There's an “APP” for That: Modern Software to Track and Analyze EPAs in the Context of and Throughout the Medical Education Continuum (Board: 11)

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Abstract

When it comes to recording, tracking, analyzing, and providing a platform for advisors, deans, and students to reflect on student competency and EPA development, staff and faculty at WesternU/COMP (COMP) and University of Michigan (UMMS) will be ready. Over the past decade COMP has developed a holistic student tracking and advising software which automatically integrates data from existing internal and external systems, formerly known as the Academic Progress Portal (APP), renamed ProgressIQ. ProgressIQ is engineered to accommodate increasing levels of abstraction as medical education best practices evolve and advance. UMMS has developed a Student Performance Record (SPR) that provides learners and administrators with the data they need to track progress toward competency. As they have and will continue to do so for student didactic, licensing board, learning outcomes, and longitudinal theme performance, these universities will be ready for the new challenges that EPAs bring.

COMP – Early Implementation of EPAs

As COMP plans to implement evaluations of EPAs as part of the curriculum, a crosswalk was developed to determine the educational experiences that can be used to evaluate various EPAs. The crosswalk will serve as a guide and curriculum map for academic administrators, clerkship directors and for other core faculty to determine appropriate educational activities, assessments and outcome measurements for our students. The crosswalk is an acknowledgment that not all educational experiences are ideal to evaluate all EPAs.

COMP Technology

COMP uses ProgressIQ, which tracks institutional, program, and course learning outcomes, as well as national board subject area performance for individual students, and their respective class cohorts, throughout the preclinical years. ProgressIQ has a highly flexible data architecture, and is ready to track EPAs once implemented in the curriculum.

U of Michigan – EPA Assessment in Practice

The University of Michigan Medical School (UMMS), has adapted and expanded upon the ACGME competencies (Patient Care, Medical Knowledge, Practice-Based Learning and Improvement, Systems Based Practice, Professionalism, and Interpersonal Skills and Communication) to develop 8 competency domains and 40 competencies that are tracked over a medical student's academic career. Students are assessed on a 9 point scale in the competency domains.

UMMS has developed a Student Performance Record (SPR), designed to provide competency and other data to our competency committees. The data and the visualizations provided in the SPR are aligned with where our curriculum is headed—ensuring that we begin to move away from time-based and norm-based promotions of our prior curriculum and begin to embrace competency-based education. We are able to highlight and drill down into areas for development and notable strengths of our students and to visualize growth curves for each student as they collect data from faculty and other preceptors on their competencies over time.

The Future

UMMS, COMP, and Alabama College of Osteopathic Medicine (ACOM) envision the use of business intelligence and visualization analytics to fully realize the potential insights gained by tracking EPAs throughout the competency-based medical education continuum. COMP is collaborating with ACOM, who uses E*Value to tie learning activities to EPAs. The two colleges are experimenting with piping this data into ProgressIQ for transformation, and then to Microsoft Power BI as a potential business intelligence and visualization analytics engine.

Conclusion

COMP has technology poised to effectively track EPAs, and is working toward implementing a competency-based curriculum. In contrast, UMMS is further along development of curriculum based on competencies, and has created technology to track aspects of student development based on EPAs. ACOM has technology in place to tie EPAs to student activities. Significant work remains for COMP, UMMS, and ACOM to implement wholly competency-based curricula, supported by technology that automatically tracks and visually represents student progress based on EPAs, milestones, and competencies.

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