

WHO Infection Prevention and Control Global Unit

# Hygiène des Mains au service de la sécurité des soins en chirurgie

*5 May 2016*

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Hosted by: Pr. Pierre Parneix, France

Supported by WHO Service Delivery and Safety Department



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

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



« Mon nom est Odile, j'ai un rendez-vous avec le Dr. Knife »




## JOIN HANDS FOR SAFE SURGICAL CARE

Infection prevention and surgical teams unite for  
**SEE YOUR HANDS, 5 May 2016** - work together for hand hygiene.

-  **1 Team up with a colleague** to show commitment to infection prevention in surgical care
-  **2 Join 'clean' hands and take a photo** with the WHO campaign board on or around 5 May
-  **3 Share your photo** with others using **#safesurgicalhands** (mention @WHO on social media)

Join the campaign, help reduce avoidable healthcare infections!  
[www.who.int/gpsc/5may](http://www.who.int/gpsc/5may)

 World Health Organization

**#SAFESURGICALHANDS**

**SAVE LIVES**  
CLEAN YOUR HANDS

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Joignons  
nos efforts  
pour des  
soins  
chirurgicaux  
sûrs





REGARDEZ VOS  
**MAINS**  
L'UNION DES MANES PROTEGE  
DES BÂTES CHIRURGICALES SÛRES



## PRÊTEZ MAIN À DES SOINS CHIRURGICAUX SÛRS

Les équipes de prévention des infections et les équipes chirurgicales s'unissent autour de la journée **REGARDEZ VOS MAINS**, le 5 mai 2016 – Pour sauver des vies, l'hygiène des mains.



1 Partez équipe avec un collègue pour attester de votre engagement à la prévention des infections dans les soins chirurgicaux

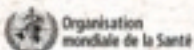


2 Joignez-vous à la campagne sur l'hygiène des mains et prenez une photo avec l'affiche de la campagne de l'OMS, le 5 mai ou aux alentours de cette date



3 Partagez votre photo avec d'autres en utilisant [#safesurgicalhands](#) (mentionnez [@WHO](#) sur les médias sociaux)

Joignez-vous à la campagne, aidez à réduire les infections évitables des soins de santé  
[www.who.int/gpsc/5may](http://www.who.int/gpsc/5may)



Organisation  
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**#SAFESURGICALHANDS**

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CLEAN YOUR HANDS

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MIRA TUS  
**MANOS**  
L'UNION DE LAS MANOS PROTEGE  
DE LOS SERVICIOS QUIRÚRGICOS SEGUROS



## UNE TUS MANOS A FAVOR DE UNOS SERVICIOS QUIRÚRGICOS SEGUROS

Los equipos de prevención de infecciones y los equipos de cirugía se unen para la campaña **MIRA TUS MANOS** del 5 de mayo de 2016, uniendo sus fuerzas a favor de la higiene de manos.



1 Colabora con un compañero para mostrar vuestro compromiso con la prevención de infecciones en los servicios quirúrgicos

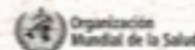


2 Únete a las manos «limpias» y sácale una foto con el póster promocional de la OMS el 5 de mayo o en torno a esta fecha



3 Comparte tu foto con los demás utilizando el hashtag [#safesurgicalhands](#) (menciona a la [@WHO](#) en las redes sociales)

Únete a la campaña y ayuda a reducir las infecciones evitables en la atención sanitaria  
[www.who.int/gpsc/5may](http://www.who.int/gpsc/5may)



Organización  
Mundial de la Salud

**#SAFESURGICALHANDS**

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CLEAN YOUR HANDS

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**انظروا إلى  
أيديكم**

نظافة الأيدي تدعم  
الرعاية الجراحية الآمنة

المرضى الذين يخضعون لعمليات جراحية بحاجة إلى أيدي نظيفة  
أيضا. نظافة أيديهم تدعم أفضل معالجاتهم التي تخفف من مخاطر الإصابة  
بمضاعفات العدوى. من أجلهم، من أجلهم، من أجلهم.

أعدوا العلاج  
بأيدي نظيفة

**أيدي جراحية آمنة**

المنظمة العالمية  
للجراحة الآمنة

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**关注双手  
手部卫生利于  
安全外科保健**

检查你的手部卫生，因为你掌握外科病人的生死大权。  
从入院到出院对外科病人践行手部卫生。

世界卫生组织 **#SAFE SURGICAL HANDS** **SAVE LIVES  
CLEAN YOUR HANDS**

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**ВЗГЛЯНИ НА СВОИ  
РУКИ**

гигиена рук является залогом  
безопасной хирургической помощи

"Хирургические пациенты находятся в ваших руках.  
Подумайте о том, что НА ваших руках".  
Соблюдайте гигиену рук при работе с хирургическими  
пациентами с момента госпитализации до выписки.

Всемирная организация  
здоровья **#SAFE SURGICAL HANDS** **SAVE LIVES  
CLEAN YOUR HANDS**

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# OUTLINE

- Fardeau de l'infection du site chirurgical
- Le parcours du patient en chirurgie
- “SAVE LIVES: Clean Your Hands” 5 Mai dispersion de #safesurgicalhands
- Unité centrale de Prévention et Contrôle de l'Infection à l'OMS
- Nouvelles guidelines OMS de prévention de l'infection du site chirurgical (ISC)



# Why focus on SSI ?

Selon le rapport de l'OMS sur le fardeau global des infections liées aux soins (ILS), l'infection du site chirurgical (ISC) est la plus fréquente dans les pays à ressources limitées et les taux y sont plus élevés

**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 result of unsafe patient care worldwide and is avoidable in the developing world. We aimed to assess the epidemiology of endemic health-care infection in developing countries.

**Methods** We searched electronic databases and reference lists of relevant papers for articles published in English containing full or partial data from developing countries related to infection prevalence, incidence, or mortality. We included studies of health-care-associated infection and major infection sites, and their sites, were selected. We classified studies as low-quality or high-quality according to predefined criteria.

**Findings** Of 271 selected articles, 230 were included in the final analysis. Limited data were reported in regions and most countries were not represented. 18 (5.4%) studies were low quality. In general, infection reported in high-quality studies were greater than those from low-quality studies. Prevalence of health-care infection (global prevalence in high-quality studies, 11.1 per 100 patients [95% CI 11.4–10.9]) was much higher than proportions reported from Europe and the USA. Pooled overall health-care-associated infection rates (inpatient-care units) were 47.9 per 1000 patient-days (95% CI 35.7–60.1), at least three times as high as reported from the USA. Surgical-site infection was the leading infection in hospitals (global incidence 1.1 per 100 surgical procedures), strikingly higher than proportions recorded in developed countries. Gut health represented the most common non-surgical infection, apart from respiratory infections, caused by *Staphylococcus aureus* (only in high studies), with few articles reported antimicrobial resistance.

**Interpretation** The burden of health-care-associated infection in developing countries is high. Our findings need to improve surveillance and infection-control practices.

**Funding** World Health Organization.

**Introduction**  
 Health-care-associated infections are among the most frequent adverse events threatening patients' safety worldwide.<sup>1</sup> However, reliable estimates of the global burden are hampered by a paucity of data adequately describing endemic infections at national and regional levels, particularly in resource-limited settings.<sup>2</sup> In countries where less than 1% of the gross national product is spent on health care, and workforce density is less than five per 1000 population,<sup>3</sup> other emerging health problems and disease take priority.<sup>4</sup> The epidemiological gap leading to the absence of reliable estimates of the global burden is mainly because surveillance of health-care-associated infections depends on time and resources and needs expertise to study design, data collection, analysis, and interpretation. Very few countries of low and middle income have national surveillance systems for health-care-associated infections. Data from the International Nosocomial Infection Control Consortium,<sup>5</sup> and findings of non-systematic reviews on hospital-acquired bacterial infections<sup>6</sup> and antibiotic-associated pneumonia<sup>7</sup> suggested not only that rates of health-care-associated infections are significantly higher in developing countries

but also that the effect on patients and systems is severe and greatly underestimated.<sup>8</sup> The aim of this systematic review and meta-analysis was to assess the burden of endemic health-care infection in developing countries by using available data from published studies in English. We also aim to investigate common surveillance of health-care-associated infection, to assess the burden of endemic health-care infection in developing countries by using available data from published studies in English. We also aim to investigate common surveillance of health-care-associated infection, to assess the burden of endemic health-care infection in developing countries by using available data from published studies in English.

**Methods**  
**Search strategy and selection criteria**  
 We undertook a literature search and meta-analysis according to a protocol developed before data collection, analysis, and interpretation. Very few countries of low and middle income have national surveillance systems for health-care-associated infections. Data from the International Nosocomial Infection Control Consortium,<sup>5</sup> and findings of non-systematic reviews on hospital-acquired bacterial infections<sup>6</sup> and antibiotic-associated pneumonia<sup>7</sup> suggested not only that rates of health-care-associated infections are significantly higher in developing countries

Articles

World Health Organization 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

in Bagheri Nejad S, Beresford Allegranzi B, Ghannouchi S, Syed S, Benjamin Elibar & Didier Pittet

**Background** To assess the epidemiology of endemic health-care-associated infection (HCAI) in Africa, we searched for articles published from 1990 to 2009 on the epidemiology of HCAI in African countries. No language restriction was applied. Available at books of leading international infection control conferences were also searched from 2004 to 2009.

**Methods** The eligibility criteria for inclusion in the review were met by 10 articles, only 2 of which met the criteria of high quality. Four of these articles were included in the meta-analysis. The hospital-wide prevalence of HCAI varied between 2.3% and 1.8% in surgical wards, the cumulative incidence ranged from 5.7% to 40.8%. The largest number of studies focused on surgical infection, whose cumulative incidence ranged from 2.3% to 30.8%. Data on causative pathogens were available from a few studies that highlighted the importance of Gram-negative rods, particularly in surgical site infection and ventilator-associated pneumonia. While limited information is available on the endemic burden of HCAI in Africa, our review reveals that its frequency is much higher in developing countries. There is an urgent need to identify and implement feasible and sustainable approaches to strengthen infection prevention, surveillance and control in Africa.

**Conclusion**  
 Health-care-associated infection (HCAI) is a major global safety issue for both patients and health-care professionals. HCAI occurs as an infection occurring in a patient during the process in a hospital or other health-care facility that was not there or not incubating at the time of admission. This includes infections acquired in the hospital and any other setting where patients receive health-care and may appear even after discharge, as includes nosocomial infections among facility staff. Infections, often caused by multidrug-resistant pathogens, take toll on patients and their families by causing illness, and hospital stay, potential disability, excess costs and even death.<sup>1</sup>

A burden of HCAI is already substantial in developed countries as it affects from 1% to 15% of hospitalized patients in wards and in many as 50% or more of patients in intensive care units (ICU).<sup>2</sup> In developing countries, the magnitude of HCAI remains underestimated or even unknown largely because of incomplete and unreliable activities to determine routine surveillance and assessment. Surveillance data in some developed countries and periodic regular on national trends of endemic HCAI, such as the National Nosocomial Infection System (NNIS) in the USA and the National Nosocomial Infection Survey (NNIS) in the USA, are not available in most developing countries because of social and economic difficulties that are an impediment to economic growth. Additionally, under-reporting and under-diagnosis of HCAI in hospitals impede infection prevention and control

This review provides a general overview of the endemic burden of HCAI in Africa based on the information available in the scientific literature. It also identifies information gaps, reviews differences in HCAI epidemiology between developed and developing countries and highlights the possible role of the World Health Organization (WHO) in promoting HCAI.

**Methods**  
**Search strategy and selection criteria**  
 A literature search was performed from January 1990 to December 2009 with no language restriction to review publications on the epidemiology of the most common HCAI in African countries: health-care-associated urinary tract infection (HAUTI), surgical site infection (SSI), hospital-acquired pneumonia (HAP), ventilator-associated pneumonia (VAP) and health-care-associated bloodstream infection (HCAI-BI). PubMed was searched using a combination of the following keywords, including "nosocomial infection" or "HCAI" terms, "nosocomial infection", "hospital acquired", "infection", "prevalence" and "rate" together with the individual country names. The Cochrane Library was searched for any relevant review papers. Reference lists of retrieved articles were hand searched for additional studies.

A separate search was run in the WHO regional medical databases for Africa, African Indian Medicine, using a shorter list of relevant keywords and with no time restriction. The abstracts from the following international conferences were also searched from 2004 to 2009: International Conference on Antimicrobial Agents and Chemotherapy (ICAAAC), Annual Congress of the Society for Healthcare Epidemiology of America (SHEA), Euro-

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

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## HAI prevalence in USA - 2011



- 183 hôpitaux dans 10 états: 11,282 patients
- **PREVALENCE des ILS: 4.0%** (95% CI 3.7-4.4)
- 648,000 patients avec 721,800 ILS aux USA soins aigus
  - Infections liés aux “devices”: 26%
  - **Infection du site chirurgical: 22% - 157,352 épisodes / an**
    - *Les plus fréquentes ISC: colon (14%), arthroplasties hanche (10%), et chirurgie du tube digestif (6.4%)*
    - *19% des ILS présentes à l’admission et 67% sont ISC*
  - Pneumonie: 22%
  - Infections gastro-intestinales: 17%

*Magill SS et al. NEJM 2014; 370:13*

# Charges financières et types d'ILS - USA

	# 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).

**SAVE LIVES**  
Clean Your Hands

# Pathogènes responsables ISC – USA 2009-2010

Pathogen	Overall		SSI	
	No. (%) of pathogens	Rank	No. (%) of pathogens	Rank <sup>a</sup>
<u><i>Staphylococcus aureus</i></u>	12,635 (15.6)	1	6,415 (30.4)	1
<u><i>Escherichia coli</i></u>	9,351 (11.5)	2	1,981 (9.4)	3
<u>Coagulase-negative staphylococci</u>	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
<u><i>Enterococcus faecalis</i></u>	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>Candida</i> spp. or NOS	3,408 (4.2)	9	96 (0.5)	...
<i>Enterococcus faecium</i>	3,314 (4.1)	10	1,111 (5.3)	...
<i>Enterobacter spp.</i>	2,409 (3.0)	11	685 (3.2)	8
<i>Proteus spp.</i>	2,031 (2.5)	12	572 (2.7)	9
<i>Serratia spp.</i>	1,707 (2.1)	13	385 (1.8)	...
<i>Acinetobacter baumannii</i>	1,490 (1.8)	14	119 (0.6)	...
Other	9,304 (11.5)	...	3,399 (16.1)	...
Total	81,139 (100)		21,100 (100)	

**1 in 3 ISC est causée par *S. aureus***  
**44% sont des MRSA**



## Episodes d'ILS / année en Europe

HAI type	LN-INT	P50 (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**

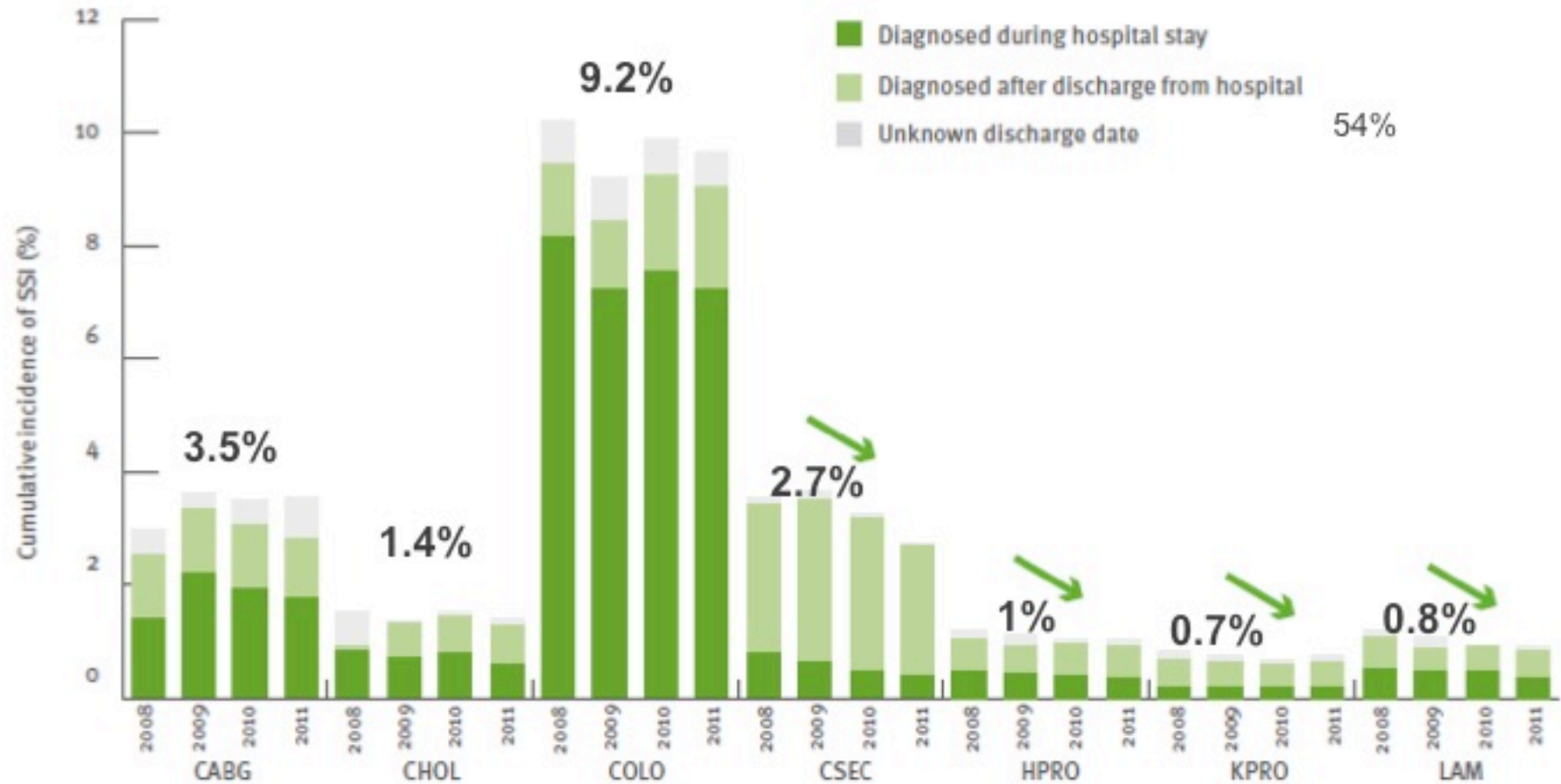
**(298 167-1 062 673)**

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)

## Incidence cumulative d'ISC, Europe– 2008-2011

Figure 2.6.11. Cumulative incidence of surgical site infections by year and operation type, EU/EEA, 2008–2011



# Fardeau des ISC - Pays à ressources limitées

**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**  
 Health-care-associated infection is the most frequent result of unsafe patient care without data available from the developing world. We aimed to assess the epidemiology of endemic health-care infection in developing countries.

**Methods**  
 We searched electronic databases and reference lists of relevant papers for articles published in English containing full or partial data from developing countries related to infection prevention—excluding overall health-care-associated infection and major infection sites, and their sites—were selected. We classified studies as low-quality or high-quality according to predefined criteria were pooled for analysis.

**Findings**  
 Of 271 selected articles, 230 were included in the final analysis. Limited data were reported in regions and most countries were not represented. 18 (54%) studies were low quality. In general, infection reported in high-quality studies were greater than those from low-quality studies. Prevalence of health-care infection (pooled prevalence in high-quality studies, 11.1 per 100 patients [95% CI 11.4–10.8]) was much higher than proportions reported from Europe and the USA. Pooled overall health-care-associated infection rates (mean±SD) were 47.9 per 1000 patient-days (95% CI 35.3–60.5), as low as those rates as high as reported from the USA. Surgical-site infection was the leading infection in hospitals (pooled incidence 1.4 per 100 surgical procedures), strikingly higher than proportions recorded in developed countries. Gas health represented the most common nosocomial infection, apart from methicillin resistance, second to ESBL and *Staphylococcus aureus* infection (in eight studies), very few articles reported antimicrobial resistance.

**Interpretation**  
 The burden of health-care-associated infection in developing countries is high. Our findings need to improve surveillance and infection-control practices.

**Funding**  
 World Health Organization.

**Introduction**  
 Health-care-associated infections are deemed the most frequent adverse events threatening patients' safety worldwide.<sup>1</sup> However, reliable estimates of the global burden are hampered by a paucity of data adequately describing endemic infections at national and regional levels, particularly in resource-limited settings.<sup>2</sup> In countries where less than 1% of the gross national product is spent on health care, and workforce density is less than five per 1000 population,<sup>3</sup> other emerging health problems and diseases take priority.<sup>4</sup> The epidemiological gap leading to the absence of reliable estimates of the global burden is mainly because surveillance of health-care-associated infections depends on time and resources and needs expertise to study design, data collection, analysis, and interpretation. Very few countries of low and middle income have national surveillance systems for health-care-associated infections. Data from the International Nosocomial Infection Control Consortium,<sup>5</sup> and findings of non-systematic reviews on hospital-acquired bacterial infections<sup>6</sup> and antibiotic-associated gastroenteritis<sup>7</sup> suggested that only the rates of health-care-associated infections are significantly higher in developing countries

but also that the effect on patients and systems is severe and greatly underdocumented.<sup>8</sup> The aim of this systematic review and meta-analysis was to assess the burden of endemic health-care-associated infection in developing countries by available data from published studies in any country. We also aim to investigate commonest health-care-associated infection in resource-limited settings and identify gaps for improvement.

**Methods**  
**Search strategy and selection criteria**  
 We undertook a literature search and meta-analysis according to a protocol designed before data collection, analysis, and interpretation. Very few countries of low and middle income have national surveillance systems for health-care-associated infections. Data from the International Nosocomial Infection Control Consortium,<sup>5</sup> and findings of non-systematic reviews on hospital-acquired bacterial infections<sup>6</sup> and antibiotic-associated gastroenteritis<sup>7</sup> suggested that only the rates of health-care-associated infections are significantly higher in developing countries

Articles

World Health Organization | Patient Safety

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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**

in Bagheri Nejad S, Benedetta Allegranzi, Ghansuzo S Syed, Benjamin Ebor & Didier Pittet

**Objectives**  
 To assess the epidemiology of endemic health-care-associated infection (HCAI) in Africa.

**Methods**  
 Three databases (PubMed, the Cochrane Library, and the WHO regional medical databases for Africa) were searched to identify published from 1990 to 2009 on the epidemiology of HCAI in African countries. No language restriction was applied. Available at books of leading international infection-control conferences were also searched from 2004 to 2009.

**Results**  
 The eligibility criteria for inclusion in the review were met by 10 articles, only 7 of which met the criteria of high quality. Four of abstracts were retrieved from the international conference literature. The hospital-wide prevalence of HCAI varied between 2.3% (1/8) to surgical wards. The cumulative incidence ranged from 5.7% to 40.8%. The largest number of studies focused on surgical infection, whose cumulative incidence ranged from 2.2% to 30.3%. Data on causative pathogens were available from a few studies highlighted the importance of Gram-negative rods, particularly in surgical site infection and ventilator-associated pneumonia. More limited information is available on the endemic burden of HCAI in Africa, but our review reveals that its frequency is much higher in developed countries. There is an urgent need to identify and implement feasible and sustainable approaches to strengthen infection, surveillance and control in Africa.

**Conclusion**  
 Health-care-associated infection (HCAI) is a major global safety risk for both patients and health-care professionals. HCAI occurs as an infection occurring in a patient during the process in a hospital or other health-care facility that was not there or incubating at the time of admission. This includes infections acquired in the hospital and any other setting where patients receive health-care and may appear even after discharge, as includes nosocomial infections among facility staff. Infections, often caused by multidrug-resistant pathogens, take toll on patients and their families by causing illness, and hospital stay, potential disability, excess costs and death.

A burden of HCAI is already substantial in developed countries as it affects from 1% to 15% of hospitalized patients in wards and in many as 50% or more of patients in intensive care (ICU).<sup>1</sup> In developing countries, the magnitude of HCAI remains underdocumented or even unknown largely because of complex and surveillance activities in developing countries require expertise and resources. Surveillance data in some developed countries and periodic regular on national trends of endemic HCAI, such as the National Nosocomial Infection Control (NNIS) system in the USA and the National Nosocomial Infection Surveillance (NNIS) system in the USA, are limited to some developed countries because of social and economic difficulties that are associated with economic. Additionally, underreporting and underdiagnosis of health-care-associated infections and surveillance and control in Africa.

**Methods**  
 This review provides a general overview of the endemic burden of HCAI in Africa based on the information available in the scientific literature. It also identifies information gaps, reviews differences in HCAI epidemiology between developed and developing countries and highlights the possible role of the World Health Organization (WHO) in promoting HCAI.

**Methods**  
**Search strategy and selection criteria**  
 A literature search was performed from January 1990 to December 2009 with no language restriction to review publications on the epidemiology of the most common HCAI in African countries: health-care-associated urinary tract infection (HAUTI), surgical site infection (SSI), hospital-acquired pneumonia, ventilator-associated pneumonia and health-care-associated bloodstream infection. PubMed was searched using a combination of the following keywords, including "cross infection" or the MeSH terms, "nosocomial infection", "hospital acquired", "infectious", "prevalence" and "rate" together with the individual country names. The Cochrane Library was searched for any relevant review papers. Reference lists of retrieved articles were hand searched for additional studies.

A separate search was run in the WHO regional medical databases for Africa, African Indian Medicine, using shorter list of relevant keywords and with no time restriction. The abstracts from the following international conferences were also searched from 2004 to 2009: International Conference on Antimicrobial Agents and Chemotherapy (ICAAAC), Annual Congress of the Society for Healthcare Epidemiology of America (SHEA), Euro-

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



## Prevalence of health care-associated infection in low-/middle-income countries, 1995-2010



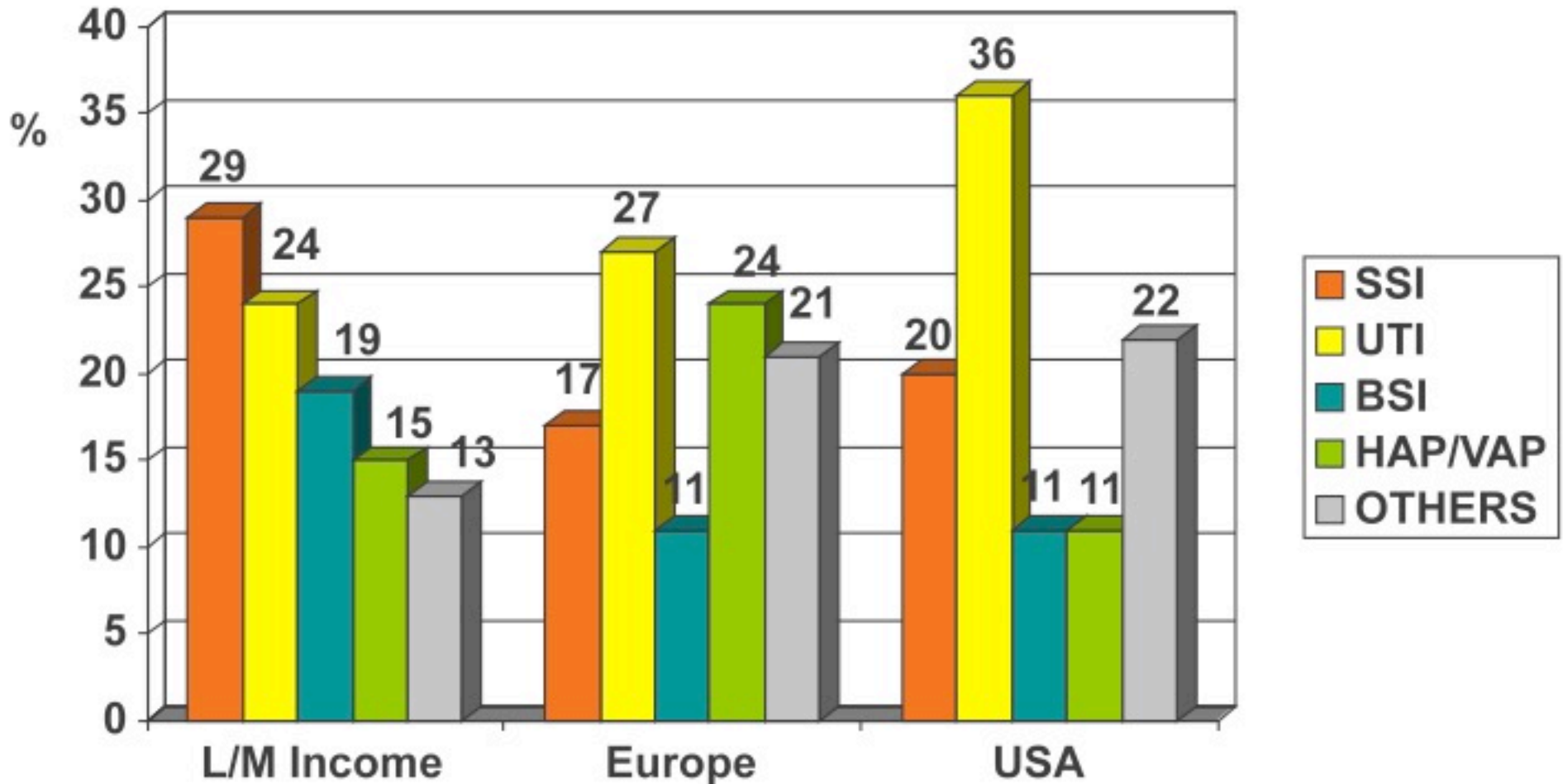
**Range: 5.7-19.1%**

**Pooled prevalence: 10.1% (95% CI 8.4-12.2)**

**In high-quality papers: 15.5% (95% CI 12.6-18.9)**

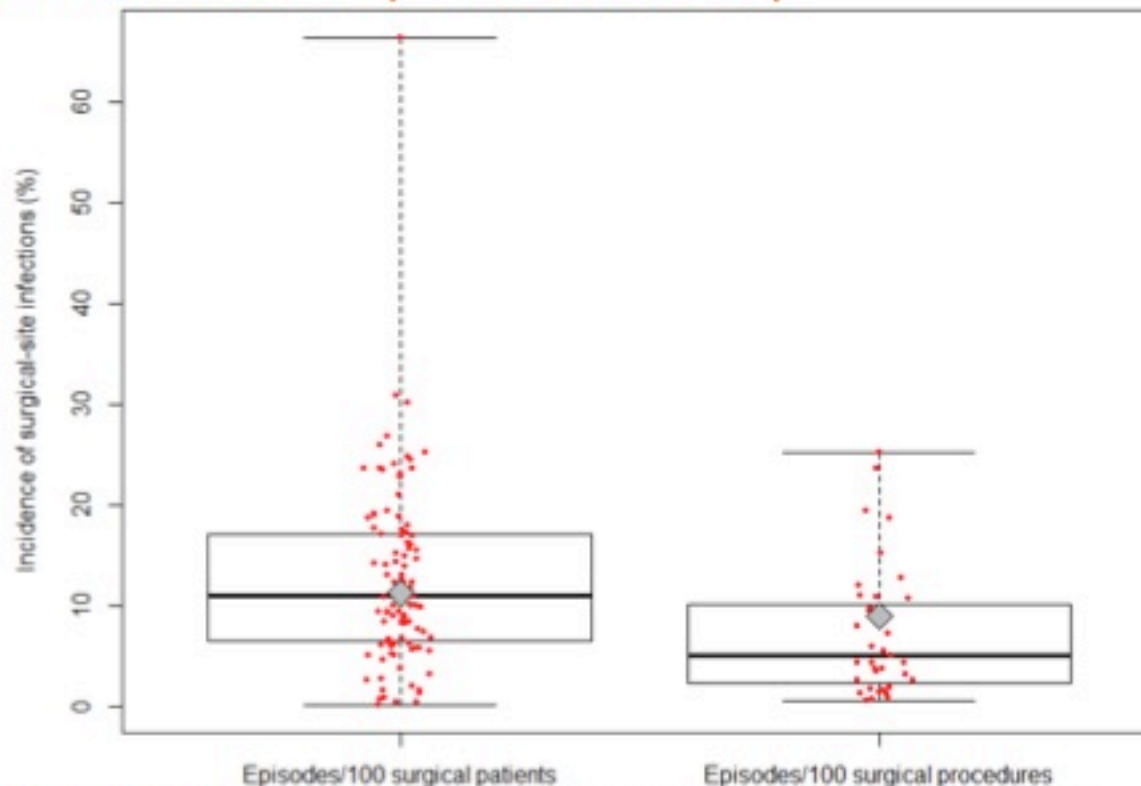
*WHO Report on the Burden of Endemic Health Care-associated Infection Worldwide*

## Distribution des ILS par région



# Revue systématique des ISC – Pays ressources limitées (1995-2015)\* 16

## Incidence du ISC (107 études)

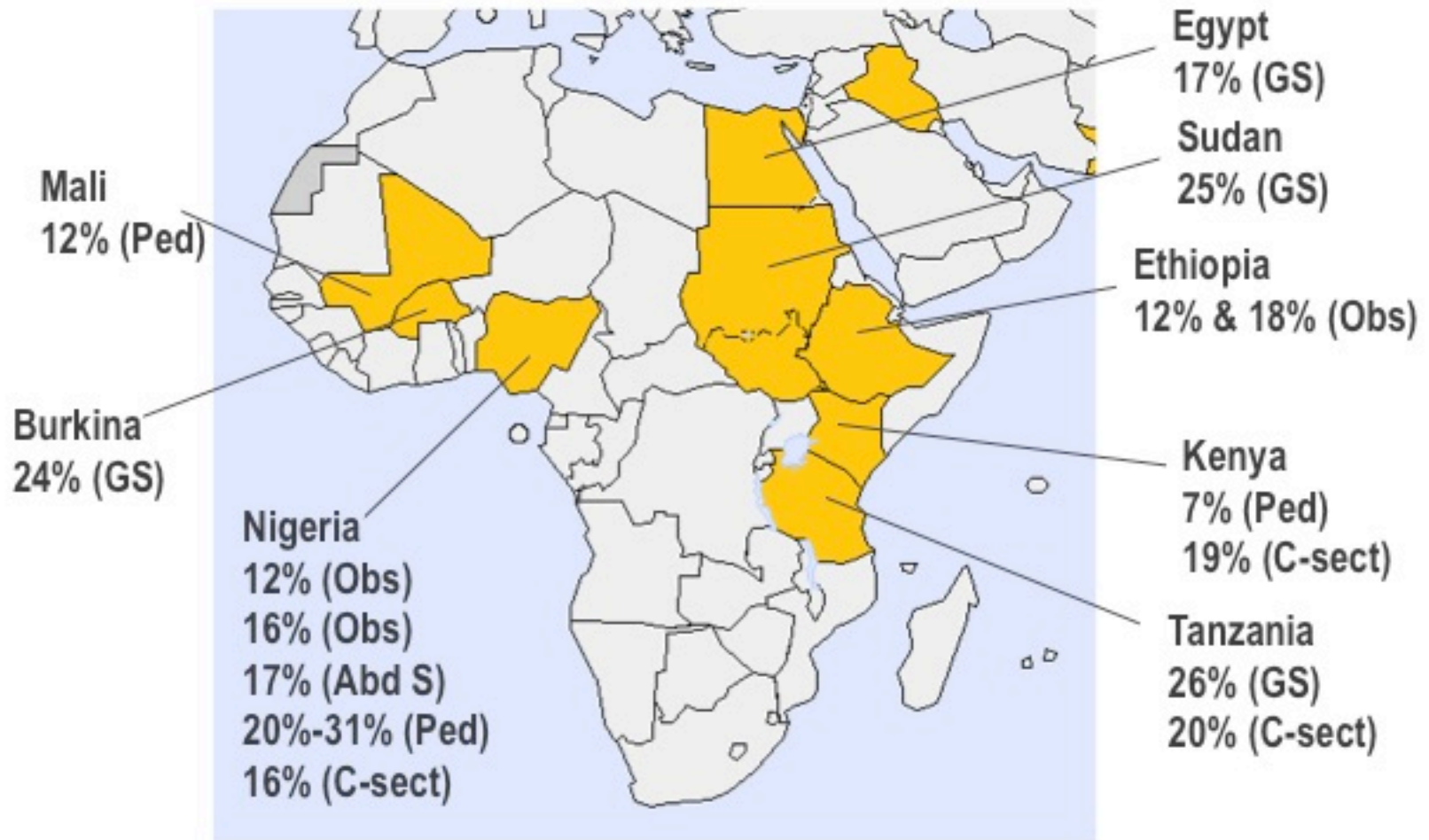


**Incidence cumulative (pooled):** 11.2% (95% CI, 9.7 to 12.8) per 100 surg pts  
7.1% (95% CI 4.6-10.2) per 100 surg procedures  
 $I^2 = 99\%$

\* 256 studies included

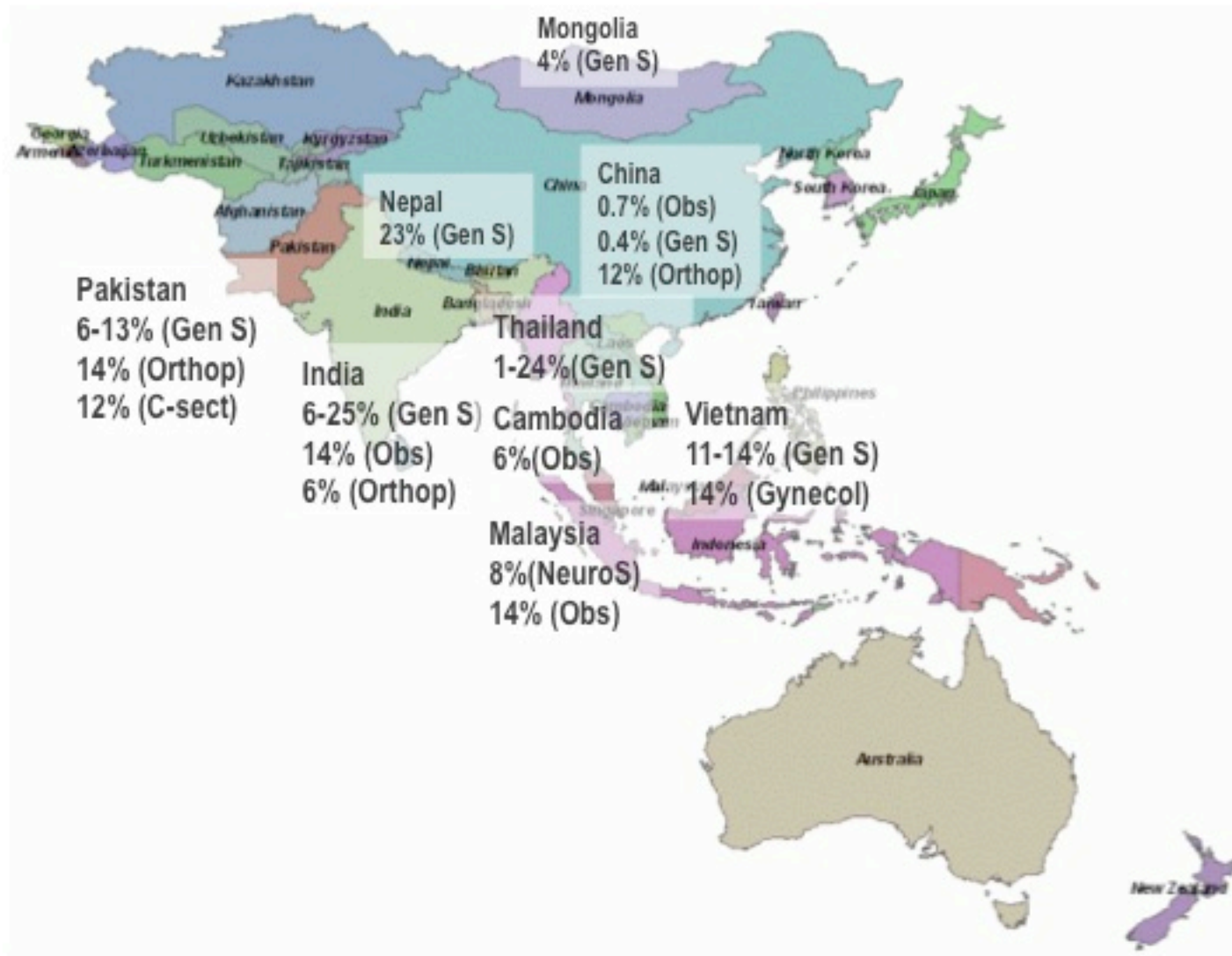


## Fréquence des ISC \* en Afrique



\*High-quality prevalence and incidence studies

## Fréquence des ISC en Asie\* (1995-2015)



\*High-quality prevalence and incidence studies

## Manques et problèmes – surveillance des ISC dans les pays aux ressources limitées

19

Pas de données pour de nombreux pays

Emploi variables

- Définitions et méthodologies de surveillance
- Surveillance après la sortie de l'hôpital
- Utilisation du N de patients au dénominateur

Données limitées

- Microbiologie et résistance aux antimicrobiens
- Indice NNIS et autres facteurs de risque
- Impact des ISC
- 18-58% des ISC sont diagnostiquées après le départ



# OUTLINE

Fardeau de l'infection du site chirurgical

Le parcours du patient en chirurgie

“SAVE LIVES: Clean Your Hands” 5 Mai dispersion  
de #safesurgicalhands

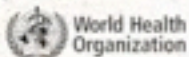
Unité centrale de Prévention et Contrôle de  
l'Infection à l'OMS

Nouvelles guidelines OMS de prévention de  
l'infection du site chirurgical (ISC)

# HAND HYGIENE AND THE SURGICAL PATIENT JOURNEY\*



Refer to **WHO 5 Moments for Hand Hygiene** material for further guidance  
[www.who.int/gpsc/5may](http://www.who.int/gpsc/5may)



#SAFESURGICALHANDS

SAVE LIVES  
CLEAN YOUR HANDS

\*© World Health Organization 2016. All rights reserved.  
 \*\*About 1 in 3 SSIs are due to *S. aureus*, +40% of which is MRSA, making SSI prevention critical to the antimicrobial resistance (AMR) agenda.  
 \*\*\*SAVE LIVES! Clean Your Hands. WHO 2016. [www.who.int/gpsc/5may](http://www.who.int/gpsc/5may)  
 \*\*\*\*WHO (2015) Report on the Burden of Endemic Health Care-Associated Infection Worldwide: WHO Evidence Synthesis y range of SSI rates in teachable, high-income countries.

Suivons  
le parcours  
du patient  
en chirurgie

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

Patient admitted  
to hospital  
or clinic



313 000 000 individus comme Odile  
bénéficient d'interventions chirurgicales / année





« Mon nom est Odile, j'ai un rendez-vous avec le Dr. Knife »

# « Bienvenue à l'hôpital, Odile »







# « Mon premier contact avec un chirurgien »

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



# Hygiène des mains, un signe de respect pour le patient



« Voici probablement le chirurgien »



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



# « Décrire la douleur au chirurgien »



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

« Oui, vous avez besoin  
d'une intervention chirurgicale »



# Chirurgie – Bureau des admissions





[www.tinyurl.com/5momentsSurgery](http://www.tinyurl.com/5momentsSurgery)<sup>32</sup>

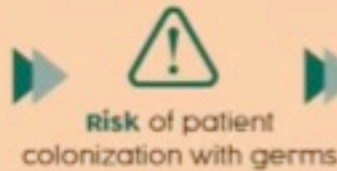


# HAND HYGIENE

## AND THE SURGICAL PATIENT JOURNEY

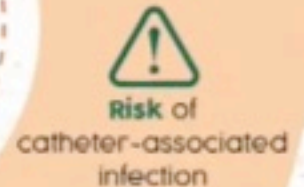
**313M**  
people undergo surgery every year  
- twice the number of babies born in the world

**Patient admitted to hospital or clinic**



Peripheral venous catheter/urinary catheter insertion

**61%**  
of health workers do not clean their hands at the right moment



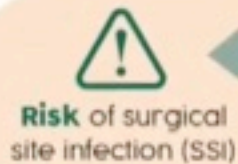
**MOMENTS FOR HAND HYGIENE**

✓ 2&3

**SURGICAL SCRUB TECHNIQUE:**  
HAND WASH OR USE ALCOHOL-BASED HANDRUB

**The operating room**

**1 in 2**  
surgical staff do not clean their hands at the right moment



**Post-op recovery**

**UP TO 31%**



# « Mon premier contact avec un anesthésiste »

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





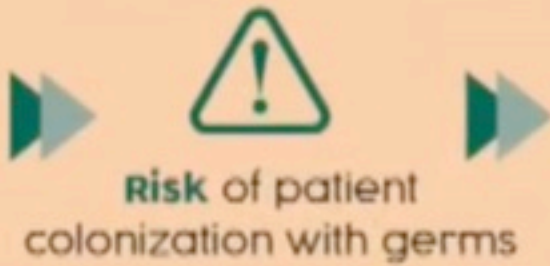
# « Check-up pré-chirurgical »

35

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

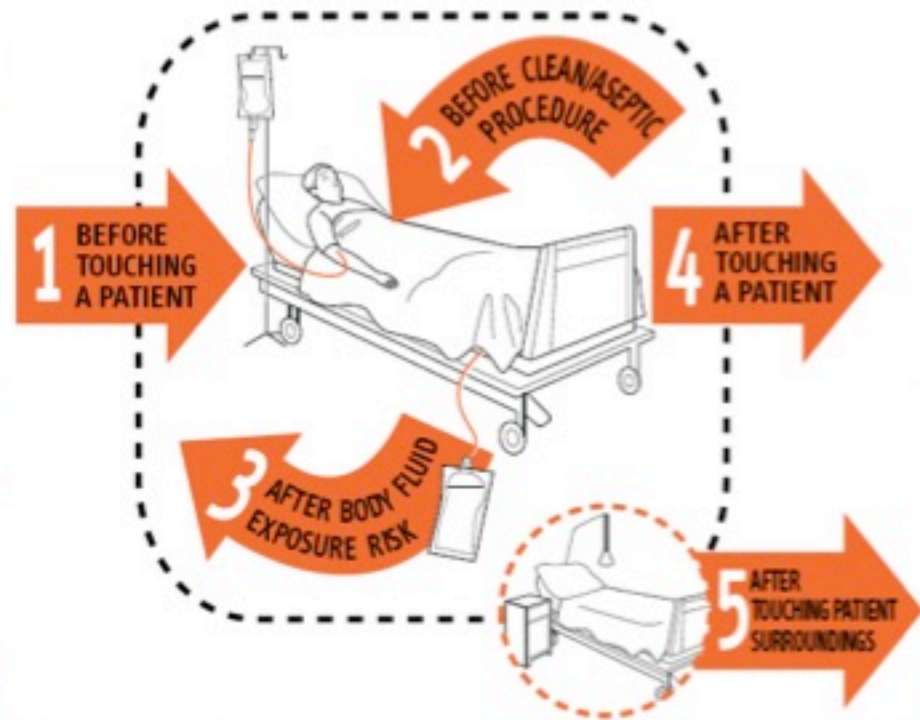


Patient admitted to hospital or clinic



Peripheral v catheter/urinary catheter ins

# My 5 moments for HAND HYGIENE



61% of health workers do not clean their hands at the right moment

Risk of catheter-associated infection

MOMENTS FOR HAND HYGIENE

AL SCRUB TECHNIQUE:

✓ 2&3

HAND WASH OR USE

cal staff do not



# « Ma première expérience dans un bloc opératoire »





« Mon anesthésiste est là, il se frictionne les mains; me voilà rassurée »





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



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





# My 5 Moments for Hand Hygiene

## Focus on caring for a patient with a peripheral venous catheter



### 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/maintenance/removal**
  - 2.1 Prepare clean skin with an antiseptic (70% alcohol, tincture of iodine, an iodophor, or alcohol-based 2% chlorhexidine gluconate) before catheter insertion.
  - 2.2 Wear clean, non-sterile gloves and apply an aseptic procedure (with non-touch technique) for catheter insertion, removal, and blood sampling.
  - 2.3 Replace any dry gauze-type 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 all 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.

# « Un tube dans ma trachée... »

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



# 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 turned off (in patients without contraindications).
- Perform regular oral care aseptically 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.



World Health Organization

SAVE LIVES  
Clean Your Hands

Clean Care  
is Safer Care  
2005-2015

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« Mais où est mon chirurgien ? »



# 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



4



5



6



7

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).







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



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



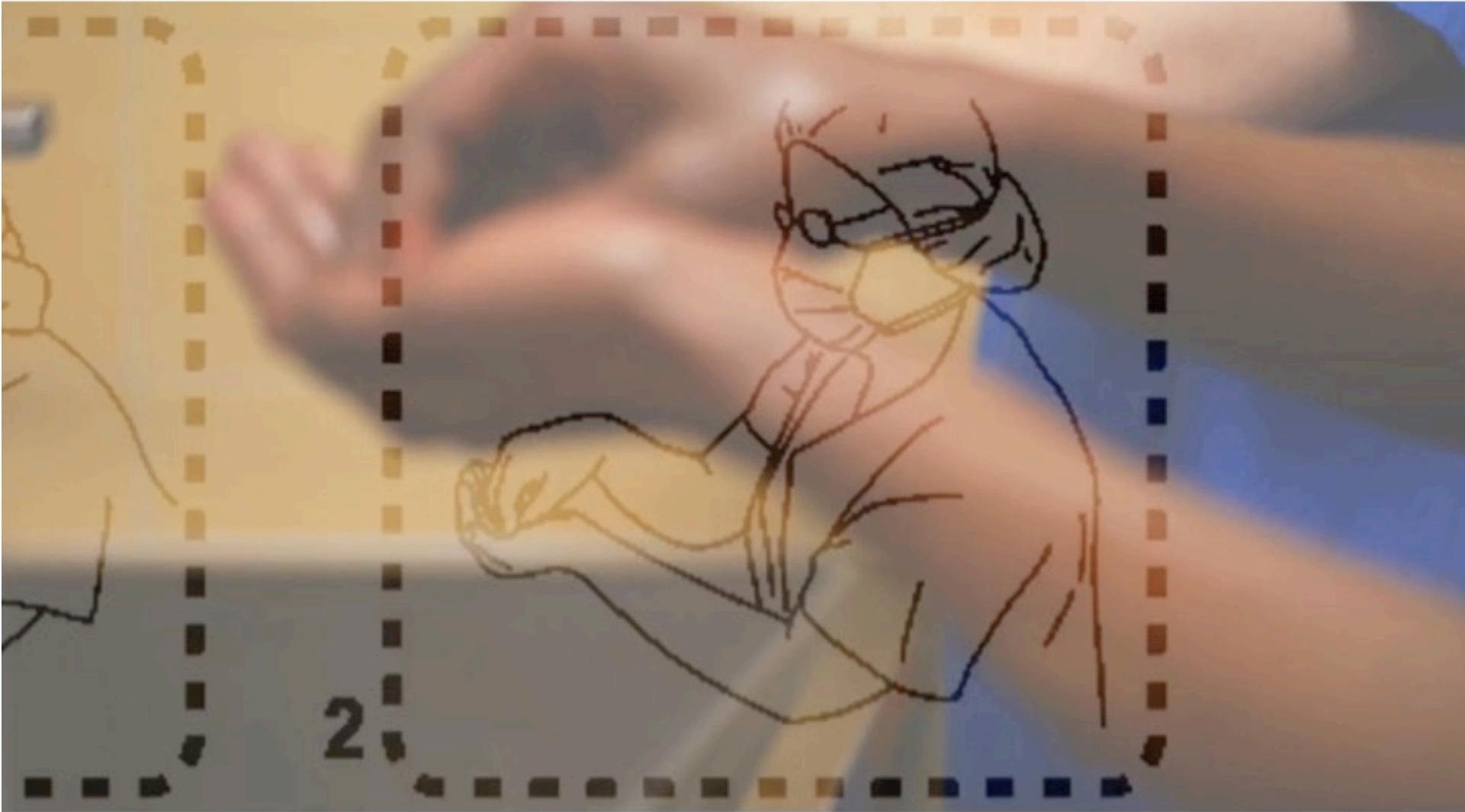
Put approx. 5ml (3 doses)

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





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





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



« Où suis-je ?....

61

« L'opération est-elle terminée? »





Post-op recovery



Line/urinary catheter removal

MOMENTS FOR HAND HYGIENE

✓ 2&3

1 in 2

surgical staff do not clean their hands at the right moment

Length of stay increases by



in SSI cases

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

room

SURGICAL

HAND ALCOHOL

Post-op wound dressing removal

# Salle de réveil

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





# Contrôle de la douleur en salle de réveil

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







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

# Manipulation des « devices »

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





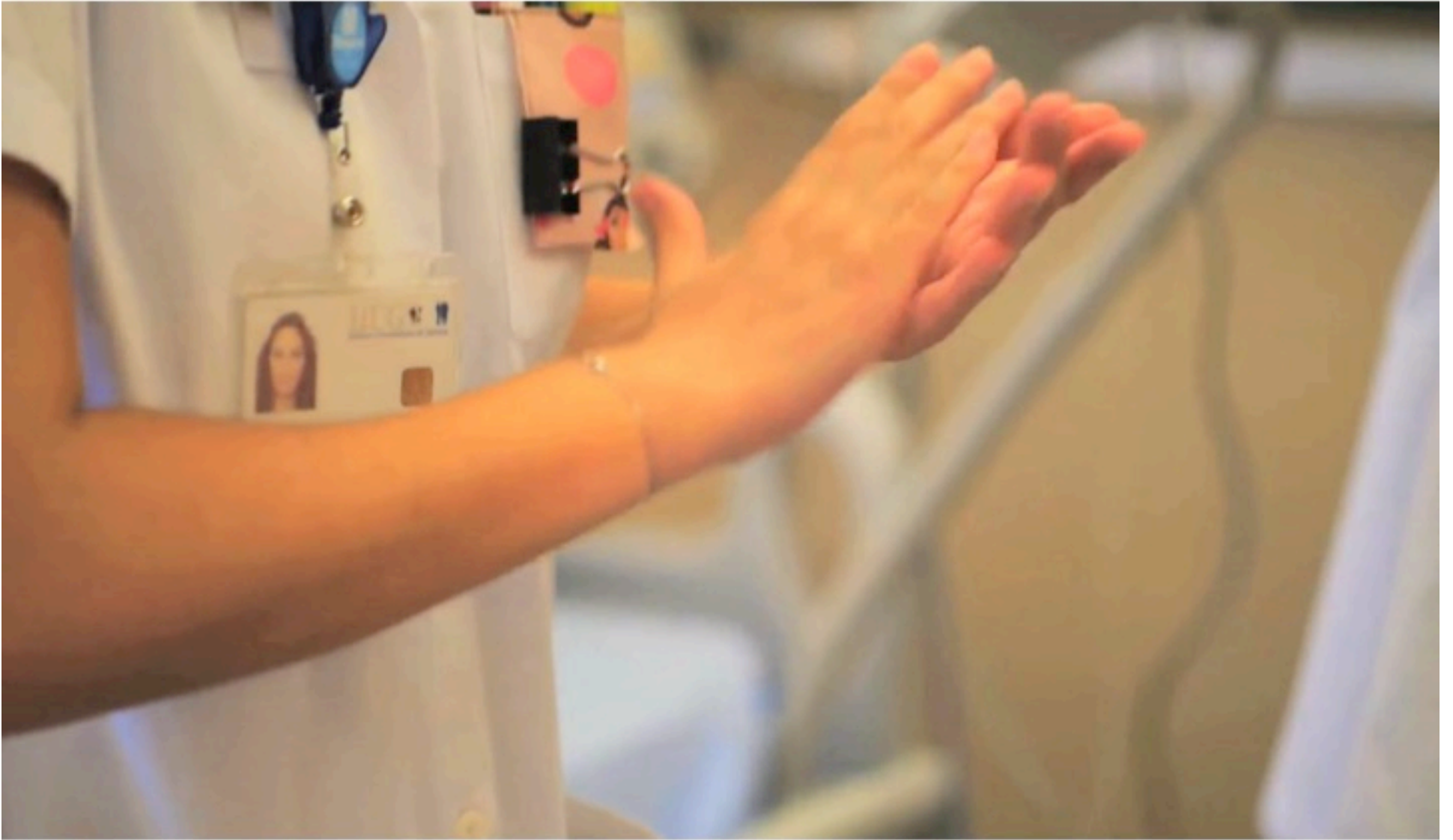




[www.tinyurl.com/5momentsSurgery](http://www.tinyurl.com/5momentsSurgery)

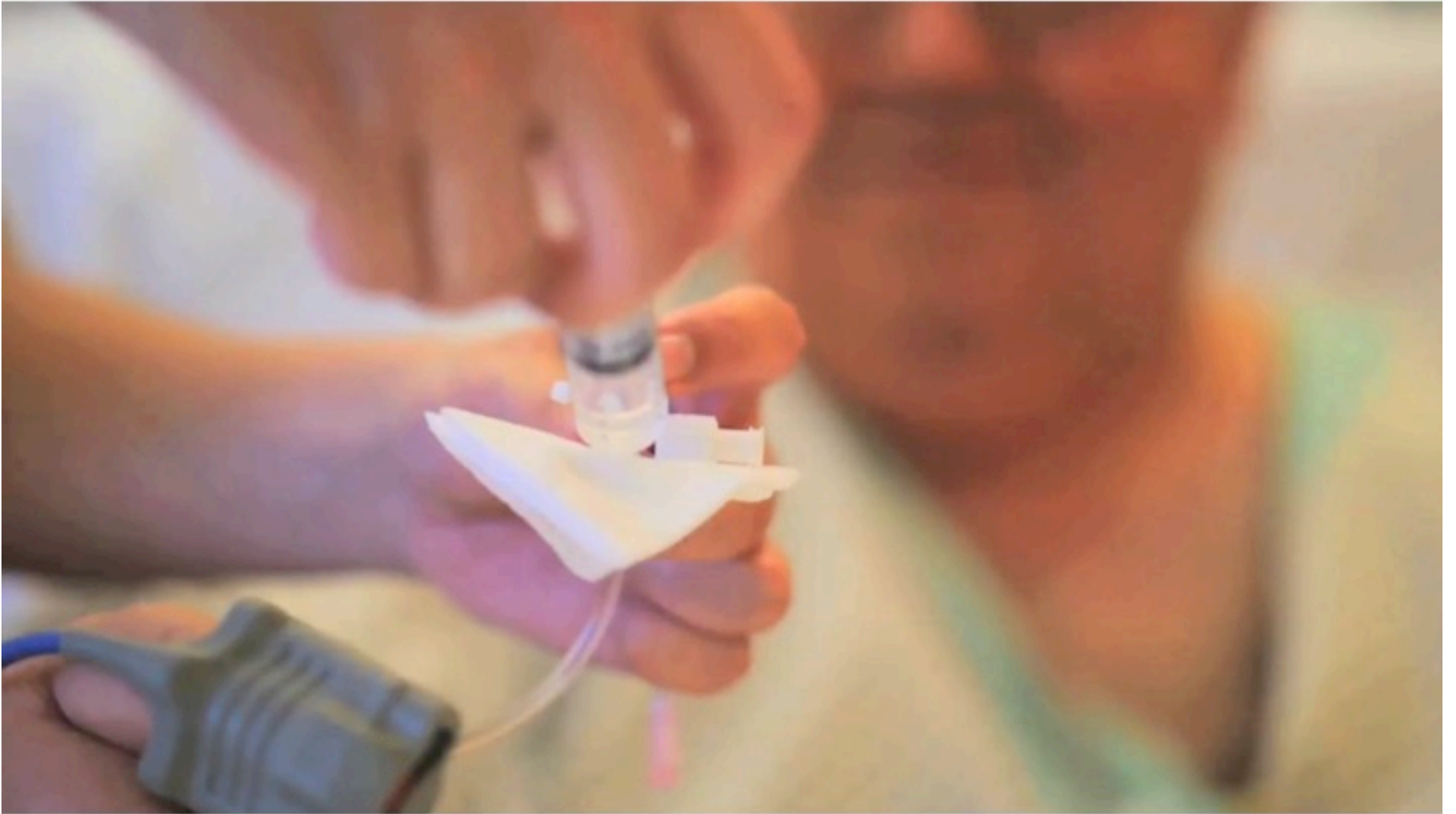
# Manipulation des accès vasculaires





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





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

# My 5 Moments for Hand Hygiene

## Focus on caring for a patient with a peripheral venous catheter



### Key additional considerations for peripheral intravenous catheters

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World Health  
Organization

SAVE LIVES  
Clean Your Hands

Clean Care  
is Safer Care  
2005-2015



« Quelle est l'étape suivante?... Risque? »



# Soins du site chirurgical / plaie



# My 5 Moments for Hand Hygiene

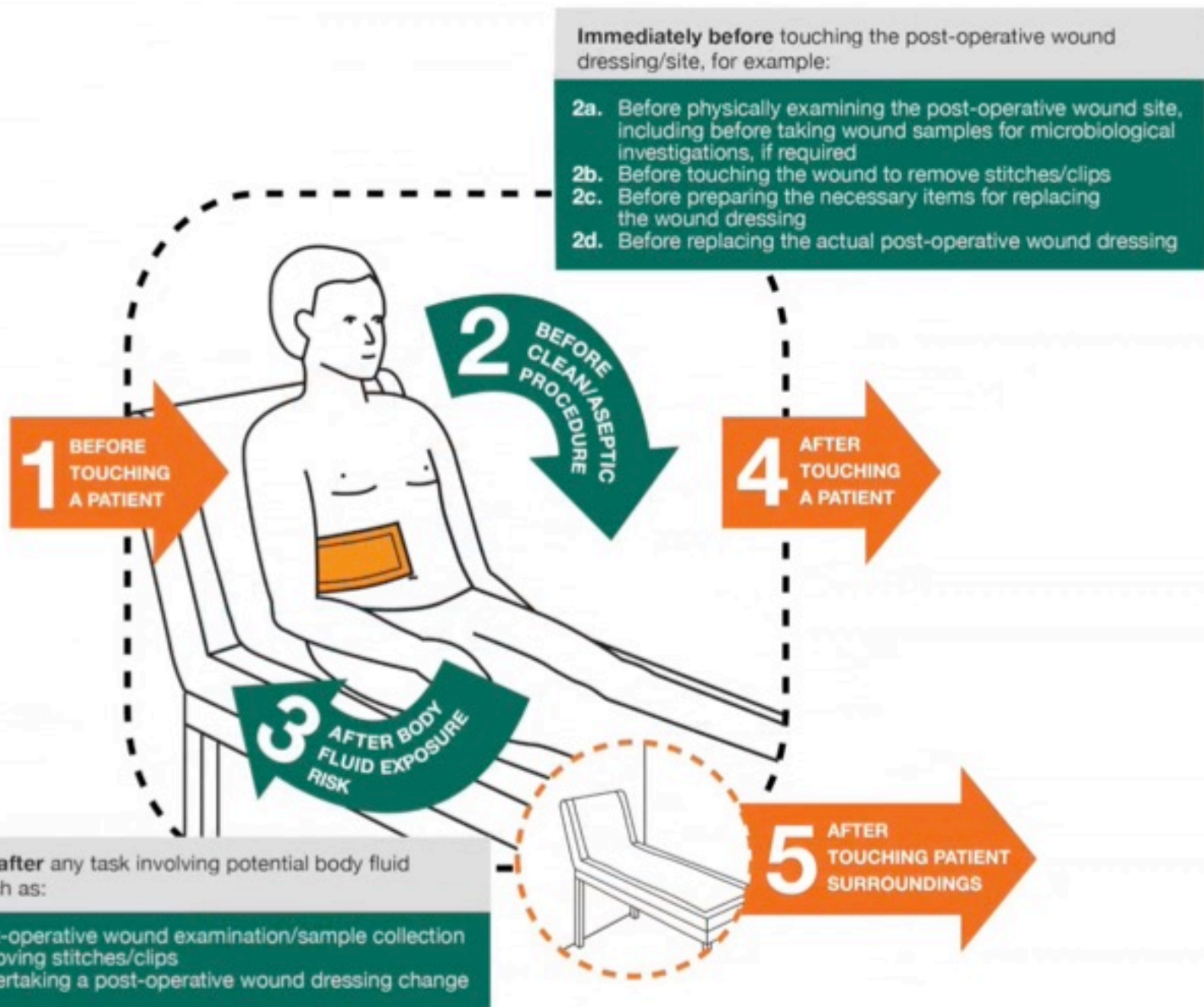
## Focus on caring for a patient with a post-operative wound



### Key additional considerations for post-operative wounds

- Avoid unnecessary touching of the post-operative wound site, including by the patient
- Wear gloves if contact with body fluids is anticipated, the need for hand hygiene does not change even if gloves are worn, so per the WHO 5 Moments
- Follow local procedures regarding use of aseptic non-touch technique for any required dressing changes/wound procedures
- Don't touch dressings for at least 48 hours after surgery, unless leakage or other complications occur
- Routine post-operative wound dressings should be basin dressing types (e.g. absorbent or low adherence dressings)
- When approaching a patient for the examination of a wound, the health worker may also perform other tasks (e.g. accessing a venous catheter, drawing blood samples, checking urinary catheter). Hand hygiene may be needed before and after these specific tasks, to once again fulfil Moments 2 and 3, for example (refer to WHO dedicated 3 Moments poster for line or catheter management)
- When indicated, pre-operative surgical antibiotic prophylaxis (SAP) should be administered as a single parenteral dose 2 hours or less before the surgical incision, while considering the half-life of the antibiotic. Do not provide administration of SAP after completion of the operation.
- Antibiotic therapy for any proven surgical site infection should ideally be administered based on wound sample culture and sensitivity results.
- Common signs and symptoms of wound infection are pain or tenderness, localized swelling, erythema, heat, or purulent drainage from the superficial incision.
- This guidance does not include information on complicated post-operative wound care, when specific treatments or therapies may be required.

Les soins du site chirurgical requièrent une attention particulière et une pratique optimale des gestes d'hygiène des mains





# « Visite post-op de mon chirurgien »



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

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



MOMENTS FOR  
HAND HYGIENE



Patient safely  
discharged



✓ 2&3

Post-op wound  
dressing removal



**HAND HYGIENE  
SUPPORTS SAFE  
SURGICAL CARE**





« Home,  
sweet home  
... »



# « Soins chirurgicaux sûrs tout au long du parcours en chirurgie »



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



World Health  
Organization

« Soins chirurgicaux sûrs tout au long  
du parcours en chirurgie »





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



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



Professor E. Patchen Dellinger

Professor of Surgery

University of Washington Medical School (USA)



Dr Peter M Nthumba  
Surgeon  
AIC Kijabe Hospital, Kijabe (Kenya)

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





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



# Bureau des admissions - Chirurgie



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

# Anesthésiologie

87



# Préparation des mains à la chirurgie





# Soins sûrs en salle de réveil



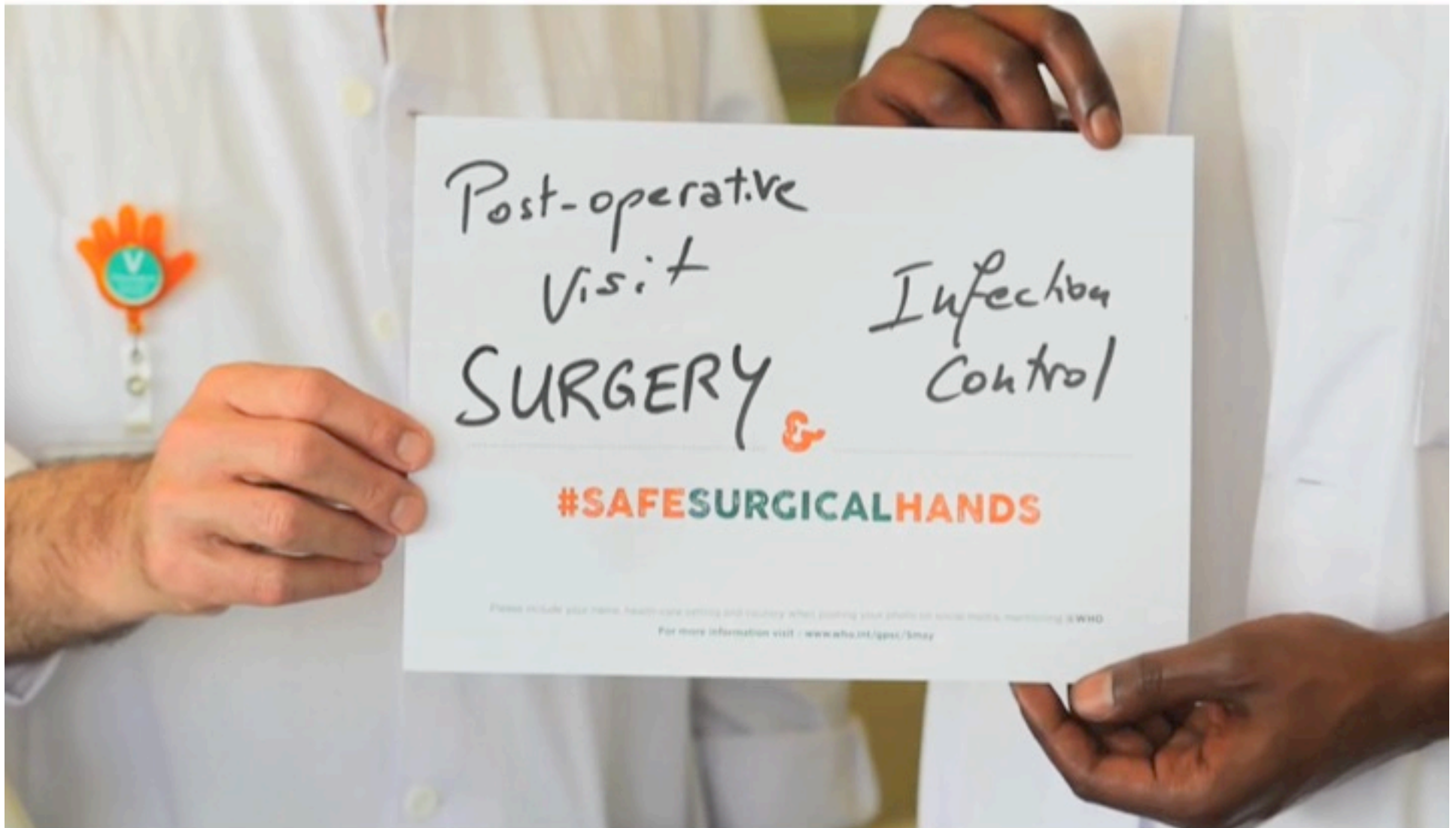
[www.who.int/gpsc/5may/EN\\_PSP\\_GPSC1\\_5May\\_2016/en/](http://www.who.int/gpsc/5may/EN_PSP_GPSC1_5May_2016/en/)

# Soins pré- et post-opératoires sûrs



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





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







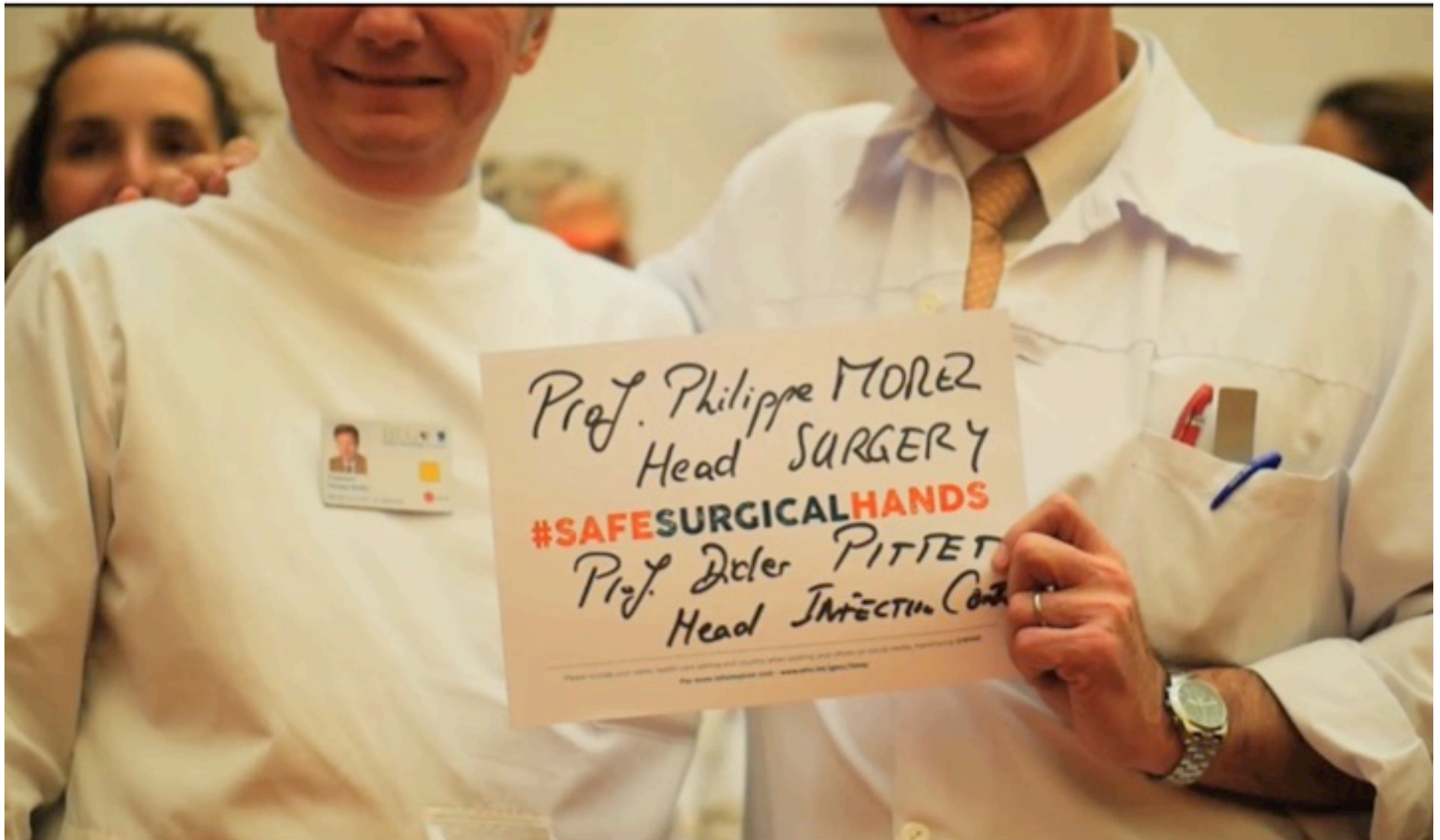
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# OUTLINE

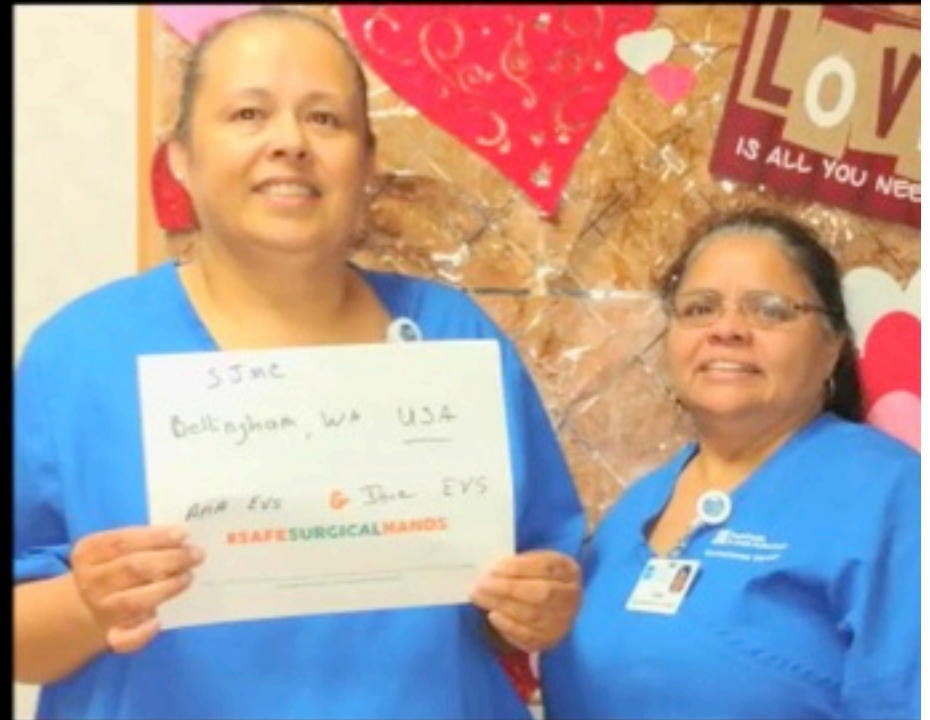
Fardeau de l'infection du site chirurgical

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“SAVE LIVES: Clean Your Hands” 5 Mai  
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Unité centrale de Prévention et Contrôle de  
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Nouvelles guidelines OMS de prévention de  
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[www.who.int/gpsc/5may/EN\\_PSP\\_GPSC1\\_5May\\_2016/en/](http://www.who.int/gpsc/5may/EN_PSP_GPSC1_5May_2016/en/)





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# “Leaders” en soutien de la campagne





# “Leaders” en soutien de la campagne

103





## 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 2015, social media analytics 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.

17 / 29



## Chirurgiens leaders au Ghana

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## WHO Eastern Mediterranean Region



## Activités régionales et nationales en France

## Mexico



Traduction des outils en hongrois, bulgare et autres langues  
 Activités en Sierra Leone et Western Pacific Region

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



**SEE YOUR HANDS**  
 SAFE SURGICAL CARE

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.](#)

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

Atualizado: 15 de maio de 2016

Esta é uma campanha de higiene das mãos pelo OMS voltada para a segurança do cuidado ao paciente cirúrgico.

Os pacientes cirúrgicos são vulneráveis a infecções hospitalares tanto pelo risco de infecção de sites cirúrgicos como pelo risco de infecções associadas aos procedimentos. Cada um de nós pode fazer a sua parte, participando da campanha e do gerenciamento de materiais, especialmente nos serviços de saúde.

Estão sendo disponibilizados materiais para facilitar as campanhas em todo o mundo, os quais encontram-se disponíveis na página: [http://www.who.int/campaigns/5may16/5MAY\\_2016\\_campaign](http://www.who.int/campaigns/5may16/5MAY_2016_campaign)

Tags: OMS  
<http://www.who.int/campaigns/5may16/>, <http://www.who.int/campaigns/5may16/>



**Centre for Health Protection**  
 Department of Health  
 The Government of the Hong Kong Special Administrative Region

**Hand Hygiene Awareness Day 5 May 2016**

13 April 2016

**See Your Hands – Hand Hygiene Supports Safe Surgical Care**

Hand hygiene is the single most important measure to prevent infections. In 2008 Hong Kong has pledged support to the World Health Organisation (WHO)'s first Global Patient Safety Challenge: Clean Care is Safer Care, by actively promoting hand hygiene in both health-care setting and in the community. From 2010 onwards, Hand Hygiene Awareness Day is marked annually on 5 May in Hong Kong, in support of the WHO's SAVE LIVES: Clean Your Hands initiative which aims to raise the public awareness of good hand hygiene.

**Infection Control Africa Network**

**Drug And Medical Supply Information Center, Ministry of Public Health**

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

**SEE YOUR HANDS**  
 SAFE SURGICAL CARE

Text in Thai script describing the campaign and its importance for patient safety.

**ips** Infection Prevention Society

**International Calls for Action**

**World Health Organisation SAVE LIVES: Clean your hands, every 5<sup>th</sup> May**

Image of two women holding a banner for the campaign.

**SEE VOID**

Join WHO's SAVE LIVES: Clean Your Hands 5 May 2016 Campaign!

**HAND HYGIENE SUPPORTS SAFE SURGICAL CARE**

[Click Here!](#)

**IFIC** International Federation of Infection Control

To facilitate international networking in order to improve the prevention and control of healthcare associated infections worldwide

**Join WHO's SAVE LIVES: Clean Your Hands 5 May 2016 campaign**

**Healthcare Associated Infections & Infection Control**

News & Information

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

20 May 16: Launch of National Infection Prevention and Control Week

20 May 16: Publication of quarterly reports on H. pylori infection and H. influenzae

27 May 16: Publication of quarterly reports on H. pylori infection and H. influenzae

20 May 16: Announcement of the Report on Antimicrobial Use and Resistance in Humans in 2015

20 May 16: WHO's Infection Control

20 May 16: WHO's Infection Control

20 May 16: WHO's Infection Control

20 May 16: WHO's Infection Control





# Private Organizations for Patient Safety

*Private Organisations for Patient Safety (POPS):  
A collaboration between the World Health Organisation Patient Safety Programme and industry*









# 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>



# 140 countries committed to address health care-associated infection

110

World population coverage : > 95 %

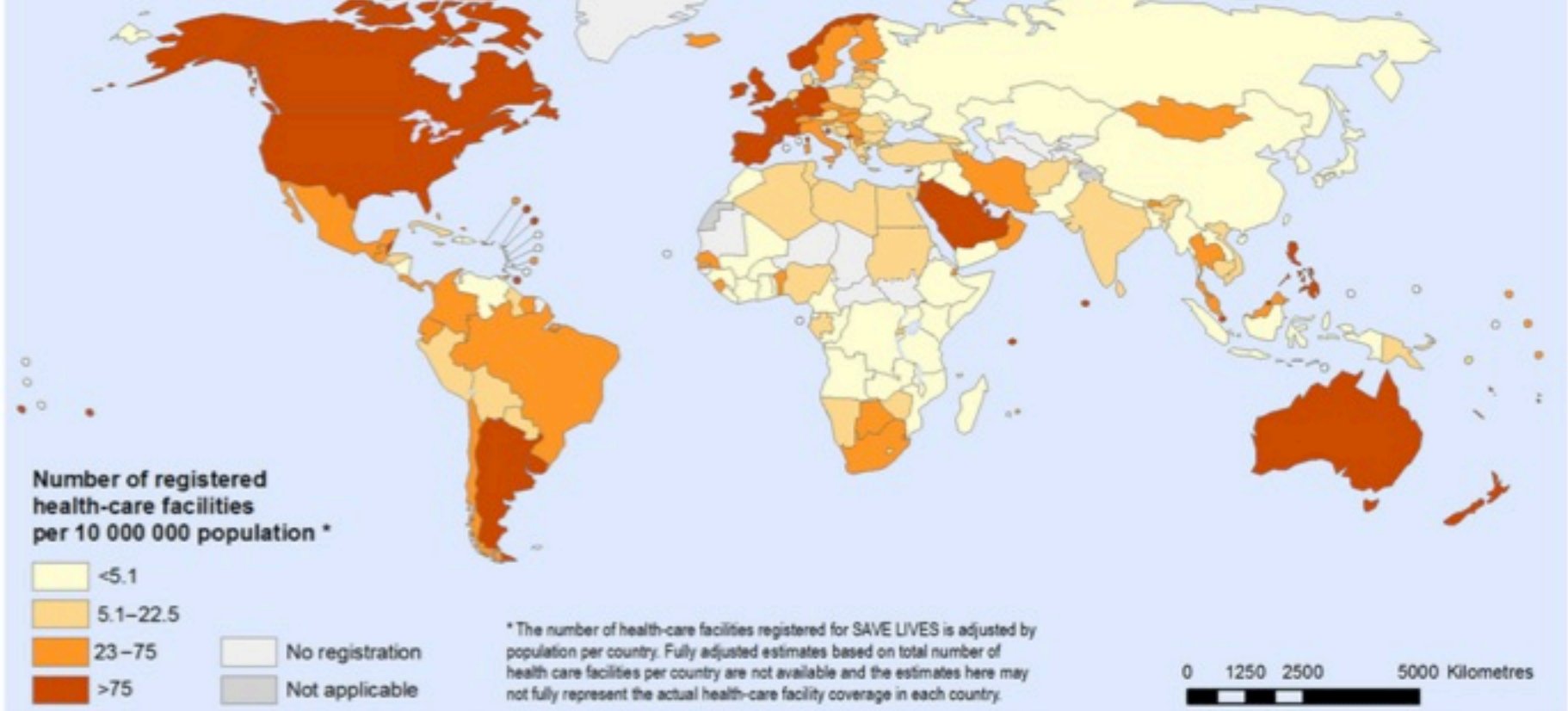


© World Health Organization

Countries committed Oct 2005 – 4 May 2016

Countries with health-care facilities registered for  
SAVE LIVES: Clean Your Hands global campaign

**18,738 in 176 countries, new for 2016**  
**San Marino and Turks and Caicos**



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization  
Map Production: Innovation, Information,  
Evidence and Research (IER)  
World Health Organization



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Hong Kong  
5 May 2014

**1<sup>st</sup> Hand Sanitizing Relay Guinness World Record  
on Compliance with Hand Hygiene  
Hong Kong Baptist Hospital**



***Get ready this year again !***



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**

**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.



**World Health Organization**

**Patient Safety**

A WHO Alliance for Patient Health Care

**SAVE LIVES**

**Clean Your Hands**

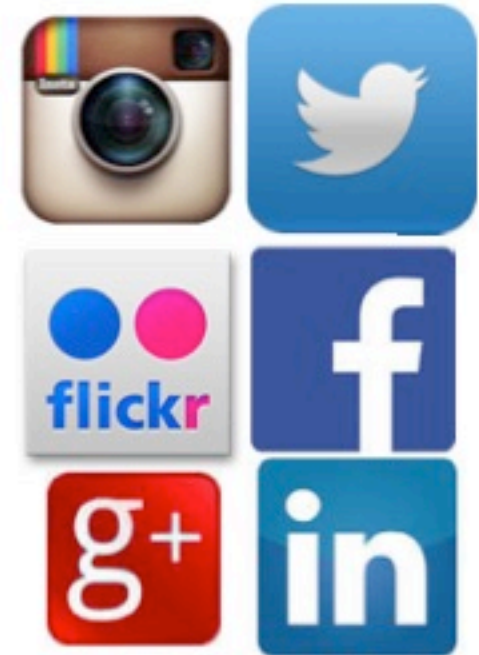
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May 2015



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)











Mashhad,  
Iran, 2015

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Come share your own Relay on:



**[facebook.com/groups/HandSanitizingRelay](https://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](mailto:handhygienerelay@cleanhandssavelives.org)





# 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, the tool should be a catalyst for implementing and sustaining a comprehensive hand hygiene programme within a health-care facility.

### Who should use the Hand Hygiene Self-Assessment Framework?

This tool should be used by professionals in charge of implementing a strategy to improve hand hygiene within a health-care facility. If no strategy is being implemented yet, then it can also be used by professionals in charge of infection control or senior managers at the facility/directorate. The framework can be used globally, by health-care facilities at any level of progress as far as hand hygiene promotion is concerned.

### 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 Multimodal Hand Hygiene Improvement Strategy** (<http://www.who.int/gpsc/5may/tools/en/index.html>) and the indicators have been selected to represent the key elements of each component. These indicators are based on evidence and expert consensus and have been framed 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: Inadequate, Basic, Intermediate and Advanced.

**Inadequate:** hand hygiene practices and hand hygiene promotion are deficient. Significant improvement is required.

**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 crucial to develop long-term plans to ensure that improvement is sustained and progressed.

**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 recognise facilities that are considered a reference centre and contribute to the promotion of hand hygiene through research, innovation and information sharing. The assessment according to 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 circle 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 interpretation process 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 easily available.

Within 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 **WHO Multimodal Hand Hygiene Improvement Strategy** (<http://www.who.int/gpsc/5may/tools/en/index.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 or national bodies may consider adapting this tool for external comparison or benchmarking. However, this was not a primary aim during the development of this tool. In particular, we would draw attention to the risks inherent in using a self-reported evaluation tool for external benchmarking and also advise the use of caution if comparing facilities of different sizes and complexity, in different socioeconomic settings. It would be essential to consider these limitations if inter-facility comparison is to be undertaken.


# Survey OMS 2015

## Hand Hygiene Self-Assessment

### Resultats préliminaires

- De Juin 2015 à Janvier 2016, les hôpitaux et institutions ont été invités à participer au 2e “survey OMS” de mesure du” Hand Hygiene Self-Assessment Survey (HHSAF)”
- Un site dédié et protégé a été utilisé online
- Soumission par email possible
- Staff OMS assigné à l’entrée de données et au contrôle de qualité

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

 World Health Organization

Patient Safety  
A World Alliance for Safer Health Care

**SAVE LIVES**  
Clean Your Hands

## Hand Hygiene Self-Assessment Framework 2010

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WHO Hand Hygiene Self-Assessment Framework Global Survey 2015

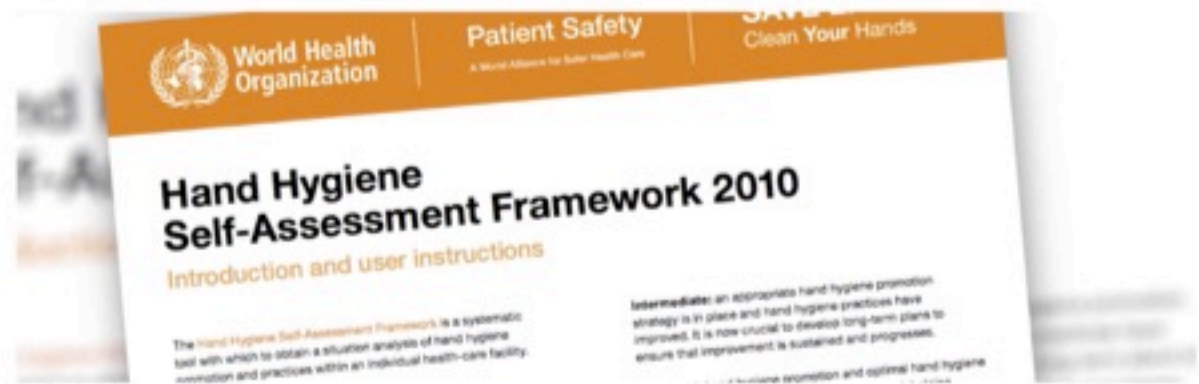


# Interprétation du score “HHSAF”

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- Score maximal: 500 points
- **“Inadequate”** (score 0-125): Amélioration requise absolument
- **“Basic”** (score 126-250): Amélioration requise
- **“Intermediate”** (score 251-375): Important de développer des plan d’actions à long terme pour assurer la perennité
- **“Advanced”** (score 376-500): la promotion de l’hygiène des mains et des pratiques de soins optimales doivent être pérennes et s’inscrire dans la culture institutionnelle de qualité des soins. Le modèle de la promotion de l’hygiène des mains est utilisé comme exemple pour d’autres projets liés à la sécurité des patients

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



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

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

Choose one answer	Available facility-wide with continuous supply (with efficiency and tolerability proven)	30	
<b>1.2</b> What is the sink:bed ratio?	Less than 1:10	0	→ Ward Infrastructure Survey → Guide to Implementation 3.1
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	
<b>1.3</b> Is there a continuous supply of clean, running water?	No	0	→ Ward Infrastructure Survey → Guide to Implementation 3.1
	Yes	10	
<b>1.4</b> Is soap <sup>3</sup> available at each sink?	No	0	→ Ward Infrastructure Survey
	Yes	10	→ Guide to Implementation 3.1
<b>1.5</b>			



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



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

Choose one answer	Available facility-wide with continuous supply (with efficacy and tolerability) present	10	
<b>1.2</b> What is the sink:bed ratio?	Less than 1:10	0	→ Ward Infrastructure Survey → Guide to Implementation 3.1
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	
<b>1.3</b> Is there a continuous supply of clean, running water?	No	0	→ Ward Infrastructure Survey → Guide to Implementation 3.1
	Yes	10	
<b>1.4</b> Is soap <sup>1</sup> available at each sink?	No	0	→ Ward Infrastructure Survey
	Yes	10	→ Guide to Implementation 3.1
<b>1.5</b> Is soap <sup>1</sup> available at each sink?	Yes		



WHO Hand Hygiene Self-Assessment Framework Global Survey 2015

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

3.5 Feedback			
3.5a Immediate feedback Is immediate feedback given to health-care workers at the end of each hand hygiene compliance observation session?	No	0	→ Guide to Implementation 3.3 → Observation and Basic Compliance Calculation forms
	Yes	5	
3.5b Systematic feedback Is regular (at least 6 monthly) feedback of data related to hand hygiene indicators with demonstration of trends over time given to:			→ Data Summary Report Framework → Guide to Implementation 3.3
3.5b.i Health-care workers?	No	0	
	Yes	7.5	
3.5b.ii Facility leadership?	No	0	
	Yes	7.5	
<b>Evaluation and Feedback subtotal</b>		<b>55</b>	<b>/100</b>



WHO Hand Hygiene Self-Assessment Framework Global Survey 2015

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

1. Add up your points.

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	
Total	

↓

Total Score (range)	Hand Hygiene Level
	Intermittent



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



# Survey OMS 2015 – Resultats

- Score moyen: *intermediate*
- La majorité des institutions: *intermediate* or *advanced* (87%)
- Proportion élevée – critères de *leadership* (79%)
- Les scores les plus bas sont associés à: “evaluation and feedback” and “institutional patient safety climate”
- Score moyen le plus bas: région Afrique (280.9 ± 127.3)  
données récoltées de 60 institutions
- Score moyen le plus élevé: Région Asie/Sud Est (420.6 ± 77.6)  
données récoltées de 231 institutions

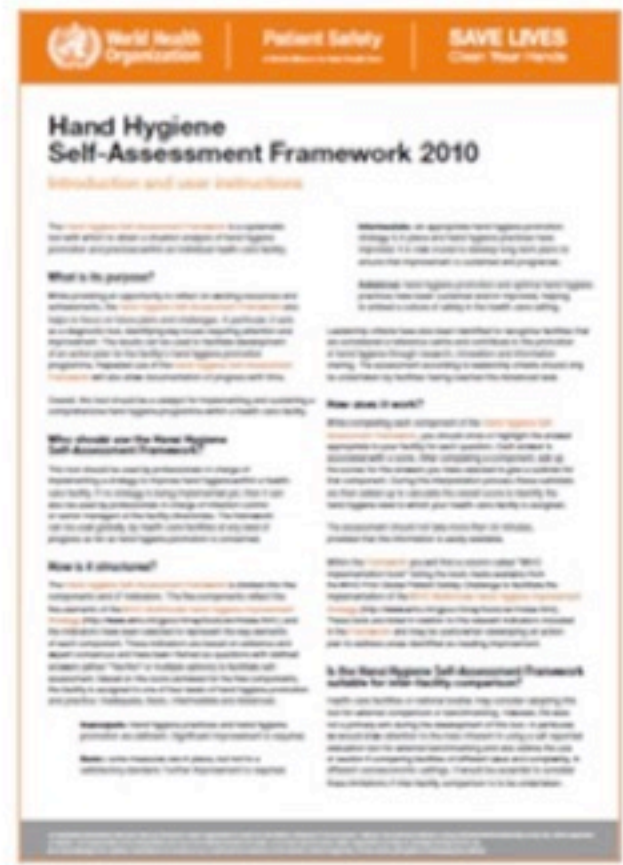
Rapport complet disponible: [http://www.who.int/gpsc/5may/EN\\_PSP\\_GPSC1\\_5May\\_2016/en/](http://www.who.int/gpsc/5may/EN_PSP_GPSC1_5May_2016/en/)

# Beaucoup de personnes à remercier– voir WHO Voir web pages – MERCI !

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<a href="#">Sign up for WHO updates</a>	<a href="#">Association for Professionals in Infection Control and Epidemiology</a>
<a href="#">Campaigning countries</a>	<a href="#">Associação Paulista de Epidemiologia e Controle de Infecção Relacionada à Assistência à Saúde</a>
<a href="#">Information centre</a>	<a href="#">Canadian Patient Safety Institute</a>
<a href="#">News and events</a>	<a href="#">Centre for Health Protection, Department of Health Hong Kong</a>
	<a href="#">Centers for Disease Control and Prevention (CDC)</a>
	<a href="#">Copper Queen Community Hospital (AZ - USA)</a>
	<a href="#">Drug And Medical Supply Information Center, Ministry of Public Health Thailand</a>
	<a href="#">Grampian's Health Improvement Network (HI-Net)</a>
	<a href="#">Health Protection Scotland (NHS National Services Scotland)</a>
	<a href="#">Health Canada</a>
	<a href="#">Healthcare Infection Society</a>
	<a href="#">Hong Kong Infection Control Nurses' Association</a>
	<a href="#">Infection Control Africa Network</a>
	<a href="#">Infection Control Society of Taiwan</a>
	<a href="#">Infection Prevention and Control Canada (IPAC)</a>
	<a href="#">Infection Prevention Society (UK and Ireland)</a>
	<a href="#">Institute for Healthcare Improvement (IHI)</a>
	<a href="#">Interburns International, Welsh Centre for Burns &amp; Plastic Surgery</a>
	<a href="#">International Alliance of Patients' Organizations (IAPPO)</a>
	<a href="#">International Federation of Infection Control</a>
	<a href="#">International Resource for Infection Control</a>
	<a href="#">Le réseau CClin - Arfin, France</a>
	<a href="#">Liverpool Community Health NHS Trust</a>
	<a href="#">MRSA Survivors Network</a>
	<a href="#">National Hand Hygiene Campaign Argentina</a>
	<a href="#">National Hand Hygiene Campaign Australia</a>
	<a href="#">National Health Information Center, Office of Disease Prevention and Health Promotion, US</a>
	<a href="#">Royal Rehab, The Rehabilitation &amp; Disability Support Network (Australia)</a>
	<a href="#">Staffordshire and Stoke on Trent Partnership NHS Trust</a>
	<a href="#">The Joint Commission</a>
	<a href="#">Tropical Health &amp; Education Trust (THET)</a>
	<a href="#">University of San Francisco Medical Center</a>
	<a href="#">UK and international Awareness Days</a>
	<a href="#">Your Health Link - Mid North Coast Local Health District (MNCLHD) (Australia)</a>

*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)



# Adapt to Adopt



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



THIERRY CROUZET

# CLEAN HANDS SAVE LIVES

FOREWORD

Dr. Margaret Chan  
WHO Director-General  
Sir Liam Donaldson  
WHO Patient Safety  
Envoy

[CleanHandsSaveLives.org](http://CleanHandsSaveLives.org)

L'ÂGE  
D'HOMME

CARING HANDS    KILLING HANDS

"...16 MILLION  
DEATHS  
EACH YEAR,  
A GLOBAL  
CHALLENGE..."

PROF DIDIER PITTET

# CLEAN HANDS

A FILM DIRECTED BY GÉRALDINE ANDRÉ AND STÉPHANE SANTINI

YANN AUDOIN - LAURENT DETHES - DIDIER FREDEVEAUX - LAURÉNE HARATYK  
ALEXANDRA PILLET - PHILIPPE SANTINI - LAURY THEVENET - QUENTIN ROBERT - ANTHONY ZANTA  
CO-PRODUCTION: AFTERMEDIA - 2222 PRODUCTIONS - STÉPHANE SANTINI PCM

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INTERNATIONAL FILM FESTIVAL AND FORUM ON HUMAN RIGHTS - GENEVA 2016  
5<sup>TH</sup> DEAUVILLE GREEN AWARDS

WITH THE SUPPORT OF THE FONDATION PHILANTHROPIA

Teaser

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



# OUTLINE

Fardeau de l'infection du site chirurgical

Le parcours du patient en chirurgie

“SAVE LIVES: Clean Your Hands” 5 Mai  
dispersion de #safesurgicalhands

Unité globale de Prévention et Contrôle de  
l'Infection à l'OMS

Nouvelles guidelines OMS de prévention de  
l'infection du site chirurgical (ISC)

# Unité Centrale de Prévention et Contrôle de l'Infection de l'OMS



## Unité Centrale de Prévention et Contrôle de l'Infection de l'OMS VISION ET MISSION

### VISION

Protéger les vies des patients et des soignants dans le monde par l'excellence des pratiques de Prévention et Contrôle de l'Infection (PCI)

### MISSION

L'Unité Centrale PCI de l'OMS se charge de porter le domaine au sommet des agendas politiques des pays, en promouvant l'innovation, les recommandations techniques et la coordination globale, dans le but de réduire la problématique liée aux infections et à la résistance aux agents anti-microbiens dans le domaine de la santé, tout en proposant des solutions nouvelles aux problèmes d'actualité.



## Prévention et Contrôle de l'Infection (PCI)

- PCI a un rôle fondamental dans le domaine de la sécurité des patients et du renforcement des systèmes de santé en tant que valeur universelle
- Le renforcement PCI sera un facteur déterminant pour :
  - **Achever le plan d'action global de lutte contre la résistance aux antimicrobiens**
  - **Préparer et répondre aux épidémies**
  - Mettre en oeuvre des plans de renforcement des systèmes de santé dans les pays affectés par Ebola
  - Mettre en oeuvre le Règlement Sanitaire International
  - Assurer la qualité dans le contexte de la couverture universelle des soins
  - Amélioration de la sécurité des patients et des soignants
  - Mettre en oeuvre l'objectif stratégique no5 de la stratégie mondiale OMS "**integrated people-centered health services**"

# SSI prevention is complex...

Antiseptie chirurgicale  
des mains

ANTISEPTIE DU SITE  
OPERATOIRE

Prophylaxie  
antibiotique

CONTRÔLE DES FACTEURS  
DE RISQUE

Normalisation de la volemie

Contrôle de  
la glycémie

Asepsie

Pas d'épilation

STERILISATION

surveillance

DRAPES Volume

Oxygenation

## Unité Centrale de PCI de l'OMS – FONCTIONS

- Leadership et coordination
- Mise en place de campagnes
- Guides techniques, recommandations et outils de mise en oeuvre
- Renforcement des capacités PCI
- Evaluation et monitoring



# Unité Centrale de Prévention et Contrôle de l'Infection de l'OMS - OBJECTIFS (1)

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1. Role de **leadership** transversal en matière de recommandations et de **sensibilisation de la conscience politique, des soignants, du public et des parties prenantes**
2. **Développer** des guides techniques, des standards et des stratégies de mise en oeuvre pour faciliter les changements de comportement et cibler un public varié
3. **Renforcer PCI** au cours des soins, en priorisant les procédures cliniques à haut risque de transmission microbienne (par exemple hygiène des mains, chirurgie, utilisation des dispositifs invasifs)

## Unité Centrale de Prévention et Contrôle de l'Infection de l'OMS - OBJECTIVES (2)

4. Renforcer l'intégration entre PCI et sécurité des patients dans une perspective centrée sur le patient
5. Développer un cadre pour le renforcement de PCI dans tous les pays
6. Fournir un appui technique et un rôle de coordination en faveur d'autres programmes au sein des Nations Unies
7. Améliorer les stratégies d'évaluation et de monitoring

## Travailler dans le contexte des trois niveaux de l'OMS





# Unité Centrale de Prévention et Contrôle de l'Infection

## VOLEES TECHNIQUES 2015-17

143

- Hygiène des mains
- Fardeau du problème des infections associées aux soins (IAS)
- Prévention des infections chirurgicales et liées aux dispositifs invasifs
- Sécurité des injections
- Lutte contre la résistance aux agents antimicrobiens
- Riposte contre les épidémies et activités de résilience
- Support aux pays pour le renforcement des stratégies PCI
- Prévention de la sepsis et des infections liées au cathéters

# Global Action Plans & National Action Plans

## Global strategic objectives

## Examples of key actions for national action plans

1. Improve awareness and understanding of AMR

- Risk communication
- Education

2. Strengthen knowledge through surveillance and research

- National AMR surveillance system
- Laboratory capacities
- Research and development

3. Reduire l' incidence des infections par des approches efficaces en PCI , eau et assainissement,

- PCI au cours des soins
- Prévention dans la communauté
- Prévention dans le domaine vétérinaire et de la sécurité alimentaire

4. Optimize the use of antimicrobial medicines

- Access to qualified antimicrobial medicines
- Animal health

5. Ensure sustainable investment in countering antimicrobial resistance

- Measuring the burden of AMR
- Assessing investment needs
- Establishing procedures for participation

# Recommandations pour la prévention des infections de la plaie chirurgicale

## Perspectives de l'OMS

- Nécessité de recommandations récentes et basées sur l'évidence
- Leçons tirées de l'expérience des recommandations sur l'hygiène des mains: besoin d'une approche globale
- Valides pour tous les pays, mais avec des perspectives adaptées en fonction des ressources disponibles
- Stratégies et outils de mise en oeuvre et approches de la surveillance, basées sur d'autres projets y inclus la checklist OMS pour la sécurité en chirurgie





## SSI Prevention Guidelines - OMS

146

- **30** revues syst. & meta-analyses
- **26** recommandations
- **29** chapitres

### Mise à jour sur:

- Temps et durée de la prophylaxie chirurgicale
- Utilisation des antibiotiques avec drainage
- Décolonisation des porteurs de *S. aureus*
- Contrôle de la glycémie
- Contrôle de la volémie
- Oxygénation
- Irrigation de la plaie
- Sutures antimicrobiennes

*Abstracts présentés à 26<sup>ème</sup> ECCMID, Amsterdam 2016*

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



**Suivre et “like”**

**@didierpittet**

**@WHO**

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

[www.cleanhandssaveslives.org](http://www.cleanhandssaveslives.org)

**#safeHANDS**

**#SafeSurgicalHands**



**CleanHandsSaveLives.org**