Milestones and You

Laura Edgar, EdD, CAE
Vice President, Milestone Development
Disclosures

• Full-time employee of ACGME
Presentation Outline

- Milestones Background
- Milestones Structure
- Considerations for the Milestones in your program
- Milestones 2.0
Milestones Background
Milestones: What?

- Describe performance levels for skills, knowledge, and behaviors in the six competency domains.

- Provide a framework of observable behaviors and attributes associated with residents’ development as physicians.

- Used as *one indicator* of a program’s educational progress

Milestones – What?

• What do they know?
• What can they do?
• How do they conduct themselves?

• Competencies must be in concert to demonstrate the competent graduate
# Purposes and Implications

## ACGME
- Accreditation – continuous quality improvement (CQI)
- Public Accountability – focus nationally on important competency outcomes
- Community of practice for evaluation and research, with focus on continuous improvement

## Training Programs
- Framework for CCC
- Guide curriculum development
- More explicit expectations of trainees
- Support better assessment
- Enhanced opportunities for early identification of under-performers

## Milestones

### High-Stakes
- Research ONLY
- Not intended for SMB use

### Residents and Fellows
- Increased transparency of performance requirements
- Encourage informed self-assessment and self-directed learning
- Better feedback
- Facilitate individualized learning plans
Key Points: Milestones

• Articulate shared understanding of expectations
• Describe trajectory from a beginner in the specialty to an exceptional resident or practitioner
• Organized under six domains of clinical competency
• Represent a subset of all sub-competencies
• Set aspirational goals of excellence
Milestones Structure
## Milestone Description: Template

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the expectations for a beginning resident?</td>
<td>What are the milestones for a resident who has advanced over entry, but is performing at a lower level than expected at mid-residency?</td>
<td>What are the key developmental milestones mid-residency?</td>
<td>What does a graduating resident look like?</td>
<td>Stretch Goals – Exceeds expectations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What should they be able to do well in the realm of the specialty at this point?</td>
<td>What additional knowledge, skills &amp; attitudes have they obtained?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Are they ready for certification?</td>
<td></td>
</tr>
</tbody>
</table>

Comments:
## Milestone Description: Template for Osteopathic Recognition

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the expectations for a resident in a TY program?</td>
<td>What does a resident completing a TY or intern year look like?</td>
<td>What does a graduating resident look like?</td>
<td>What does a graduating fellow look like?</td>
<td>Stretch Goals – Exceeds expectations</td>
</tr>
<tr>
<td></td>
<td>What additional knowledge, skills &amp; attitudes have they obtained?</td>
<td>What additional knowledge, skills &amp; attitudes have they obtained?</td>
<td>What additional knowledge, skills &amp; attitudes have they obtained?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Are they ready for certification?</td>
<td>Are they ready for certification?</td>
<td>Are they ready for certification?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What should they be able to do well at this point?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comments:**
Osteopathic Recognition

- 7 additional subcompetencies
- Evaluated in conjunction with the specialty specific milestones
- Only evaluated for Residents/Fellows in the Osteopathic Recognition Track
Osteopathic Recognition - Example

- Family Medicine (FM) Resident in the Osteopathic Recognition (OR) Track
  - FM Patient Care 2: Cares for Patients with Chronic Conditions
  - OR Patient Care 2: Examination, Diagnosis, and Treatment
- These can be evaluated simultaneously
- You may need to re-evaluate your assessment tools to ensure you are capturing appropriate Osteopathic principles
Milestones are progressive over time. There is no prescribed speed at which residents must complete a milestone set.

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates basic understanding of the commonly used allergy and immunology diagnostic tests and procedures</td>
<td>Selects tests for patients with common clinical conditions and according to evidence-based guidelines</td>
<td>Selects tests for patients with complex conditions, including selected use of specialized testing and an understanding of limitations of the test!</td>
<td>Develops individualized cost-effective testing strategies to evaluate patients with complex conditions</td>
<td>Participates in the writing or reviewing of local or rational diagnostic guidelines or policies</td>
</tr>
<tr>
<td>Interprets test results, with supervision</td>
<td>Independently interprets common test results</td>
<td>Interprets complex test results, with supervision</td>
<td>Independently interprets specialized and complex results in the context of the individual patient</td>
<td>Independently performs specialized clinical diagnostic procedures</td>
</tr>
<tr>
<td>With supervision, performs common clinical diagnostic procedures (e.g., skin testing)</td>
<td>With supervision, performs common clinical diagnostic procedures (e.g., skin testing)</td>
<td>Independently performs specialized procedures (e.g., skin testing)</td>
<td>Independently performs specialized procedures (e.g., skin testing)</td>
<td>Independently performs specialized procedures (e.g., skin testing)</td>
</tr>
</tbody>
</table>

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 box on the line in between levels indicates that milestones in lower levels have been substantially demonstrated as well as some milestones in the higher level(s).**

Option to select “Not Yet Completed Level 1” or “Not Yet Assessable”
What the Milestones Are

• An attempt to define an explicit, practical, relevant, and manageable set of domains of clinical competence
• An attempt to describe levels of competency development during training, leading to unsupervised practice of medicine
• A way to better inform trainees of the expectations of training
What the Milestones are Not

- Not everything a graduating resident needs to know or be able to do
- Not a mandate for specific rotations or durations of experience
- Not a replacement for regular assessment and evaluation
Milestones Considerations

- Available resources: faculty time, evaluation forms
- Variations in engagement and attitudes within programs
- Learning curve: Evaluating, aggregating, and reporting become easier as you and your program become more familiar with the process
Milestones: Reporting

- All programs within a specialty use the specialty’s milestones
- Programs will report semi-annually
- Milestone data will be reported to ACGME through direct entry into the Accreditation Data System (ADS)
Feedback to Residents and Fellows

• Residents/Fellows should receive a report of their Milestones ratings following CCC meetings

• Ideally, residents/fellows perform self-evaluations beforehand
Milestones 2.0

• Coming Soon
What have we learned?

- Too much!
- Dissatisfaction with non-PC/MK
- More people want to participate
**What changed?**

### Patient Care 4: Interpretation and Diagnosis (AP/CP)

<table>
<thead>
<tr>
<th>Has not Achieved Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognizes the importance of a complete pathology report for patient care</td>
<td>Begins to make connections between clinical differential diagnosis, gross, and microscopic pathologic findings</td>
<td>Correlates the clinical differential diagnosis with gross and microscopic pathologic findings</td>
<td>Analyzes complex cases, integrates literature, and prepares a full consultant's written report with comprehensive review of medical records</td>
<td>Proficient in interpretation with comprehensive review of medical records</td>
</tr>
<tr>
<td>Generates a list of next steps (ancillary testing; has awareness of options available) needed to refine differential in the clinical context</td>
<td>Recognizes appropriate ancillary tests and refines knowledge of &quot;next steps&quot; and proper utilization for application to differential</td>
<td>Consistently recognizes and correctly identifies common histopathologic findings (develops a &quot;good eye&quot;); able to troubleshoot (e.g., tissue artifacts, processing and sampling issues)</td>
<td>Proficient in interpretation of test results with clinical findings to define differential and propose a diagnosis</td>
<td>Seeks appropriate consultations</td>
</tr>
<tr>
<td>Distinguishes normal from abnormal histology and recognizes confounding factors</td>
<td>Identifies normal states and reference ranges</td>
<td>Distinguishes normal from abnormal findings</td>
<td>Identifies confounding factors, artifacts, and pre-analytic issues</td>
<td>Makes accurate diagnoses and interpretations of test results</td>
</tr>
</tbody>
</table>

### Comments:

- Not Yet Completed Level 1
- Not Yet Rotated

©2019 ACGME
What changed?

<table>
<thead>
<tr>
<th>Patient Care: Interpretation and Diagnosis (AP/CP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
</tr>
<tr>
<td>Discusses importance of diagnoses and test results in patient care</td>
</tr>
<tr>
<td>Level 2</td>
</tr>
<tr>
<td>Identifies pertinent test results and correlates to clinical findings to develop a differential diagnosis</td>
</tr>
<tr>
<td>Level 3</td>
</tr>
<tr>
<td>Consistently integrates test results with clinical findings to refine differential and propose a diagnosis</td>
</tr>
<tr>
<td>Level 4</td>
</tr>
<tr>
<td>Makes accurate diagnoses and interpretations of test results</td>
</tr>
<tr>
<td>Level 5</td>
</tr>
<tr>
<td>Is an expert diagnostician</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Describes indications for common tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposes appropriate initial tests</td>
</tr>
<tr>
<td>Proposes and interprets ancillary tests in clinical context</td>
</tr>
<tr>
<td>Recommends further work-up using diagnostic algorithms and recommends therapeutic options, as appropriate</td>
</tr>
<tr>
<td>Proposes optimal diagnostic and therapeutic strategies based on patterns within a population</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Comment</th>
<th></th>
</tr>
</thead>
</table>
Differences

Patient Care and Medical Knowledge have two options outside of the levels:

- Not yet completed Level 1/Critical Deficiencies
- Not yet rotated/ Not yet assessable
Supplemental Guide

Examples for Levels 1-5

Assessment methods

Resources
### Patient Care 3: Clinical Consultation, including On-Call Interactions (AP/CP)

**Overall Intent:** To provide a high-quality clinical consultation, including intra- and inter-departmental, formal, and informal

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 1</strong> Describes the utility of a consultation and lists available resources useful in consultation</td>
<td><em>Refers to testing algorithm to identify best test to diagnose Lyme disease</em>&lt;br&gt; <em>Refers to test directory to identify procedure to have tissue sent out for karyotyping or sequencing</em></td>
</tr>
<tr>
<td><strong>Level 2</strong> For simple consultations, delineates the clinical question, obtains appropriate additional clinical information, accesses available resources, recommends next steps, and documents appropriately with assistance</td>
<td><em>Recommend performance of enzyme-linked immunosorbent assay testing to diagnose Lyme disease and if recommends performance of Western Blot; understands false positives and next steps; shares the published research and data with clinician after review with attending</em>&lt;br&gt; <em>Clarifies need for cytogenetic testing on resected surgical specimen, recommends fresh tissue, and knows that frozen tissue is unacceptable</em></td>
</tr>
<tr>
<td><strong>Level 3</strong> For complex consultations, delineates the clinical question, obtains appropriate additional clinical information, applies relevant resources, and recommends next steps with assistance; manages simple consultations independently</td>
<td><em>Explains discrepant test result for Hepatitis B core antibody by clarifying clinical question, gathering and reviewing history and data, reviewing literature, developing a list of possible explanations for discrepant results, and recommends next steps to clinician (after review with attending)</em>&lt;br&gt; <em>Recommends type and size of specimen for best test on tissue to determine v-Ki-ras2 Kirsten rat sarcoma mutation, considers other tests, scope of mutations needed, and current published guidelines; shares the published research and data with clinician after review with attending</em></td>
</tr>
<tr>
<td><strong>Level 4</strong> Manages complex consultations independently</td>
<td><em>Gathers and reviews history and data of patient with apparent blood transfusion reaction; recommends testing and evaluation; recommends management and subsequent transfusion plan to the clinician</em>&lt;br&gt; <em>Attends and appropriately participates in a rapid onsite evaluation of patient with apparent transfusion reaction; reviews clinical history; evaluates adequacy of sample collected; generates differential diagnosis based on morphology; trages sample appropriately for ancillary testing</em>&lt;br&gt; <em>For a patient with a pediatric soft tissue malignancy who initially presents after hours, emergently, and at an outside facility, provides comprehensive information (and consultation) to referring surgeon and oncologist regarding options for appropriate diagnostic tissue acquisition and analysis (i.e. FNA, frozen section, cytogenetics)</em></td>
</tr>
<tr>
<td><strong>Level 5</strong> Recognized as an expert in providing comprehensive consultations</td>
<td><em>Sought out by attending faculty members and/or clinicians for consultative expertise</em></td>
</tr>
</tbody>
</table>

**Assessment Models or Tools**
- Direct observation
- Portfolio
- Chart review
- Review of on-call logs
- Simulation

**Curriculum Mapping**

**Notes or Resources**
- Consultation can include a variety of interactions:<br>  o Clinician to resident<br>  o Resident to resident<br>  o Student to resident<br>  o Nursing, PA, or other health professional to resident<br>  o On-call, outpatient, and inpatient<br>  o Formal reports<br>  o Written or verbal advice and guidance<br>  o Schmidt RL, Pantener J, Hussong JW. An analysis of clinical consultation activities in clinical pathology; who requests help and why. Am J Clin Pathol. Sep;142(3):286-91.
<table>
<thead>
<tr>
<th>Level 2</th>
<th>For simple consultations, delineates the clinical question, obtains appropriate additional clinical information, accesses available resources, recommends next steps, and documents appropriately with assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>Describes the utility of a consultation and lists available resources useful in consultation</td>
</tr>
<tr>
<td>Milestones</td>
<td>Examples</td>
</tr>
<tr>
<td>Level 1 Describes the utility of a consultation and lists available resources useful in consultation</td>
<td>Refers to testing algorithm to identify best test to diagnose Lyme disease</td>
</tr>
<tr>
<td></td>
<td>Refers to test directory to identify procedure to have tissue sent out for karyotyping or sequencing</td>
</tr>
<tr>
<td>Level 2 For simple consultations, delineates the clinical question, obtains appropriate additional clinical information, accesses available resources, recommends next steps, and documents appropriately with assistance</td>
<td>Recommends performance of enzyme-linked immunosorbent assay testing to diagnose Lyme disease and if recommends performance of Western Blot; understands false positives and next steps; shares the published research and data with clinician after review with attending</td>
</tr>
<tr>
<td></td>
<td>Clarifies need for cytogenetic testing on resected surgical specimen, recommends fresh tissue, and knows that frozen tissue is unacceptable</td>
</tr>
<tr>
<td>Level 3 For complex consultations, delineates the clinical question, obtains appropriate additional clinical information, applies relevant resources, and recommends next steps with assistance; manages simple consultations independently</td>
<td>Explains discrepant test result for Hepatitis B core antibody by clarifying clinical question, gathering and reviewing history and data, reviewing literature, developing a list of possible explanations for discrepant results, and recommends next steps to clinician (after review with attending)</td>
</tr>
<tr>
<td></td>
<td>Recommends type and size of specimen for best test on tissue to determine v-Ki-ras2 Kirsten rat sarcoma mutation, considers other tests, scope of mutations needed, and current published guidelines; shares the published research and data with clinician after review with attending</td>
</tr>
<tr>
<td>Level 5 Recognized as an expert in providing comprehensive consultations</td>
<td>Sought out by attending faculty members and/or clinicians for consultative expertise</td>
</tr>
<tr>
<td>Assessment Modalities or Tools</td>
<td>Direct observation</td>
</tr>
<tr>
<td></td>
<td>Portfolio</td>
</tr>
<tr>
<td></td>
<td>Chart review</td>
</tr>
<tr>
<td>Curriculum Mapping</td>
<td>Review of on-call logs</td>
</tr>
<tr>
<td></td>
<td>Simulation</td>
</tr>
<tr>
<td>Notes or Resources</td>
<td>Consultation can include a variety of interactions:</td>
</tr>
<tr>
<td></td>
<td>- Clinician to resident</td>
</tr>
<tr>
<td></td>
<td>- Resident to resident</td>
</tr>
<tr>
<td></td>
<td>- Student to resident</td>
</tr>
<tr>
<td></td>
<td>- Nursing, PA, or other health professional to resident</td>
</tr>
<tr>
<td></td>
<td>- On-call, outpatient, and inpatient</td>
</tr>
<tr>
<td></td>
<td>- Formal reports</td>
</tr>
<tr>
<td></td>
<td>- Written or verbal advice and guidance</td>
</tr>
</tbody>
</table>
Review the Milestones and Supplemental guide with your CCC

Your CCC should do a shared mental model exercise

- Program’s expectations at each level
- Assessment tool(s) you will use
- Rotations each will be assessed
Where do I find...?
Milestones

ANNOUNCEMENT: Spring 2018 Milestones reporting window will be open April 23-June 22

Contact Milestones Staff:
Senior Vice President, Milestone Development and Evaluation
Eric Holmboe, MD, MACP, FRCP
holmboe@acgme.org
312.755.5076

Vice President, Milestone Research and Evaluation
Stanley Hamstra, PhD
shamstra@acgme.org
312.755.5076

Executive Director, Milestones Development and Medical Genetics
Laura Edgar, EdD, CAE
ledgar@acgme.org
312.755.5076

Feedback and Questions
milestones@acgme.org

RESOURCES

RESEARCH

ENGAGEMENT

MILESTONES BY SPECIALTY
# Milestones Resources

## Guidebooks
- Milestones Guidebook
- Milestones Guidebook for Residents and Fellows
- Clinical Competency Committee Guidebook

## Other Resources
- Milestones FAQs
- Use of Individual Milestones Data by External Entities for High Stakes Decisions

## Online Education

The ACGME's online mini-courses, *Introduction to Assessment*, and *Introduction to Milestones* are available in the ACGME's online learning portal: Learn at ACGME. These courses are the first in a series of online mini-courses being developed based on the ACGME's Developing Faculty Competencies in Assessment week-long course, which is held two or three times a year at the ACGME offices in Chicago.

The Learn at ACGME portal is a robust and flexible platform for videos, interactive courses, discussion boards, and other learning resources. The portal is accessible to members of the GME community and provides a secure way to engage with information relevant to many GME roles.

Visit [www.acgme.org/distancelearning](http://www.acgme.org/distancelearning) to access the Learn at ACGME portal to create a user account or access content.
Milestones Engagement

The ACGME plans to involve the public more in the next iteration of the Milestones. Opportunities to be involved range from completing surveys to becoming a member of a committee. E-mail any questions to milestones@acgme.org.

Call for Volunteers
There are no volunteer positions currently available.

Feedback Surveys
The following specialties are seeking feedback on the current Milestones drafts. Please review and complete the survey, which includes the draft language.

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Survey Link</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Genetics and Genomics</td>
<td><a href="https://www.surveymonkey.com/r/SXDW28P">https://www.surveymonkey.com/r/SXDW28P</a></td>
<td>May 10, 2019</td>
</tr>
<tr>
<td>Allergy and Immunology</td>
<td><a href="https://www.surveymonkey.com/r/J5NL2K5">https://www.surveymonkey.com/r/J5NL2K5</a></td>
<td>May 31, 2019</td>
</tr>
</tbody>
</table>
Distance Learning

CONNECT to the ACGME’s online learning portal for leading-edge education

CUSTOMIZE the experience with role-specific Learning Paths

COLLABORATE with colleagues in the GME community

The ACGME’s online learning portal offers on-demand online courses, videos, webcasts, and podcasts for a range of GME professionals, including designated institutional officials (DIOs), program directors, coordinators, faculty members, and residents and fellows.

Visit www.acgme.org/distancelearning and access a wealth of online professional development resources, including:

- Successful Practices for Engaging Residents and Fellows in Patient Safety, for designated institutional officials and program directors
- Video recordings of the ACGME’s highly acclaimed Baldwin Seminar Series, for all GME professionals
- An Overview of the ACGME, for program coordinators
- Introduction to Assessment, for faculty members
- Cognition, Mindsets, and Well-Being, for residents and fellows

Quick Links

- Summer Webinar Series
- Learn at ACGME Online Learning Portal
- Baldwin Seminar Series
- Annual Update Videos

Contact Us

To contact the Office of Distance Learning, e-mail de@acgme.org.
Courses Available On Demand

Assessment 101

Introduction to Milestones

Coming soon:

Milestones 2.0 webcasts

<10 minute webcast to explain 2.0 to faculty
Clinical Competency Committee Meeting

It is highly recommended that:

- Pre-work occur before the CCC meetings. This includes mapping evaluation and milestones and performing a gap analysis. Consider revising evaluation to the milestone language and measure the subcompetencies adequately. The residency coordinator should collaboratively determine the degree of involvement at the CCC meetings. A determination of the type of data to be reviewed is made by the program as well as national data for the feedback.

In This Section

- Skills Development
- Scholarship Development
- IM Career Source
- Career Development
- UME/GME Program Resources

Clinical Competency Committee Collaborative Learning Community

Collaborative Learning Communities (CLCs) are defined groups with a commitment to shared goals, resources, and responsibility and managed through collective authority and accountability.

Goal

This first CLC was created to optimize the process by which Clinical Competency Committees (CCC) report milestones. The mission of the collaborative was to develop efficient and effective ways to plan, lead, implement, and improve the
Other Resources

Avoiding Groupthink
Avoiding Fatal Flaws in Group Decision Making

Have you ever thought about speaking up in a meeting but then decided against it because you didn’t want to appear unsupportive of the group’s efforts?

Or led a team in which the team members were reluctant to express their opinion?

If so, you probably have been a victim of Groupthink.

Groupthink is a phenomenon that is a common sense desire to present all the ideas as if it were the desire for group cohesion and solving.

ADAPT Feedback
What is "Prepare to ADAPT"?

The Prepare to ADAPT (Ask-Discuss-Ask-Plan-Together) feedback framework is an approach to asking for, receiving, and providing feedback in the clinical learning environment.

Why "Prepare to ADAPT"?

The Prepare to ADAPT feedback framework is a theory-informed, conversational approach to feedback based on the "Ask-Tell-Ask" discourse pattern that provides often follow with patients. The Prepare to ADAPT feedback framework adds 1) a Prepare step, emphasizing learner reflection on goals, and 2) a Plan Together step for the creation of an intentional follow-up plan for improvement.

Based on our pilot study at the University of Washington, we found the model to be efficient and feasible, particularly for formative feedback. We also found that clarity around the process of feedback for both learners and coaches was perceived to reduce "feedback stress" in the clinical learning environment. The model can be utilized in various clinical scenarios and can take as little as five minutes, or can expand based on the situation and needs. Learners who normally struggle with how to ask for feedback—and coaches who struggle to provide meaningful feedback—find it particularly useful.

Practice Prepare to ADAPT

Practice using the “Prepare to ADAPT” framework in your clinical workplace.

Learner Initiates
- Reflect on learning goals.
- Communicate your goals
- Try to be natural.

Prepare for the observation

Prepare the observation

Coach Initiates
- Reflect on program & learner goals.
- Orient learner to expectations.
- Try to be neutral.
Here to help

Milestones:
milestones@acgme.org
Laura Edgar
ledgar@acgme.org