Milestones Project Primer

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Chair, Pathology Milestones Working Group

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CAP Residents Forum Meeting
San Diego, CA

A Disclaimer: I am providing this information to you as an individual who is an RRC member, not as the official representative of the RRC or ACGME.
Goals for this talk:

• Why are Milestones being made?
• How will the Milestones affect me?
• When will the Milestones be implemented?
• What happens when a resident doesn't reach a milestone?
• What happens to a program if a significant number of residents demonstrate poor milestone achievement?
The Next Accreditation System

- Most site visits at ~10-year intervals
- Increased annual reporting by programs
- Reduce accreditation demands on programs
- Specialty-specific milestones (outcomes)
- Identify opportunities for program improvement
- Identify programs that may need site visit
Milestones

• **General Definition:** Skills knowledge developments or accomplishments that occur by a specific time

• **Milestones Project Definition:** Objectives/outcomes in the competency domains to be accomplished by residents by a particular point during residency

• **BUT WHY?**
The Milestones Project

• “The current accreditation system ... essentially takes a biopsy of the program every four to five years [and] assumes...

• 1) represents the longitudinal experience of the program;

• 2) predicts the future performance of the program; and

• 3) is relevant to the performance of program graduates.”

The Milestones Project

• “The...RRCs [have] no tools other than Progress Reports, shortened review cycles and moved-up site visits to address concerns...”

• Continuous oversight 2x/year, rather than episodic sampling

• Emphasis on program improvement

• Heighten responsibility of Sponsoring Institution

The Milestones Project

- Late 1990’s - Dr. David Leach - ACGME/ABMS Competencies developed; phased in
- ABMS initial individual certification - learn, regurgitate, pass; now MOC
- JAMA article on complications by OB (exclude ER non-boarded OB/GYN) - lowest to highest quintile was 33% - the public's expectations
Milestones for Pathology

Why are Milestones being made?
Main reason: Patient Safety
The Milestones Project

- Mid-late this decade: Competency evaluation stalls: Where are the tools YOU promised?

- MedPAC, IOM, others [Sydney Wolf, Public Citizen] question the quality of preparation of graduates for “future” health care

- Milestones - making the transition from theory to practice, tracking what is important

- Outcomes: Do trainees know what they are seeing; is it reproducible (within reason)?

Pediatricians have been using Milestones for a while

<table>
<thead>
<tr>
<th>Child’s Age</th>
<th>Mastered Skills (most kids can do)</th>
<th>Emerging Skills (half of kids can do)</th>
<th>Advanced Skills (a few kids can do)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 month</td>
<td>Lifts head when lying on tummy</td>
<td>Follows objects briefly with eyes</td>
<td>Smiles, laughs</td>
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<td></td>
<td>Responds to sound</td>
<td>Vocalizes: oohs and aahs</td>
<td>Holds head at 45-degree angle</td>
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<td></td>
<td>Stares at faces</td>
<td>Can see black-and-white patterns</td>
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<tr>
<td>2 months</td>
<td>Vocalizes: gurgles and coos</td>
<td>Smiles, laughs</td>
<td>Holds head steady</td>
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<tr>
<td></td>
<td>Follows objects across field of vision</td>
<td>Holds head at 45-degree angle</td>
<td>Can bear weight on legs</td>
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<tr>
<td></td>
<td>Notices his hands</td>
<td>Makes smoother movements</td>
<td>Lifts head and shoulders when lying on tummy (mini-pushup)</td>
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<td></td>
<td>Holds head up for short periods</td>
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<tr>
<td>3 months</td>
<td>Recognizes your face and scent</td>
<td>Squeals, gurgles, coos</td>
<td>Rolls over, from tummy to back</td>
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<td></td>
<td>Holds head steady</td>
<td>Blows bubbles</td>
<td>Tums toward loud sounds</td>
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<tr>
<td></td>
<td>Visually tracks moving objects</td>
<td>Recognizes your voice</td>
<td>Can bring hands together, bats at toys</td>
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</tbody>
</table>

Reference: http://www.babycenter.com/0_milestone-chart-1-to-6-months_1496385.bc
Hallmark™ acknowledges milestones
Pathology Milestones Working Group

From Left to Right: Ms. Linda Thorsen, Drs. Mark Brissette, Jacob Steinberg, Steve Black-Schaffer, Ricardo Mendoza (Resident rep) Margaret Grimes, Wesley Naritoku (chair), Jessica Kozel (Fellow rep) Betsy Bennett, Robert Hoffman, Suzanne Powell, Bruce Alexander (co-chair), Rebecca Johnson, Gary Procop, Jennifer Hunt, Miriam Post and Steve Nestler
How the Milestones will affect me?

• Every resident in every program - assessed for appropriate milestones at expected points in training

• Semi-annual assessment reported back by PD to ACGME (anonymously)

• Uniform expectations, uniform outcomes (ideally)
When will the Milestones be implemented?

- Since May 2011, multiple online and workshop opportunities for PD’s input
- 3 Pathology Milestones Working Group meetings
- Feedback from PRODS SurveyMonkey
- 4th PMWG meeting 10/7/12 to finalize
- Beta test at 10 volunteer programs, 2 cycles, refine
When will the Milestones be implemented?

- Anticipated Phase 2 specialties preparatory year: 7/2013
- Anticipated “go live” with Pathology Milestones in 7/2014
- Pathology Subspecialty Fellowships - Begin work 10/7/12 - “go live” 7/2015?
What happens when a resident doesn't reach a milestone?

- ACGME is not in the business of certifying residents; they accredit programs
- At the program level, you should currently be receiving formative, semi-annual and summative evaluations
- This will probably serve as your semi-annual evaluation
What happens when a resident doesn't reach a milestone?

• Milestones will provide a tool for PD and faculty to guide residents through training

• Provide “where I ought to be, when I ought to be”

• We will learn from beta testing
Accreditation Council for Graduate Medical Education

Cognitive, Anatomic and Clinical Pathology

Graph showing the levels of different areas in cognitive, anatomic, and clinical pathology.
Accreditation Council for Graduate Medical Education

Cognitive, Clinical Pathology (yellow)
Cognitive, Anatomic Pathology (green, blue)

![Bar chart showing levels of interpretation, diagnosis, and reporting.](chart.png)
Professionalism, Anatomic and Clinical Pathology

Accreditation Council for Graduate Medical Education
Accreditation Council for Graduate Medical Education

PGY4’s only, no fellowship

- 1 resident self-rated Level 4 for 28 milestones (100%)
- 1 resident self-rated Level 4 for 26 milestones (92.9%)
- 1 resident self-rated Level 4 for 18 milestones (67.9%)
- **Bottom line:** SUBSTANTIAL COMPLIANCE!
What happens to a program if a significant number of residents demonstrate poor milestone achievement?

- Emphasis on program improvement
- Focused review; suggestions for improvement
- Heighten responsibility of Sponsoring Institution
- We will learn from beta testing
Summary

Charge: develop 25 to 35 PC & MK Milestones

Currently: 28 Pathology Milestones (all six)

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<thead>
<tr>
<th></th>
<th>AP/CP</th>
<th>AP</th>
<th>CP</th>
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<tbody>
<tr>
<td>Cognitive</td>
<td>15</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Procedural</td>
<td>0</td>
<td>4</td>
<td>0</td>
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<td>Prof/ICS</td>
<td>6</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Total</td>
<td>21</td>
<td>6</td>
<td>1</td>
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</table>
Milestones: Cognitive, AP and CP

- Patient Safety
- Recognition of errors and discrepancies
- Diagnostic Knowledge
- Consultation
- Intradepartmental interactions and development of leadership skills
- Inter-departmental and Healthcare Clinical Team Interactions
- Teaching
- Scholarly Activity

- Licensing, Certification and Examination
- Lab Mgmt: Regulatory and Compliance
- Lab Mgmt: Resource Utilization (Personnel & Finance)
- Lab Mgmt: Quality, Risk Mgmt and Laboratory Safety
- Lab: Test utilization
- Lab Mgmt: Technology assessment
- Medical Informatics
<table>
<thead>
<tr>
<th><strong>Milestones:</strong></th>
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<tbody>
<tr>
<td><strong>Cognitive, CP</strong></td>
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<tr>
<td>• Interpretation</td>
</tr>
<tr>
<td><strong>Cognitive, AP</strong></td>
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<tr>
<td>• Interpretation and Diagnosis</td>
</tr>
<tr>
<td>• Reporting</td>
</tr>
<tr>
<td><strong>Procedural, AP</strong></td>
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<tr>
<td>• Autopsy</td>
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<tr>
<td>• Surgical Pathology</td>
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<tr>
<td>• Intraoperative consultations/frozen sections</td>
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<tr>
<td>• Performing Fine Needle Aspiration Biopsies</td>
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</tbody>
</table>
Milestones: Professionalism, AP/CP

- Honesty, integrity and ethical behavior
- Humanistic behaviors of respect, compassion and empathy
- Responsibility and follow through on tasks
- Giving and receiving feedback
- Responsiveness to each patient’s unique characteristics and needs
- Personal responsibility to maintain emotional, physical and mental health
# Pathology Milestones - Definition of Levels

<table>
<thead>
<tr>
<th>Subcompetency</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
<th>Assessment Tools</th>
</tr>
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<tbody>
<tr>
<td>Training Level</td>
<td>Pre-resident</td>
<td>Training program – novice</td>
<td>Training program – advanced beginner</td>
<td>Training program – competent</td>
<td>Proficient – Practicing Pathologist</td>
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**Level of Supervision**

(Note: regulations regarding PGY level supersede any assumed level based on milestones)

<table>
<thead>
<tr>
<th>Role</th>
<th>Observer</th>
<th>Early Idea generation</th>
<th>Refinement of Idea generation</th>
<th>Generate final answer</th>
<th>Provider of service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition of Role</td>
<td>The resident functions as the junior member of a dyad</td>
<td>The resident functions as a co-member of a dyad</td>
<td>The resident functions as a junior member of a broader team</td>
<td>The resident functions as an integral member of a clinical team</td>
<td>The practicing physician functions as an integral member of a clinical team</td>
</tr>
</tbody>
</table>

**Narrative of Description**

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<tr>
<td>The individual is at the level of a graduating medical school student. They are in the pre-residency training level and most of their work will be functioning as a junior member of a dyad. They can work with direct supervision.</td>
<td>The individual is in the early phase of residency training for the specific competency area being assessed. Most of their work will be as a co-member of a dyad. They can function with direct or indirect supervision.</td>
<td>The individual is in the mid phase of residency training for the specific competency area being assessed. Most of their work will be as junior member of a broader health care team. They can function with indirect supervision and can have some oversight supervision as appropriate.</td>
<td>The individual is in the late phase of residency training for the specific competency area being assessed. Most of their work will be as an integral member of the clinical care team. They are provided with oversight supervision.</td>
<td>The individual is in early phases of an independent career, usually within 2-3 years of completion of the residency training program. They are a fully functioning and proficient physician, though their skills are still being perfected through life-long learning.</td>
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# Pathology Milestones - example - AP Procedural

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</tr>
<tr>
<td>Procedure: Performing fine needle aspiration biopsies (FNAB)</td>
<td>Recognizes the role of fine needle aspiration biopsies (FNAB)</td>
<td>Participates in simulated experience in fine needle aspiration including slide preparation and staining, observes and assists on FNAB</td>
<td>Performs “time-out” according to standard procedures, performs FNAB; procures adequate specimens; Provides an accurate adequacy assessment and figures specimens for appropriate ancillary studies; Obtains informed consent; Recognizes and understands the management of complications of FNAB</td>
<td>Understands indications for and/or performs ultrasound guided FNAB and core needle biopsy; Provides appropriate provisional assessment; Manages complications of the FNAB or refers to appropriate healthcare professional</td>
<td>Proficient in the performance of FNAB</td>
<td>Direct observation, Simulation, Portfolio, Check list, 360 evaluation</td>
</tr>
</tbody>
</table>
Summary:

• Currently 28 Pathology Milestones

• c.f., Internal Medicine started with 450, Pediatrics - 80
Contact Information

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Los Angeles, CA 90033

e-mail: naritoku@usc.edu

Phone: (323) 409-4698
# Pathology Milestones – example – AP Cognitive

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<tr>
<td>Reporting (AP)</td>
<td>Applies prior knowledge and draws on resources to learn normal gross anatomy, histology, pathology.</td>
<td>Attend and contributes to gross conference. Seeks clinical/ancillary information to sign-out during pathology prior to sign-out with attending staff/responsible physician. <em>Becomes familiar with synoptic reporting.</em></td>
<td>Reliably applies knowledge of gross and histologic features in formulating a diagnosis for common entities. Able to present at gross conference.</td>
<td>Reliably applies knowledge of gross and histologic features in formulating a diagnosis for common and uncommon entities. Seeks appropriate consultations and ancillary information into report.</td>
<td>Proficient – Practicing Pathologist</td>
<td>Direct observation, Narrative, Feedback from clinical colleagues (360 evaluations).</td>
</tr>
</tbody>
</table>

- *Communicates effectively and integrates clinical/ancillary information into report.*
- *Completes a complete and accurate report on common specimens.*
- *Generates preliminary report and/or PAD (for autopsies) prior to sign-out with attending staff/responsible physician.*
- *Brings clinical/ancillary information to sign-out.*
- *Becomes familiar with synoptic reporting.*
- *Attends and contributes to gross conference.*
- *Selects, orders, and interprets clinical/ancillary information to refine a differential diagnosis.*
- *Composes a complete and accurate report on common specimens.*
- *Composes a complete and accurate report on common and uncommon specimens.*
- *Communicates effectively with family members, where applicable.*
- *Completes a synoptic report.*
- *Ensures communication of results to appropriate audiences.*
- *Keeps current.*
- *Participates in peer review consultation with colleagues.*
- *Manages ambiguity and uncertainty in result.*
- *Interprets and ancillary testing.*
- *Produces a report with complete and accurate gross and histopathologic findings, including ancillary studies.*
- *Integrates evidence-based medicine/current literature and knowledge.*
- *Ensures communication of results to appropriate audiences.*
- *Keeps current.*
- *Participates in peer review consultation with colleagues.*
- *Manages ambiguity and uncertainty in result.*
- *Interprets and ancillary testing.*
- *Produces a report with complete and accurate gross and histopathologic findings, including ancillary studies.*
- *Integrates evidence-based medicine/current literature and knowledge.*
- *Ensures communication of results to appropriate audiences.*
- *Keeps current.*
## Pathology Milestones - example - CP Cognitive

<table>
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<td>Training program – advanced beginner</td>
<td>Training program – competent</td>
<td>Proficient – Practicing Pathologist</td>
<td>Direct Observation, Simulation, Feedback from clinical colleagues (360 evaluations), Direct Observation, Retrospective peer review, Simulation, Quality management results</td>
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<tr>
<td>Interpretation (CP)</td>
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<tr>
<td>• Identifies key elements in the health care record</td>
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<td>• Observes and assists in the interpretation of the diagnostic test</td>
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<tr>
<td>• Understands indications for common tests</td>
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<td>• Uses clinical correlation to interpret test results</td>
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<td>• Describes the test platform and methodology</td>
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<td>• Accurately interprets the results</td>
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<td>• Understands and applies algorithms in the work-up for common diagnoses</td>
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<tr>
<td>• Interprets a differential diagnosis based upon clinical information</td>
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<td>• Knows the current and up-to-date literature about the test result</td>
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<td>• Interprets a differential diagnosis for abnormal results</td>
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<tr>
<td>• Understands and applies algorithms in the work-up for common and uncommon diagnoses</td>
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<td>• Able to lead discussion on developing a differential diagnosis based upon clinical information</td>
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<td>• Interacts with clinical team to recommend tests, based upon current literature</td>
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<td>• Knows potential confounding factors that may contribute to erroneous abnormal results</td>
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<td>• Understands and prudently applies justification for approval of costly testing</td>
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<tr>
<td>• Proficient in using health care records and clinical information to develop a limited and focused differential diagnosis</td>
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<td>• Critically evaluates and applies the current literature</td>
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<tr>
<td>• Proficient in the interpretation of clinical pathology test results in the context of the patient’s medical condition</td>
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<tr>
<td>• Proficient in algorithms in the work-up for all diagnoses; writes policies on algorithms for testing</td>
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