Family Medicine and Preventive Medicine (combined) programs must annually report on **each** set of Milestones.





Second Revision: October 2019 First Revision: October 2015

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The Preventive Medicine Milestone Project: Public Health and General Preventive Medicine

A Gaint Initiative of
The Accreditation Council for Graduate Medical Education
and
The American Board of Preventive Medicine





July 2015



Family Medicine Milestones

The Accreditation Council for Graduate Medical Education



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Family Medicine Milestones

The Milestones are designed only for use in evaluation of residents in the context of their participation in ACGME-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 or subspecialty. They neither represent the entirety of the dimensions of the six domains of physician competency, nor are they designed to be relevant in any other context.

Family Medicine Milestones

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American Association of Colleges of Osteopathic Medicine
Association of American Medical Colleges
American Board of Family Medicine
American College of Osteopathic Family Physicians
Association of Family Medicine Residency Directors
Assembly of Osteopathic Graduate Medical Educators
Committee on Osteopathic Recognition and Development
Review Committee for Family Medicine

Understanding Milestone Levels and Reporting

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

Milestones are arranged into levels. Tracking from Level 1 to Level 5 is synonymous with moving from novice to expert resident in the specialty or subspecialty. For each reporting period, the Clinical Competency Committee will review the completed evaluations to select the milestone levels that best describe each learner's current performance, abilities, and attributes for each subcompetency.

These levels *do not* correspond with post-graduate year of education. Depending on previous experience, a junior resident may achieve higher levels early in his/her educational program just as a senior resident may be at a lower level later in his/her educational program. There is no predetermined timing for a resident to attain any particular level. Residents 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.

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

Additional Notes

Level 4 is designed as a graduation *goal* but *does not* represent a graduation *requirement*. Making decisions about readiness for graduation and unsupervised practice is the purview of the program director. Furthermore, Milestones 2.0 include revisions and changes that preclude using Milestones as a sole assessment in high-stakes decisions (i.e., determination of eligibility for certification or credentialing). Level 5 is designed to represent an expert resident whose achievements in a subcompetency are greater than the expectation. Milestones are primarily designed for formative, developmental purposes to support continuous quality improvement for individual learners, education programs, and the specialty. The ACGME and its partners will continue to evaluate and perform research on the Milestones to assess their impact and value.

Examples are provided for some milestones within this document. Please 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 conformity to ACGME supervision guidelines as described in the Program Requirements, as well as to 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 the intent of each subcompetency, examples for each level, assessment methods or tools, and other available resources. The Supplemental Guide, like examples contained within the Milestones, is designed only to assist the program director and Clinical Competency Committee, and is not meant to demonstrate any required element or outcome.

Additional resources are available in the <u>Milestones</u> section of the ACGME website. Follow the links under "What We Do" at <u>www.acgme.org</u>.

The diagram below presents an example set of milestones for one sub-competency in the same format as the ACGME Report Worksheet. For each reporting period, a resident's performance on the milestones for each sub-competency will be indicated by selecting the level of milestones that best describes that resident's performance in relation to those milestones.

Systems-based Practice 1: Patient Safety and Quality Improvement				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of common patient safety events	Identifies system factors that lead to patient safety events	Participates in analysis of patient safety events (simulated or actual)	Conducts analysis of patient safety events and offers error prevention strategies (simulated or actual)	Actively engages teams and processes to modify systems to prevent patient safety events
Demonstrates knowledge of how to report patient safety events	Reports patient safety events through institutional reporting systems (simulated or actual)	Participates in disclosure of patient safety events to patients and families (simulated or actual)	Discloses patient safety events to patients and families (simulated or actual)	Role models or mentors others in the disclosure of patient safety events
Demonstrates knowledge of basic quality improvement methodologies and metrics	Describes local quality improvement initiatives (e.g., community vaccination rate, infection rate, smoking cessation)	Participates in local quality improvement initiatives	Demonstrates skills required to identify, develop, implement, and analyze a quality improvement project	Designs,, 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.		between levels ind		

Level 1	Level 2	Level 3	Level 4	Level 5
Generates differential diagnosis for acute presentations	Prioritizes the differential diagnosis for acute presentations	Promptly recognizes urgent and emergent situations and coordinates appropriate diagnostic strategies	Mobilizes the multidisciplinary team to manage care for simultaneous patient visits	Efficiently manages and coordinates the care of multiple patients with a range of severity, including life-threatening conditions
Recognizes role of clinical protocols and guidelines in acute situations	Develops management plans for patients with common acute conditions	Implements management plans for patients with complex acute conditions, including stabilizing acutely ill patients	Independently coordinates care for acutely ill patients with complex comorbidities	Directs the use of resources to manage a complex patient care environment or situation
Recognizes that acute conditions have an impact beyond the immediate disease process	Identifies the interplay between psychosocial factors and acute illness	Incorporates psychosocial factors into management plans of acute illness for patients and caregivers	Modifies management plans for acute illness based on complex psychosocial factors and patient preferences	Implements strategies to address the psychosocial impacts of acute illness on populations

Level 1	Level 2	Level 3	Level 4	Level 5
Recognizes that common conditions may be chronic (e.g., anxiety, high blood pressure)	Identifies variability in presentation and progression of chronic conditions	Determines the potential impact of comorbidities on disease progression	Balances the competing needs of patients' comorbidities	
Formulates a basic management plan that addresses a chronic illness	Identifies and accesses appropriate clinical guidelines to develop and implement plans for management of chronic conditions	Synthesizes a patient- centered management plan that acknowledges the relationship between comorbidities and disease progression	Applies experience with patients while incorporating evidence-based medicine in the management of patients with chronic conditions	Leads multidisciplinary initiatives to manage patient populations with chronic conditions and comorbidities
Recognizes that chronic conditions have an impact beyond the disease process	Identifies the impact of chronic conditions on individual patients and the others involved in their care	Develops collaborative goals of care and engages the patient in self-management of chronic conditions	Facilitates efforts at self-management of chronic conditions, including engagement of family and community resources	Initiates supplemental strategies (e.g., leads patient and family advisory councils, community health, practice innovation) to improve the care of patients with chronic conditions

Patient Care 3: Health Promotion and Wellness				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies screening and prevention guidelines by various organizations	Reconciles competing prevention guidelines to develop a plan for an individual patient, and considers how these guidelines apply to the patient population	Identifies barriers and alternatives to preventive health tests, with the goal of shared decision making	Incorporates screening and prevention guidelines in patient care outside of designated wellness visits	Participates in guideline development or implementation across a system of care or community
Identifies opportunities to maintain and promote wellness in patients	Recommends management plans to maintain and promote health	Implements plans to maintain and promote health, including addressing barriers	Implements comprehensive plans to maintain and promote health, incorporating pertinent psychosocial factors and other determinants of health	Partners with the community to promote health
Comments: Not Yet Completed Level 1 Not Yet Assessable				

Patient Care 4: Ongoing Care of Patients with Undifferentiated Signs, Symptoms, or Health Concerns				
Level 1	Level 2	Level 3	Level 4	Level 5
Acknowledges the value of continuity in caring for patients with undifferentiated illness	Accepts uncertainty and maintains continuity while managing patients with undifferentiated illness	Facilitates patients' understanding of their expected course and events that require physician notification	Coordinates collaborative treatment plans for patients with undifferentiated illness	Coordinates expanded initiatives to facilitate care of patients with undifferentiated illness
	Develops a differential diagnosis for patients with undifferentiated illness	Prioritizes cost-effective diagnostic testing and consultations that will change the management of undifferentiated illness	Uses multidisciplinary resources to assist patients with undifferentiated illness to deliver health care more efficiently	Contributes to the development of medical knowledge around undifferentiated illness
Comments: Not Yet Completed Level 1 Not Yet Assessable				

Patient Care 5: Management of Procedural Care				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies the breadth of procedures that family physicians perform	Identifies patients for whom a procedure is indicated and who is equipped to perform it	Demonstrates confidence and motor skills while performing procedures, including addressing complications	Identifies and acquires the skills to independently perform procedures in the current practice environment	Identifies procedures needed in future practice and pursues supplemental training to independently perform
Recognizes family physicians' role in referring patients for appropriate procedural care	Counsels patients about expectations for common procedures performed by family physicians and consultants	Performs independent risk and appropriateness assessment based on patient-centered priorities for procedures performed by consultants	Collaborates with procedural colleagues to match patients with appropriate procedures, including declining support for procedures that are not in the patient's best interest	
Comments: Not Yet Completed Level 1 Not Yet Assessable				

Medical Knowledge 1: De	monstrates Medical Knowl	edge of Sufficient Breadth	and Depth to Practice Fa	mily Medicine
Level 1	Level 2	Level 3	Level 4	Level 5
Describes the pathophysiology and treatments of patients with common conditions	Applies knowledge of pathophysiology with intellectual curiosity for treatment of patients with common conditions	Demonstrates knowledge of complex pathophysiology and the comprehensive management of patients across the lifespan	Integrates clinical experience and comprehensive knowledge in the management of patients across the lifespan	Expands the knowledge base of family medicine through dissemination of original research
Describes how behaviors impact patient health	Identifies behavioral strategies to improve health	Engages in learning behavioral strategies to address patient care needs	Demonstrates comprehensive knowledge of behavioral strategies and resources to address patient's needs	
Comments: Not Yet Completed Level 1 Not Yet Assessable				

Medical Knowledge 2: Critical Thinking and Decision Making				
Level 1	Level 2	Level 3	Level 4	Level 5
Incorporates key elements of a patient story into an accurate depiction of their presentation Describes common causes of clinical	Develops an analytic, prioritized differential diagnosis for common presentations Identifies types of clinical reasoning errors within	Develops a prioritized differential diagnosis for complex presentations Demonstrates a structured approach to	Synthesizes information to reach high probability diagnoses with continuous re-appraisal to minimize clinical reasoning errors	Engages in deliberate practice and coaches others to minimize clinical reasoning errors
reasoning error Interprets results of	patient care, with guidance Interprets complex	personally identify clinical reasoning errors Synthesizes complex	Anticipates and	Pursues knowledge of
common diagnostic testing	diagnostic information	diagnostic information accurately to reach high probability diagnoses	accounts for errors and biases when interpreting diagnostic tests	new and emerging diagnostic tests
Comments:	Comments: Not Yet Completed Level 1 Not Yet Assessable			

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 skills required to identify, develop, implement, and analyze a quality improvement project	Designs, implements, and assesses quality improvement initiatives at the institutional or community level

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 team members	Coordinates care of patients in complex clinical situations effectively using the roles of the interprofessional team member	Role models effective coordination of patient- centered care among different disciplines and specialties	Analyses 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 in 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

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 basic health payment systems, (including government, private, public, uninsured care) and practice models	Delivers care with consideration of each patient's payment model (e.g., insurance type)	Engages with patients in shared decision making, informed by each patient's payment models	Advocates for patient care needs (e.g., community resources, patient assistance resources)	Participates in health policy advocacy activities
Identifies basic knowledge domains for effective transition to practice (e.g., information technology, legal, billing and coding, financial, personnel)	Demonstrates use of information technology required for medical practice (e.g., electronic health record, documentation required for billing and coding)	Describes core administrative knowledge needed for transition to practice (e.g., contract negotiations, malpractice insurance, government regulation, compliance)	Analyzes individual practice patterns and prepares for professional requirements to enter practice	

Systems-Based Practice 4: Advocacy				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies that advocating for patient populations is a professional responsibility	Identifies that advocating for family medicine is a professional responsibility	Describes how stakeholders influence and are affected by health policy at the local, state, and federal level	Accesses advocacy tools and other resources needed to achieve (or prevent a deleterious) policy change	Develops a relationship with stakeholders that advances or prevents a policy change that improves individual or community health
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, categorize, and analyze clinical evidence	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 collaboratively develops evidence-based decision-making tools	
Comments:			Not Yet C	ompleted Level 1	

Practice-Based Learning	and Improvement 2: Refle	ctive Practice and Commit	ment 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	Intermittently seeks additional performance data with adaptability and humility	Consistently seeks performance data with adaptability and humility	Leads performance review processes
Identifies the factors which contribute to gap(s) between expectations and actual performance	Self-reflects and analyzes factors which contribute to gap(s) between expectations and actual performance	Self-reflects, analyzes, 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
Acknowledges there are always opportunities for self-improvement	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 implementing learning plans for others
Comments:			Not Yet C	ompleted Level 1

Level 1	Level 2	Level 3	Level 4	Level 5
Describes professional behavior and potential triggers for personal lapses in professionalism	Demonstrates 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	Mentors others in professional behavior
Takes responsibility for personal lapses in professionalism	Describes when and how to report professionalism lapses in self and others	Recognizes need to seek help in managing and resolving complex professionalism lapses	Recognizes and uses appropriate resources for managing and resolving dilemmas as needed	Identifies and seeks to address system-level factors that induce or exacerbate ethical problems and professionalism lapses or impede their resolution
Demonstrates knowledge	Analyzes straightforward	Analyzes complex		·
of ethical principles	situations using ethical	situations using ethical		
	principles	principles		

	untability/Conscientiousne				
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 and addresses 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 Completed Level 1				

Professionalism 3: Self-	Awareness and Help-Seekii	ng Behaviors		
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	Proposes a plan to optimize personal and professional well-being, with guidance	Independently develops a plan to optimize personal and professional well-being	Addresses system barriers to maintain personal and professional well-being
Recognizes limits in the knowledge/skills of self, with assistance	Independently recognizes limits in the knowledge/skills of self and team and demonstrates appropriate help-seeking behaviors	Proposes a plan to remediate or improve limits in the knowledge/skills of self or team, with guidance	Independently develops a plan to remediate or improve limits in the knowledge/skills of self or team	Mentors others to enhance knowledge/skills of self or team
Comments: Not Yet Completed Level 1				

Level 1	Level 2	Level 3	Level 4	Level 5
Uses language and nonverbal behavior to demonstrate respect, establish rapport while communicating one's own role within the health care system	Establishes a therapeutic relationship in straightforward encounters using active listening and clear language	Establishes a therapeutic relationship in challenging patient encounters	Maintains 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
Recognizes easily identified barriers to effective communication (e.g., language, disability)	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	Leads or develops initiatives to identify and address bias
Identifies the need to individualize communication strategies	Organizes and initiates communication, sets the agenda, clarifies expectations, and verifies understanding	Sensitively and compassionately delivers medical information, managing patient/family values, goals, preferences, 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

Level 1	Level 2	Level 3	Level 4	Level 5
Respectfully requests/receives a consultation	Clearly and concisely requests/responds to a consultation	Checks understanding of consult recommendations (received or provided)	Coordinates recommendations from different members of the health care team to optimize patient care, resolving conflict when needed	Role models flexible communication strategies that value input from all health care team members, resolving conflict when needed
Uses language that values all members of the health care team	Communicates information effectively with all health care team members	Communicates concerns and provides feedback to peers and learners	Communicates feedback and constructive criticism to supervising individuals	Facilitates regular health care team-based feedback in complex situations

Level 1	Level 2	Level 3	Level 4	Level 5
Accurately and timely records information in the patient record	Demonstrates organized diagnostic and therapeutic reasoning through notes in the patient record	Uses patient record to communicate updated and concise information in an organized format	Demonstrates efficiency in documenting patient encounters and updating record	Optimizes and improves functionality of the electronic medical record within their system
Learns institutional policy and safeguards patient personal health information	Appropriately uses documentation shortcuts; records required data in formats and timeframes specified by institutional policy	Appropriately selects direct (e.g., telephone, inperson) and indirect (e.g., progress notes, text messages) forms of communication based on context and policy	Manages the volume and extent of written and verbal communication that are required for practice	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 for system improvement while acknowledging system limitations	Initiates difficult conversations with appropriate stakeholders to improve the system	Facilitates dialogue regarding systems issues among larger community stakeholders (residency institution, health care system, field)

The Preventive Medicine Milestone Project: Public Health and General Preventive Medicine

A Joint Initiative of

The Accreditation Council for Graduate Medical Education and

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The Preventive Medicine Milestone Project: Public Health and General Preventive Medicine

The milestones are designed only for use in evaluation of resident physicians in the context of their participation in ACGME-accredited residency or fellowship programs. The milestones provide a framework for assessment of the development of the resident physician in key dimensions of the elements of physician competency in a specialty or subspecialty. They neither represent the entirety of the dimensions of the six domains of physician competency, nor are they designed to be relevant in any other context.

Preventive Medicine Milestones

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Milestone Reporting

This document presents milestones designed for programs to use in semi-annual review of resident performance and reporting to the ACGME. Milestones are knowledge, skills, attitudes, and other attributes for each of the ACGME competencies organized in a developmental framework from less to more advanced. They are descriptors and targets for resident performance as a resident moves from entry into residency through graduation. In the initial years of implementation, the Review Committee will examine milestone performance data for each program's residents as one element in the Next Accreditation System (NAS) to determine whether residents overall are progressing.

For each period, review and reporting will involve selecting milestone levels that best describe a resident's current performance and attributes. Milestones are arranged into numbered levels. Tracking from Level 1 to Level 5 is synonymous with moving from novice to expert. These levels do not correspond with post-graduate year of education.

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:** The resident demonstrates milestones expected of an incoming resident.
- **Level 2:** The resident is advancing and demonstrates additional milestones, but is not yet performing at a mid-residency level.
- **Level 3:** The resident continues to advance and demonstrate additional milestones, consistently including the majority of milestones targeted for residency.
- **Level 4:** The resident has advanced so that he or she now substantially demonstrates the milestones targeted for residency. This level is designed as the graduation target.
- **Level 5:** The resident has advanced beyond performance targets set for residency 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 residents will reach this level.

Additional Notes

Level 4 is designed as the graduation *target* and <u>does not</u> represent a graduation *requirement*. Making decisions about readiness for graduation is the purview of the residency program director. Study of milestone performance data will be required before the ACGME and its partners will be able to determine whether milestones in the first four levels appropriately represent the developmental framework, and whether milestone data are of sufficient quality to be used for high-stakes decisions.

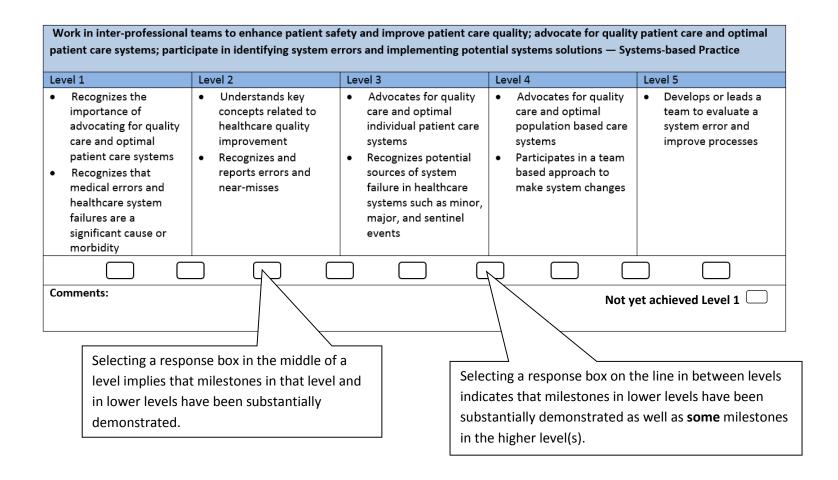
Some milestone descriptions include statements about performing independently. These activities must occur in conformity to ACGME supervision guidelines, as well as institutional and program policies. For example, a resident who performs a procedure independently must, at a minimum, be supervised through oversight.

To aid in scoring the milestones, a listing of assessment tools by competency is available on the milestone page under the heading "Educational Materials". These assessment tools are not required.

Answers to Frequently Asked Questions about Milestones are available on the Milestones web page: http://www.acqme.org/acqmeweb/Portals/0/MilestonesFAQ.pdf.

The diagram below presents an example set of milestones for one sub-competency in the same format as the milestone report worksheet. For each reporting period, a resident's performance on the milestones for each sub-competency will be indicated by:

- selecting the level of milestones that best describes that resident's performance in relation to the milestones or,
- for Patient Care and Medical Knowledge milestones, selecting the option that says the resident has "Not yet rotated" or.
- for Interpersonal and Communication Skills, Practice-based Learning and Improvement, Professionalism, and Systems-based Practice milestones, selecting the option that says the resident has "Not yet achieved Level 1"



Emergency Preparedness and Response: Apply skills in Emergency Preparedness and Response — Patient Care 1					
Level 1	Level 2	Level 3	Level 4	Level 5	
Demonstrates basic skills in emergency medical care	 Demonstrates knowledge of triage concepts Demonstrates basic knowledge of emergency preparedness programs 	Demonstrates and applies understanding of emergency preparedness programs	Demonstrates the ability to develop and evaluate the medical portion of an emergency plan	Provides leadership in developing, implementing, and evaluating emergency preparedness programs	
Comments: Not yet rotated					
Community Health: Monito	r, diagnose, and investigate o	community health problems -	— Patient Care 2		
Level 1	Level 2	Level 3	Level 4	Level 5	
Identifies common health issues in a community	Identifies basic health status measures to assess/investigate a community's health	Selects and describes appropriate health status measures to assess a community's health	Monitors and interprets single health status indicator of the community	Monitors and interprets multiple and/or complex health status indicators of the community	
Comments:				Not yet rotated	

	and educate populations ab	out health threats and risks -	- Patient Care 3	
Level 1	Level 2	Level 3	Level 4	Level 5
Conveys basic health information to individuals or small groups	Identifies proper communication techniques related to health threats and risks	Prepares and delivers a basic health hazard/risk presentation	Conveys complex health information to educate a community or group and responds to queries about risk	 Conveys sensitive/high- stakes health information to educate a community or group through a variety of media platforms
Comments:				Not yet rotated
Policies and Plans: Develop	policies and plans to support	individual and community h	ealth efforts — Patient Care 4	1
Level 1	Level 2	Level 3	Level 4	Level 5
Diagnoses disease and develops an individualized	 Links individuals to needed personal health services 	 Applies primary, secondary, and tertiary preventive 	Applies primary, secondary, and tertiary preventive	Contributes to the development and/or
treatment plan	including appropriate referrals and follow- ups	approaches to disease prevention and health promotion for individuals or communities, with minimal supervision	approaches to disease prevention and health promotion for the individuals and community	implementation of a policy to improve community health efforts
treatment plan	referrals and follow-	approaches to disease prevention and health promotion for individuals or communities, with	approaches to disease prevention and health promotion for the individuals and	policy to improve community health

Evaluating Health Services: Evaluate Population-based health services — Patient Care 5				
Level 1	Level 2	Level 3	Level 4	Level 5
 Recognizes distinctions between population and individual health services 	 Describes basic measures of effect (e.g., risk ratio) Describes basic measures of quality (e.g., benchmarking) Lists populations known to be underserved (e.g., low income) 	 Assesses evidence for effectiveness of a population-based health service Uses scientific literature to identify a target population for a given population-based health service Uses scientific literature to identify barriers to delivery of population-based health service 	 Uses program goals and/or established performance criteria to evaluate a population-based health service Uses evaluation findings to recommend strategic or operational improvements Uses data to identify barriers to population-based health services 	Develops program goals and/or performance criteria to evaluate a population-based health service
Comments:				Not yet rotated

Descriptive Epidemiology: Able to characterize the health of a community — Patient Care 6				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies and recognizes basic measures of disease frequency (incidence, prevalence, mortality) and risk (risk ratios, odds ratios)	 Knows methods for calculating basic measures of disease frequency and risk 	For a defined population, uses data to calculate measures of disease frequency and one or more risk factors for a specified disease or condition	Uses data to characterize the health of a local population, compares it with that of other populations, identifies localities or groups with poorer health, and identifies and assesses the importance of different risk factors, for at least one disease or condition	Uses data to fully characterize the health of a population, compares it with that of other populations, identifies localities or groups with poorer health, and identifies and assesses the importance of different risk factors, for a range of diseases and conditions
Comments:				Not yet rotated

Analytic Epidemiology: Able	e to design and conduct an ep	oidemiologic study — Patient Level 3	Care 7 Level 4	Level 5	
Distinguishes between experimental and observational studies	Explains what is meant by validity, bias, confounding, and effect modification; describes commonly used study designs (e.g., randomized controlled trail [RCT], cohort; casecontrol, cross-sectional); distinguishes between association and causation; lists criteria for causal inference	Critically reviews and interprets epidemiologic literature for commonly used study designs, identifying purpose, population, design, and biases	Able to design and conduct a basic epidemiological study (defines aims; selects appropriate study designs; collects, analyzes, and interprets data; identifies limitations; summarizes and discusses findings)	Independently designs and conducts a complex epidemiological study that addresses confounding and effect modification analytically, suitable for peerreviewed publication	
Comments:	Comments: Not yet rotated				

or outbreaks occur e Identifies most common methods for preventing individual disease spread c	Understands common environmental, health, and behavioral risk factors associated with	 Recognizes sentinel event; uses surveillance, hospital, vital statistics, 	Implements a plan to investigate and collects	Designs a strategy to investigate a cluster or
c ir p a a • L d tr (c s s • Ic n d p	clusters or outbreaks occurring (e.g., congregate settings, mmuno-compromised oppulations, and drug abuse) Understands aspects of disease that predispose to outbreak development (e.g., high infectivity, subclinical phase) dentifies most common methods for preventing disease spread in copulations (e.g., quarantine, isolation)	or other data to establish the existence of a cluster or outbreak • Establishes a case definition, including clinical and laboratory findings; participates in collection of demographic, clinical, and/or risk factor information from cases • Understands approaches for mitigating and responding to a cluster or outbreak	data to describe a cluster or outbreak Characterizes and interprets data collected from a cluster or outbreak investigation Applies a strategy or plan for management of an outbreak (e.g., limiting spread, mitigating effects)	outbreak of a novel disease or atypical disease presentation • Leads a team to investigate and manages an outbreak, including supervision of staff, assignment of roles, program design, monitoring of effectiveness, etc.

Surveillance Systems: Design and operate a surveillance system — Patient Care 9					
Level 1	Level 2	Level 3	Level 4	Level 5	
 Aware of the need to report selected diseases to public health authorities Aware of the need for surveillance systems in a variety of settings (e.g., public health agencies, hospitals, clinics, nursing homes) 	 Identifies commonly used surveillance data sources (e.g., Behavioral Risk Factor Suvelleince System [BRFSS], vital statistics, hospital discharge data) and the conditions typically monitored using such systems Recognizes difference between active and passive surveillance 	 Thoroughly describes the components of an existing surveillance system (e.g., aims, stakeholders, data sources, quality, uses, etc.) Develops a list of challenges in designing and maintaining a surveillance system 	 Analyzes surveillance data to identify appropriate targets for individual, community, and/or systems interventions Evaluates one or more aspects of the quality and effectiveness of a surveillance system (e.g., data completeness, ease of use, compliance) 	Independently designs and operates a new surveillance system	
Comments:				Not yet rotated	

Clinical Preventive Services (CPS): Analyze evidence regarding the performance of proposed clinical preventive services for individuals and				
populations — Patient Care	10			
Level 1	Level 2	Level 3	Level 4	Level 5
Locates and appraises evidence from a scientific study related to a patient's health problem	Leads a discussion with peers of the strengths and weaknesses of an individual study relevant to CPS	Participates in the examination of evidence to address a proposed clinical preventive service	Participates in the development or analysis of a guideline to address a proposed clinical preventive service	Systematically examines scientific evidence and develops an evidence- based guideline to address a proposed clinical preventive service
Comments:				Not yet rotated

Conditions of Public Health Significance: Implement appropriate clinical care for individuals with conditions of public health significance —				
Patient Care 11				
Level 1	Level 2	Level 3	Level 4	Level 5
 Obtains history and basic physical Prescribes indicated medications 	 Generates a differential diagnosis for a disease or condition of public health significance and proposes a treatment plan Identifies diseases and conditions that require a public health response 	 Accurately diagnoses and effectively treats common presentations of diseases/conditions of public health significance with direct supervision Participates in an appropriate public health intervention for a disease or condition that requires a public health response 	 Accurately diagnoses and effectively treats common presentations of diseases/conditions of public health significance Initiates an appropriate public health intervention for a disease or condition that requires a public health response 	Accurately diagnoses and effectively treats complex conditions and unusual presentations of diseases/conditions of public health significance
Comments:				Not yet rotated

Preventive Services: Select and provide appropriate evidence-based clinical preventive services — Patient Care 12				
Level 1	Level 2	Level 3	Level 4	Level 5
Prescribes immunizations and chemoprophylaxis	Identifies major risk factors of individual patients that would benefit from clinical preventive services (CPS); understands the recommendations of the U.S. Preventive Services Task Force (USPSTF)	Assesses relevant risks for disease and injury in individual patients and uses patient information, scientific evidence, USPSTF guidelines, and clinical judgment to select appropriate CPS for individual patients	Comprehensively assesses risks for diseases and injuries, and appropriately applies USPSTF and other evidence-based guidelines regarding screening, counseling, preventive medications, and immunization to individual patients	Comprehensively assesses risks for diseases and injuries, and appropriately applies USPSTF and other evidence-based guidelines regarding clinical preventive services in individual patients with complex health or social conditions (e.g., hospitalized, homeless, or nursing home patients)
Comments:				Not yet rotated

Behavioral Health — Medical Knowledge 1				
Level 1	Level 2	Level 3	Level 4	Level 5
 Lists major effects of individual behavior on health Recognizes that social and behavioral factors influence population health 	 Identifies social and behavioral factors that affect health of individuals Identifies social and behavioral factors that affect health of populations 	 Identifies best practice and tools to assess risk behaviors Describes effective approaches to modify individual health behaviors Describes effective approaches to modify population health behaviors Identifies the causes of social and behavioral factors that affect health of populations 	 Integrates best practices and tools to assess risk behaviors Implements effective approaches to modify individual health behaviors Integrates best practices and tools to assess population risk behaviors Implements effective approaches to modify population health behaviors 	Develops and evaluates programs to change health behaviors of individuals
Comments:				Not yet rotated

Environmental Health — Medical Knowledge 2				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies major routes of human exposure to environmental toxicants	 Identifies common illnesses that may be caused or influenced by environmental exposures Identifies broad environmental factors that may impact the health of a community 	 Describes individual factors that impact susceptibility to adverse health effects from environmental exposures Identifies potential population health effects from exposure to chemical, physical, and biological hazards 	 Recommends methods of reducing adverse environmental health effects for individuals Identifies sources and routes of environmental exposures to chemical, physical, and biological hazards for defined populations 	 Recommends, interprets, and explains the results of individual environmental monitoring Interprets and explains population level environmental monitoring results
Comments:				Not yet rotated

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Biostatistics — Medical Knowledge 3				
Level 1	Level 2	Level 3	Level 4	Level 5
Recognizes common statistical concepts (e.g., measures of central tendency, p-values, and confidence intervals)	Defines common statistical concepts (e.g., p-values and confidence intervals); describes frequently used statistical tests (e.g., paired and unpaired t- tests, chi-square tests, and others)	• Independently utilizes simple statistical methods (e.g., paired and unpaired t-tests, chi-square tests, and appropriate non-parametric tests) to describe small data sets; participates in the use of statistical software to perform statistical tests; understands more advanced statistical methods (e.g., linear and logistic regression)	Selects appropriate methods for analyzing data; performs data analyses using more advanced statistical methods (e.g., linear and logistic regression); utilizes appropriate software for data management and statistical analyses; recognizes the need to use complex statistical analyses (e.g., survival analysis, repeated measures)	Independently analyzes large data sets using complex statistical methods
Comments:				Not yet rotated

Work and coordinate patien	nt care effectively in various h	nealth care delivery settings a	and systems — Systems-based	d Practice 1
Level 1	Level 2	Level 3	Level 4	Level 5
 Recognizes various individual and population-based health care/services delivery settings and systems 	Works and coordinates individual patient care in various health care delivery settings and systems	Works and coordinates population-based health services in various health care delivery settings and systems	Assess organizational performance of health care delivery system	 Interacts with other stakeholders to improve the performance of the system
Comments:			N	ot yet achieved Level 1
Incorporate considerations based Practice 2	of cost awareness and risk-bo	enefit analysis in patient and,	or population-based care, as	appropriate — Systems-
Level 1	Level 2	Level 3	Level 4	Level 5
 Recognizes the importance of cost awareness and risk- benefit analysis in patient and /or population-based care 	Identifies risks, benefits, and costs for a preventive service in an individual clinical patient	Demonstrates sound judgment relating to risks, benefits, and costs for a preventive service in an individual clinical patient	Demonstrates sound judgment relating to risks, benefits, and costs for a preventive service for a population	 Articulates and weighs the costs, benefits, and risks of a proposed population-based service
Comments:			N	ot yet achieved Level 1

Level 1	Level 2	Level 3	Level 4	Level 5
 Recognizes the importance of advocating for quality care and optimal patient care systems Recognizes that medical errors and health care system failures are a significant cause or morbidity 	 Understands key concepts related to health care quality improvement Recognizes and reports errors and near misses 	 Advocates for quality care and optimal individual patient care systems Recognizes potential sources of system failure in healthcare systems, such as minor, major, and sentinel events 	 Advocates for quality care and optimal population-based care systems Participates in a team- based approach to make system changes 	Develops or leads a team to evaluate a system error and improve processes

Identify strengths, deficiencies, and limits in one's knowledge and expertise; set learning and improvement goals and identify and perform appropriate learning activities utilizing information technology, evidence from scientific studies, and evaluation feedback; systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement — Practice-based **Learning and Improvement 1** Level 2 Level 5 Level 1 Level 3 Level 4 • Acknowledges gaps in Assesses professional Assesses performance • Creates novel ways to Incorporates feedback personal knowledge and performance in a and assessments into by incorporating assess performance. structured manner feedback and expertise, and practice improvement Creates professional • Develops learning and frequently asks for Begins to develop assessments from educational feedback. learning and improvement goals, multiple stakeholders opportunities for others Understands the improvement goals, based on feedback, with (e.g., patients, members Systematically designs importance of setting based on feedback, with minimal external of the health care team, and carries out quality third-party payors) learning and some external assistance assistance improvement project in • Uses information clinical and other health improvement goals Assimilates evidence Critically appraises from scientific studies • Identifies problems in technology to locate scientific studies related settings. health care delivery and scientific studies related to patient health into practice gaps in care to patient health problems • Participates in a quality problems improvement project Defines and constructs process and outcomes Understands the essentials of quality measures of quality improvement **Comments:** Not yet achieved Level 1

Compassion, integrity, and respect for others, as well as sensitivity and responsiveness to diverse patient populations, including diversity in gender, age, culture, race, religion, disabilities, and sexual orientation; knowledge about, respect for, and adherence to the ethical principles relevant to the practice of medicine, remembering in particular that responsiveness to patients that supersedes self-interest is an essential aspect of medical practice — Professionalism 1

Level 1	Level 2	Level 3	Level 4	Level 5
 Seeks out, learns from, and models the attitudes and behaviors of physicians who exemplify appropriate professional attitudes, values, and behaviors, including caring, honesty, genuine interest in patients and families, and tolerance and acceptance of diverse individuals and groups Aware of basic bioethical principles; identifies ethical issues in clinical situations 	 Exhibits appropriate attitudes, values and behaviors in straightforward situations, including caring, honesty, genuine interest in patients and families, and tolerance and acceptance of diverse individuals and groups Consistently recognizes ethical issues in practice; discusses, analyzes, and manages in common clinical situations 	 Exhibits appropriate attitudes, values and behaviors in difficult situations, including caring, honesty, genuine interest in patients and families, and tolerance and acceptance of diverse individuals and groups Effectively analyzes and manages ethical issues in difficult clinical situations 	 Balances ethical principles required for individual patient care with those needed for addressing population health Consistently and effectively analyzes and manages ethical issues in both clinical and population-based medicine 	Develops organizational policies and education to support the application of these principles in the practice of individual and population-based medicine
Comments: Not yet achieved Level 1				

Accountability to patients, society and the profession — Professionalism 2				
Level 1	Level 2	Level 3	Level 4	Level 5
 Recognizes limits of knowledge in most clinical situations Understands importance of physician accountability Aware of the basic causes of impairment in professionals such as fatigue, and substance use 	 Consistently recognizes limits of knowledge in common clinical situations and asks for assistance Demonstrates physician accountability to individual patients in clinical situations Identifies resources to address impairment of professionals 	 Appropriately engages other members of the healthcare team Demonstrates physician accountability to a patient population in clinical situations Able to recognize impairment in themselves or other members of the healthcare team 	 Consistently demonstrates the ability to identify limits of own knowledge and proactively incorporates the expertise of others from the healthcare team into clinical and population-based practice Demonstrates physician accountability to patients, society, and profession in the performance of clinical and population-based duties Able to respond appropriately to impairment in members of the healthcare team 	 Acts as a consultant for clinical and population health topics Exemplifies ethical leadership in clinical and population-based settings
Comments: Not yet achieved Level 1				

Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds; communicate effectively with physicians, other health care professionals and health related agencies; work effectively as a member or leader of a health care team or other professional group; act in a consultative role to other physicians and health professionals — Interpersonal Communication and Skills 1

Level 1	Level 2	Level 3	Level 4	Level 5
 Recognizes the importance of effective communication with patients, families, and public Recognizes the importance of effective communication with the health care team Recognizes the importance of working with other members of the health care team 	 Demonstrates effective communication with patients, families, or public in common situations Demonstrates effective communication with the health care team in common situations Works effectively with the health care team in common situations 	 Demonstrates effective communication with patients or the public in issues related to confidential and/or highly sensitive medical information Demonstrates effective communication with the health care team in clinical and population settings Works effectively with the health care team in clinical and population settings 	 Demonstrates effective communication with patients and the public in issues related to confidential and/or highly sensitive medical information using multiple communication modalities Able to communicate effectively with the health care team in stressful situations/crises Works effectively with the health care team in stressful situations/crisis 	 Creates policy for effective communication of complex health information Demonstrates effective communication outside of the local healthcare environment, such as state and federal agencies, regional health care systems Understands the importance of working with diverse stakeholders outside of the local health care environment, such as state and federal agencies, regional health care systems
Comments: Not yet achieved Level 1				

Maintain comprehensive, timely and legible medical records, including electronic health records (EHR) — Interpersonal Communication and					
Skills 2					
Level 1	Level 2	Level 3	Level 4	Level 5	
 Recognizes the importance of maintaining timely and legible records, including EHR 	 Maintains timely and legible records, including EHR 	 Maintains complete, timely, and legible records, including EHR 	Consistently maintains complete, timely, and legible records, including EHR	Develops a protocol for record maintenance	
Comments:			N	ot yet achieved Level 1	