Pediatric Emergency Medicine Milestones

ACGME International, Inc. (ACGME-I)

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Pediatric Emergency Medicine Milestones

The Milestones are designed only for use in evaluation of residents and fellows in the context of their participation in ACGME-I-accredited residency and fellowship programs. The Milestones provide a framework for the assessment of the development of the resident or 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 competence, nor are they designed to be relevant in any other context.

Understanding Milestone Levels and Reporting

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

Milestones are arranged into levels. Tracking from Level 1 to Level 5 is synonymous with moving from novice to expert resident or 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, more junior residents/fellows may achieve higher levels early in their educational program just as more senior residents/fellows may be at a lower level later in their educational program. There is no predetermined timing for a resident or fellow to attain any particular level. Residents and 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 resident/fellow.

Selection of a level implies the resident/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 the Milestones as a sole assessment in high-stakes decisions. Level 5 is designed to represent an expert resident or 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. ACGME-I 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. 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 conformance with ACGME-I supervision guidelines as described in the applicable Program Requirements, as well as with 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 more context regarding the intent of each subcompetency, as well as examples for each level, assessment methods or tools, and other resources. The Supplemental Guide, like examples contained within the Milestones, is designed only to assist the program director and Clinical Competency Committee; it is not meant to demonstrate any required element or outcome.

The diagram below presents an example set of milestones for one subcompetency in the same format as the ACGME-I Report Worksheet. For each reporting period, a resident's/fellow's performance on the milestones within each subcompetency will be indicated by selecting the Milestones Level that best describes that individual'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 their families (simulated or actual)	Discloses patient safety events to patients and their 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 local quality improvement initiatives (e.g., community vaccination rate, infection rate, smoking cessation)	Participates in local 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 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).

Patient Care 1: Performance of a Focused History and Physical Exam

Level 1	Level 2	Level 3	Level 4	Level 5
Performs and communicates a reliable, comprehensive patient history and physical exam	Performs and communicates a focused, developmentally appropriate patient history and physical exam, tailored to the patient's illness script	Integrates multiple sources of data to perform and communicate a focused, tailored patient history and physical exam	Prioritizes essential components of a patient history and physical exam in limited or dynamic circumstances	Models the skills necessary to perform a focused, tailored patient history and physical exam
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Comments:

Not Yet Completed Level 1 ☐

Not Yet Assessable ☐

Patient Care 2: Organization and Prioritization of Patient Care				
Level 1	Level 2	Level 3	Level 4	Level 5
Organizes patient care for an individual patient when prompted	Organizes patient care responsibilities by focusing on individual (rather than multiple) patients	Organizes and prioritizes the simultaneous care of patients with efficiency; anticipates and triages urgent and emergent issues	Organizes, prioritizes, and delegates patient care responsibilities, even when patient volume approaches the capacity of the individual or facility	Serves as a role model and coach for organizing patient care responsibilities

Comments:

Not Yet Completed Level 1 ☐

Not Yet Assessable ☐

Patient Care 3: Differential Diagnosis				
Level 1	Level 2	Level 3	Level 4	Level 5
Constructs a list of potential diagnoses based on the patient's chief complaint and initial assessment	Provides a prioritized differential diagnosis	Integrates clinical facts into a unifying diagnosis(es) and reappraises in real time for patients with common conditions	Integrates clinical facts into a unifying diagnosis(es) and reappraises in real time for patients with complex conditions	Serves as a role model and educator to other learners for deriving diagnoses
☐	☐	☐	☐	☐	☐	☐	☐	☐

Comments:

Not Yet Completed Level 1   ☐
Not Yet Assessable   ☐

Patient Care 4: Diagnostic Studies

Level 1	Level 2	Level 3	Level 4	Level 5
Determines the need for diagnostic studies	Selects appropriate diagnostic studies and understands their risks, benefits, and contraindications	Prioritizes diagnostic studies based on differential diagnoses	Practices cost-effective ordering of diagnostic studies and identifies alternatives and the likelihood of studies altering management	Educates others about the rationale in selection and interpretation of diagnostic studies in complex cases
Reports results of diagnostic studies	Interprets results of diagnostic testing	Applies clinical significance of diagnostic study results to clinical care	Identifies study limitations and discriminates between subtle and/or conflicting diagnostic results	

Comments:

Not Yet Completed Level 1 ☐

Not Yet Assessable ☐

Patient Care 5: Patient Management

Level 1	Level 2	Level 3	Level 4	Level 5
Develops management plans for common conditions	Manages patients with common conditions and other comorbidities	Manages patients with uncommon conditions	Manages patients with complicated and atypical diagnoses, and modifies management plans as necessary	Role models and coaches management of patients with complicated and atypical diagnoses
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Comments:

Not Yet Completed Level 1 ☐
Not Yet Assessable ☐

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Patient Care 6: Emergency Stabilization				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies unstable patients and performs basic interventions	Identifies patients at risk for clinical deterioration and initiates advanced resuscitation measures while escalating care	Reassesses and intervenes on patients after stabilizing interventions	Leads resuscitations, including critical decision making and integration of family and support services	Engages in systems-based approaches to optimize management of critically ill patients

Comments:

Not Yet Completed Level 1　☐

Not Yet Assessable　☐

Patient Care 7: Reassessment and Disposition

Level 1	Level 2	Level 3	Level 4	Level 5
Identifies the need for patient re-evaluation	Monitors performance of necessary diagnostic and therapeutic interventions	Identifies changes in a patient's clinical status and evaluates effectiveness of diagnostic and therapeutic interventions at timely intervals	Considers additional diagnoses and performs appropriate further diagnostic and therapeutic interventions	
Describes basic disposition resources available	Makes disposition decisions for patients needing minimal resources	Makes appropriate and timely disposition decisions for patients requiring varying levels of resources	Coaches others on disposition decisions for patients requiring varying levels of resources	Participates in the development of materials, protocols, and systems to enhance patient education
Describes basic patient education plans	Educates patients on simple discharge and admission plans	Educates patients regarding diagnosis, treatment plan, medication review, and primary care physician/ consultant appointments	Educates patients on complex discharge, admission, and transfer plans	

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Comments:

Not Yet Completed Level 1 ☐

Not Yet Assessable ☐

Patient Care 8: General Approach to Procedures

Level 1	Level 2	Level 3	Level 4	Level 5
Identifies indications for a procedure and pertinent anatomy and physiology	Assesses indications, risks, benefits, and alternatives in low- to moderate-risk situations and obtains informed consent	Assesses indications, risks, and benefits and weighs alternatives in high-risk situations	Acts to mitigate modifiable risk factors in high-risk situations	
Performs basic procedures, with guidance	Performs and interprets basic procedures independently	Performs and interprets advanced procedures, with guidance	Performs and interprets advanced procedures independently	Teaches advanced procedures and independently performs rare, time-sensitive procedures
	Recognizes common complications	Manages common complications	Independently recognizes and manages complex and uncommon complications	Performs procedural peer review

Comments:

Not Yet Completed Level 1

Not Yet Assessable

Patient Care 9: Provision of Appropriate Supervision				
Level 1	Level 2	Level 3	Level 4	Level 5
Provides supervision that aligns with patient care needs in simple scenarios, with guidance	Provides supervision that aligns with patient care needs in complex scenarios, with guidance	Tailors supervision to patient care, staff member, and learner needs	Continually adjusts supervision to optimize patient safety and learner/staff member education	Models reflective, flexible, and supportive supervision that optimally balances safe patient care with learner/staff member competence and professional development needs
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Comments:

Not Yet Completed Level 1   ☐
Not Yet Assessable   ☐

Medical Knowledge 1: Scientific Knowledge/Clinical Knowledge

Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates basic medical knowledge	Links basic medical knowledge to clinical scenarios	Applies medical knowledge to common and typical scenarios to guide patient care	Integrates medical knowledge that includes complicated and atypical conditions to guide patient care	Pursues and integrates new and emerging knowledge
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Comments:

Not Yet Completed Level 1   ☐
Not Yet Assessable   ☐

Medical Knowledge 2: Clinical Reasoning				
Level 1	Level 2	Level 3	Level 4	Level 5
Recognizes cognitive errors, with substantial guidance	Applies clinical reasoning principles to retrospectively identify cognitive errors	Continually re-appraises own clinical reasoning to prospectively minimize cognitive errors and manage uncertainty	Coaches others to recognize and avoid cognitive errors	Engages in systems-based approaches to mitigate cognitive errors

Comments:

Not Yet Completed Level 1 ☐
Not Yet Assessable ☐

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 their families (simulated or actual)	Discloses patient safety events to patients and their 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 local quality improvement initiatives (e.g., community vaccination rate, infection rate, smoking cessation)	Participates in local 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

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Comments:

Not Yet Completed Level 1   ☐

Systems-Based Practice 2: System Navigation for Patient-Centered Care				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of care coordination	Coordinates care of patients in routine clinical situations, effectively utilizing the roles of the interprofessional teams	Coordinates care of patients in complex clinical situations, effectively utilizing the roles of the interprofessional teams	Role models effective coordination of patient-centered care among different disciplines 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, including outpatient settings	Improves quality of transitions of care within and across health care delivery systems to optimize patient outcomes
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Comments:

Not Yet Completed Level 1   ☐

Systems-Based Practice 3: Physician Role in Health Care Systems

Level 1	Level 2	Level 3	Level 4	Level 5
Identifies key components of the complex health care system (e.g., hospital, skilled nursing facility, finance, personnel, technology)	Describes how components of a complex 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)	Manages 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 the principles of cost-effective care	Delivers care with consideration of each patient's payment model	Engages with patients in shared decision making, informed by cost-effective care principles	Advocates for patient care needs (e.g., community resources, patient assistance resources) regardless of ability to pay	Participates in health policy advocacy activities

Comments:

Not Yet Completed Level 1 ☐

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, and incorporate patient preferences and values in order to take care of a routine patient	Articulates clinical questions and elicits patient preferences and values in order 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
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Comments:

Not Yet Completed Level 1 ☐

Practice-Based Learning and Improvement 2: Reflective Practice and Commitment to Personal Growth

Level 1	Level 2	Level 3	Level 4	Level 5
Accepts responsibility for personal and professional development by establishing goals	Demonstrates openness to performance data (feedback and other input) in order to inform goals	Seeks performance data episodically, with adaptability and humility	Intentionally seeks performance data consistently, with adaptability and humility	Role models consistently seeking performance data with adaptability and humility
Identifies the factors which contribute to gap(s) between expectations and actual performance	Analyzes and reflects on the factors which contribute to gap(s) between expectations and actual performance	Analyzes, reflects on, and institutes behavioral change(s) to narrow the gap(s) between expectations and actual performance	Challenges assumptions and considers alternatives in narrowing the gap(s) between expectations and actual performance	Coaches others on reflective practice
Actively seeks opportunities to improve	Designs and implements a learning plan, with prompting	Independently creates and implements a learning plan	Uses performance data to measure the effectiveness of the learning plan and, when necessary, improves it	Facilitates the design and implementation of learning plans for others

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Comments:

Not Yet Completed Level 1   ☐

Professionalism 1: Professional Behavior and Ethical Principles

Level 1	Level 2	Level 3	Level 4	Level 5
Identifies and describes potential triggers for professionalism lapses	Demonstrates insight into professional behavior in routine situations	Demonstrates professional behavior in complex or stressful situations	Recognizes situations that may trigger professionalism lapses and intervenes to prevent lapses in self and others	Coaches others when their behavior fails to meet professional expectations
Describes when and how to appropriately report professionalism lapses, including strategies for addressing common barriers	Takes responsibility for own professionalism lapses	Recognizes need to seek help in managing and resolving complex ethical situations	Recognizes and utilizes appropriate resources for managing and resolving ethical dilemmas as needed (e.g., ethics consultations, literature review, risk management/legal consultation)	Identifies and seeks to address system-level factors that induce or exacerbate ethical problems or impede their resolution
Demonstrates knowledge of the ethical principles underlying informed consent, surrogate decision making, advance directives, confidentiality, error disclosure, stewardship of limited resources, and related topics	Analyzes straightforward situations using ethical principles	Analyzes complex situations using ethical principles		

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Comments:

Not Yet Completed Level 1   ☐

Professionalism 2: Accountability/Conscientiousness

Level 1	Level 2	Level 3	Level 4	Level 5
Takes responsibility for failure to complete tasks and responsibilities, identifies potential contributing factors, and describes strategies for ensuring timely task completion in the future	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	Recognizes situations that may impact others' ability to complete tasks and responsibilities in a timely manner	Takes ownership of system outcomes
Responds promptly to requests or reminders to complete tasks and responsibilities	Recognizes situations that may impact own ability to complete tasks and responsibilities in a timely manner	Proactively implements strategies to ensure that the needs of patients, teams, and systems are met		

Comments:

Not Yet Completed Level 1 ☐

Professionalism 3: Self-Awareness 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	With assistance, proposes a plan to optimize personal and professional well-being	Independently develops a plan to optimize personal and professional well-being	Coaches others when emotional responses or limitations in knowledge/ skills do not meet professional expectations
Recognizes limits in the knowledge/skills of self or team, with assistance	Independently recognizes limits in the knowledge/ skills of self or team and demonstrates appropriate help-seeking behaviors	With assistance, proposes a plan to remediate or improve limits in the knowledge/skills of self or team	Independently develops a plan to remediate or improve limits in the knowledge/skills of self or team	

Comments:

Not Yet Completed Level 1 ☐

Interpersonal and Communication Skills 1: Patient and Family-Centered Communication

Level 1	Level 2	Level 3	Level 4	Level 5
Uses language and nonverbal 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/ family concerns and context, regardless of complexity	Mentors others in situational awareness and critical self-reflection to consistently develop positive therapeutic relationships
Identifies common barriers to effective communication (e.g., language, disability) while accurately communicating own role within the health care system	Identifies complex barriers to effective communication (e.g., health literacy, cultural)	When prompted, reflects on personal biases while attempting to minimize communication barriers	Independently recognizes personal biases while attempting to proactively minimize communication barriers	Role models self-awareness while identifying a contextual approach to minimize communication barriers
Identifies the need to adjust communication strategies based on assessment of patient/ family expectations and understanding of their health status and treatment options	Organizes and initiates communication with patient/family by introducing stakeholders, setting the agenda, clarifying expectations, and verifying understanding of the clinical situation	With guidance, sensitively and compassionately delivers medical information, elicits patient/ family values, goals, and preferences, and acknowledges uncertainty and conflict	Independently, uses shared decision making to align patient/family values, goals, and preferences with treatment options to make a personalized care plan	Role models shared decision making in patient/family communication, including those with a high degree of uncertainty/conflict

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Comments:

Not Yet Completed Level 1   ☐

Interpersonal and Communication Skills 2: Interprofessional and Team Communication

Level 1	Level 2	Level 3	Level 4	Level 5
Respectfully requests a consultation	Clearly and concisely requests a consultation	Checks own understanding of consultant recommendations	Coordinates recommendations 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
Respectfully receives a consultation request	Clearly and concisely responds to a consultation request	Checks understanding of recommendations when providing consultation		
Uses language that values all members of the health care team	Communicates information effectively with all health care team members	Uses active listening to adapt communication style to fit team needs		
	Solicits feedback on performance as a member of the health care team	Communicates concerns and provides feedback to peers and learners	Communicates feedback and constructive criticism to superiors	Facilitates regular health care team-based feedback in complex situations

Comments:

Not Yet Completed Level 1 ☐

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	Demonstrates organized diagnostic and therapeutic reasoning through notes in the patient record	Concisely reports diagnostic and therapeutic reasoning in the patient record	Communicates clearly, concisely, timely, and in an organized written form, including anticipatory guidance	Models feedback to improve others' written communication
Safeguards patient personal health information	Demonstrates accurate, timely, and appropriate use of documentation shortcuts Documents required data in formats specified by institutional policy	Appropriately selects direct (e.g., telephone, in-person) and indirect (e.g., progress notes, text messages) forms of communication based on context	Achieves written or verbal communication (e.g., patient notes, email) that serves as an example for others to follow	Guides departmental or institutional communication around policies and procedures
Communicates through appropriate channels as required by institutional policy (e.g., patient safety reports, cell phone/pager usage)	Respectfully communicates concerns about the system	Uses appropriate channels to offer clear and constructive suggestions to improve the system	Initiates difficult conversations with appropriate stakeholders to improve the system	Facilitates dialogue regarding systems issues among larger community stakeholders (institution, health care system, field)

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Comments:

Not Yet Completed Level 1   ☐