Background
The Accreditation Council for Graduate Medical Education (ACGME) began Resident Subspecialty Milestones in 2015 to assess personal development of subspecialty residents (fellows). Many of the advanced level training milestones are targeted at professionalism and team communication, which are often very challenging to assess on a daily basis due to limitations such as clinical demands and time. As a result, feedback may be sporadic or overlooked.

Objectives
- Assess the ability of simulation scenarios to evaluate ACGME milestones both objectively and systematically for Pediatric Critical Care and Pediatric Anesthesiology fellows.
- Create replicable scenarios with which to test the development of professionalism and communication tools throughout fellowship.
- Unique scenarios were created with these specific objectives to capture the milestone rubrics. All scenarios were tailored to be specific for the targeted specialty.

Methods
- OSCE scenarios were designed to target difficult to assess milestones. The following categories were chosen to be assessed bi-annually in both the Pediatric Critical Care and Pediatric Anesthesiology fellowship programs:
  - **Ped ICU Milestones:**
    - Transfer of Care with Seamless Transitions
    - Working in Inter-professional teams
    - High Standards of Ethical Behavior
    - A checklist of tasks and global score mapped to the ACGME Subspecialty Milestone was completed during the simulations by 2 faculty per station (see grading rubric). Post-scenario surveys were completed by all faculty and fellows.
  - **Ped Anesthesiology Milestones:**
    - Interdisciplinarity and Transition of Care
    - Receiving and giving feedback
    - Communication with Patients and families
    - The grading sheet includes 2 separate scores. The first is a Global Score, which is how the rater subjectively feels the the fellow performed. The second is a calculated score, completed by the study staff based on the specified tasks completed during the scenario.

Survey of Faculty (n=21)

<table>
<thead>
<tr>
<th>Milestone Competency</th>
<th>Milestone Rubric</th>
<th>Specific Action or Behavior</th>
<th>(V)</th>
<th>Evaluation Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Accurately assesses patient situation</td>
<td>Working in inter-professional teams to enhance patient safety</td>
<td>Admits cases and asks for suggestions throughout the scenario</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>2. Brainstorms with the team all management options</td>
<td></td>
<td>Shares ideas and asks for suggestions throughout the scenario</td>
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<td></td>
</tr>
<tr>
<td>3. Able to request assistance for a difficult airway</td>
<td></td>
<td>Recognizes unique knowledge base of each team member but is unlikely to agree to his management suggestions</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>4. Needs input of other professionals and is an excellent team player</td>
<td></td>
<td>Lists his ideas and seeks input from anesthesia and other specialties</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>5. Superb leader. Fully engages all members of the inter-professional team</td>
<td></td>
<td>Seeks input of other professional team members</td>
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<td></td>
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Results
Combined survey data was analyzed from all scenarios. The surveys were based on a 5-point Likert scale. (1 == strongly disagree, 5 == strongly agree). Data is reported as means (M) and range (Min:Max).

Survey of Fellows (n=10)

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Conclusions
- The milestone simulation exercise was well received by all participants.
- Faculty agreed it was useful to observe fellows objectively with the intention of milestone evaluations.
- All fellows within the same discipline were evaluated in a consistent manner, allowing for an equal comparison of skill and knowledge across identical scenarios and situational variables.
- Plans to validate the grading sheets to ensure scenarios are objective and reproducible.
- We are currently in the process of adapting scenarios and rubrics to other pediatric subspecialties.

References

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