Prevention and control of HAIs in the Czech healthcare system

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Burden of six HAIs on European population health: yearly occurrence, number of attributable deaths and DALYs in EU/EEA

CZ hospitals and national surveillance of HAIs
participation on European/national point prevalence surveys (HAI-Net)

14 ➔ 32 ➔ 45
HAI prevalence in Europe and the Czech Republic
results of European point prevalence survey 2016-2017 (ECDC)

Estimated burden of HAIs in the Czech Republic
estimation of yearly occurrence and number of deaths

<table>
<thead>
<tr>
<th>HAI</th>
<th>proportion (%) (according PPS)</th>
<th>cases /year (estimated)</th>
<th>number of deaths (estimated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>pneumonia</td>
<td>20%</td>
<td>20 000</td>
<td>1 000 – 1 500</td>
</tr>
<tr>
<td>primary bloodstream infections</td>
<td>10%</td>
<td>10 000</td>
<td>1 000 – 1 500</td>
</tr>
<tr>
<td>surgical site infections</td>
<td>20%</td>
<td>20 000</td>
<td>300 – 400</td>
</tr>
<tr>
<td>urinary tract infections</td>
<td>20%</td>
<td>20 000</td>
<td>100 – 200</td>
</tr>
<tr>
<td>Clostridium difficile infections</td>
<td>5%</td>
<td>5 000</td>
<td>250 – 350</td>
</tr>
<tr>
<td>other</td>
<td>25%</td>
<td>25 000</td>
<td>-</td>
</tr>
<tr>
<td>total</td>
<td>100%</td>
<td><strong>100 000</strong></td>
<td><strong>2 000 – 3 000</strong></td>
</tr>
</tbody>
</table>
output of the Czech EU presidency

- Council recommendation on patient safety, including prevention and control of healthcare associated infections
  - strategy and organisation of prevention and control of HAIs
  - surveillance
  - education and training (capacity building)
  - information to the patients
  - research
CZ national healthcare legislation
obligatory hospital infrastructure on prevention and control of HAIs

- **Health services act 2012** – regulation to establish program on prevention and control of infections in CZ acute care hospitals

- **Ministerial (MoH) guidance** on „Hospital program on prevention and control of infections in acute care hospitals“ published **2013**
• Coordination of **HAI surveillance** on the national and hospital levels

• Preparation of **guidance on prevention and control of HAIs**

• Assisting hospitals to create **HAI prevention and control programs**

• **Education and training** of infection control specialists

• Assisting hospitals on **outbreak investigation and control**

• Assisting hospitals to implement **antimicrobial stewardship**
Personal capacity: Infection control doctors
No. of full-time equivalents per 500 beds in 32 hospitals (PPS 2015)

average in PPS-CZ-2015: 0,5 FTE / 500 beds (1,0 FTE recommended)
Personal capacity: Infection control nurses
No. of full-time equivalents per 250 beds in 32 hospitals (PPS 2015)

average in PPS-CZ-2015: 0,7 FTE / 250 beds (1,0 FTE recommended)
Core competencies for infection control and hospital hygiene professionals in the European Union
Training of infection control personnel in the CZ
ECDC evaluated course, registered at EU catalogue of IC/HH courses

• Course: „Prevention and control of infections in hospital setting“

• Schedule: 3 semesters (8 training blocks, 220 hours)

• Participants: medical doctors, nurses, healthcare workers

• Training institutions:
  – National Institute of Public Health (NRC-HAI), Prague
  – 3rd Medical Faculty, Charles University, Prague
  – Central Military Hospital, Prague
  – Na Homolce Hospital, Prague
Training of infection control personnel in the CZ
ECDC evaluated course, registered at EU catalogue of IC/HH courses

- **INT** Introduction
- **ABS** Principles of hospital antimicrobial stewardship
- **CMI** Clinical microbiology and infection control
- **INF** Infections in the hospital setting
- **HEP** Methods of hospital epidemiology
- **NUR** Nursing of patients at infection risk
- **PCI** Prevention and control of infections in hospital setting
- **HYG** Hospital hygiene
- **PHP** Principles of public health
Training of infection control personnel in the CZ
ECDC evaluated course, registered at EU catalogue of IC/HH courses

Dear Colleague,

We are very grateful to you and your Institution for participating to the first ECDC call of Infection Control/Hospital Hygiene (IC/HH) courses evaluation within the TRICE-Implementation Strategy project.

Your cooperation at this stage of the project was very useful, representing an opportunity for us to learn from your experience and to better understand the state of the art and future perspectives about IC/HH training initiatives in Europe.

Your course has been evaluated by reviewers, experts in IC/HH, through the following process:
- the presence of all inclusion criteria was verified for each course;
- each course was assigned to two different Reviewer Experts (REs) (neither of them was from the same country of course provider) and some member of is the project Core Staff was included as volunteers;
- the satisfaction of each evaluation criteria (essential and desirable) was assessed for each course;
- all other materials/documentation about IC/HH submitted course attached to the forms were included in the evaluation.

At the end of the process, we are delighted to inform you that your course was positively evaluated since all inclusion, exclusion and essential criteria were satisfied.