Mini- Cex

(Mini- Clinical Evaluation Exercise)

Zeev Goldik
Professional competencies

• Require more than one assessment tool

• Reflect competency in different areas of professional practice

• The assessment method helps trainers in decision making
Competence assessment

Knowledge Assessment

- MCQs on EACCME/S&B accredited Textbook chapters
- Guidelines
- Articles
- CME Products

Practical Skills Assessment

- E-logbook
- E-portfolio
- DOPS (direct observation of practical skills)

Assessment of Professionalism

- CPD activities
- 360° Appraisal

Workplace based assessment

• Growing concern for developing systems for evaluation of real practice
Mini-CEX

1) Direct observation of practice

2) Structured assessment (form)

3) Subsequent provision of feedback to the resident / student
Mini-CEX

• Assessing the trainees in their own clinical setting.

• Require about half an hour in total for each session

• Such sessions will be aimed at a particular competency domain
History

• 1972- American Board of Internal Medicine: CEX- Clinical evaluation exercise: bedside oral exam (evaluation of clinical competence)

• 1995- Norcini, preliminary investigation observational study on Mini-Cex:

• 21 internal medicine programs, 1,228 clinical encounters- in which 421 residents have participated and 316 observers / evaluators

<table>
<thead>
<tr>
<th></th>
<th>CEX</th>
<th>Mini- CEX</th>
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</thead>
<tbody>
<tr>
<td>Only one patient</td>
<td>Many patients</td>
<td></td>
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<tr>
<td>Only one observer</td>
<td>Different observers</td>
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<tr>
<td>1 case- 1 environment</td>
<td>Different cases- different environments</td>
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<tr>
<td>Time consuming- around 90 minutes</td>
<td>Time feasible- 15 minutes</td>
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<tr>
<td>No feedback</td>
<td>feedback</td>
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<tr>
<td>Validity and reliability problems</td>
<td>Validity and reliability proved</td>
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</table>
Validity

- The degree to which the tool measures what it claims to measure.
Reliability

• Is the consistency of a set of measurements or of a measuring instrument, often used to describe a test.
Reliability

- Inter-rater reliability
- Internal consistency
- Inter-case reliability
Adequacy of educational tools

- Transparency
- Acceptation
- Feasibility (costs; logistics; technology)
- Educational impact
Mini- CEX

• Discussion between consultant and trainee: how it is done.
• Trainee encountering a patient in his/her own clinical setting
  (consultant plays the role of an observer)
• Consultant marks trainees’ performance in the mini-CEX evaluation form.
Feedback form

• Positive aspects
• Aspects to improve
• Resident’s satisfaction with mCEX
• Observers satisfaction with mCEX
• Comments
• Date
• Signatures
RACP Formative Mini-Clinical Evaluation Exercise (mini-CEX)

Trainee’s name: ________________________________________________________________
Date of assessment: _____/_____/_____

Basic training year:  □ 1  □ 2  □ 3  Case number for that year:  □ 1  □ 2  □ 3  □ 4

Assessor’s name: ___________________________ Assessor’s position: ___________________________

Hospital / location: ___________________________ Assessor’s email: ___________________________

Setting:  □ In-patient  □ Out-patient  □ Emergency  □ Other (please specify) ___________________________

Patient problem / Dx(s): ___________________________ Specialty domain: ___________________________

Patient age: ____  Patient gender:  □ Male  □ Female  Problem / Case complexity:  □ Low  □ Moderate  □ High
Please rate the trainee against what you would expect of a trainee in that year of training

<table>
<thead>
<tr>
<th></th>
<th>unsatisfactory</th>
<th>satisfactory</th>
<th>superior</th>
<th>not observed</th>
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<tbody>
<tr>
<td>1. Medical interviewing skills</td>
<td>1  2  3</td>
<td>4  5  6</td>
<td>7  8  9</td>
<td>n/o</td>
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<tr>
<td>2. Physical examination skills</td>
<td>1  2  3</td>
<td>4  5  6</td>
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<tr>
<td>3. Professional qualities/ communication</td>
<td>1  2  3</td>
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<td>4. Counselling skills</td>
<td>1  2  3</td>
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<tr>
<td>5. Clinical judgement</td>
<td>1  2  3</td>
<td>4  5  6</td>
<td>7  8  9</td>
<td>n/o</td>
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<tr>
<td>6. Organisation / efficiency</td>
<td>1  2  3</td>
<td>4  5  6</td>
<td>7  8  9</td>
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<td>Overall clinical performance</td>
<td>1  2  3</td>
<td>4  5  6</td>
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1 Please include suggestions for development in the box above

Time taken for observation: ........................... mins  Time taken for feedback: ........................... mins
RACP Mini-Clinical Evaluation Exercise (mini-CEX)

Ratings:
**Unsatisfactory**—gaps in knowledge or skills that you would not expect at this level of trainee. Some concerns about professionalism or patient safety.
**Satisfactory**—what you would expect for a trainee at this level at this point during their training year. Generally clinically competent and with satisfactory communication skills and professionalism.
**Superior**—performing well, above the level they are at. No concerns about their clinical method, professionalism, organisation, communication etc.

The details below outline the skills associated with each domain in this mini-CEX rating form and the mini-CEX framework. Please note that not all skills may be examined during each encounter—this is a guide to show what may be observed and rated.

### Medical Interviewing Skills
- Ability to interact with patient
- Ability to direct questions at key problem
- Ability to use second order of questioning to optimise focus
- Ability to incorporate information from questions with other information
- Ability to identify and respond appropriately to non-verbal cues
- Ability to retain a range of diagnostic options

### Physical Examination Skills
- Ability to conduct a systematic and structured physical examination
- Shows sensitivity to patient’s comfort and modesty
- Ability to detect abnormal signs when present and weigh the significance of these findings
- Informs patient
- Ability to focus the examination on the most important components
- Ability to integrate findings on examination with other information to clarify diagnosis
**Professional Qualities / Communication**

- Shows respect for patient at all times
- Explains as well as asks
- Listens as well as tells
- Conscious of potentially embarrassing or painful components of interaction
- Shows awareness of issues surrounding confidentiality
- Able to adapt questioning and examination to patient's responses

**Counselling Skills**

- Explains rationale for test/treatment
- Addresses the transfer of information in a way which is clear and tailored to the patient's needs
- Able to respond to patient and modify or repeat information in a different way
- Recognises patient's own wishes and gives them priority
- Avoids personal opinion and bias

**Clinical Judgement**

- Ability to weigh importance of potentially conflicting clinical data
- Ability to determine best choice of investigations and management
- Ability to relate management options to the patient's own wishes or situation
- Considers the risks and benefits of the chosen management/treatment options
- Ability to come to a firm decision based on available evidence

**Organisation / Efficiency**

- Ability to synthesise a collection of data quickly and efficiently
- Demonstrates appropriate judgement and synthesis
- Demonstrates optimal use of time in collection of clinical and investigational data
# Mini-Clinical Evaluation Exercise (CEX)

**Evaluator:**

**Resident:**
- R-1
- R-2
- R-3

**Patient Problem/Dx:**

**Setting:**
- Ambulatory
- In-patient
- ED
- Other

**Patient:**
- Age:
- Sex:

**Complexity:**
- Low
- Moderate
- High

**Focus:**
- Data Gathering
- Diagnosis
- Therapy
- Counseling

## 1. Medical Interviewing Skills (☐ Not observed)

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## 2. Physical Examination Skills (☐ Not observed)

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## 3. Humanistic Qualities/Professionalism

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## 4. Clinical Judgment (☐ Not observed)

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## 5. Counseling Skills (☐ Not observed)

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## 6. Organization/Efficiency (☐ Not observed)

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## 7. Overall Clinical Competence (☐ Not observed)

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**Mini-CEX Time:**
- Observing ______ Mins
- Providing Feedback: ______ Mins
<table>
<thead>
<tr>
<th>Evaluator Satisfaction with Mini-CEX</th>
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<tbody>
<tr>
<td>LOW 1 2 3 4 5 6 7 8 9 HIGH</td>
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<th>Resident Satisfaction with Mini-CEX</th>
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<td>LOW 1 2 3 4 5 6 7 8 9 HIGH</td>
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Comments: 

____________________________________

____________________________________

______________  ________________
Resident Signature  Evaluator Signature
After the encounter

• Trainee and consultant sit together reviewing the encounter in relation to the mini-CEX

• Feedback: 10 – 15 minutes (the most important part of the mini-CEX evaluation).
Conclusions

• Mini-CEX assesses residents in a much broader range of clinical situations than the traditional CEX
• Has better reproducibility
• Offers residents greater opportunity for observation and feedback by more than one faculty member and with more than one patient
Conclusions

• More difficult to administer: multiple encounters must be scheduled for each resident.
THANKS