

### 2552. Using a Digital Escape Room as a Framework for Deliberate Practice of ID Fundamentals

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**Session:** 266. Medical Education: Medical School to Practice  
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**Background.** Deliberate practice is defined as engagement in structured activities created specifically to improve performance in a domain. Deliberate practice is achieved when the following three conditions are met: (1) The student is motivated to practice and exert effort to improve performance, (2) The task takes into account the preexisting knowledge of the learner so the task can be correctly understood after a brief period of instruction, and (3) The learners are given immediate and informative feedback on performance. A digital escape room meets all the conditions for deliberate practice as well as creating a collaborative learning experience.

**Methods.** Eight puzzles and corresponding digital locks were created using Google Forms and implemented in an infectious diseases (ID) elective offered to third year pharmacy students. The content for escape room puzzles included clinical microbiology, antimicrobial spectrum and pharmacology. Facilitator and classroom logistical data were collected. Student satisfaction was assessed for through an online anonymous survey.

**Results.** 20 small groups received a handout that contained learning objectives, rules, a Google Form link, escape room plot, 8 unique puzzles, and three hint tokens. 3 of 23 (13%) groups completed all 8 puzzles within 2 hours. Groups used 24 of 60 (40%) available hint tokens. The satisfaction survey was completed by 54 students, a 79% response rate. 93% of students indicated they were more engaged with thinking about the content than a typical classroom experience. 68% disagreed that the escape room framework made it difficult to focus on learning due to feeling stressed or overwhelmed. Constructive feedback themes were increasing clarity of puzzle directions and code nuances. Positive feedback themes were related to engagement, collaboration with peers, and variety of puzzles.

**Conclusion.** The escape room framework provides an engaging opportunity for the deliberate practice of ID fundamentals, a task student often find to be tedious. Using digital instead of physical locks allows the escape room to be deployed in a large classroom setting with one or two facilitators. Since Google Forms provides immediate and informative feedback, the role of the facilitator is respond to hint tokens and remediate the material with students.

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### 2553. Addressing Knowledge and Practice Gaps in HIV Management with Engaging Continuing Education

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**Background.** Given the rapid evolution of HIV management guidelines and the emergence of new treatment paradigms, infectious disease specialists are challenged to stay current on the latest evidence-based care and how to tailor treatment to optimally meet an individual patient's needs. To address identified knowledge and practice gaps regarding the care of patients with HIV, an engaging continuing education (CE) initiative was implemented, and the impact of the education on provider knowledge and practice was measured.

**Methods.** Vindico Medical Education partnered with Purdue University College of Pharmacy to deliver a highly engaging, 2.0-credit hour, CE initiative at ID week in October 2018. The symposium was comprised of multiple formats, including didactic presentations, case-based discussion, and the gamified segment, Wheel of HIV Knowledge. Coverage of the live program was posted to Healio.com, extending the reach of the education. Analysis of the impact of this education was achieved via pre and post-test test assessment.

**Results.** 357 healthcare providers participated in the live session, and 236 have accessed the web activity as of April 2019. The gamified and case-based segments of the live activity engaged on average 70% of learners and revealed insights into current practice patterns and persisting gaps in knowledge regarding the latest, evidence-based HIV care. Across the curriculum, there was a 46% relative increase in knowledge and competence. A total of 223 providers who see on average 15 patients per month with HIV completed the education, resulting in approximately 2,500 patients with HIV per month who are more likely to receive the latest evidence-based care. Moreover, 3 months following the education, 55% of providers reported implementing practice improvements, including applying the latest clinical guidelines and recommendations. Of those providers who implemented changes, 47% observed patient improvements such as improved adherence, satisfaction, and reduced viral loads.

**Conclusion.** In recent years of rapid advances for HIV management, providers are challenged to administer the latest evidence-based care. This study highlights the power of engaging CE to address persisting knowledge and practice gaps toward the delivery of enhanced care for patients with HIV.

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### 2554. A Standardized Medicine Resident Curriculum: Content Survey for an Infectious Diseases Rotation

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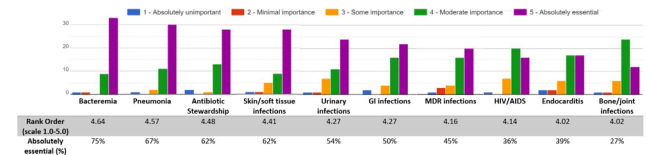
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**Background.** There have been few studies performed or guidelines made to address which topics in Infectious Diseases (ID) should be essential for medicine residents to learn during their training for their future practice of clinical medicine. Furthermore, when residents rotate on ID specialty electives, rarely is there formalized, standardized instruction tailored to residents. Thus, the purpose of this project is to define which core topics in ID residents should focus on learning during their training as pertains to clinical practice rather than for simply passing Internal Medicine (IM) board exams, which many programs tend to instead use as a guide for teaching ID content.

**Methods.** An online survey was designed and distributed to the faculty of the University of Chicago Medicine (UChicago) IM and ID sections. The survey was 8 questions, one of which was to rank 28 topics in ID on a modified 5-point Likert scale (1 = "absolutely unimportant," 5 = "absolutely essential") with regards to importance for a resident to practice general medicine. A cutoff for inclusion was  $\geq 4.0$  (moderate importance) and  $\geq 25\%$  of the faculty ranking the topic as absolutely essential. Open-ended feedback was encouraged and evaluated via a semi-structured evaluation.

**Results.** The survey was distributed to the 88 attendings in the UChicago ID and general IM sections. The response rates were 85% (ID) and 44% (IM). Ten of the 28 topics were ranked  $\geq 4.0$  (moderate importance) and had  $\geq 25\%$  of the faculty designate the topic as absolutely essential (Figure 1). Open-ended feedback included to focus on value-based care, to include Infection Control, and to focus on areas not taught in other aspects of their residency curriculum such as in their outpatient rotations. A majority (61%) indicated that 2-5 hours of structured teaching (lectures, on-line modules, etc.) would be most appropriate during a 2-week ID specialty rotation.

**Conclusion.** This project defined the core topics in ID that medicine residents should focus on learning during their training. The next step will be a needs-assessment to survey baseline resident knowledge of the above topics. The ultimate goal will be to design, deliver, and evaluate an ID curriculum that focuses on teaching this core content.



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### 2555. Relationship-Based Communication to Enhance ACGME Infectious Disease Fellowship Competencies

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**Background.** Relationship Centered Communication (RCC) acknowledges the physician's expertise as well as the patient's perspective.<sup>1</sup> Clinician empathy also serves to improve patients' ability to cope with chronic diseases.<sup>2</sup> Furthermore, effective communication aids with diagnosis and improves treatment adherence.<sup>3</sup> Hence, the need to teach and assess competence in Interpersonal Communication - Communicates effectively with patients, caregivers and interprofessional teams milestones. Created in conjunction with the Academy of Communication in Healthcare, RCC training for faculty is encouraged by our organization. Having attended the inter-professional workshop, ID faculty collaborated with the training program to afford the fellows the same opportunity to learn RCC skills.

**Methods.** Faculty have reported limited opportunities to observe/assess their learners. Trainees report infrequent and nonspecific feedback regarding areas for improvement.<sup>4</sup> Given these challenges, the ID fellows began a multi-step plan to hone new communication skills after attending the RCC workshop. Activities included both real and simulated encounters as well as didactic presentations. Each scenario built upon the previous one providing continuity of care. Upon completing both outpatient and inpatient encounters, the fellow joined the debriefing team (standardized patient, Program Director and RCC coach) to discuss areas of competence as well as opportunities for improvement. The fellows were also evaluated by faculty in actual patient encounters in addition to choosing a RCC skill to highlight during didactic conference.

**Results.** Activities provided fellows RCC teaching opportunities, interaction with a standardized patient and learn how the interaction was perceived from the patient's perspective. Ability to practice in a safe simulation environment, access to coaching and real-time assessment was reported as valuable for all parties. The RCC training afforded both parties the ability to give and receive specific/objective feedback for a competency usually perceived as subjective.

**Conclusion.** Varied activities urged the fellows to establish consistent communications habits. The program generated a framework for sustainability of skills and objective assessment.

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