

## AAIM Perspectives

AAIM is the largest academically focused specialty organization representing departments of internal medicine at medical schools and teaching hospitals in the United States and Canada. As a consortium of five organizations, AAIM represents department chairs and chiefs; clerkship, residency, and fellowship program directors; division chiefs; and academic and business administrators as well as other faculty and staff in departments of internal medicine and their divisions.

# Bridging the Gap in Competency Assessment During Transition from Undergraduate Medical Education to Graduate Medical Education: A Perspective Piece



Amna Anees, MD, FACP,<sup>a</sup> Elizabeth G. McAlister, MS, C-TAGME,<sup>b</sup> Adam M. Garber, MD,<sup>c</sup>  
Alvin S. Calderon, MD, PhD, FACP,<sup>d</sup> James Butler, MB,<sup>e</sup> Emily Mallin, MD, FACP,<sup>f</sup> Diane Levine, MD,<sup>g</sup>  
M. Lee Sanders, PhD, MD,<sup>h</sup> Brian Kwan, MD,<sup>i</sup> J. Marietta Clewing, MD,<sup>j</sup> Steven Barczy, MD,<sup>k,l</sup>  
Candice Mateja, DO,<sup>m</sup> Nadia Ismail, MD<sup>n</sup>

<sup>a</sup>Department of Medicine, Charleston Area Medical Center/WVU-Charleston Division, Charleston, WV; <sup>b</sup>Department of Medicine, University of Alabama at Birmingham; <sup>c</sup>Virginia Commonwealth University School of Medicine, Richmond; <sup>d</sup>Virginia Mason Franciscan Health, Seattle, Wash; <sup>e</sup>Indiana University, Bloomington; <sup>f</sup>Department of Medicine, University of Arizona College of Medicine - Phoenix and Banner - University Medical Center Phoenix; <sup>g</sup>Wayne State University, Detroit, Mich; <sup>h</sup>Department of Internal Medicine, University of Iowa Hospitals and Clinics, Iowa City; <sup>i</sup>University of California, San Diego; <sup>j</sup>Weill Cornell Medical College, Department of Medical Education, Texas A&M College of Medicine, College Station; <sup>k</sup>University of Wisconsin School of Medicine and Public Health, Madison; <sup>l</sup>Madison VA Geriatric Research Education and Clinical Center, Wm. S. Middleton Memorial VA Hospital, Madison, Wis; <sup>m</sup>University of South Florida, Tampa; <sup>n</sup>Baylor College of Medicine School of Medicine, Houston, Texas.

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## INTRODUCTION

The transition from undergraduate medical education (UME) to graduate medical education (GME) presents many challenges for both students and educators.<sup>1</sup> Recognizing opportunities for improvement, the Coalition for Physician Accountability (COPA) commissioned the

UME-GME Review Committee in 2020. The committee identified numerous issues with the UME-GME transition and residency recruitment, including over-reliance on licensure examinations, lack of transparency, mistrust, mismatched goals of different stakeholders, and concerns about systemic biases and equity challenges. COPA subsequently undertook the task of identifying solutions to these issues, writing 34 recommendations within 9 broad themes.<sup>2</sup> This guidance was acknowledged by many education leaders, but a roadmap for how to enact these recommendations was needed.

In 2021, the Alliance for Academic Internal Medicine (AAIM) created several task forces to participate in planning and operationalizing various aspects of the COPA recommendations. These task forces were active from November 2021 through September 2022, and

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Requests for reprints should be addressed to Amna Anees, MD, Department of Medicine, Charleston Area Medical Center/WVU-Charleston Division, 3110 MacCorkle Avenue, SE, Charleston WV 25304.

E-mail address: [amnaanees@hotmail.com](mailto:amnaanees@hotmail.com)

members were specifically and equally recruited from roles within both internal medicine UME and GME.

An Alliance task force focused on competencies leveraged the diverse geographical, institutional, and educational perspectives to identify a set of competencies that apply throughout the internal medicine education continuum, from medical school through residency and fellowship. The work focused on COPA recommendation 9: highlighting the need for a shared model of assessment and determination of competence.<sup>2</sup> COPA additionally recognized that a shared outcomes language had the potential to improve transparency and ultimately enhance trust for all stakeholders in the process—learners, faculty, programs, and systems. This paper addresses the focus AAIM took to address these challenges with an initial focus on US medical schools.

## PROCESS/METHODS

With the assistance of leadership from the Internal Medicine Education Advisory Board, a group of key stakeholders that represent allopathic, osteopathic, and international medical education, AAIM decided to focus on how to best bridge the gap in the different language educators utilize to assess their learners across UME and GME. Despite the widespread use of medical student performance evaluations (MSPE), there remains a perceived lack of trust by residency programs that these evaluations are a true representation of a learner's skills, knowledge, and abilities upon entering residency. While there are only 172 allopathic and osteopathic medical schools, there are over 12,000 graduate residency programs, all of which are using milestones. The Accreditation Council for Graduate Medical Education (ACGME) milestones 2.0 are validated and used across residency and fellowship. For these reasons, AAIM began by evaluating the commonalities and differences between the more common assessment tools for UME and GME: core entrustable professional activities (EPAs) and the ACGME milestones, respectively.<sup>3,4</sup>

Through an informal poll of task force members, AAIM sought to identify which milestones were most informative yet challenging to convey, while assessing learners during the UME to GME transition. In general, all the EPAs could be tracked to the milestones but not

all milestones could be tracked to EPAs. It became evident that professionalism is never explicitly discussed in the EPAs, rather, “professionalism” was an underlying, expected component across all EPAs. The creation of an assessment tool on professionalism based on the structure of the milestones and the EPAs could be used to strengthen the communication bridge between UME and GME.

AAIM recognized the inability to address every milestone. Task force members were surveyed to determine which of the milestones were considered important and were believed to be less accurately reported to residency program directors due to lack of common language. This poll identified interpersonal communication skills 2 (ICS2) and professionalism (PROF)1 as the top 2 milestones to focus on initially. Given the fact there is no specific EPA for professionalism, AAIM identified commonly observed professionalism skills in the clerkship setting, but recognized the difficulty in assessing and essentially grading a learner on their professionalism skills. Upon further discussion of the work with ACGME leadership, AAIM concluded that PROF3 should

also be used to create an assessment tool. Subsequently, the task force efforts were divided into 3 areas: to evaluate ICS2, to evaluate PROF1 and PROF3, and to perform a literature review to help support the work of the first 2 subgroups.

## DEVELOPING A FRAMEWORK

### Interpersonal and Communication Skills 2

To create a framework for assessment of ICS2 utilizing existing validated assessment models, the ACGME milestones, and EPAs, AAIM intentionally utilized the transitional year ACGME milestones over the Internal Medicine Milestones 2.0 to broaden the scope of applicability to all medical school graduates. While mapping EPAs to milestones, similarities were identified between EPA 9, which addresses a learner's ability to “collaborate as a member of an interprofessional team,” and the ICS2 level 1 milestone “uses language that values all members of the healthcare team.”<sup>3</sup> However, the other 2 domains within ICS, calling a consultation and providing feedback, are not explicitly addressed in EPAs, requiring the development of novel behavioral language.

As with all ACGME milestones, the scale for ICS2 begins at level 1. From the perspective of a residency program director, level 1 is the expected

## PERSPECTIVES VIEWPOINTS

- Learner handoff (transition) from undergraduate medical education to graduate medical education has historically been challenging.
- The Alliance for Academic Internal Medicine Competencies Task Force was charged to identify a set of competencies that apply throughout the internal medicine education continuum, to address the need for a shared model of assessment.
- Our task force created a framework for assessment of Interpersonal Communication Skills 2 and Professionalism 1 and 3 utilizing existing validated assessment models.

**Table 1.** Competency assessment for UME to GME transition for Professional Behavior and Accountability and Interpersonal and Communication Skills.

	Professional Behavior and Accountability		Interpersonal and Communication Skills			
	Professional Behavior	Accountability	Consultation	Team Communication	Interprofessional Collaboration	Feedback
<b>Pre-entrustable</b>						
Behaviors Requiring Corrective Response*	Fabricates information when unable to respond to questions (EPA 6)	Routinely leaves assigned tasks incomplete	Antagonizes consultants at the time of consultation	Uses inappropriate body language	Ignores or is dismissive of interdisciplinary team members	Evaluations are delayed or not completed. Requires multiple reminders to complete. When completed are superficial
Pre-Level 1	Demonstrates suboptimal professionalism during rotation	Delayed completion of administrative tasks with multiple prompts	Defers to resident in requesting a routine consult/Struggles to articulate rationale for consultation	Uses verbal communication but not aware of nonverbal cues & does not respond to nonverbal cues or nonverbal communication	Identifies roles of other team members but does not know how or when to use them	Requires prompting to initiate, engage in, or provide feedback
<b>Entrustable</b>						
Level 1	Demonstrates professional behavior during rotation.	Timely completion of administrative tasks with prompting	Respectfully requests a routine consultation	Uses language that values all members of the health care team	Effectively partners as an integrated member of the team	Provides prompt, objective, and honest feedback on evaluations
<b>ACGME transitional milestone level</b>						
Level 2	Accepts responsibility for professional behavior lapses and identifies triggers	Timely completion of administrative tasks routinely during rotation	Clearly and concisely explains clinical scenario and rationale for consultation	Communicates information effectively with all health care team members		Solicits feedback on performance as a member of care team
Level 3	Demonstrates professional behavior in complex situations	Timely completion of administrative tasks in complex situations without prompting	Checks own understanding of consultant recommendations	Uses active listening to adapt communication style to fit team needs		Communicates concerns & provides feedback to peers and learners
Level 4	Demonstrates professional behavior in stressful situations and helps others identify professionalism concerns	Timely and consistent completion of administrative tasks and recognizing if team needs help with administrative tasks	Coordinates recommendations from different members of the health care team to optimize patient care			Communicates feedback and constructive criticism to superiors
Level 5	Identifies any barriers to professional behavior for self or others	Active involvement in addressing administrative tasks of the team	Role models flexible communication strategies that value input from all health care team members, resolving conflict when needed	Role models active and passive communication and helps team members identify any lapses in team communication		Facilitates regular health care team-based feedback in complex situations

ACGME = Accreditation Council for Graduate Medical Education; EPA = entrustable professional activities.

\*These behaviors should be recurrent or recalcitrant despite effective feedback.

starting place for most incoming residents. In contrast, for a UME educator, level 1 represents the finish line of the EPA framework as medical school graduates demonstrate expected behaviors (entrustable). This point of convergence served as the starting point for the framework.

Using ACGME milestone language as the foundation, AAIM focused on developing pre-level 1 milestones (pre-entrustable) anchored in the language of EPA 9 “developing behaviors,” and identifying examples of “behaviors requiring corrective response” (untrustable). The latter should be considered outside the educational

continuum and could identify at-risk learners that require additional coaching or intervention.

Within the ACGME milestones, evaluators may select a response in the middle of a level (ie, learners can be rated at level 1.5 rather than level 1 or 2). The expected UME corollary would be that a student new to clinical clerkships would start at a level 0 and progress to level 0.5 prior to reaching entrustability (level 1). While simple enough to be used as an assessment tool by UME, the ICS working group felt this model would also convey meaningful and intuitive information to program directors (Table 1; Appendix available online).

### Professionalism 1 and 3

Professionalism is an underlying expectation across all EPAs and does not have a distinct EPA. COPA also identified that competency evaluation in an ideal state would identify elements of professionalism to decrease ambiguity about unprofessional behavior and monitor skill progression. With this goal in mind, AAIM utilized transitional year and internal medicine milestones 2.0 as a reference point in creating a framework for a professionalism assessment for UME. The transitional year milestone for PROF1 includes ethical principles; however, for this framework, the efforts were focused solely on the professionalism component. AAIM also incorporated PROF3 from internal medicine milestones to consolidate accountability with professional behavior. A continuum of 5 levels was created. In addition, to improve utility, a pre-level 1 was added, like the ICS2 group. The pre-level 1 column identified behaviors that indicated the competency was still developing or required corrective action. Some of these behaviors were adapted from the EPAs, specifically EPAs 6, 8, 9, and 10. Like the internal medicine milestones, these levels do not correspond to the year of undergraduate medical education (Table 1; Appendix available online).

### LITERATURE REVIEW

The literature review focused on identifying medical education literature on teaching and evaluating interpersonal communication skills and professionalism, the competencies selected for the framework.

One aspect focused on educational literature pertaining to the importance of learners enhancing their communication skills, and another focused on the medical literature about the importance of having professionalism as a skill. The effort also identified articles focused on educational materials developed to teach learners in UME and GME, specifically in capstone or transition to residency (eg, boot camp) courses.<sup>5</sup>

Given that professionalism and interpersonal communication skills are 2 of the 6 competencies in the ACGME milestones, it is clear these skills are important for physicians to be successful. However, when reviewing courses published since 2020 in a database of transition to residency courses (also known as boot camps), there is a clear lack of emphasis on teaching these skills, in particular professionalism skills, with only 2 curricula addressing this content.<sup>6,7</sup> Although there is a body of literature looking at teaching professionalism in other modalities, there is no standardized way professionalism is taught or assessed.<sup>8</sup>

A “just culture” framework acknowledges that serious breaches undermining the social contract between physicians and the public warrant proportional responses while reserving space for less egregious lapses.<sup>9</sup> Furthermore, assessment of professional behavior is inexorably intertwined with the context in

which the behavior occurs. The same behavior in different settings may lead to varied assessment of professionalism. For instance, contradicting an attending in one setting may be viewed as an act of insubordination, whereas the same behavior in another setting may be seen as an expected safety act.<sup>10</sup> Given the heterogeneity of material in UME and GME on professionalism as it is taught in situ (capstone/transition to residency courses), our review identified a gap and an opportunity for medical educators to use a unified framework for professionalism assessment across this continuum.

### CHALLENGES

In creating a common competency model that bridges UME and GME, there remain multiple challenges to implementing and adopting this competency model. Given the progress of incorporating core EPAs into UME curricula and assessments as well as the long-standing reliance of GME on milestones, AAIM anticipates reluctance to implement yet another set of competencies. However, given that it is an amalgam of both EPA key functions and competencies, as well as an extension of the GME milestones, it will not be as challenging to incorporate as an entirely new scale or assessment structure.

Ultimately, the main challenge in implementation is obtaining “buy-in” among a diverse group of medical schools (US allopathic and osteopathic, as well as international medical schools) to adopt this model within varying curricular structures. Varying adoption rates could have an impact on match rates for medical schools that incorporate this model in the UME setting and include it in a pre-match communication, such as MSPE. This change could lead to frustrations among prospective program directors, who will have to deal with variability of MSPEs from different schools, as well as heterogeneity in timing and implementation in UME. Providing this information in a post-match setting would partly avoid this issue but also diminish the transparency of student performance for the application process, which is one of the aims of this project. It would therefore be paramount to include these schools in the development of additional scales and competencies to have the best chance at widespread adoption and overall success.

If this framework is widely adopted in UME, there remain additional challenges on its use for summative competency assessments, such as a UME clinical competency committee (CCC).<sup>11</sup> There would need to be a common language among UME institutions as a basis for establishing a CCC and validity evidence for this assessment framework, which would be a tremendous but not unattainable undertaking that is already underway at some UME institutions that have already implemented a CCC model.<sup>12,13</sup> For it to gain traction would involve a multi-step process, including UME



institutional buy-in and a collective effort between UME and GME entities and associated stakeholders toward competency-based assessment.<sup>14</sup>

## FUTURE DIRECTION

A transparent and effective UME-to-GME transition has been historically difficult to engineer but is clearly needed in the ideal state of this collaborative effort. It is necessary for a learner's own individual growth, as well as transparent achievement and communication of competence. AAIM embraces a shared mental model with key input from both UME and GME membership. Going forward, education, promotion, and marketing will be necessary for key stakeholders to embrace this shared mental model that incorporates the Internal Medicine Milestones 2.0 (GME), the Transitional Year Milestones, and is informed by the EPAs (UME). Collaboration with the Association of American Medical Colleges, the American Association of Colleges of Osteopathic Medicine, and ACGME is essential to develop a similar framework for other foundational milestones. After development of the framework, this collaboration is also essential to adapt and operationalize the revised milestones in a feasible, measurable, and workable UME evaluation framework. AAIM should play a pivotal role in operationalizing this new and iterative framework into the UME setting. Future AAIM efforts require engagement of key stakeholders that share similar goals to advance this competency-based work. The future steps could include conducting an environmental scan across UME programs to assess the readiness to change. It can also entail expansion of selected competencies, development of evaluation strategies and tools to align with these milestones that can be first used as a pilot. Based upon the user feedback, there will need to be continuous refinement of these evaluation tools. The approach for development of the tools ensures generalizability across specialty domains, which is key for adoption in the UME setting. A UME CCC can potentially help utilize these tools to follow competencies across all clerkships and subinternships. While entailing significant upfront investment, the work holds promise to standardize competency-based operations across this vital learner transition. This shared mental model within UME and GME, previously recommended by COPA, is a challenging yet essential transformational task that requires full engagement between UME and GME partners and key stakeholders to ensure organizational alignment and build a culture of trust within the medical education continuum.

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## SUPPLEMENTARY DATA

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.amjmed.2023.06.001>.

## APPENDIX

	PRE-ENTRUSTABLE	ENTRUSTABLE	ACGME TRANSITIONAL MILESTONE LEVEL				
	Behaviors Requiring Corrective Response*	Pre-Level 1 Developing	Level 1 Entrustable	Level 2	Level 3	Level 4	Level 5
Professional Behavior	Fabricates information when unable to respond to questions (EPA 6)	Demonstrates suboptimal professionalism during rotation	Demonstrates professional behavior during rotation	Accepts responsibility for professional behavior lapses and identifies triggers	Demonstrates professional behavior in complex situations	Demonstrates professional behavior in stressful situations and helps others identify professionalism concerns	Identifies any barriers to professional behavior for self or others
	Is unaware of HIPAA policies Breaches patient confidentiality and privacy (EPA 8)	Is acquiring knowledge about HIPAA	Occasionally does not adhere to HIPAA guidelines due to incomplete understanding		Consistently respects patient confidentiality and follows HIPAA guidelines		Seeks to educate others on HIPAA policies and advocates for patient privacy and confidentiality
	Has disrespectful interactions or does not tell the truth Is unable to modify behavior Puts others in position of reminding, enforcing, and resolving interprofessional conflicts (EPA 9)	Demonstrates respectful interactions and tells the truth Remains professional and anticipates and manages emotional triggers	Supports other team members and communicates their value to the patient and family Anticipates, reads, and reacts to emotions to gain and maintain therapeutic alliances with others				Models patient–provider and collegial interactions and maintains composure/professional bearing in all situations
	Provides inaccurate or misleading information (EPA 10)	Lacks specifics or requires prompting during informed consent	Provides complete and accurate information				
Accountability	Routinely leaves assigned tasks incomplete	Delayed completion of administrative tasks with multiple prompts	Timely completion of administrative tasks with prompting	Timely completion of administrative tasks routinely during rotation	Timely completion of administrative tasks in complex situations without prompting	Timely and consistent completion of tasks and recognizing if team needs help with administrative tasks	Active involvement in addressing administrative tasks of the team

ACGME = Accreditation Council for Graduate Medical Education; EPA = entrustable professional activities; HIPAA = Health Insurance Portability and Accountability Act.