International Medical Graduates (IMGs) Performance on Standardized Assessments: A Comparison with Medical Students and Family Medicine Residents

Lisa Fleet             Vernon Curran             Fran Kirby
Carl Sparrow            Jeannette Christopher

Faculty of Medicine, Memorial University
St. John’s, NL    Canada

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Disclosure Information

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- Ethics approval was received through the Human Investigations Committee, Faculty of Medicine, Memorial University

- Standardized assessments:
  - Used and validated by the Clinical Skills Assessment and Training (CSAT) Program in Newfoundland and Labrador
  - Used with permission of CSAT
Research Questions

• How well do IMGs perform on standardized assessments in comparison to cohorts of 4th year medical school students and second year Family Medicine Residents (PGY2s)?

• To what degree were the assessment tools useful and reliable?
Study Groups

• CSAT Graduates (IMGs):
  - Results of past graduates accessed retrospectively by staff of CSAT
  - Original sample N=40, but final #s varied depending on cases and examiners

• Fourth Year Medical Students:
  - N=3 – April 2008
  - $150 honorarium

• PGY2 Family Medicine Residents
  - N=8 – June 2008
  - $300 honorarium
Standardized Assessments

1. Therapeutic Assessment

2. Clinical Comprehensive Encounter
Therapeutic Assessment

• Written examination

• 14 patient scenarios - selection & use of therapeutic agents, i.e. choice of agents, dose, rationale, etc.

• 2 ½ hours

• Candidates receive a total overall score (out of 100)
Key Findings
Therapeutic Assessment

Overall Mean Score

<table>
<thead>
<tr>
<th></th>
<th>IMG</th>
<th>Med Year 4</th>
<th>PGY 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>75.6%</td>
<td>61.0%</td>
<td>67.0%</td>
</tr>
</tbody>
</table>
Clinical Comprehensive Encounter

- 6 standardized patient (SP) encounters with focus on 6 categories:
  - Data Gathering
  - Physical Examination
  - Management & Closure
  - Problem-Solving and Organization
  - Communication Skills
  - General Observation

- 35 minutes/case

- Two checklists form basis of candidates’ scores:
  - Standardized Patient Encounter (SPE) Checklist – completed by 2 examiners
  - Interpersonal Skills Checklist (IPS) – completed by each SP
Key Findings
Clinical Comprehensive Encounter

Standardized Patient Encounters

- Overall mean scores by category (highest score in **bold**)

<table>
<thead>
<tr>
<th>Categories</th>
<th>IMG</th>
<th>Med Yr 4</th>
<th>PGY2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Gathering (max. 12)</td>
<td>9.3</td>
<td>8.9</td>
<td>9.1</td>
</tr>
<tr>
<td>Physical Examination (max. 24)</td>
<td><strong>18.2</strong></td>
<td>16.1</td>
<td>17.5</td>
</tr>
<tr>
<td>Management &amp; Closure (max. 12)</td>
<td>8.9</td>
<td>8.6</td>
<td><strong>9.2</strong></td>
</tr>
<tr>
<td>Problem Solving &amp; Organization (max. 12)</td>
<td>9.2</td>
<td>9.3</td>
<td><strong>9.5</strong></td>
</tr>
<tr>
<td>Communication Skills (max. 12)</td>
<td>9.4</td>
<td>9.7</td>
<td><strong>9.9</strong></td>
</tr>
<tr>
<td>General Observations (max. 52)</td>
<td>45.4</td>
<td><strong>50.3</strong></td>
<td><strong>50.3</strong></td>
</tr>
</tbody>
</table>
Key Findings
Clinical Comprehensive Encounter

Interpersonal Skills

Overall Mean Score

<table>
<thead>
<tr>
<th>Group</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMG</td>
<td>88.0%</td>
</tr>
<tr>
<td>Med Year 4</td>
<td>81.3%</td>
</tr>
<tr>
<td>PGY 2</td>
<td>85.4%</td>
</tr>
</tbody>
</table>
Study Limitations/Challenges

- Amount of time required for participation in study
- Small number of participants
- Amount of honorarium
- As the IPS checklist was scored by different SPs, inter-rater reliability could be an issue influencing the scores
- Need for same cases and same examiners reduced CSAT sample
Best Practices/Achievements

- Collaboration between the SP Program, Faculty of Medicine and the CSAT Program
- Consistency of examiners and scoring of written examination
- Orientation by CSAT Program Coordinator and Compilation of Data
- Efforts to ensure confidentiality & consistency
- Commitment of participants
Conclusions

• Overall, IMGs were found to demonstrate significantly higher performance scores on assessment measures of 1) selection and use of therapeutic agents, and 2) clinical competencies observed through interactions with standardized patients.

• IMGs demonstrated comparable performance to PGY2s across the majority of clinical encounter competencies, with the exception of Communication Skills, English Fluency and general aspects of medical practice such as ‘Appropriate Use of Medical Terminology’; ‘Boundary Issues’; and ‘Written Documentation’.

• Further training in the above areas may be useful to raise the performance of IMGs to a comparable level of a Family Medicine PGY2.
Thank you!