

Curricula for training advanced practice providers as part of the physiatrist-led team

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INTRODUCTION

The American Academy of Physical Medicine and Rehabilitation (AAPM&R) believes that all patients should have access to quality, timely care that results in optimal function and quality of life. Across settings, team-based care is at the core of physiatric practice. Physiatrists are leaders of multidisciplinary teams that increasingly include advanced practice providers (APPs) who are non-physicians, including nurse practitioners (NPs) and physician assistants (PAs). According to a 2017 PM&R Compensation Survey, 70% of AAPM&R members at that time worked with APPs in practice. In an AAPM&R member needs assessment survey conducted in 2023, 76% of respondents indicated that they work with APPs.

AAPM&R has heard clearly from members that they could use support in onboarding and training their APPs in basic rehabilitation principles so that they can more effectively support physiatrists and their team, thereby allowing physiatrists to practice at the top of their training and reducing burnout. Currently there is no standardized approach to education and training for APPs or resources that a physiatrist can reference that outline the knowledge and skills needed to be the leader of a physiatry-led team. Because of this, the Academy convened a workgroup to develop

curricula to support the training and onboarding of APPs. This resulted in the development of two curricula, *Curriculum for Training Advanced Practice Providers as Part of the Physiatrist-led Team* and *Curriculum for Physiatrists Leading Teams that Include Advanced Practice Providers*. Each curriculum serves a specific role for training and onboarding APPs, and although they are two different documents, they were developed to complement each other and are available online (curricula.aapmr.org).

SCOPE

The intended audience of the *Curriculum for Training Advanced Practice Providers as Part of the Physiatrist-led Team* is physiatrists who lead APPs and are interested in their training needs. It is not intended to expand the role of APPs or to replace the role of physiatrists. It is intended to help physiatrists train their APPs and define the boundaries of what APPs should *not* be doing as a member of the team. In 2019, AAPM&R released the *Optimizing the Role of the Advanced Practice Provider in Physiatry-led, Patient-Centered, Team-Based Care* position statement, which strongly states the Academy's ongoing position that APPs should *not* practice independently, but instead

work under the supervision of a PM&R physician within a rehabilitation team.

In line with this position, the curriculum is designed to help foster relationships between the physiatrist and APP. It outlines the current competencies that are essential to ensure that APPs have the foundation required to be successful in optimizing patient care under the guidance of a physiatrist. The document is aspirational, and the authors recognize that APPs are not likely to be utilized across all included content domains. In addition, this curriculum does not recommend any specific model for collaboration and teamwork. How physiatrists use this document will depend on their individual setting and assessment of their APPs' knowledge, skills, and attitudes. It is intended to focus on the core competencies across settings and functions, and is, therefore, based very broadly on the outline of PM&R Knowledge NOW, AAPM&R's comprehensive resource across the specialty of PM&R. This document intentionally does not include competencies related to procedures, independent interpretation of test results, and other functions thought to be the sole purview of physiatrists, which includes, but is not limited to, radiologic, laboratory, and electromyographic studies.

The *Curriculum for Physiatrists Leading Teams that Include Advanced Practice Providers* was developed as a companion document intended for physiatrists who lead APPs and who need resources for how to recruit, integrate, and support physiatrists as part of their team. This curriculum focuses on competencies for physiatrists who lead multi-disciplinary teams with APPs and was developed in conjunction with the *Curriculum for Training Advanced Practice Providers as Part of the Physiatrist-led Team*.

METHODS

Both curricula were written by AAPM&R's APP Curriculum Workgroup, overseen by AAPM&R's Medical Education Committee (MEC). The workgroup consisted of eight physiatrist members who work with APPs in diverse settings and clinical areas. Both curricula were developed in accordance with AAPM&R's approach and process for curricula in specialized topics, but with modifications. Although other curriculum documents typically have both "Core" and "Specialized" competencies, only Core competencies were included in these documents as is appropriate for APP scope of practice on a physiatrist-led team. In addition, the process for development of these documents includes a Call for Comment from members to ensure transparency and invite feedback.

For each curriculum, the Workgroup followed an established peer-review process including virtual and in-person meetings over 6 months to accomplish the following:

- Review the process that the Academy uses for developing curricula, including the structure, terms, and template;
- Define the parameters and assumptions for the curricula including the target audience, scope of content, and the organization of the documents;
- Develop the knowledge, skills, and attitudes (KSAs) that define the competencies;
- Discuss and vet the competencies and their level of difficulty through an in-person peer-review process;
- Collect input from AAPM&R Members to ensure the information within the curricula is representative of physiatrists across the specialty; and
- Finalize the content and submit for review by AAPM&R's Medical Education Committee, with final approval by AAPM&R's Board of Governors.

STRUCTURE

The *Curriculum for Training Advanced Practice Providers as Part of the Physiatrist-led Team* is broken down into eight content areas as outlined below, with competencies in each section defined by specific KSAs.

- Fundamentals of Physiatric Principles
- Medical Rehabilitation
- Musculoskeletal
- Neurorehabilitation
- Spine
- Pediatrics
- Practice Management
- Physician Curriculum

The *Curriculum for Physiatrists Leading Teams that Include Advanced Practice Providers* is broken down into six content areas as outlined below, with competencies in each section defined by specific KSAs.

- Recruitment
- Onboarding and Training
- Supervision
- Billing and Reimbursement
- Periodic Performance Review and Compensation
- Planning/Credentialing

As the field of PM&R continues to grow, and as more APPs join physiatry-led teams, it is important to ensure that PM&R physicians are provided with the tools needed to train APPs and incorporate them into their practice. Both curricula are expected to be living documents and will be updated accordingly.

ADVANCED PRACTICE PROVIDERS WORKGROUP

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DISCLOSURES

Dr Smith is Sr VP, Clinical Care for Medrina (paid) and VP, Clinical Care LightYear Health.

You can access this curriculum and the other curricula in this series at curricula.aapmr.org.

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Curriculum for Training Advanced Practice Providers as Part of the Physiatrist-led Team

FUNDAMENTALS OF PHYSIATRIC PRINCIPLES COMPETENCY				CORE		
				1	2	3
	Knowledge	Skill	Attitude	Basic	Intermediate	Advanced
UNDERSTANDING THE SPECIALTY						
Summarize Rehabilitation Philosophy.	X			X		
Describe Functional Assessment.	X			X		
Describe Environmental Assessment.	X			X		
Explain the importance of focused caregiver and patient education.	X			X		
Differentiate between inter-, multi- and transdisciplinary teams.	X			X		
Identify and describe roles within Physical Medicine and Rehabilitation (PM&R), including medical/nursing, neuropsych, social work, vocational therapy, physical therapy, occupational therapy, speech therapy, etc.	X			X		
Outline models of disability as defined by the International Classification of Functioning, Disability, and Health (ICF).	X			X		
Relate the role of physiatry in different levels of care: acute, inpatient rehab, skilled nursing facility (SNF), long-term acute care (LTAC), outpatient.	X			X		
Discuss the continuum of care in rehabilitation from acute care, post acute care, and community reintegration.	X			X		
CATEGORIZING PATIENTS						
Participants should be able to categorize patients by:						
- Body system (central nervous system [CNS], musculoskeletal [MSK], general)	X			X		
- Location (acute care consultation, inpatient rehabilitation facility [IRF], SNF, long-term acute care hospital [LTACH], outpatient)	X			X		
- Age (pediatric, adult, geriatric)	X			X		
- Functional abilities (mobility, activities of daily living [ADLs], cognitive-communication)	X			X		
- Pain etiology (acute vs chronic, neuropathic vs nociceptive)	X			X		
PHYSIATRIST AND ADVANCED PRACTICE PROVIDER (APP) CARE TEAMS						
Discuss models for how APPs contribute to the PM&R team in the following settings:						
- Inpatient consultation service	X				X	
- PM&R inpatient rehab service	X				X	
- Outpatient PM&R service	X				X	
- Interventional procedures		X				X
SCOPE OF PRACTICE						
Evaluate relevant state and federal requirements as they pertain to the APP scope of practice.	X			X		
Describe relevant institutional requirements as they relate to APP scope of practice.	X			X		
Summarize relevant payor requirements for reimbursement.	X			X		
Contrast various models of team-based care in outpatient practices.	X			X		
Describe and assess personal competencies in partnership with a supervising physiatrist.	X			X		
Identify when physiatrist supervision is necessary or required.	X			X		

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FUNDAMENTALS OF PHYSIATRIC PRINCIPLES COMPETENCY				CORE		
				1	2	3
	Knowledge	Skill	Attitude	Basic	Intermediate	Advanced
INPATIENT PHYSIATRIC FOCUSED FUNCTIONS						
Formulate primary and secondary rehabilitation diagnoses.	X			X		
Describe common medical management issues related to rehabilitation diagnoses.		X			X	
Assess functional prognostication and optimization of the rehabilitation plan of care.			X			X
Propose discharge plan (including next level of rehab care, medications, durable medical equipment [DME], and continuum of care).		X			X	
Compare various models for managing co-morbidities and working collaboratively with other specialties.	X			X		
OUTPATIENT PHYSIATRIC FOCUSED PRACTICE						
Describe typical outpatient rehabilitation diagnoses.	X			X		
Distinguish between rehab therapy tools typically used in outpatient physiatric practice.	X			X		
Identify medications typically used in outpatient physiatric practice.	X			X		
Discuss types of DME commonly used in outpatient physiatric practice.	X			X		
List common diagnostics utilized in outpatient physiatric practice.	X			X		
Demonstrate common interventional procedures utilized in outpatient physiatric practice.	X			X		

Curriculum for Training Advanced Practice Providers as Part of the Physiatrist-led Team

MEDICAL REHABILITATION COMPETENCY				CORE		
				1	2	3
	Knowledge	Skill	Attitude	Basic	Intermediate	Advanced
BASIC CONCEPTS						
Outline common medical conditions in medical rehabilitation, including:						
- Cardiac	X			X		
- Pulmonary	X			X		
- Vascular	X			X		
- Veinous	X			X		
- Amputation	X			X		
- Wounds	X			X		
- Cancer	X			X		
- Transplant	X			X		
- Polytrauma	X			X		
- Burns	X			X		
- Geriatric disorders	X			X		
- Major multi-trauma	X			X		
- Hip fracture	X			X		
- Osteoporosis	X			X		
- Fragility fractures	X			X		
- Obesity	X			X		
- Infectious diseases	X			X		
- Critical care	X			X		
Explain the physiologic processes involved in healing from injury and illness.	X			X		
Summarize the concepts of immobility and bedrest.	X			X		
BASIC TECHNIQUES - SCREENING AND EXAMINATION						
Engage care team members in determination of patient medical and functional status.		X			X	
Collaborate with care team members, patients, family/caregivers to coordinate and manage preparations and transitions in care.		X			X	
Detect acute changes in medical/functional status that impact rehabilitation.	X				X	
Customize the medical exam to the patient's functional status and/or site of care.		X			X	
DIAGNOSTICS - RECOGNIZING THE NEED FOR FURTHER INVESTIGATION						
Recognize indications and implications of diagnostic imaging and need for further studies.	X			X		
Recognize indications and implications of laboratory testing and need for further studies.	X			X		
Analyze indications for electrodiagnostic testing in acute and post acute rehabilitation settings.	X			X		

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MEDICAL REHABILITATION COMPETENCY				CORE		
				1	2	3
	Knowledge	Skill	Attitude	Basic	Intermediate	Advanced
ASSESSMENT AND PLANNING						
Discuss basic goals of therapy for qualifying diagnoses and conditions.	X			X		
Justify common medication prescriptions and stewardship for qualifying diagnoses and conditions.	X			X		
Engage in goal-setting conversations, incorporating both short-term and long-term objectives.		X			X	
Assess and manage potential complications or barriers to rehabilitation success.		X			X	
Continuously revise rehabilitation plans to incorporate changes in medical status or goals.		X				X
Collaborate with patients, families, and other healthcare professionals to ensure continuity of care and optimal functional outcomes.	X				X	
Prioritize rehabilitation goals based on medical stability, patient preferences, and potential for functional improvement.	X				X	
Determine appropriateness for various levels of rehabilitation services considering patient's medical, functional, social, and psychosocial factors.	X					X
Determine appropriate DME, orthotic, and assistive device needs.	X				X	
Predict potential discharge needs and prepare patients for transitions in care.		X				X
Propose treatment plan to the physiatrist.		X				X

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MUSCULOSKELETAL (MSK) COMPETENCY				CORE		
				1	2	3
	Knowledge	Skill	Attitude	Basic	Intermediate	Advanced
BASIC PRINCIPLES - IDENTIFYING COMMON PATHOLOGIES AND DISORDERS						
Compare the pathophysiology of acute vs chronic injury/pain based on history and presentation.	X			X		
Describe common disorders of the upper limb that include the shoulder, elbow, wrist, or hand.	X				X	
Identify common shoulder pathologies: rotator cuff tendon and muscle pathologies; traumatic injuries such as fractures, separations, and soft tissue tears; overuse/degenerative disorders; shoulder neuropathies, and acromioclavicular (AC) joint disorders.	X					X
Discuss common elbow pathologies: acute elbow injuries and overuse disorders, tendinopathies, and elbow neuropathies.	X					X
Recognize common wrist and hand pathologies: wrist and hand overuse disorders/arthropathies; neuropathies of the wrist and hand, sports and occupational injuries of the hand/wrist.	X					X
Outline common disorders of the lower limb that include the pelvis, hip, thigh, knee, ankle, or foot.	X				X	
Identify common pelvis, hip, and thigh pathologies: anterior and medial hip sports, occupational and musculoskeletal disorders; posterior and lateral hip sports, occupational, and musculoskeletal disorders; hip and pelvic arthropathies and labral tears; hip and pelvis neuropathies and plexopathies.	X					X
Describe common knee pathologies: meniscal injuries; medial and lateral collateral ligament injuries; knee osteoarthritis (OA), patellofemoral syndrome; knee overuse disorders; knee soft tissue disorders; knee bone disorders; traumatic knee fractures; septic arthritis; knee neuropathies; tumors of the knee.	X					X
Discuss common ankle and foot pathologies: overuse disorders; achilles tendinopathy; chronic ankle instability; arthropathies; neuropathies; soft tissue injuries and fractures; pes planus; pes cavus; plantar fasciitis; gout/psuedogout.	X					X
Identify myofascial pain syndromes.	X				X	
Recognize common gait dysfunction related to MSK disorders.	X				X	
BASIC TECHNIQUES - SCREENING AND EXAMS						
Perform neurovascular screening exam.		X		X		
Perform range of motion (ROM) and strength screening exam of the upper extremity .		X			X	
Demonstrate common special tests for the upper extremity .		X				X
Perform ROM and strength screening exam of the lower extremity .		X			X	
Demonstrate common special tests for the lower extremity .		X				X
Screen for common gait dysfunction related to MSK disorders.		x			X	
Describe indications for common procedures: trigger point injections, neurotoxins, nerve blocks, joint.	X				X	
DIAGNOSTICS - RECOGNIZING THE NEED FOR FURTHER INVESTIGATION						
Summarize indications for basic diagnostic imaging (X-ray) for above pathologies.	X				X	
Describe indications for advanced diagnostic imaging (ultrasound, computed tomography [CT], magnetic resonance imaging [MRI]) for above pathologies.	X					X
Relate indications for electrodiagnostic testing.	X					X
Explain indications for laboratory testing.	X					X

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MUSCULOSKELETAL (MSK) COMPETENCY				CORE		
				1	2	3
	Knowledge	Skill	Attitude	Basic	Intermediate	Advanced
ASSESSMENT AND PLANNING						
Define basic goals of therapy for above pathologies of the upper and lower extremities.	X				X	
Discuss common medication prescriptions for above pathologies to include risks/side effects.	X				X	
Explain the principles and techniques of injection and other interventions.		X				X
Recommend referrals based on above pathologies of the upper and lower extremities.	X				X	
Recognize the need for orthotics and assistive devices.						
Propose a treatment plan to the physiatrist.		X				X

Curriculum for Training Advanced Practice Providers as Part of the Physiatrist-led Team

NEUROREHABILITATION BASIC CONCEPTS				CORE		
				1	2	3
	Knowledge	Skill	Attitude	Basic	Intermediate	Advanced
OUTLINE THE COMMONLY SEEN NEUROREHABILITATION CONDITIONS:						
- Stroke (ischemic, embolic, intracranial bleed)	X			X		
- Brain injury (traumatic, non-traumatic, concussion)	X			X		
- Spinal cord injury (SCI) (traumatic , non-traumatic)	X			X		
- Peripheral nervous system	X			X		
- Oncological/neoplasm (brain, spinal cord)	X			X		
- Immune-mediated and neurodegenerative disorders of the nervous system	X			X		
- Other	X			X		
Relate the expected patterns of neurorecovery seen in the above conditions.	X			X		
BASIC TECHNIQUES - SCREENING AND EXAMINATION						
Participants should be able to perform the following for all neurorehabilitation populations:						
- complete neurological examination to identify pattern and extent of deficits in motor/sensory function, reflexes, special testing (eg, American Spinal Injury Association [ASIA] Impairment Scale)		X		X		
- assessment of cognitive and communication function to rule out deficits (eg, Montreal Cognition Assessment [MOCA], Galveston Orientation Amnesia Test [GOAT], Rancho Los Amigos Scale [RLAS])		X		X		
- assessment of muscle tone and quantification of spasticity using appropriate measurement scales		X			X	
- assessment of swallowing status for determination of hydration and nutrition planning		X		X		
- assessment of bladder and bowel function		X				
- assessment of thromboembolism risk status		X			X	
- assessment of heterotopic ossification, bone health		X		X		
- assessment of adjustment and mood		X			X	
- assessment of skin		X		X		
- assessment of balance, gait, and fall risk		X		X		
- assessment of autonomic dysfunction (eg, storming, dysreflexia)		X			X	
- assessment of pulmonary status (respiratory insufficiency)		X			X	
- assessment of pain patterns (eg, neurogenic, central mediated, complex regional pain syndrome [CRPS])		X			X	
Explain physiologic processes involved in healing from injury and illness.	X			X		
Summarize the concepts of immobility and bedrest.	X			X		
Engage care team members in determination of patient medical and functional status.		X			X	
Collaborate with care team members, patients, family/caregivers to coordinate and manage preparations and transitions in care.		X			X	
Detect acute changes in medical/functional status and neurorecovery that impact rehabilitation.	X				X	
Customize the medical exam to the patient's functional status and/or site of care.		X			X	

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NEUROREHABILITATION BASIC CONCEPTS				CORE		
				1	2	3
	Knowledge	Skill	Attitude	Basic	Intermediate	Advanced
DIAGNOSTICS - RECOGNIZING THE NEED FOR FURTHER INVESTIGATION						
Recognize indications and implications of diagnostic imaging and need for further studies.	X			X		
Identify indications and implications of laboratory testing and need for further studies.	X			X		
Summarize indications and implications of other studies (eg, urodynamics, swallow, electroencephalogram [EEG], bladder ultrasound).	X				X	
Explain indications for electrodiagnostic testing in acute and post acute rehabilitation settings.	X			X		
ASSESSMENT AND PLANNING						
Define basic goals of therapy for qualifying diagnoses and conditions.	X			X		
Justify common medication prescriptions and stewardship for qualifying diagnoses and conditions.	X			X		
Engage in goal-setting conversations, incorporating both short-term and long-term objectives.		X			X	
Assess and manage potential complications or barriers to rehabilitation success.		X			X	
Evaluate and manage acute autonomic emergencies (eg, storming and dysreflexia).		X			X	
Continuously revise rehabilitation plans to incorporate changes in medical status or goals.		X				X
Collaborate with patients, families, and other healthcare professionals to ensure continuity of care and optimal functional outcomes.	X				X	
Prioritize rehabilitation goals based on medical stability, patient preferences, and potential for functional improvement.	X				X	
Determine appropriateness for various levels of rehabilitation services considering patient's medical, functional, social, psychosocial factors.	X					X
Predict potential discharge needs and prepare patients for transitions in care.		X				X
Determine appropriate DME, orthotic, and assistive device needs.	X				X	
Propose treatment plan to the physiatrist.		X				X

Curriculum for Training Advanced Practice Providers as Part of the Physiatrist-led Team

SPINE COMPETENCY				CORE		
				1	2	3
	Knowledge	Skill	Attitude	Basic	Intermediate	Advanced
BASIC PRINCIPLES - IDENTIFYING COMMON PATHOLOGIES AND DISORDERS						
Describe the functional anatomy of the axial spinal regions.	X			X		
Compare the pathophysiology of acute vs chronic injury/pain based on history and presentation.	X			X		
Describe common disorders of the cervical spine : radiculopathy; stenosis, spondylotic myelopathy, zygapophysial joint arthropathy, torticollis in children and adolescents, whiplash, inflammatory arthritides.	X					X
Identify common disorders of the thoracic spine : radiculopathy/myelopathy, zygapophysial joint arthropathy, thoracic outlet syndrome, compression fractures of the spine, costochondritis, chest wall pain.	X					X
Discuss common disorders of the lumbar spine : lumbar disc disorders, radiculopathy, orthotics of spine, stenosis, spondylosis without myelopathy, zygapophysial joint arthropathy, lumbar spondylolisthesis, compression fracture, cauda equina/conusmedullaris syndrome, post-laminectomy pain.	X					X
Recognize common sacral disorders : sacroiliac joint disorders/inflammatory arthritides, sacral insufficiency fractures.	X					X
Outline common coccygeal disorders : fractures/dislocations, coccygodynia, vestigial disc pain.	X					X
Identify common psychosocial components of spine disorders.	X					X
Recognize common gait dysfunction related to spine disorders.	X				X	
BASIC TECHNIQUE - SCREENING AND EXAMS						
Perform posture, ROM, and neuromuscular exam as associated to the spine (manual muscle testing [MMT] and dermatomal sensation, reflexes).		X			X	
Demonstrate common special tests for the cervical spine .		X				X
Perform common special tests for the thoracic spine .		X				X
Demonstrate common special tests for the lumbosacral spine .		X				X
Screen for common gait dysfunction related to spine disorders.		X			X	
Describe indications for common procedures: trigger point injections, neurotoxins, nerve blocks, joint, neuraxial.	X				X	
DIAGNOSTICS - RECOGNIZING THE NEED FOR FURTHER INVESTIGATION						
Summarize basic laboratory tests for above pathologies and when to order.	X					X
Describe basic diagnostic imaging (X-ray) for above pathologies and determine when to order it.	X				X	
Explain advanced diagnostic imaging (CT, MRI) for above pathologies and determine when to order it.	X					X
Relate indications for electrodiagnostic testing.	X					X
ASSESSMENT AND PLANNING						
Define basic goals of therapy: core strengthening, role of manual therapies in musculoskeletal disorders.	X				X	
Discuss common medication prescriptions for above pathologies to include risks/side effects.	X				X	
Recommend referrals based on above pathologies: interventionalist vs surgical.	X				X	
Recognize the need for psychosocial interventions and support.	X				X	
Recognize the need for orthotics and assistive devices.	X				X	
Propose a treatment plan to the physiatrist.		X				X

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SPINE COMPETENCY				CORE		
				1	2	3
	Knowledge	Skill	Attitude	Basic	Intermediate	Advanced
HISTORY						
Obtain a comprehensive medical history, including past spinal surgeries and injuries.	X			X		
Probe for a detailed pain history, including location, duration, quality, and exacerbating/alleviating factors.	X			X		
Assess patient-reported outcomes related to spinal pain, such as disability and quality of life.	X			X		
Identify red flags and alarm symptoms indicating serious underlying spinal conditions.	X				X	
Examine the patient's social and occupational history to gauge the impact of spinal pain on daily life.	X			X		
Evaluate the patient's pain-related beliefs and expectations.	X			X		
Identify risk factors contributing to chronic spinal pain.	X				X	
Recognize psychological and emotional factors influencing spinal pain.	X			X		
Review relevant family and genetic history related to spinal conditions.	X			X		
Document the patient's medical history accurately and comprehensively.		X			X	
Inquire about the patient's previous treatments and their effectiveness.	X			X		
Analyze lifestyle factors that may contribute to spinal pain.	X			X		
Screen for substance abuse or dependence that may affect pain management.	X				X	
Incorporate patient preferences and values into the assessment.	X			X		
Monitor for changes in the patient's pain history and response to treatments over time.	X				X	
PHYSICAL EXAM						
Perform a thorough musculoskeletal and neurological examination of the spine.		X			X	
Evaluate spinal ROM, stability, and deformities.		X			X	
Identify signs of nerve compression or radiculopathy.		X			X	
Record muscle weakness, atrophy, or spasticity related to spinal conditions.		X				X
Administer specialized tests like the straight leg raise test and Spurling's maneuver to assess nerve involvement.		X			X	
Inspect for signs of inflammation or infection in the spine.		X				X
Palpate spinal structures to detect abnormalities or tenderness.		X		X		
Assess for motor and sensory deficits in affected areas.		X				X
Test reflexes and coordination as part of the neurological examination.		X			X	
Compare findings to baseline measurements when available.		X				X
Incorporate patient feedback and observations during the examination.		X		X		
Document physical examination findings accurately and comprehensively.		X			X	
Discuss findings with colleagues and specialists as needed.		X			X	

Curriculum for Training Advanced Practice Providers as Part of the Physiatrist-led Team

SPINE COMPETENCY				CORE		
				1	2	3
	Knowledge	Skill	Attitude	Basic	Intermediate	Advanced
CLINICAL ASSESSMENT						
Utilize relevant imaging modalities (X-ray, MRI, CT scans) appropriately for assessing spinal conditions.	X					X
Interpret radiological findings and correlate them with clinical symptoms.	X					X
Apply validated pain assessment tools to quantify and track spinal pain severity.	X				X	
Distinguish between acute and chronic spinal pain and classify pain by etiology.	X				X	
Evaluate comorbidities impacting spinal pain management (eg, diabetes, osteoporosis).	X				X	
Assess the patient's response to previous treatments and interventions.	X			X		
Formulate a differential diagnoses for various spine conditions.	X					X
Recognize signs of infection or malignancy in spinal assessments.	X					X
Communicate assessment findings clearly to patients and colleagues.		X		X		
Engage in ongoing assessment of patient progress and outcomes.			X	X		
Collaborate with other healthcare providers to gather comprehensive assessment data.			X	X		
Document assessment results accurately and comprehensively.		X		X		
Educate patients about the rationale and implications of diagnostic assessments.	X			X		
CLINICAL MANAGEMENT						
Develop individualized treatment plans for spinal pain based on assessment findings.	X				X	
Set realistic treatment goals and expectations with patients.			X	X		
Prescribe and manage medications for spinal pain, including analgesics and anti-inflammatory drugs.	X				X	
Coordinate and facilitate physical therapy and rehabilitation programs for spinal conditions.		X			X	
Counsel patients on lifestyle modifications and ergonomic principles to improve spinal health.	X			X		
Perform or refer for surgical consultations when appropriate.	X					X
Monitor and adjust treatment plans based on the patient's response and progress.	X				X	
Recognize and manage complications or adverse effects of treatments.	X					X
Remain informed on emerging treatments and technologies in spinal pain management.			X	X		
Educate patients about the potential benefits and risks of treatment options.	X				X	
Incorporate patient preferences and values into treatment decisions.			X	X		
Encourage self-management and home exercises as appropriate.			X	X		
Engage in shared decision-making with patients regarding treatment choices.			X	X		
Promote adherence to treatment plans through patient education and support.			X	X		
Advocate for access to multidisciplinary care when needed.	X		X			

Curriculum for Training Advanced Practice Providers as Part of the Physiatrist-led Team

SPINE COMPETENCY				CORE		
				1	2	3
	Knowledge	Skill	Attitude	Basic	Intermediate	Advanced
TOP FOCUS AREAS						
History						
Prepare to identify red flags and alarm symptoms as early as possible.	X				X	
Assess the patient's psychosocial impact of spinal pain.	X			X		
Evaluate the patient's coping skills and resources.			X	X		
Identify cultural influences on the patient's experience of pain.			X	X		
Physical exam						
Examine the patient's functional status.	X				X	
Evaluate the patient's pain patterns and triggers.	X			X		
Perform a thorough neurological examination.		X			X	
Clinical assessment						
Utilize evidence-based guidelines for the diagnosis and treatment of spinal pain.	X			X		
Employ the latest research on spinal pain management.	X			X		
Collaborate with other healthcare professionals to develop a comprehensive treatment plan.			X	X		
Educate patients about their condition and treatment options.			X	X		
Clinical management						
Develop a personalized treatment plan that takes into account the patient's individual needs and preferences.	X				X	
Provide patients with clear and concise instructions about their treatment plan.	X			X		
Monitor patients closely for any adverse effects of treatment.	X			X		
Educate patients about self-management strategies.	X			X		
PRACTICE-BASED MANAGEMENT						
Maximize cost-efficiency by evaluating treatment options while maintaining quality care for patients.	X			X		
Navigate insurance systems to facilitate patient access to necessary treatments and interventions.	X				X	
Act as an advocate by helping patients understand their insurance coverage and securing prior authorizations for treatments when necessary.			X	X		
Monitor and manage resource utilization to minimize unnecessary costs while maximizing patient outcomes.	X				X	
Apply evidence-based guidelines and best practices in spinal pain management to enhance care quality and reduce healthcare expenses.	X				X	
Recognize and address health disparities, ensuring equitable access to spinal pain care for all patients.			X	X		
Collaborate with healthcare organizations to improve the delivery of spinal pain care, streamlining patient pathways and reducing diagnostic and treatment delays.			X	X		
Educate patients about the financial aspects of treatment choices, including out-of-pocket expenses and potential long-term costs, to enable informed decision-making.	X				X	

Curriculum for Training Advanced Practice Providers as Part of the Physiatrist-led Team

PEDIATRICS COMPETENCY				CORE		
				1	2	3
	Knowledge	Skill	Attitude	Basic	Intermediate	Advanced
BASIC CONCEPTS						
Outline the most common medical conditions in pediatric rehabilitation, including:						
- Cerebral palsy	X			X		
- Spina bifida	X			X		
- Acquired brain injury (traumatic/non-traumatic)	X			X		
- Brachioplexus injury	X			X		
- Torticollis	X			X		
- Neuromuscular disorders	X			X		
- Congenital amputation and limb deficiency	X			X		
- Cancer	X			X		
- Pain disorder	X			X		
- Functional neurologic disorders	X			X		
- Spinal cord injury	X			X		
- Scoliosis	X			X		
- Burns	X			X		
Summarize normal developmental milestones for children.	X			X		
Deliniate the interdisciplinary and multidisciplinary team approach specific to pediatrics.	X			X		
Explain the importance of early intervention and continuum of care to prevent further disability and improve function.	X			X		
Describe the importance of education for caregivers and care providers.	X			X		
Differentiate between congenital and acquired disability.	X			X		
Collaborate with patients, families, and other healthcare professionals to ensure optimal functional outcomes.		X			X	
Recognize the variations in rehabilitation needs contingent upon the child's development progression and stage in life.	X					X
Predict potential long-term needs and prepare patients for transitions in care.		X				X
Identify psychosocial issues that impact rehabilitation potential and plan of care.	X					X
BASIC TECHNIQUES - SCREENING EXAMINATION						
Evaluate developmental milestones for target age.		X		X		
Examine muscle tone using measures such as the Modified Ashworth Scale (MAS), Modified Tardieu Scale (MTS), and Hypertonia Assessment Tool (HAT) to provide appropriate therapy.		X		X		
Perform ROM, manual muscle test and reflexes including primitive reflexes to propose therapy plans.		X			X	
Conduct pain assessment accurately for verbal and non-verbal patients.		X				X
Recommend and manage assistive devices appropriate for pediatric patients.		X			X	

Curriculum for Training Advanced Practice Providers as Part of the Physiatrist-led Team

PEDIATRICS COMPETENCY				CORE		
				1	2	3
	Knowledge	Skill	Attitude	Basic	Intermediate	Advanced
DIAGNOSTICS - RECOGNIZING THE NEED FOR FURTHER INVESTIGATION						
Describe indications for basic diagnostic imaging (X-ray) for above pathologies.	X				X	
Summarize indications for advanced diagnostic imaging (ultrasound, CT, MRI, swallow studies) for above pathologies.	X					X
Explain indications for electrodiagnostic testing in acute and post acute rehabilitation settings.	X					X
Relate indications for other diagnostic studies including urodynamics, EEGs and pulmonary function tests (PFTs).	X				X	
Describe indications for laboratory testing.	X					X
Screen for common gait dysfunction related to pediatric disorders.		X			X	
ASSESSMENT AND PLANNING						
Define basic goals of therapy for qualifying diagnoses and conditions.		X		X		
Justify common medication prescriptions and stewardship for qualifying diagnoses and conditions.		X		X		
Engage in goal-setting conversations, incorporating both short-term and long-term objectives.		X	X		X	
Discuss the potential complications in rehabilitation care related to growth and development.		X			X	
Monitor potential complications or barriers to rehabilitation success.		X			X	
Revise rehabilitation plans to incorporate changes in medical status or goals.		X		X		
Propose a treatment plan to the physiatrist.		X				X

Curriculum for Training Advanced Practice Providers as Part of the Physiatrist-led Team

PRACTICE MANAGEMENT COMPETENCY				CORE		
				1	2	3
	Knowledge	Skill	Attitude	Basic	Intermediate	Advanced
BASIC PRINCIPLES						
Describe the basics of practice guidelines for APP utilization.	X				X	
Outline the basics of the APP contracting and credentialing process.	X				X	
Summarize state requirements for APP scope of practice and licensure.	X				X	
Outline the levels of physician supervision in your state and/or organization.	X				X	
Relate the basics of the Centers for Medicare and Medicaid Services (CMS) Section GG Coding as part of the Patient Driven Payment Model.	X					X
Demonstrate appropriate documentation practices as outlined by the physiatric practice or supervisor.		X			X	
Discuss ethical implications specific to rehabilitation.	X			X		
ASSESSMENT						
Outline common assessment tools to justify authorization/payment (eg, Functional Independence Measure [FIM], Outcome and Assessment Information Set [OASIS], International Classification of Diseases [ICD], the International Classification of Functioning, Disability and Health [ICF], Level of Care Determination [LCD], Minimum Data Set [MDS], Oswestry, Barthel, and Katz).	X					X

Curriculum for Physiatrists Leading Teams that include Advanced Practice Providers

CURRICULUM FOR PHYSIATRISTS LEADING TEAMS THAT INCLUDE ADVANCED PRACTICE PROVIDERS				CORE		
				1	2	3
	Knowledge	Skill	Attitude	Basic	Intermediate	Advanced
RECRUITMENT						
Perform needs assessment and financial pro-forma for APP recruitment.	X			X		
Explain the difference in training background among APPs: nurse practitioner vs physician assistant.	X			X		
Review APP training programs and distinctions in prescriptive authority, supervisory requirements, and rules for written protocols, to determine competency as they pertain to your practice.	X			X		
Create relationships with APP training site.	X			X		
Identify the requirements for supervision between APPs and other training, including resident physicians.	X			X		
Summarize compensation and supervision models for team-based care.	X			X		
Recognize APP professional societies and social networks (American Association of Nurse Practitioners [AANP], American Academy of Physician Associates [AAPA], Facebook).	X			X		
Identify online job boards, recruiting fairs, and venues.	X			X		
Describe internal human resource (HR) processes for APP onboarding.	X			X		
Be aware of loan repayment options if available.	X			X		
Develop electronic health record (EHR)-based templates and service codes for APP workflows.		X		X		
Conduct background and reference checks.		X		X		
Procure National Provider Identifier (NPI), Drug Enforcement Administration (DEA), and state licenses.		X		X		
Contact medical liability carrier and determine medical malpractice requirements.		X		X		
Consider employment structure (contractor, 1099, at-will, direct).	X				X	
ONBOARDING AND TRAINING						
Introduce and educate staff and team members about APP scope, role, and function.		X		X		
Provide documentation and coding training to new providers.	X			X		
Communicate and provide clinical mentorship to develop the APP to become a strong provider.		X			X	
Develop standard orientation materials.		X		X		
Develop clear tools to assist with patient scheduling and billing.		X		X		
Announce and communicate arrival of APP.		X		X		
Introduce APP to patients and referral network.		X		X		
Educate staff about state laws regarding written protocols and filing requirements with regulatory boards.	X			X		
Draft and execute required collaborative agreements that govern the supervisory relationship.		X			X	
Review and execute payer specific credentialing requirements.		X			X	
Develop standard orientation materials.		X		X		
Consider AAPM&R membership.	X			X		

Curriculum for Physiatrists Leading Teams that include Advanced Practice Providers

CURRICULUM FOR PHYSIATRISTS LEADING TEAMS THAT INCLUDE ADVANCED PRACTICE PROVIDERS				CORE		
				1	2	3
	Knowledge	Skill	Attitude	Basic	Intermediate	Advanced
SUPERVISION						
Establish protocols for how physicians will render face-to-face care to the same patient on the same day.		X		X		
Define physician-supervision requirements, and evaluate how they will be met from an operational perspective.	X			X		
Facilitate shared decision-making and participation of the patient and family in health care decisions to provide patient-centered, comprehensive, quality care.	X			X		
Once the structure, policies, and procedures for the APP utilization design are established, develop appropriate controls and monitors, and educate the team to minimize issues.		X				
Implement EHR documentation templates and service codes.		X		X		
Establish policies and protocols for periodic review of APP charts and reporting to licensure board.		X		X		
BILLING AND REIMBURSEMENT						
Develop written protocols for "incident-to" billing.		X		X		
Create clinic scheduling templates so that service revenue is optimized for APP activity and supervising physician.		X		X		
Develop and optimize policies and procedures for shared visits in the inpatient setting that recognize combined service time for patient care.		X			X	
Conduct periodic documentation and claim audits to ensure APP services are documented and billed according to the appropriate guidelines.		X			X	
PERIODIC PERFORMANCE REVIEW AND COMPENSATION						
Establish policies and procedures for periodic performance reviews.		X			X	
Engage in professional goal setting and professional development planning.		X				X
Benchmark APP productivity and compensation with established regional and specialty-specific surveys.		X				X
Establish policy and procedures for incentivising productivity of work.		X			X	
PLANNING/CREDENTIALING						
Determine when and how physicians will render face-to-face care to the same patient on the same day.		X		X		
APPs may provide services within their scope of practice per a written protocol and under the supervision required by state law without regard to "incident to" service rules.		X			X	
Medicare services can be billed under the APP, and such independent services may include evaluation for new conditions and new patients. These services should be billed under the APP's Medicare billing number, and Medicare will pay 85% of the physician's fee schedule.		X				X
Critical care services may not be billed as shared visits. These services should be rendered, documented, and billed by one provider based on the documentation of the billing provider. When multiple physicians and APPs provide critical care services on the same date of service and are part of the same group practice, the physicians' service time should be aggregated, and the service billed under one physician's NPI.		X			X	
Understand physician-supervision requirements, and evaluate how they will be met from an operational perspective.		X				X
Facilitate shared decision-making and participation of the patient and family in healthcare decisions to provide patient-centered, comprehensive, quality care.		X				X