

Pediatric Rehabilitation Milestones

The Accreditation Council for Graduate Medical Education



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Pediatric Rehabilitation Milestones

The Milestones are designed only for use in evaluation of fellows in the context of their participation in ACGME-accredited residency or fellowship programs. The Milestones provide a framework for the assessment of the development of the fellow in key dimensions of the elements of physician competence 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.

Pediatric Rehabilitation Milestones Work Group

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American 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 fellow 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/fellow 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 fellow 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 fellow may achieve higher levels early in his/her educational program just as a senior fellow 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. Fellows 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 fellow.

Selection of a level implies the fellow 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 fellow 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.

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 fellow 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 subcompetency in the same format as the ACGME Report Worksheet. For each reporting period, a fellow's performance on the milestones for each subcompetency will be indicated by selecting the level of milestones that best describes that fellow's performance in relation to those milestones.

Systems-Based Practice 1: Patient Safety and Quality Improvement				
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
Demonstrates knowledge of basic quality improvement methodologies and metrics	Describes quality improvement initiatives at the institutional or departmental level	Participates in quality improvement initiatives at the institutional or departmental level	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 Completed Level 1				
Selecting a response box in the middle of a level implies that milestones in that level and in lower levels have been substantially demonstrated. Selecting a response box on the line in between levels indicates that milestones in lower levels have been substantially demonstrated as well as some milestones in the higher level(s).				ilestones antially

Patient Care 1: History for Pediatric Rehabilitation Patients				
Level 1	Level 2	Level 3	Level 4	Level 5
Acquires and presents a basic pediatric physiatric history, including medical, functional, and psychosocial elements	Acquires and presents a comprehensive pediatric physiatric history identifying all components of functioning, including development, impairments, activities, participation, and contextual factors	Acquires and presents a relevant pediatric physiatric history in a prioritized fashion, integrating components of functioning within the context of development	Elicits and presents key pediatric physiatric history, including subtleties, in a prioritized and efficient fashion across a spectrum of ages and impairments	Role models the effective gathering and presentation of subtle and salient pediatric physiatric history from patients across a spectrum of ages and impairments
Comments: Not Yet Completed Level 1 Not Yet Assessable				

Patient Care 2: Physical Examination for Pediatric Rehabilitation Patients				
Level 1	Level 2	Level 3	Level 4	Level 5
Performs and presents a basic pediatric physiatric examination	Performs and presents a comprehensive, developmentally appropriate pediatric physiatric examination	Performs and presents a hypothesis-driven pediatric physiatric examination, with identification of subtle or atypical findings over a spectrum of ages and impairments	Efficiently performs and presents a hypothesis-driven pediatric physiatric examination, with identification of subtle or atypical findings over a spectrum of ages and impairments	Role models a hypothesis-driven pediatric physiatric examination that identifies subtle or atypical findings over a spectrum of ages and impairments
Comments:				Completed Level 1

Patient Care 3: Differential Diagnosis of Pediatric Rehabilitation Medicine Patients					
Level 1	Level 2	Level 3	Level 4	Level 5	
Produces a basic differential diagnosis for common pediatric physiatric disorders and associated conditions	Generates a comprehensive differential diagnosis that includes pediatric physiatric disorders and associated conditions	Develops a focused, age- appropriate differential diagnosis, including pediatric medical conditions and less common conditions	Produces a prioritized differential diagnosis across a spectrum of ages and impairments	Efficiently produces a focused and prioritized differential diagnosis accounting for rare conditions	
Comments:	Comments: Not Yet Completed Level 1 Not Yet Assessable				

Patient Care 4: Diagnostic Evaluation of Pediatric Rehabilitation Medicine Patients				
Level 1	Level 2	Level 3	Level 4	Level 5
Orders appropriate diagnostic studies for conditions commonly seen in pediatric physiatry (e.g., dysplastic hip), based on established guidelines or consensus	Orders comprehensive, hypothesis-driven diagnostic studies for conditions commonly seen in pediatric physiatry	Appropriately prioritizes the sequence and urgency of diagnostic testing, and begins to interpret results to guide further management	Orders diagnostic testing and assessment tools based on cost effectiveness and likelihood that results will influence clinical management (e.g., gait analysis)	Streamlines testing for cost effectiveness and minimal patient and family burden
	Identifies common pediatric assessment tools and outcome measures	Uses appropriate outcome measures and scales for diagnoses	Integrates knowledge of functional goals, results of pediatric assessment tools, and prognosis to optimize patient management	Serves as a resource to others for the implementation of assessment tools and outcome measures
Comments: Not Yet Completed Level 1 Not Yet Assessable				

Patient Care 5: Medical Management of Pediatric Rehabilitation Medicine Patients				
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 evidence-based treatment plan that anticipates and addresses complications related to medical, neurological, and musculoskeletal disorders	Develops a treatment plan that anticipates and addresses complications across the spectrum of ages (e.g., complications that occur in adulthood from a childhood onset condition)	Role models the development and implementation of a comprehensive treatment plan, including consideration of emerging treatments
Comments: Not Yet Completed Level 1 Not Yet Assessable				

Level 1	Level 2	Level 3	Level 4	Level 5
Evaluates patient need for common assistive devices and technologies based on impairment	Evaluates patient need for a full range of assistive devices and technologies based on impairments, accounting for barriers, contraindications, comorbidities, issues related to growth and development, and input from other professionals	Generates a detailed prescription, in consultation with other professionals, for a full range of assistive devices and technologies, including justification and advocacy where needed	Serves as a resource to other professionals for clinical problem solving and functional challenges related to assistive devices and technologies	Involved in research/development of novel assistive devices or technologies

Patient Care 7: Rehabilitation/Functional Management of Pediatric Rehabilitation Medicine Patients – Rehabilitation Interventions				
Level 1	Level 2	Level 3	Level 4	Level 5
Prescribes common rehabilitation therapies for children based on impairments	Prescribes common rehabilitation therapies accounting for developmental needs and understanding expected goals	Generates specific therapy prescriptions, targeting for condition- specific goals and precautions	Monitors and adjusts the therapy interventions based on previous results and reassessment	Participates in research and development of novel therapy interventions
Comments:				completed Level 1

Patient Care 8: Procedural Skills in Pediatric Rehabilitation Medicine				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates basic understanding of indications for various spasticity procedures in pediatric patients	Provides basic education to patients and families regarding procedure-specific information and treatment options and obtains informed consent	Selects spasticity procedures based on individual condition; provides in-depth education to patients and families regarding procedure-specific information and treatment options	Troubleshoots spasticity interventions that are ineffective or when complications arise	Effectively uses spasticity procedures in complex clinical scenarios
Performs procedures with hands-on assistance	Performs procedures with verbal guidance	Modifies procedures to accommodate patient's impairments and minimize discomfort; consistently performs procedures without attending direction	Skillfully performs a wide variety of procedures and teaches others in the safe performance of these procedures	Develops a curriculum
Comments: Not Yet Completed Level 1 Not Yet Assessable				

Medical Knowledge 1: Physiatric Knowledge					
Level 1	Level 2	Level 3	Level 4	Level 5	
Demonstrates basic knowledge of complex pediatric medical conditions and basic preventive care	Synthesizes physiatric knowledge of common pediatric rehabilitation disorders, secondary conditions, treatment options, and complications	Synthesizes physiatric knowledge of complex pediatric rehabilitation disorders, secondary conditions, treatment options, and complications	Integrates physiatric knowledge into practice across a spectrum of ages, impairments, educational and clinical scenarios	Serves as a resource for others for new and emerging concepts and investigation relevant to foundational principles of physiatric practice	
Comments:	Comments: Not Yet Completed Level 1 Not Yet Assessable				

Medical Knowledge 2: Growth and Development					
Level 1	Level 2	Level 3	Level 4	Level 5	
Demonstrates knowledge of basic growth and developmental milestones	Recognizes atypical growth or development (e.g., recognition of persistent primitive reflexes)	Recognizes influence of development and impairment level on current functional capabilities	Applies knowledge of developmental trajectory to provide a functional prognosis	Collaborates on the development of practice guidelines or educational resources for clinicians in the area of growth and development	
	Demonstrates knowledge of anatomy and physiology related to growth (e.g., bladder volume, skeletal immaturity, pubertal maturation)	Applies knowledge of pathophysiology to the growth and development of a child (e.g., precocious puberty in brain disorders, hip dysplasia with cerebral palsy)	Synthesizes the knowledge of anatomy and physiology in the context of prevention and treatment (e.g., use of practice guidelines for osteopenia and hip dysplasia in cerebral palsy)		
Comments:	Comments: Not Yet Completed Level 1				
			Not Yet Asses	ssable	

Systems-Based Practice 1: Patient Safety in Pediatric Rehabilitation					
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 Completed Level 1					

Systems-Based Practice 2: Quality Improvement in Pediatric Rehabilitation				
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

Systems-Based Practice	Systems-Based Practice 3: System Navigation for Patient-Centered Care			
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates understanding and knowledge of care coordination	Coordinates care of patients in routine clinical situations effectively using the roles of the interprofessional team members	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 different levels of health care and settings	Leads quality improvement of transitions of care within and across different levels of health care and settings to optimize patient outcomes
Demonstrates knowledge of population and community health needs and disparities	Identifies specific population and community health needs and inequities for the local population	Uses local resources effectively to meet the needs of the local population and community to minimize health care inequities	Participates in changing and adapting practice to provide equitable accessible and quality care for specific populations	Leads innovations and advocacy in partnership with populations and communities experiencing health care inequities to make sustainable improvements
Comments: Not Yet Completed Level 1				

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Level 1	Level 2	Level 3	Level 4	Level 5
Identifies key components of the health care system, including the various venues for post-acute care	Describes how components of a health care system are interrelated, 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 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	Identifies care plan that is compatible with each patient's payment model (e.g., insurance type) and obstacles for delivery	Engages with patients and families 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 and Improvement 1: Evidence-Based and Informed Practice					
Level 1	Level 2	Level 3	Level 4	Level 5	
Demonstrates how to access available evidence	Articulates clinical questions and elicits patient preferences and values to guide evidence-based care	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:	Comments: Not Yet Completed 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, in an open and reflective manner	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	Analyzes and reflects on	Institutes behavioral	Uses data to measure	Mentors others on
acknowledges gaps between expectations	the factors which contribute to performance	changes to narrow performance gaps	the effectiveness of the learning plan to address	reflective practice, including the design and
and actual performance	gaps	performance gaps	performance gaps and modifies accordingly	implementation of learning plans
Identifies opportunities to	Designs and implements	Independently designs		
improve	a learning plan, with	and implements a		
	guidance	learning plan		

Professionalism 1: Ethical Practice				
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
Comments: Not Yet Completed Level 1				

Professionalism 2: Professional Behaviors				
Level 1	Level 2	Level 3	Level 4	Level 5
Describes when and how to appropriately report lapses	Demonstrates professional behavior in routine situations	Anticipates situations that may trigger professionalism lapses	Demonstrates professional behavior in all situations, including during times of stress	Coaches others when their behavior fails to meet professional expectations
Identifies professionalism lapses in oneself and others	Takes responsibility for one's 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 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 persons, teams, and systems are met in a timely manner	Coaches others to optimize timely task completion
Comments: Not Yet Completed Level 1				

Professionalism 4: Patient Care Etiquette with Patients of All Abilities				
Level 1	Level 2	Level 3	Level 4	Level 5
Recognizes the need to respect the dignity of all people regardless of impairments or disabilities	Demonstrates specific elements of verbal and physical communication that reflect respect for people with impairments or disabilities	Proactively maintains pediatric patient's comfort and dignity during clinical encounters for those with mild impairments or disabilities	Proactively maintains pediatric patient's comfort and dignity during clinical encounters for those with severe impairments or disabilities	Serves as a role model and resource by coaching others 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: 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	ompleted Level 1

This subcompetency is not intended to evaluate a fellow's well-being. Rather, the intent is to ensure that each fellow has the fundamental knowledge of factors that impact well-being, the mechanism by which those factors impact well-being, and available resources and tools to improve well-being.

Interpersonal and Comm	Interpersonal and Communication Skills 1: Patient- and Family-Centered Communication			
Level 1	Level 2	Level 3	Level 4	Level 5
Uses language and non- verbal behavior to demonstrate respect and establish rapport	Establishes a therapeutic relationship in straightforward encounters using active listening and clear language	Establishes a therapeutic relationship in challenging patient encounters	Easily establishes therapeutic relationships, with attention to patient/patient's family concerns and context, regardless of complexity	Mentors others in developing positive therapeutic relationships
Minimizes common barriers to effective communication (e.g., language, disability)	Minimizes complex barriers to effective communication (e.g., health literacy, cultural differences), but has limited awareness of potential personal biases	When prompted, reflects on personal biases while attempting to minimize communication barriers	Overcomes personal biases while proactively minimizing communication barriers	Role models self- awareness practice while teaching a contextual approach to minimize communication barriers
Accurately communicates own role within the health care system	Organizes and initiates communication with the patient/patient's family by clarifying expectations and verifying understanding of the clinical situation	With guidance, sensitively and compassionately delivers medical information, elicits patient/patient's family values, goals, and preferences, and acknowledges uncertainty and conflict	Independently uses shared decision making to align patient/patient's family values, goals, and preferences with treatment options to make a personalized care plan	Practices skills including compassion and empathy for shared decision making in patient/patient's family communication including those with a high degree of uncertainty/conflict
Comments:	Comments: Not Yet Completed Level 1			

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Interpersonal and Communication Skills 2: Interprofessional and Team Communication					
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	Identifies the need to adapt communication style, as needed, to fit team needs	Implements 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	
Comments:	Comments: Not Yet Completed Level 1				

Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates organized and complete clinical, diagnostic and therapeutic reasoning through notes in the patient record	Regularly updates the medical record, communicating clinical reasoning as care evolves (e.g., on-call evaluations, patient preferences, team/family meetings, conflict resolution, and advanced directives)	Demonstrates effective and timely integration and dissemination of information among all available sources to facilitate patient-centered care, including anticipatory recommendations	Independently documents information in compliance with current regulatory health system requirements (e.g., Centers for Medicare and Medicaid Services, Joint Commission, institutional requirements)	Serves as an expert resource in communication technology
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	Produces written or verbal communication that serves as an example for others to follow	Guides departmental or institutional communication around policies and procedures