Blended Learning
Practicing real-life tasks in the pharmaceutical sciences

January 18, 2022
Dr. Angela Küng, Institute of Pharmaceutical Sciences
About our courses

- MSc Pharmazie: Therapeutic Skills I-III, Geriatrics
- 1st sequence: September (before pharmacy internship)
  2nd sequence: May (during pharmacy internship)
- approx. 30-50 students
- interdisciplinary approach, co-teaching: pharmacist and geriatrician
- practical training and first patient contact

Learning objective:
Students know typical difficulties in the adherence and medication use that are specific to geriatric patients and can develop solutions for them.
Challenges with medication for the elderly

Older patients in particular face many hurdles in the correct use of medications:

- understanding the often complex therapy
- remembering to take numerous medications
- opening of packaging
- correct dosage
- application of special dosage forms

-> students need interdisciplinary knowledge to anticipate and solve these problems to ensure therapeutic success and patient safety.
From drug knowledge to patient counselling

**Therapeutic skills I-III**

<table>
<thead>
<tr>
<th>1 Semester (Entire Course)</th>
<th>At home</th>
<th>Investigation</th>
<th>Practice</th>
<th>Collaboration</th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviews</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group discussion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work with real patients in hospital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expert input</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice pharmacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medication case study</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production of info video</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Awareness of topic «ice-breaker»
- 1st patient contact: explain medications, observe problems, find solutions
- Practice, broaden knowledge
- Anticipate problems, find solutions
- Explain special dosage forms
From drug knowledge to patient counselling: with Covid-19 restrictions

<table>
<thead>
<tr>
<th>Therapeutic skills I-III</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Semester [Entire Course]</td>
</tr>
<tr>
<td>Interviews</td>
</tr>
<tr>
<td>Group discussion</td>
</tr>
<tr>
<td>Work with real patients in hospital</td>
</tr>
<tr>
<td>Expert input</td>
</tr>
<tr>
<td>Practice pharmacy</td>
</tr>
<tr>
<td>Medication case study</td>
</tr>
<tr>
<td>Production of info video</td>
</tr>
</tbody>
</table>

At home: Investigation / Practice / Collaboration / Production

- Remotely (phone, video call)
- 1st patient contact
  - 2-3 students at hospital,
  - videos for discussion in plenum (classroom and streaming)
- Unchanged
- Classroom and streaming
- Classroom and streaming

Institute of Pharmaceutical Sciences

ETH Zürich
Conclusions: Practicing real-life tasks in the pharmaceutical sciences

• Preparation before patient contact is crucial for maximum benefit for the students.

• The workshop with patient contact for all students has the largest impact on learning.

• Videos of patient interactions commented upon by peers can serve as an alternative in case of restricted access to patients.

• Video sequences can be used in classroom or online teaching to illustrate important aspects and share knowledge between students.
Acknowledgements

Dr. Roland Kunz and the Waid hospital (Zurich) for hosting the workshop and recruiting the patients.

The LET team for their didactic input and support with the installation of an Opencast Videosuite in Moodle for easy uploading and sharing of the videos.

Dr. med. Roland Kunz
Specialist FMH for internal medicine, geriatrics