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BARN re-start in 2010

History:

BARN was an extension of activities initiated in the networks of BALTICCARE in the 1990:ies

The Baltic Network for Infection Control and Containment of Antibiotic Resistance and Forum Balticum

Anna Hambraeus, MD, PhD and others



Public Health Agency of Sweden coordinator

The screenshot shows a web browser window displaying the website of the Public Health Agency of Sweden (Folkhälsomyndigheten). The browser's address bar shows the URL <http://www.folkhalsomyndigheten.se/amnesomraden/smittskydd-och-sj>. The website has a blue header with the agency's logo and name. A navigation menu includes links for 'Start', 'Ämnesområden' (selected), 'Publicerat material', 'Konferens och utbildning', 'Om Folkhälsomyndigheten', and 'Nyheter och press'. A search bar is located on the right. The main content area is titled 'BARN – an expert network operating in the Baltic Sea region' and describes a collaboration to support prevention of antibiotic resistance. A sidebar on the left lists various topics under 'Smittskydd och sjukdomar', including 'Smittsamma sjukdomar', 'Antibiotika och antibiotika-resistens', 'Resistensövervakning', 'Behandlingsrekommendationer', 'Informationsmaterial om antibiotika och resistens', 'Svenska HALT', 'HALT-2', and 'ESBL-studie'. A 'Contact' box on the right provides links to 'E-mail the BARN network' and 'The BARN website'. The browser's taskbar at the bottom shows various application icons and the system clock indicating 20:02 on 2016-03-31.

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Kontakta oss Fler webbplatser In English

Sök på webbplatsen

Start • **Ämnesområden** • Publicerat material • Konferens och utbildning • Om Folkhälsomyndigheten • Nyheter och press

→ Ämnesområden → Smittskydd och sjukdomar → Antibiotika och antibiotikaresistens → International collaborations → BARN – an expert network in the Baltic Sea region

Smittskydd och sjukdomar

- Smittsamma sjukdomar
- Antibiotika och antibiotika-resistens
- Resistensövervakning
- Behandlingsrekommendationer
- Informationsmaterial om antibiotika och resistens
- Svenska HALT
- HALT-2
- ESBL-studie

BARN – an expert network operating in the Baltic Sea region

A collaboration to support prevention of antibiotic resistance and improving infection control.

The Baltic Antibiotic Resistance collaborative Network (BARN) is a grass root network for action against antibiotic resistance, with a focus on raising awareness and exchanging knowledge and experience among practitioners on effective interventions in health care settings. The network is active within as well as between participating countries in the Baltic Sea region. The network stimulates projects in which evidence-based practices are adapted to specific needs in each setting, where they can be quickly implemented and improved.

The predecessor of BARN, BALTICARE, was launched in 2004. Many of those involved at the time are still active within the network today, giving the network a strong coherence and a vast amount of experience.

Three focus areas are key for the containment of antibiotic resistance

The problem of antibiotic resistance cannot be tackled by a one sided approach. The

Contact

- [E-mail the BARN network](#)
- [The BARN website](#)



BARN – a network of experts

Members

Doctors, nurses, health-care staff

Epidemiologists, stake holders,

University academy professionals

Currently 200 professionals



BARN – 12 countries



Members

Sweden, Norway, Denmark, Estonia, Latvia,
Lithuania, Poland, Russia (St Petersburg),
Georgia, Ukraine, Belarus, Moldova and WHO
(Copenhagen and Geneva)



October 13, 2011



Antimicrobial resistance is scope

❖ BARN has three legs to combat antimicrobial resistance

1. Build laboratory capacity to detect resistance and for surveillance
2. Antibiotic stewardship
3. Infection prevention and control





Six subprojects

- ❖ Collaboration in infection control to combat antimicrobial resistance and hospital infections
- ❖ Expansion of network and improvement of lab capacity for better AMR surveillance (enilabAMR)
- ❖ The Hand Hygiene Project (completed)
- ❖ The Happy Audit Project (completed)
- ❖ The Baltic ESBL Epidemiology Project (completed)
- ❖ The Perioperative Antibiotic Prophylaxis Project (completed)



BARN idea

“From declarations to actions”

All countries have guidelines

Compliance to guidelines is not always perfect



The gap

There is a gap between

what we DOand what we KNOW

Some existing knowledge is not applied
sufficiently



The traditional approaches

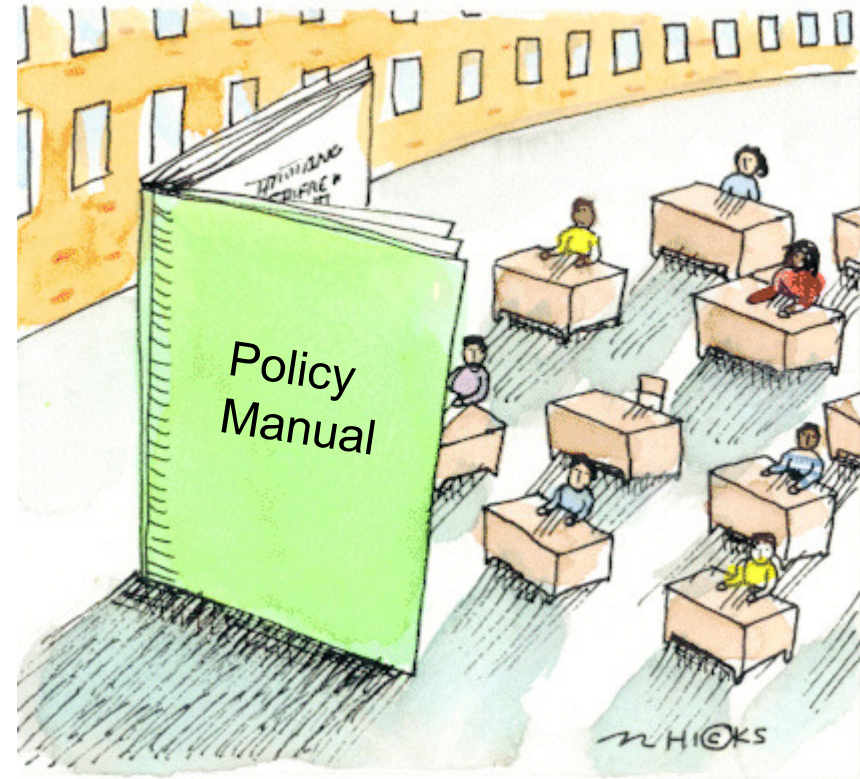
Memo

Date: February 2012
To: All Staff
From: Management

Starting next Monday, all staff will be expected to implement the new procedure we just tested in the 3 West med/surg unit.

It worked there so in order to save time, everyone will now start doing the new procedure like 3 West.

Thank you for your cooperation.





BARN idea

“From declarations to actions”

All countries have guidelines

Compliance to guidelines is not always perfect

Grass-root level

Funding is spent on workshops to bring professionals together and exchange experience



It is the people in the system that
are the best to know how to
change it!

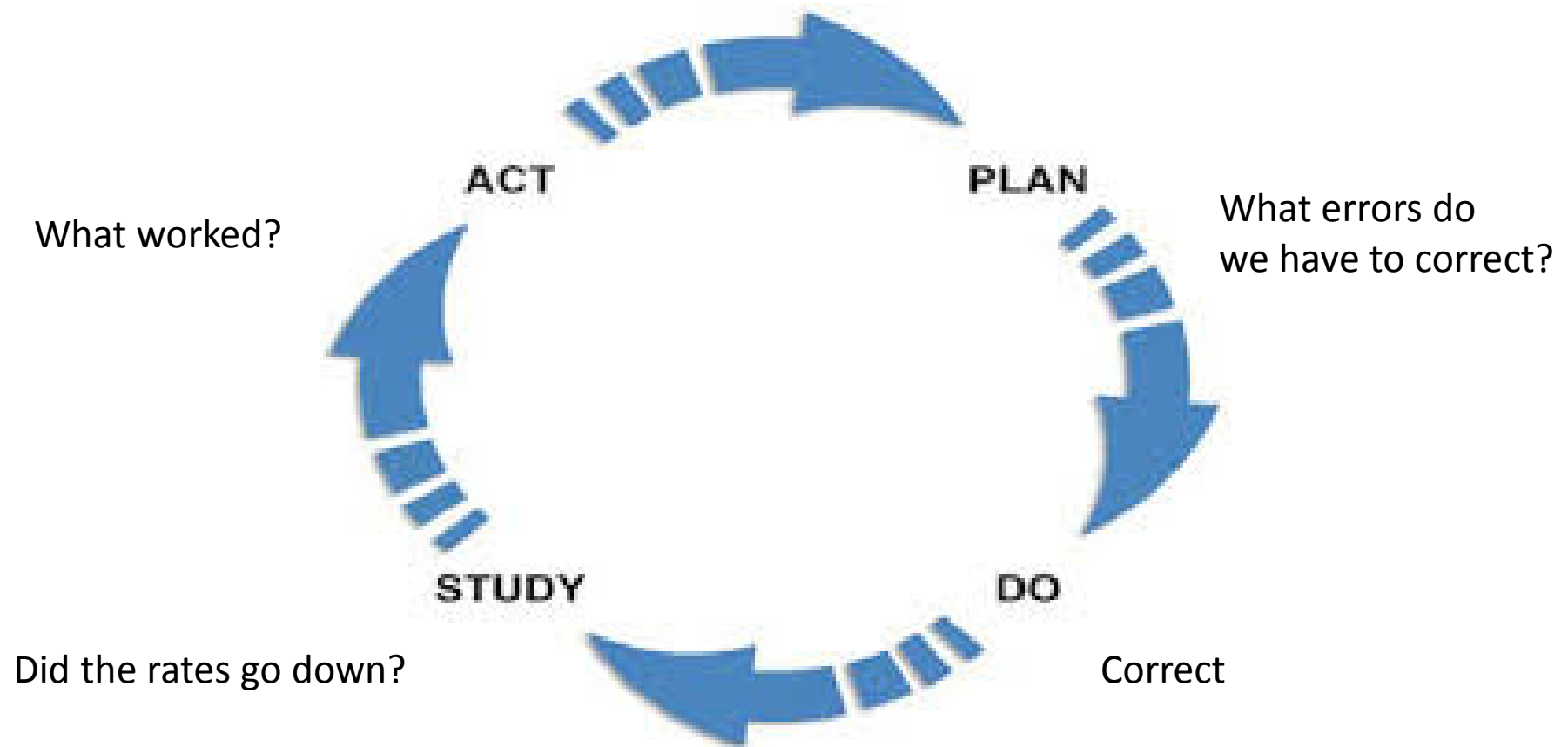


If you want another
results, you have to
do something in
another way....

...and that way can be
quite different
depending on the
variation in context!



Test small changes and evaluate



Hand Hygiene 2011-2014

**Implementing the WHO guidelines for improving
hand hygiene in health care**

Latvia-Lithuania-St Petersburg -Sweden

WHO-Clean Care is Safer Care

SAVE LIVES
Clean **Your** Hands

Guide to Implementation

A Guide to the Implementation of the WHO
Multimodal Hand Hygiene Improvement Strategy



World Health
Organization
A World Alliance for Safer Health Care



World Health
Organization

Patient Safety
A World Alliance for Safer Health Care

WHO Guidelines on Hand Hygiene in Health Care

First Global Patient Safety Challenge
Clean Care is Safer Care



WHO Key documents

1WHOhandhyg2009aug.pdf

2WHO_IER_PSP_2009.02_eng_Implementation_guide.pdf

3hhsa_framework_October_2010.pdf

4Sustaining_Improvement.doc

5Hand_Hygiene_Why_How_and_When_Brochure.pdf

6Glove_Use_Information_Leaflet.pdf

7Guidance_Organizations_patients.doc

8Hand Hygiene Technical Reference Manual.pdf

9Ward_Infrastructure_Survey.doc

10Soap_Handrub_Consumption_Survey.doc

11How_To_HandRub_Poster.pdf

12How_To_HandWash_Poster.pdf

13Your_5_Moments_For_Hand_Hygiene_Poster_Chair.pdf

14Your_5_Moments_For_Hand_Hygiene_Poster.pdf

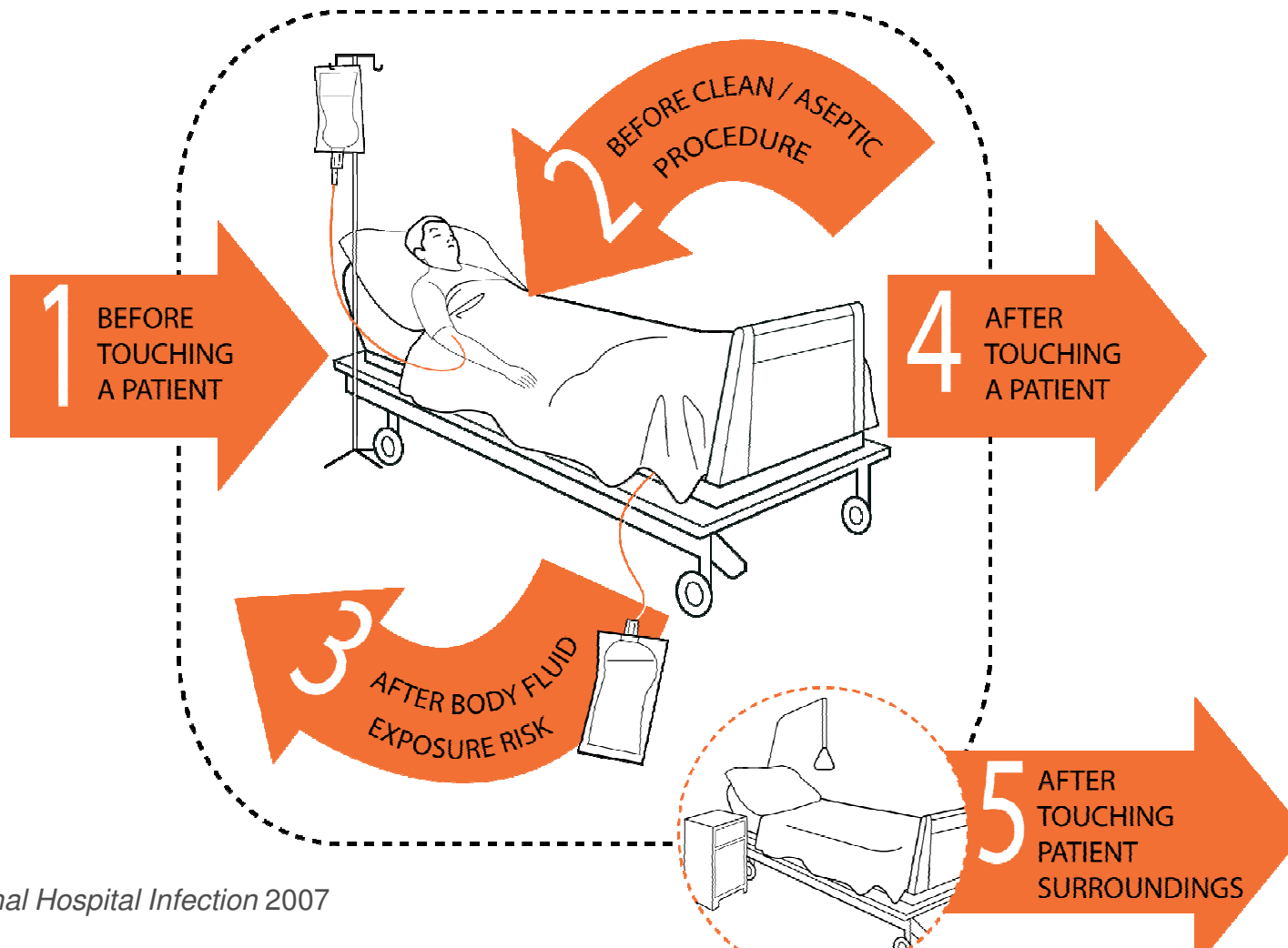
15Save_Lives_Screensaver.zip

16slides_for_education_session_low_res.ppt

17slides_for_hand_hygiene_coordinator.ppt

WHOhandHygieneDocuments.zip

The “My 5 Moments for Hand Hygiene” approach



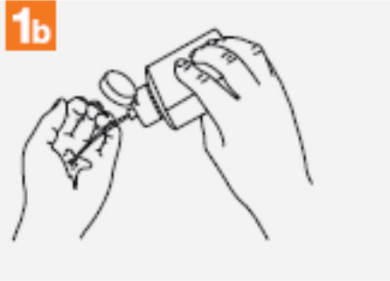
How to handrub

1a



Apply a palmful of the product in a cupped hand, covering all surfaces;

1b



2



Rub hands palm to palm;

3



Right palm over left dorsum with interlaced fingers and vice versa;

4



Palm to palm with fingers interlaced;

5



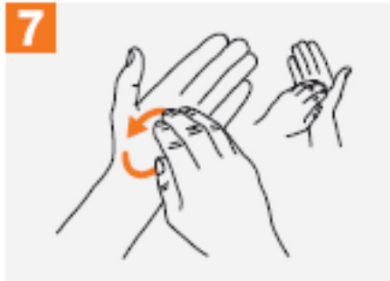
Backs of fingers to opposing palms with fingers interlocked;

6



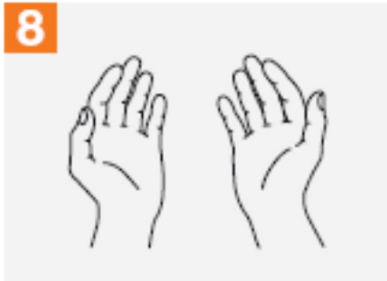
Rotational rubbing of left thumb clasped in right palm and vice versa;

7



Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;

8



Once dry, your hands are safe.

To effectively reduce the growth of germs on hands,

handrubbing must be performed by following all of the illustrated steps.

This takes only 20–30 seconds!



Hand hygiene project

2011-2014

- Accepted manuscript in the American Journal of Infection Control 2016
- Latvia — Agita Melbarde
- Lithuania — Rolanda Valentiene
- Sweden- Olov Aspevall, Anna Hambræus
- St Petersburg (Russia) — Anna Liubimova

13 hospitals, 38 wards, 998 beds



Aim

To implement WHO SAVE LIVES: Clean Your Hands to reduce HCAI and ABR.

- abbreviate

- simplify

- adapt



Project design

Phases

I. Preparation

II. Baseline

III. Intervention

IV. Evaluation

V. Reporting



Outcomes

- *Wards infra structure*
- *Hand rub consumption*
- *Hand hygiene observation*
- *Assessment knowledge, attitudes and skills*



Interventions

- Education of all staff

- Posters and reminders

- Feed-back results of

Observations of compliance to hand hygiene

Hand-rub consumption

Attitudes and knowledge



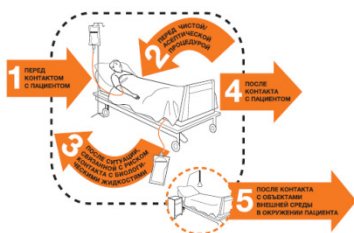
Educational slides

[illegible]



Posters/Video

Ваши 5 Моментов для Гигиены Рук



- | | |
|--|--|
| 1. ПЕРЕД КОНТАКТОМ С ПАЦИЕНТОМ | КОГДА: Высок риск передачи инфекции от пациента, когда пациент в изоляции.
КАК: Вымыть руки и обработать антисептиком перед входом в палату, перед началом осмотра, перед процедурой. |
| 2. ПЕРЕД ЧИСТОЙ/СТЕРИЛЬНОЙ ПРОЦЕДУРОЙ | КОГДА: Высок риск передачи инфекции от пациента, когда пациент в изоляции.
КАК: Вымыть руки и обработать антисептиком перед процедурой, перед введением катетера, перед процедурой. |
| 3. ПОСЛЕ КОНТАКТА С ТЕЛОМ ПАЦИЕНТА С РИСКОМ ВОЗБУЖДЕНИЯ ИНФЕКЦИИ | КОГДА: Высок риск передачи инфекции от пациента, когда пациент в изоляции.
КАК: Вымыть руки и обработать антисептиком после контакта с пациентом, после процедуры. |
| 4. ПОСЛЕ КОНТАКТА С ОКРУЖАЮЩЕЙ СРЕДОЙ ПАЦИЕНТА | КОГДА: Высок риск передачи инфекции от пациента, когда пациент в изоляции.
КАК: Вымыть руки и обработать антисептиком после контакта с пациентом, после процедуры. |
| 5. ПОСЛЕ КОНТАКТА С ПАЦИЕНТОМ | КОГДА: Высок риск передачи инфекции от пациента, когда пациент в изоляции.
КАК: Вымыть руки и обработать антисептиком после контакта с пациентом, после процедуры. |

Всемирная Организация Здравоохранения

СОХРАНИТЕ ЖИЗНИ Соблюдайте Гигиену Рук

May 2012

Гигиена Рук Почему и Как



Всемирная Организация Здравоохранения

Как проводить гигиеническую антисептику рук?

ОБРАБАТЫВАЙТЕ РУКИ АНТИСЕПТИКОМ ДЛЯ ОБЕСПЕЧЕНИЯ ГИГИЕНЫ РУК МОЙТЕ РУКИ, ЕСЛИ ОНИ ЯВНО ЗАГРЯЗНЕНЫ

1. Продолжительность всей процедуры: 20-30 секунд



Как мыть руки?

МОЙТЕ РУКИ, ЕСЛИ ОНИ ЯВНО ЗАГРЯЗНЕНЫ В ОСТАЛЬНЫХ СЛУЧАЯХ ИСПОЛЬЗУЙТЕ СРЕДСТВА ДЛЯ ГИГИЕНИЧЕСКОЙ АНТИСЕПТИКИ РУК

2. Продолжительность всей процедуры: 40-60 секунд



БАРС-бактерии? Золотистый стафилококк, устойчивый к метициллину?

Возбудители кишечных инфекций?

Кого еще Вы пригласили домой

Множество микробов передается через руки. Регулярно обрабатывайте свои руки антисептиком или тщательно мойте их теплой водой с мылом. Это значительно снижает риск передачи кишечных, воздушно-капельных и внутрибольничных инфекций

BARN Swiss Antibiotic Resistance Collaborative Network SIDA SWISS FEDERAL OFFICE OF PUBLIC HEALTH

[illegible]



Hand rub consumption



- ▼ During 2 weeks
- ▼ Calculated bottles used in the ward
- ▼ Volume in millilitres
- ▼ Calculated patient-days in order to compare wards
- ▼ Time consuming



Hand hygiene education level assessment

04HH proj HH educ level 2011 12 11 draft (1) [Режим ограниченной функциональности] (просмотр) - Microsoft Word

Предварительный просмотр

 **BARN** Baltic Antibiotic Resistance collaborative Network  **Sida** SWEDISH INTERNATIONAL DEVELOPMENT COOPERATION AGENCY

Hand hygiene group
2011 12 02

Draft Hand hygiene education level assessment

1. I have heard about hospital acquired infections
a. During my training for diploma
b. In educational sessions in the ward
c. Discussed in massmedia (Newspapers, TV, radio)
d. Never heard of hospital acquired infections (If you tick here go directly to no 4)

2. I have cared for/treated patient(s) with hospital acquired infections during the past 3 months.
Yes
No

3. Name 2 of the most common hospital acquired infections in your hospital

4. I have been educated in hand hygiene
a. During my training for diploma
b. In educational sessions in the ward
c. other exemplify
d. I have not been educated in hand hygiene

5. hand hygiene should be performed
a. after auscultation
b. before giving oral medication
c. before using gloves in patient care
d. before giving intramuscular injection

6. What do you use to wash/disinfect your hands?
a. Bar of soap and water
b. Dispensed liquid soap and water
c. Medicated liquid soap and water, e.g. chlorhexidine
d. alcoholic handrub

7. Is hand hygiene clinically significant in
a. preventing spread of upper respiratory tract infection?
b. preventing spread of infective diarrhea?
c. preventing spread of antimicrobial resistant bacteria?
d. reduction of infection to yourself?

8. What factors prevent you from performing hand hygiene?
a. No time
b. No equipment available
c. Nobody else does
d. It is bad for my skin
e. It is not important

Page 1 of 2

9. In which of these situations is it relevant not to use gloves?
a. Writing in the patient chart
b. Measuring blood pressure
c. Removing linen from patient bed
d. Taking pulse

10. Which of these infections should be considered hospital acquired?
a. Urinary tract infection presenting itself 4 days after admission
b. Wound infection after abdominal surgery
c. Pneumonia presenting itself after surgery
d. I do not know

11. Tick the 2 most important measures to prevent spread of infection?
a. single room for the infected patient
b. use of protective gloves
c. alcoholic hand rub
d. environmental cleaning

Page 2 of 2

Страница: 1 из 2 Число слов: 331 Шведский (Швеция) 60%



Results and lessons learnt

- ❖ Interventions led to improvement of the hand hygiene
- ❖ Feeding back results is excellent educational tool for improvement
- ❖ Hand-rub consumption is a better outcome than observations of compliance



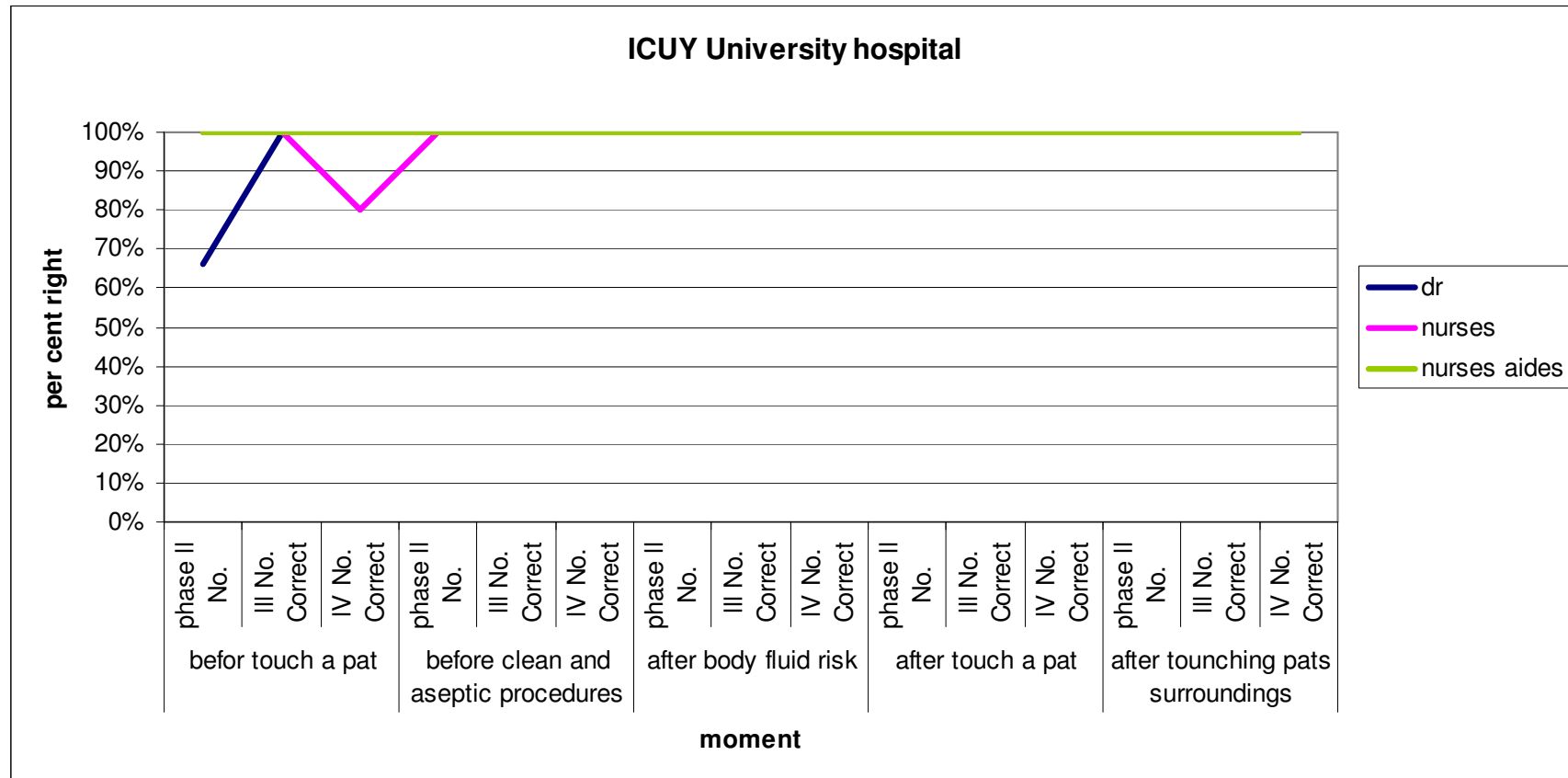
Hand hygiene observation

Number healthcare professionals were surveyed for hand hygiene compliance

	Before interaction	After interaction
country		
Latvia	190	169
Lithuania	41	46
Russia	195	95
Sweden	30	30
Total	456	340

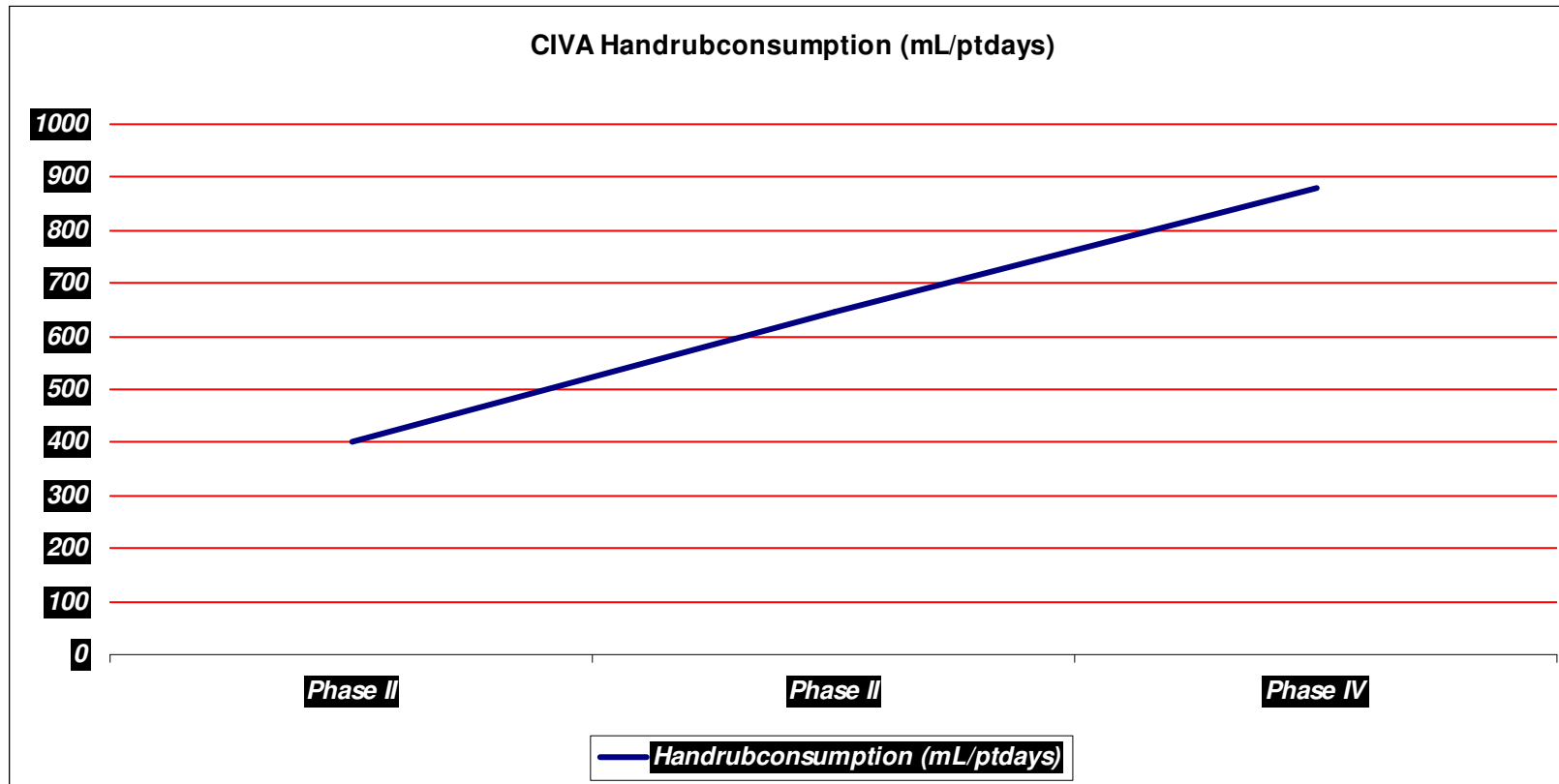


ICU Uppsala University Hospital





ICU Uppsala Univ Hospital





Intensive care unit St Petersburg Hospital named after Eykhvald

Hand rub consumption

Project phase	No days	amount hand rub in liter	No patient days	mL handrub/patient day
2	14	2,2	84	26,1
3	14	10,5	70	150

- Observation of compliance to hand hygiene practice (% correct)

Project phase	Before touching a patient	Before clean/aseptic procedure	After body fluid risk	After touching patient	After touching patient surroundings	Rings watches and bracelets removed	Are gloves used correctly ?	Bare fore-arms	Correct in all aspects
2	60	100	75	80	40	56	60	70	10
3	95	100	100	83	85	80	100	100	80



Intensive care unit St Petersburg Hospital of Peter the Great

Hand rub consumption

Project phase	No days	amount hand rub in liter	No patient days	mL handrub/patient day
2	14	1,2	70	17,1
3	14	1,4	42	33,3

- Observation of compliance to hand hygiene practice (% correct)

Project phase	Before touching a patient	Before clean/aseptic procedure	After body fluid risk	After touching patient	After touching patient surroundings	Rings watches and bracelets removed	Are gloves used correctly ?	Bare fore-arms	Correct in all aspects
2	60	56	82	78	51	63	72	100	29
3	96	96	86,9	91,3	78,2	91,3	78,2	100	62,5

Conclusion

Lessons learnt

- Hand hygiene compliance rates increased, especially among physicians
- Compliance with hand hygiene is higher among nurses before and after intervention

Latvian experience re doctors

- Educational sessions for doctors not applicable, because they think that they know all problems.
- Only 3 wards from all BARN wards has educational sessions with doctors
- They do not think it is a doctors problem

Swedish experience

- ❖ Problems: doctors belong to clinic not ward
doctors not easy to assemble
doctors function diagnose and treat
pats and not to care
- ❖ Success factor: Present cases
Evidence
Epidemiology



Low compliance to hand rub

 Latvia

 Lithuania

 St Petersburg

Reported skin problems from alcoholic hand rub

Cheap brands with no emolient

Disappeared after education in how to hand rub

Next project

Started in autumn of 2015



CAUTI- Catheter associated UTI

2015-2016

- ▼ Reduce CAUTI
- ▼ Reduce urinary catheter-days
- ▼ Reduce number of urinary catheters

By implementing evidence into practice

Starting in small scale

Implement in whole hospital

Evidence based guidelines



Prevention of hospital-acquired infections
A practical guide
2nd edition

World Health Organization
Department of Communicable Disease,
Surveillance and Response

This document has been downloaded from the WHO/CDC Web site. The original cover
pages and lists of participants are not included. See <http://www.who.int/csr/his> for more
information.



How-to Guide: Prevent Catheter-Associated Urinary Tract Infections

Prevent catheter-associated urinary tract infections by implementing the
new components or care recommended in this guide.

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How to cite this material:
HICPAC. (2011). *Prevent Catheter-Associated Urinary Tract Infections*. Cambridge, MA: Society for Healthcare
Improvement. 2011. (Available at www.hicpac.org)



GUIDELINE FOR PREVENTION OF CATHETER- ASSOCIATED URINARY TRACT INFECTIONS 2009

Carolyn V. Gould, MD, MSCR¹; Craig A. Umscheid, MD, MSCE²; Rajender K. Agarwal,
MD, MPH³; Gretchen Kuntz, MSW, MSLS³; David A. Pegues, MD³ and the
Healthcare Infection Control Practices Advisory Committee (HICPAC)¹

¹ Division of Healthcare Quality Promotion
Centers for Disease Control and Prevention
Atlanta, GA

² Center for Evidence-based Practice
University of Pennsylvania Health System
Philadelphia, PA

³ Division of Infectious Diseases
David Geffen School of Medicine at UCLA
Los Angeles, CA



1

Journal of Hospital Infection 86 S1 (2014) S1–S70



Available online at www.sciencedirect.com

Journal of Hospital Infection

journal homepage: www.elsevierhealth.com/journals/jhin



epic3: National Evidence-Based Guidelines for Preventing Healthcare-Associated Infections in NHS Hospitals in England

H.P. Loveday^{a*}, J.A. Wilson^a, R.J. Pratt^a, M. Golsorkhi^a, A. Tingle^a, A. Bak^a,
J. Browne^a, J. Prieto^b, M. Wilcox^c

^a Richard Wells Research Centre, College of Nursing, Midwifery and Healthcare, University of West London (London).

^b Faculty of Health Sciences, University of Southampton (Southampton).

^c Microbiology and Infection Control, Leeds Teaching Hospitals and University of Leeds (Leeds).





Main components

- I. Alternatives
- II. Material and size
- III. Insertion technique
- IV. Maintenance routines
- V. Daily review of removal

CATHETER IN FOCUS!





- ❖ Estonia 3 hospitals and 13 departments
- ❖ Latvia 1 hospital and 1 department
- ❖ Sweden 1 hospital and 5 departments
- ❖ St Petersburg (Russia) 3 hospitals and 3 departments
- ❖ Moldova 1 hospital and 3 departments
- ❖ Ukraine 1 hospital and 2 departments

Total: 10 hospitals and 27 departments



Aims and outcomes

- ▼ Reduce CAUTI
- ▼ Reduce urinary catheter-days
- ▼ Reduce number of urinary catheters

By implementing evidence into practice

Starting in small scale

Implement in whole hospital



Main conclusions



Experiences

- ❖ Everybody have access to the knoweledge tha main issue is about implementation
- ❖ Post-soviet countries have another tradition of reporting HAI
- ❖ Baltic countries have been there and moved on
Speak Russian after some time
Exchange experience
Provide "road-map" for improvements
- ❖ Swedish people do not have the same experience and can't speak the language
- ❖ Sweden provide the platform for meetings



Infection prevention and control leg

Improvement work is not research to develop new
medical knowledge

.... it's a way to put evidence and research into
practice!



International collaboration between experts

- ❖ Few doctors and nurses work with infection control
- ❖ International perspective
- ❖ Comparison between countries
- ❖ Learn from others
- ❖ Educational package consisting of practical tools
- ❖ Include physicians in workshop



❖ Tack för er uppmärksamhet
Paldies par uzmanību
Dēkojame už Jūsu dēmesj
Tānan teid tāhelepanu eest
Dziękuję za uwagę
Спасибі за увагу
Vă mulțumesc pentru atenție
Спасибо за внимание
Thank you for attention