Northwell Health

2017 Academic Awards Day

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2:00pm - 6:00pm
Hofstra Northwell School of Medicine
Entrustable professional activities: the things you really want to train your learners for

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Disclosure statement

No conflict of interest to be reported

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University Medical Center Utrecht
Competency-Based Medical Education

Philosophy
• Better, broader description of the physician
• From *assuming* to *assessing* competence
• Only graduate physicians meeting standards
• Based on competence, not just time in training

Practice
• Detailed description of competencies
• Struggle with teaching and assessment
Features of CBME

1. **Outcome**-based, not process-based: what is *attained* is key, not just what is *done*

2. Focus on capability that **integrates** knowledge, skill, attitude

3. **Time-independent**: length of training adapted to individual differences

4. **Individualized**: trainees and contexts are not identical
Competency frameworks

ACGME
Outcome project
enhancing residency education through outcomes assessment

The Project  Forum
Competencies  Implementation
Assessment  About Us

Medical Expert
Professional  Communicator
Scholar  Collaborator
Health Advocate  Leader

Copyright 2000 ACGME
Competency frameworks

Issues

• Worldwide acceptance, but..
• Frameworks tend to be analytical and detailed
• Competencies sometimes rather abstract and general
• Clinical teacher struggle with assessment
• Milestones are a helpful tool but make the framework more complex
What is needed?

• Training for the critical activities in health care
• Preferably a holistic, non tick-box approach
• Integration, not separation, of competencies
• Key: determining when learners are truly ready for unsupervised practice
Entrustable Professional Activities

Units of professional practice (tasks) that may be entrusted to a learner to execute unsupervised, once he or she has demonstrated the required competence

Enables a shift of focus from individual competencies to the work that must be done
• **Entrustable**: acts that require trust – by colleagues, patients, public

• **Professional**: confined to occupations with extra-ordinary qualification and right

• **Activities**: tasks that must be done

EPAs ground competencies in daily practice
Competencies versus EPAs

- EPAs: units of work / tasks that must be done
- Competencies: qualities of individuals

- One can possess competencies; one cannot possess EPAs
## Competencies versus EPAs

<table>
<thead>
<tr>
<th>Competencies</th>
<th>EPAs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>person-descriptors</strong></td>
<td><strong>work-descriptors</strong></td>
</tr>
<tr>
<td>knowledge, skills, attitudes, values</td>
<td>Essential units of professional practice</td>
</tr>
<tr>
<td>• content expertise</td>
<td>• discharge patient</td>
</tr>
<tr>
<td>• health system knowledge</td>
<td>• counsel patient</td>
</tr>
<tr>
<td>• communication ability</td>
<td>• lead family meeting</td>
</tr>
<tr>
<td>• management ability</td>
<td>• design treatment plan</td>
</tr>
<tr>
<td>• professional attitude</td>
<td>• Insert central line</td>
</tr>
<tr>
<td>• scholarly skills</td>
<td>• Resuscitate patient</td>
</tr>
</tbody>
</table>

Ten Cate et al 2010
Does it fit?

Task (EPA) to be done

Person with competencies
# EPAs require multiple competencies

<table>
<thead>
<tr>
<th>Competency</th>
<th>EPA1</th>
<th>EPA2</th>
<th>EPA3</th>
<th>EPA4</th>
<th>EPA5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical expert</td>
<td>++</td>
<td>++</td>
<td>+</td>
<td></td>
<td>++</td>
</tr>
<tr>
<td>Collaborator</td>
<td>+</td>
<td></td>
<td>+</td>
<td>++</td>
<td></td>
</tr>
<tr>
<td>Communicator</td>
<td>+</td>
<td>++</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Leader</td>
<td></td>
<td>+</td>
<td>++</td>
<td>++</td>
<td></td>
</tr>
<tr>
<td>Health advocate</td>
<td>+</td>
<td></td>
<td>++</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Scholar</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td>++</td>
</tr>
<tr>
<td>Professional</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>

**Assessment focused on EPAs**

Pangaro & ten Cate 2013
Synthetic EPA framework approach

Medical expert

Collaborator

Communicator

Manager

Health advocate

Scholar

Professional

EPA1

EPA2

EPA3

EPA4

EPA5
Operational definition of competence

When a professional activity is mastered
• ...on a threshold level
• ...that permits trust
• ...to act unsupervised

Competence is a stage in a continuum of development
Growth of competence over time

- novice
- advanced
- competent
- proficient
- expert

Training

deliberate professional practice

Ready for unsupervised practice

Dreyfus & Dreyfus 1986; ten Cate et al, 2010
Competency curves of one trainee

Justified entrustment decisions

ten Cate et al, 2010
A different trainee

Justified entrustment decisions

Loss of trust

ten Cate et al, 2010
EPA approach serves flexibility

- Serves clarity in the objectives of training

- **Serves Intra-trainee variation**: trainees do not reach competence for everything on last day of training

- **Serves Inter-trainee variation**: different prior knowledge and skills, learning ability, general attitude

- **Serves Context variation**: variable clinical opportunities, local practice (epidemiology, facilities, culture), education-mindedness of staff
Five levels of supervision, reflecting increasing trust in trainee autonomy

1. Be present but no permission to enact EPA
2. Practice EPA with direct (pro-active) supervision
3. Practice EPA with indirect (re-active) supervision
   [threshold]
4. Unsupervised practice allowed (distant oversight)
5. EPA may be supervised with junior learners

Ten Cate et al 2010
Growth of competence – decrease of supervision

- expert
- proficient
- competent
- advanced
- novice

Shades of decreasing supervision

Observe
- 2 direct
- 3 indirect
- 4 distant
- no

Summative decision for unsupervised practice

Multiple ad-hoc entrustment decisions

EPA

deliberate professional practice

training
Psychology of traditional workplace assessment

She’s nice and works hard; it won’t hurt and will probably stimulate if I mark her ‘superior’

Please... mark me ‘superior’
Psychology of *EPA-based* workplace assessment

She’s nice and works hard, but it may hurt my patients if I mark her ‘ready for unsupervised practice’

Please... mark me ‘superior’
## 7-item format of EPA description

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Title of the EPA</td>
</tr>
<tr>
<td>2</td>
<td>Specification and limitations</td>
</tr>
<tr>
<td>3</td>
<td>Most relevant domains of competence</td>
</tr>
<tr>
<td>4</td>
<td>Required experience, knowledge, skills, attitude and behavior for entrustment</td>
</tr>
<tr>
<td>5</td>
<td>Sources of information to assess progress and ground a summative entrustment decision</td>
</tr>
<tr>
<td>6</td>
<td>Entrustment for which level of supervision is to be reached at which stage of training?</td>
</tr>
<tr>
<td>7</td>
<td>Expiry date</td>
</tr>
</tbody>
</table>
### Five groups of useful information sources for entrustment decisions

<table>
<thead>
<tr>
<th></th>
<th>Knowledge &amp; skills tests</th>
<th>Written, oral, e-assessment, simulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Short practice observations</td>
<td>15 min snapshots of practice followed by debrief (eg.miniCEX)</td>
</tr>
<tr>
<td>3.</td>
<td>Case-based discussions</td>
<td>15 min discussion: what did you do, did you understand risks, what if patient/situation were different?</td>
</tr>
<tr>
<td>4.</td>
<td>Long.practice observations</td>
<td>Post-shift, to-post week/month report on general qualities (eg MSF)</td>
</tr>
<tr>
<td>5.</td>
<td>Product evaluations</td>
<td>Patient report, discharge summary, paper</td>
</tr>
</tbody>
</table>
Trust as a curricular philosophy

• Trust is a universal condition for social interaction
• Trust in medical professionals is crucial for adequate health service provision
• Schools / programs have responsibility to graduate learners who deserve this trust
• Learners must learn what it is to be trusted with responsibilities in health care
• EPAs are not just a different type of objectives – justified trust-building is a philosophy
The trust concept in EPA-based assessment

- Trusting someone is making yourself **vulnerable**
- Calculated **risk** that adverse events are manageable
- Graduates will be certified to carry out activities that supervisors have **not been able to observe** and leaners may have never encountered
- Entrustment decisions require estimation of **adaptive competence** to cope with unfamiliar situations
Two types of entrustment decisions

*Ad-hoc entrustment decisions*

happen every day; situationally determined; based on presumptive trust and initial trust. Formative nature.

*Summative entrustment decisions*

should be based on grounded trust (multiple sources of documented information); serves as certification / license to act. Summative nature.

*sometimes called Statement of Awarded Responsibility (STAR)*

Ten Cate et al 2015, 2016
Three modes of trust

- **Presumptive trust**: Trust, based on prior credentials (test, certificates, diplomas)
- **Initial trust**: Trust, based first impressions
- **Grounded trust**: Trust, based on sufficient evidence for certification

Ad-hoc entrustment requires presumptive and initial trust, summative entrustment requires grounded trust
## Modes of trust

<table>
<thead>
<tr>
<th>Presumptive trust</th>
<th>Prior credentials without observation</th>
<th>Guides ad-hoc entrustment decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial trust</td>
<td>First impressions</td>
<td></td>
</tr>
<tr>
<td>Grounded trust</td>
<td>More or less systematic data collection</td>
<td>Guides summative entrustment decisions</td>
</tr>
</tbody>
</table>

Cruess & Cruess 2014; ten Cate et al, 2016
Transitions require presumptive trust, based on valid evaluations in the previous stage:

- To next rotations
- To next stages within education continuum
- To unsupervised practice
Moving to new cycles in the continuum starts with presumptive trust based on prior education.
GME versus UME

- EPAs were conceived for the GME goal – preparing trainees for *unsupervised practice*
- UME has a different, less uniform, goal – preparing trainees to *enter residency*
- “Unsupervised practice” must be replaced by “indirect supervision” for UME EPAs
- Residencies differ in entrance expectations: Core EPAs for UME may be supplemented with elective EPAs
- EPAs for UME is a redefinition of the MD degree
US UME EPAs

1. Gather a history and perform a physical examination
2. Prioritize a differential diagnosis
3. Recommend and interpret common diagnostic and screening tests
4. Enter and discuss orders and prescriptions
5. Document a clinical encounter in the patient record
6. Give an oral presentation of a clinical encounter
7. Form clinical questions and retrieve evidence
8. Give or receive a patient handover
9. Collaborate as a member of an interprofessional team
10. Give urgent or emergent care
11. Obtain informed consent
12. Perform general procedures of a physician
13. Identify system failures and contribute to a culture of safety and improvement

Englander et al 2016
Utrecht Core EPAs (works in progress)

1. The clinical consultation
   - History, physical examination, measuring vital signs, creating a differential diagnosis, ordering and interpreting diagnostic tests, designing a management plan, documentation

2. General medical procedures
   - Preparing and executing medical procedures including communication with the patient

3. Informing, advising & guiding patients and families
   - Discussing diagnostic options, test results or a management plan and documentation

4. Communicating & collaborating with colleagues
   - Writing discharge summary/letter, oral patient hand-overs, patient & research presentations, collaborating with health care workers and contributing to interprofessional teams

5. Extraordinary patient care
   - Basic life support, establishing death
Nesting small EPAs within large ones: Breadth and responsibilities increase with stage of training

**EPA Junior medical student:**
- Measuring blood pressure

**EPA Senior medical student**
- Complete physical & history

**EPA Junior resident:**
- Management of uncomplicated patient

**EPA Senior resident:**
- Running a regular outpatient clinic
Small UMCU EPAs become nested (integrated) within broad EPAs for entering residency
Small EPAs ‘nested’ within larger EPAs in advanced years to establish integration.
New Utrecht UME curriculum: works in progress

- Mostly biomedical courses; few small EPAs to be integrated within larger ones
- 5 broad core EPAs for MD that include small EPAs
- plus
  - elective
  - EPAs
  - in final year
- Residency with preparation
- Residency without preparation

- All UME core EPAs required to graduate
- Speciality specific EPAs for shortened residency
- Elective EPAs for upper level students
Maintenance of competence

- EPAs gained during specialty training may serve well as MOC focus
- Continued and deliberate practice of EPAs should suffice to maintain the portfolio
- Prolonged disrupted practice of EPAs should lead to temporary mandatory supervision
- New EPAs could be added after specialty registration
Wrapping up

• CBME: great advance, translation to teaching and assessment can be problematic
• EPAs can revitalize CBME by connecting competencies to practice and creating the flexibility CBME asks for
• Entrustment decisions deepen the nature of workplace-based assessment
• Medical competence may be envisioned as a dynamic portfolio of EPAs across a lifetime
Video animation resources on EPAs

Animation explaining EPAs for postgraduate training, from Dutch federation of medical specialties

Animation explaining EPAs, from the College of Anaesthetists of Ireland EPA Team

Animation explaining EPAs, from the University of Toronto
References

- ten Cate, O., Snell, L., & Carraccio, C. (2010). Medical competence: the interplay between individual ability and the health care environment. Medical Teacher, 32(8), 669–75.