The Development of Infection Control in Healthcare Settings in Hungary

DR. BEATRIX OROSZI – EXPERT LEAD OF THE METHODOLOGICAL DEVELOPMENTS IN THE HEALTH SYSTEM PROJECT IN HUNGARY

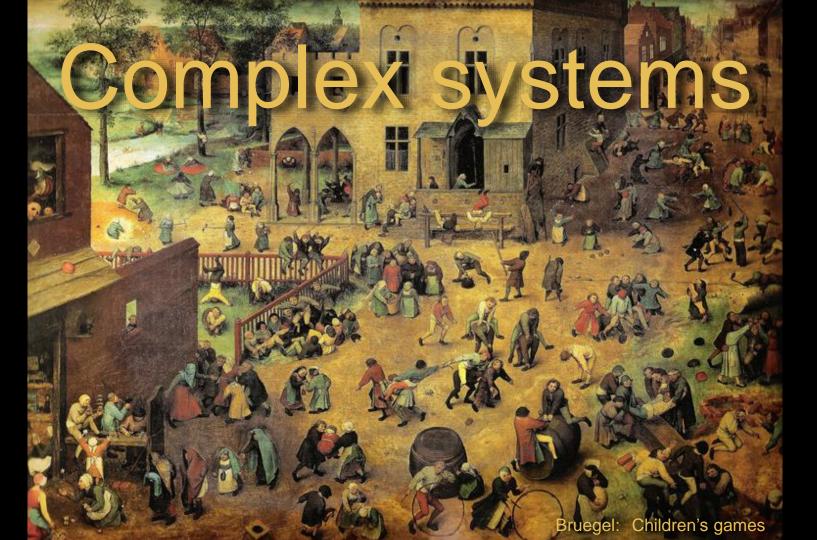The third Semmelweis CEE Conference on Hospital Hygiene and Patient Safety

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Európai Unió
Európai Szociális Alap

MAGYARORSZÁG KORMÁNYA

BEFEKTETÉS A JÖVŐBE

Topics

- Background

- Priorities in Hungary

- Introduction of „Methodological Developments in the Health System" project

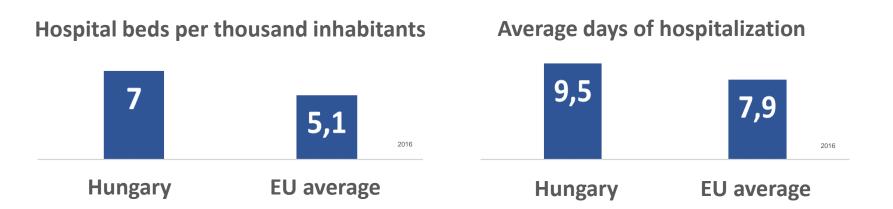- From guidelines to culture of safety – implementation

Complex systems

Bruegel: Children's games

Complex systems

Health care has become more and more complex

Hospital-centric health care system, vulnerable population

Hospital beds per thousand inhabitants

7 — Hungary
5,1 — EU average
2016

Average days of hospitalization

9,5 — Hungary
7,9 — EU average
2016

Hungary, 2015

- **Hospital discharges annually: 2,2 million**
- **Patients with at least one health care associated infection annualy (estimated) 78 000***
- **More than 340 000 excess nursing day**

68 000 reported communicable diseases

Sources: OECD (2019) Health at a Glance; Suetens C, Latour K, Kärki T et al. 2018

More complexity– increasing risk of failures

The undesirable effects associated with healthcare can't be fully eliminated.

However, their occurance can be significantly reduced by effective methods.

The culture of safety

I always perform the check on the checklist before the flight

I am succesful as a team member

Security is a fundamental feature of the system

I know my patients, using a the checklist is an unnecessary administration and a time loss for me

For me, important values are professional autonomy and independence

Patient security is a question of individual competence

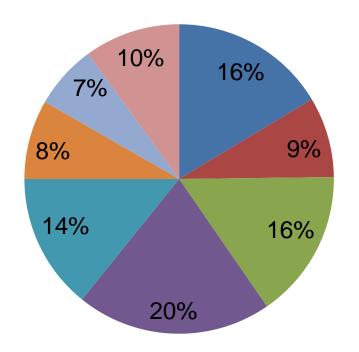# Healthcare-associated infections and antimicrobial use in the EU/EEA

Point prevalence survey results (PPS, 2017)

Indicators	Hungary*	EU/EEA
Patients in PPS sample	20 588	310 755
Patients with at least 1 HAI (prevalence)	818 (4%)	18 287 (5,5%)
Estimated incidence	3,5% (2,1-5,4%)	3,7% (2,4-5,3%
Antibiotic use	15,9%	30,5%
Proportion of broad-spectrum antibacterials among all antibacterials for systemic use	Almost 50%	40%
Composit index of AMR from patients with HAI	37,9%	31,6%

*representative sample containing 38 hospitals

Suetens C, Latour K, Kärki T et al. 2018

Distribution of types of HAI in Hungary*

PPS 2017

Pie chart legend:
- Pneumonia — 16%
- Other lower respiratory tract infections — 9%
- Surgical site infections — 16%
- Urinary tract infections — 20%
- Gastrointestinal infections — 14%
- Skin and soft tissue infections — 8%
- Bloodstream infections — 7%
- Other infections — 10%

* Based on data of 99 participating hospitals

Aims and principles of development

- Aim to protect patients, health care workers and visitors from healthcare associated infections

- Principles of development

  – Patient centred

  – Comprehensive, multimodal

  – Focus on patient care processes

  – Enablers

  – Development of safety culture

Main players at national level

Legislation, administrative rules

Strengthening prevention primarily at the level of patient care and institutional management

Induce and catalyze system-level changes at institutional level

EFOP 1.8.0 – VEKOP 17-2017-00001 project "Methodological Developments in the Health System"

Creating an organizational culture and approach that enables employees to **identify sources of hazard** when carrying out activities, **formulate suggestions to decrease risk** and prevent harm, and the **management of the institution actively contributes** to the development of patient safety.

Ministry of Human Capacities, State Secretariat of Health Care

Consortium: National Center for Public Health
Semmelweis Medical University
National Health Service
National Health Fund Administration

Development focus

About 30-50% of healthcare-associated infections can be prevented by a package of patient care measures in the following 5 areas :

- Hand hygiene and standard precautions

- Use of infection prevention care bundles

    1. when using urinary catheters

    2. when using mechanical ventilation to support pulmonary functions

    3. when using vascular catheters

    4. In case of surgical procedures

WHO Multimodal Improvement Strategy

1 System change

2 Training

3 Monitoring and feed back

4 Reminders and communication

5 Culture change

Enabling environment: workload, staffing, financing etc.

National and facility level infection prevention and control guidelines

- Individually tailored risk assessment tools;
  - Offers a comprehensive assessment system;
  - Allow clinical staff to target interventions at those most in need;
  - Is simple to use;
  - Provides a comprehensive profile of each patient during hospital stay;
  - Integrates risk-management activity;
- Care bundles
  - A set of evidence based good practices,
  - formulated briefly in 3-5 measures, that are simple, clear and concise,
  - that when implemented together have shown to produce better outcomes and have a greater impact than that of the isolated implementation of individual measures.

Implementation of IC care bundles at health care provider level

- Each element of the bundle must be implemented collectively with complete consistency to achieve the most favorable outcomes ("all or none" approach);

- The measures be adapted to the local setting,

- appropriately followed,

- recorded and evaluated to ensure compliance by all members of the healthcare team involved.

- A bundle compliance percentage goal should be set for the healthcare team to work toward achieving (at least 95% bundle compliance is the recommended best practice).

Other elements of the strategy

2

Training

- Who needs training? – first line HCW
- What type of training? – TTT & e-learning
- Who will do the trainings? – educated trainers

3

Monitoring and feed-back

- How to prioritize intervention? – GUIDELINE and standard checklist about the core elements of IC programs at institutional level
- How can you be sure that intervention is being implemented correctly? - Regular audits of adherence according to standard checklist and timely feed back of health care practices
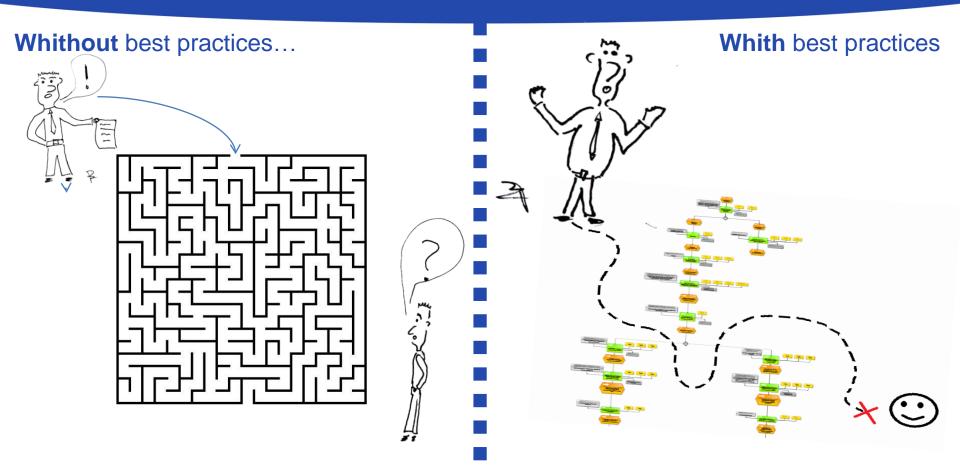
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Reminders and communication

- How to promote the desired actions at the right time? – Development of promotional messages and materials.

The role of best practices in the implementation of methodological guidelines

Whithout best practices…

Whith best practices

Change of organizational culture for better patient security

- Step by step

- Is there a real support of patient security at all levels of the healthcare system?

- Are there best practises? Are there role models in personnel?

- Does the patient care team take part in the design and adaptation of infection control measures?

- Do they feel responsible? Do they accept the necessity of accountability?

- Do they consider patient security and infection prevention as value?

Measure and evaluate, SURVEILLANCE

Legislation & feedback

Systemic changes to create the culture of security

Education & professional development

Information & communication

Thank you for your attention

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