Bringing hand hygiene to the national level – the Hungarian case

Tamas Haidegger, PhD
Associate professor,
HandInScan Co-founder

March 12-13, 2019. Vienna
LATE BREAKING NEWS

Sára Haidegger, 4290g, 56 cm

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WORLD SEMMELWEIS YEAR 2018

Ignaz Semmelweis (1818–1865)

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Semmelweis memorial committee

http://semmelweis.hu/english/the-university/ignac-semmelweis/semmelweis200

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HUNGARY IS CATCHING UP

Intensive Care Units: 9.7-31.8 % infection (ECDC)

ECDC Point prevalence survey of HAI

- 2.0% (2012)
- 4.4% (2017)

WHO Hand Hygiene Self-Assessment Framework

- 3 hospitals reported in 2016, many more on national level

National Nosocomial Surveillance System (NNSR)

- Operated by the National Center for Epidemiology

IN THE FOOTPRINTS OF SEMMELWEIS

Fight against nosocomial infections is a top national priority
- EMMI minister Kásler, MD announced in June 2018

Implementation guides by the Surgeon General (Dec 2018)
- Prevention and monitoring on nosocomial infections
- Prevention of urinary tract infections
- Prevention of CLABSI infections
IMPROPER HAND HYGIENE

No change in almost 40 years

Taylor et al. 1978

Hand-in-Scan team's study 2014

Most frequently missed
Frequently missed
Less frequently missed

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SEMMELEWIS
HAND HYGIENE SYSTEM

Unique tool for continuous monitoring

Train your staff effectively

Empower your patients and visitors with hand hygiene knowledge

Check on your staff’s hand hygiene status effortlessly

Hand-in-Scan
Hand Hygiene Matters

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IMPROPER HAND HYGIENE

Joint campaign with Singapore

• Nearly 10,000 health-care workers measured: 28% failed

• Publication: BMC Infectious Diseases
  http://www.biomedcentral.com/1471-2334/13/249/abstract

**NHS hospitals:** 986 health-care workers → 27% failed

- Only 4.76% failed in the best hospital
- 76.93% failed in the worst hospital

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Failed</th>
<th>Passed</th>
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<tbody>
<tr>
<td>#1</td>
<td>141</td>
<td>45</td>
</tr>
<tr>
<td>#2</td>
<td>60</td>
<td>111</td>
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<td>#3</td>
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<td>228</td>
<td>66</td>
</tr>
<tr>
<td>#10</td>
<td>120</td>
<td>12</td>
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</tbody>
</table>

Σ 26.98%
Σ 73.02%

 Hungary
1269 HCW
33% failed

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A SOLUTION THAT WORKS

<table>
<thead>
<tr>
<th>Normal light</th>
<th>UV light</th>
<th>Software evaluation</th>
<th>S. epidermidis colonies</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
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<td><img src="image7.png" alt="Image" /></td>
<td><img src="image8.png" alt="Image" /></td>
</tr>
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</table>

**Hand hygiene success rate**

- **Hand-in-Scan**
- **Hand Hygiene Matters**

**Ration of successful handrub events**

- **beginning of the 1-week period**
- **end of the 1-week period**

**Handrub coverage (%)**

- **Coefficient [95% CI]: 11.1 [7.0-15.3]**
- **Coefficient [95% CI]: 39.0 [32.0-46.1]**

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MAKING A NATIONAL PROGRAM

National Healthcare Services Center

• First Ministry level accredited training on hand hygiene for HCW

National GINOP’17 and VEKOP’18 infrastructure development

• 35 hospitals equipped in the countryside
• 5+ in the Budapest region

National EFOP’19 program for the improvement of patient safety through complex infrastructure development
STRATEGY FOR THE FUTURE

Integration into the education

- Semmelweis University – integration to MD education
  - Mandatory at Surgical practice course at 3rd grade (900+ students)
  - Mandatory to all residents in surgery (2018-)
- National training program in 23 hospitals (SZTK-A-067 619/2016)
- Hungarian Academy of Sciences primary education program
- Major public outreach events
- Graduated over 20 students

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DATA FOR DECISION MAKERS

Hand-in-Scan

Hand Hygiene Report
05/02/2016 - 08/03/2016
All departments / All occupations
Export Report

Recent scans
Backhand
Forehand

Most frequently missed areas
Backhand
Forehand

Hand hygiene progress

Departments
Staff
Visitors
Demos

Occupations

Age

Total scans

Gender

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IN-DEPARTMENT TRAINING / CQI

AKH Vienna General Hospital, NICU

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A UNIFYING VISION

Mission

… to provide objective, quality assured hand hygiene education and control…

Vision

…Fostering technology-induced behavioral change in hand hygiene on a global scale.