IDENTIFYING CASES FOR AN OSCE IN ENDOCRINOLOGY & METABOLISM USING CONSENSUS METHODS

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BACKGROUND

- Competency By Design (CBD) model requires more comprehensive assessments of residents’ competencies in various clinical contexts

- There may be gaps in exposure to certain clinical conditions that are rare, complex or emergent in Endocrinology & Metabolism (E & M)

- Recognition of competency gaps can provide a basis for developing valid assessment tools for these types of cases

Current Situation

- Current E & M programs in Canada rely mostly on **opportunistic exposures** to rare, complex or emergent conditions.

- **No standardized method** of assessing these topics.

- Speciality certification with the Royal College of Physicians and Surgeons relies on a 3-hour written exam only.

- There is no required practical exam prior to certification.
IS THERE A NEED?

- Limited exposure to rare, complex or emergent conditions in Endocrinology & Metabolism (E&M) can result in difficulty with workplace assessments of those conditions.

- OSCE can have utility in assessing competencies when not possible with other methods.

- Use of simulation / OSCE as a formative assessment can provide two purposes:
  - Assessment of learning
  - Assessment for learning

**Purpose:**

1. To determine gaps in clinical exposure amongst Canadian E&M Training programs.
2. To identify topics that would be best assessed using an OSCE, based on expert opinion using consensus methods.

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2. Khan et al. (2013) *Medical Teacher*, (81), 1437–1446
Modifed Delphi technique\textsuperscript{3} to reach consensus using 2 rounds of surveys distributed to all E&M Program Directors across Canada and recent graduates within the last two years.

**Survey #1**
- Distributed to all 13 E&M Program Directors (PDs) and 29 recent E&M Graduates
- Participants were asked to select topics that they considered valuable to assess using simulation / OSCE
- Invited to suggest other topics in free text format

**Survey #2**
- Distributed to all 13 PDs, and 29 E & M Residents
- Asked participants to rank list of top 10 topics (short listed based on first survey)
- Provided opportunity to suggest alternate topics that they felt should be included

**Consensus Meeting**
- Reviewed ranking of topics from second survey
- Agreed that top 5 ranked topics would be suitably assessed using an OSCE
- Considered alternative topics that were suggested

## RESULTS — TOPICS TO INCLUDE IN OSCE

### Emergent Conditions

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<thead>
<tr>
<th>Condition</th>
<th>E &amp; M Graduates</th>
<th>Program Directors</th>
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<td>Thyroid Storm</td>
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RESULTS — TOPICS TO INCLUDE IN OSCE

Rare or Complex Conditions

- Cushing's Disease (complex case where biochemical and imaging work up is indeterminate)
- Long-term management/screening for MEN Syndromes
- Investigation and management of Hyperaldosteronism
- Peri-operative management of Acromegaly
- Pre-operative management of Pheochromocytoma
- Pre-pregnancy counselling for Congenital Adrenal Hyperplasia
- Graves' Disease in Pregnancy

E & M Graduates

Program Directors
SURVEY #2 RESULTS

Top 10 topics ranked

1. Pre-operative management of Pheochromocytoma
2. Thyroid Storm
3. Pituitary Apoplexy
4. Graves' Disease in Pregnancy
5. Investigation and management of Hyperaldosteronism
6. Cushing's Disease (complex case)
7. Diabetic Ketoacidosis in Pregnancy
8. Diabetic Ketoacidosis
9. Myxedema Coma
10. Severe Hypocalcemia

Low priority High priority
Comparison of ranking between PDs and E&M Graduates

- Thyroid Storm
- Myxedema Coma
- Pituitary Apoplexy
- Diabetic Ketoacidosis
- Diabetic Ketoacidosis in Pregnancy
- Severe Hypocalcemia
- Pre-operative management of Pheochromocytoma
- Investigation and management of Hyperaldosteronism
- Cushing’s Disease (complex case where biochemical and imaging work-up is indeterminate)
- Graves’ Disease in Pregnancy

Comparison of PD Scores and E&M Graduates Scores
Survey results indicate that there are gaps in E & M Resident exposures emergent, rare and complex conditions

There is a perceived value in assessing these using an OSCE

10 key topics were identified that would be best assessed using an OSCE, ranked in order of priority

For feasibility reasons, the top 5 topics will be piloted in the E&M OSCE
LIMITATIONS

- Response rate:
  - survey 1 = 21/42 (50%)
  - survey 2 = 14/42 (33%)

- Not all provinces represented
  - Predominantly Ontario respondents (followed by Alberta, Nova Scotia, and Quebec)

- “Other” suggested topics were too few in number to reach the top priority list

- EPAs not yet developed for E&M, however, assessment of these topics will likely fall into required competency domains
**NEXT STEPS**

- OSCE development and evaluation of this assessment tool currently underway
- OSCE implementation planned for early 2019 with current E & M Residents at the University of Ottawa
- Validity evidence will be collected and interpreted using Kane’s framework
- Results of OSCE implementation will be disseminated and may be useful for other programs that intend to implement a practical examination at their institution
THANK YOU
REFERENCES


