

Transitioning Toward Competency: A Resident-Faculty Collaborative Approach to Developing a Transitions of Care EPA in an Internal Medicine Residency Program

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Abstract

Background Residency training and evaluation are moving toward competency-based models. Managing transitions of care is 1 of 16 entrustable professional activities (EPAs) that signal readiness for independent internal medicine practice. Methods for developing EPAs are evolving within the medical education community.

Objective We describe a process for developing a transitions-of-care EPA for internal medicine inpatient and ambulatory settings using an iterative, consensus-building, resident-faculty collaborative approach.

Methods We used an independent rank-ordering process and successive consensus group meetings to cull an initial list of 142 developmental Milestones to the 15 most relevant to transitions of care for internal medicine patients in an academic medical center and affiliated Veterans Administration hospital. Four senior internal

medicine residents and 4 internal medicine faculty members representing inpatient and ambulatory practice settings identified examples of specific tasks and evaluative techniques for each Milestone.

Results We demonstrate a feasible resident-faculty collaboration to develop transitions of care as an EPA for an internal medicine training program. Inclusion of residents along with faculty provided broader insights as well as an important learning opportunity for trainees.

Conclusions Our process demonstrated the feasibility of designing an EPA, but questions remain about how entrustment-based evaluation can be implemented in clinical settings. Our framework may serve as a foundation for EPA development in other areas of clinical practice.

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Introduction

Entrustable professional activities (EPAs) are the core activities that, together, define tasks to be executed by an unsupervised trainee once he or she has attained sufficient mastery.¹⁻⁵ The EPA framework is now used to organize the key developmental Milestones that serve as performance benchmarks of trainee assessment.⁶ A Milestones task force made up of educators and experts convened by the Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Internal Medicine defined 142 developmental Milestones across 16 proposed EPAs.^{7,8} Methods to operationalize EPAs and incorporate Milestones into their framework are evolving.^{3,9-11}

Managing transitions of care, including patient hand-offs from one care setting to another, is a proposed EPA of interest in the era of duty hour limits and specialized care teams.¹² Prior work on how to incorporate Milestones into a transitions-of-care EPA in pediatrics showed that mapping Milestones to EPAs and developing an objective evaluation for each level of competency attainment are

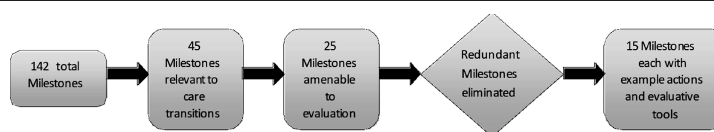


FIGURE | **FLOW DIAGRAM ILLUSTRATING CONSENSUS GROUP PROCESS OF MILESTONE SELECTION**

ongoing challenges.¹³ Because residents are intimately involved with transitional care activities early in training, there may be value in including both faculty and resident experiential insights in developing an EPA. We describe our process of selecting Milestones for a transitional care EPA through a collaborative work group of internal medicine residents and faculty.

Methods

Setting and Participants

Oregon Health & Science University (OHSU) and the Portland Veterans Administration train 98 internal medicine residents yearly. Residents are exposed to transitional care improvement models through a health systems curriculum and a multicomponent transitional care intervention for low-income patients implemented by 2 of the authors (H.E., D.K.).¹⁴ Our work group included the program director, 3 faculty members, and 4 third-year internal medicine residents.

Program Description and Evaluation

Beginning with the 142 developmental Milestones for Internal Medicine Residency Training,⁷ we narrowed the competencies and Milestones to those pertinent to transitions of care.⁸ We used an iterative consensus-based approach to select Milestones we thought were most applicable to an educational and training design context.^{8,15} The FIGURE illustrates our Milestone selection process.

Over the course of several meetings, participants reviewed a list of Milestones and independently rank-ordered each Milestone according to its relevance to transitions of care (1, directly relevant; 2, possibly relevant; 3, not relevant). We retained those unanimously ranked as relevant and discarded those unanimously ranked as irrelevant. The group then discussed discrepancies in rankings to achieve consensus. If consensus was not reached, we retained those Milestones for the next meeting.

Approval from the OHSU Institutional Review Board was not required as no subject data were gathered.

Results

Using this process, we culled the initial list of 142 Milestones to 45. We resolved discordant rankings by

debating a Milestone's relevance to transitions of care, a Milestone's redundancy with other Milestones, or whether a similar Milestone might better represent the activity in the context of transitions. For example, we thought the Milestone "effectively communicate plan of care to all members of the health care team" would be redundant and preferred the collaborative language of the Milestone "engage in collaborative communication with all members of the health care team." Using an iterative process, we narrowed the list to 25 Milestones.

We then reduced our list to 15 Milestones after considering how evaluation of a Milestone would occur. For example, we chose the Milestone "improves via feedback: respond welcomingly and productively to feedback from all members of health care team" (TABLE) because we thought it amenable to 360° evaluation during multidisciplinary rounds. This contrasted with a similar Milestone "reflect when surprised, applies new insights to future clinical scenarios, and reflects on action back to the process" that appeared more difficult to evaluate.

We constructed concrete examples of the 15 Milestones based on personal experience, existing expert-based consensus guidelines, and a recent study of provider-perceived transitional care gaps.^{16,17} We also designated the expected time for trainees to meet each Milestone and suggested corresponding evaluation tools. The TABLE describes each Milestone linked to ACGME competency, anticipated time for entrustment, and how entrustment would be measured.

Discussion

We used a faculty-resident collaboration and iterative consensus-based approach to identify a set of developmental Milestones with specific entrustment and evaluative methods that make up our transitions of care EPA. Our framework is not intended to be definitive but may serve as a catalyst for further discussion and refinement of Milestone selection for EPA development that may be useful for other training programs.

In the design of the EPA, we struggled to some degree with the broad language of the developmental Milestones. A key step in our process entailed identifying specific

TABLE MILESTONES SELECTED FOR A TRANSITIONS OF CARE ENTRUSTABLE PROFESSIONAL ACTIVITY					
ACGME Competency	Developmental Milestones	Time Frame (months)	Assessment Tool	Example of Transition of Care Activity	Basis for Formal Entrustment
Clinical skills and reasoning	Historical data gathering Seek and obtain appropriate, verified, and prioritized data from secondary sources	9	360° evaluation; Direct observation; CSR	Seeks corroborative information from care givers/other health care settings, providers, pharmacies (outside records, medication list) when appropriate upon transition to higher level of care	- Trainee demonstrates appropriate data gathering and history taking; independently corroborated by attending physician history on 2 occasions - Trainee demonstrates appropriate medication history taking on 2 occasions determined by team pharmacist
Delivery of patient-centered clinical care	Patient management Customize care in the context of the patient's preferences and overall health	36	Patient feedback; Simulation	Anticipates disease-specific patient-centered needs before hospital discharge	- Observed patient-centered behaviors confirmed by bedside nursing staff for 2 patient discharges - Objective Structure Clinical Examination (OSCE)
Learning and improving via feedback and self-assessment	Improves via feedback Respond welcomingly and productively to feedback from all members of health care team	12	360° evaluation	Seeks feedback/input from other health care professionals in formulating safe discharge plans	Trainee independently leads multidisciplinary rounds on 3 occasions
Communication with patients and families	Communicate effectively Provide timely and comprehensive verbal and written communication to patients/advocates	12	Direct observation	Communicates effectively with patients and families regarding details of transitions and anticipating future needs/problems	Attending physician/supervising resident observes trainee communicating appropriate transition of care discharge counseling for 3 separate patient discharges
	Engage patients/advocates in shared decision making	24	Direct observation	Engages patients and caregivers in developing discharge instructions and delivering patient-centered discharge information using teach back	Attending physician observes trainee demonstrating educational teach-back session with patient for 2 discharges with new diagnoses or medication changes
Communication with physicians and other health care professionals	Transitions of care Effectively communicate with other caregivers in order to maintain appropriate continuity during transitions of care	12	Peer feedback	Uses a systematic approach to physician-physician communication during transitions including sign outs between teams and with changes in setting or level of care	At least 2 attending physician/supervising residents observe 4 oral handovers where trainee gives sign-out, and 4 oral handovers where trainee receives sign-out, conducted proficiently
	Role model and teach effective communication with next caregivers during transitions of care	24	Direct observation	Models a systematic approach to transition communications for other learners/providers and suggests refinements to the systems based on experience	Trainee elicits primary care physician feedback on effectiveness of transitions communication and/or written materials for patients discharged by trainee on 5 occasions
	Interprofessional team Engage in collaborative communication with all members of the health care team	12	360° evaluation	Solicits input from members of the inpatient multidisciplinary team regarding care plan as well as involving outpatient care team at times of transition	Attending physician or member of the multidisciplinary team observes trainee providing effective communication with caregiver on 3 occasions, conducted proficiently and incorporating input from multidisciplinary team (case manager, social worker, pharmacy, nursing staff)

TABLE | MILESTONES SELECTED FOR A TRANSITIONS OF CARE ENTRUSTABLE PROFESSIONAL ACTIVITY (CONTINUED)

ACGME Competency	Developmental Milestones	Time Frame (months)	Assessment Tool	Example of Transition of Care Activity	Basis for Formal Entrustment
Communication via medical records	Health records Provide legible, accurate, complete, and timely written communication that is congruent with medical standards	6	CSR	Writes timely, concise discharge summaries (ideally completed within 24 hours) that identify key follow-up issues and those that require further attention/clarification	At least 5 attending physician reviews of satisfactory discharge summaries
Physicianship	Practice individual patient advocacy Recognize when it is necessary to advocate for individual patient needs Effectively advocate for individual patient needs	6 36	360° evaluation	Recognizes when social determinants of health make physician advocacy necessary to facilitate access to care after discharge or during any transition	- Team social worker provides trainee feedback on 2 patient discharges - As part of end of rotation review, attending physician will review 5 patient cases with senior resident
Works effectively with other care providers and settings	Works effectively within multiple health delivery systems Understand unique roles and services provided by local health care delivery systems. Manage and coordinate care and care transitions across multiple delivery systems, including ambulatory, subacute, acute, rehabilitation, and skilled nursing. Negotiate patient-centered care among multiple care providers Works effectively within an interprofessional team Work effectively as a member within the interprofessional team to ensure safe patient care	12 24 36 6	Standardized testing Self-reflection Direct observation 360° evaluation	- Demonstrates understanding of the basic composition of local health care delivery systems and how this might affect patients as they transition within the system - Anticipates, coordinates, and communicates postdischarge care plan for a hospitalized patient - Convenes care conference among multiple care providers and patient/caregivers to formulate coordinated care plan - Understands roles, purview, and limitations of members within the care team, including therapists, nurses, home care workers, pharmacists, and social workers	- Trainee completes a required transitions curriculum at end of internship - Trainee completes 1 home visit during primary care block rotation and completes self-reflection to satisfaction by associate program director/block director - Attending physician observes trainee leading 2 care conferences conducted proficiently 360 evaluation by participating nursing staff, palliative care consult team, other team members following care conference on 2 separate occasions 360 evaluation regarding care of a patient that experienced a transition of care

Abbreviations: ACGME, Accreditation Council for Graduate Medical Education; CSR, chart stimulated recall.

examples from the literature and clinical experience to determine a Milestone's relevance to transitional care. For example, discharge summaries are a specific manifestation of the Milestone "provide legible, accurate, complete, and timely written communication that is congruent with

medical standards." Once we identified development of discharge summaries as a key task, we could further discuss important attributes of this process to inform how entrustment would be demonstrated. Our goal was to describe a task with enough detail to promote a shared

understanding among learners and different faculty members conducting the evaluations.

To minimize bias from overrepresentation of single dominating viewpoints, individual evaluation and prioritization before group discussion was important. The iterative consensus-based approach was a practical means for the group to assess the extent of agreement on those Milestones that were thought most applicable and resolve differences on others.

Including residents was a unique feature of our EPA development process. Residents bear responsibility for carrying out the tasks involved in transitions of care even early in their training. Residents provided value in generating examples of Milestone activities and potential methods of evaluation that aided in Milestone selection. The practice-based learning nature of transitional care activities may make a transitions EPA more amenable to this type of faculty-resident collaboration and may not be as useful for development of other EPAs (for example, in management of acute common diseases). Additional benefits to faculty-resident collaboration were a sense of ownership over professional standards among resident authors and perceptions of a more relevant EPA that reflects the present training environment. The process was educational for residents and improved awareness of transitional care.

Limitations of our approach include that it was conducted by a small group at a single academic center. Views may be shaped by the local training environment and may not be applicable to other training programs. We acknowledge that there is subjectivity in Milestone selection and entrustment decisions, given lack of a gold standard for transitions-of-care education.

Design of our transition-of-care EPA required no external funding, and we were able to engage a group of residents and faculty longitudinally in this process over the course of a year. Our next steps are to disseminate and pilot test our EPA among faculty and residents. In particular, we are interested in how entrustment-based evaluation can be implemented in clinical settings. It would be valuable to have other training programs independently repeat our process or describe their EPA design process. This may highlight similarities in transitional care EPAs across institutions and pave the way for standardized curricula and evaluation.

Conclusion

We demonstrated the feasibility of a collaborative process to design a transition-of-care EPA. Our process was feasible and replicable at other institutions. This framework may also serve as a foundation for transitional care curricular development.

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