

Rheumatology Milestones

The Accreditation Council for Graduate Medical Education



Second Revision: August 2020 First Revision: October 2014

Rheumatology Milestones

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

Rheumatology Milestones Work Group

Michael Battistone, MD

Jason Liebowitz, MD

Marcy B. Bolster, MD Bethany Marston, MD

Anisha Dua, MD, MPH Kevin McKown, MD

Laura Edgar, CAE, EdD Kenneth O'Rourke, MD

Karen Gouze, PhD Karina Torralba, MD, MACM, RhMSUS, CCD

Jason Kolfenbach, MD Joanne Valeriano-Marcet, MD

The ACGME would like to thank the following organizations for their continued support in the development of the Milestones:

American Board of Internal Medicine

American College of Rheumatology

Review Committee for Internal Medicine

Understanding Milestone Levels and Reporting

This document presents the Milestones, which programs use in a semi-annual review of fellow 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/fellow 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 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, a junior fellow may achieve higher levels early in his/her educational program just as a senior fellow 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. Fellows 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 fellow.

Selection of a level implies the fellow 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 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. The ACGME and its partners will continue to evaluate and perform research on the Milestones to assess their impact and value.

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 fellow 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.

Supplemental Guides and other resources are available on the Milestones page of each specialty section of the ACGME website. On www.acgme.org, choose the applicable specialty under the "Specialties" menu, then select the "Milestones" link in the lower navigation bar.

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 fellow's performance on the milestones for each subcompetency will be indicated by selecting the level of milestones that best describes that fellow's performance in relation to those milestones.

Level 1	Level 2	Level 3	Level 4	Level 5
Establishes personal and professional goals, identifying gap(s) between goals and current performance	Demonstrates receptiveness to feedback, analyzing and reflecting on factors contributing to gap(s) between goals and current performance	Seeks feedback episodically, and institutes behavioral change(s) when necessary	Seeks feedback consistently, and sustains behavioral change as necessary	Role models consistently seeking performance data with adaptability and humility, and coaches others on reflective practice
	Designs and implements a learning plan, with prompting	Independently creates and implements an individualized 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
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 level in lower levels demonstrated	sponse box on the line is indicates that milestons have been substantially as well as some the higher level(s).	nes

Patient Care 1: Gathers	an Essential and Accurate l	Patient History		
Level 1	Level 2	Level 3	Level 4	Level 5
Acquires a basic rheumatic history Reviews available medical records	Integrates a rheumatic history with a comprehensive medical history, including functional aspects Identifies relevant findings in the medical record	Acquires a tailored comprehensive rheumatic history, including historical subtleties and psychosocial aspects Independently requests additional information to supplement available medical records	Integrates the current patient history with the complete medical record, supplemental information, and disease activity measures	Identified as a role model in interpreting subtleties and resolving ambiguities in the patient history
		Intedical records		
Comments:			Not Yet Co	ompleted Level 1
			Not Yet As	ssessable

Patient Care 2: Physical	Examination			
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies the elements of a comprehensive physical examination	Performs all elements of a comprehensive physical examination	Performs a tailored comprehensive physical examination including advanced techniques, when applicable	Performs a tailored comprehensive physical examination that elicits subtle findings	Identified as a role model for performing and interpreting a comprehensive, accurate physical and musculoskeletal examination
Identifies the elements of a musculoskeletal examination	Performs all elements of a musculoskeletal examination	Performs a tailored comprehensive musculoskeletal examination including advanced techniques, when applicable	Performs a tailored comprehensive musculoskeletal examination that elicits subtle findings	
Comments:				ompleted Level 1

Patient Care 3: Compreh	ensive Management Plan D	Development		
Level 1	Level 2	Level 3	Level 4	Level 5
With supervision, formulates a differential diagnosis for a patient	Independently formulates a broad differential diagnosis for typical disease presentations	Independently formulates a prioritized differential diagnosis for typical disease presentations	Independently formulates a prioritized differential diagnosis with consideration of typical and atypical disease presentations	Independently formulates a prioritized differential diagnosis with consideration of newly recognized and emerging conditions
Demonstrates an awareness of disease activity measures With supervision, develops a management plan	Identifies applicable disease activity measures Independently develops a management plan for a patient with common disease presentations	Incorporates and interprets the results of disease activity measures Independently recognizes disease acuity, and with supervision, develops a prioritized management plan	Independently develops and implements a prioritized management plan with consideration of acuity and complexity of disease presentation	Identified as an expert resource for management of a focused disease area
Comments:			Not Yet Co	ompleted Level 1

Patient Care 4: Therapeu	tics, including Immunomo	dulatory Agents		
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies indications and adverse effects of medications used to treat patients with common rheumatic conditions	Prescribes and monitors medications used in patients with common rheumatic conditions	Prescribes, monitors, and assesses the response to pharmacotherapy used in the management of patients with common rheumatic conditions	Integrates best available evidence to prescribe, monitor, and assess the response to pharmacotherapy used in the management of patients with common and complex rheumatic conditions	Develops a clinical practice pathway for management of patients with rheumatic conditions
	Evaluates for comorbidities that may alter therapeutic recommendations	Modifies treatment plans to address comorbidities, with supervision	Independently modifies treatment plans to address comorbidities	
Comments:			Not Yet Co	ompleted Level 1

Patient Care 5: Procedur	es			
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies indications for joint and soft tissue aspirations and injections, and discusses principles of informed consent	Performs common joint and soft tissue injections and aspirations with direct supervision, including independently discussing risks and benefits, obtaining informed consent, identifying anatomic landmarks, and demonstrating aseptic technique	Performs common joint and soft tissue aspirations and injections with indirect supervision	Independently performs common joint and soft tissue aspirations and injections	Independently performs complex joint and soft tissue aspirations or injections, including unusual sites, anatomic abnormalities, or incorporating imaging guidance
	Recognizes the role of musculoskeletal ultrasound in the diagnosis and treatment of patients with rheumatic conditions	Interprets the findings of musculoskeletal ultrasound for common conditions with supervision	Independently interprets the findings of musculoskeletal ultrasound for common conditions, and recognizes the role of ultrasound in non- musculoskeletal rheumatic conditions	Independently performs and interprets point-of- care diagnostic ultrasound and uses ultrasound to guide invasive procedures
Comments:			Not Yet Co Not Yet As	ompleted Level 1

Level 1	Level 2	Level 3	Level 4	Level 5
Respectfully receives a consultation request	Clearly and concisely responds to a consultation request	Verifies understanding of recommendations with the primary team when providing consultation	Integrates recommendations from different members of the health care team and effectively conveys consultative assessment and rationale to all health care team members	Identified as a role mode for the provision of consultative care across the spectrum of disease complexity and acuity
With supervision,	Independently recognizes	Recognizes disease	Mobilizes resources to	
recognizes disease	disease acuity	acuity and prioritizes	provide care in high-	
acuity		management steps	acuity situations	
Comments:			Not Yet C	ompleted Level 1
				ssessable

includes the delivery of safe, effective, patient-centered, timely, efficient, and equitable care.

Yes	No	Conditional on Improvement

Medical Knowledge 1: Po	ossesses Clinical Knowled	ge		
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies key features of common rheumatic conditions Demonstrates basic knowledge of anatomy,	Demonstrates broad knowledge of common rheumatic conditions Demonstrates basic knowledge of anatomy,	Demonstrates knowledge of less common rheumatic conditions as well as common rheumatic conditions associated with higher complexity Demonstrates in-depth knowledge of anatomy,	Integrates knowledge of the pathogenesis, epidemiology, clinical expression, treatments, and prognosis of a broad range of rheumatic conditions Integrates knowledge of anatomy, genetics,	matter expert in basic and/or clinical science of
physiology, and other basic sciences	genetics, immunology, metabolism, and other basic sciences pertaining to rheumatic conditions	genetics, immunology, metabolism, and other basic sciences pertaining to rheumatic conditions	immunology, metabolism, and other basic sciences pertaining to a broad range of rheumatic conditions	
Comments:			Not Yet Co	ompleted Level 1

Medical Knowledge 2: K	nowledge of Diagnostic Tes	sting		
Level 1	Level 2	Level 3	Level 4	Level 5
Explains the rationale, risks, and benefits for common diagnostic testing in patients being evaluated for rheumatic conditions	Integrates value and test characteristics into diagnostic strategies in patients with uncomplicated rheumatic conditions	Integrates value and test characteristics into diagnostic strategies in patients with complex rheumatic conditions	Integrates and reconciles information, including non-specific and/or conflicting diagnostic test results to form a cohesive evaluation	Identified as an expert in testing strategies and in the selection and interpretation of complex, new, or emerging tests
Comments:			Not Yet Co	ompleted Level 1
			Not Yet As	ssessable

Medical Knowledge 3: So	cholarly Activity			
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies areas worthy of scholarly investigation, with supervision	Designs a scholarly activity with a mentor(s)	Engages in scholarly work, incorporates feedback, and participates in critical appraisal and analysis of project data	Produces scholarly work suitable for dissemination as an abstract or presentation	Dissemination of independent scholarly work that has generated new medical knowledge, educational programs, or process improvement
Comments:			Not Yet C	ompleted Level 1
			Not Yet As	ssessable
program. The fellow is demo	satisfactory development of onstrating a learning trajector, effective, patient-centered,	ry that anticipates the achieve	ement of competency for u	

_Yes ____No ___Conditional on Improvement

Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of common patient safety events	Identifies system factors that lead to patient safety events	Participates in analysis of patient safety events (simulated or actual)	Conducts analysis of patient safety events and offers error prevention strategies (simulated or actual)	Actively engages teams and processes to modify systems to prevent patient safety events
Demonstrates knowledge of how to report patient safety events	Reports patient safety events through institutional reporting systems (actual or simulated)	Participates in disclosure of patient safety events to patients and families (simulated or actual)	Discloses patient safety events to patients and families (simulated or actual)	Role models or mentors others in the disclosure of patient safety events
Demonstrates knowledge of basic quality improvement methodologies and metrics	Describes quality improvement initiatives relevant to rheumatology practice	Participates in quality improvement initiatives relevant to rheumatology practice	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

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	Leads in the design and implementation of improvements to the care coordination process
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

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
Recognizes the impact of cost and patient payment model on care decisions	Identify the principles of high-value care and delivers care with consideration of each patient's payment model	Engages with patients in shared decision making and incorporates principles of high-value care into management plans	Advocates for individual patient care needs to provide high-value care	Participates in health policy advocacy activities
	Demonstrates use of information technology (e.g., electronic health record) needed for clinical practice	Demonstrates knowledge of current evaluation and management billing practices	Independently completes proper documentation and coding for a patient encounter	Educates others on proper documentation, billing, and coding practices

Systems-Based Practice

The fellow is demonstrating satisfactory development of the knowledge, skill, and attitudes/behaviors needed to advance in the training program. The fellow is demonstrating a learning trajectory that anticipates the achievement of competency for unsupervised practice that includes the delivery of safe, effective, patient-centered, timely, efficient, and equitable care.

,	Yes	No	Conditional	on l	Improv	ement

Practice-Based Learning and Improvement 1: Evidence-Based and Informed Practice					
Level 1	Level 2	Level 3	Level 4	Level 5	
Formulates clinical questions and elicits patient preferences to inform care	Locates available evidence and incorporates patient preferences to inform patient care	Evaluates and applies best available evidence and incorporates patient preferences and values in order to provide care tailored to individual patients	Critically appraises and applies evidence, and recognizes gaps and conflicting evidence to guide care tailored to individual patients	Coaches others to critically appraise and apply evidence for complex patients; and/or participates in the development of guidelines	
Comments:			Not Yet C	ompleted Level 1	

Level 1	Level 2	Level 3	Level 4	Level 5
Establishes personal and professional goals, identifying gap(s) between goals and current performance	Demonstrates receptiveness to feedback, analyzing and reflecting on factors contributing to gap(s) between goals and current performance	Seeks feedback episodically, and institutes behavioral change(s) when necessary	Seeks feedback consistently, and sustains behavioral change as necessary	Role models consistently seeking performance data with adaptability and humility, and coaches others on reflective practice
	Designs and implements a learning plan, with prompting	Independently creates and implements an individualized learning plan	Uses data and feedback from multiple sources to measure the effectiveness of the learning plan and when necessary, improves it	Facilitates the design and the implementation of learning plans for others

Practice-Based Learning and Improvement

The fellow is demonstrating satisfactory development of the knowledge, skill, and attitudes/behaviors needed to advance in the training program. The fellow is demonstrating a learning trajectory that anticipates the achievement of competency for unsupervised practice that includes the delivery of safe, effective, patient-centered, timely, efficient, and equitable care.

Professionalism 1: Professional Behavior					
Level 1	Level 2	Level 3	Level 4	Level 5	
Describes when and how to appropriately report professionalism lapses, including strategies for addressing common barriers	Identifies and describes triggers for professionalism lapses and takes responsibility for own professional behavior	Proactively recognizes situations that may trigger professionalism lapses	Demonstrates professional behavior in complex or stressful situations and intervenes to prevent lapses in self and others	Coaches others when behavior fails to meet professional expectations	
Comments:			Not Yet C	ompleted Level 1	

Professionalism 2: Ethical Principles Level 1 Level 3 Level 4 Level 5						
Demonstrates knowledge of basic ethical principles	Applies basic principles to resolve straightforward ethical situations	Analyzes complex situations using ethical principles and recognizes need to seek help in resolving complex ethical situations	Manages and resolves complex ethical dilemmas using available resources	Identifies and seeks to address system-level factors that induce or exacerbate ethical problems or impede their resolution		
Comments:			Not Yet C	ompleted Level 1		

Level 1	Level 2	Level 3	Level 4	Level 5
Performs tasks and responsibilities, with prompting	Performs tasks and responsibilities in a timely manner with attention to detail in routine situations	Performs tasks and responsibilities in a timely manner with attention to detail in complex or stressful situations	Demonstrates leadership to ensure tasks and responsibilities are completed in a timely manner with attention to detail in complex or stressful situations	Creates strategies to enhance others' ability to efficiently complete tasks and responsibilities
Takes responsibility for failure to complete tasks and responsibilities	Recognizes situations that may impact own ability to complete tasks and responsibilities in a timely manner	Recognizes situations that may impact others' 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	

Professionalism 4: Self-Awareness and Help-Seeking					
Level 1	Level 2	Level 3	Level 4	Level 5	
Recognizes status of own and others' well- being, with assistance	Independently recognizes status of own and others' well-being, and asks for help when needed	Recognizes the impact of own and others' well- being on the patient and team, with assistance	Independently recognizes the impact of own and others' wellbeing on the patient and team, and asks for help when needed	Leads initiatives to improve wellness at the program or institutional level	
With assistance recognizes personal gaps in knowledge, skills, and attitudes	Independently recognizes limits in personal knowledge, skills, and attitudes	With assistance, develops a plan to improve personal knowledge, skills, and attitudes	Independently implements a plan to improve personal knowledge, skills, and attitudes	Coaches others when limitations in knowledge, skills, and attitudes do not meet professional expectations	
Comments:					
Comments: Not Yet Completed Level 1					

Professionalism

program. The fellow is demonstrating a learning trajectory that anticipates the achievement of competency for unsupervised practice the includes the delivery of safe, effective, patient-centered, timely, efficient, and equitable care.	The fellow is	demonstrating	g satisfactory development of the knowledge, skill, and attitudes/behaviors needed to advance in the training
	program. The	fellow is dem	nonstrating a learning trajectory that anticipates the achievement of competency for unsupervised practice that
Voc. No. Conditional on Improvement	includes the	delivery of saf	e, effective, patient-centered, timely, efficient, and equitable care.
Voc. No. Conditional on Improvement		•	
fesnoConditional on improvement	Yes	No	Conditional on Improvement

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 with the patient in uncomplicated clinical encounters using active listening and clear language	Establishes a therapeutic relationship with the patient in challenging clinical encounters	Consistently establishes and maintains therapeutic relationships using shared decision making	Serves as a role model in establishing respectful, culturally sensitive		
Recognizes common barriers to effective communication (e.g., language, disability) while accurately communicating own role within the health care system	Recognizes complex barriers to effective communication (e.g., health literacy, cultural competency)	Adjusts communication strategies based on identified barriers, incorporating patient and caregiver expectations and goals of care	Uses self-reflection to proactively minimize communication barriers	therapeutic relationships while mitigating communication barriers		
Comments:	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		
Uses language that is respectful and values all members of the health care team	Communicates basic information effectively with all health care team members	Communicates highly complex information effectively with all health care team members	Optimizes flexible communication strategies using input from all team members to build consensus and resolve conflicts, as needed	Demonstrates leadership in promoting open and safe communication within and between teams		
Accepts feedback from team members	Solicits feedback on performance as a member of the health care team	Provides feedback to peers and other learners on the team	Communicates detailed and effective feedback to any member of the health care team	Educates others in providing effective feedback		
Comments: Not Yet Completed Level 1						

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	
Safeguards patient personal health information in direct (e.g., telephone, inperson) and indirect (e.g., progress notes, ext messages)	Accurate and timely documentation with appropriate use of documentation tools	Appropriately selects direct and indirect forms of communication based on context	Produces written or verbal communication (e.g., patient notes, email) that could serve as an example for others to follow	Participates in establishing communication tools or policies for the division, department, or institution
Comments:				

Interpersonal and Communication Skills

The fellow is demonstrating satisfactory development of the knowledge, skill, and attitudes/behaviors needed to advance in the training program. The fellow is demonstrating a learning trajectory that anticipates the achievement of competency for unsupervised practice that includes the delivery of safe, effective, patient-centered, timely, efficient, and equitable care.

Yes	No	Conditional on Improvement
169	110	

Overall Clinical Competence

This	s rating represents the assessment of the fellow's development of overall clinical competence during this year of training:
	_Superior: Far exceeds the expected level of development for this year of training
	_Satisfactory: Always meets and occasionally exceeds the expected level of development for this year of training
	Conditional on Improvement: Meets some developmental milestones but occasionally falls short of the expected level of development for this year of training. An improvement plan is in place to facilitate achievement of competence appropriate to the level of training.
	_Unsatisfactory: Consistently falls short of the expected level of development for this year of training.