"X-COVER":
A Learning Framework and Acting-Internship Preparation Curriculum to Approach Common On-Call Conditions

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**Background**

- The Acting Internship (AI) is a culminating experience in medical school where students receive greater autonomy and patient care responsibility and includes important skills:
  - Recognizing and triaging patients with emergent conditions ("sick vs not")
  - Time management
  - Recognizing one’s limitations and asking for help
  - Communicating effectively between teams
- Existing curricula on cross-cover are currently targeted to students at the end of medical school however, as these skills are required during an AI, introducing an approach to cross-cover may be beneficial earlier

**Methods**

We designed a cognitive framework and mnemonic incorporating domains within the AAMC’s EPA toolkit:

**X-COVER:**

- Call Triage and Help (Do you need to see the patient now and do you need to escalate and call your resident and/or attending?)
- Orders now (stabilizing and diagnostic orders are needed)
- Verify Information (What additional information do you need from the handoff or from the chart?)
- Examine (will you examine the patient?)
- Rx and Reassess (what is your treatment, monitoring, and follow-up order plan)

- We developed a 110-minute case-based small group session for third-year students to apply the x-COVER approach to manage 11 cases of common Cross-Cover conditions.
- Pre- and Post-Learner confidence levels in triaging, providing cross-cover, and identifying a patient with an emergent condition were assessed on 5-point Likert scale

**Results**

Prior cross-cover experiences during the Core Clerkship Year (n = 102):

- None = 53 (52%)
- 1-5 = 36 (35%)
- 6-10+ = 13 (13%)

**Figure 1: Pre- and Post- Reports of Confidence (% moderately, very, or extremely) across AI skill domains**

Confidence Evaluation Question | Increase in Confidence
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Organize and prioritize responsibilities to provide safe, effective, and efficient care. | 19%
Respond to nursing communication. | 15%
Provide cross-coverage (answer questions, write orders) for patients not primarily under your care. | 32%
Identify a patient who needs urgent/emergent care. | 12%

**Discussion**

- Prior to the session, students’ self-assessed confidence in performing cross-cover was lowest amongst the AI skill domains.
- Post-session, student’s self-assessed confidence in performing cross-cover improved, along with other core AI-skills
- As most students do not have cross-cover experiences during their core-clerkship year, introducing a management framework may be valuable to help students better prepare for their Acting Internships.
- Whether self-assessed confidence correlates with competence is unknown.

**Significance**

- Cross-cover is an integral part of the internship year. However, as the first cross-cover learning experiences occur during the Acting Internship, a curriculum dedicated to managing cross-cover conditions improves learner confidence.
- The unique approach of using a cognitive framework of X-COVER has the benefit of guiding students through a systematic approach that can be re-enforced through spiral learning

**Disclosures**

- The authors do not have any conflicts of interest to disclose.