Defining Entrustable Professional Activities to drive the learning of undergraduate pharmacy students

Hesh Al-Sallami, Megan Anakin, Alesha Smith, Aynsley Peterson, Steve Duffull

School of Pharmacy, University of Otago, Dunedin, NZ
Entrustable Professional Activities

• EPAs are discrete activities that a trainee is entrusted to complete with appropriate supervision.

• Common in medical education; have been adapted recently into the curricular of other competency-based programmes (e.g. radiology)

  ten Cate. Med Educ 2005; 39:1176-7
Levels of ‘supervision’ for an EPA

<table>
<thead>
<tr>
<th>Level of supervision</th>
<th>Criteria</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Observation but no execution, even with direct supervision</td>
</tr>
<tr>
<td>2</td>
<td>Execution with direct, proactive supervision</td>
</tr>
<tr>
<td>3</td>
<td>Execution with reactive supervision, i.e. on request</td>
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<tr>
<td>4</td>
<td>Supervision at a distance and/or post hoc</td>
</tr>
<tr>
<td>5</td>
<td>Supervision provided by the trainee to more junior colleagues</td>
</tr>
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EPAs are not competencies

- EPAs bridge the gap between education and competencies
  - provide a continuity to the clinical workplace.
- They give more control to the students in their own learning

— ten Cate et al. Acad Med 2007; 82:542-7
EPAs in pharmacy education

- Available for graduate “practice-ready” and postgraduate degrees.
  - The AACP published 15 EPAs pharmacy graduates

- EPAs have not yet been used in pharmacy undergraduate education.
- The School of Pharmacy (University of Otago) has been developing/implementing a new BPharm curriculum.
  - EPAs are to be used as part of the capstone components.

Pharmacy training at Otago

• BPharm
• 1+3 years degree (plus 1 year internship)
  • first year health sciences
  • one semester ‘basic’ pharmaceutical sciences
  • three semesters of integrated modules
  • one ‘capstone’ year which include clinical rotations and elective studies
Aim

- To define entrustable professional activities appropriate for pharmacy undergraduate education
Methods

• A list of professional pharmacy services/activities was developed from various sources including input from pharmacist advisors.
• EPAs were then developed and discussed with a curriculum external advisory group.
• The EPAs need to map to the curriculum.
  • Creatrix Campus software
EPAs had to be mapped to:

| Competency Standards (CSs)       | 27 CSs developed by **PCNZ** and consider the 8-star pharmacist model  
|                                 | spread over 6 domains and include 142 ‘behaviours’  
| Graduate Attributes (GAs)       | 13 overarching GA developed by the **UoO**  
|                                 | e.g. global perspective, lifelong learning, etc  
| Learning Outcomes (LOs)         | 55 LOs form the backbone of the new curriculum.  
|                                 | spread over 5 domains (Communication, Pharmaceutical Literacy, Provision of Care, Population Health, and Professionalism).  
|                                 | subdivided to 268 specific learning outcomes (**SLOs**)  
|                                 | mapped to teaching events and assessments  

Results

• Nine ‘core’ and 22 elective EPAs were defined.
• Core EPAs are required to be completed before a BPharm student can graduate
  • student is expected to complete at least 5 elective EPAs
• Each EPA was assigned a level of supervision (ongoing!)
  • wording modified slightly from published medical and PharmD versions
  • highest level is 4.
# Core EPA example

## EPA 3: Take a patient history

| Description and scope | • To obtain and integrate relevant information from a patient,  
|                      | • take a complete or focused patient history accurately,  
|                      | • conduct a physical patient examination when appropriate,  
|                      | • in a prioritised, organised, and respectful manner |

| Level of supervision | 3 (perform with indirect supervision) |

| Relevant Specific Learning Outcomes (SLOs) | • Several relating to Communication (1.1, 1.2, 1.4, 1.6, 1.7), Provision of care (3.1, 3.4, 3.6, 3.7), and Professionalism (5.7). |
|                                           | • Mapped to teaching events, assessments, competency standards, and graduate attributes. |
Discussion

• Core and elective EPAs developed for a BPharm degree
• Next steps:
  • mapping to assessments (through learning outcomes)
  • implementation in 2019 and 2020
  • evaluation!
Acknowledgments

• The undergraduate Pharmacy Programmes Committee, School of Pharmacy, University of Otago.
• All academic staff that contributed to the discussions around the new BPharm curriculum.