

Physical Medicine and Rehabilitation Milestones

The Accreditation Council for Graduate Medical Education



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Physical Medicine and Rehabilitation Milestones

The Milestones are designed only for use in evaluation of residents in the context of their participation in ACGME-accredited residency programs. The Milestones provide a framework for the assessment of the development of the resident in key dimensions of the elements of physician competency in a specialty or subspecialty. They neither represent the entirety of the dimensions of the six domains of physician competency, nor are they designed to be relevant in any other context.

Physical Medicine and Rehabilitation Milestones Work Group

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American Board of Physical Medicine and Rehabilitation

American Osteopathic Board of Physical Medicine and Rehabilitation

Review Committee for Physical Medicine and Rehabilitation

Understanding Milestone Levels and Reporting

This document presents the Milestones, which programs use in a semi-annual review of resident performance, and then report to the ACGME. Milestones are knowledge, skills, attitudes, and other attributes for each of the ACGME Competencies organized in a developmental framework. The narrative descriptions are targets for resident performance throughout their educational program.

Milestones are arranged into levels. Tracking from Level 1 to Level 5 is synonymous with moving from novice to expert resident in the specialty or subspecialty. For each reporting period, the Clinical Competency Committee will review the completed evaluations to select the milestone levels that best describe each learner's current performance, abilities, and attributes for each subcompetency.

These levels *do not* correspond with post-graduate year of education. Depending on previous experience, a junior resident may achieve higher levels early in his/her educational program just as a senior resident may be at a lower level later in his/her educational program. There is no predetermined timing for a resident to attain any particular level. Residents may also regress in achievement of their milestones. This may happen for many reasons, such as over scoring in a previous review, a disjointed experience in a particular procedure, or a significant act by the resident.

Selection of a level implies the resident substantially demonstrates the milestones in that level, as well as those in lower levels (see the diagram on page v).

Additional Notes

Level 4 is designed as a graduation *goal* but *does not* represent a graduation *requirement*. Making decisions about readiness for graduation and unsupervised practice is the purview of the program director. Furthermore, Milestones 2.0 include revisions and changes that preclude using Milestones as a sole assessment in high-stakes decisions (i.e., determination of eligibility for certification or credentialing). Level 5 is designed to represent an expert resident whose achievements in a subcompetency are greater than the expectation. Milestones are primarily designed for formative, developmental purposes to support continuous quality improvement for individual learners, education programs, and the specialty. The ACGME and its partners will continue to evaluate and perform research on the Milestones to assess their impact and value.

Examples are provided for some milestones within this document. Please note: the examples are not the required element or outcome; they are provided as a way to share the intent of the element.

Some milestone descriptions include statements about performing independently. These activities must occur in conformity to ACGME supervision guidelines as described in the Program Requirements, as well as to institutional and program policies. For example, a resident who performs a procedure independently must, at a minimum, be supervised through oversight.

A Supplemental Guide is also available to provide the intent of each subcompetency, examples for each level, assessment methods or tools, and other available resources. The Supplemental Guide, like examples contained within the Milestones, is designed only to assist the program director and Clinical Competency Committee, and is not meant to demonstrate any required element or outcome.

Additional resources are available in the <u>Milestones</u> section of the ACGME website. Follow the links under "What We Do" at <u>www.acgme.org</u>.

The diagram below presents an example set of milestones for one sub-competency in the same format as the ACGME Report Worksheet. For each reporting period, a resident's performance on the milestones for each sub-competency will be indicated by selecting the level of milestones that best describes that resident's performance in relation to those milestones.

Systems-Based Practice	1: Patient Safety			
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of common patient safety events	Identifies system factors that lead to patient safety events	Participates in analysis of patient safety events (simulated or actual)	Conducts analysis of patient safety events and offers error prevention strategies (simulated or actual)	Actively engages teams and processes to modify systems to prevent patient safety events
Demonstrates knowledge of how to report patient safety events	Reports patient safety events through institutional reporting systems (simulated or actual)	Participates in disclosure of patient safety events to patients and families (simulated or actual)	Discloses patient safety events to patients and families (simulated or actual)	Role models or mentors others in the disclosure of patient safety events
Comments:			Not Yet C	ompleted Level 1
Selecting a responsible middle of a level milestones in that levels have been demonstrated.	implies that at level and in lower	b ir d	Selecting a response between levels indicated in lower levels have be lemonstrated as well anilestones in the higher	es that milestones een substantially as some

Patient Care 1: Physiatric	c History, Appropriate for A	Age and Impairment		
Level 1	Level 2	Level 3	Level 4	Level 5
Acquires a history with a basic functional and psychosocial assessment	Acquires a comprehensive physiatric history identifying all components of functioning including impairments, activities, participation, and contextual factors	Acquires a relevant history in a prioritized fashion, integrating components of functioning	Elicits key history, including subtleties, in a prioritized and efficient fashion across a spectrum of ages and impairments	Role models the effective gathering of subtle and salient history from patients across a spectrum of ages and impairments
Comments:				Completed Level 1

Patient Care 2: Physical	Examination			
Level 1	Level 2	Level 3	Level 4	Level 5
Performs a general physical examination	Performs a physiatric examination, including functional assessment	Performs a hypothesis- driven physiatric examination, with identification of subtle or atypical findings	Efficiently performs a hypothesis-driven physiatric examination that identifies subtle or atypical findings over a spectrum of ages and impairments	Role models a hypothesis-driven physiatric examination that identifies subtle or atypical findings over a spectrum of ages and impairments
Comments:				Completed Level 1

Patient Care 3: Medical I	Management (e.g., Inpatient	, Outpatient, Consultative	Settings)	
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies and manages general medical conditions and their complications	Identifies and manages complications related to complex medical, neurological, and musculoskeletal disorders	Develops and implements a comprehensive treatment plan that anticipates and addresses complications related to neurological and musculoskeletal disorders	Develops and implements a comprehensive treatment plan that anticipates, identifies, and addresses complications related to neurological and musculoskeletal disorders over a spectrum of ages and conditions	Role models the development and implementation of a comprehensive treatment plan including consideration of emerging treatments
Comments:			Not Yet Co Not Yet As	ompleted Level 1

		normalities of Tone or Move myography, Electrical Stim		vation, Neurolysis)
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies indications and contraindications for the procedure	Performs some components of the procedure, with supervision	Performs all components of the procedure, with supervision	Performs all components of the procedure across a spectrum of presentations	Role models the performance of the procedure across a spectrum of presentations
Comments:			Not Yet Co	ompleted Level 1

	al Skills: Joint and Soft Tise Performed under Guidanc	· · · · · · · · · · · · · · · · · · ·		rsal, Perineural, Tendon
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies indications for the procedure	Performs some components of the procedure, with supervision	Performs all components of the procedure, with supervision	Performs all components of the procedure across a spectrum of diagnoses	Role models the performance of all components of the procedure, across a spectrum of diagnoses
Comments:			Not Yet Co Not Yet As	mpleted Level 1

Level 1	Level 2	Level 3	Level 4	Level 5
Identifies sites for nerve stimulation, recording, and electromyography needle insertion	Plans and performs some components of the electrodiagnostic procedure, with supervision	Plans and performs all components of the electrodiagnostic procedure, with supervision	Plans and performs all components of the electrodiagnostic procedure across a spectrum of diagnoses	Role models the planning and performance of all components of the electrodiagnostic procedures across a spectrum of diagnoses
Describes nerve physiology and instrumentation involved in nerve conduction studies and electromyography	Distinguishes normal from abnormal electrodiagnostic findings with guidance	Independently recognizes abnormal electrodiagnostic findings	Interprets electrodiagnostic data and modifies the study as it is being performed	
	Generates elements of an electrodiagnostic report, with assistance	Generates clear and concise electrodiagnostic reports that do not require substantive correction	Generates tailored electrodiagnostic reports meeting the needs of the referring provider	Makes treatment recommendations to referring provider based on electrodiagnostic findings

Patient Care 7: Assistive Communication Technol	Technologies (e.g., Prosthogies)	etics and Orthotics, Adapt	ive Equipment, Mobility [Devices, Seating Systems,
Level 1	Level 2	Level 3	Level 4	Level 5
Describes assistive technologies and their indications	Evaluates patient need for common assistive technologies based on impairments	Evaluates patient need for a full range of assistive technologies based on impairments, taking into account barriers, contraindications, comorbidities, and input from other professionals	Generates a detailed prescription, in consultation with other professionals, for a full range of assistive technologies including justification and advocacy where needed	Serves as a resource to other professionals for clinical problem solving and functional challenges related to assistive technology
Comments:				ompleted Level 1

Patient Care 8: Rehabilit	ation Interventions			
Level 1	Level 2	Level 3	Level 4	Level 5
Describes common modalities and general rehabilitation therapies by discipline	Prescribes common modalities and general rehabilitation therapies by discipline based on impairments	Provides detailed therapy prescriptions for specific conditions with appropriate precautions	Integrates comprehensive knowledge of impairments, activity limitations, and participation restrictions to prescribe rehabilitation interventions	Demonstrates the ability to direct and implement rehabilitation interventions in challenging clinical conditions
Comments:			Not Yet C Not Yet As	ompleted Level 1

Medical Knowledge 1: Fo	oundational Principles of P	hysiatric Practice (Anatom	y, Pathophysiology, Kines	siology, Pharmacology)
Level 1	Level 2	Level 3	Level 4	Level 5
Describes scientific knowledge for general medical conditions	Describes foundational knowledge relevant to physiatric practice	Integrates foundational knowledge into physiatric practice	Integrates foundational knowledge into physiatric practice across a spectrum of ages, impairments, and clinical settings	Serves as a resource for others for new and emerging concepts relevant to foundational principles of physiatric practice
Comments:			Not Yet Co Not Yet As	ompleted Level 1

Medical Knowledge 2: C	linical Reasoning			
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies salient elements of a patient presentation to inform clinical reasoning	Develops a prioritized differential diagnosis for common presentations	Develops a prioritized differential diagnosis for complex presentations	Synthesizes information to reach high-probability diagnoses with continuous re-appraisal to minimize clinical reasoning errors	
Identifies diagnostic studies for common medical conditions	Identifies diagnostic studies for conditions commonly seen in physiatric practice	Prioritizes the sequence and urgency of diagnostic testing	Considers diagnostic testing based on cost effectiveness and likelihood that results will influence clinical management	Role models identification of cost-effective diagnostic testing
Describes common causes of clinical reasoning error	Identifies types of clinical reasoning errors within patient care, with guidance	Demonstrates a structured approach to personally identify clinical reasoning errors	Anticipates and accounts for errors and biases	Coaches others to minimize clinical reasoning errors
Comments:			Not Yet Comp Not Yet Asses	

Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of common patient safety events	Identifies system factors that lead to patient safety events	Participates in analysis of patient safety events (simulated or actual)	Conducts analysis of patient safety events and offers error prevention strategies (simulated or actual)	Actively engages teams and processes to modify systems to prevent patient safety events
Demonstrates knowledge of how to report patient safety events	Reports patient safety events through institutional reporting systems (simulated or actual)	Participates in disclosure of patient safety events to patients and families (simulated or actual)	Discloses patient safety events to patients and families (simulated or actual)	Role models or mentors others in the disclosure of patient safety events

Systems-Based Practice	2: Quality Improvement			
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of basic quality improvement methodologies and metrics	Describes quality improvement initiatives	Participates in quality improvement initiatives	Demonstrates the skills required to identify, develop, implement, and analyze a quality improvement project	Creates, implements, and assesses quality improvement initiatives at the institutional or community level
Comments:			Not Yet C	ompleted Level 1

Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of care coordination	Coordinates care of patients in routine clinical situations effectively using the roles of the interprofessional teams	Coordinates care of patients in complex clinical situations effectively collaborating with members of the interprofessional teams	Role models effective coordination of patient- centered care among different professions and specialties	Analyzes the process of care coordination and leads in the design and implementation of improvements
Identifies key elements for safe and effective transitions of care and hand-offs	Performs safe and effective transitions of care/hand-offs in routine clinical situations	Performs safe and effective transitions of care/hand-offs in complex clinical situations	Role models and advocates for safe and effective transitions of care/hand-offs within and across health care delivery systems and settings	Improves quality of transitions of care within and across health care delivery systems to optimize patient outcomes
Demonstrates knowledge of population and community health needs and disparities	Identifies specific population and community health needs and inequities for their local population	Uses local resources effectively to meet the needs of a patient population and community while minimizing health care inequities	Participates in changing and adapting practice to provide for the needs of specific populations	Leads innovations and advocacy in partnership with populations and communities experiencing health care inequities

Level 1	Level 2	Level 3	Level 4	Level 5
Identifies key components of the complex health care system including the various venues for post- acute care	Describes how components of a complex health care system are inter-related, and how this impacts patient care	Discusses how individual practice affects the broader system (e.g., length of stay, readmission rates, clinical efficiency)	Navigates the various components of the complex health care system to provide efficient and effective patient care and transition of care	Advocates for or leads systems change that enhances high value, efficient and effective patient care, and transition of care
Describes basic health payment systems (e.g., government, private, public, uninsured care) and practice models	Delivers care with consideration of each patient's payment model (e.g., insurance type)	Engages with patients in shared decision making, informed by each patient's payment models	Advocates for patient care needs (e.g., community resources, patient assistance resources) with consideration of the limitations of each patient's payment model	Participates in health policy advocacy activities
Identifies basic knowledge domains for effective transition to practice (e.g., information technology, legal, billing and coding, financial, personnel)	Demonstrates use of information technology required for medical practice (e.g., electronic health record, documentation required for billing and coding)	Describes core administrative knowledge needed for transition to practice (e.g., contract negotiations, malpractice insurance, government regulation, compliance)	Analyzes individual practice patterns and professional requirements in preparation for independent practice	Educates others to prepare them for transition to practice

Practice-Based Learning	Practice-Based Learning and Improvement 1: Evidence-Based and Informed Practice				
Level 1	Level 2	Level 3	Level 4	Level 5	
Demonstrates how to access and use available evidence	Locates and applies the best available evidence, integrated with patient preference, to the care of straightforward patients	Locates and applies the best available evidence, integrated with patient preference, to the care of complex patients	Critically appraises and applies evidence even in the face of uncertainty and conflicting evidence to guide care, tailored to the individual patient	Coaches others to critically appraise and apply evidence for complex patients; and/or participates in the development of guidelines	
Comments:			Not Yet C	ompleted Level 1	

Level 1	Level 2	Level 3	Level 4	Level 5
Accepts responsibility for professional development	Demonstrates openness to verbal feedback and other performance data	Seeks and incorporates verbal feedback and other performance data intermittently, with humility and adaptability	Seeks and incorporates verbal feedback and other performance data consistently, with humility and adaptability	Role models consistent incorporation of verbal feedback and other performance data
Identifies and/or acknowledges gaps between expectations and actual performance Actively seeks opportunities to improve	Analyzes and reflects on the factors which contribute to performance gaps Designs and implements a learning plan, with assistance	Analyzes, reflects on, and institutes behavioral changes to narrow performance gaps Independently designs and implements a learning plan	Uses data to measure the effectiveness of the learning plan to address performance gaps and modifies it when necessary	Coaches others on reflective practice, including the design and implementation of learning plans

Level 1	Level 2	Level 3	Level 4	Level 5
Approaches clinical care and educational duties with actions consistent with core ethical principles	Demonstrates consistent application of ethical principles in routine clinical practice, such as informed consent, surrogate decision making, advance directives, confidentiality, error reporting and disclosure, and stewardship of limited resources	Recognizes tensions between conflicting ethical principles in complex situations and seeks appropriate guidance to help resolve ethical dilemmas	Manages ethical dilemmas, using appropriate resources as needed to facilitate resolution (e.g., ethics consultations, literature review, risk management/legal consultation)	Serves as a resource for others to resolve complex ethical dilemmas

Professionalism 2: Profe	essional Behaviors			
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies professionalism lapses in self and others	Demonstrates professional behavior in routine situations	Anticipates situations that may trigger professionalism lapses	Demonstrates professional behavior across situations and settings	Coaches others when their behavior fails to meet professional expectations
Describes when and how to appropriately report lapses	Takes responsibility for own professionalism lapses when applicable and identifies contributing factors	Takes remedial action to address lapses when applicable	Proactively intervenes to prevent lapses	Addresses system issues to minimize potential for professionalism lapses
Comments:			Not Yet C	Completed Level 1

Professionalism 3: Accountability						
Level 1	Level 2	Level 3	Level 4	Level 5		
Responds promptly to requests or reminders to complete responsibilities	Performs tasks and responsibilities in a timely manner with appropriate attention to detail in routine situations	Performs tasks and responsibilities in a timely manner with appropriate attention to detail in complex or stressful situations	Proactively implements strategies to ensure that the needs of patients, teams, and systems are met in a timely manner	Coaches others to optimize timely task completion		
Comments:			Not Yet C	ompleted Level 1		

Professionalism 4: Patie	nt Care Etiquette with Patie	ents of All Abilities				
Level 1	Level 2	Level 3	Level 4	Level 5		
Recognizes the need to respect the dignity of all patients regardless of impairments or disabilities	Demonstrates specific elements of verbal and physical communication that reflect respect for people with impairments or disabilities	Proactively maintains patient's comfort and dignity during history taking and physical examination for those with mild impairments or disabilities	Proactively maintains patient's comfort and dignity during history taking and physical examination for those with severe impairments or disabilities	Serves as a role model and as a resource for others by coaching them in behaviors and actions that optimize the comfort, dignity, and respect of people with impairments or disabilities		
Comments:			Not Yet (Completed Level 1		

Professionalism 5: Resident Well-Being and Help-Seeking				
Level 1	Level 2	Level 3	Level 4	Level 5
Recognizes status of personal and professional well-being, with assistance	Independently recognizes status of personal and professional well-being and demonstrates appropriate help seeking behaviors	With assistance, proposes, implements, and refines a plan to optimize personal and professional well-being	Independently develops, implements, and refines a plan to optimize personal and professional well-being	Coaches others and addresses system barriers and facilitators to optimize personal and professional well-being
Comments:			Not Yet C	Completed Level 1

relationship in straightforward encounters using active listening and clear language Minimizes common barriers to effective communication (e.g., language, disability) Accurately communicates own role within the health care relationship in straightforward encounters using active listening and clear language relationship in challenging patient encounters wherapeutic relationships, with attention to patient/family concerns and context, regardless of complexity Overcomes personal biases while proactively minimizing communication barriers Role models self-awareness practice while attempting to minimize communication barriers With guidance, sensitively and compassionately delivers medical Novercomes personal biases while proactively minimizing communication barriers Role models self-awareness practice while patient/family to align patient/family Role models self-awareness practice while patient encounters Independently, uses shared decision making in patient/family	Level 1	Level 2	Level 3	Level 4	Level 5
barriers to effective communication (e.g., language, disability) Accurately communicates own role within the health care system Description of the clinical situation Description of the communication (e.g., health literacy, cultural) Description of the communication barriers With guidance, sensitively and compassionately delivers medical information, elicits patient/family values, goals, and preferences, and acknowledges Diasses while proactively minimizing communication barriers Role models shared decision making to align patient/family values, goals, and preferences with treatment options to make a personalized	Uses language and nonverbal behavior to demonstrate respect and establish rapport	relationship in straightforward encounters using active listening and clear	relationship in challenging	therapeutic relationships, with attention to patient/family concerns and context, regardless	
communicates own role within the health care system communication with patient/family by clarifying system communication with patient/family by clarifying understanding of the clinical situation communication with patient/family by clarifying expectations and verifying understanding of the clinical situation communication with patient/family by clarifying delivers medical information, elicits patient/family values, goals, and preferences with treatment options to and acknowledges shared decision making in patient/family values, goals, and those with a high degree of uncertainty/conflict	barriers to effective communication (e.g.,	barriers to effective communication (e.g.,	on personal biases while attempting to minimize	biases while proactively minimizing	awareness practice while teaching a contextual approach to minimize
	communicates own role within the health care	communication with patient/family by clarifying expectations and verifying understanding of the	and compassionately delivers medical information, elicits patient/family values, goals and preferences, and acknowledges	shared decision making to align patient/family values, goals, and preferences with treatment options to make a personalized	decision making in patient/family communication including those with a high degree

Level 1	Level 2	Level 3	Level 4	Level 5
Uses respectful language that values all members of the health care team	Communicates information effectively with all health care team members	Checks own understanding while listening to adapt communication style to fit team needs	Coordinates recommendations and communication from different members of the health care team to optimize patient care	Role models flexible communication strategies that value input from all health care team members, resolving conflict when needed
	Solicits feedback on performance as a member of the health care team	Communicates concerns and provides feedback to members of the health care team	Communicates feedback and constructive criticism to superiors	Facilitates regular health care team-based feedback in complex situations

Interpersonal and Communication Skills 3: Communication within Health Care Systems				
Level 1	Level 2	Level 3	Level 4	Level 5
Accurately records information in the patient record while safeguarding patient personal health information	Demonstrates organized and complete diagnostic and therapeutic reasoning through notes in the patient record, including appropriate modifications when using copy-and-paste function	Communicates clearly, concisely, timely, and in an organized written form, including anticipatory recommendations	Provides feedback to improve others' written communication	Models feedback to improve others' written communication
Demonstrates basic knowledge of appropriate channels of communication within the institution (e.g., pager callback, timely response to emails)	Communicates through appropriate channels as required by institutional policy (e.g. patient safety reports)	Appropriately selects direct (e.g. telephone, inperson) and indirect (e.g. progress notes, text messages) forms of communication based on context	Achieves written or verbal communication that serves as an example for others to follow	Guides departmental or institutional communication around policies and procedures
Comments: Not Yet Completed Level 1				