Hematology and Medical Oncology Milestones for the Middle East



January 2019

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The Hematology and Medical Oncology Milestones for the Middle East

The Milestones are designed only for use in evaluation of fellows in the context of their participation in ACGME-I-accredited fellowship programs. The Milestones provide a framework for the assessment of the development of the fellow 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.

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Milestones Reporting

This document presents milestones designed for programs to use in semi-annual review of fellow 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 fellow 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 fellow's current performance and attributes. Milestones are arranged in numbered levels. Tracking from "Level 1" to "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, fellows may enter a program at varying points in the Milestones.

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

Level 1: The fellow demonstrates milestones expected of an incoming fellow.

Level 2: The fellow is advancing and demonstrating additional milestones, but is not yet performing at a mid-fellowship level.

Level 3: The fellow continues to advance and demonstrate additional milestones; the fellow consistently demonstrates the majority of milestones targeted for fellowship.

Level 4: The fellow has advanced so that he or she now substantially demonstrates the milestones targeted for fellowship. This level is designed as the graduation target.

Level 5: The fellow has advanced beyond performance targets set for fellowship and is demonstrating "aspirational" goals, which might describe the performance of someone who has been in practice for several years. It is expected that only a few exceptional fellows will reach this level.

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Additional Notes

The "Level 4" 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.

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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 learner's performance on the milestones for each subcompetency 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 Demonstrates knowledge of basic quality improvement methodologies and metrics	Reports patient safety events through institutional reporting systems (actual or simulated) Describes local quality improvement initiatives (e.g., community vaccination rate, infection rate, smoking cessation)	Participates in disclosure of patient safety events to patients and families (simulated or actual) Participates in local quality improvement initiatives	Discloses patient safety events to patients and families (simulated or actual) Demonstrates the skills required to identify, develop, implement, and analyze a quality improvement project	Role models or mentors others in the disclosure of patient safety events Creates, implements, and assesses quality improvement initiatives at the institutional or community level
Comments: Selecting a response box in of a level implies that mile that level and in lower leve substantially demonstrate	n the middle stones in els have been	Selecting a response b between levels indicat lower levels have been demonstrated as wells the higher level(s).	ox on the line in es that milestones in n substantially	yet achieved Level 1

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Level 1	Level 2	Level 3	Level 4	Level 5
Accesses data and gathers a history standard for general internal medicine	Gathers a disease- specific history, with assistance	Accesses data from multiple sources and collects disease-specific history, including psychosocial issues, from the patient and family	Consistently synthesizes data from multiple sources and collects a disease-specific history from the patient and family	Role models gathering and synthesis of clinical information
Performs a physical examination standard for general internal medicine	Performs a disease- specific physical examination, with assistance	Completes a disease- specific physical examination	Consistently completes a disease-specific physical examination	
Comments:			Not Yet A	chieved Level 1

Patient Care 2: Diagnoses and Assigns Stage and Severity of Hematology and Oncology Disorders				
Level 1	Level 2	Level 3	Level 4	Level 5
Generates a differential diagnosis expected of a graduating internal medicine resident Orders testing without clear differential diagnosis	Generates an informed differential diagnosis, with assistance Orders and interprets diagnostic studies, with assistance	Generates an informed differential diagnosis Orders and interprets diagnostic studies, including molecular studies	Generates a diagnosis and assigns stage and disease severity informed by evidence-based studies and guidelines	Role models the generation of a diagnosis, including rare variants and atypical presentations, and assigns stage and disease severity, informed by evidence- based studies and guidelines
Comments:	Comments: Not Yet Achieved Level 1			

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Patient Care 3: Formulates the Management Plan				
Level 1	Level 2	Level 3	Level 4	Level 5
Formulates a management plan for patients without comorbidities, with assistance	Formulates a management plan using decision support tools for patients without comorbidities	Formulates a management plan with consideration of disease and patient factors and enrollment in clinical trials	Consistently formulates management plans that include consideration of clinical trial enrollment and conforms to patient preferences and goals of care	Serves as an expert in formulating management plans
Comments:			Not Yet Ac	hieved Level 1

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Patient Care 4: Adjusts Management Plans for Acute and Chronic Issues				
Level 1	Level 2	Level 3	Level 4	Level 5
Adjusts management plans according to standard guidelines and toxicities, with assistance	Adjusts management plans according to standard guidelines and toxicities	Adjusts management plans based on response to treatment, side effects of the treatment, and comorbidities	Adjusts management plans based on anticipation and recognition of subtle toxicities and long-term sequelae and/or changes in patient preferences and goals	Serves as an expert in developing and implementing pathways that influence management plans
Comments:			Not Yet Ad	chieved Level 1

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 Patient Care 5: Competence in Procedures including: Performance of bone marrow biopsies and aspirations; Assessment and interpretation of complete blood count; Interpretation of peripheral blood smears, and Use of systemic therapies through all therapeutic routes 					
Level 1	Level 2	Level 3	Level 4	Level 5	
Discusses the indications for and assists with all required procedures Discusses potential procedural complications	Performs all required procedures, with direct supervision Recognizes complications of procedures and enlists help	Competently performs all required procedures, with indirect supervision Manages complications of procedures, with supervision	Proficiently and independently performs all required procedures Anticipates and independently manages complications of procedures	Serves as an expert for all required procedures and their complications	
Comments:	Comments: Not Yet Achieved Level 1				

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Medical Knowledge 1: No	on-Malignant Hematology (in	cludes Pathophysiology, Dia	ignostics, Prognostic Informa	ation, and Treatment)
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates basic knowledge of specialty disorders	Demonstrates expanding knowledge of specialty disorders and development of clinical reasoning	Demonstrates sufficient knowledge of specialty disorders and clinical reasoning skills to determine evidence- based interventions	Synthesizes advanced knowledge of specialty disorders and uses clinical reasoning skills to develop personalized interventions	Serves as a subject matter expert
Comments:			Not Yet Achie	eved Level 1

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Medical Knowledge 2: Malignant Hematology (includes Pathophysiology, Diagnostics, Prognostic Information, and Treatment)				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates basic knowledge of specialty disorders	Demonstrates expanding knowledge of specialty disorders and development of clinical reasoning	Demonstrates sufficient knowledge of specialty disorders and clinical reasoning skills to determine evidence- based interventions	Synthesizes advanced knowledge of specialty disorders and utilizes clinical reasoning skills to develop personalized interventions	Serves as a subject matter expert
Comments:			Not Yet Achie	eved Level 1

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Medical Knowledge 3: Solid Tumor Oncology (includes Pathophysiology, Diagnostics, Prognostics Information, and Treatment)					
Level 1	Level 2	Level 3	Level 4	Level 5	
Demonstrates basic knowledge of specialty disorders	Demonstrates expanding knowledge of specialty disorders and development of clinical reasoning	Demonstrates sufficient knowledge of specialty disorders and clinical reasoning skills to determine evidence- based interventions	Synthesizes advanced knowledge of specialty disorders and uses clinical reasoning skills to develop personalized interventions	Serves as a subject matter expert	
Comments:	Comments: Not Yet Achieved Level 1				

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Medical Knowledge 4: Scholarly Activity				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies areas worthy of scholarly investigation	Formulates a scholarly plan under supervision of a mentor	Presents products of scholarly activity at local meetings	Disseminates products of scholarly activity at regional (Middle East) or international meetings, and/or submits an abstract to regional (Middle East) or international meetings	Publication of independent research that has generated new medical knowledge, educational programs or process improvement
Comments:			Not Yet Achie	eved Level 1

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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 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 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 using the roles of the interprofessional teams	Coordinates care of patients in complex clinical situations effectively using 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 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
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: Not Yet Achieved Level 1				

Systems-Based Practice	3: Physician Role in Health	Care Systems		
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	Uses 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)	
Comments:			Not Yet /	Achieved Level 1

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Practice-Based Learning	and Improvement 1: Evide	nce-Based and Informed Pra	actice	
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 Yet A	Achieved Level 1

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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 improves it when necessary	Facilitates the design and implementation of learning plans for others	
Comments:			Not Yet Achie	eved Level 1	

Professionalism 1: Profes	ssional 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	Analyzes complex situations using ethical principles	Recognizes and uses 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		
Comments:			Not Yet /	Achieved 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:	Comments: Not Yet Achieved Level 1					

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Professionalism 3: Self-A	wareness and Help-Seeking	I		
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	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			
Comments:			Not Ye	t Achieved Level 1

Interpersonal and Comm	unication Skills 1: Patient-	and Family-Centered Comm	unication	
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 Ye	t 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 Solicits feedback on performance as a member of the health care team	Uses active listening to adapt communication style to fit team needs Communicates concerns and provides feedback to peers and learners		

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, 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, email, etc.) 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)	Documents required data in formats specified by institutional policy	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)
	Respectfully communicates concerns about the system			