From today’s infection prevention activities we can profit in the future
"Let´s be more egoistic"

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Annual WFHSS & Central and Eastern Europe Congress
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• Population is getting older.
• Infection control specialists are getting older, too. Everyone from us can very easy become a patient with requirement on treatment in a hospital. And everyone from us wishes to be treated in the hospital where the patient safety and quality of care are not only words and an infection control program is functional.
• It is necessary to find out and train new young infection control nurses and doctors. From today´s perspectives the situation seems to be not very optimistic.
Council recommendation (2009/C151/01) on patient safety inc. prevention and control of healthcare associated infections from 2009

• represents a legally binding document for all EU member states

• A strategy to prevent and control healthcare associated infections should be established in order to:
  – implement prevention and control measures at national or regional level;
  – improve the prevention and control of infection in healthcare institutions;
  – establish active surveillance systems;
  – foster education and training of healthcare workers;
  – facilitate access to information for patients.
Improvement in prevention of healthcare associated infections on the national level

• From the European commission report to the council from 2012 which was done on the basis of MS reports on the implementation of this Council recommendation it is on the national level for improvement in prevention of healthcare associated infections essential:
  – Ensure adequate **numbers of specialized infection control staff**
  – Improve the **training** of specialized infection control staff
  – Reinforce tailored basic infection prevention and control structures and practices in **nursing homes**
  – Repeat **national point prevalence surveys of HAI** as a means to monitor the burden of HAI in all types of healthcare institutions.
Improvement in prevention of healthcare associated infections on the national level

– Ensure that surveillance of infections in intensive care units and surgical site infections is in place.
– Implement surveillance systems for the timely detection and reporting of alert healthcare associated organisms and strengthen the ability to respond to the spread of such organisms and prevent their introduction into healthcare settings.
– Improve the information on HAI for patients and strengthen their involvement in the compliance with infection prevention and control measures.
– Develop an evaluation system with a set of indicators in Member States to assess the implementation of the strategy/action plan and its success in improving the prevention and control of HAI.
CZ national activities

• Presentation will focused on the national activities in the infection prevention and control esp. in the topic of healthcare associated infections.
  – Local example – Military University Hospital Prague
in the end of 2012 the NRC HAI was established by the Ministry of health in the National Institute of Public Health in Prague.

this important step was taken after more than ten years, completely voluntary work

– 2,0 FTE
– Vlastimil Jindrák, head of NRC
  • ECDC - HAI, ICU
– Jana Prattingerová, Regional Public Health Authority Liberec
  • ECDC - PPS
– Dana Hedlová, Military University Hospital Prague
  • ECDC - HALT, SSI, TRICE
– Václav Vaniš, Na Homolce Hospital, Prague
  • IT support
National reference centre on HAI
scope and activities

1. Methodological support and organisation of HAI surveillance system at local and national levels, in coordination with activities of ECDC at the EU level

2. Coordination guidance development in the field of prevention and control of infections in healthcare setting, event. linked to the related national legislation

3. Assuring professional and methodological support on development local infrastructure of prevention and control of infections in healthcare institutions („programs on prevention and control of infections“), in relation to requirements of Health Services Act (valid from 2012)
4. Professional advice and help focused on **investigation and management of serious outbreaks** in healthcare institutions

5. Professional support and advice focused on implementing **antimicrobial stewardship programs** focused on prudent use of antimicrobial agents and control of antimicrobial resistance in acute and long term care facilities (in cooperation with National reference laboratory for antibiotics and Central coordinating group of National antibiotic program)

6. **Education and training** of specialists in the field of prevention and control of infections in healthcare settings (infection control doctors, infection control nurses, hospital hygienists, public health specialists)
Since 2010 till now...

- sightseeing tour
  
  „Footsteps of Council Recommendation 2009“
  
  – important milestones of the national infection prevention activities
• Point prevalence survey of healthcare-associated infections and antimicrobial use in European long-term care facilities (May – September 2010)
2011

§ Act no. 372/2011 Sb., On health services
§ 47. 4 - Programs on prevention and control of infections

• MoH Patient Safety Goal No 5 – Hand hygiene

• WHO Patient Safety - Clean Care is Safer Care

• Antibiotics, threatened treasure of humankind – exhibition in The National Museum Prague
IM VERY DIRTY.

THANKS

-MABBIE
CLEAN CARE IS SAFER CARE

STATEMENT PLEDGING SUPPORT TO ADDRESS HEALTH CARE-ASSOCIATED INFECTION

I, Leoš Heger, the Minister of Health, on behalf of all at the Ministry of Health of the Czech Republic, meeting in Prague on the 13th of June 2011,

Recognizing the serious disease burden and significant economic impact that health care-associated infection places on patients and health systems throughout the world,

Considering that the majority of these infections are treatable and avoidable,

Appreciating the momentum that the Global Patient Safety Challenge programme of the WHO World Alliance for Patient Safety is bringing to reduce health care-associated infection at the global level,

Emphasizing that a unique opportunity now exists to reverse the incidence of health care-associated infection in the Czech Republic,

I resolve to work to reduce health care-associated infection through actions such as:

• Acknowledging the importance of health care-associated infection;
• Developing or enhancing ongoing campaigns at national or sub-national levels to promote and improve hand hygiene among health care providers;
• Making reliable information available on health care-associated infection at community and district levels to foster appropriate actions;
• Sharing experiences and, where appropriate, available surveillance data, with the WHO World Alliance for Patient Safety;
• Considering the use of WHO strategies and guidelines to tackle health care-associated infection, in particular in the areas of hand hygiene, blood safety, injection and immunization safety, clinical procedures safety and water, sanitation and waste management safety;

I resolve to work with health professionals and associations in this country:

To promote the highest standards of practice and behaviour to reduce the risks of health care-associated infection;
To foster and sustain collaboration with research institutions, training schools, educational centres, universities and health care settings of other WHO Member States to ensure full utilization of knowledge and experience in the field of health care-associated infection;
To encourage senior management support and role-modeling from key staff to promote the implementation of interventions to reduce health care-associated infection.

Czech Republic
Leoš Heger
Minister of Health
Guidelines MoH - Hand hygiene in health care (Bulletin 2012, No. 5)
Hand Hygiene compliance - MUH
Hand Hygiene compliance - MUH
Hand Hygiene compliance - MUH
Methodological Guidance MoH – to control the occurrence of imported cases of colonization and/or infection of carbapenemase-producing Enterobacteriaceae (Bulletin 2012 amount 8)

Appendix - **Standard precautions** to eliminate the risk of transmission of infectious agents in health care
2012

- Point prevalence survey of healthcare-associated infections and antimicrobial use in European hospitals 2011–2012 – ECDC
  - data of 231,459 patients from 947 acute care hospitals from 30 countries
  - On any given day, 5.7% of patients (= one in 18 patients) in European hospitals have at least one HAI
  - On any given day, an estimated 32.7% of patients in European hospitals received at least one antimicrobial agent
Infection control staff
(FTE median / 250 beds)

nurses - CZ
less than 0.5 (median 1.31)

doctors - CZ
0.15 – 0.3 (median 0.56)
2013

• Round table on **HAI surveillance concept / strategy on the national level**

Representatives of:

- Ministry of Health
- National Institute of Public Health - NRC HAI
- WHO
- Institute of Health Information and Statistics
Ministry of Health Guidance - **Program of infection prevention and control for hospitals** with check list – set of structural indicators, annex - Standard precautions (WHO) (NRC HAI)

- implementation procedure for Act no. 372/2011 Sb., On health services
- Education for epidemiologists from Regional public health authorities – Actual concept of infection prevention and control in health care facilities – organized by MoH & NRC HAI
- Presentations at the national / local conferences - NRC HAI
• First data from 2011 (sent to ECDC in 2012 – ICU a SSI surveillance) were published by ECDC (NRC HAI)
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SSI surveillance - MUH
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SSI surveillance - MUH

Surveillance IMCHV – rozdělení případů infekcí dle klasifikace CDC, CHK ÚVN, 2007 – 2013

<table>
<thead>
<tr>
<th>Year</th>
<th>CHK</th>
<th>COLO</th>
<th>SSI COLO (%)</th>
<th>Average</th>
<th>Mean / Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>2545</td>
<td>318</td>
<td>34 (1.3 resp. 10.7%)</td>
<td>70.3</td>
<td>10.0 / 7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Povrchové incizní</td>
<td>M</td>
<td>Ž</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>5</td>
<td>11</td>
<td>69.3</td>
<td>72.1</td>
</tr>
<tr>
<td>2012</td>
<td>3214</td>
<td>403</td>
<td>42 (1.3 resp. 10.4%)</td>
<td>59.1</td>
<td>9.4 / 7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Povrchové incizní</td>
<td>M</td>
<td>Ž</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>8</td>
<td>19</td>
<td>60.5</td>
<td>55.5</td>
</tr>
</tbody>
</table>
BSI surveillance - MUH

Surveillance infekcí krevního řečiště – počty případů v jednotlivých skupinách infekcí, ÚVN, 2010 - 2013
BSI surveillance - MUH

Surveillance infekcí krevního řečiště – počty případů
v jednotlivých skupinách infekcí, ÚVN, 2010 - 2013

Urosepse – počty případů dle jednotlivých pracovišť, ÚVN, 2010 - 2013

Katérové infekce krevního řečiště – počty případů dle jednotlivých pracovišť, ÚVN, 2010 - 2013
BSI surveillance - MUH
BSI surveillance - MUH
• Point prevalence survey of healthcare-associated infections and antimicrobial use in European long-term care facilities - HALT 2 (NRC HAI)

National representativeness of LTCF sample, HALT-2, 2013 (n=1 181 LTCFs)
Negotiations on the national level (MoH, Institute of Health Information and Statistics, potential participants / hospitals) – creating of national network of reference hospitals for HAI surveillance (ICU, SSI)

Antibiotic policy and infection prevention in hospital, book – texts for teaching

Innovation of training course on infection prevention and control in health care facilities
  – nurses & doctors
  – evaluation by ECDC
  – November 2014 – next course
Certified course on infection prevention and control in health care facilities
Certified course on infection prevention and control in health care facilities

Teaching plan covers 9 topics

<table>
<thead>
<tr>
<th>No</th>
<th>Topic</th>
<th>Theory (hours)</th>
<th>Practice (hours)</th>
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<tbody>
<tr>
<td>1</td>
<td>The basics of clinical microbiology</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Infections of the epidemiological importance in the health-care facilities</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Hospital antibiotic stewardship</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Basics of the hospital epidemiology – (methods and statistics)</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Principles of the nursing of patients at risk of infection</td>
<td>16</td>
<td>32</td>
</tr>
<tr>
<td>6</td>
<td>Prevention and control of infections in the health-care facilities</td>
<td>26</td>
<td>42</td>
</tr>
<tr>
<td>7</td>
<td>Hygienic requirements in health-care</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>8</td>
<td>Public health protection</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Selected topics from humanities</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>total</td>
<td>114</td>
<td>96</td>
</tr>
</tbody>
</table>

The main emphasis is put on the topic number 6 - Prevention and control of infection in the health-care facilities with 26 hours of theory and 42 hours of practice.
Conclusion – MUH level

- **Infrastructure** – exists
  - PCI program, team, network of cooperating doctors and nurses
  - **Staff** – not adequate numbers 3,0 FTE / 700 beds
- **Surveillance** – risk assessment - BSI, SSI - yes
- **HH compliance** - yes
- **PPS** – HALT, HALT 2, PPS HAI – participation in all PPS
- **Patient information** – isolation precautions (MRSA, CD)
  - Patient is a member of TEAM – hand hygiene poster
Vážení klienti,

vážíme si Vaši důvěru, o které svědčí skutečnost, že jste si pro řešení Vašich zdravotních obtíží vybrali naší nemocnici. Naší snahou je poskytovat kvalitní péči a starat se maximálně o Vaše bezpečí.

Pravděpodobně jste už někdy slyšeli termín nosokomiální infekce. Je to infekční komplikace, která může vzniknout v souvislosti s interakcí se zdravotní péči. Tzn., při nebo po hospitalizaci, po operačním výkonu, ale i po ošetření či vyšetření ambulantním.

Najčastějším povodcem těchto infekcí jsou vlastní mikroorganizmy pacienta, které se během zákroků, kterým je pacient podroben, dostanou do místa, kde se za normálních okolností nevyvstaly. Jako povodce se ale mohou uplatnit i mikroorganizmy (hlavně bakterie) od jiných pacientů nebo z nemocničního prostředí. Nejčastěji k tomu může dojít, pokud personál neprovádí správně hygienu rukou.

A to je důvod, proč bychom Vás chtěli požádat o aktivní spolupráci.

Celková úroveň hygieny rukou je výsledkem práce všech členů kolektivu, který poskytuje péči pacientům, správně prováděnou hygienu rukou chrání zdravotníci pacienty i sebe.

Změnu může ovlivnit každý. Nejen zdravotníci, ale i pacienti a jejich blízci.

Neváhejte požádat ošetřující personál, aby si vyděsínil ke ruce, pokud se domníváte, že by to měl udělat. A tam, kde je to třeba, např. kvůli infekčnímu onemocnění, dezinfikujte si ruce tak, jak Vám to bylo vysvětleno.

Pokud budete mít otázky, požádejte ošetřující personál o zprostředkování kontaktu s pracovníky našeho oddělení.

Hygiena rukou - snadná kontrola infekcí pro každého - jednoduché opatření, které chrání životy.

Chraňme životy čistýma rukama

za celý kolektiv oddělení nemocniční hygieny

MUDr. Dana Hedlová
nemocniční epidemiolog
Conclusion – national level

- **Infrastructure** – not exists / sufficient in most hospitals
  - PCI program, team, network of cooperating doctors and nurses
  - **Staff** – not adequate numbers ???
- **Surveillance** – risk assessment BSI, SSI ???
- **HH compliance** ???
- **PPS** - HALT, HALT 2, PPS HAI – HALT – 6 LTCFs, HALT 2 – 10 LTCFs, PPS HAI – 14 hospitals
- **Patient information** ???

![Pie chart showing distribution of hospitals: 146 acute care hospitals, 32 university hospitals, 10 LTC hospitals.](chart.png)
"Let’s be more egoistic"

• Thanks for your attention

National Infection control team in 2034????
"Let's be more egoistic"

• Thanks for your attention

National Infection control team in 2034???