Use of Daily encounter tools for assessment of CanMEDS roles

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I do not have an affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.

Je n’ai aucune affiliation (financière ou autre) avec une entreprise pharmaceutique, un fabricant d’appareils médicaux ou un cabinet de communication.
Daily Encounter Tools

- In Canada the CanMEDS framework is utilized to organize behaviors into 7 distinct roles of essential physician competencies
- Fundamentally, CanMEDS is an initiative to improve patient care.
- There is paucity of information on how residents apply these roles to daily practice in training
- Tools to assess resident competencies have been developed including: encounter cards, portfolios, mini-CEX
Daily Encounter Tools

- CanMEDs “daisy”
Daily Encounter Tools

- Daily encounter cards previously used in inpatient and ambulatory rotations
- Reliability of encounter cards:
  - Hatala and colleagues report reliability of 0.79
  - Kuwait study report reliability of 0.91
- Effective feedback should be immediate, specific, corrective and occur regularly
- Encounter cards allow such feedback


Daily Encounter Tools

• Study by Humphrey-Murto et al showed use of daily evaluation forms in rheumatology ambulatory care:
  > reliability of 0.71 for composite score
• Results: Feasible and very good reliability
• Increases feedback to residents on their performance
• Forms were well received by residents and faculty

Humphrey-Murto S¹, Khalidi, N, Smith CD, Kaminska E, Touchie C, Keely E, Wood TJ.
Daily Encounter Tools

Objective:
Our study aimed to determine whether using daily patient encounter logs could assess resident’s understanding of CanMeds roles and evaluate their development of medical competencies using qualitative analysis.
Rheumatology Rotation Manual

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Rotation Training Objectives
By the completion of the rotation, it is expected that the resident will:
1. Take a history from a patient with a musculoskeletal problem, and present the problem to a staff physician coherently, and with confidence. He/she will be able to detect abnormalities of joints or tendons, and detect synovitis, effusions, and degeneration of joints (JET or Exam).
2. Given either a real patient or a case representation of arthritis, be able to differentiate inflammatory from degenerative causes, and outline the reasons for that conclusion. (JET or Exam)
3. Given a case of inflammatory arthritis, be able to differentiate rheumatoid arthritis, psoriatic arthritis, SLE, RA, and SLE, SEPAM, and common forms of osteoarthritis. (JET or Exam)
4. Be able to recognize the common clinical presentations of osteoarthritis, mechanical back pain, common rheumatoid arthritis, other arthropathies, osteonecrosis, lupus, myositis, and common forms of vasculitis. (JET or Exam)
5. Be able to outline briefly the current understanding of the pathophysiology of common rheumatologic problems, including (JET or Exam):
   - Rheumatoid arthritis and other inflammatory arthropathies
   - Osteoarthritis
   - Gout
   - Scleritis
   - Scleritis and other inflammatory disorders
   - Common forms of vasculitis
   - Common forms of localized syndromes (lower back pain, Rheumatoid, carpal tunnel, tendinitis, osteonecrosis)

6. Be able to use the tests synergial analysis, rheumatoid factor,
## Daily Log

**Week 1**

**Date**

**Objective Cases Seen**

### Evaluation of CanMEDs

<table>
<thead>
<tr>
<th>Unsatisfactory</th>
<th>Satisfactory</th>
<th>Superior</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Medical Interviewing Skills</td>
<td>Not Observed</td>
<td></td>
</tr>
<tr>
<td>2. Physical Exam Skills</td>
<td>Not Observed</td>
<td></td>
</tr>
<tr>
<td>3. Humanistic Qualities</td>
<td>Not Observed</td>
<td></td>
</tr>
<tr>
<td>4. Clinical Judgment</td>
<td>Not Observed</td>
<td></td>
</tr>
<tr>
<td>5. Counseling Skills</td>
<td>Not Observed</td>
<td></td>
</tr>
<tr>
<td>6. Organization/Efficiency</td>
<td>Not Observed</td>
<td></td>
</tr>
</tbody>
</table>

**Evaluators Comments**

**Access to Work on**

**Evaluators Signature**

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## Daily CanMEDs Encounter

**Medical Expert:** Integrates all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attributes in their provision of patient-centered care. Medical Expert is the central physician role in the CanMEDS framework.

**Communication:** Effectively facilitates the doctor-patient relationship and the dynamic interactions that occur before, during, and after the medical encounter.

**Collaboration:** Effectively works within a healthcare team to achieve optimal patient outcomes.

**Manager:** Integral participants in healthcare organizations, organizing and leading, establishing and maintaining strategies for resource allocation and community health and safety.

**Health Advocate:** Responsible for promoting the health and well-being of individual patients, communities, and populations.

**Scholar:** Dedicates a lifelong commitment to active learning, including the creation, dissemination, application, and translation of medical knowledge.

**Professional:** Committed to the health and well-being of the profession and society through ethical practice, professional regulation, and high personal standards of professional conduct.

**Resident:**

Identify what CanMEDs role you completed in clinic today:

- [ ]

**Give an Example:**

- [ ]

**Reviewed by Staff:**

- [ ]

**Staff Signature:**

- [ ]

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### Table of CanMEDs Roles

<table>
<thead>
<tr>
<th>CanMEDS Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Expert</td>
<td>Integrates all roles, applies medical knowledge, clinical skills, and professional attributes in patient-centered care.</td>
</tr>
<tr>
<td>Communication</td>
<td>Facilitates the doctor-patient relationship and dynamic interactions.</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Works effectively within a healthcare team.</td>
</tr>
<tr>
<td>Manager</td>
<td>Integral in healthcare organizations, organizes and leads, establishes and maintains strategies for resource allocation and community health.</td>
</tr>
<tr>
<td>Health Advocate</td>
<td>Promotes the health and well-being of individual patients, communities, and populations.</td>
</tr>
<tr>
<td>Scholar</td>
<td>Committed to active learning, including the creation, dissemination, application, and translation of medical knowledge.</td>
</tr>
<tr>
<td>Professional</td>
<td>Committed to ethical practice, professional regulation, and high personal standards.</td>
</tr>
</tbody>
</table>
Daily Encounter Tools

Methods

• 184 Rotating residents at the University of Alberta completed daily encounter logs.

• In addition to an evaluator driven component, residents were asked to identify what CanMEDS role(s) they demonstrated and to provide an example of how that role was utilized in the patient encounter.

• All completed entries were electronically entered and combinations of thematic and content qualitative analysis were applied to create a thematic framework.
Daily Encounter Tools

• Each completed daily log was anonymized and each daily entry was given a numerical code and entered into a spreadsheet
• Log entries were organized by the CanMEDS roles the resident selected and the corresponding comment
• Preliminary statistical analysis of the data set was completed
• Thematic and content qualitative analysis was applied to the data set
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Results:

• 171 residents completed the Daily encounter log with at least one log book entry (92%)

• On average, 6.8 patient encounters were logged during the course of the rotation (minimum=1; maximum=17)

• In total 1165 entries were collected
Resident identification of CanMEDS role

<table>
<thead>
<tr>
<th></th>
<th>Communicator</th>
<th>Collaborator</th>
<th>Health Advocate</th>
<th>Medical Expert</th>
<th>Scholar</th>
<th>Manager</th>
<th>Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number entries</td>
<td>274</td>
<td>119</td>
<td>202</td>
<td>127</td>
<td>167</td>
<td>55</td>
<td>53</td>
</tr>
<tr>
<td>Percent entries</td>
<td>23%</td>
<td>10%</td>
<td>20%</td>
<td>10%</td>
<td>14%</td>
<td>5%</td>
<td>5%</td>
</tr>
</tbody>
</table>
Thematic Analysis: Written comments

- Thematic analysis uncovered 8 categories of behaviors or competencies described during patient encounters.
  - Appropriate standard of behavior
  - Providing good patient care
  - Communication
  - Collaboration
  - Diagnosing/treating condition
  - Teaching/learning
  - Managerial/administrative
  - Integration of CanMEDS roles
Thematic Analysis: Written comments

- Total of 1392 behaviors documented during all recorded patient encounters
- Content analysis revealed a distinct emphasis on behaviors relating to communication (34%); health advocate (20%); collaborator (10%);
- Demonstrate an unequal documentation of CanMEDS roles
- Additionally, there was significant overlap of behaviors across multiple CanMEDs roles.
Discussion

• This study reveals that using a patient encounter log has utility for assessing resident’s understanding of physician competencies within the CanMEDs framework.

• Discordant breakdown of documentation of roles

• Furthermore, the disproportionate selection of behaviors by residents could be for several reasons:
  › Unequal competency awareness
  › Easier to assess
  › Modeled behaviours
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Conclusion:

• Our study demonstrated how daily encounter logs can be used to evaluate medical competencies in Rotating residents,

• Further research should explore whether similar trends are observed in other medical specialties.