Pediatrics Milestones for the Middle East



May 2017

The Pediatrics Milestones for the Middle East The Milestones are designed only for use in evaluation of residents in the context of their participation in ACGME-I-accredited residency programs. The Milestones provide a framework for the assessment of the development of the resident in key dimensions of the

competency, nor are they designed to be relevant in any other context.

elements of physician competency in a specialty. They neither represent the entirety of the dimensions of the six domains of physician

Milestones Reporting

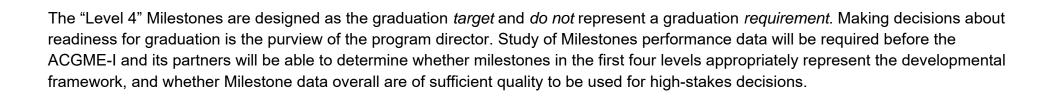
This document presents milestones designed for programs to use in semi-annual review of resident performance and reporting to the ACGME-I. Milestones are knowledge, skills, attitudes, and other attributes for each of the ACGME-I competencies organized in a developmental framework from less to more advanced. They are descriptors and targets for resident performance as a learner moves from entry into their program through graduation.

For each period, review and reporting will involve selecting milestone levels that best describe each resident's current performance and attributes. Milestones are arranged in numbered levels. Tracking from "Critical Deficiencies"/"Level 1" to "Aspirational"/"Level 5" is synonymous with moving from novice to expert in the specialty. These levels do not correspond with time in the educational program. Dependent upon previous education and experience, residents may enter a program at varying points in the Milestones.

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

- **Level 1:** These learner behaviors are not within the spectrum of developing competence. Instead, they indicate significant deficiencies in a resident's performance.
- Level 2: Describes behaviors of an early learner.
- **Level 3:** Describes behaviors of a resident who is advancing and demonstrating improvement in performance related to milestones.
- **Level 4:** Describes behaviors of a resident who substantially demonstrates the milestones identified for a physician who is ready for unsupervised practice. This column is designed as the graduation target, but the resident may display these milestones at any point during residency.
- **Level 5:** Describes behaviors of a resident who has advanced beyond those milestones that describe unsupervised practice. These milestones reflect the competence of an expert or role model and can be used by programs to facilitate further professional growth. It is expected that only a few exceptional residents will demonstrate these milestones behaviors.

Additional Notes



Answers to Frequently Asked Questions about Milestones are posted on the ACGME-I website.

The diagram below presents an example set of milestones for one sub-competency in the same format as the ACGME-I Report Worksheet. For each reporting period, a learner's performance on the milestones for each sub-competency will be indicated by selecting the level of milestones that best describes that learner'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 (actual or simulated)	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) Demonstrates the skills	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	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:				
		$\overline{}$	Not y	vet achieved Level 1
Selecting a response box in of a level implies that mile that level and in lower leve substantially demonstrate	stones in els have been	Selecting a response between levels indicat lower levels have been demonstrated as well the higher level(s).	es that milestones in a substantially	

Level 1	Level 2	Level 3	Level 4	Level 5
Gathers too little information or exhaustively gathers information following a template regardless of the patient's chief complaint, with each piece of information gathered seeming as important as the next	Clinical experience allows linkage of signs and symptoms of a current patient to those encountered in previous patients	Demonstrates an advanced development of pattern recognition that leads to the creation of illness scripts	Creates well-developed illness scripts	Creates robust illness scripts and instance scripts
Recalls clinical information in the order elicited, with the ability to gather, filter, and prioritize	Relies primarily on analytic reasoning through basic pathophysiology to gather information	Can gather simultaneously filtered, prioritized, and synthesized information into specific diagnostic considerations	Gathers accurate information and reaches precise diagnoses with ease and efficiency when presented with most pediatric problems	Unconsciously gathers essential and accurate information in a targeted and efficient manner for most complex or rare clinical problems
Connect pieces of information being limited by and dependent upon analytic reasoning through basic pathophysiology alone	Has the ability to link current findings to prior clinical encounters, allowing information to be filtered, prioritized, and synthesized into pertinent positives and negatives, as well as broad diagnostic categories	Data gathering is driven by real-time development of a differential diagnosis early in the information-gathering process	Relies on analytic reasoning through basic pathophysiology to gather information when presented with complex or uncommon problems	Discriminates among diagnoses with subtle distinguishing features
Gathers and presents a complete and accurate history and physical exam	Reliably performs clinical data gathering/source verification on common pediatric conditions	Develops an anticipatory approach for patients' problems and complications	Data gathering enables timely and precise diagnoses of common pediatric conditions	Is able to comfortably distinguish key clinical data differentiation for complex pediatric conditions
Begins to develop the ability to iller, prioritize, and process collected data	Is able to prioritize acuity level on common pediatric conditions but requires guidance on more complex cases	Recognizes unusual patterns of symptoms and signs in an individual or a group of patients	Develops an analytical approach for complex problems	

Level 1	Level 2	Level 3	Level 4	Level 5
Struggles to organize patient care responsibilities, leading to focusing care on individual patients rather than multiple patients	Organizes the simultaneous care of a few patients with efficiency	Organizes simultaneous care of many patients with efficiency	Organizes patient care responsibilities to optimize efficiency	Serves as a role model of efficiency
Prioritizes responsibilities as a reaction to unanticipated needs that arise (those responsibilities presenting the most significant crisis at the time are given the highest priority)	Occasionally prioritizes patient care responsibilities to anticipate future needs	Routinely prioritizes patient care responsibilities to proactively anticipate future needs	Provides care to a large volume of patients with marked efficiency	Prioritizes patient care responsibilities to proactively prevent interruptions by routine aspects of patient care that can be anticipated
Small interruptions in task often lead to a prolonged or permanent break in that task to attend to the interruption, making return to initial task difficult or unlikely	Each additional patient or interruption in work leads to notable decreases in both efficiency and ability to effectively prioritize	Additional care responsibilities lead to decreases in efficiency and ability to effectively prioritize only when patient volume is quite large or there is a perception of competing priorities	Patient care responsibilities are prioritized to proactively prevent those urgent and emergent issues in patient care that can be anticipated	Unavoidable interruptions are prioritized to maximize safe and effective multitasking of responsibilities in essentially all situations
	Permanent breaks in task with interruptions are less common, but prolonged breaks in task still occur	Interruptions in tasks are prioritized and only lead to prolonged breaks in tasks when workload or cognitive load is high	Interruptions in tasks lead to only brief breaks in tasks in most situations	

Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates variability in transfer of information (content, accuracy, efficiency, and synthesis) from one patient to the next	Uses a standard template for the information provided during the handoff	Adapts and applies a standardized template, relevant to individual contexts, reliably and reproducibly, with minimal errors of omission or commission	Adapts and applies a standard template without error to increasingly complex situations in a broad variety of settings and disciplines	Adapts and applies the template without error and regardless of setting or complexity
Makes frequent errors of both omission and commission in the handoff	Is unable to deviate from template to adapt to more complex situations	Allows ample opportunity for clarification and questions	Ensures open communication, whether in the receiver- or the provider-of-information role, through deliberative inquiry, including read-backs, repeat-backs (provider), and clarifying questions (receivers)	Internalizes the professional responsibility aspect of handoff communication, as evidenced by formal and explicit sharing of the conditions of transfer (e.g., time and place) and communication of those conditions to patients, families, and other members of the health care team
Transfers information rigidly without emphasis on important issues	May have errors of omission or commission, particularly when clinical information is not synthesized	Is beginning to anticipate potential issues for the transferee		
Occasionally misses non- critical issues in transfer of care	Neither anticipates nor attends to the needs of the receiver of information			

Patient Care 4: Make Informed Diagnostic and Therapeutic Decisions that Result in Optimal Clinical Judgment					
Level 1	Level 2	Level 3	Level 4	Level 5	
Presents clinical facts in the history and physical examination in the order they were elicited without filtering	Reorganizes clinical facts in the history and physical examination and uses analytic reasoning to formulate a deprioritized differential diagnosis	Abstracts and reorganizes elicited clinical findings using pattern recognition to develop a well-synthesized and organized assessment	Reorganizes clinical information through pattern recognition that leading to early directed diagnosis	Becomes an expert in the field through deliberate practice over time	
Demonstrates analytic reasoning to generate a generic differential diagnosis with limited ability to correlate the differential diagnosis and management plan specifically to patient	Decides on ordering numerous tests and therapies based on an unclear management plan, since there is no unifying diagnosis	Formulates a prioritized differential diagnosis and focused management plan for common pediatric conditions, but requires support for more complex cases	Selects therapies that are focused based on a unifying diagnosis, resulting in efficient and specific diagnostic work-up and management for common pediatric conditions and more complex cases	Is able to diagnose and manage rare and complex conditions with ease through a holistic approach	
Comments:			Not Yet	Achieved Level 1	

Patient Care 5: Develop and	Patient Care 5: Develop and Carry Out Management Plans			
Level 1	Level 2	Level 3	Level 4	Level 5
Develops and carries out management plans based on directives from others, either from the health care organization or the supervising physician	Develops and carries out management plans based on one's theoretical knowledge and/or directives from others	Develops and carries out management plans based on both theoretical knowledge and some experience, especially in managing common problems	Develops and carries out management plans based most often on experience	Develops and carries out management plans, even for complicated or rare situations, based primarily on experience that puts theoretical knowledge into context
Is unable to adjust plans based on individual patient differences or preferences; communication about the plan is unidirectional from the practitioner to the patient and family	Can adapt plans to the individual patient, but only within the framework of one's own theoretical knowledge	Follows health care institution directives as a matter of habit and good practice rather than as an externally imposed sanction	Effectively and efficiently focuses on key information to arrive at a plan	Rapidly focuses on key information to arrive at a plan, and augments that with available information or seeks new information as needed
Is capable of implementing instructed management plan	Is unable to focus on key information, so conclusions are often from arbitrary, poorly prioritized, and timelimited information gathering	Effectively and efficiently focuses on key information, but still may be limited by time and convenience	Incorporates patients' assumptions and values through bidirectional communication with little interference from personal biases	Has insight into one's own assumptions and values that allow one to filter them out and focus on the patient's/family's values in a bidirectional conversation about the management plan
Recognizes and reports deviations and unexpected outcomes	Develops management plans based on the framework of one's own assumptions and values	Begins to incorporate patients' assumptions and values into plans through more bidirectional communication	Is experienced in holistic management of patients Is able to work across disciplines to deliver patient-centered care	Is skilled in recognizing and managing complex cases with full insight on comprehensive patient needs and current best practices

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	Management plans are informed by self-knowledge with frequent need for feedback on deficiencies	Is capable of implementing and following a comprehensive management plan for common pediatric problems			
	Demonstrates a limited focus on complexities of management course	Needs support in developing and following management of more complex conditions			
Comments:				Not Yet Achieved Level 1	

Level 1	Level 2	Level 3	Level 4	Level 5
Explains basic principles of evidence-based medicine (EBM), but relevance is limited by lack of clinical exposure	Recognizes the importance of using current information to care for patients and responds to external prompts to do so	Identifies knowledge gaps as learning opportunities	Formulates answerable clinical questions regularly	Teaches critical appraisal of topics to others
Буровиго	Is able to formulate questions with significant effort and time; online search efficiency is minimal (e.g., may require multiple search strategies)	Makes an effort to ask answerable questions on a regular basis and is becoming increasingly able to do so	Incorporates use of clinical evidence in rounds and teaches fellow learners	Strives for change at the organizational level as dictated by best current information
	Knows how to read and interpret the literature, but requires guidance for application	Understands varying levels of evidence and can utilize advanced search methods	Is quite capable with advanced searching	Is able to easily formulate answerable clinical questions and does so with majority of patients as a habit
	Knows and applies clinical practice guidelines	Is able to critically appraise a topic by analyzing the major outcomes, however, may need guidance in understanding the subtleties of the evidence	Is able to critically appraise topics and does so regularly	Is able to effectively and efficiently search and access the literature
		Begins to seek and apply evidence when needed, not just when assigned to do so	Shares findings with others to try to improve their abilities; practices EBM because of the benefit to the patient and the desire to learn more rather than in response to external prompts	Is seen by others as a role model for practicing EBM
		Conducts literature reviews and incorporates current literature into patient care		

Systems-Based Practice 1:	Systems-Based Practice 1: Patient Safety and Quality Improvement				
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Demonstrates knowledge of how to report patient safety events	Reports patient safety events through institutional reporting systems (actual or simulated)	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 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:	Comments: Not Yet Achieved 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 their 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 handoffs	Performs safe and effective transitions of care/handoffs in routine clinical situations	Performs safe and effective transitions of care/handoffs in complex clinical situations	Role models and advocates for safe and effective transitions of care/handoffs 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	
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	Participates in changing and adapting practice to provide for the needs of specific populations	Leads innovations and advocates for populations and communities with health care inequities	
Comments:	Comments: Not Yet Achieved Level 1				

Level 1	Level 2	Level 3	Level 4	Level 5
Identifies components of the complex health care system	Describes the physician's role and how the interrelated components of complex health care system impact patient care	Analyzes how personal practice affects the system (e.g., length of stay, readmission rates, clinical efficiency)	Manages the interrelated components of the complex health care systems for efficient and effective patient care	Advocates for or leads change to enhance systems for high value, efficient, and effective patient care
Describes basic health payment systems, including government, private, public, and uninsured care and different practice models	Delivers care informed by patient specific payment model	Utilizes shared decision making in patient care, taking into consideration payment models	Advocates for patient care understanding the limitations of each patient's payment model (e.g., community resources, patient assistance resources)	Participates in advocacy activities for health policy to better align payment systems with high value care
		Identifies resources and effectively plans for transition to practice (e.g., information technology, legal, billing and coding, financial, personnel)	Describes basic elements needed to transition to practice (e.g., contract negotiations, malpractice insurance, government regulation, compliance)	

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 care for 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
Comments:			Not Ye	t Achieved 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 that contribute to gap(s) between expectations and actual performance	Analyzes and reflects on the factors that 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
Comments:	Comments: Not Yet Achieved Level 1			

_evel 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	Analyzes complex situations using ethical principles	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	Recognizes need to seek help in managing and resolving complex ethical situations		

₋evel 1	Level 2	Level 3	Level 4	Level 5
Takes responsibility for failure to complete tasks and responsibilities, dentifies 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		

evel 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	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	
	Demonstrates appropriate help-seeking behaviors			

Interpersonal and Communi	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/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 practice while identifying teaching 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 patients/families by introducing stakeholders, setting the agenda, clarifying expectations, and verifying an 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 in situations with a high degree of uncertainty/conflict	
Comments:			Not	Yet Achieved Level 1	

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	Communicates feedback and constructive criticism to superiors	Facilitates regular health care team-based feedback in complex situations
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		

evel 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, in a timely manner, 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	Appropriately selects direct (e.g., telephone, in-person) and indirect (e.g., progress notes, text messages) forms of communication based on context	Produces written or verbal communication (e.g., patient notes, e-mail, etc.) that serves as an example for others to follow	Guides departmental or institutional communicatio around policies and procedures
Communicates through appropriate channels as required by institutional policy (e.g. patient safety reports, cell phone/pager usage)	Documents required data in formats specified by institutional policy Respectfully communicates concerns	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 (e.g., institution, health care system, field)
	about the system			