INVENTORY OF UNDERGRADUATE CURRICULA IN OCCUPATIONAL MEDICINE IN EUROPEAN COUNTRIES

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Estimated coverage of OHS as % of employed population (Rantanen, 2012)

Context

- Many European workers have no occupational physician
- GPs: gatekeepers
  - Sickness system
  - Return to work
- Interactions between GPs and OPs are lacking
- Knowledge of GPs in occupational medicine?

Methods

- Questionnaire
  - Based on earlier studies (Wynn 2002, Gehanno 2005)
  - Pilot tested in 5 universities
- E-mailed to 307 medical schools / faculties of 27 European countries
  - Contact person for a geographical area
    - One of the authors
    - Teachers of OM or deans
    - Reminder at 1 & 2 months

Do GPs have CME in OM?

- Most physicians rely on one or two journals for their CPD
- Do the journals they read provide them with some knowledge in OM?
  - 0.48% of articles concern OM! (Gehanno, Occ Env Med 2012)
  - OM is in the 54th position (Gehanno, BMC Med Inform Decis Mak 2011)
- So: no real continuous medical education in OM!
<table>
<thead>
<tr>
<th>Country</th>
<th>Number of universities</th>
<th>Answers</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>9</td>
<td>8</td>
<td>89%</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>5</td>
<td>4</td>
<td>80%</td>
</tr>
<tr>
<td>Croatia</td>
<td>4</td>
<td>2</td>
<td>50%</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>8</td>
<td>1</td>
<td>13%</td>
</tr>
<tr>
<td>Denmark</td>
<td>3</td>
<td>3</td>
<td>100%</td>
</tr>
<tr>
<td>Finland</td>
<td>5</td>
<td>1</td>
<td>20%</td>
</tr>
<tr>
<td>France</td>
<td>36</td>
<td>34</td>
<td>94%</td>
</tr>
<tr>
<td>Germany</td>
<td>30</td>
<td>5</td>
<td>17%</td>
</tr>
<tr>
<td>Greece</td>
<td>7</td>
<td>7</td>
<td>100%</td>
</tr>
<tr>
<td>Hungary</td>
<td>4</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td>Italy</td>
<td>33</td>
<td>29</td>
<td>88%</td>
</tr>
<tr>
<td>Malta</td>
<td>1</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Republic of Moldavia</td>
<td>1</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Montenegro</td>
<td>1</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>8</td>
<td>8</td>
<td>100%</td>
</tr>
<tr>
<td>Norway</td>
<td>4</td>
<td>3</td>
<td>75%</td>
</tr>
<tr>
<td>Poland</td>
<td>13</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Portugal</td>
<td>4</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td>Republic of Macedonia</td>
<td>1</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Serbia</td>
<td>5</td>
<td>2</td>
<td>40%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>2</td>
<td>2</td>
<td>100%</td>
</tr>
<tr>
<td>Spain</td>
<td>31</td>
<td>8</td>
<td>26%</td>
</tr>
<tr>
<td>Sweden</td>
<td>6</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>5</td>
<td>2</td>
<td>40%</td>
</tr>
<tr>
<td>Turkey</td>
<td>36</td>
<td>2</td>
<td>6%</td>
</tr>
<tr>
<td>UK</td>
<td>30</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>Total</td>
<td>307</td>
<td>135</td>
<td>44%</td>
</tr>
</tbody>
</table>

**Results**

135 medical schools
108,400 medical students

**Number of hours of teaching**

- Mean: 25.5h
  - Min: 0
  - Max: 100
- 27% of the schools delivered less than 10h of training
- High differences between & within countries

**Pedagogical methods**

<table>
<thead>
<tr>
<th>Method</th>
<th>No. of schools (n=128)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lectures</td>
<td>117</td>
<td>91%</td>
</tr>
<tr>
<td>Seminar tutorials</td>
<td>66</td>
<td>52%</td>
</tr>
<tr>
<td>Workplace visits</td>
<td>48</td>
<td>38%</td>
</tr>
<tr>
<td>Short term internship</td>
<td>37</td>
<td>29%</td>
</tr>
<tr>
<td>Problem based learning</td>
<td>33</td>
<td>26%</td>
</tr>
<tr>
<td>E-learning</td>
<td>26</td>
<td>20%</td>
</tr>
<tr>
<td>Project work</td>
<td>21</td>
<td>16%</td>
</tr>
<tr>
<td>Ward-based tuition</td>
<td>11</td>
<td>9%</td>
</tr>
</tbody>
</table>

**Countries with > 3 answers**

- Total
- France
- Italy
- Portugal
- Spain
- Sweden
- Spain
- Switzerland
- Turkey
- UK

**Topics**

- Principles of prevention: 96% (1.7)
- Occupational respiratory disease: 89% (2.5)
- Occupational toxicology, e.g. lead: 85% (2.8)
- Occupational health law and ethics: 85% (1.2)
- Occupational-related musculo-skeletal disorders: 81% (1.6)
- Health and safety risks to doctors in the clinical environment: 79% (1.3)
- Occupational skin disease: 78% (1.4)
- Occupational cancers: 77% (1.6)
- Risk assessment in the workplace: 72% (1.9)
- Occupational stress / Mental health and work: 72% (1.6)
- Workers'compensation issues: 69% (1.3)
- Occupationalally acquired infections: 65% (1.3)
- Occupational history taking: 58% (1.5)
- Principles of work ergonomy: 58% (1.5)
- How to collaborate with the occupational physician: 57% (0.9)
- History of occupational medicine: 48% (1.1)
- Workability assessment: 48% (1.6)
- Environmental impact of industrial activity: 46% (1.7)
- Disability and return to work: 44% (1.1)
- Writing medico-legal reports: 30% (1.4)
- Assessment of disability: 30% (1.4)
### Discussion

- **Overall:** low level of training
  - 20% of schools don’t perform exams …
  - Overestimation: those who answered teach!
  - What about those who didn’t?
- **Very high differences within and between countries**
  - Mobility of workers
  - Mobility of physicians
  - Inequity?
- **Similar to other regions?**
  - In the US: 50% of medical faculties don’t provide training in OM (LaDou, 1997)
  - In Australia: mean number ~12.5h

### Topics

- Mostly oriented toward «traditional OM»
  - Diseases, toxicology
- < 50% of schools give lectures concerning return to work,
  - assessment of disability,
  - disability and return to work
  - workability assessment
  - Same in the UK (Williams, 2011)

### Conclusions

- Medical schools across Europe are very unequal in providing qualifying doctors with education on the topics they will frequently come across in their working lives
- Some of them may even fail to provide future doctors with the skills and competencies to enable them to practice as competent physicians.
- Despite European regulations and free movement of workers across Europe, we face very different levels of education in occupational health in European countries.
- This warrants a debate on the competencies that every doctor should have in occupational medicine and the definition of a core curriculum for undergraduate teaching in occupational medicine in Europe.

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**THANK YOU FOR YOUR ATTENTION**