

Preventive Medicine Milestones

ACGME International, Inc. (ACGME-I)



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Preventive Medicine Milestones

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

Understanding Milestone Levels and Reporting

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

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

These levels *do not* correspond with post-graduate year of education. Depending on previous experience, more junior residents/fellows may achieve higher levels early in their educational program just as more senior residents/fellows may be at a lower level later in their educational program. There is no predetermined timing for a resident or fellow to attain any particular level. Residents and fellows may also regress in achievement of their milestones. This may happen for many reasons, such as overscoring in a previous review, a disjointed experience in a particular procedure, or a significant act by the resident/fellow.

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

Additional Notes

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

Examples are provided for some milestones within this document. Note: The examples are not the required element or outcome; they are provided as a way to share the intent of the element.

Some milestone descriptions include statements about performing independently. These activities must occur in conformance with ACGME-I supervision guidelines as described in the applicable Program Requirements, as well as with institutional and program policies. For example, a resident who performs a procedure independently must, at a minimum, be supervised through oversight.

A Supplemental Guide is also available to provide more context regarding the intent of each subcompetency, as well as examples for each level, assessment methods or tools, and other resources. The Supplemental Guide, like examples contained within the Milestones, is designed only to assist the program director and Clinical Competency Committee; it is not meant to demonstrate any required element or outcome.

The diagram below presents an example set of milestones for one subcompetency in the same format as the ACGME-I Report Worksheet. For each reporting period, a resident's/fellow's performance on the milestones within each subcompetency will be indicated by selecting the Milestones Level that best describes that individual's performance in relation to those milestones.

Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of common patient safety events	Identifies system factors that lead to patient safety events	Participates in analysis of patient safety events (simulated or actual)	Conducts analysis of patient safety events and offers error prevention strategies (simulated or actual)	Actively engages teams and processes to modify systems to prevent patient safety events
Demonstrates knowledge of how to report patient safety events	Reports patient safety events through institutional reporting systems (simulated or actual)	Participates in disclosure of patient safety events to patients and their families (simulated or actual)	Discloses patient safety events to patients and their families (simulated or actual)	Role models or mentors others in the disclosure of patient safety events
Demonstrates knowledge of basic quality improvement methodologies and metrics	Describes local quality improvement initiatives (e.g., community vaccination rate, infection rate, smoking cessation)	Participates in local quality improvement initiatives	Demonstrates the skills required to identify, develop, implement, and analyze a quality improvement project	Creates, implements, and assesses quality improvement initiatives at the institutional or community level
Comments: Not Yet Completed Level 1				Completed Level 1
Selecting a response box in the middle of a level implies that milestones in that level and in lower levels have been substantially demonstrated.		Selecting a response between levels indica in lower levels have be demonstrated as well milestones in the high	tes that milestones een substantially as some	

Patient Care 1: Emergency Preparedness and Response – Apply Skills in Emergency Preparedness and Response					
Level 1	Level 2	Level 3	Level 4	Level 5	
Identifies examples of public health threats that might warrant an emergency response	Describes how a response to a public health emergency is organized	Plans and/or participates in an emergency preparedness event (actual or simulated)	Evaluates an emergency preparedness event (actual or simulated)	Provides leadership during an emergency preparedness event (actual or simulated)	
Comments: Not Yet Completed Level 1 Not Yet Assessable					

Patient Care 2: Policies and Plans – Develop Policies and Plans to Support Individual and Community Health Efforts					
Level 1	Level 2	Level 3	Level 4	Level 5	
Identifies pertinent policies and interventions for individual patient care	Describes how policies and plans are developed and implemented to support the health of individuals and communities	Applies policies and plans for disease prevention and health promotion to individuals and/or communities	Evaluates policies and plans for disease prevention and health promotion that have been applied to individuals and/or communities	Develops and/or implements policies or plans to improve community health	
Comments:					
Not Yet Completed Level 1 Not Yet Assessable					

Patient Care 3: Clinical and Community Preventive Services				
Level 1	Level 2	Level 3	Level 4	Level 5
Locates and appraises evidence about a clinical preventive service for an individual patient	Discusses the strengths and weaknesses of an individual study relevant to a clinical preventive service	Examines the quality and strength of evidence of a clinical preventive service	Participates in the analysis of a guideline to address a clinical preventive service	Evaluates the implementation of an evidence-based guideline to address a clinical preventive service and identifies barriers and proposes solutions to improving system-level adherence
Recognizes distinctions between population and individual health services	Describes the usefulness and value of population-based health services in meeting the needs of target populations	Assesses evidence for population-based health services	Uses established performance criteria to evaluate a population-based health service, to include identifying barriers to services and strategies for improvement	Develops program goals and/or performance criteria to evaluate a population-based health service for strategic or operational improvements
Comments: Not Yet Completed Level 1 Not Yet Assessable				

Patient Care 4: Lifestyle Medicine					
Level 1	Level 2	Level 3	Level 4	Level 5	
Lists modifiable and non- modifiable risk factors associated with the development of prevalent chronic conditions	Identifies evidence of utilizing lifestyle interventions that reduce the risk of developing, or to mitigate the effects of, prevalent chronic conditions	Recommends lifestyle interventions to mitigate and treat prevalent chronic conditions in individuals	Evaluates or develops a plan for management of lifestyle factors associated with prevalent chronic conditions at the population or community level	Implements and evaluates a population- based strategy for an evidence-based lifestyle program or policy that mitigates prevalent chronic conditions at the population or community level	
Comments: Not Yet Completed Level 1 Not Yet Assessable					

Medical Knowledge 1: Occupational and Environmental Health				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies common illnesses that may be caused or influenced by exposure to occupational and environmental hazards	Identifies the components of an occupational and environmental exposure history	Takes a complete occupational and environmental exposure history, including individual factors that impact susceptibility to environmental hazards	Recommends methods for reducing or eliminating exposure to occupational and environmental hazards and methods for addressing the health effects resulting from these exposures	Evaluates and interprets the results of individual and/or population-level occupational and environmental monitoring
Identifies major classes of occupational and environmental hazards and their routes of human exposure	Describes situations that warrant an occupational and environmental risk assessment	Identifies the steps in an occupational and environmental risk assessment and describes how the results are used to manage and communicate risk	Conducts a population- level occupational and environmental risk assessment (actual or simulated)	Makes policy recommendations based on the results of an occupational and environmental risk assessment
Comments: Not Yet Completed Level 1 Not Yet Assessable				

Medical Knowledge 2: Biostatistics					
Level 1	Level 2	Level 3	Level 4	Level 5	
Recognizes common statistical concepts and tests	Identifies statistical test(s) for a given research question and data set	Performs data analyses using various statistical methods	Interprets the statistical and clinical significance of a data set and evaluates the generalizability of the results to a population	Analyzes and interprets large data sets using complex statistical methods and submits the results for publication or presentation	
Comments: Not Yet Completed Level 1 Not Yet Assessable					

Medical Knowledge 3: Epidemiology				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies sources of data and common measures for descriptive epidemiology	Defines basic measures of disease frequency and excess risk	Calculates measures of disease frequency and excess risk for a specified disease or condition	Uses data to characterize the health of a local population and compares it with that of other populations	Teaches use of data to characterize the health of a population and compare it with that of other populations
Describes basic research design	Compares and contrasts commonly used study designs	Critiques epidemiologic studies, including assessing external and internal validity and distinguishing between association and causation	Participates in epidemiological research, including evaluating and interpreting results	Independently designs and conducts epidemiologic research
Describes the natural history of disease and relevance to primary, secondary, and tertiary prevention	Identifies criteria for effective screening tests	Assesses the validity and reliability of individual screening tests	Uses evidence about individual screening tests, interventions, and harms to weigh the potential benefits and harms of screening programs	Provides expert opinion on the benefits and harms of screening programs
Comments: Not Yet Completed Level 1 Not Yet Assessable				

Medical Knowledge 4: Public Health Regulations					
Level 1	Level 2	Level 3	Level 4	Level 5	
Identifies examples of public health regulatory agencies	Describes the regulatory requirements for a specific public health topic	Interprets regulatory requirements as applied to individuals and/or populations	Develops or modifies a public health policy based upon regulatory requirements or public health laws (actual or simulated)	Contributes to the development or modification of a proposed regulatory requirement or public health law	
Comments: Not Yet Completed Level 1 Not Yet Assessable					

Medical Knowledge 5: Infectious Diseases of Public Health Significance					
Level 1	Level 2	Level 3	Level 4	Level 5	
Describes common methods for identifying the source and preventing the transmission of infectious diseases	Discusses aspects of disease and common environmental, health, and behavioral risk factors associated with infectious diseases of public health significance	Describes the epidemiology, risk factors, prevention strategies, diagnosis, and treatment for infectious diseases of public health significance	Applies knowledge of the epidemiology, risk factors, prevention strategies, diagnosis, and treatment for infectious diseases of public health significance to the individual or at the population level	Designs a plan for the prevention, diagnosis, and treatment of an infectious disease of public health significance at the population level	
Comments: Not Yet Completed Level 1 Not Yet Assessable					

Systems-Based Practice 1: Patient Safety and Quality Improvement				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of common patient safety events	Identifies system factors that lead to patient safety events	Participates in analysis of patient safety events (simulated or actual)	Conducts analysis of patient safety events and offers error prevention strategies (simulated or actual)	Actively engages teams and processes to modify systems to prevent patient safety events
Demonstrates knowledge of how to report patient safety events	Reports patient safety events through institutional reporting systems (simulated or actual)	Participates in disclosure of patient safety events to patients and their families (simulated or actual)	Discloses patient safety events to patients and their families (simulated or actual)	Role models or mentors others in the disclosure of patient safety events
Demonstrates knowledge of basic quality improvement methodologies and metrics	Describes local quality improvement initiatives (e.g., community vaccination rate, infection rate, smoking cessation)	Participates in local quality improvement initiatives	Demonstrates the skills required to identify, develop, implement, and analyze a quality improvement project	Creates, implements, and assesses quality improvement initiatives at the institutional or community level
Comments: Not Yet Completed Level 1				

Systems-Based Practice 2: System Navigation for Patient-Centered Care				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of care coordination	Coordinates care of patients in routine clinical situations, effectively utilizing the roles of the interprofessional teams	Coordinates care of patients in complex clinical situations, effectively utilizing the roles of the interprofessional teams	Role models effective coordination of patient- centered care among different disciplines and specialties	Analyzes the process of care coordination and leads in the design and implementation of improvements
Identifies key elements for safe and effective transitions of care and hand-offs	Performs safe and effective transitions of care/hand-offs in routine clinical situations	Performs safe and effective transitions of care/hand-offs in complex clinical situations	Role models and advocates for safe and effective transitions of care/hand-offs within and across health care delivery systems, including outpatient settings	Improves quality of transitions of care within and across health care delivery systems to optimize patient outcomes
Comments: Not Yet Completed Level 1				

Systems-Based Practice 3: Physician Role in Health Care Systems						
Level 1	Level 2	Level 3	Level 4	Level 5		
Identifies key components of the complex health care system (e.g., hospital, skilled nursing facility, finance, personnel, technology)	Describes how components of a complex health care system are interrelated, and how this impacts patient care	Discusses how individual practice affects the broader system (e.g., length of stay, readmission rates, clinical efficiency)	Manages various components of the complex health care system to provide efficient and effective patient care and transition of care	Advocates for or leads systems change that enhances high value, efficient, and effective patient care and transition of care		
Describes the principles of cost-effective care	Delivers care with consideration of each patient's payment model	Engages with patients in shared decision making, informed by cost-effective care principles	Advocates for patient care needs (e.g., community resources, patient assistance resources) regardless of ability to pay	Participates in health policy advocacy activities		
Comments: Not Yet Completed Level 1						

Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates how to access and use available evidence, and incorporate patient preferences and values in order to take care of a routine patient	Articulates clinical questions and elicits patient preferences and values in order to guide evidence-based care	Locates and applies the best available evidence, integrated with patient preference, to the care of complex patients	Critically appraises and applies evidence, even in the face of uncertainty and conflicting evidence, to guide care tailored to the individual patient	Coaches others to critically appraise and apply evidence for complex patients, and/or participates in the development of guidelines

Practice-Based Learning and Improvement 2: Reflective Practice and Commitment to Personal Growth					
Level 1	Level 2	Level 3	Level 4	Level 5	
Accepts responsibility for personal and professional development by establishing goals	Demonstrates openness to performance data (feedback and other input) in order to inform goals	Seeks performance data episodically, with adaptability and humility	Intentionally seeks performance data consistently, with adaptability and humility	Role models consistently seeking performance data with adaptability and humility	
Identifies the factors which contribute to gap(s) between expectations and actual performance	Analyzes and reflects on the factors which contribute to gap(s) between expectations and actual performance	Analyzes, reflects on, and institutes behavioral change(s) to narrow the gap(s) between expectations and actual performance	Challenges assumptions and considers alternatives in narrowing the gap(s) between expectations and actual performance	Coaches others on reflective practice	
Actively seeks opportunities to improve	Designs and implements a learning plan, with prompting	Independently creates and implements a learning plan	Uses performance data to measure the effectiveness of the learning plan and, when necessary, improves it	Facilitates the design and implementation of learning plans for others	
Comments: Not Yet Completed Level 1					

Practice-Based Learning and Improvement 3: Disease Outbreak and Surveillance Systems					
Level 1	Level 2	Level 3	Level 4	Level 5	
Discusses common causes of disease clusters and outbreaks	Describes the steps of a cluster or outbreak investigation	Analyzes an outbreak, assessing for steps taken, mitigation strategies, results, and areas for improvement in the approach	Participates in the planning and implementation of a cluster/outbreak investigation (actual or simulated)	Leads a team to investigate and manage an outbreak, including supervision of staff members, assignment of roles, program design, monitoring of effectiveness, etc.	
Recognizes the need to report selected diseases to public health authorities and describes the need for surveillance systems in a variety of settings	Identifies and summarizes commonly used surveillance systems	Lists the challenges in designing and maintaining a surveillance system	Analyzes surveillance data to identify appropriate targets for individual, community, and/or systems interventions and to evaluate the quality of the system	Independently designs and implements a new surveillance system	
Comments: Not Yet Completed Level 1 Not Yet Assessable					

Professionalism 1: Professional Behavior and Ethical Principles					
Level 1	Level 2	Level 3	Level 4	Level 5	
Identifies and describes potential triggers for professionalism lapses	Demonstrates insight into professional behavior in routine situations	Demonstrates professional behavior in complex or stressful situations	Recognizes situations that may trigger professionalism lapses and intervenes to prevent lapses in self and others	Coaches others when their behavior fails to meet professional expectations	
Describes when and how to appropriately report professionalism lapses, including strategies for addressing common barriers	Takes responsibility for own professionalism lapses	Recognizes need to seek help in managing and resolving complex ethical situations	Recognizes and utilizes appropriate resources for managing and resolving ethical dilemmas as needed (e.g., ethics consultations, literature	Identifies and seeks to address system-level factors that induce or exacerbate ethical problems or impede their	
Demonstrates knowledge of the ethical principles underlying informed consent, surrogate decision making, advance directives, confidentiality, error disclosure, stewardship of limited resources, and related topics	Analyzes straightforward situations using ethical principles	Analyzes complex situations using ethical principles	review, risk management/legal consultation)	resolution	
Comments: Not Yet Completed Level 1					

Professionalism 2: Accountability/Conscientiousness						
Level 1	Level 2	Level 3	Level 4	Level 5		
Takes responsibility for failure to complete tasks and responsibilities, identifies potential contributing factors, and describes strategies for ensuring timely task completion in the future	Performs tasks and responsibilities in a timely manner with appropriate attention to detail in routine situations	Performs tasks and responsibilities in a timely manner with appropriate attention to detail in complex or stressful situations	Recognizes situations that may impact others' ability to complete tasks and responsibilities in a timely manner	Takes ownership of system outcomes		
Responds promptly to requests or reminders to complete tasks and responsibilities	Recognizes situations that may impact own ability to complete tasks and responsibilities in a timely manner	Proactively implements strategies to ensure that the needs of patients, teams, and systems are met				
Comments: Not Yet Completed Level 1						

Professionalism 3: Self-Awareness and Help-Seeking						
Level 1	Level 2	Level 3	Level 4	Level 5		
Recognizes status of personal and professional well-being, with assistance	Independently recognizes status of personal and professional well-being	With assistance, proposes a plan to optimize personal and professional well-being	Independently develops a plan to optimize personal and professional well-being	Coaches others when emotional responses or limitations in knowledge/ skills do not meet professional expectations		
Recognizes limits in the knowledge/skills of self or team, with assistance	Independently recognizes limits in the knowledge/ skills of self or team and demonstrates appropriate help-seeking behaviors	With assistance, proposes a plan to remediate or improve limits in the knowledge/skills of self or team	Independently develops a plan to remediate or improve limits in the knowledge/skills of self or team			
Comments: Not Yet Completed Level 1						

Interpersonal and Communication Skills 1: Patient and Family-Centered Communication					
Level 1	Level 2	Level 3	Level 4	Level 5	
Uses language and nonverbal behavior to demonstrate respect and establish rapport	Establishes a therapeutic relationship in straightforward encounters using active listening and clear language	Establishes a therapeutic relationship in challenging patient encounters	Easily establishes therapeutic relationships, with attention to patient/ family concerns and context, regardless of complexity	Mentors others in situational awareness and critical self-reflection to consistently develop positive therapeutic relationships	
Identifies common barriers to effective communication (e.g., language, disability) while accurately communicating own role within the health care system	Identifies complex barriers to effective communication (e.g., health literacy, cultural)	When prompted, reflects on personal biases while attempting to minimize communication barriers	Independently recognizes personal biases while attempting to proactively minimize communication barriers	Role models self- awareness while identifying a contextual approach to minimize communication barriers	
Identifies the need to adjust communication strategies based on assessment of patient/ family expectations and understanding of their health status and treatment options	Organizes and initiates communication with patient/family by introducing stakeholders, setting the agenda, clarifying expectations, and verifying understanding of the clinical situation	With guidance, sensitively and compassionately delivers medical information, elicits patient/ family values, goals, and preferences, and acknowledges uncertainty and conflict	Independently, uses shared decision making to align patient/family values, goals, and preferences with treatment options to make a personalized care plan	Role models shared decision making in patient/family communication, including those with a high degree of uncertainty/conflict	
Comments: Not Yet Completed Level 1					

Interpersonal and Communication Skills 2: Interprofessional and Team Communication						
Level 1	Level 2	Level 3	Level 4	Level 5		
Respectfully requests a consultation	Clearly and concisely requests a consultation	Checks own understanding of consultant recommendations	Coordinates recommendations from different members of the health care team to optimize patient care	Role models flexible communication strategies that value input from all health care team members, resolving conflict when needed		
Respectfully receives a consultation request	Clearly and concisely responds to a consultation request	Checks understanding of recommendations when providing consultation				
Uses language that values all members of the health care team	Communicates information effectively with all health care team members	Uses active listening to adapt communication style to fit team needs				
	Solicits feedback on performance as a member of the health care team	Communicates concerns and provides feedback to peers and learners	Communicates feedback and constructive criticism to superiors	Facilitates regular health care team-based feedback in complex situations		
Comments: Not Yet Completed Level 1						

Interpersonal and Communication Skills 3: Communication within Health Care Systems						
Level 1	Level 2	Level 3	Level 4	Level 5		
Accurately records information in the patient record	Demonstrates organized diagnostic and therapeutic reasoning through notes in the patient record	Concisely reports diagnostic and therapeutic reasoning in the patient record	Communicates clearly, concisely, timely, and in an organized written form, including anticipatory guidance	Models feedback to improve others' written communication		
Safeguards patient personal health information	Demonstrates accurate, timely, and appropriate use of documentation shortcuts Documents required data in formats specified by institutional policy	Appropriately selects direct (e.g., telephone, inperson) and indirect (e.g., progress notes, text messages) forms of communication based on context	Achieves written or verbal communication (e.g., patient notes, email) that serves as an example for others to follow	Guides departmental or institutional communication around policies and procedures		
Communicates through appropriate channels as required by institutional policy (e.g., patient safety reports, cell phone/pager usage)	Respectfully communicates concerns about the system	Uses appropriate channels to offer clear and constructive suggestions to improve the system	Initiates difficult conversations with appropriate stakeholders to improve the system	Facilitates dialogue regarding systems issues among larger community stakeholders (institution, health care system, field)		
Comments: Not Yet Completed Level 1						