Need directions? A roadmap to understand and assess ambulatory milestones

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How do you currently decide when your residents are competent to independently care for patients?

Lots of good evaluations ...
Absence of bad evaluations ...
Survived three years of training ...
Didn’t commit any crimes ...
Competencies

NAS

DUTY HOURS

EPAs

Milestones

NARRATIVES
Are we producing doctors with the right skills for the system?

Is the curriculum teaching all we expect it to?

Frenk *Lancet*, 2010
A Common Language
Next Accreditation System (NAS)

- Focus on trainee & program outcomes
- Less site visits (every 10 yrs) but annual reporting
- “Accreditation partly based on educational outcomes of program”
Goals of CBME/NAS

• Although NAS will bring a need for greater direct supervision, the use of milestones-based evaluations will move us closer to true measures of competency.

• Goals are:
  – to simplify the process so as to ease the burden on busy faculty
  – to make the evaluations more meaningful
  – to increase evaluation return rates
How do I get there?

NEXT EXIT
Milestones

Entrustable Professional Activities

Narratives

Next Accreditation System

Developmental trajectory of trainee

Knowledge, skills and attitudes acquired over training

Describe residents along the path to competence

“Roadmap”
Caverzagie
Internal Medicine Milestones

• **Abilities** expected of IM residents as they progress through training
  – Integrate knowledge, skills, values and attitudes (EPAs)
  – Developmental in nature
  – Inherently linked within/across core competencies

• Framed in behavioral terms
  – They are observable
  – Sets the stage for assessment of competence

22 Reporting Milestones
Acceptance of feedback

Maintain climate of mutual respect and shared values

Knows/utilizes responsibilities of team members

Works within team dynamics to provide patient care

Responsive and responsible communication

Milestones as “windows” to competence

Caverzagie
### 2. Develops and achieves comprehensive management plan for each patient. (PC2)

<table>
<thead>
<tr>
<th>Critical Deficiencies</th>
<th>Ready for unsupervised practice</th>
<th>Aspirational</th>
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</thead>
<tbody>
<tr>
<td>Care plans are consistently inappropriate or inaccurate</td>
<td>Consistently develops appropriate care plan</td>
<td>Role models and teaches complex and patient-centered care</td>
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<tr>
<td>Does not react to situations that require urgent or emergent care</td>
<td>Recognizes situations requiring urgent or emergent care</td>
<td>Develops customized, prioritized care plans for the most complex patients, incorporating diagnostic uncertainty and cost effectiveness principles</td>
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<td>Does not seek additional guidance when needed</td>
<td>Seeks additional guidance and/or consultation as appropriate</td>
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<tr>
<td>Comments:</td>
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</table>
Transitioning to CBME

• Steps toward developing useful assessments
Common Tools for Assessing Competency

Global Assessment
Direct Observation
Multisource Feedback
Overall goal with rating scales

To create a scale in which:

1. Raters agree about the score for a particular individual – Inter-rater agreement (reliability)
2. Top scoring individuals are separated from bottom scoring individuals – Discrimination
2 Kinds of Rating Scales

Norm Based
• Compares one individual’s performance to that of others

Criterion Based
• Compares an individual’s performance to a set of pre-developed standards
• Often uses developmental scales (RIME)
Norm-Based Assessment

Pros
• Easy to understand
• Commonly Used

Cons
• Provides no information about specific aspects of performance
• Relies on the experiences and expectations of the evaluator
• Hard to standardize; low rater agreement
Criterion-Based Assessment

**Pros**
- Provides specific feedback
- Rater is responsible for observing and recording specific behaviors - NOT GRADING
- Higher rater agreement

**Cons**
- Hard to develop
- Requires training/education to complete
- Criteria may change
Systematic Rater Error

ALL SCALES STRUGGLE:

• Every rater is different –
  – Different criteria and standards
  – Different focus
  – Different understanding of scale
• Hawk vs. Dove (stringency and leniency)
• Mum effect
• Grade inflation
In order to assess milestones and complete evaluations, you need EXPERIENCE with the trainee...

How do we do that in the ambulatory setting???
Global Assessment AKA End of Rotation Evaluation

• Strengths
  – Summarizes performance over time
  – Easy to implement
  – Work-place based/authentic

• Limitations
  – Inter-rater reliability
  – Halo effect
  – Recency bias
  – Limited to no feedback, comments, explanations
Direct Observation

- Workplace based assessment
- Observation of day to day clinical activities

- Over 55 tools described in the literature
- > 11 with validity evidence

Kogan et al, JAMA 2009
Direct Observation

• Strengths
  – Immediate and specific Feedback
  – Authentic
  – Connects assessment to learning

• Limitations
  – Time
  – Case specificity
  – Context specificity
  – Inter-rater reliability
Multisource Feedback

• Forms or checklists completed by multiple different people with different perspectives
Multisource Feedback

• Strengths
  – Triangulation
  – Good to assess particular competencies
    • Professionalism
    • Interpersonal skills
    • Leadership skills
    • Teamwork
    • Leadership

• Limitations
  – Need lots of ratings for reliability
    • >20-80 patients
    • 15-20 nurses
  – Difficult to assess trainee separate from rest of health care team, environment
  – Case specificity
  – Challenging data collection
Performance Audit & Chart Stimulated Recall

- Patient information abstracted from medical records
- Results compared to accepted standards
- Most commonly used (and studied) to assess quality of care
- CSR: probes decisions from chart

Patient data may include:
- Tests/studies ordered (Lipids, Mammogram)
- Laboratory/study results (Hemoglobin A1C)
- Immunizations
- Diabetic foot examinations
- Counseling for smoking cessation
- Documentation of DNR or end-of-life discussions
Performance Audit

• Strengths
  – Authentic
  – Can observe patterns
  – Can elicit underlying reasoning
  – Sample size of ~10 patient records usually sufficient

• Limitations
  – Training reviewers to decode clinical data is time intensive
    • Review by trained reviewers ~ 30 min
  – Records may be inaccurate or incomplete
    • Missing data is interpreted as not meeting accepted standard
  – Documented care may represent decisions by other members of health care team rather than resident
Best Practices

• Multiple observations by different faculty in different settings
• Short and focused
• Incorporate feedback as part of observation
  – Prompt verbal feedback
  – Specific written comments
• Record data promptly after observation
• Rater training or criterion-based tools improve accuracy

Hauer, 2011
Best Practices

• Observe over broad range of experiences
• Collect ≥7 ratings by multiple raters
• Limit items (≤10 plus global rating)
• Criterion based or train raters
• Incorporate other forms of observation to supplement continuous rating

Williams et al, TLM 2003. 15(4), 270–292
Best Practices for an Assessment Program

• Continuous and frequent assessment
  – Lots of formative feedback to inform summative decisions
• Criterion based or strong standard setting
  – Often qualitative > quantitative
• Robust work-based “real life” assessment
• Tools that meet minimum quality standards
• Use group evaluation/discussion for high stakes decisions

Holmboe, 2010
2013-14 Education Committee Initiatives

“Create a product in response to ACGME Next Accreditation System to include continuity clinic assessment tools that incorporate Milestones and EPA framework”

SGIM Milestones Subcommittee
SGIM Milestones Survey Tool

• How important is it for residents to achieve this Milestone in continuity clinic?
• Select Assessment Tool(s) to best evaluate this Milestone in continuity clinic
• Designate Person(s) best suited to observe resident’s achievement of this Milestone in continuity clinic
• Select Location in continuity clinic best suited to observe resident’s achievement of this Milestone
• Rank the top 6 milestones uniquely assessable in residents’ continuity clinic
<table>
<thead>
<tr>
<th>Reporting Milestones</th>
<th>How important is it for residents to achieve this Milestone in continuity clinic? Select for each milestone 1 (not at all) to 5 (critical)</th>
<th>Select Assessment Tool(s) to best evaluate this Milestone in continuity clinic? Select as many as appropriate (i.e. direct observation, mini-CEx, OSCE, chart review, chart-stimulated recall, simulation-based assessment, In-Training exam, 360 evaluation, not assessable)</th>
<th>Designate Person(s) best suited to observe resident’s achievement of this Milestone in continuity clinic? (i.e. nurse, pt, attending, resident/fellow, med student, ancillary staff - social worker, pharmacist)</th>
<th>Select Location in continuity clinic best suited to observe resident’s achievement of this Milestone? (i.e. in patient room, start of clinic, precept room, family meeting, team meeting)</th>
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<tbody>
<tr>
<td>1. Gather and synthesizes essential and accurate information to define each patient’s clinical problem(s)</td>
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<td>2. Develops and achieves comprehensive management plan for each patient</td>
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<td>3. Manages patients with progressive responsibility and independence</td>
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<td>4. Skill in performing procedures</td>
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<td>5. Requests and provides consultative care</td>
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Small Group Breakout Sessions
Milestone Assessment in the Ambulatory Setting

• Break into small groups based on your home institution’s continuity clinic set-up:
  1. No predominant preceptor for a given resident in continuity clinic
  2. Each resident has a predominant preceptor
  3. Each resident has a standing group of preceptors
  4. Models representing a mix of the above exist

• Use Milestones Worksheet listing 7 reporting milestones applicable to ambulatory setting and choose 3 to focus on
Questions to Ask:

• List assessment tools to best evaluate this milestone
• Designate the person best able to observe and assess this milestone
• Identify the location within the continuity clinic setting best suited to observe and assess this milestone
Large Group Debriefing/Discussion
Large Group Discussion: Applying this tool at your institution

• Who else needs to be included in this process?
  – To do the day to day work?
  – To provide oversight/ advise?

• What are the next steps? How do we move forward from here?

• What is a reasonable time frame?
Step 1 - Map where each milestone is taught/observed
Step 2 - Apply the competencies to an assessment tool

• When/where to assess?

• Which tool?
  – What existing assessment(s) can be used or modified to capture resident performance of the chosen milestones?

• By whom?

• Do you need new tools?
Step 3 - Convene Competency Committee and report resident progress using milestones
Thank You!
References


