Internal Medicine Milestones for the Middle East



May 2017

The Internal Medicine 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 elements of physician competency in a specialty. 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.

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).

Critical Deficiencies/Level 1: These learner behaviors are not within the spectrum of developing competence. Instead they indicate significant deficiencies in a resident's performance.

Column 2/Level 2: Describes behaviors of an early learner.

Column 3/Level 3: Describes behaviors of a resident who is advancing and demonstrating improvement in performance related to the Milestones.

Ready for Unsupervised Practice/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 the educational program.

Aspirational/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 behaviors.

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Additional Notes

The "Ready for Unsupervised Practice" Milestones are designed as the graduation *target* and *do not* represent a graduation *requirement*. Making decisions about readiness for graduation is the purview of the program director. Study of Milestones performance data will be required before the ACGME-I and its partners will be able to determine whether milestones in the first four levels appropriately represent the developmental framework, and whether Milestone data overall are of sufficient quality to be used for high-stakes decisions.

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.

Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
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)	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:		\sum		Not Yet Assessable
Selecting a response box in of a level implies that miles that level and in lower leve substantially demonstrated	tones in Is have been	Selecting a response be between levels indicate lower levels have been demonstrated as well a the higher level(s).	es that milestones in substantially	

Patient Care 1: Gathers and Synthesizes Essential and Accurate Information to Define Each Patient's Clinical Problem(s)				
Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
Does not collect accurate historical data	Inconsistently able to acquire accurate historical information in an organized fashion	Consistently acquires accurate and relevant histories from patients	Acquires accurate histories from patients in an efficient, prioritized, and hypothesis-driven fashion	Obtains relevant historical subtleties, including sensitive information that informs the differential diagnosis
Does not use physical exam to confirm history	Does not perform an appropriately thorough physical exam or misses key physical exam findings	Seeks and obtains data from secondary sources when needed	Performs accurate physical exams that are targeted to the patient's complaints	Identifies subtle or unusual physical exam findings
Relies exclusively on documentation of others to generate own database or differential diagnosis	Does not seek or is overly reliant on secondary data	Consistently performs accurate and appropriately thorough physical exams	Synthesizes data to generate a prioritized differential diagnosis and problem list	Efficiently utilizes all sources of secondary data to inform differential diagnosis
Fails to recognize patient's central clinical problems	Inconsistently recognizes patient's central clinical problem or develops limited differential diagnoses	Uses collected data to define a patient's central clinical problem(s)	Effectively uses history and physical examination skills to minimize the need for further diagnostic testing	Role models and teaches the effective use of history and physical examination skills to minimize the need for further diagnostic testing
Fails to recognize potentially life threatening problems				
Comments:			Not Y	et Assessable 🗌

Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
Care plans are consistently inappropriate or inaccurate	Inconsistently develops an appropriate care plan	Consistently develops appropriate care plan	Appropriately modifies care plans based on patient's clinical course, additional data, and patient preferences	Role models and teaches complex and patient- centered care
Does not react to situations that require urgent or emergent care	Inconsistently seeks additional guidance when needed	Recognizes situations requiring urgent or emergent care	Recognizes disease presentations that deviate from common patterns and require complex decision- making	Develops customized, prioritized care plans for the most complex patients, incorporating diagnostic uncertainty and cost effectiveness
Does not seek additional guidance when needed		Seeks additional guidance and/or consultation as appropriate	Manages complex acute and chronic diseases Acts as an advocate for inpatients	principles

Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
Cannot advance beyond the need for direct supervision in the delivery of patient care	Requires direct supervision to ensure patient safety and quality care	Requires indirect supervision to ensure patient safety and quality care	Independently manages patients across inpatient and ambulatory clinical settings who have a broad spectrum of clinical disorders including undifferentiated syndromes	Manages unusual, rare, or complex disorders
Cannot manage patients who require urgent or emergent care	Inconsistently manages simple ambulatory complaints or common chronic diseases	Provides appropriate preventive care and chronic disease management in the ambulatory setting	Seeks additional guidance and/or consultation as appropriate	
Does not assume responsibility for patient management decisions	Inconsistently provides preventive care in the ambulatory setting	Provides comprehensive care for single or multiple diagnoses in the inpatient setting	Appropriately manages situations requiring urgent or emergent care	
	Inconsistently manages patients with straightforward diagnoses in the inpatient setting	Under supervision, provides appropriate care in the intensive care unit	Effectively supervises the management decisions of the team	
	Unable to manage complex inpatients or patients requiring intensive care	Initiates management plans for urgent or emergent care		
		Cannot independently supervise care provided by junior members of the physician-led team		

Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
Attempts to perform procedures without sufficient technical skill or supervision	Possesses insufficient technical skill for safe completion of common procedures	Possesses basic technical skill for the completion of some common procedures	Possesses technical skill and has successfully performed all procedures required for certification	Maximizes patient comfort and safety when performing procedures
Unwilling to perform procedures when qualified and necessary for patient care	Does not collect an appropriate patient consent before procedure	Obtains appropriate patient consent before the procedure		Seeks to independently perform additional procedures (beyond those required for certification) that are anticipated for future practice Teaches and supervises the performance of procedures by junior members of the team

Patient Care 5: Requests and Provides Consultative Care				
Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
Is unresponsive to questions or concerns of others when acting as a consultant or utilizing consultant services	Inconsistently manages patients as a consultant to other physicians/health care teams	Provides consultation services for patients with clinical problems requiring basic risk assessment	Provides consultation services for patients with basic and complex clinical problems requiring detailed risk assessment	Switches between the role of consultant and primary physician with ease
Unwilling to utilize consultant services when appropriate for patient care	Inconsistently applies risk assessment principles to patients while acting as a consultant	Asks meaningful clinical questions that guide the input of consultants	Appropriately weighs recommendations from consultants in order to effectively manage patient care	Provides consultation services for patients with very complex clinical problems requiring extensive risk assessment
	Inconsistently formulates a clinical question for a consultant to address			Manages discordant recommendations from multiple consultants
Comments:				Not Yet Assessable 🗌

Medical Knowledge 1: Clinical Knowledge				
Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
Lacks the scientific knowledge required to provide patient care	Possesses insufficient scientific knowledge required to provide care for common medical conditions and basic preventive care	Possesses the scientific knowledge required to provide care for common medical conditions and basic preventive care	Possesses the scientific knowledge required to provide care for complex medical conditions and comprehensive preventive care	Possesses the scientific knowledge required to successfully diagnose and treat medically uncommon, ambiguous and complex conditions
Lacks the socioeconomic or behavioral knowledge required to provide patient care	Possesses insufficient socioeconomic and behavioral knowledge required to provide care for common medical conditions and basic preventive care	Possesses the socioeconomic and behavioral knowledge required to provide care for common medical conditions and basic preventive care	Possesses the socioeconomic and behavioral knowledge required to provide care for complex medical conditions and comprehensive preventive care	Possesses the socioeconomic and behavioral knowledge required to successfully diagnose and treat medically uncommon, ambiguous and complex conditions
Comments:				Not Yet Assessable

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Medical Knowledge 2: Knowledge of Diagnostic Testing and Procedures				
Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
Lacks foundational knowledge to apply diagnostic testing and procedures to patient care	Inconsistently interprets basic diagnostic tests accurately Does not understand the concepts of pre-test	Consistently interprets basic diagnostic tests accurately Needs assistance to understand the concepts	Interprets complex diagnostic tests accurately Understands the concepts of pre-test probability and	Anticipates and accounts for pitfalls and biases when interpreting diagnostic tests and procedures Pursues knowledge of
	probability and test performance characteristics	of pre-test probability and test performance characteristics	test performance characteristics	new and emerging diagnostic tests and procedures
	Minimally understands the rationale and risks associated with common procedures	Fully understands the rationale and risks associated with common procedures	Teaches the rationale and risks associated with common procedures and anticipates potential complications when performing procedures	
Comments:				Not Yet Assessable

Systems-Based Practice 1: Patient Safety and Quality Improvement				
Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
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)	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 Assessable

Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
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

Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
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)	

Practice-Based Learning and Improvement 1: Evidence-Based and Informed Practice				
Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
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 Yet Assessable

Practice-Based Learning and Improvement 2: Reflective Practice and Commitment to Personal Growth				
Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
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:				Not Yet Assessable

Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
dentifies and describes otential 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 now to appropriately eport professionalism apses, including trategies for addressing common parriers	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 nowledge of the ethical principles underlying nformed consent, urrogate decision naking, advance lirectives, confidentiality, error lisclosure, 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		

Professionalism 2: Accour Critical Deficiencies	ntability/Conscientiousness		Ready for Unsupervised Practice	Aspirational
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 Assessable

Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
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			

Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
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

Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
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		

nformationof documentation shortcutsin-person) and indirect (e.g., progress notes, text messages) forms of contextpatient notes, e-mail, etc.) that serves as an example for others to followaround policies and proceduresCommunicates throughDocuments required dataUses appropriateInitiates difficultFacilitates dialogue	Critical Deficiencies			Ready for Unsupervised Practice	Aspirational
bersonal health nformationtimely, and appropriate use of documentation shortcutsdirect (e.g., telephone, in-person) and indirect 	nformation in the	diagnostic and therapeutic reasoning through notes in	diagnostic and therapeutic reasoning in	concisely, in a timely manner, and in an organized written form, including anticipatory	improve others' written
appropriate channels as required by institutional policy (e.g. patient safety reports, cell phone/pager usage)in formats specified by institutional policychannels to offer clear and constructive suggestions to improve the systemconversations with appropriate stakeholders to 	personal health	timely, and appropriate use	direct (e.g., telephone, in-person) and indirect (e.g., progress notes, text messages) forms of communication based on	communication (e.g., patient notes, e-mail, etc.) that serves as an example	institutional communication around policies and
	appropriate channels as required by institutional policy (e.g. patient safety reports, cell	in formats specified by institutional policy Respectfully communicates concerns	channels to offer clear and constructive suggestions to improve	conversations with appropriate stakeholders to	regarding systems issues among larger community stakeholders (e.g., institution, health care