

Implementation of a Novel Clinical Reasoning Curriculum for Advanced Practice Fellows in Hospital Medicine

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Background: The National Academy of Medicine recommends focused improvements in diagnosis-related education as one targeted approach to improve the quality and safety of diagnosis. Unfortunately, most health professional training programs lack explicit, comprehensive, competency-based training in clinical reasoning and diagnosis. In one survey of early career hospitalist physician assistants, 58% of providers indicated that a greater understanding of clinical reasoning would make them more effective in clinical practice. Therefore, we aimed to create a formal clinical reasoning curriculum for Advanced Practice Fellows in Hospital Medicine.

Objective: To design, implement, and evaluate a clinical reasoning curriculum for the University of Colorado Advanced Practice Fellowship in Hospital Medicine.

Methods: Key individual and team-based learning objectives were derived from the Competencies for Improving Diagnosis, the work product of a multidisciplinary Consensus Curriculum effort led by the Society to Improve Diagnosis in Medicine. We conducted a needs assessment survey of a prior cohort of Advanced Practice Fellows which lent support for key concepts to be emphasized in our curriculum. Key objectives were organized into a series of four interactive, case-based modules delivered on dedicated education days. Learners were also provided skills cards to reinforce key concepts in the context of clinical care and could return completed cards for a small gift card.

Outcomes: The curriculum has been delivered to our first cohort of six fellows to date, who rated the sessions highly. Given small cohorts of learners we will need to pool data from several cohorts to perform further statistical analysis. In future iterations, we plan to implement a more robust multimodal assessment strategy including some or all of the following: paired pre-post surveys of learners' knowledge and confidence, participation with skills cards, 3-month follow-up survey, addition of knowledge assessment to surveys, scoring H&Ps with a structured rubric for clinical reasoning, direct observation using a validated clinical reasoning assessment tool, and an OSCE.

Discussion: This is an early, but successful example of implementation of a curriculum derived from the Society to Improve Diagnosis in Medicine Consensus Curriculum with early-career advanced practice provider (APP) learners. There are broad potential applications for this or similar curricula to be utilized with interprofessional learner groups across the continuum from students to experienced clinicians. While the imperative for educational improvements is strong, assessment of the impact of clinical reasoning education remains difficult as 1) it is challenging to isolate the impact of a given curriculum on the background of other influences on developing clinical reasoning, 2) the reflective practice and habits it ideally generates exist within the mind of the clinician but may lack discretely measurable expression, and 3) at its best clinical reasoning education is designed to prevent error, yet avoided events are difficult to capture. Further research is needed to determine educational best practices and meaningful tools for assessing clinical reasoning development and entrustable professional activities.