

**Hand Hygiene Supports Safe Surgical Care**  
**Prof. Didier Pittet and Dr. Benedetta Allegranzi, World Health Organization**  
**Sponsored by the WHO Infection Prevention and Control Global Unit**

WHO Infection Prevention and Control Global Unit

**HAND HYGIENE SUPPORTS SAFE  
SURGICAL CARE**  
*Special lecture for 5 May, 2016*

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Hosted by: Professor Joseph Solomkin  
Professor of Surgery (Emeritus), University of  
Cincinnati College of Medicine

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**SAVE LIVES**  
Clean Your Hands  
**May 4, 2016**



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**Let's  
join  
hands  
for safe  
surgical  
care**

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## OUTLINE

- Global burden of disease in surgery
- The patient's journey in surgery
- SAVE LIVES: Clean Your Hands 5 May campaign global reach #safesurgicalhands
- WHO Infection Prevention and Control Global Unit overview
- New WHO guidelines on SSI prevention outline

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### Costs of specific types of HAI in the USA <sup>9</sup>

	# of infections	Range of \$ estimates based on 2007 CPI for all urban consumers	Range of \$ estimates based on 2007 CPI for Inpatient hospital services	Range of estimate using CPI for all urban consumers (billions)	Range of estimate using CPI for Inpatient hospital services (billions)
SSI	290,485	\$11,087 - \$29,443	\$11,874 - \$34,670	\$3.22 - \$8.55	\$3.45 - \$10.07
CLABSI	92,011	\$ 6,461 - \$25,849	\$ 7,288 - \$29,156	\$0.59 - \$2.38	\$0.67 - \$2.68
VAP	52,543	\$14,806 - \$27,520	\$19,633 - \$28,508	\$0.78 - \$1.45	\$1.03 - \$1.50
CAUTI	449,334	\$ 749 - \$ 832	\$ 862 - \$ 1,007	\$0.34 - \$0.37	\$0.39 - \$0.45
CDI	178,000	\$ 5,682 - \$ 8,090	\$ 6,408 - \$ 9,124	\$1.01 - \$1.44	\$1.14 - \$1.62

\$11,874 - \$34,670

\$3.45 - \$10.07



Scott RD. [http://www.cdc.gov/ncidod/dhqp/pdf/Scott\\_CostPaper.pdf](http://www.cdc.gov/ncidod/dhqp/pdf/Scott_CostPaper.pdf).

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### Pathogens responsible for SSI – USA 2009-2010 <sup>10</sup>

Pathogen	Overall		SSI	
	No. (%) of pathogens	Rank	No. (%) of pathogens	Rank <sup>†</sup>
<i>Staphylococcus aureus</i>	12,635 (15.6)	1	6,415 (30.4)	1
<i>Escherichia coli</i>	9,351 (11.5)	2	1,981 (9.4)	3
Coagulase-negative staphylococci	9,261 (11.4)	3	2,477 (11.7)	2
<i>Klebsiella (pneumoniae/oxytoca)</i>	6,470 (8.0)	4	844 (4.0)	7
<i>Pseudomonas aeruginosa</i>	6,111 (7.5)	5	1,156 (5.5)	5
<i>Enterococcus faecalis</i>	5,484 (6.8)	6	1,240 (5.9)	4
<i>Candida albicans</i>	4,275 (5.3)	7	267 (1.3)	...
<i>Enterobacter spp.</i>	3,821 (4.7)	8	849 (4.0)	6
Other <i>Carbapenemase</i> spp. or NOS	3,408 (4.2)	9	96 (0.5)	...
<i>Enterococcus faecium</i>	3,241 (4.1)	10	517 (2.5)	...
<i>Enterococcus spp.</i>	2,711 (3.4)	11	265 (1.3)	8
<i>Proteus spp.</i>	2,031 (2.5)	12	267 (1.3)	...
<i>Serratia spp.</i>	1,490 (1.8)	13	385 (1.8)	...
<i>Acinetobacter baumannii</i>	1,490 (1.8)	14	385 (1.8)	...
Other <sup>†</sup>	9,304 (11.5)	...	3,399 (16.1)	...
Total	81,139 (100)		21,100 (100)	

1 in 3 SSI is caused by *S. aureus*  
 44% of which is MRSA

Sievvert DM, et al. *ICHE*; 2013;34:1-14

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**Important link to the global AMR agenda**

- As noted, WHO have reported that up to 31% of patients will get a surgical site infection
- 1 in 3 are due to *Staphylococcus aureus*, more than 40% of which is MRSA
- ***This makes SSI prevention through hand hygiene action at the right times integral to the antimicrobial resistance agenda and even more critical***



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**HAI episodes per year in Europe**

HAI type	LN-INT	PSO (LN-INT)	HAI inc.%	(95% CI)	N HAIs /year	(95% CI)	% of total HAIs	(95% CI)
Pneumonia/LRT	8.9	6.7	0.95	(0.58-1.66)	860 938	(522 771-1 500 038)	24.4	(14.8-42.5)
Urinary tract	8.0	6.3	0.98	(0.58-1.72)	888 106	(527 129-1 554 275)	25.2	(14.9-44.0)
Surgical site	15.0	9.3	0.60	(0.33-1.17)	543 149	(298 167-1 062 673)	15.4	(8.4-30.1)

**543 149**

**(298 167-1 062 673)**

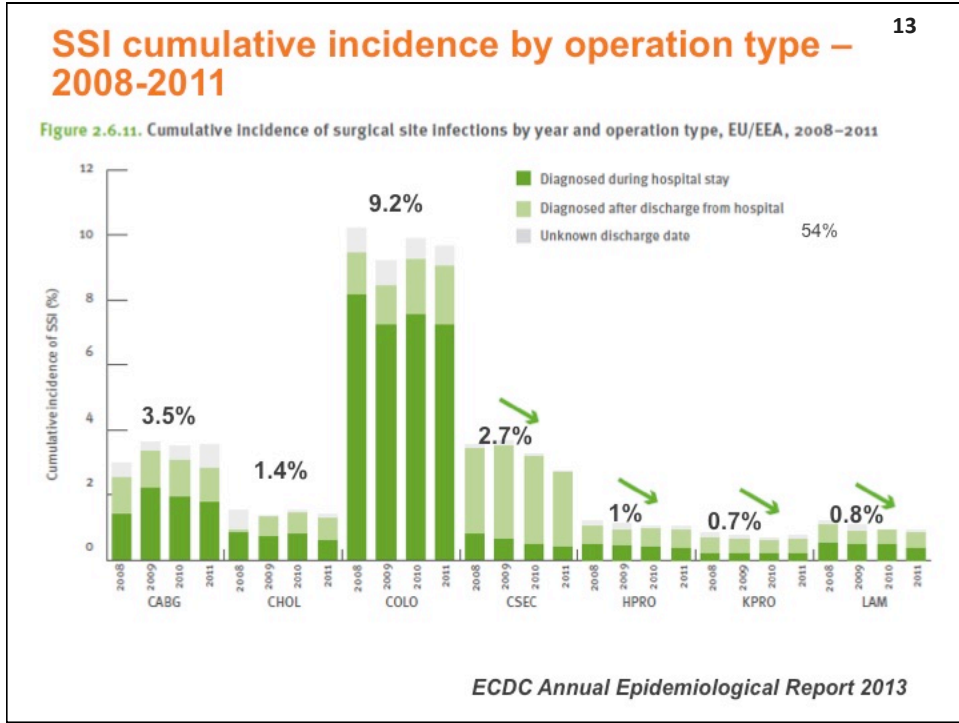
Skin/sort tissue	12.8	9.0	0.11	(0.05-0.31)	103 146	(43 564-277 627)	2.9	(1.2-7.9)
Other HAI types	13.2	7.9	0.36	(0.17-0.85)	326 903	(151 302-770 238)	9.3	(4.3-21.8)
<b>Total HAIs <sup>(a)</sup></b>					<b>3 529 778</b>	<b>(1 941 962-8 250 382)</b>		

(ECDC, Point Prev Report 2011-12)



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## SSI burden in low-/middle-income countries

*Allegranzi B et al.*  
**Lancet 2011;377:228-41**  
 Burden of endemic health-care-associated infection in developing countries: systematic review and meta-analysis

**Summary**  
 Background Health-care-associated infection is the most frequent cause of death among patients with health-care-associated infection in high-income countries. We aimed to assess the epidemiology of endemic health-care-associated infection in developing countries.

**Methods**  
 We searched electronic databases and reference lists of relevant papers for articles published between 1990 and 2010. We included studies that reported prevalence of health-care-associated infection in high-income countries, 10–100 patients (95% CI 10–100) or more in a hospital ward, inpatient ward, or long-term care facility, or in a community setting. We included studies in low- and middle-income countries that reported prevalence of health-care-associated infection in high-income countries, 10–100 patients (95% CI 10–100) or more in a hospital ward, inpatient ward, or long-term care facility, or in a community setting. We included studies in low- and middle-income countries that reported prevalence of health-care-associated infection in high-income countries, 10–100 patients (95% CI 10–100) or more in a hospital ward, inpatient ward, or long-term care facility, or in a community setting. We included studies in low- and middle-income countries that reported prevalence of health-care-associated infection in high-income countries, 10–100 patients (95% CI 10–100) or more in a hospital ward, inpatient ward, or long-term care facility, or in a community setting.

**Findings**  
 The burden of health-care-associated infection in developing countries is high. The findings need to be taken into account in the design of health-care systems in these countries.

**Conclusions**  
 Health-care-associated infection is the most frequent cause of death among patients with health-care-associated infection in high-income countries. We aimed to assess the epidemiology of endemic health-care-associated infection in developing countries.

Articles | Patient Safety

Published on 5 May 2011  
<http://www.who.int/gpsc/en/>

**Report on the Burden of Endemic Health Care-Associated Infection Worldwide**

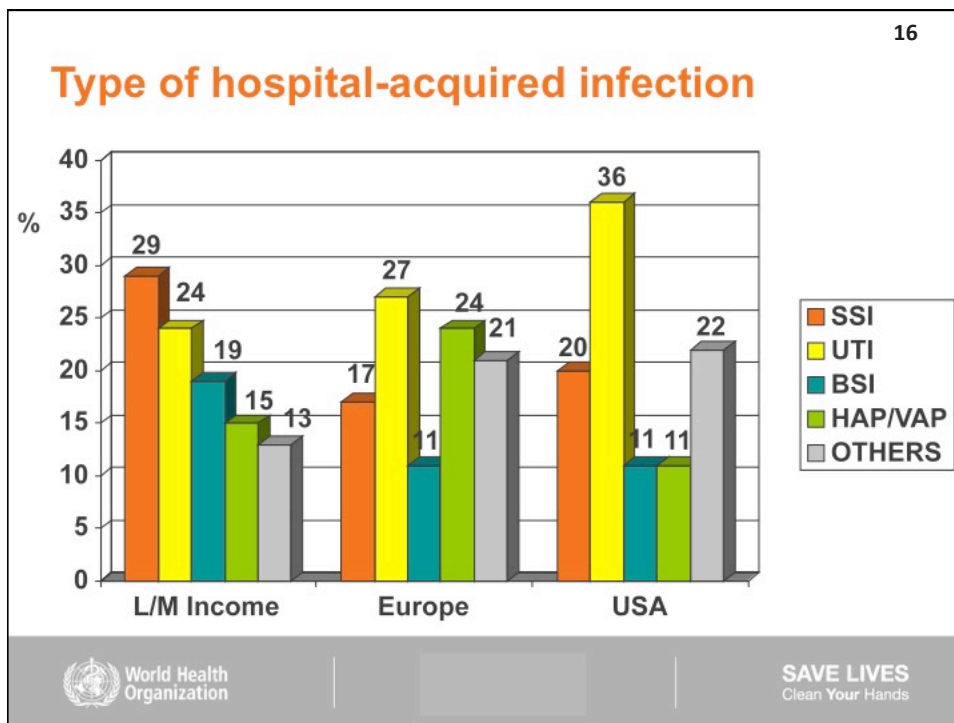
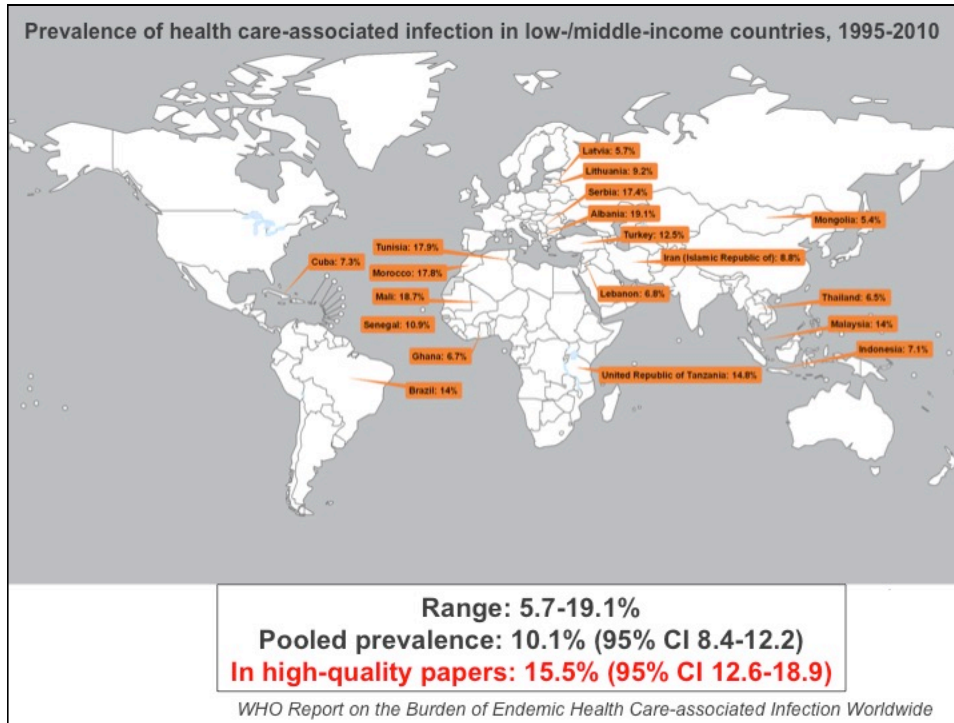
Clean Care is Safer Care

**Systematic reviews**  
 Health-care-associated infection in Africa: a systematic review

**Bagheri Nejad S, et al. Bull OMS 2011;89:757-765**

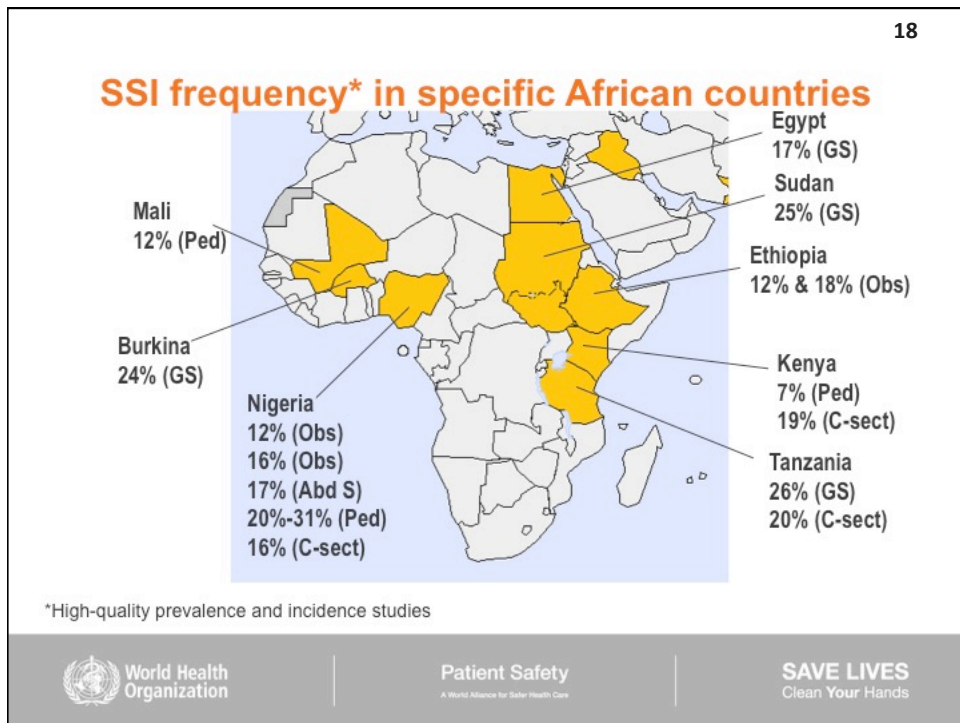
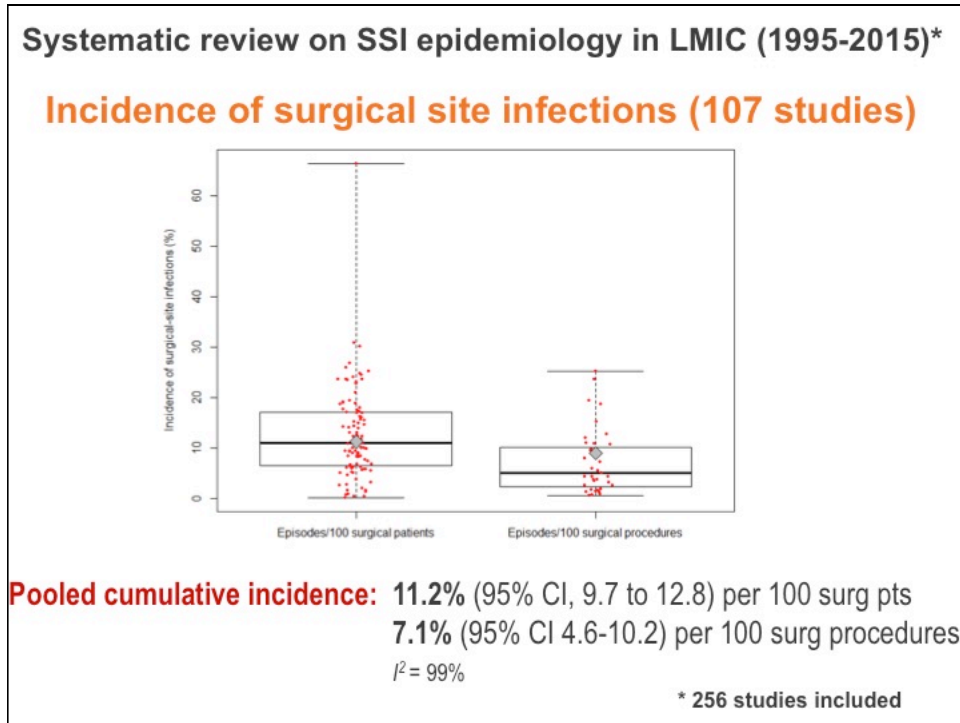


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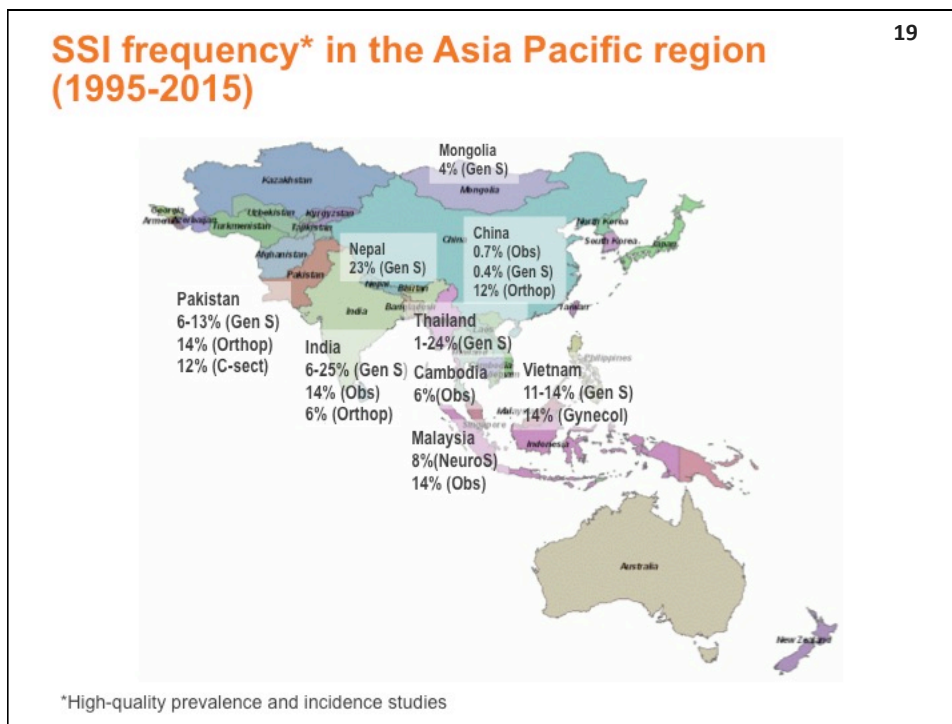
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### Gaps in SSI surveillance in LMIC


No data from many countries

Inconsistent use of


- Definitions and surveillance methodologies
- Post-discharge surveillance
- Use of N of patients as denominator

Limited data on

- Microbiology and antibiotic resistance
- NNIS index and other risk factors
- Impact of SSI
- 18-58% SSI diagnosed after discharge



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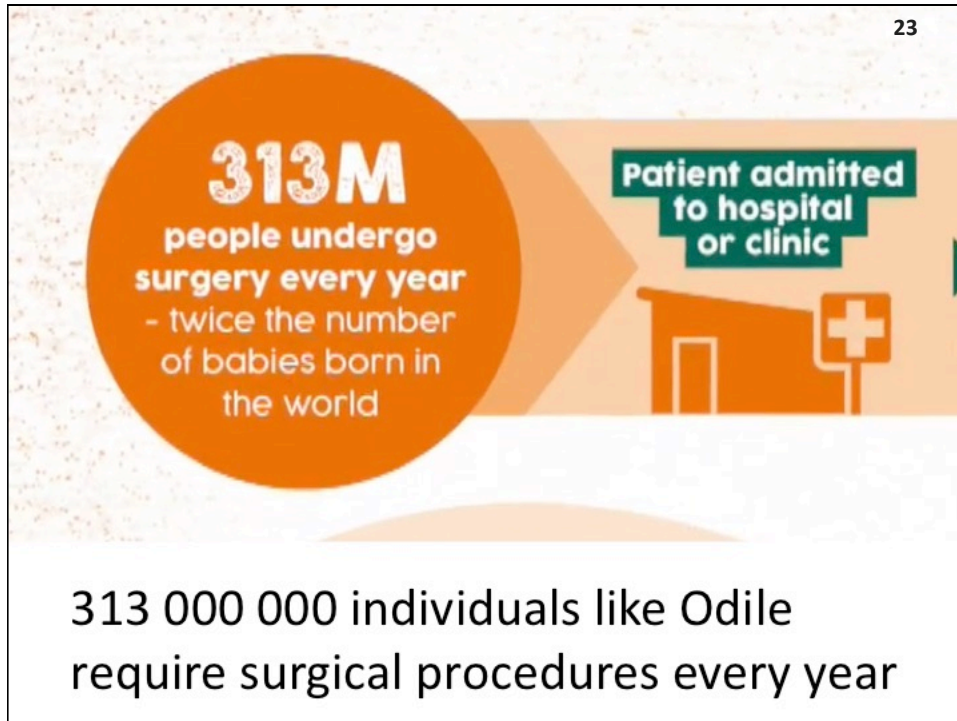






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**313M**  
people undergo  
surgery every year  
- twice the number  
of babies born in  
the world

Patient admitted  
to hospital  
or clinic

313 000 000 individuals like Odile  
require surgical procedures every year

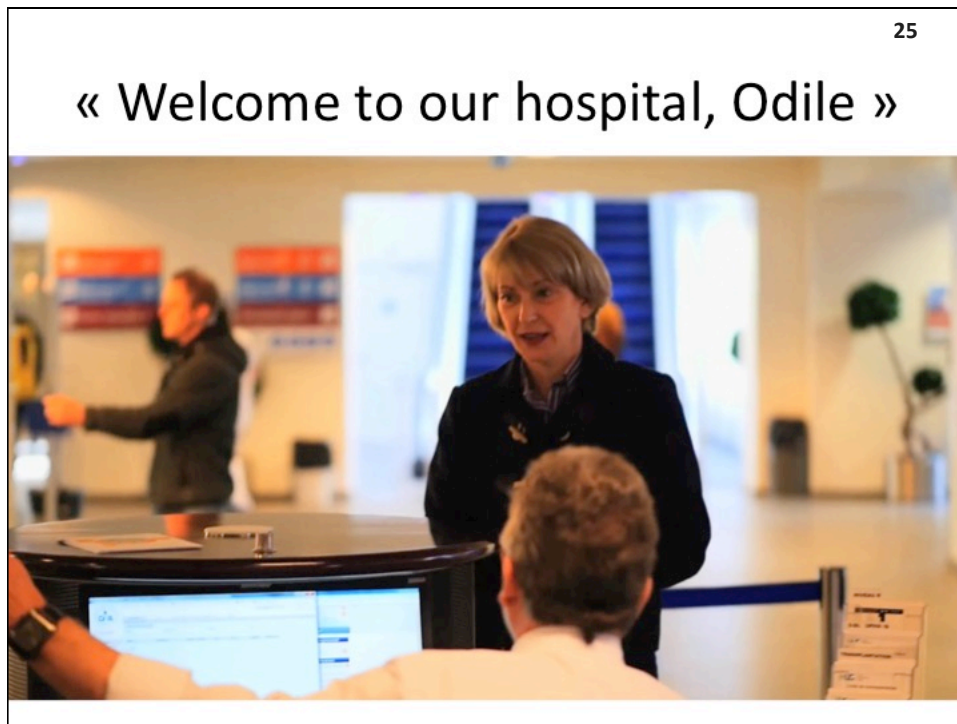
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“My name is Odile. I have an appointment  
with Dr. Knife”

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« Here is probably the surgeon »



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« Describing the pain to the surgeon »



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« Yes, you need a surgical procedure »



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Surgery – Admission office



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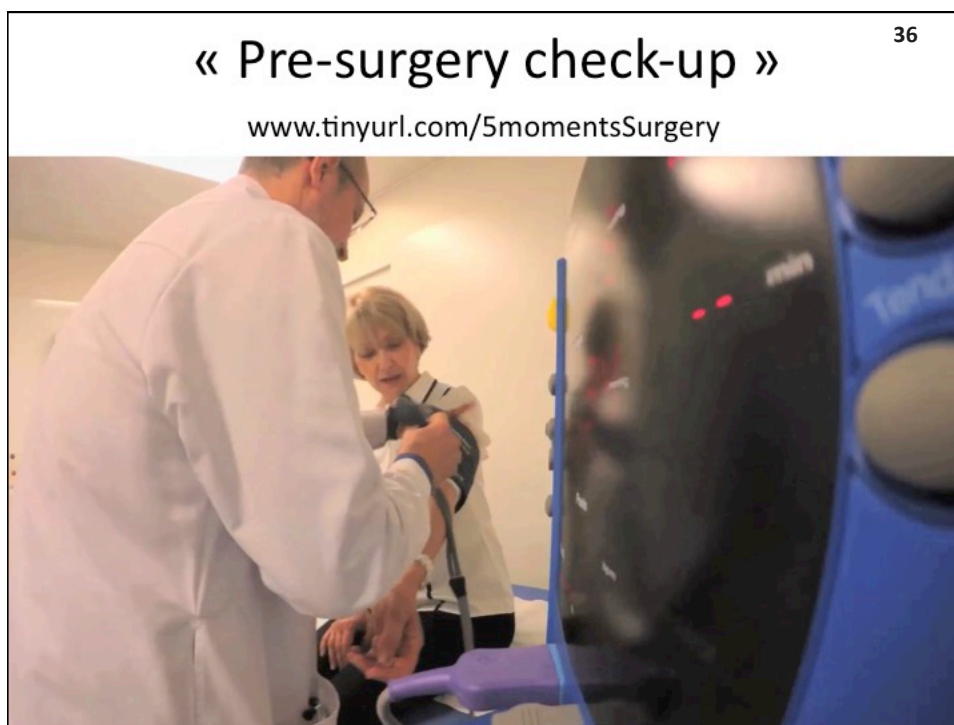
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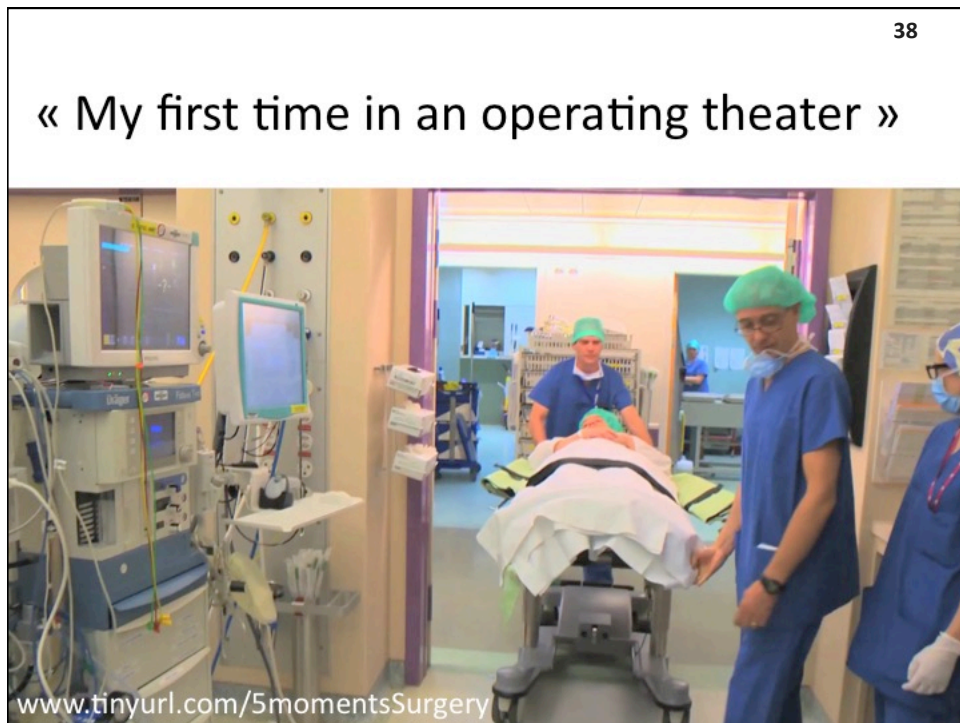
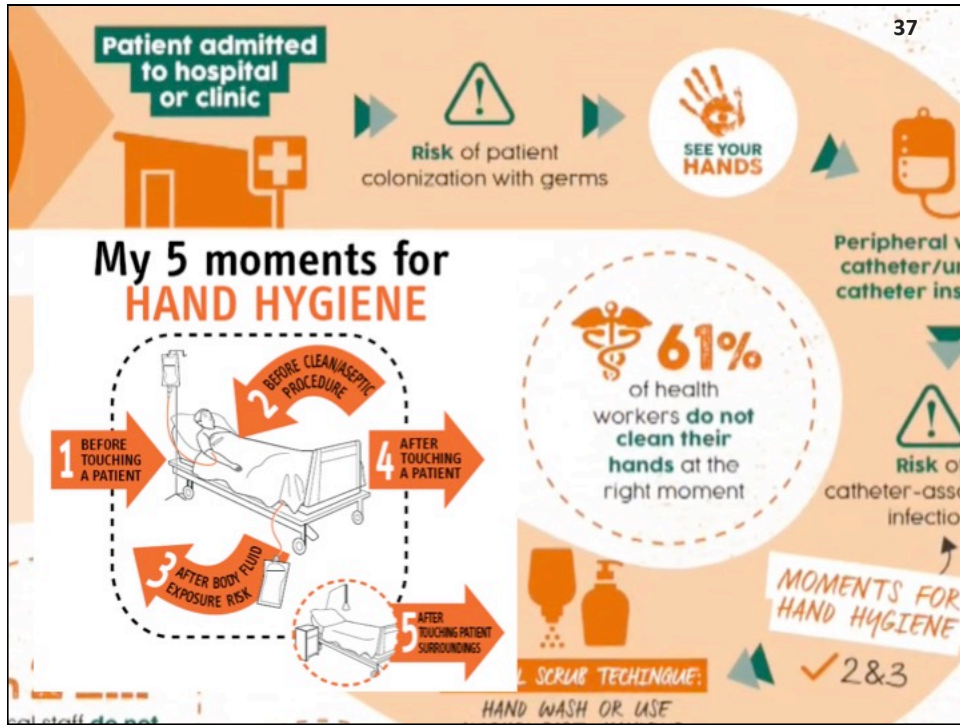


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« My anesthesiologist is here,  
.....rubbing his hands; I feel good »



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**My 5 Moments for Hand Hygiene**  
**Focus on caring for a patient with a peripheral venous catheter**

**1 BEFORE TOUCHING A PATIENT**

**2 BEFORE CLEANING**

**3 AFTER THE TASK COMPLETION**

**4 AFTER TOUCHING A PATIENT**

**5 AFTER TOUCHING PATIENT SUBSTANCE(S)**

**Immediately before any manipulation of the catheter and the associated intravenous medication administration system, such as:**




- A. Catheter insertion or removal (before putting on clean, non-sterile gloves, cleaning the site, drawing blood, or before preparing associated equipment for these procedures)
- B. Accessing (opening) the administration set and infusion container
- C. Preparing medications for infusion into the catheter

**Immediately after any task that could involve body fluid exposure, such as:**

- A. Inserting or removing the catheter
- B. Drawing blood

**Key additional considerations for peripheral intravenous catheters**

1. <b>Indication:</b> Ensure that a peripheral venous catheter is indicated. Remove the catheter when no longer necessary/clinically indicated.	2.3. <b>Washers:</b> Use any gown/tube disposables every 2 days.
2. <b>Insertion (in clean or aseptic technique):</b>	2.4. <b>Consider scheduled catheter change:</b> every 96 hours.
2.1. <b>Prepare clean skin with an antiseptic (70% alcohol, tincture of iodine, or chlorhexidine or alcohol-based 2% chlorhexidine gluconate) before catheter insertion.</b>	2.5. <b>Change tubing used to administer blood, blood products, chemotherapy, and fat emulsions within 24 hours of infusion start. Consider changing all other tubing every 96 hours.</b>
2.2. <b>Wear clean, non-sterile gloves and apply an aseptic procedure (such as hand hygiene) for catheter insertion, removal, and blood sampling.</b>	3. <b>Monitoring:</b> Record time and date of catheter insertion, removal and dressing change, and condition (visual appearance) of catheter site every day.

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« Placing a tube in my trachea... »

[www.tinyurl.com/5momentsSurgery](http://www.tinyurl.com/5momentsSurgery)



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**My 5 Moments for Hand Hygiene**  
**Focus on caring for a patient with an endotracheal tube**



- Key additional considerations for adult patients with endotracheal tubes**
- Avoid intubation and use non-invasive ventilation whenever appropriate.
  - If possible, provide endotracheal tubes with subglottic secretion drainage ports for patients likely to require more than 48 hours of intubation.
  - Elevate the head of the bed to 30°-45°.
  - Manage ventilated patients without sedatives whenever possible.
  - Assess readiness for extubation every day by performing spontaneous breathing trials with sedatives held off on patients without contraindications. Perform regular oral care especially using clean, non-sterile gloves.
  - Facilitate early exercise and mobilization to maintain and improve physical condition.
  - Change the ventilator circuit only if visibly soiled or malfunctioning.

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« But, where is my surgeon ? »



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## Surgical Handrubbing Technique

- Handwash with soap and water on arrival to OR, after having donned theatre clothing (cap/hat/bonnet and mask).
- Use an alcohol-based handrub (ABHR) product for surgical hand preparation, by carefully following the technique illustrated in Images 1 to 17, before every surgical procedure.
- If any residual talc or biological fluids are present when gloves are removed following the operation, handwash with soap and water.



1 Put approximately 5ml (3 doses) of ABHR in the palm of your left hand, using the elbow of your other arm to operate the dispenser.



2 Dip the fingertips of your right hand in the handrub to decontaminate under the nails (5 seconds).








3 Images 3-7: Smear the handrub on the right forearm up to the elbow. Ensure that the whole skin area is covered by using circular movements around the forearm until the handrub has fully evaporated (10-15 seconds).








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1

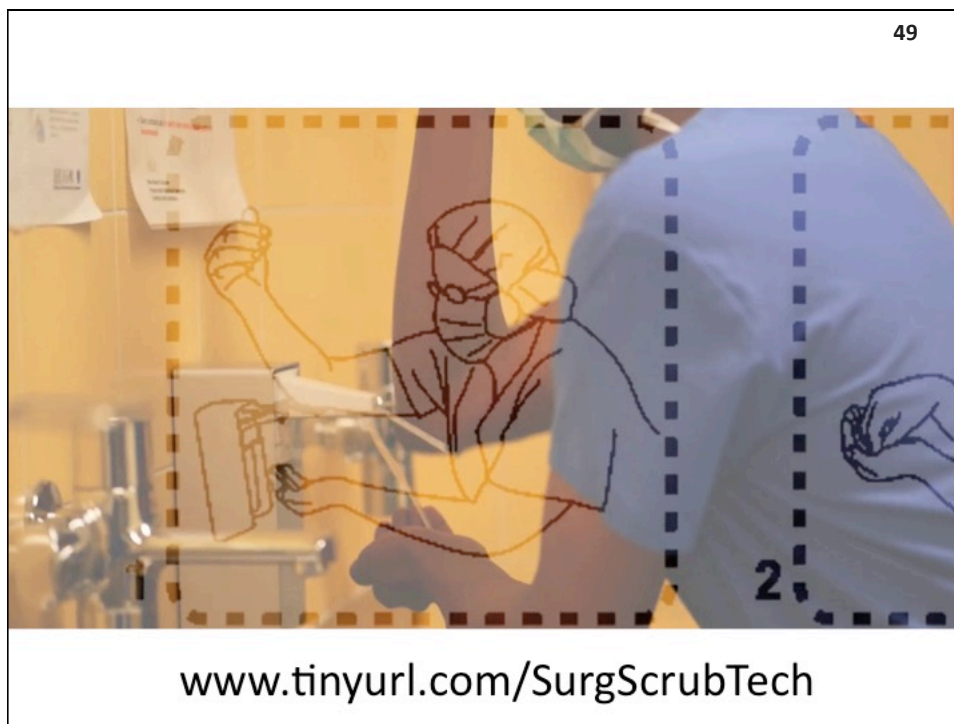


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[www.tinyurl.com/SurgScrubTech](http://www.tinyurl.com/SurgScrubTech)

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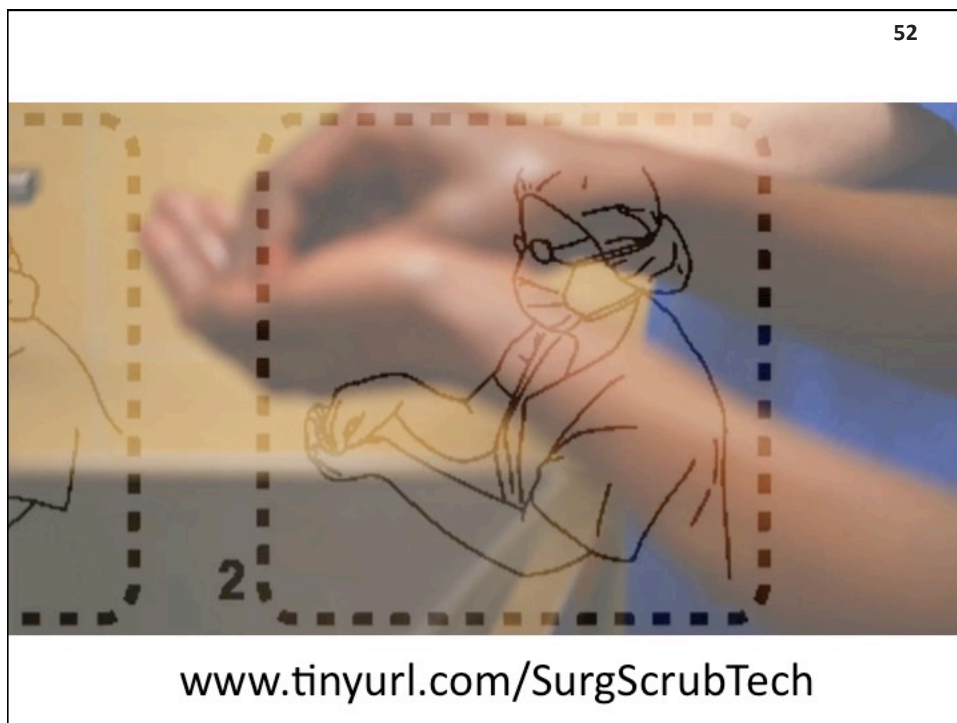
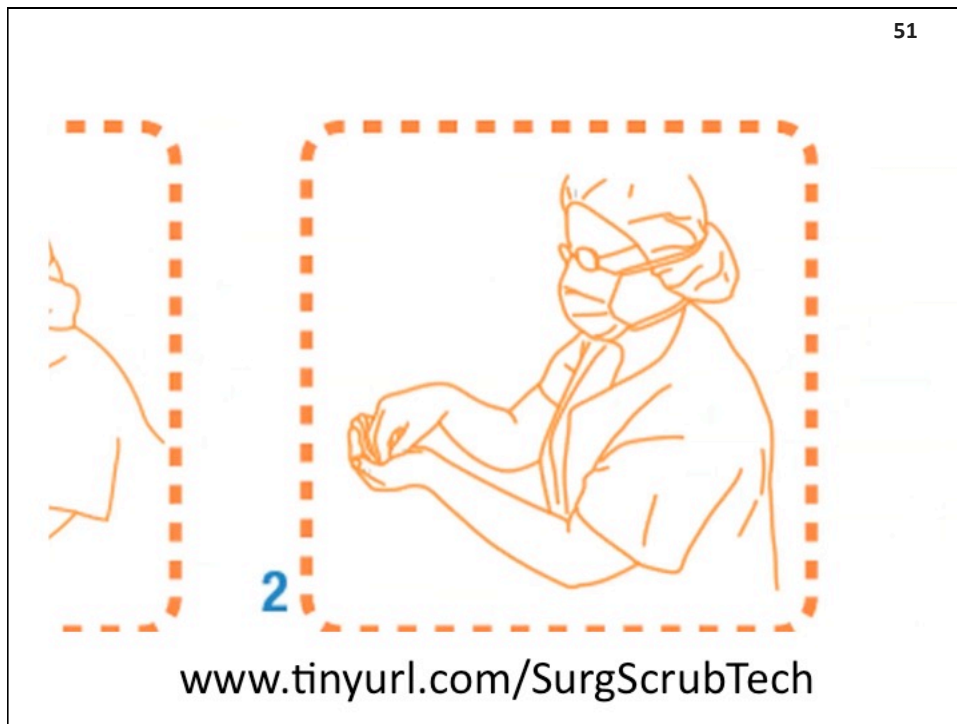
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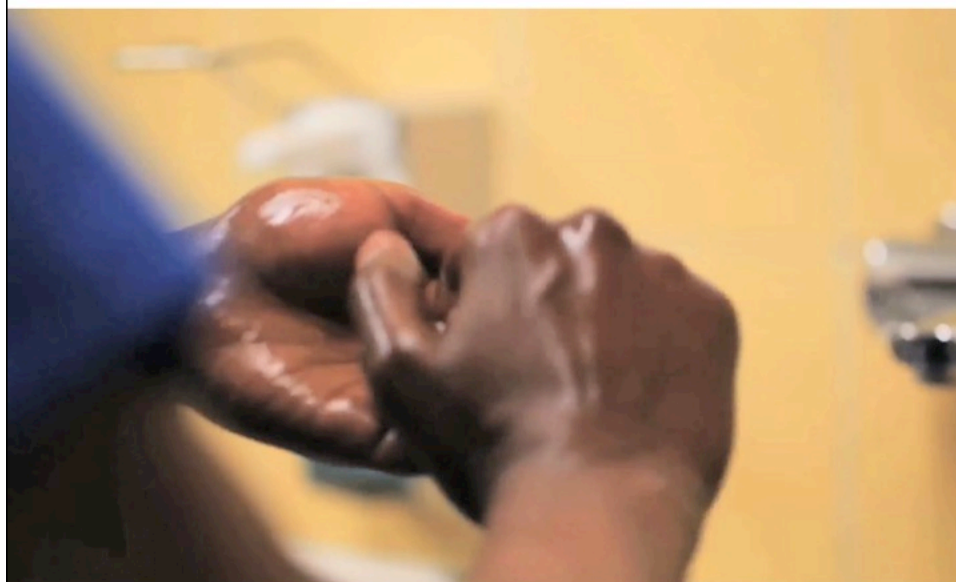


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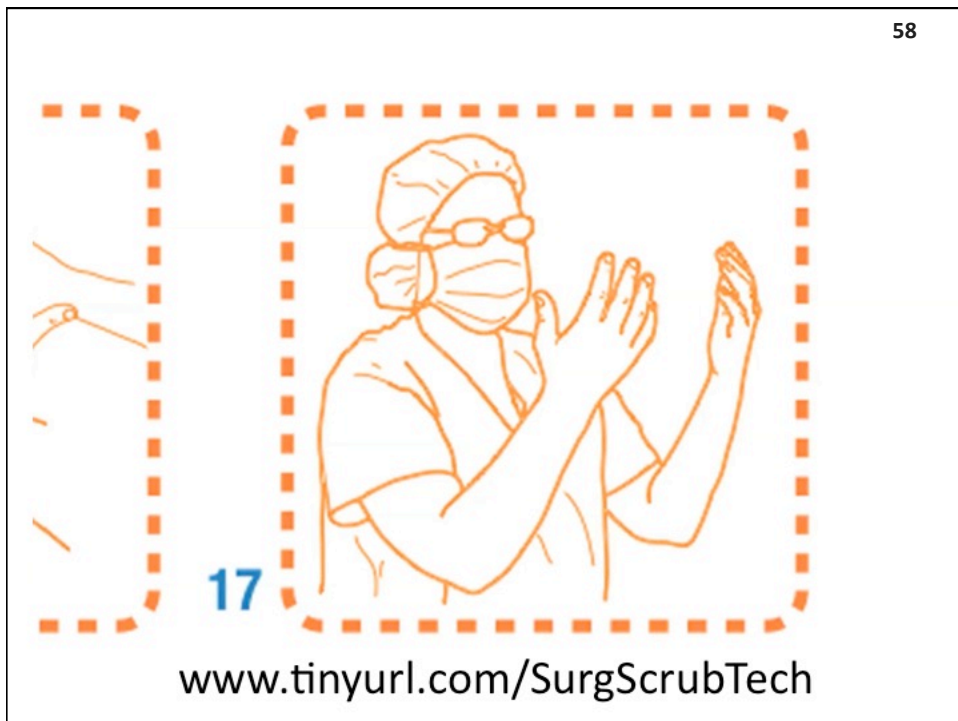
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Repeat steps 1-7  
for other hand & forearm

[www.tinyurl.com/SurgScrubTech](http://www.tinyurl.com/SurgScrubTech)

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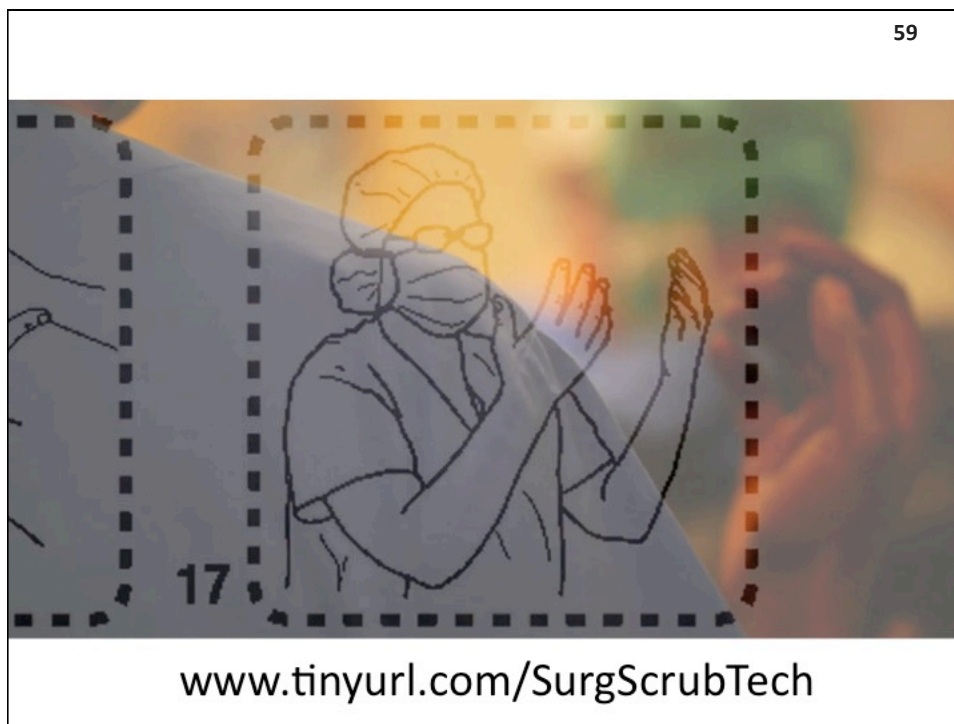


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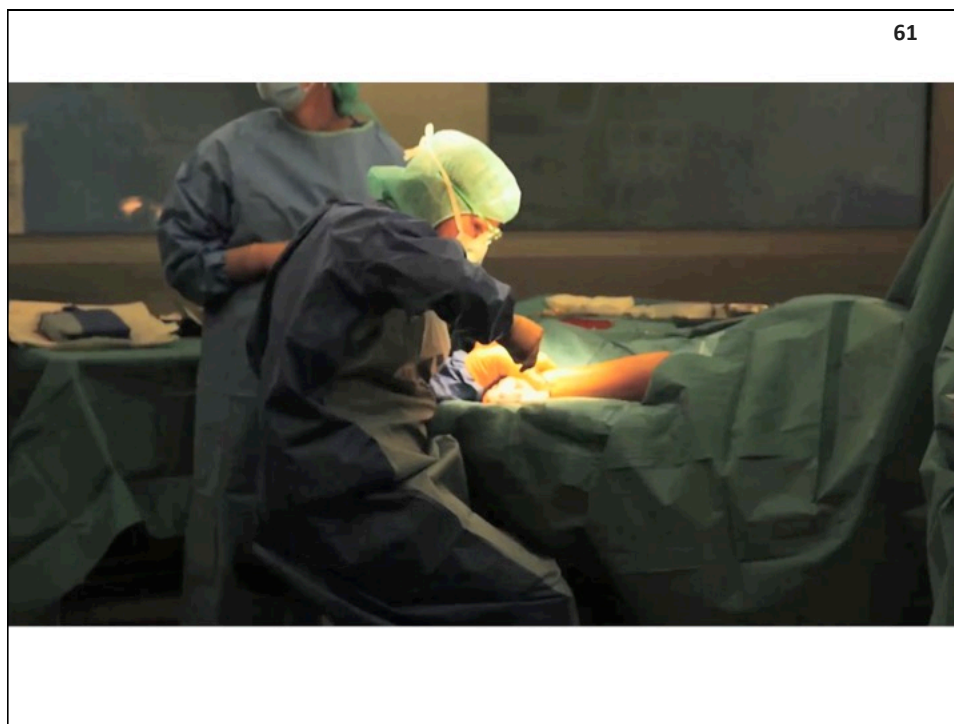


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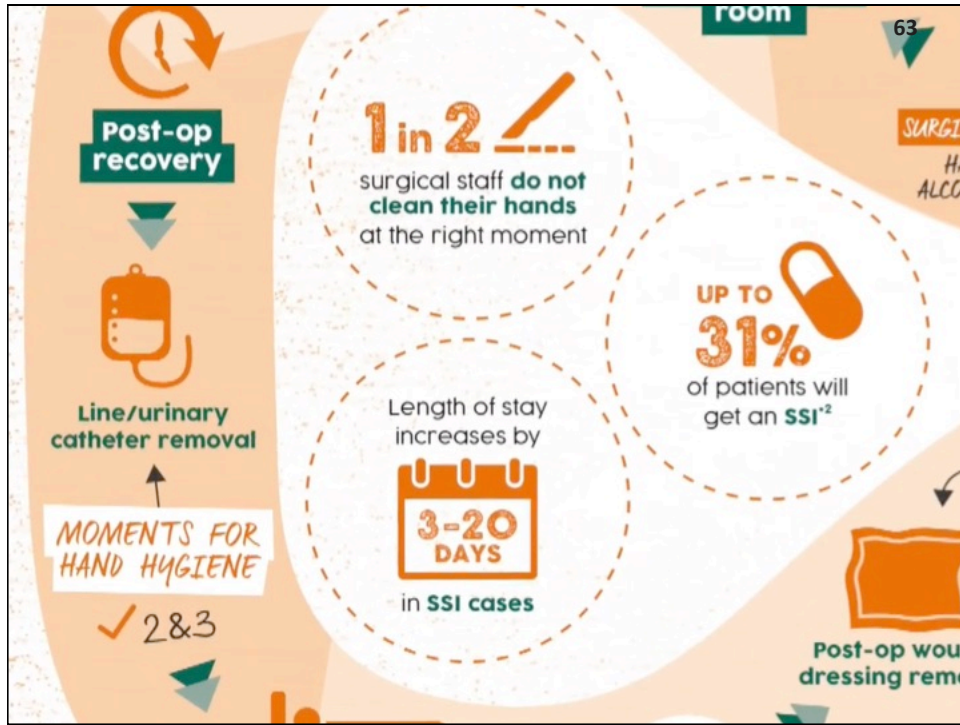
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## Pain control in recovery room

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### My 5 Moments for Hand Hygiene Focus on caring for a patient with a Urinary Catheter

**CLEAN YOUR HANDS WHEN HANDLING A URINARY CATHETER AND DRAINAGE SYSTEM**

**1 BEFORE TOUCHING PATIENT**

**2 BEFORE ASEPTIC TASKS**

**3 AFTER BODY FLUID EXPOSURE RISK**

**4 AFTER TOUCHING PATIENT**

**5 AFTER PATIENT CARE**

**WHY** To protect the patient against harmful germs, including the patient's own, from entering his/her body.

**WHY** To protect yourself and the healthcare environment from harmful patient germs.

**5 KEY ADDITIONAL CONSIDERATIONS FOR A PATIENT WITH A URINARY CATHETER**

- Make sure that there is an appropriate indication for the indwelling urinary catheter.
- Use a closed urinary drainage system, and keep it closed.
- Insert the catheter aseptically using sterile gloves.
- Assess the patient at least daily to determine whether the catheter is still necessary.
- Patients with indwelling urinary catheters do not need antibiotics (including for asymptomatic bacteriuria), unless they have a documented infection.

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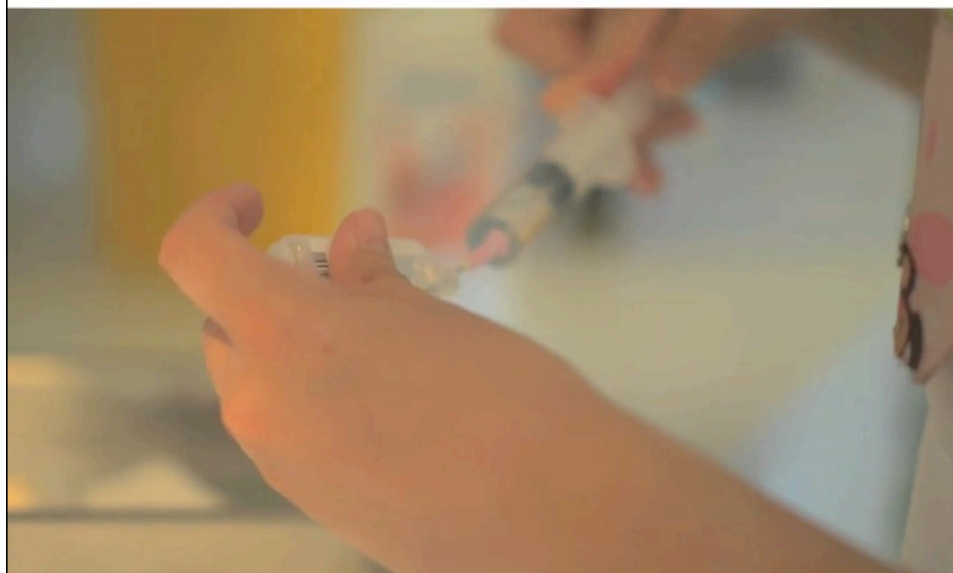
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## IV device management



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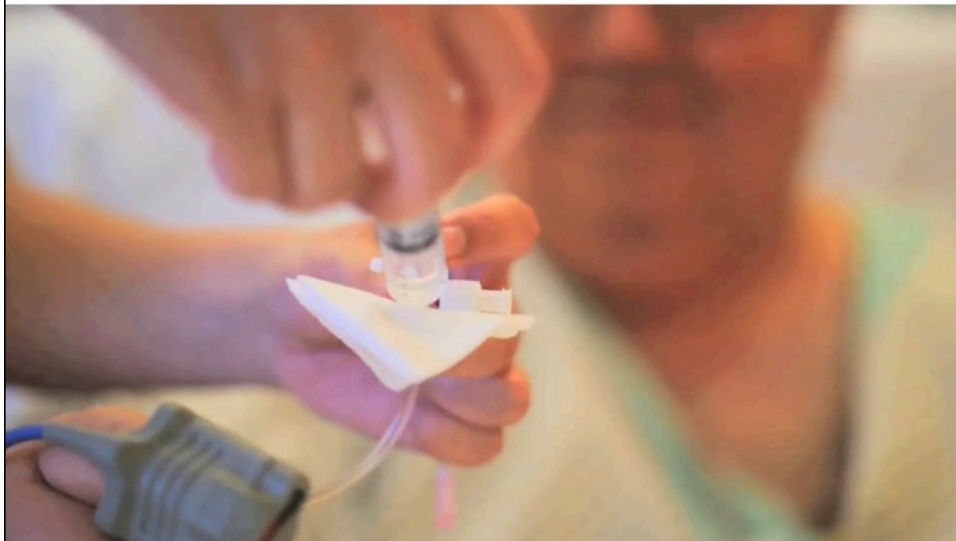
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### My 5 Moments for Hand Hygiene

Focus on caring for a patient with a peripheral venous catheter

**1** BEFORE PATIENT CARE

**2** BEFORE CATHETER INSERTION OR REMOVAL

**3** AFTER CATHETER INSERTION

**4** AFTER TOUCHING THE CATHETER

**5** AFTER CATHETER REMOVAL

**Key additional considerations for peripheral intravenous catheters**

- 1. Indication:** Ensure that a peripheral venous catheter is indicated. Remove the catheter when no longer necessary clinically indicated.
- 2. Insertion/Removal:**
  - 2.1 Prepare clean skin with an antiseptic (70% alcohol, tincture of iodine, or chlorhexidine) and use aseptic technique.
  - 2.2 Wear clean, non-sterile gloves and apply an aseptic procedure (a 6-step hand hygiene technique) for catheter insertion, removal, and blood sampling.
  - 2.3 Replace any dry gauze tube dressings every 2 days.
  - 2.4 Consider scheduled catheter change every 96 hours.
  - 2.5 Change tubing used to administer blood, blood products, chemotherapy, and fat emulsions within 24 hours of infusion start. Consider changing at other tubing every 96 hours.
- 3. Monitoring:** Record time and date of catheter insertion, removal and dressing change, and condition (visual appearance) of catheter site every day.

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Length of stay increases by **3-20 DAYS** in SSI cases

**31%** of patients will get an SSI<sup>2</sup>

**MOMENTS FOR HAND HYGIENE** ✓ 2&3

Post-op wound dressing removal

SEE YOUR HANDS

« What is the next step ?... Is risk over ? »

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### My 5 Moments for Hand Hygiene Focus on caring for a patient with a post-operative wound

**1 BEFORE TOUCHING A PATIENT**

**2 BEFORE CLEAN/STERILE PROCEDURE**

**3 AFTER EXPOSURE TO BODY FLUIDS**

**4 AFTER TOUCHING A PATIENT**

**5 AFTER TOUCHING PATIENT SURROUNDINGS**

**Key additional considerations for post-operative wounds**

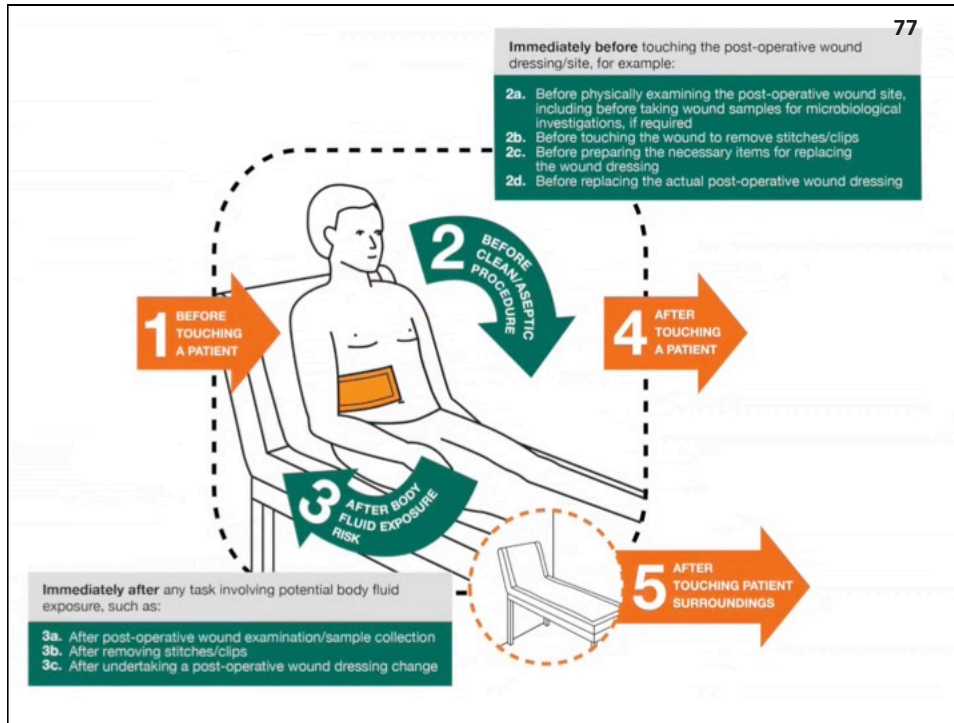
- Avoid unnecessary touching of the post-operative wound site, including by the patient.
- After gloves if contact with body fluids is anticipated, the need for hand hygiene after glove removal is greater than after glove use, as per the WHO 5 Moments.
- Follow hand hygiene regarding use of aseptic technique for any handling of dressing or wound care products.
- Don't touch dressing for at least 48 hours after surgery, unless leakage or other condition is noted.
- Handed post-operative wound dressing should be changed only if it is saturated or if the adhesive is damaged.
- When approaching a patient for the examination of a wound, the health worker should wash their hands or use hand hygiene immediately before and after any handling, including any catheter, dressing or any other medical device used.
- After these specific tasks, to avoid gaps (with Moments 2 and 5, for example), plan to wash/handrub 2 hours prior to the next patient care opportunity.
- After touching, glove removal and/or antibiotic prophylaxis don't provide additional protection while touching the rest of the patient's body. Use glove removal and hand hygiene after touching the rest of the patient's body.
- Antibiotic therapy for any proven surgical site infection should ideally be administered based on several people within your specialty results.
- Common signs and symptoms of wound infection are pain or tenderness, localized swelling, redness, heat, or purulent drainage from the surgical incision.
- The evidence does not indicate transmission-associated post-operative wound care, after specific treatments or therapies may be required.

**Surgical site and wound care require careful attention and right on time hand hygiene practices**

**SAVE LIVES  
CLEAN YOUR HANDS**

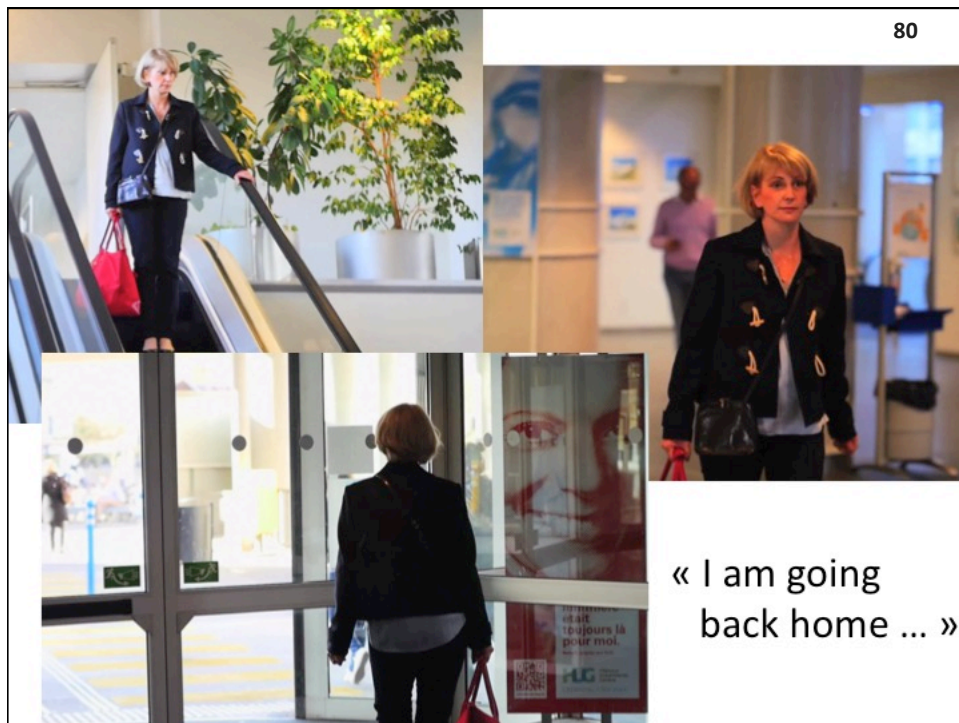
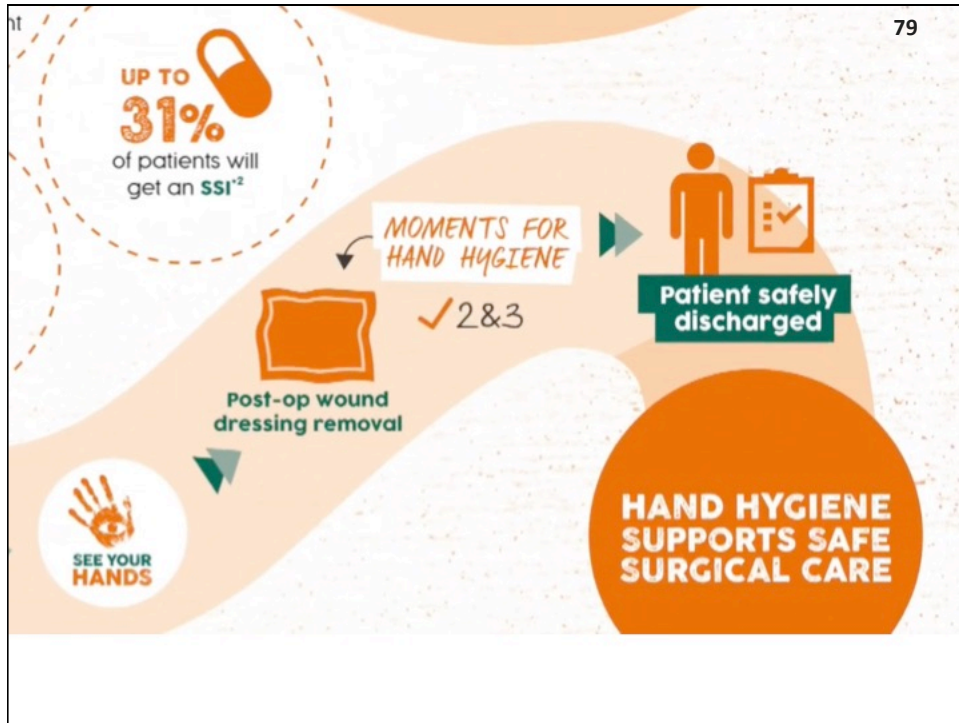
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« Safe surgical care all along  
the patient's journey »



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At: [www.who.int/gpsc/5may/video/en/](http://www.who.int/gpsc/5may/video/en/)



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Professor Joseph S. Solomkin  
Professor of Surgery Emeritus  
University of Cincinnati College of Medicine (USA)

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Professor E. Patchen Dellinger  
Professor of Surgery  
University of Washington Medical School (USA)

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## Surgery admission office



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## Anesthesiology



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## Surgical hand preparation



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## Safe care in the Recovery Room

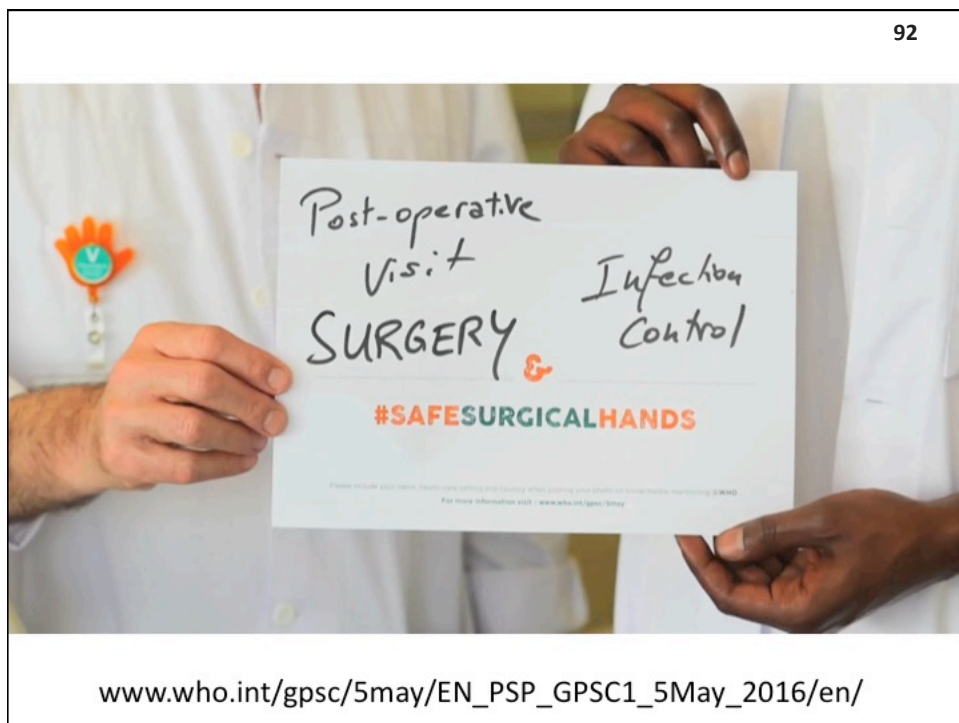


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## Outline

- Global burden of disease in surgery
- The patient's journey in surgery
- **SAVE LIVES: Clean Your Hands 5 May** campaign global reach #safesurgicalhands
- WHO Infection Prevention and Control Global Unit overview
- New WHO guidelines on SSI prevention outline

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# Hand Hygiene Supports Safe Surgical Care

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Sponsored by the WHO Infection Prevention and Control Global Unit

**Experts around the world show commitment to WHO 5 May campaign**  
As part of the major global effort to improve hand hygiene in health care, the WHO SAVE LIVES: Clean Your Hands campaign every year asks people to share their photographs. In 2016, social media analysis reported a reach of 39 million for #SafeHANDS, with thousands of people posting their photographs. This year leaders from around the world have already taken their photographs in support of the 2016 theme of #SafeSurgicalHands.

**Surgical leaders in Ghana**

**National and regional activities in France**

**WHO Eastern Mediterranean Region**

**Translated materials in Hungarian, Bulgarian among others**  
**Many activities in Sierra Leone and the Western Pacific Region**

**Mexico**

**eNews APIC Association for Professionals in Infection Control and Epidemiology**

**SAVE LIVES: Clean Your Hands—May 5, 2016**  
Improving hand hygiene practices in all surgical services through the continuum of care—from surgical wards, to operating theaters, to outpatient surgical services—is the primary focus of this year's "5 May" campaign sponsored by the World Health Organization. [Learn more.](#)

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**SAVE LIVES: Clean Your Hands 5 May 2016**

**See Your Hands**

**International Calls for Action**  
World Health Organization SAVE LIVES: Clean your hands, every 5<sup>th</sup> May

**SEE VOID**  
Join WHO's SAVE LIVES: Clean Your Hands 5 May 2016 Campaign!  
HAND HYGIENE SUPPORTS SAFE SURGICAL CARE

**International Federation of Infection Control**  
Join WHO's SAVE LIVES: Clean Your Hands 5 May 2016 campaign

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**Private  
Organizations  
for Patient  
Safety**



Private Organizations for Patient Safety (POPS)  
A collaboration between the World Health Organization Patient Safety Programme and industry

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**POPS supports 5th of May with :**

- Landing page
- Educational Materials
- Translations
- Social media presence
- Press releases

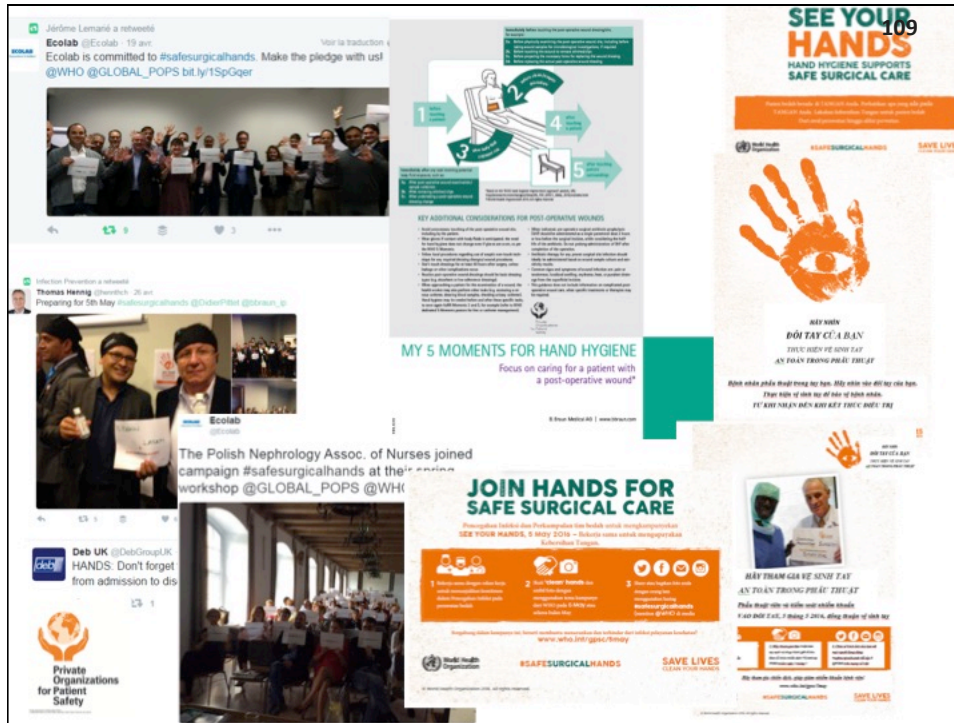
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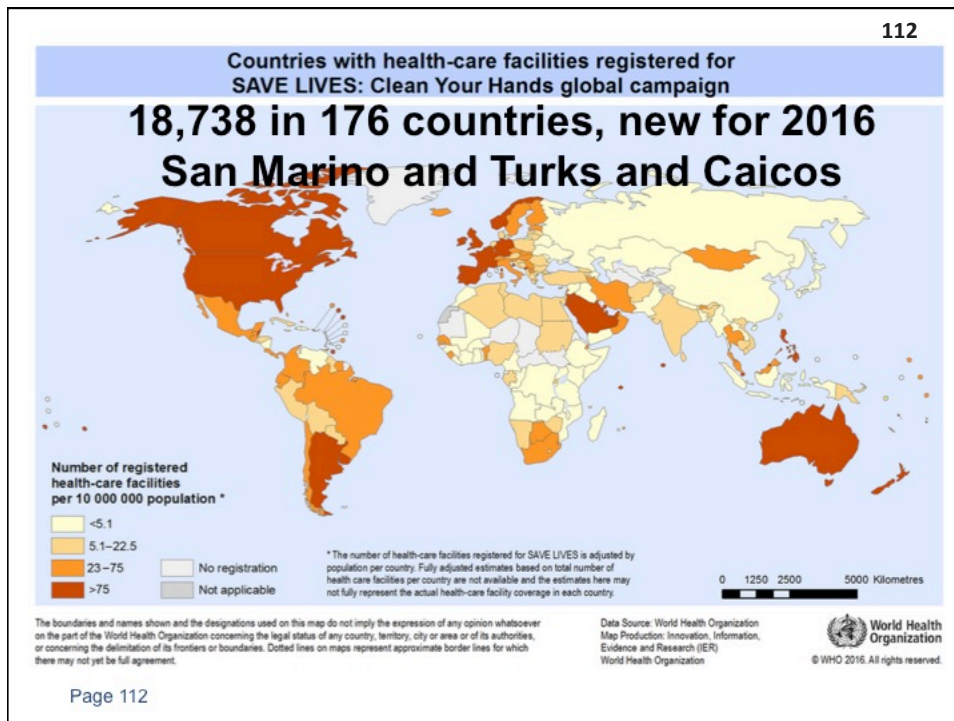
**JOIN US!**

Info&Tools – 5 May – SAVE LIVES: Clean Your Hands  
<http://www.who.int/gpsc/5may/en/>

POST YOUR PHOTOS/SELFIES at:  
<http://cleanhandssavelives.org>

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Hanrub  
technique  
to practice

Make sure  
staff  
practice  
in advance

**How to Handrub?**

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

⌚ Duration of the entire procedure: 20-30 seconds

World Health Organization | Patient Safety | SAVE LIVES Clean Your Hands

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YouTube

WHO Hand Hygiene Sanitizing Relay – New Guinness World Record

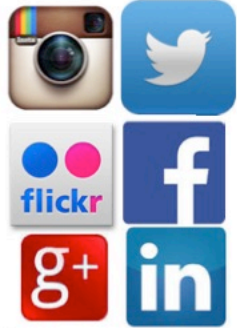


**Hand Sanitizing Relay**

0:18 / 3:39

WHO Hand Hygiene Sanitizing Relay – New Guinness World Record  
As of 5 May 2015, WHO world Hand Hygiene Day, Prof. Didier Pittet & staff at the WHO Collaborating Center on Patient Safety in Geneva propose to all hospital...

**JOIN US!**



All info: [www.tinyurl.com/HHRelay](http://www.tinyurl.com/HHRelay)

Send your photos and videos at:  
[CleanHandsSaveLives.org](http://CleanHandsSaveLives.org)

[handhygienerelay@cleanhandssavelives.org](mailto:handhygienerelay@cleanhandssavelives.org)



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Come share your own Relay on:



facebook.com/groups/HandSanitizingRelay

And break the Guinness World Record in 2016!

All the information: [www.who.int/gpsc/5may/en/](http://www.who.int/gpsc/5may/en/)

handhygienerelay@cleanhandssavelives.org

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**World Health Organization**

**Patient Safety**

Working Alliance for Safer Health-Care

**SAVE LIVES**

Clean Your Hands

## Hand Hygiene Self-Assessment Framework 2010

### Introduction and user instructions

**The Hand Hygiene Self-Assessment Framework** is a systematic tool with which to obtain a situation analysis of hand hygiene promotion and practices within an individual health-care facility.

**What is its purpose?**  
 While providing an opportunity to reflect on existing resources and achievements, the **Hand Hygiene Self-Assessment Framework** also helps to focus on future plans and challenges. In particular, it acts as a diagnostic tool, identifying key issues requiring attention and improvement. The results can be used to facilitate development of an action plan for the facility's hand hygiene promotion programme. Repeated use of the **Hand Hygiene Self-Assessment Framework** will also allow documentation of progress with time.

**Overall**, this tool should be used to implement and sustain a comprehensive hand hygiene programme within a health-care facility.

**Who should use the Hand Hygiene Self-Assessment Framework?**  
 The tool should be used by professionals in charge of implementing a strategy to improve hand hygiene within a health-care facility. If the strategy is being implemented yet, then it can also be used by professionals in charge of infection control or senior managers at the facility or districts. The framework can be used globally by health-care facilities at any level of progress for hand hygiene promotion to be sustained.

**How is it structured?**  
 The **Hand Hygiene Self-Assessment Framework** is divided into five components and 27 indicators. The five components reflect the five elements of the WHO **Strategic Hand Hygiene Implementation Strategy** (<http://www.who.int/gpsc/5may/hand-hygiene.html>) and the indicators have been selected to represent the key elements of each component. These indicators are based on evidence and expert consultation and have been translated as questions with defined answers (either "Yes/No" or multiple options) to facilitate self-assessment. Based on the score achieved for the five components, the facility is assigned to one of four levels of hand hygiene promotion and practice: **Basic**, **Intermediate** and **Advanced**.

**Basic:** some measures are in place, but not to a satisfactory standard. Further improvement is required.

**Intermediate:** an appropriate hand hygiene promotion strategy is in place and hand hygiene practices have improved. It is now critical to develop long-term plans to ensure that management is sustained and progressive.

**Advanced:** hand hygiene promotion and optimal hand hygiene practices have been sustained and/or improved, helping to embed a culture of safety in the health-care setting.

**Leadership criteria:** have also been identified to recognize facilities that are considered a reference centre and contribute to the promotion of hand hygiene through research, innovation and information sharing. The assessment score and key leadership criteria should only be undertaken by facilities having reached the **Advanced** level.

**How does it work?**  
 While completing each component of the **Hand Hygiene Self-Assessment Framework**, you should check or highlight the answer appropriate to your facility for each question. Each answer is associated with a score. After completing a component, add up the scores for the answers you have selected to give a subtotal for that component. During the implementation phase, these subtotals are then added up to calculate the overall score to identify the hand hygiene level to which your health-care facility is assigned. The assessment should not take more than 30 minutes, provided that the information is readily available.

With the **Framework** you will find a column called "WHO implementation tools" listing the tools made available from the WHO **First Global Patient Safety Challenge** to facilitate the implementation of the **Hand Hygiene Implementation Strategy** (<http://www.who.int/gpsc/5may/hand-hygiene.html>). These tools are listed in relation to the relevant indicators included in the **Framework** and may be useful when developing an action plan to address areas identified as needing improvement.

**Is the Hand Hygiene Self-Assessment Framework suitable for inter-facility comparison?**  
 Health-care facilities around the world may consider utilizing this tool for external comparison or benchmarking. However, this was not a primary aim during the development of the tool. In particular, one would have to consider the many inter-facility self-reported evaluation tool for external benchmarking and also advise the use of caution in comparing facilities of different sizes and complexity, in different socio-economic settings. It would be essential to consider these limitations if inter-facility comparison is to be undertaken.

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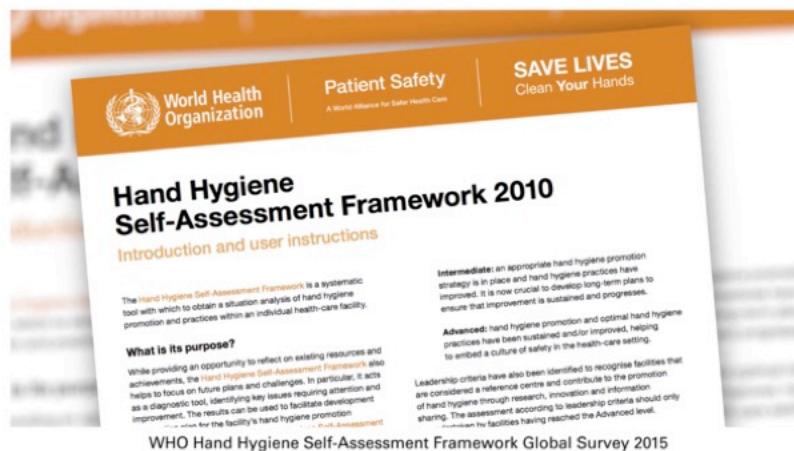
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## WHO Survey 2015 Hand Hygiene Self-Assessment Framework Results

- From June 2015 to January 2016, health care facilities were invited to participate in WHO's second survey based on completion of the Hand Hygiene Self-Assessment Survey (HHSAF)
- A dedicated, protected online site was used
- In addition to online submission, data could also be submitted by email direct to WHO to allow for ease of data submission where necessary
- Staff at WHO were allocated to undertake data entry and quality checks

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[www.tinyurl.com/HHSAFsurvey](http://www.tinyurl.com/HHSAFsurvey)



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## Explaining the HHSAF

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- The maximum overall score is 500 points
- **Inadequate** (overall score 0-125): Significant improvement required
- **Basic** (overall score 126-250): Further improvement is required
- **Intermediate** (overall score 251-375): Crucial to develop long-term plans to ensure sustained improvement and progress
- **Advanced** (overall score 376-500): hand hygiene promotion and optimal hand hygiene practices have been sustained and/or improved, thus helping to embed a culture of quality and safety around hand hygiene promotion in the health care setting

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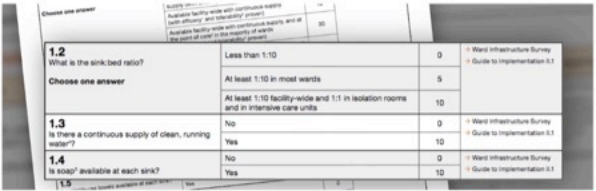
[http://www.who.int/gpsc/5may/hhsa\\_framework-2015/en/](http://www.who.int/gpsc/5may/hhsa_framework-2015/en/)

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1.2	What is the sink:bed ratio?	Less than 1:10	0	→ Hand Infrastructure Survey → Guide to Implementation 5.1
	Choose one answer	At least 1:10 in most wards	5	
		At least 1:10 facility-wide and 1:1 in isolation rooms and in intensive care units	10	
1.3	Is there a continuous supply of clean, running water?	No	0	→ Hand Infrastructure Survey → Guide to Implementation 5.1
		Yes	10	
1.4	Is soap available at each sink?	No	0	→ Hand Infrastructure Survey → Guide to Implementation 5.1
		Yes	10	

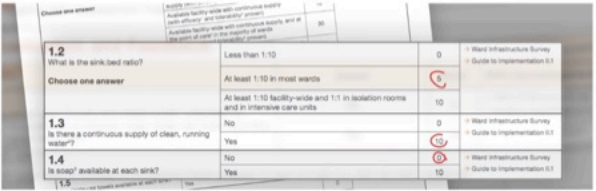


**Education & training**


[http://www.who.int/gpsc/5may/hhsa\\_framework-2015/en/](http://www.who.int/gpsc/5may/hhsa_framework-2015/en/)

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[www.tinyurl.com/HHSAFsurvey](http://www.tinyurl.com/HHSAFsurvey)



1.2	What is the sink:bed ratio?	Less than 1:10	0	→ Hand Infrastructure Survey → Guide to Implementation 5.1
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1.4	Is soap available at each sink?	No	0	→ Hand Infrastructure Survey → Guide to Implementation 5.1
		Yes	10	



**Evaluation & feedback**

WHO Hand Hygiene Self-Assessment Framework Global Survey 2015

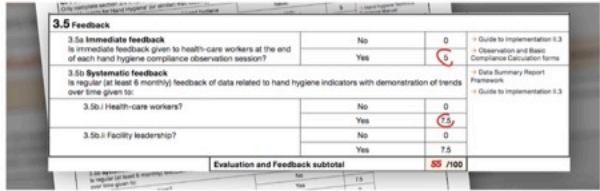
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Question	No	Yes	Score
3.5a Immediate feedback: Is immediate feedback given to health-care workers at the end of each hand hygiene compliance observation session?	0	5	5
3.5b Systematic feedback: Is regular (at least 8 morning) feedback of data related to hand hygiene indicators with demonstration of trends over time given to:			
3.5b.i Health-care workers?	0	7.5	7.5
3.5b.ii Facility leadership?	0	7.5	7.5
<b>Evaluation and Feedback subtotal</b>			<b>85 /100</b>



WHO Hand Hygiene Self-Assessment Framework Global Survey 2015

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[www.tinyurl.com/HHSAFsurvey](http://www.tinyurl.com/HHSAFsurvey)



Component	Subtotal
1. System Change	60
2. Education and Training	35
3. Evaluation and Feedback	55
4. Reminders in the Workplace	70
5. Institutional Safety Climate	
<b>Total</b>	

Total Score (out of 210) → Hand Hygiene Level (out of 100)



[http://www.who.int/gpsc/5may/hhsa\\_framework-2015/en/](http://www.who.int/gpsc/5may/hhsa_framework-2015/en/)

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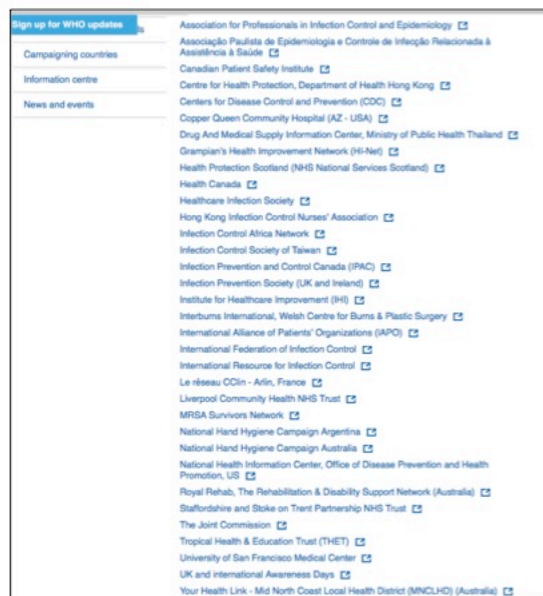
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## WHO survey 2015 – Results

- Overall mean score: *intermediate*
- Majority of facilities were *intermediate* or *advanced* (87%)
- High proportion qualified for leadership level (79%)
- Lowest scores concerned evaluation and feedback and institutional patient safety climate
- Lowest mean score: African region (280.9 ± 127.3) from 60 facilities
- Highest mean score: South East Asian region (420.6 ± 77.6) from 231 facilities

Find the full report: [http://www.who.int/gpsc/5may/EN\\_PSP\\_GPSC1\\_5May\\_2016/en/](http://www.who.int/gpsc/5may/EN_PSP_GPSC1_5May_2016/en/)

## Many people to thank – some featured on WHO<sup>130</sup> campaign web pages – THANK YOU!



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*Facilities awarded  
with the  
Hand Hygiene  
Excellence Award  
in South-East Asia  
and  
Western Pacific,  
in Europe,  
and in Latin  
America*

WHO Hand Hygiene  
Self-assessment  
Framework

[www.handhygieneexcellenceaward.com](http://www.handhygieneexcellenceaward.com)

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# Adapt to Adopt



[www.tinyurl.com/AdaptToAdopt](http://www.tinyurl.com/AdaptToAdopt)

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## Outline

- Global burden of disease in surgery
- The patient's journey in surgery
- SAVE LIVES: Clean Your Hands 5 May campaign global reach #safesurgicalhands
- WHO Infection Prevention and Control Global Unit overview
- New WHO guidelines on SSI prevention outline

WHO Infection Prevention and Control  
Global Unit

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WHO IPC Global Unit  
VISION & MISSION

**VISION**

**Protecting patient and health worker lives across the world through excellence in infection prevention and control**

**MISSION**

**WHO IPC Global Unit will drive IPC to the top of the agenda in all countries by providing innovative, effective technical guidelines and strong coordination with the goal of reducing infections and antimicrobial resistance in health care and revolutionizing the way IPC is applied**

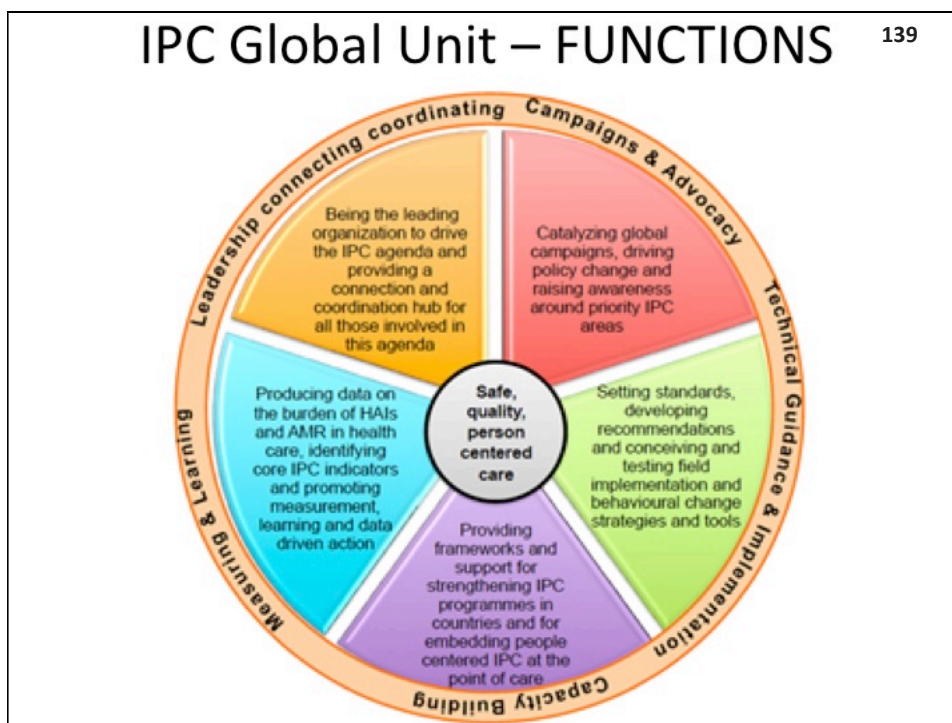
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## Infection Prevention and Control

- IPC occupies a unique position in the field of patient safety and health system strengthening since it is universally relevant to the protection of health workers and patients, at every single health-care encounter.
- Strengthened IPC capacity will contribute to:
  - **AMR global & national action plans**
  - **Preparedness and response to outbreaks**, incl. by emerging resistant pathogens
  - Implementation of the **post-Ebola country capacity building plans**
  - Implementation of the **International Health Regulations**
  - Achievement of **quality universal health coverage**
  - Improvement of **patient and health worker safety**
  - Implementation of **strategic goal 5** of the new WHO **Global Strategy on integrated people-centered health services**



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- IPC Global Unit – OBJECTIVES (1)** 140
1. Provide **leadership** through **advocating** for reductions in HAIs and **raising awareness** among policy makers, health workers, patients, the public, and other relevant stakeholders.
  2. Develop **technical guidance and standards** and related **multimodal implementation strategies** catalyzing behavior change among health workers and targeting different stakeholders and audiences including patients.
  3. Strengthen **IPC at the point of care** by embedding IPC in clinical practice and focusing on clinical procedures at high risk for microbial transmission and HAIs (e.g. hand hygiene, surgery and the use of invasive devices).

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**IPC Global Unit – OBJECTIVES (2)**

4. Strengthen the **integration between patient safety and IPC** with a people-centered perspective.
5. Develop frameworks for **IPC capacity building** in countries including template action plans and Core Components of IPC programmes, and support to Member States in their implementation.
6. Provide technical expert support to other programmes within WHO and the United Nations family, coordinating integration of IPC efforts across the organization and performing as the **WHO IPC hub**.
7. Strengthen **monitoring and evaluation** to inform and maximize global learning.

Working across the 3 levels of WHO & with MS and<sup>142</sup>  
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IPC Global Unit  
 TECHNICAL AREAS OF WORK 2015-17

- Hand hygiene
- Burden of health care-associated infections (HAIs)
- Prevention of surgical site infections
- Injection Safety
- IPC to combat AMR
- Ebola Response and Recovery
- IPC country capacity building
- Prevention of sepsis and catheter-associated bloodstream infections
- Prevention of catheter-associated urinary tract infections

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**Global Action Plans & National Action Plans**

Global strategic objectives	Examples of key actions for national action plans
1. Improve awareness and understanding of AMR	<ul style="list-style-type: none"> <li>• Risk communication</li> <li>• Education</li> </ul>
2. Strengthen knowledge through surveillance and research	<ul style="list-style-type: none"> <li>• National AMR surveillance system</li> <li>• Laboratory capacities</li> <li>• Research and development</li> </ul>
3. Reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures	<ul style="list-style-type: none"> <li>• IPC in health care (incl. liaison with WASH)</li> <li>• Community level prevention (incl. liaison with WASH)</li> <li>• Animal health</li> </ul>
4. Optimize the use of antimicrobial medicines	<ul style="list-style-type: none"> <li>• Access to qualified antimicrobial medicines</li> <li>• Animal health</li> </ul>
5. Ensure sustainable investment in countering antimicrobial resistance	<ul style="list-style-type: none"> <li>• Measuring the burden of AMR</li> <li>• Assessing investment needs</li> <li>• Establishing procedures for participation</li> </ul>



## Outline

- Global burden of disease in surgery
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- WHO Infection Prevention and Control Global Unit overview
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## SSI prevention is complex...

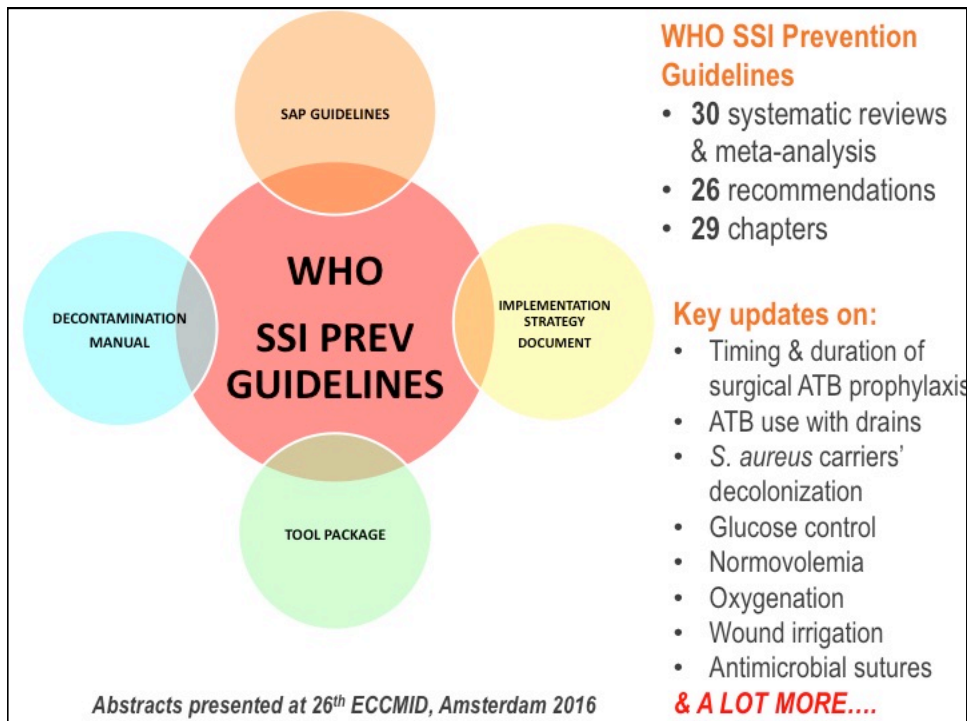


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## SSI Prevention Guidelines – WHO perspectives

- Need for updated, evidence-based guidelines
- Lessons learned from the WHO HH guidelines: need for **global** approach
- Valid for any country, but including specific perspectives depending on resources available
- Strong component on **implementation strategies and surveillance**
- Associated **implementation tools**
- Lessons learned from use of WHO checklist and other interventions



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« Let's enjoy the privilege  
to work as a team... »



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**#safeHANDS**  
**#SafeSurgicalHands**

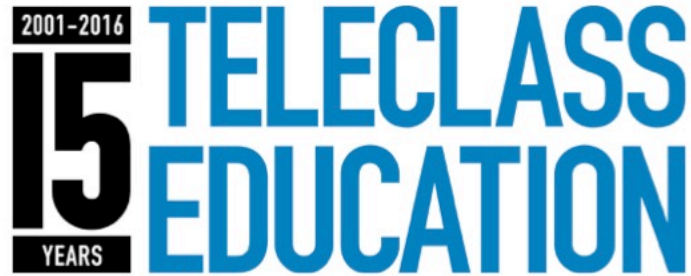
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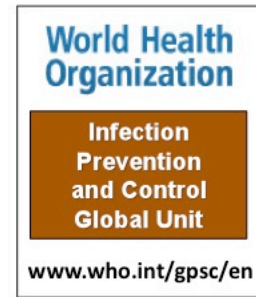
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