance and quality assurance processes within MSK services.
- 7. Lead and coordinate the supervision of others across MSK service teams, including through applying a critical awareness of supervision and education theory to support workplace-based learning and the development of others.
- 8. Critically analyse and use population health data to create services, systems and processes that address health inequalities, respond to local population need and are coproduced through collaboration.

# Domain E – Research

#### By the end of the programme of study, the successful trainee will be able to:

- 1. Demonstrate a critical understanding of the role of research in advancing professional knowledge and informing evidence-based practice to enhance the quality, safety, productivity and value for money of MSK care provision.
- 2. Critically appraise, synthesise and contribute to MSK and related research, using the results to underpin own practice and inform that of others.
- 3. Critically evaluate and identify gaps in the current MSK evidence base through a systematic search and appraisal of relevant research, synthesising findings to generate appropriate quantitative and qualitative research questions.
- Critically and effectively execute a research project relevant to MSK practice, addressing all ethical considerations, selecting appropriate data analysis procedures and disseminating findings through relevant media and stakeholders to inform MSK best practice.
- Contribute to the research teams within their place of work, engaging and networking with academic, clinical and other active MSK researchers, demonstrating an understand how to apply for research funding and leading the development of new projects.
- Critically appraise MSK interventions in their place of work and proactively use research skills in quality improvement, service evaluation and audit projects, acting on project findings to help shape and improve patient journeys in a safe and pragmatic way.
- 7. Promote research skills and projects in the clinical environment by engaging peers and acting as an educator, leader, innovator and facilitator.



# Eligibility criteria

# Practitioners need to fulfil the following criteria to engage with this Framework as a trainee:

- Be a regulated healthcare professional engaged in adult MSK practice as an integral part of their service delivery/contribution to patient care.
- Hold current registration with the professional regulator required to practise their profession (e.g., the Health and Care Professions Council, Nursing and Midwifery Council, or General Osteopathic Council).
- Have gained a sufficient breadth and depth of experience in MSK practice as a regulated healthcare professional to engage with the full demands of the capabilities set out in the Framework, including across the four pillars of practice and in fulfilment of the demands of master's level learning and assessment.
- Have the support of their employer to engage with the full demands and requirements of the Framework, including through arrangements being in place for their appropriate workplace-based supervision, learning and assessment.

**Appendix 6** provides an indicative list of the MSK knowledge, skills and behaviours that practitioners need to hold as a prerequisite to engaging with this Framework. The list should be used to appraise prospective trainees' readiness to engage with the Framework as an integral part of their advanced practice education and to identify where any gaps need to be addressed prior to their engagement.

Trainees should typically hold five years of post-registration experience, of which a minimum of three years should have been gained within MSK practice.

**To note**, independent prescribing and injection therapy are not covered within this Framework. If independent prescribing rights and injection therapy fit with individual practitioners' scope of practice and role requirements (where permissible within their regulated profession), they would either need to have been previously acquired or they should be acquired separately through additional education and training.

# **Delivery of the Framework**

This Framework should be used by education providers (higher education institutions) to plan and deliver advanced practice MSK training and education. It has been designed to be integrated within advanced practice MSc programmes that fully map to the Multi-professional framework for advanced practice in England (2025).

The Framework has been designed to support flexibility in its delivery, while also ensuring standardisation of the quality of trainees' MSK advanced practice learning experience and outcomes. Its implementation and take-up require collaboration between education providers, service providers, workplace supervisors and trainees. Its delivery should incorporate a variety of learning, teaching and assessment strategies that are in keeping with the characteristics and demands of level 7 learning and that support trainees to develop and demonstrate their fulfilment of all the Framework learning outcomes and capabilities.

Education programmes that deliver the Framework must give trainees the opportunity to do the following:

- Gather evidence to demonstrate their achievement of all the learning outcomes and capabilities across the four pillars of practice and at academic level 7.
- Integrate their academic and workplace-based learning and development, thereby ensuring that both MSK service needs and individual trainees' learning needs are met.

MSK advanced practice trainees should be employed by service providers with appropriate local support to engage with the workplace-based learning and supervised clinical practice requirements outlined in the Framework. Trainees' employer retains full responsibility for all aspects of clinical governance in the workplace.

#### **Advanced practice trainees**

MSK advanced practice trainees are defined as practitioners who are accepted to undertake an MSK advanced practice education programme that follows this Framework.

Advanced practice trainees must place the wellbeing and safety of patients above all other considerations. They are responsible for recognising and working within the limits of their professional competence, consulting with colleagues, as appropriate. The Framework's emphasis is on trainees developing and exercising sound clinical judgement in managing increasing levels of complexity, risk and uncertainty in their clinical decision-making. This crucially includes making judgements about when to seek assistance and advice in order to uphold patient safety and wellbeing.

Trainees are required to take responsibility for their own learning. They should be proactive in initiating appropriate time to plan, undertake and receive feedback on their learning.

More specifically, trainees should do the following:

• Secure a learning agreement and formalise a governance statement with their practice supervisors and assessors (see Governance section below).

- Engage with the Workplace Supervision for Advanced Clinical Practice Framework and minimum standards guidance for clinical supervision.
- Ensure that their supervision sessions are scheduled and actively engage in them.
- Ensure their assessments are undertaken and validated by assessors at appropriate times.
- Meet regularly with their workplace supervisor and others in clinical practice to discuss their progress and receive feedback.
- Ensure that tripartite meetings are arranged with their education provider and coordinating supervisor to review their progress and identify any new learning needs.
- Record their learning systematically in their portfolio (see below).

#### Formal learning and teaching

Trainees' academic learning should be delivered or overseen by the accredited education provider. It is the education provider's responsibility to ensure the creation of robust and varied learning opportunities for trainees.

Examples of teaching and learning methods are given below. The list is neither intended to be exhaustive nor to limit the approaches that can be selected by education providers.

- Case-based discussions
- Problem-based learning
- Clinically relevant presentations
- Lectures
- E-learning
- Development of a research proposal
- Execution of a research project
- Practice of, and critical reflection on, advanced assessment and treatment techniques
- Online discussion forums with peers with input from a facilitator
- Critical reflection of clinical skills or consultation
- Mentored clinical practice
- Facilitated/Moderated peer reflection groups
- Review of literature relevant to MSK practice, including psychologically informed and person-centred approaches
- Audit of current service/practice
- Action learning sets.

#### Workplace-based learning and supervised clinical practice

Trainees' workplace-based learning and supervised clinical practice must be supported alongside and integrated with their academic learning. This is to provide sufficient opportunity for trainees to achieve the Framework learning outcomes and capabilities in full. Trainees' successful completion of workplace-based learning requires their being assigned appropriate workplace coordinating education and associate supervisors.

Trainees should complete a minimum of 150 hours of workplace-based supervised MSK practice in support of their learning progression and fulfilment of the Framework capabilities and learning outcomes. This forms a threshold requirement. It is expected that trainees will ordinarily complete a larger number of hours of supervised practice, with this reflecting the demands of level 7 learning, advanced-level practice and the breadth and depth of the Framework capabilities and learning outcomes. It is recognised that some MSK specialty organisations attach hours-based requirements for learning in practice in their criteria for membership.

Upholding patient and practitioner safety is central to this Framework and how it is delivered and taken up. Trainees' receipt of high-quality clinical supervision is key to its delivery and the development of safe and effective advanced practitioners.

Workplace supervisors should undergo appropriate training for their role. In conjunction with service providers (employers) and trainees' education providers, supervisors should ensure that the requirements of the Workplace Supervision for Advanced Clinical Practice Framework and minimum standards guidance for clinical supervision are met. Further details can be found in **Appendix 7**.

MSK advanced practice education providers should consider providing a supervisor support programme in line with the recommendations within these publications. They are advised to maintain a list of approved workplace supervisors across a range of different practice settings that may provide suitable learning environments for trainees.

#### Self-directed learning and trainee portfolios

Trainees should use a portfolio to gather evidence of their progress against the Framework outcomes and capabilities. As part of this, they should use their portfolio to record their self-directed learning undertaken alongside their formal learning. Reflections, assessments and other records of learning should all be collated in their portfolios to provide evidence of their progress towards achieving all the capabilities set out in this Framework.

Trainees should add their own self-assessment ratings to record their view of their progress. The aims of this self-assessment are to do the following:

- Support trainees' critical reflection on and evaluation of their own learning, development and practice.
- Support trainees' critical engagement with the evidence base relevant to their learning, development and practice.

- Inform trainees' discussions with their supervisors on their learning progress, mapped against the Framework outcomes and capabilities and their individual personal development plan.
- Identify shortcomings or gaps in trainees' experience, learning and development against the Framework capabilities, including to define and plan their ongoing learning needs and areas in which they need to gain additional clinical exposure to address these needs.

#### Equality, diversity and inclusion

Delivery of this Framework must ensure compliance with the requirements of equality and diversity legislation, as set out in the Equality Act, 2010. This includes from recruitment through to completion of a programme.

Equality, diversity and inclusion should be actively monitored. This includes in terms of learner progression and differential attainment in assessment. Attention should be paid to potential differences arising from professional background, practice environment, work pattern, and individuals' different learning needs.



# Assessment within the Framework

Assessment of trainees' fulfilment of the learning outcomes and capabilities is an essential component of the Framework. Both formative and summative assessment approaches should be used, with a focus on developing and testing the integration of trainees' academic and workplace-based learning. In line with the demands of advanced practice, assessment approaches should have a strong emphasis on testing and enabling trainees to demonstrate the following:

- Their ability to manage increasing levels of complexity, risk and ambiguity in their independent decision-making.
- Their critical reflection on their learning and practice.
- Their critical engagement with the evidence base relevant to their MSK practice.

#### Assessment methods

Individual education providers are responsible for constructing their own methods of assessment and assessment tools to test trainees' fulfilment of all the capabilities set out in this Framework. Examples of assessment methods already in use for similar frameworks that can be used are listed below. They can be used on a formative and summative basis.

- Reflective and critical case analysis
- Clinical examination of patient
- Management of returning (follow-up) patient
- Viva discussion
- Research proposal
- Research article/oral presentation/poster presentation of research project findings
- Assessment of techniques
- Literature review/essay evaluating evidence informed assessment and/or management
- Critical seminar presentation of a case analysis
- Reflective analysis of practice
- Critique of peer-reviewed journal article(s) and other relevant publications or content.

A representative from the educational provider, alongside trainees' line manager and workplace supervisor, should have input to their assessment. This tripartite process should review trainees' progress against the Framework learning outcomes and capabilities. It should also support trainees to develop, maintain and keep under review their progress against their personal development plan. This includes to engage with their individual professional development objectives and identifying appropriate learning opportunities to achieve these.

The selected combination of assessment approaches should ensure a good mix of methods. This includes to enable the triangulation of evidence and assurance on individual trainees' fulfilment of all the outcomes and capabilities set out in this Framework. All summative assessments should be undertaken at academic level 7. They should be used to evaluate trainees' performance after they have had opportunity to develop their knowledge, skills and behaviour in line with the Framework capabilities. This process should be supported through trainees' receipt of feedback through formative assessments and regular reviews of their progress, informed by their own engagement in critical reflection and their self-assessment of their learning and development.

#### Workplace-based assessment

Trainee assessments in the workplace should be their workplace by co-ordinating educational supervisors and associate workplace supervisors (see **Appendix 7** for details). To support this, workplace-based assessment forms and workplace supervisor reports should be used.

Trainees should maintain a portfolio of evidence to demonstrate their achievement of the Framework capabilities. Each piece of evidence must be of sufficient content and quality to demonstrate achievement of the relevant capability at academic level 7. The reliability of this process is increased where the evidence is triangulated to reflect the capabilities through a combination of writing, observation and conversation. Trainees should also undertake regular self-assessment of their progress. Their portfolio should map evidence of their learning progression and achievements against the Framework learning outcomes and capabilities. In sum, their evidence should map fully to the outcomes and capabilities.

Coordinating educational supervisors should review the evidence in their trainee's portfolio. This review and reporting should take place regularly across the duration of the programme, to determine whether trainees are meeting expectations appropriate to their stage of training and are ready to progress to the next stage of training.

Workplace-based assessments (WPBAs) form a key component of trainees' evidence. These include, but are not limited to, the following to the approaches listed below.

- Consultation observation tool (COT)
- Case-based discussion (CBD)
- Direct observation of procedural skills (DOPS)
- Coordinating educational and associate supervisors' reports
- Self-assessment
- Multi-source feedback
- Quality improvement project assessment tool (QIPAT)
- Patient survey (PS)

#### Workplace-based assessors

Workplace-based assessors are normally consultant practitioners, experienced advanced practitioners (with more than three years' experience at advanced practice level), or other senior healthcare professionals who are appropriately qualified and skilled in assessment

and have the required delegated authority from the education provider. Individual assessors need to fulfil the following criteria:

- Be competent in the areas in which they undertake assessments.
- Understand the requirements of level 7 learning and advanced-level practice.
- Understand the specific capability requirements set by this Framework.
- Be familiar with using a range of formative and summative assessments to seek evidence of capability and to provide constructive feedback.

Workplace-based coordinating educational supervisors should use the Framework as the basis for their discussions with trainees. They should use the Framework to guide the development of the trainee's learning agreement and personal learning and development plan.

A wide range of learning approaches should support trainees to develop the Framework capabilities and fulfil the learning outcomes across the four pillars of practice. In combination, approaches should provide trainees with a breadth of learning opportunities (including for self-directed and independent learning) and support them to integrate their academic and workplace-based learning.

In turn, trainees should capture the integration of their learning within their portfolio. This includes through demonstrating critical reflection, their engagement with the evidence base and by providing evidence of their learning progression. Further details of the expectations of coordinating educational supervisors can be found in **Appendix 7**.

### Governance

Trainees should have a learning agreement to support their engagement with the Framework that trainees to which they, their workplace-based supervisors and education provider commit to implement. This approach allows responsibility for the sign-off of capabilities to be shared among the team and to be recorded in trainees' portfolio (paper or electronic). It also provides confirmation that the Framework learning outcomes and capabilities have been fully met on successful completion.

Robust governance processes in health and care provider organisations are central to the safe, effective, and successful development and deployment of advanced practice workforce capability and capacity. The Centre's Governance Maturity Matrix enables organisations to self-assess their progress in developing and implementing advanced practice governance arrangements.

Local service providers (employers) retain responsibility for deploying individual members of staff in clinical situations for which they are appropriately trained. All clinical staff require the support of organisational clinical governance. This includes a structured approach to the following:

- Making judgements on the extent of clinical autonomy that individual practitioners should exercise.
- Arrangements for the ongoing development of staff, including those in advanced practice roles.
- Arrangements for appraisal and for engaging with revalidation/CPD requirements.

#### **Quality management**

This Framework will be kept under review to ensure that it remains current, responsive to changing needs and fit for purpose. This will be done in line with the arrangements set and enacted by the Centre for Advancing Practice arrangements for all area-specific frameworks that is has endorsed.

# Appendices

# **Appendix 1: IFOMPT and MACP declaration**

The International Federation of Orthopaedic Manipulative Physical Therapists (IFOMPT) Incorporated represents groups of musculoskeletal and manual physiotherapists around the world who have completed stringent post-registration/post-graduation specialisation programmes in the field of neuro-musculoskeletal disorders.

The Musculoskeletal Association of Chartered Physiotherapists (MACP) is a UK membership organisation of physiotherapists who have reached a recognised standard of excellence in musculoskeletal physiotherapy and the member organisation of IFOMPT within the UK.

The UK MSK stakeholders representing the different disciplines (e.g., medicine, physiotherapy, osteopathy, podiatry) and their respective professional organisations have agreed that IFOMPT educational standards should be the foundation of UK specific standards for multi-professional MSK advanced practice levels.

IFOMPT has agreed to have the use of the IFOMPT 2016 Standards Document as a foundation for the AP MSK UK standards but is not responsible for any monitoring requirements or governance issues outside of its member organisations.

It is expected that all use of the IFOMPT Standards Document (2016) will be credited (including permissions, referencing and acknowledgement) to IFOMPT in all policy documents in which the IFOMPT Standards Document have been used as a reference document.

The IFOMPT Standards Document (2016) remains the intellectual property of IFOMPT, and changes to the primary source can only be made by IFOMPT.

# Appendix 2: How this Framework was developed

This Framework was co-produced by Health Education England, now part of NHS England, in collaboration with the UK musculoskeletal (MSK) partnership group and its multiprofessional coopted members and professional groups and patient group representatives (see Acknowledgements; Appendix 3). Its development was informed by evidence that identified the need for specific MSK-focused multi-professional capabilities in England to maintain and further promote high-quality musculoskeletal care across all health sectors (Noblet et al, 2021).

Between 2019 to 2021, the UK musculoskeletal partnership group undertook consultation with MSK stakeholders from across the UK to develop the Musculoskeletal Advanced Practice (MSK AP) Standards (ARMA, 2022). The work built upon the International Federation of Orthopaedic Manipulative Physical Therapists (IFOMPT) Standards (2016) as a recognised model of international best practice in the MSK professions. The MSK Advanced Practice Standards recommend the specific knowledge, skills and behaviours expected at an advanced level of practice in the UK and were developed in consultation with IFOMPT (see Appendix 2 for further details).

The aim of the current Framework is to expand on these MSK Advanced Practice Standards and to articulate the specific learning outcomes, capabilities and governance expected of MSK advanced practice educational curricula in England. The Framework is designed with the primary objective of preparing advanced practice MSK trainees in England to address the holistic health and social care needs of the MSK population seen within the NHS and NHS-funded services. This will help meet the workforce transformation ambitions of the NHS Long Term Plan (2019), NHS England People Plan (2020) and the personalised care agenda. A late-draft version of this document was shared for feedback in March 2023. An analysis of the feedback gained was used to inform its completion.

#### Patient and public involvement

Feedback from individuals with lived experience of MSK conditions and of accessing MSK services has helped inform the Framework's development. Lived experience representatives from NHS England public and patient involvement (PPI) groups and from the Arthritis and Musculoskeletal Alliance (ARMA) have contributed to the Framework's development via their participation in the UK MSK partnership group.

Public consultation on the UK MSK Advanced Practice Standards document took place in July 2021. The Standards were subsequently published by ARMA and informed the development of this Framework. A further opportunity for public and patient feedback on a late draft of this document was provided in March 2023.

# **Appendix 3: Acknowledgements**

The development and implementation of the Advanced Practice Musculoskeletal Curriculum and Capabilities Framework was project managed by Nick Sullivan (NHS England: Workforce, Training and Education [WTE] Directorate Regional Advancing Practice Faculty Lead) on behalf of the NHS England Centre for Advancing Practice, in conjunction with Dr Sally Gosling (NHS England subject matter expert, credentials), Dr Yvonne Coldron, Simon Ingram, Luke Watson and Nick Worth (Regional Advancing Practice Supervision & Assessment Leads, NHS England [WTE]). Additional subject matter expertise in the development of the framework was provided by Professor Karen Beeton (University of Hertfordshire), Amanda Hensman-Crook (NHS England MSK subject matter expert), Dr Tim Noblet (St George's University Hospitals NHS Foundation Trust and St George's, University of London), Helen Welch (Musculoskeletal Association of Chartered Physiotherapists), Dr Neil Langridge (AECC University College) and the UK Musculoskeletal Partnership Group.

This framework was built on, and is underpinned by, the UK MSK Advanced Practice Standards developed by the UK MSK Partnership Group. Their work was informed by the International Federation of Orthopaedic Manipulative Physical Therapists (IFOMPT) Standards (2016), on whose learning outcomes and underpinning capabilities the MSK AP Standards were based. The UK MSK Partnership Group included representation from across the breadth of professions specialising in MSK care in the UK, from both the NHS and independent sectors. It also includes representation from patient and public involvement groups, national bodies, arm's length bodies and other multi-professional MSK organisations and special interest groups as listed below:

Acupuncture Association of Chartered Physiotherapists (AACP)

Advanced Practice Physiotherapy Network (APPN)

Arthritis and Musculoskeletal Alliance (ARMA)

Association of Chartered Physiotherapists in Sports and Exercise Medicine (ACPSEM)

Association of Trauma and Orthopaedic Chartered Physiotherapists (ATOCP)

Best MSK Health Collaborative

British Association of Hand Therapists (BAHT)

Chartered Society of Physiotherapy (CSP)

Faculty of Sports and Exercise Medicine UK (FSEM) / British Association of Sports and Exercise Medicine (BASEM)

General Osteopathic Council (GOC)

Health Education England (HEE)

International Federation of Orthopaedic Manipulative Physical Therapists (IFOMPT)

Musculoskeletal advanced practice area specific capability and curriculum framework

Musculoskeletal Association of Chartered Physiotherapists (MACP)

NHS England & NHS Improvement (NHSE/I)

NHSE/I Patient & Public Involvement (PPI) group representative

Patient and Public Group (PPG) lived experience representative

Physio First

Physio Matters

Physiotherapy Pain Association (PPA)

Public Health England (PHE)

Royal College of Podiatry (RCP)

Society of Musculoskeletal Medicine (SOMM)

We recognise the value of the multi-professional workforce in helping support people living with MSK conditions, so it has been a privilege to collaborate with a diverse group of experts from a range of professions and backgrounds to bring this document to completion. We are grateful for contributions from the numerous professional bodies, organisations, special interest groups and individuals. Their shared expertise, insights, judgement and tenacity have been invaluable in building and developing the consensus required to publish this document.

# **Appendix 4: References**

ARMA (2022) The United Kingdom Musculoskeletal Advanced Practice Standards.

Byles S, Ling R. (1989) Orthopaedic out-patients—a fresh approach. Physiotherapy; 75(7):435–7.

Davies, D. S. C. et al. (2019) 'UK Chief Medical Officers' Physical Activity Guidelines', Department of Health and Social Care, (September), pp. 1–65.

Hussenbux, A., Morrissey, D., Joseph, C. and McClellan, C.M. (2015) Intermediate care pathways for musculoskeletal conditions--are they working? A systematic review; Physiotherapy; Mar;101(1):13-24. doi: 10.1016/j.physio.2014.08.004.

International Federation of Orthopaedic Manipulative Physical Therapy (IFOMPT) standards (2016).

NHS (2019) NHS Long Term Plan

NHS England (2025) Multi-professional framework for advanced practice in England -Advanced Practice NHS England (2025) NHS England » Musculoskeletal health

NHS England (2020) We are the NHS: People Plan for 2020/21 - action for us all.

Noblet, T., Marriott, J., Hensman-Crook, A., O'Shea, S., Friel, S. & Rushton, A. (2020). Independent prescribing by advanced physiotherapists for patients with low back pain in primary care: A feasibility trial with an embedded qualitative component. PLoS ONE [Electronic Resource], 15, e0229792.

Noblet T et al. (2021) 'Accreditation of Advanced Clinical Practice of Musculoskeletal Physiotherapy in England: a qualitative two-phase study to inform implementation' Physiotherapy.

ONS (2021) 'Overview of the UK population: January 2021', Overview of the UK population: July 2017, 2019(July), pp. 1–17.

Quality Assurance Agency (QAA) (2024) The Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies.

Versus Arthritis (2021a) 'The State of Musculoskeletal Health 2021'.

Versus Arthritis (2021b). Chronic pain in England: Unseen, unequal, unfair.

World Health Organization (2001). The International Classification of Functioning, Disability and Health (ICF). Geneva: WHO.

# Appendix 5: Mapping

# Mapping of the MSK Framework capabilities to the Multi-professional framework for advanced practice in England (2025)

MSK Frame- work	Domain A - Person-centred care	Multi- Professional Framework
A1	Integrate and critically apply evidence informed approaches in health promotion and preventative care programmes within and beyond MSK practice.	1.5, 1.7, 1.10, 2.9, 4.3
A2	Lead enhancement and promotion of the rights of the patient, being a patient advocate for inclusive, person-centred care that fosters active patient participation in care planning and respects the individual's wishes, goals, attitudes, beliefs and personal circumstances, challenging practice when felt to not meet the standards of individualised care.	1.4, 1.5, 2.2, 2.10
A3	Demonstrate advanced verbal, non-verbal, written and technological communication skills to include empathy, active listening, questioning strategies, and interpersonal skills to obtain pertinent information from the patient with a critical review of processes, to enable safe and effective MSK practice.	1.1, 1.4, 1.5, 1.6, 2.3, 2.11, 4.6
A4	Discuss complex information of the MSK assessment findings and clinical diagnosis appropriately with individuals to enable a collaborative, person-centred consideration of management options and facilitate effective shared decision making.	1.2, 1.4, 1.5, 1.6, 1.11, 2.2
A5	Critically evaluate and select appropriate person-centred approaches, applying advanced knowledge of psychological and social determinants of health, to build effective therapeutic relationships and inform assessment and management strategies in MSK practice.	1.4, 1.5, 1.6, 1.8, 1.9, 1.10, 2.2, 2.9, 2.10, 3.3, 4.4
A6	Demonstrate advanced awareness, and critical evaluation, of the influence of the own practitioner's lived experience and behaviour on therapeutic alliance and champion person-centred care within multidisciplinary teams (MDT).	1.3, 1.5, 1.6, 1.7, 1.10, 1.11, 2.1, 2.2, 2.4, 2.11, 4.2
A7	Lead feedback on, and evaluation of MSK services to meet the needs of the individual, their families and carers in response to population health needs, setting the direction for the MDT and crossing professional boundaries where required.	1.1, 1.2, 1.4, 1.5, 1.7, 1.9,1.10, 2.1, 2.2, 2.3, 2.5, 2.6, 2.9, 4.2, 4.4

MSK Frame- work	Domain B - Assessment, investigations and diagnosis	Multi- Professional Framework
B1	Use critical thinking to inform assessment, diagnosis and decision making related to differentiated and undifferentiated MSK conditions by synthesising information from multiple sources to make appropriate and evidence-based judgements.	1.4, 1.6, 1.11
B2	Critically appraise and apply person-centred consultation styles to actively involve patients, carers and families in shared decision-making, by exploring patient expectations and preferences alongside the risks, benefits and consequences of available assessment and management options.	1.4, 1.5, 1.10, 2.2
B3	Demonstrate a critical understanding of contemporary MSK sciences using a biopsychosocial framework in the examination of people with MSK conditions that also considers the impact on fitness to work health inequalities, the wider social and environmental determinants of health in line with local/national population health needs and the International Classification of Functioning, Disability and Health (ICF) (Word Health Organisation, 2001).	1.5, 1.6, 1.10
B4	Critically apply advanced clinical reasoning and decision-making models related to the diagnosis and prognosis of MSK conditions including critical awareness of common decision-making errors through critical reflection of their own and others practice and acting on any learning.	1.3, 1.6, 2.3
B5	Critically synthesise and apply knowledge informing common pathology and pain mechanisms related to mitigating diagnostic uncertainty amongst complex, undifferentiated presentations including the MSK system and other related systems where information might be incomplete, ambiguous and conflicting in nature.	1.2, 1.6, 1.11
B6	Integrate and apply critical evaluation of appropriate assessment techniques and tools through understanding of their diagnostic and evaluative qualities (including reliability, validity, responsiveness, and diagnostic accuracy) in the assessment of complex MSK conditions and other contributory factors, such as lifestyle factors (e.g., physical activity, smoking, weight), frailty and mental health.	1.4, 1.6, 1.7
B7	Demonstrate integration of advanced knowledge and clinical reasoning to critically evaluate all clinical information to consider the potential for MSK symptoms to be features of non-MSK conditions (e.g., infectious, metabolic, oncological, inflammatory/autoimmune, neurological,	1.1, 1.2, 1.3, 1.6, 1.9, 1.11, 2.7

	vascular) and manage any potential risk through multi-agency collaboration across organisations or systems by recognising and acting when an early referral and diagnosis may be particularly important for optimising individuals' long term outcomes.	
B8	Critically appraise and lead the application of health-related measures (e.g., patient-reported outcome measures (PROMs), patient-reported experience measures (PREMs) and digital technology, such as wearable devices) to inform the assessment of MSK conditions at an individual and service level to improve quality of care, service delivery and to meet local population health needs.	1.4, 1.6, 1.7, 1.10, 2.3, 2.4, 2.5
B9	Demonstrate critical understanding of the indications, limitations and ability to interpret findings of diagnostic tools used in the assessment of MSK conditions including imaging, blood tests, and neurophysiology using a shared decision-making approach.	1.4, 1.6, 1.11
B10	Demonstrate a critical understanding of managing risk, uncertainty and complexity to assess and diagnose previously undifferentiated and undiagnosed conditions and support others to do likewise, prioritising patient safety through the appropriate use of existing links and the development of new pathways across the organisation and healthcare settings.	1.2, 1.3, 1.6 1.8, 1.9, 2.5, 2.7, 2.11

MSK Frame- work	Domain C - Prevention, condition management and intervention	Multi- Professional Framework
C1	Use expertise and person-centred approaches to critically evaluate the results of treatment, synthesising information from multiple sources and reflection on own practice to appropriately review and modify management plans with consideration of treatment frequency, dosage parameters and progression, and, using appropriate outcome measures, evaluate the effectiveness of MSK practice	1.3, 1.5, 1.6, 1.7
C2	Implement effective, person-centred management plans through shared decision-making with patients with complex or previously undiagnosed MSK conditions, providing them with appropriate rehabilitation programmes, thus promoting wellbeing and self-management through education of patients, carers/caregivers, the public and other healthcare professionals.	1.5, 1.6, 1.7, 1.10
C3	Critically appraise, apply and evaluate a range of rehabilitative and preventative interventions (e.g. information sharing, psychological strategies, manual therapies, motor-learning, exercise prescription and ergonomic strategies within the social and cultural context), as components of multimodal, evidence-informed MSK practice that aims to optimise individuals' pain management, functional ability and wellbeing.	1.2, 1.6, 1.7, 1.11
C4	Integrate evidence-informed practice, reflective practice and person- centred approaches into a collaborative, shared decision-making process with the patient, carers and other health professionals to determine management goals, interventions and measurable outcomes when dealing with complexity, uncertainty and risk in MSK practice	1.2, 1.3, 1.4, 1.6, 1.7, 1.8
C5	Exercise professional judgement and use expertise to critically apply knowledge of psychological, social and behaviour change theory to MSK assessment and management, demonstrating advanced communication skills and a critical awareness of population health needs.	1.1, 1.4, 1.5, 1.6, 1.11
C6	Apply advanced clinical reasoning skills when reviewing and monitoring patients to identify the potential for MSK symptoms to be features of non-MSK conditions when dealing with complexity, uncertainty and risk in the management of patients and working collaboratively with individuals, carers and other health professionals to agree appropriate management plans.	1.1, 1.2, 1.3, 1.4, 1.6, 1.8, 1.9
C7	Integrate, apply and communicate advanced knowledge of preventative, prognostic, and predictive factors of both MSK conditions and broader population health needs to ensure the patient can make informed choice regarding MSK management.	1.1, 1.4, 1.5, 1.6, 1.10

C8	Apply advanced-level treatment techniques and intervention skills utilising clinical reasoning with precision, demonstrating critical reflection of own scope of practice, understanding of risk, personal and professional accountability for actions and adapting when required to enable safe and effective MSK practice that is responsive to individual patient needs and goals.	1.1, 1.2, 1.3, 1.8,
C9	Act as a clinical role model for utilising the effective integration of MSK knowledge, skills and expertise, current evidence-informed best practice from a range of appropriate sources, cognitive and meta-cognitive proficiency within person-centred advanced-level MSK clinical reasoning	1.6, 1.10, 1.11, 2.2
C10	Utilise sound clinical judgement, self-awareness, person-centred approaches and advanced-level critical consideration of risks and benefits, when selecting management options appropriate to individual patients' changing circumstances, environment and biopsychosocial presentation.	1.1, 1.2, 1.3, 1.4, 1.6, 1.8,
C11	Critically apply efficient, effective and safe interventions in patients with complex MSK presentations (e.g., multiple inter-related or separate conditions and/or co-morbidities), working collaboratively with an appropriate range of multi-agency and inter-professional resources to address holistic health and social care needs.	1.1, 1.2, 1.3, 1.9
C12	Demonstrate critical and evaluative understanding of pharmacotherapy and its potential risk and benefits including when to seek appropriate support or onward referral (NB. Non-medical prescribing would require additional training should this be a requirement for an individual's learning needs in their role).	1.4, 1.5,1.7 1.11
C13	Demonstrate critical and evaluative understanding of the role of joint and soft tissue injections, informed by the evidence base in MSK practice and the ability to communicate this information effectively to patients to help them make informed decisions about their care (NB. Performing Injection Therapy would require additional training should this be a requirement for an individual's learning needs in their role).	1.5, 1.7, 1.11
C14	Demonstrate critical and evaluative understanding of surgical interventions in the management of MSK conditions, including their expected benefits, risks and limitations and the importance of shared decision-making with patients that considers alternative management options, rehabilitative interventions and social prescribing.	1.5, 1.6, 1.11

MSK Frame- work	Domain D - Leadership, service development and education	Multi- Professional Framework
D1	Critically apply underpinning leadership theory, change models and methods of developing self and others within the context of leading people within multi-professional MSK services and across organisational boundaries.	1.10, 2.3, 2.4, 2.8
D2	Demonstrate the critical knowledge and skills needed to improve the environmental sustainability of health systems, and how the environment and human health interact at diverse levels through horizon scanning and influencing others to implement new ways of working.	1.10, 2.5, 2.9, 2.10
D3	Provide relevant information and resources to lead members across the MDT to work towards the top of their scope of practice aligned to legislation, policies, procedures and best practice at an organisational and regional level.	1.5, 2.7, 2.11, 3.6, 4.1, 4.6
D4	Critically evaluate and audit own and others' practice across all pillars, to identify and address learning needs relevant to MSK Advanced Practice and role model a culture of learning within the team and wider organisation.	3.1, 3.4, 3.5, 3.6, 3.8, 4.2
D5	Provide leadership, education and coaching to facilitate professional and personal development within MSK services and across organisational boundaries including the designing, planning and delivery of multi- professional learning activities.	2.4, 3.2, 3.4, 3.5, 3.6, 3.7, 3.8
D6	Within MSK services, demonstrate leadership in culturing, innovation, the development and implementation of policy, governance and quality assurance.	1.9, 4.6
D7	Lead and co-ordinate supervision of others by applying a critical awareness of supervision and education theory to support work-based learning and the development of others across MSK services.	3.2, 3.4, 3.5, 3.8
D8	Critically analyse and utilise population health data to create services, systems and processes that consider health inequalities, meet local population need and are co-produced through collaboration.	1.10, 2.5, 2.6, 2.9

MSK Frame- work	Domain E – Research	Multi- Professional Framework
E1	Demonstrate a critical understanding of the need for development of further evidence in MSK practice and the role of research in advancing professional knowledge, by networking with those in academic, clinical and research settings.	4.3, 4.4, 4.8
E2	Critically evaluate and identify gaps in the current evidence base through a systematic search and appraisal, in order to generate appropriate quantitative and qualitative research questions.	4.2, 4.5
E3	Critically and effectively execute a research project relevant to MSK practice, addressing all ethical considerations, selecting appropriate data analysis procedures and disseminating findings through relevant media and stakeholders to inform MSK best practice.	4.1, 4.5, 4.7
E4	Critically appraise, synthesise and contribute to MSK and related research, quality improvement projects, service evaluation and audit and use the results to shape and improve patient care.	4.2, 4.3, 4.7

# Appendix 6: Prerequisite MSK knowledge and skills

Advanced-level practice relating to the management of musculoskeletal (MSK) conditions covers a broad range of areas. To engage with its demands, practitioners therefore already need to hold a breadth of professional knowledge, skills and behaviours (KSBs).

Practitioners' development and demonstration of the advanced practice capabilities set out in this Framework should directly build on their fulfilment of the professional standards set by the professional body and statutory regulator relevant to the practice of their profession. Before engaging with this Framework, practitioners therefore need to meet the relevant regulatory and professional standards through the prism of exercising MSK-specific knowledge, skills and behaviours as experienced, autonomous healthcare professionals.

Below is a list of the knowledge, skills and behaviours that practitioners should hold as prerequisites to engaging with the demands of advanced-level practice within MSK and developing the specific capabilities set out in this Framework. The list is supplied for guidance purposes. It is not intended to be exhaustive or fixed. It should therefore be used with due flexibility.

The list should be used in conjunction with the Framework eligibility criteria to gauge all prospective trainees' suitability and readiness to engage with the Framework.

The list's use should support and inform the following:

- How education providers undertake learning needs analyses with individual practitioners as prospective trainees.
- Decision-making about individual practitioners' readiness to engage safely, effectively and efficiently with the full demands of the Framework.
- Considering regulated practitioners from diverse professional backgrounds, including individuals whose prior MSK learning, and development is different from that of practitioners for whom MSK has been a fundamental part of their pre-registration education and professional training.
- Considering whether individual practitioners have specific learning needs that they need to address before they are ready to engage with the Framework.

#### Indicative list of prerequisite knowledge, skills and behaviours

- Efficient and clear written communication skills, including relating to record-keeping and documenting informed consent for effective and safe MSK practice, in line with professional and medico-legal requirements.
- A comprehensive knowledge of:
  - Anatomy, physiology, biomechanics, static and dynamic function.
  - The principles of active and passive movement of the articular and neuromuscular systems.

- The application of the above comprehensive knowledge to assess the MSK system and interpret this assessment.
- A comprehensive and critical knowledge of valid and reliable safety/screening tests used for managing MSK conditions.
- The ability to
  - Prioritise effectively in examining and managing patients with MSK conditions.
  - Demonstrate learning through the precise and timely reassessment of patients.
- Problem-solving skills in managing MSK conditions, including through demonstrating accuracy, precision and lateral thinking in all aspects of MSK clinical practice.
- A comprehensive knowledge of pathological processes and examination procedures to enable differential diagnosis relating to MSK and non-MSK systems; depending on individual scope of practice, this may include, but is not limited to, cardiovascular, respiratory, neurological, dermatological, genitourinary, visceral, and lymphatic conditions.
- The critical application of models of clinical-reasoning, including
  - Hypothetico-deductive and pattern recognition processes (including the various categories of hypothesis generation and testing used in MSK practice relating to diagnosis, management and prognosis).
  - Narrative-based approaches (particularly related to the stories people form in relation to their MSK condition and associated social determinants of health relating to MSK conditions).
- The critical application of knowledge relating to the management of MSK dysfunction, including
  - o Treatment indications, contraindications, precautions and effects,
  - Effectiveness and risks
  - Best practice,
  - The accurate prediction of prognosis.
  - The formulation of realistic outcomes.
- Awareness of the physical, psychological and social factors that may result in a pain flare-up and strategies that can be deployed to assist patients to
  - Identify their own flare-up risk factors.
  - Use management strategies as a normal part managing their long-term MSK condition.
  - Minimise the impact of flare-ups
- A comprehensive and critical knowledge of physical, manipulative, exercise, rehabilitative, and other therapeutic adjuncts to MSK care provision, e.g.,

- Taping.
- Acupuncture.
- Digital technology (including apps and wearables).
- Electrotherapy modalities.
- Approaches to support individual patients' adherence to rehabilitation interventions, including through using a range of digital media to enhance treatment effectiveness.

# Appendix 7: Trainees' workplace supervision arrangements

Individual trainees should have the following supervision arrangements in place:

- A coordinating education supervisor who provides continuity throughout a trainee's progression through the Framework and has an in-depth understanding of the trainee's role within the speciality and their learning and development needs to meet the Framework requirements in full.
- One or more associate workplace supervisors who work collaboratively with the coordinating education supervisor to guide the trainee's development in one or more of the four pillars of practice.

If a trainee's coordinating education supervisor is on leave for four weeks or more, alternative supervisor arrangements should be made for them.

Fuller expectations about how the two roles are fulfilled are set out in the following Centre for Advancing Practice Workplace Supervision for Advanced Practice.

#### Workplace supervision role criteria

Coordinating education supervisors must meet the following criteria:

- Be an experienced practitioner.
- Have completed formal supervisor development.
- Note: Examples of formal training include clinical educator programmes; a
  postgraduate certificate in clinical education; practice educator programmes; local
  supervisor training courses aligned to the Workplace Supervision for Advanced
  Practice and minimum standards guidance for clinical supervision
- Have completed the "Readiness to Supervise" checklist (see above) before taking on the role.

If coordinating education supervisors are an advanced practitioner, they must normally have been working at advanced practice level for a minimum of three years. There should be clear justification for an advanced practitioner with less than three years' experience undertaking the role.

Associate supervisors must meet the following criterion:

• Demonstrate expert knowledge and capability in the area of practice they are supervising.