NETWORK OF ACCREDITED CLINICAL SKILLS CENTRES IN EUROPE

Center of Medical Expertise
Central Finland Health Care District

Teuvo Antikainen
Headers for Accreditation

From 2015, Multispecialty format

- Governance
- Administration
- Teachers
- Learners
- Competencies
- R&D

Next slides
Governance & Administration

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Teachers

- Total number 52 (FTE 12)

- Background:
  - Medicine (35 persons/ 18 different specialities)
  - Nurses (15)
  - Technicians & educational (2)
  - Qualifications: MD, PhD, M.Ed, Q in Medical Education, M.Hc

- Additional training, certifications e.g. Train the trainer: train the trainer c, c on simulation training
Learners (year 2016)

- Number of participants: 2399 (2521)
- Under-and postgraduates, specialised training: all levels (including CPD, which amounts to c. 60 % all courses)
- Areas for training: individual skills (CanMeds framework, EPA -ideology), teamwork, hospital processes, e-learning
- Inter-disciplinary/ Inter-professional: both (example: trauma team tr. and many resuscitation scenarios (adult – child –newborn)
Remote monitoring: yes (ex. trauma t. scenarios)

Range of modern techniques:
- e-learning: a whole set of web-courses
- simulation modules: many training programs modular
- VR technology in research/ implementation phase
Workshops - objectives

- **In general:** all training programs and CV’s are designed according to the CanMeds framework. Many skill sets have clinical connections by EPA’s (Entrustable Professional Activities) and thus our courses are more like “packages” of training modules (building up certain clinical competences).
- **Knowledge:** topic related matters in casu and by various methods (text books, journal articles, specific www-materials from recognized organizations, own “knowledge” – packages/ e-learning etc)
- **Technical:** various sets of skills related to the training program and target group (profession, level of education etc). More and more often designed as modules (basic skills training -> advanced/ high fidelity s. training-> supervised training with patients). Measured: self assessments, tests, structured feedback ↔ coverage 90-100 %, mostly Linked scale 4-5
Workshops - objectives

- Non-technical: mostly integrated into training programs, but highlighted in assessment material, debriefings and supervision. Skills: self assessment, decision making, situational awareness, risk management, communication, supervision/guidance/pedagogical skills, process management/leadership.

**Measured:** self assessments, tests/evaluations ↔ coverage 90-100%, mostly Linked scale 4-5
Listing of main training programs:

1. Introduction to gastroenterology (incl some simulator time)
2. Bronchoscopy course (simulator)
3. **License to operate** – a course on laparoscopic surgery (some modules shared with gynecology), target group: residents
4. Endoscopy: basics (incl simulator time)
5. Resuscitation (different courses on adults, pediatric patients and neonates)
6. Medication related practical courses for nurses
7. Trauma team – training (simulators: adult, baby)
8. Emergency casarean section – training (incl simulator time)
9. **Training the trainees** - courses
10. In addition: minor surgical procedures – course, suturing and ligature – courses (open and laparoscopic), fracture treatment – courses, arthroscopy (knee/shoulder) – training etc., training courses for postdoc GP s’
11. Ultrasound for clinicians – courses (abdomen, heart, neonate etc)
12. **Ultrasound aided procedures in emergency medicine** - course
13. Advanced ultrasound – courses for cardiac specialists
**Figures (2016):**

<table>
<thead>
<tr>
<th>courses in all</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>249</td>
<td>273</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>participants/ spec.</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>surgery (all)</td>
<td>197</td>
<td>198</td>
</tr>
<tr>
<td>gyn &amp; obst.</td>
<td>85</td>
<td>167</td>
</tr>
<tr>
<td>ophthalmology</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>otorhinolaryngol.</td>
<td>20</td>
<td>17</td>
</tr>
<tr>
<td>dental surg.</td>
<td>5</td>
<td>11</td>
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<tr>
<td>anaesthesiology</td>
<td>182</td>
<td>151</td>
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<tr>
<td>internal medicine</td>
<td>67</td>
<td>75</td>
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<tr>
<td>pediatrics</td>
<td>135</td>
<td>100</td>
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<td>dermatology</td>
<td>3</td>
<td>15</td>
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<tr>
<td>oncology</td>
<td>9</td>
<td>9</td>
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<td>neurology</td>
<td>39</td>
<td>48</td>
</tr>
<tr>
<td>rehabilitation</td>
<td>52</td>
<td>36</td>
</tr>
<tr>
<td>psychiatry (all)</td>
<td>54</td>
<td>72</td>
</tr>
<tr>
<td>emergency med.</td>
<td>194</td>
<td>174</td>
</tr>
<tr>
<td>general practice</td>
<td>207</td>
<td>351</td>
</tr>
</tbody>
</table>

Numbers don’t include individual (trainee) training sessions with simulators!
## Course/ training program feedback (general, av.):

<table>
<thead>
<tr>
<th>Questions (coverage 90-100%):</th>
<th>linked score</th>
<th>score range</th>
</tr>
</thead>
<tbody>
<tr>
<td>expectations met</td>
<td>4,5</td>
<td>3,9-5,0</td>
</tr>
<tr>
<td>clear aims</td>
<td>4,54</td>
<td>3,4-5,0</td>
</tr>
<tr>
<td>aims achieved</td>
<td>4,45</td>
<td>3,5-5,0</td>
</tr>
<tr>
<td>timely topic</td>
<td>4,55</td>
<td>4,0-4,9</td>
</tr>
<tr>
<td>appropriate training methods</td>
<td>4,61</td>
<td>3,9-5,0</td>
</tr>
<tr>
<td>training rised new ideas</td>
<td>4,46</td>
<td>3,8-4,9</td>
</tr>
<tr>
<td>my own skills developed</td>
<td>4,25</td>
<td>3,4-4,7</td>
</tr>
<tr>
<td>skills transferable to practice</td>
<td>4,58</td>
<td>4,1-5,0</td>
</tr>
</tbody>
</table>

A sample of most interesting fb data
R&D overview

- Research: Publications

M Ruoranen et al: Surgical learning and guidance on operative risks and potential errors, Journal of Workplace Learning 29(46):00-00 · July 2017


J-P Mecklin et al: Uptake of genetic testing by the children of Lynch syndrome variant carriers across three generations, European Journal of Human Genetics 25(11) · August 2017


Congress activities


#4KK13 (1301)
How about having your training center accredited?
Teuvo Antikainen, Minna Ruoranen, Centre of Medical Expertise, Jyväskylä, Finland

#3JJ08 (1311)
Workplace based learning of medical graduates in Central Hospital of Central Finland: enforcing the workplace training by appropriate pedagogical support
Minna Ruoranen, Teuvo Antikainen, Centre of Medical Expertise, Jyväskylä, Finland
Teuvo Antikainen
2-hour in situ trauma team simulation training is effective in improving non-technical skills of hospital trauma teams

Eerika Rosqvist, Seppo Lauritsalo, Juha Paloneva, Central Finland Hospital, Department of Surgery, Jyväskylä, Finland

The Development of Knowhow During Resuscitation Simulation Training among the Staff Working with Newborns

Emilia Mäkinen, Mikko Hirvonen, Eerika Rosqvist, Central Finland Health Care District, Jyväskylä, Finland

Competence and patient safety shake hands in laparoscopic skills training: A case from the Central Hospital of Central Finland

Teuvo Antikainen, Minna Ruoranen, Annika Mäkeläinen, Anne Mattila, Department of Surgery, Central Hospital of Central Finland, Jyväskylä, Finland

NASCE meeting LUND 12-13.10.2017:

Oral 12 “Training emergency surgery skills: a simple, functional training model innovation for surgical residents for learning to manage massive intra-abdominal bleeding” Tiia Kukkonen, Annika Mäkeläinen, Teuvo Antikainen

Central Finland Central Hospital
Other activities:

- Emergency laparotomy model (report: NASCE/ LUND)
- VR –technology in medical education –project with University of Applied Sciences, Jyväskylä Finland and Jyväskylä University (D. of Information Technologies)
- Simulation as a method to improve hospital processes (development projects for the new central hospital, Jyväskylä, Finland)
Audit mechanism – feedback:

- **Basis:** structured, digital fb 90-100 % coverage/course/training program (volumes and quality measures)

- **Test and evaluation results**

- **Steering board (4 x/year):** fb reviewed and commented on regular basis

- **Fb evaluated course by course/ by the teams behind each training program (team: educational designers and teachers).** This analysis forms the basis for the development of our programs.
Key challenges

- New training programs (contents, not volume): maintaining the achieved level of quality
- National Health Care Reform (legislation is being implemented 2018->): overall environment of the skills training center will change in many ways (funding, role of public heath care, competition within services etc)
- A need to adapt (include with all existing courses etc) to a new role in the home organization (role in development of hospital processes will enlarge)
Key Achievement(s) during the year 2017

• digital, structured course feedback coverage raised to 90-100%
• many older training programs updated
• new programs: vascular surgery, newborn treatment, ultrasound (diagnostics) – training
• learned (or began) to utilize simulation in the development of treatment/hospital processes
A new Central Hospital (building) will open doors 2020 (and the Center of Medical Expertise will move to upgraded premises as well)