STARFIELD SUMMIT

...where primary care research inspires policy and practice

DISCUSSION TOPIC:

Current Outcomes of Family Medicine Residency—Milestones

Why this is important (brief description):

The ACGME/ABMS general competencies were introduced as part of the Outcome Project in July 2001. Two of the competencies, practice-based learning and improvement (PBLI) and systems-based practice (SBP) were particularly new and implementing an outcomes-based educational model has been challenging for residency programs. One reason for the challenge was the lack of a developmental shared mental model of the competencies. This recognition ultimately led to the creation of the Milestones, with Family Medicine implementing their first version in July 2014. Milestones can highlight essential, core abilities in family medicine using a developmental mindset, enable and support better assessment and group judgments (via the clinical competency committee), empower resident self-regulated learning and development, and guide curricular change. Milestones are designed as a low-stakes, formative framework to support continuous quality improvement. Aggregate milestone data for the specialty are available at https://www.acgme.org/What-We-Do/Accreditation/Milestones/Research The Family Medicine Community just launched Milestones version 2.0 this past July, building on lessons from the first six years of Milestones.

What We Think We Know (Bulleted evidence + Seminal references):

Family medicine has been a leader in early validity research of the milestones. In addition, there are useful lessons from other studies that can inform the major revision process. Reference list attached.

- Mainous, et. al. explored the trajectories of Milestones and in-training examination (ITE) scores. The authors found non-medical knowledge Milestones ratings had low to no correlation with the ITE, supporting the multi-dimensional competency construct of the Milestones. In addition, residents who did not advance had lower Milestone ratings.
- Peabody and colleagues performed a reliability analysis of the FM Milestones. Overall, reliability was high at 0.99 using Rasch analysis. As noted by the authors, "FM Milestones do not measure the amount of a latent trait possessed by a resident, but rather describe where a resident falls along the training sequence."
- Page and colleagues have conducted a series of three studies using their Medical Mobile Milestones (M3) app. They have found that the quantity and quality of feedback has improved with the app. In a study of peer feedback using the app, peers were more likely to focus on other competencies than faculty.
- Holmboe and colleagues, using longitudinal national data, created predictive probability values (PPVs) for four specialties, including FM, that provide program directors and CCCs with risk estimates for not attaining recommended graduation targets for each subcompetency.
- ACGME has also performed a preliminary analysis of Milestones for gender bias and are working with ABFM to potentially add the ITE as a co-variate to strengthen the analysis later this year.
- ACGME has also utilized new approaches to assessing reliability using growth rate and curve analyses.

Questions for Group Discussion (preconference)

Questions for Group Discussion

1. The COVID-19 pandemic has highlighted the importance of accelerating the implementation of an outcomes-based approach to graduate medical education. How can this initiative contribute to this transformation and advance outcomes based GME?
2. What are the implications of the data on completion of milestones by family medicine residents in recent years? How can we accelerate curriculum and assessment in practice-based learning and improvement and systems-based practice?
3. What key questions and studies need to be performed with Milestones 2.0? For example, when and what competencies is it acceptable not to achieve level 4 (proficiency) at the time of graduation?
4. How can we advance the feedback of graduate practice performance measures to FM residencies as part of GME continuous quality improvement?
5. How can the FM specialty and the Board facilitate change and innovation within FM training?
6. How can the specialty improve the implementation of the FM Milestones 2.0, including changes in curricular and programmatic assessment?

Ideas Worthy of Policymaker Attention (lists ideas for policy preconference, refined ones postconference)

1. Easier access to performance data post-graduation is critical for continuous improvement of Milestones and assessment during training. outcomes and validity research
2. Easier access to performance data post-graduation is critical to support continuous improvement of residency outcomes research.
3. How should performance in practice post-graduation inform certification and accreditation policies?

Important Unanswered Questions & Ideas Worthy of Research Community Attention
(list ideas for researchers/funding community preconference, refined ones postconference)

1. Need to accelerate outcomes research using existing Milestones data (note: conversations in process; we have performed a small study within the Kaiser system)
2. Is there any relationship between performance in FM residency and subsequent practice location and setting?
3. What are the key issues in diversity, equity and inclusion with regards to performance during residency (e.g. Milestone developmental performance) and subsequent early career paths in FM?