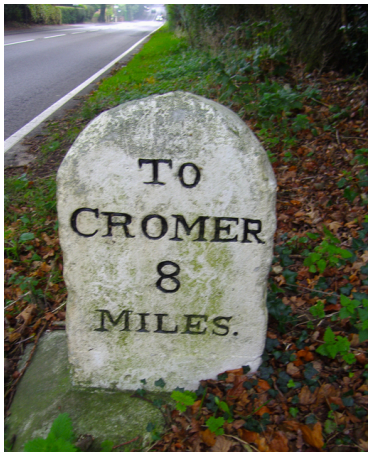


Accurately Reporting the Milestones in Resident Evaluations

Jennifer Di Rocco, DO
Associate Program Director, UHPRP
Monthly Specialty Division Meeting
January 16, 2015

What are these milestones?!

- Practical descriptions of graded behavior across key competencies as a learner moves through the educational continuum

  medical student→intern→resident→attending→nobel laureate

- The Pediatric Milestone Project created 52!!
  - We report progress on (only) 21 of these q 6 months
  - Each rotation has been assigned a different group of these 21 milestones to assess
  - The creators of the milestones had intentions for their use *across the continuum…*

Our Natural Cognitive Bias

- We are hardwired to think of a 5 point scale as equivalent to a grade of A-B-C-D-E
  - THIS IS NOT TRUE: good performance does not equate to all 5's (unless perhaps if your learner is Atul Gawande)
  - The descriptive anchors are meant to identify the *behaviors* you are seeing in your learners…they do not equate to a grade
  - What a paradigm shift!
    - Not a linear scale

What we've learned so far

PEDIATRICS®
OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Putting the Pediatrics Milestones Into Practice: A Consensus Roadmap and Resource Analysis

Daniel J. Schumacher, Nancy D. Spector, Sharon Calaman, Daniel C. West, Mario Cruz, John G. Frohna, Javier Gonzalez del Rey, Kristina K. Gustafson, Sue Ellen Poynter, Glenn Rosenbluth, W. Michael Southgate, Robert J. Vinci and Theodore C. Sectish

Pediatrics 2014;133;898; originally published online April 14, 2014;
DOI: 10.1542/peds.2013-2917

Following 2 slides with excerpts from this paper

1. ways to change will not always be easy to identify and will require innovative thinking and willingness to abandon what is tradition and feels most comfortable,

2. necessary changes will require fundamental shifts in approach to learner assessment so that training outcomes match the needs of patients and society,

3. commonly held values and beliefs about assessment must change to ensure methods actually help learners develop into physicians with necessary skills and abilities,

4. those on the front lines of assessment as well as those responsible for learner assessment at the program level must share the responsibility of determining how change will occur to facilitate successful implementation,

5. changes in several areas of the working and learning environment must occur to ensure experiences develop competencies required of 21st century physicians and not just those valued by outmoded faculty, and

6. new study and experimentation must be undertaken for successful change to be achieved.

Faculty and Resident Development

One of the strengths in the current iteration of the Pediatrics Milestones is their ability to provide a shared mental model for what physician development looks like.[6] This provides a learning roadmap to inform curriculum as well as supervisors' efforts to help trainees take the next steps in their development.[16-18]

Milestones-based assessment is a paradigm shift from current assessment methods that rely heavily on faculty judgments of resident performance based on their level of training.[19] With milestones, assessors will be required to match observed behaviors in trainees with descriptions of those behaviors along a developmental milestones trajectory independent of training level.

Therefore, a developmentally "on target" resident may appropriately be at the third of 5 milestone levels for some competencies at the completion of his or her residency. Educating residents and faculty about this developmental approach to assessment will be critical and require significant time and effort. Fortunately, initial evidence suggests that both residents and faculty understand the milestones-based assessment framework when oriented to it.[18,20,21]

Milestone Level Definitions

(Stanford DIO version)

- **Level 1:** The resident is a graduating medical student/experiencing the first day of residency.
- **Level 2:** The resident is advancing and demonstrating additional milestones.
- **Level 3:** The resident continues to advance and demonstrate additional milestones; the resident consistently demonstrates the majority of milestones targeted for residency.

Milestone Level Definitions

(Stanford DIO version)

- **Level 4:** The resident has advanced so that he or she now substantially demonstrates the milestones targeted for residency. This level is designed as the graduation target – **not requirement**.

- **Level 5:** The resident has advanced beyond performance targets set for residency and is demonstrating "aspirational" goals which might describe the performance of someone who has been in practice for years.
  - It is expected that only a few exceptional residents will reach this level.

Duke's Experience: Likert→Milestone Based Evaluations

Results: Stratification

PC-1 Likert-based evaluations			
	n	Mean	p-values
PGY-1	88	3.60	
PGY-2	20	3.65	0.79 *(1 vs. 2)*
PGY-3	21	3.71	0.77 *(2 vs. 3)*
			0.54 *(1 vs. 3)*

PC-1 Milestones-based evaluations			
	n	Mean	P-values
PGY-1	74	2.94	
PGY-2	63	3.81	<<0.01 *(1 vs. 2)***
PGY-3	78	3.97	0.23 (2 vs. 3)
			<<0.01 *(1 vs. 3)***

The milestones truly reflect resident development

Duke Children's

What we've learned so far (local style)

- Difficult for CCC to accurately report to ACGME due to "grade inflation"
  - This has gotten better but some evaluators still rating residents as all 5s!
- Faculty don't love reading the novels in each milestone anchor
  - Practice makes perfect…☺
- Criticism that achievement of a milestone involves many components
  - Ok to put a comment underneath if difficult to choose
- Request for goal milestone levels by PGY level… national data gathering (still) in process

Example: Soccer Skills (SS-1)

Professional =5

Collegiate level = 4

Solid high school player = 3

Beginner = 1

8 yo scores some goals in Saturday league =2

Exercise: Patient Care (PC-1)

PC1. Gather essential and accurate information about the patient					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Either gathers too little information or exhaustively gathers information following a template regardless of the patient's chief complaint, with each piece of information gathered seeming as important as the next. Recalls clinical information in the order elicited, with the ability to gather, filter, prioritize, and connect pieces of information being limited by and dependent upon analytic reasoning through basic pathophysiology alone	Clinical experience allows linkage of signs and symptoms of a current patient to those encountered in previous patients. Still relies primarily on analytic reasoning through basic pathophysiology to gather information, but has the ability to link current findings to prior clinical encounters allows information to be filtered, prioritized, and synthesized into pertinent positives and negatives, as well as broad diagnostic categories	Demonstrates an advanced development of pattern recognition that leads to the creation of illness scripts, which allow information to be gathered while simultaneously filtered, prioritized, and synthesized into specific diagnostic considerations. Data gathering is driven by real-time development of a differential diagnosis early in the information-gathering process	Creates well-developed illness scripts that allow essential and accurate information to be gathered and precise diagnoses to be reached with ease and efficiency when presented with most pediatric problems, but still relies on analytic reasoning through basic pathophysiology to gather information when presented with complex or uncommon problems	Creates robust illness scripts and instance scripts (where the specific features of individual patients are remembered and used in future clinical reasoning) that lead to unconscious gathering of essential and accurate information in a targeted and efficient manner when presented with all but the most complex or rare clinical problems. These illness and instance scripts are robust enough to enable discrimination among diagnoses with subtle distinguishing features
☐	☐	☐	☐	☐	☐
Comments:					

Suggested ratings for exercise

PC1. Gather essential and accurate information about the patient					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Either gathers too little information or exhaustively gathers information following a template regardless of the patient's chief complaint, with each piece of information gathered seeming as important as the next. Recalls clinical information in the order elicited, with the ability to gather, filter, prioritize, and connect pieces of information being limited by and dependent upon analytic reasoning through basic pathophysiology alone	Clinical experience allows linkage of signs and symptoms of a current patient to those encountered in previous patients. Still relies primarily on analytic reasoning through basic pathophysiology to gather information, but has the ability to link current findings to prior clinical encounters allows information to be filtered, prioritized, and synthesized into pertinent positives and negatives, as well as broad diagnostic categories	Demonstrates an advanced development of pattern recognition that leads to the creation of illness scripts, which allow information to be gathered while simultaneously filtered, prioritized, and synthesized into specific diagnostic considerations. Data gathering is driven by real-time development of a differential diagnosis early in the information-gathering process	Creates well-developed illness scripts that allow essential and accurate information to be gathered and precise diagnoses to be reached with ease and efficiency when presented with most pediatric problems, but still relies on analytic reasoning through basic pathophysiology to gather information when presented with complex or uncommon problems	Creates robust illness scripts and instance scripts (where the specific features of individual patients are remembered and used in future clinical reasoning) that lead to unconscious gathering of essential and accurate information in a targeted and efficient manner when presented with all but the most complex or rare clinical problems. These illness and instance scripts are robust enough to enable discrimination among diagnoses with subtle distinguishing features
☐	☐	☐	☐	☐	☐
Comments:					

Green Sub-I/ Struggling Intern (C&F)

Polished Intern/ Impressive Sub-I (B&H)

PGY2 thinks on feet (G)

Upper level efficient (E)

High functioning graduate (D)

SWO (A)

On the receiving end…

Patient Care - Milestones

PC 1) PC1. Gather essential and accurate information about the patient

Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | N/A

PC 4) PC4. Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment

Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | N/A

Medical Knowledge - Milestones

MK 1) MK1. Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems

Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | N/A

Practice-Based Learning and Improvement - Milestones

PBLI 1) PBLI1. Identify strengths, deficiencies, and limits in one's knowledge and expertise

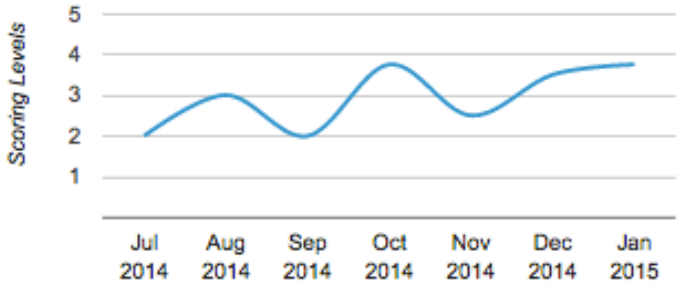
Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | N/A

Give high fives for a job well done (not all fives on the evaluation) ☺

On the receiving end…

Rotation Evaluations

Evaluators scored this subcompetency using the standard milestone scale.



Month	1	1.5	2	2.5	3	3.5	4	4.5	5	N/A
Jul 2014			2							
Aug 2014					1					
Sep 2014			1							
Oct 2014						1	1			
Nov 2014				2						
Dec 2014						1				
Jan 2015						1	1			

 # Responses for each score per month

One intern's performance on PC-1…all over the map!

We know you do your best!

- Hard to choose milestones applicable for each area
  - Ok to say “N/A” for some you truly do not observe
  - We welcome feedback
- These new evaluations take time to complete!
  - Scoring your direct observations of resident behavior/skills
  - Meaningful comments

Feedback on your feedback…

- How can we best help you?

- When you fill out an evaluation, we may offer some suggestions

Thank You and Happy New Year!

Please don't hesitate to contact me with any questions:
jdirocco@hawaii.edu