


Prevention of Surgical Site Infections
Claire Kilpatrick, World Health Organization
Sponsored by the WHO Global Infection Prevention and Control Unit

**PREVENTION OF SURGICAL
SITE INFECTIONS**



**TURNING RECOMMENDATIONS
INTO PRACTICE WITH A PROVEN
IMPROVEMENT STRATEGY**


Claire Kilpatrick
WHO Global Infection
Prevention & Control Unit

Sponsored by the World Health Organization
Global Infection Prevention and Control Unit

Hosted by Dr. Kemal Raşa
Anadolu Medical Center
Gebze/Kocaeli, Turkey

WHO Global IPC Unit 2018 www.webbertraining.com November 14, 2018

Objectives



- Highlight the problem of SSI and antimicrobial resistance (AMR) in surgical services
- Describe key SSI prevention recommendations and the steps for implementing them, including a locally driven and evidence-based multimodal improvement strategy
- Describe the available WHO resources to support successful implementation including for reducing AMR in surgical services

13/11/2018 | Turning recommendations into practice 2

A Webber Training Teleclass
Hosted by Dr. Kemal Raşa, Anadolu Medical Center, Gebze/Kocaeli, Turkey
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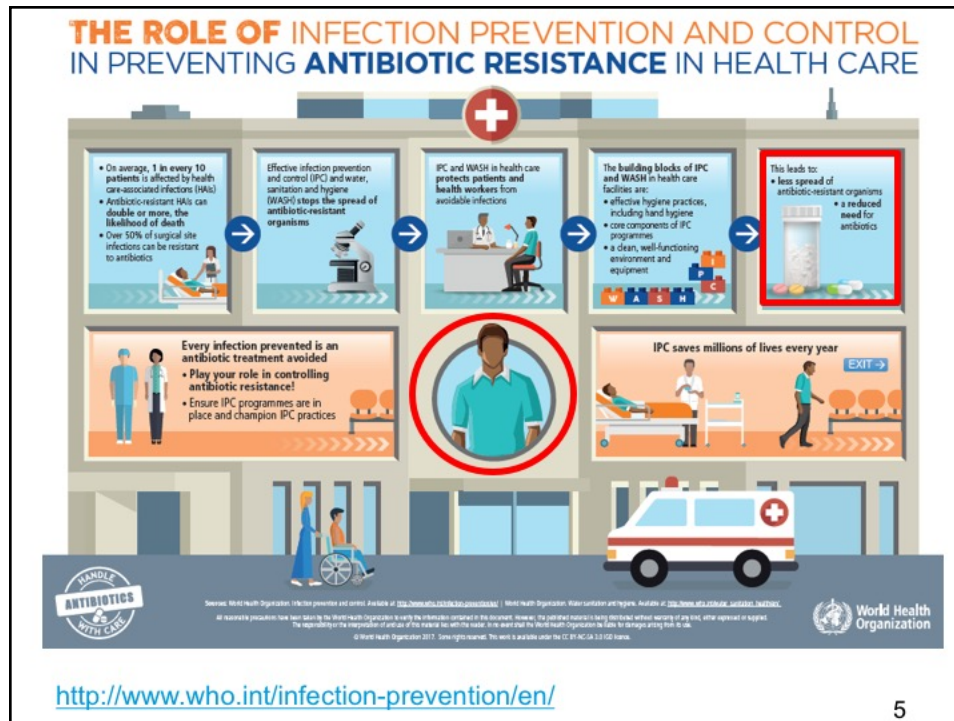
3/11/2018 Title of the presentation 3

WAAW - Wednesday 13 November 2018

Global Action Plan Objectives	WAAW 2018 daily 'focus' messages
<ul style="list-style-type: none"> ✓ Improve awareness and understanding of antimicrobial resistance through effective communication, education and training 	<ul style="list-style-type: none"> Help people understand why antimicrobial resistance is happening, that it poses a genuine risk to our future health, and that we all can do something to help
<ul style="list-style-type: none"> ✓ Strengthen knowledge and evidence base through surveillance and research 	<ul style="list-style-type: none"> Mobilize laboratories in every country to look for evidence of resistance in the bacteria they see and to help us build a global picture of <u>how it is spreading and where it poses the greatest risk</u>
<ul style="list-style-type: none"> ✓ Reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures 	<ul style="list-style-type: none"> Campaign for all hospitals and health-care centres to do their utmost to keep infections at bay with the best possible sanitation and hygiene measures available
<ul style="list-style-type: none"> ✓ Optimize the use of antimicrobial agents in human and animal health 	<ul style="list-style-type: none"> Use the antibiotics that are still effective as wisely as possible, regulating how they are distributed, ensuring they are only given to patients and animals who really need them, and generally handling them with care
<ul style="list-style-type: none"> ✓ Develop the economic case for sustainable investment that takes account of the needs of all countries, and increase investment in new medicines, diagnostic tools, vaccines and other interventions 	<ul style="list-style-type: none"> Urge governments, funding agencies, and the private sector to invest in the new tools, skills and technologies we urgently need to build a smarter world in which our medicines are secured for generations to come.

<http://www.who.int/who-campaigns/world-antibiotic-awareness-week/waaw-2018-theme-and-messaging> 4

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World Antibiotic Awareness Week *
IPC activities




- **Presentation** by Claire Kilpatrick on implementation strategies and resources for SSI prevention, hosted by Webber Training on **14 November, 2:30-3:30 pm CET**
 (<https://webbertraining.com/schedule1.php?command=viewClass&ID=1424>)
- New **technical infographic** on how to improve use of antibiotics in surgical services (<http://www.who.int/infection-prevention/tools/focus-amr/en/>)
- **E-learning** version of the recently released **SSI prevention training module** (http://www.who.int/infection-prevention/tools/surgical/training_education/en/)
- New **animation video** on best practices for insertion and maintenance of urinary catheters (<http://www.who.int/infection-prevention/tools/core-components/en/>)
- Announcement of the **2019 IPC Global Survey**

*<http://www.who.int/who-campaigns/world-antibiotic-awareness-week/waaw-2018-theme-and-messaging>

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* <http://www.who.int/who-campaigns/world-antibiotic-awareness-week/waaw-2018-theme-and-messaging>

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HANDLE ANTIBIOTICS WITH CARE IN SURGERY
 Misuse of antibiotics puts all surgical patients at risk



Up to 33% of surgical patients get a postoperative infection, of which **51%** can be antibiotic resistant

Up to 15% of women around the world get an infection after a caesarean section

43% of patients have surgical antibiotic prophylaxis (SAP) inappropriately continued after the operation

REDUCE
the risk of surgical site infection (SSI) by improving SAP and infection prevention and control practices

IMPROVE
quality of care and patient safety and reduce antimicrobial resistance (AMR) through SSI reduction

WHAT SHOULD HEALTH WORKERS DO TO PREVENT AMR IN SURGERY?

Give intravenous SAP
 - when recommended, depending on the type of operation
 - within 120 minutes preceding surgical incision

For effective SAP, adequate antibiotic tissue concentrations should be present at the time of surgical incision and throughout the procedure. Thus, antibiotics with a short half-life should be administered closer to incision time.

WHO SHOULD BE INVOLVED IN ENSURING APPROPRIATE ANTIBIOTIC USE IN SURGERY

Surgeons, Anaesthetists, Operating Room Nurses, Infection Prevention & Control Unit, Hospital Management, Pharmacists, Senior Management, Patients and their families (where appropriate)

Improvement of antibiotic use in surgical services should be part of the antimicrobial stewardship programme

WHAT SHOULD YOU NOT DO?

Avoid prolonging SAP postoperatively

Avoid antibiotic wound irrigation

Avoid continuing antibiotic prophylaxis because there is a drain (evaluate each case)

Avoid giving antibiotic treatment unless there is a proven or suspected SSI or other infection

These recommendations are based on evidence from studies in adult patients, but they are considered valid also for paediatric patients

<http://www.who.int/infection-prevention/tools/focus-amr/en/>

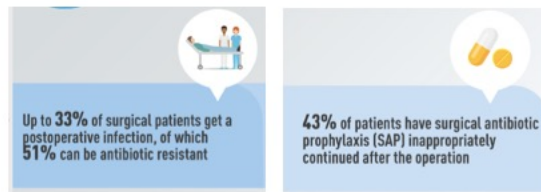
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The problem of SSI and AMR in surgical services



- Up to 33% of surgical patients get a postoperative infection, of which 51% can be antibiotic resistant
- 43% of patients have surgical antibiotic prophylaxis (SAP) inappropriately continued after the operation
- More than 1 in 10 people who have surgery in low and middle income countries get surgical site infections
- **Surgical site infections threaten the lives of millions of surgical patients each year and contribute to the spread of antibiotic resistance**



<http://www.who.int/infection-prevention/publications/ssi-prevention-guidelines/en/>

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SSI burden – an overview (1)



- **Second most frequent type of HAI in Europe and the USA**
- Most frequent type of HAI on admission (67% in the USA, 33% in Europe)
 - **SSI incidence** (per 100 procedures)
 - USA 2014: 1.9%
 - Europe 2013–14: 0.6–9.5%
 - Incidence varies according to type of procedure (very low in clean procedures, such as arthroplasty; higher in contaminated/dirty procedures, such as colon surgery)
 - **Most frequent pathogens:** Gram-positive cocci (such as *Staphylococcus aureus* (*S. aureus*) at 17–30%), followed by Gram-negative bacilli
 - **AMR:** 39–51% of SSI pathogens are resistant to standard prophylactic antibiotics in the USA

Sources:

- Mu Y, Edwards JR, Horan TC, Bertios-Torres SI, Fridkin SK. Improving risk-adjusted measures of surgical site infection for the national healthcare safety network. *Infect Control Hosp Epidemiol.* 2011;32(10):970-86.
- National and state healthcare-associated infections progress report. Atlanta (GA): National Center for Emerging and Zoonotic Infectious Diseases, Centers for Disease Control and Prevention; 2016 (<http://www.cdc.gov/hai/pdf/progressreport/hai-progress-report.pdf>, accessed 10 August 2016).
- ECDC. Annual epidemiological report 2016 – surgical site infections. Stockholm: European Centre for Disease Prevention and Control; 2016 (<https://ecdc.europa.eu/en/publications-data/surgical-site-infections-annual-epidemiological-report-2016-2014-2016>).
- Sievert DM, Ricks P, Edwards JR, Schneider A, Patel J, Srinivasan A et al. Antimicrobial-resistant pathogens associated with healthcare-associated infections: summary of data reported to the National Healthcare Safety Network at the Centers for Disease Control and Prevention, 2009–2010. *Infect Control Hosp Epidemiol.* 2013;34:1–14.


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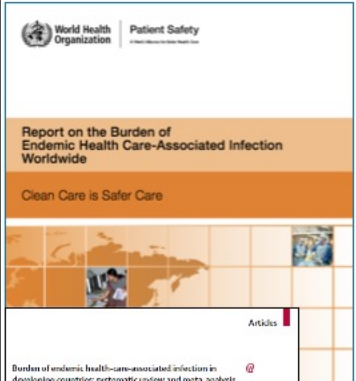
SSI burden – an overview (2)




- **Most frequent** type of HAI in LMICs
- Infection is the **most frequent complication** of surgery in Africa
- **Pooled SSI incidence in LMICs** (WHO unpublished data, 2017)
 - 5.9 per 100 procedures
 - 11.2 per 100 surgical patients
- A few studies from LMICs report SSI rates by surgical procedure and data on microbiological causes of SSI
- **Most frequent pathogens** are *S. aureus* (20.3%) and *Escherichia coli* (*E. coli*) (20.3%)
- Average methicillin resistance among *S. aureus* isolates (MRSA): **54.5%**
- SSI pooled incidence in South-east Asia: 7.7%
- **Surgical sepsis = 30% of all patients with sepsis**


Sources:
 • Allegranzi B, Bagheri Nejad S, Combescurre C, Graafmans W, Attar H, Donaldson L et al. Burden of endemic health-care-associated infection in developing countries: systematic review and meta-analysis. *Lancet*. 2011; 377:228–41.
 • Ling ML, Apisarnthanarak A, Madriaga G. The burden of healthcare-associated infections in Southeast Asia: a systematic literature review and meta-analysis. *Clin Infect Dis*. 2015;60(11):1690–9.
 • Bruce M, Bocard, Thindirakosai E, Madiba, Hyla-Louise Kluyts, Dolly M Munlemvo, Farai D Madzimbamuto, Apollo Basenero, et al. *Lancet* published online January 3, 2018 [http://dx.doi.org/10.1016/S0140-6736\(18\)30301-L](http://dx.doi.org/10.1016/S0140-6736(18)30301-L).

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- Report on the Burden of endemic health care-associated infection worldwide. Geneva: World Health Organization; 2011 (http://www.who.int/infection-prevention/publications/burden_hcai/en/);
- Allegranzi B, Bagheri Nejad S, Combescurre C, Graafmans W, Attar H, Donaldson L et al. Burden of endemic health-care-associated infection in developing countries: systematic review and meta-analysis. *Lancet*. 2011; 377:228–41;
- Bagheri Nejad S, Allegranzi B, Syed SB, Ellis B, Pittet D. Health care-associated infection in Africa: a systematic review. *Bull World Health Organ*. 2011; 89:757–65.



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WHO global guidelines for SSI prevention

The image displays several key documents from the WHO guidelines. On the left is the cover of 'Decontamination and Reprocessing of Medical Devices for Health Care Facilities'. In the center is the main 'GLOBAL GUIDELINES FOR THE PREVENTION OF SURGICAL SITE INFECTION' book cover. To the right are two summary tables: 'Surgical site infections 1' and 'Surgical site infections 2'. The WHO logo is in the top right corner.

<http://who.int/infection-prevention/publications/ssi-guidelines/en/>
 Allegranzi B at al. Lancet Infect Dis, 2016

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SSI prevention recommendations (1)

The infographic is titled 'DO THE RIGHT THING AT THE RIGHT TIME TO STOP SURGICAL SITE INFECTION'. It is organized into three main phases: PREOPERATIVE (INHERIT, CLINICAL AND SUPPORT EQUIP AND SURGICAL TEAM ACTIONS), INTRAOPERATIVE (SURGICAL TEAM ACTIONS), and POSTOPERATIVE (SURGICAL TEAM, CLINICAL STAFF ACTIONS). An 'INFECTION PREVENTION AND CONTROL (IPC) TEAM' is shown at the top, with arrows indicating their role across all phases. Each phase contains a grid of specific recommendations, each accompanied by a small icon. A blue box at the bottom right contains a note about the WHO Global guidelines for the prevention of surgical site infections.

<http://www.who.int/infection-prevention/tools/surgical/reminders-advocacy/en/>


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Prevention of Surgical Site Infections






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
WHO recommendations for SSI prevention (2)



PREOPERATIVE PERIOD
HEALTH CARE AND SUPPORT STAFF AND SURGICAL TEAM ACTIONS


ACTION	SUPPORTED BY
 Patient bathes or showers prior to surgery with either plain or antimicrobial soap	SURGICAL TEAM PHARMACY
 Use 2% aqueous chlorhexidine or known nasal carriers of <i>Staphylococcus aureus</i> in cardiac and orthopedic surgery (consider for other surgeries)	SURGICAL TEAM PHARMACY
 Do NOT remove patient hair, or if absolutely necessary, remove with a clipper, do not shave	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Administer surgical antibiotic prophylaxis in the 120 minutes preceding surgical incision (depending on the type of operation and the half-life of the antibiotic)	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Prepare hands for surgery by scrubbing using the correct technique with a suitable antimicrobial soap and water OR an alcohol-based handrub before donning sterile gloves	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL

PREOPERATIVE PERIOD
HEALTH CARE AND SUPPORT STAFF AND SURGICAL TEAM ACTIONS









ACTION	SUPPORTED BY
 Carry out mechanical bowel preparation always combined with administering preoperative oral antibiotics in adult patients undergoing elective colorectal surgery	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Consider administering oral or enteral multiple antibiotic-antifungal treatment to underweight patients (depending upon surgical specialty)	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Do NOT discontinue immunosuppressive medication	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Clean and sterilize/recontaminate surgical instruments and other equipment	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Clean and prepare operating room environment	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL

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WHO recommendations for SSI prevention (3)



INTRAOPERATIVE PERIOD
SURGICAL TEAM ACTIONS

ACTION	SUPPORTED BY
 Do NOT use laminar airflow ventilation systems and surgical air for patients undergoing oral orthopedic surgery	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Use either disposable sterile non-woven or reusable sterile woven drapes and surgical gowns	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Do NOT use plastic adhesive incision drapes (and/or clips) and do NOT use adhesive antimicrobial prophylaxis	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Use alcohol-based antiseptics containing chlorhexidine gluconate for skin preparation	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Do NOT use antiseptic swabs after surgical site skin preparation	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Administer 10% fraction of inspired oxygen (FiO ₂) to adult patients prior to anesthesia and throughout	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Consider using a warming device	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Consider using a protocol for intensive blood glucose control (in NOT diabetic and non-diabetic adult patients)	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL


INTRAOPERATIVE PERIOD
SURGICAL TEAM ACTIONS

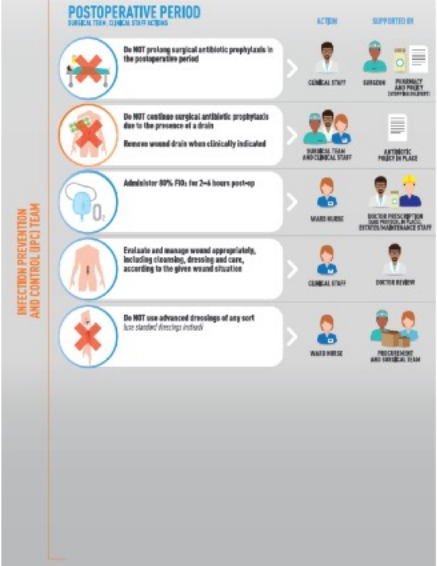
ACTION	SUPPORTED BY
 Consider using guided-therapy	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Consider irrigating incisional wound with an aqueous solution of low solution before closure (in case of clean-contaminated wounds)	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Do NOT perform antibiotic wound irrigation	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Consider using wound protector devices (in clean-contaminated, contaminated and dirty abdominal procedures)	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Consider prophylactic negative pressure wound therapy (only in closed surgical incisions in high-risk wounds)	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Consider using tracheal extubation	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL
 Maintain asepsis and discipline in the operating room	SURGICAL TEAM PHARMACY INFECTION PREVENTION AND CONTROL

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WHO recommendations for SSI prevention (4)







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World Antibiotic Awareness Week 2018 Highlighting WHO strong and conditional recommendations







WHAT SHOULD HEALTH WORKERS DO TO PREVENT AMR IN SURGERY?




Give intravenous SAP
 - when recommended, depending on the type of operation
 - within 120 minutes preceding surgical incision







www.who.int/infection-prevention/publications/ssi-guidelines/en




WHAT SHOULD YOU NOT DO?




Avoid prolonging SAP postoperatively




Avoid antibiotic wound irrigation




Avoid continuing antibiotic prophylaxis because there is a drain (evaluate each case)



Avoid giving antibiotic treatment unless there is a proven or suspected SSI or other infection





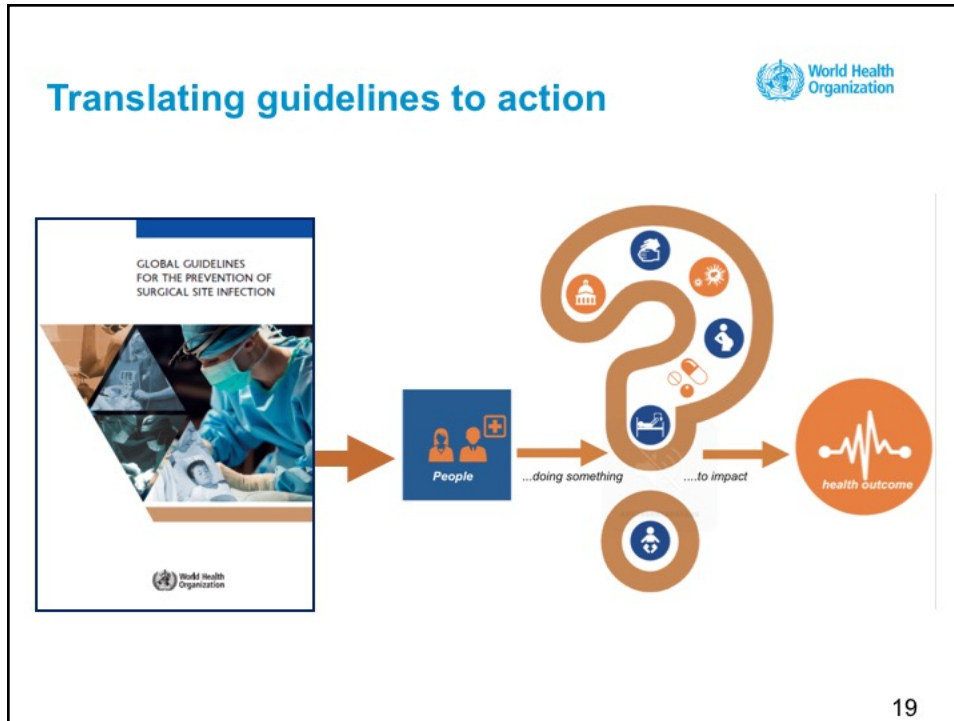
www.who.int/infection-prevention/publications/ssi-guidelines/en

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WHO hand hygiene strategy impact

World Health Organization

WHO Global Infection Prevention and Control Unit

Evidence of hand hygiene as the building block for infection prevention and control

Core component 5 - Multimodal strategies for implementing IPC activities
So, Health care facility level

RECOMMENDATION

The panel recommends that IPC activities using multimodal strategies should be implemented to improve practices and reduce HAI and AMR.
(Strong recommendation, low quality of evidence)


Type of evidence	Description of evidence on hand hygiene reporting the recommendation	Key study findings
Primary (POC) (3, 5, 8, 10, 12, 24-40, 42-47)	<ul style="list-style-type: none"> 28 of 48 studies (58%) comprising: <ul style="list-style-type: none"> 50 non-controlled before after (3, 24-32) Five interrupted time series (5, 37-39, 40) Four non-controlled cohort trials (33-36) Three randomized controlled trials (42-44) Two controlled before-after (10, 45) Two mixed methods (12, 46) One qualitative (8) One stepped wedge trial (47) 26 studies from high or upper-middle income countries (3, 5, 8, 10, 12, 24, 25-29, 31-40, 42-47) and only one from a low income country (30) 	<ul style="list-style-type: none"> In 28 studies, multimodal strategies showed an improvement in hand hygiene compliance among health care workers (3, 5, 8, 10, 12, 24-40, 42-47). Leveraging leadership commitment and the use of opinion leaders and champions were critical components in some multimodal strategies (25, 28, 31, 43, 45, 47). Four studies used positive reinforcement for health care workers when correctly performing hand hygiene as one element of their strategies (37, 44) by applying principles of product marketing to encourage staff to choose their own intervention (29) and offering financial incentives to hospital units or wards for high-level hand hygiene performance (40). Accessibility to handrails, role models, a personal sense of responsibility and emotional involvement were some factors identified as barriers affecting hand hygiene compliance (8).

Meta-analysis from 22 studies confirmed that the **WHO hand hygiene strategy is effective at increasing health care workers compliance** and results of 19 studies showed **reduction of health care associated infections**


- Allegranzi B et al, Lancet ID 2013
- Luangsanatip N et al, BMJ 2015

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**PREVENTING SURGICAL SITE INFECTIONS:
IMPLEMENTATION APPROACHES
FOR EVIDENCE-BASED RECOMMENDATIONS**



<http://www.who.int/infection-prevention/tools/surgical/en/>




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Prevention surgical site infections - implementation document

The purpose of this document is to present a range of tested approaches to achieve successful SSI prevention implementation at the facility level, including in the context of a broader surgical safety climate.



TARGET AUDIENCE

The target audience of this document are all those working in the surgical and IPC fields, including patient safety and quality improvement teams.

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Section I - summary of strategies to facilitate implementation of the Checklist




Strategy	National/state level applications	Hospital level applications
Leverage existing communication channels, networks and relationships	<ul style="list-style-type: none"> • Use existing meetings to present the work and convene participants. • Disseminate information through professional organizations, (not-for-profits and others). 	<ul style="list-style-type: none"> • Re-purpose teams that work on other quality improvement projects. • Share information about the project at every opportunity, staff/physician meetings, grand rounds, and within existing committees.
Develop and support clinical champions	<ul style="list-style-type: none"> • Build a state-level committee that consists of representatives from disciplines touched by the work and a variety of facility types. • Offer a variety of programme activities for individuals to learn about the project. • Create materials to walk organizations through the key steps of implementation and offer advice on how to overcome common barriers. • Convene facility champions so that they can share their experiences and help each other solve problems. 	<ul style="list-style-type: none"> • Build a multidisciplinary team that consists of at least one representative from every discipline touched by the project. • Provide clinical champions with resources and time to implement the project.
Support implementation through coaching	<ul style="list-style-type: none"> • Conduct hospital site visits to learn about implementation and provide feedback to organizations. Remember coaches need to be trained in how to give feedback. 	<ul style="list-style-type: none"> • Create a coaching programme leveraging your implementation team and clinical champions. Remember coaches need to be trained in how to give feedback.
Encourage incremental change	<ul style="list-style-type: none"> • Provide guidance on how to implement the project in smaller parts or how to put some components into place when an organization is not ready for the entire project. 	<ul style="list-style-type: none"> • If needed, implement parts of the project instead of the entire programme.
Build in implementability; modification of interventions to meet the local context should be encouraged and supported through guidance	<ul style="list-style-type: none"> • Plan an intervention that can be implemented and modified. • Create templates and programme materials that meet the needs specific to your environment. Consider culture, resources, and prior quality improvement projects that may inform the work. 	<ul style="list-style-type: none"> • Modify programme materials to meet your organization's culture and workflow following guidance provided by national and state programme teams.
Build leadership support	<ul style="list-style-type: none"> • Gather a national leadership team to guide the work. 	<ul style="list-style-type: none"> • Create a facility-level leadership team to guide the work and provide resources for it.

TARGET AUDIENCE

The target audience is intended to be any discipline introducing, leading or supporting SSI prevention and safer surgical care including: surgeons; surgical nurses and technical support staff; IPC focal points and teams; senior administrators; anaesthetists; clinical research project staff; any professionals directly providing surgical care, including individuals who are creating or supporting surgical quality improvement programmes at the system or country level.

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Section II - improvement intervention examples



Describes the key evidence- and practice-based elements identified as being successful in improving processes and practices that contribute to preventing SSI in a range of countries.

TARGET AUDIENCE

The target audience is intended to be any team introducing, leading or supporting SSI prevention through improvement strategies including: IPC professionals or health workers with responsibility for IPC monitoring or improvement; sterile services; maintenance/ engineering staff; surgeons; surgical nurses; technical support staff; anaesthetists; senior managers; and any professionals directly providing surgical care or involved in quality improvement programmes.

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Implementation example

Articles

A multimodal infection control and patient safety intervention to reduce surgical site infections in Africa: a multicentre, before-after, cohort study

Summary

Background

Methods

Results

Conclusions

Supplementary appendix

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Methods

Results

Conclusions

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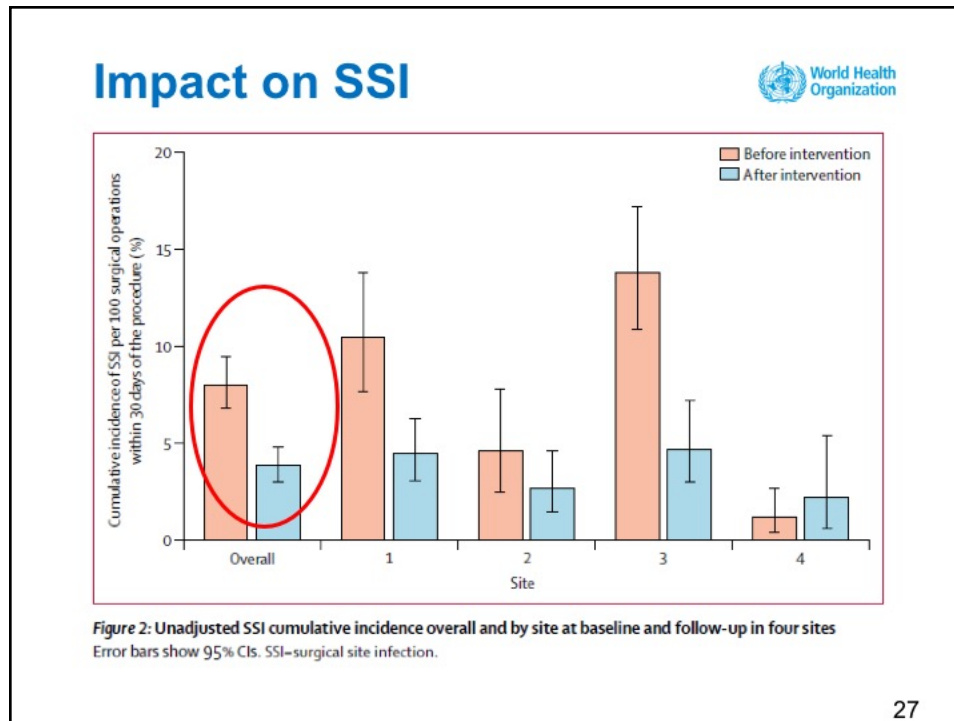
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- ### Summary of success factors
- 
- **Use of multimodal strategies (this does not mean checklists and bundles)**
 - Having a step-wise action plan
 - Mapping recommendations according to the surgical patient journey
 - Empowering teams and involving front-line staff
 - Engaging leadership
 - Letting teams take the lead on adaptation
 - Catalysing collective and individual ownership
 - Using data to create awareness
 - Awarding teams and work demonstrating a safety culture spirit
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**Section III - The WHO multimodal approach
as a proven and successful way to implement
SSI prevention recommendations**



Describes the features of a multimodal strategy that WHO proposes for the implementation of SSI prevention recommendations.

TARGET AUDIENCE

The target audience is intended to be any discipline introducing, leading or supporting SSI prevention; IPC and quality improvement focal points and teams; senior administrators; surgeons; surgical nurses; technical support staff; anaesthetists; and any professionals directly providing surgical care or involved in quality care improvement.

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**Practical application of proven
implementation and improvement
approaches**



**Implementation manual to prevent
surgical site infections at the facility
level – turning recommendations into
practice**

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SSI prevention recommendations (1)



**DO THE RIGHT THING AT THE RIGHT TIME
 TO STOP SURGICAL SITE INFECTION**
 Recommendations for safe surgical care




PREOPERATIVE INTRAOPERATIVE POSTOPERATIVE
INPATIENT, CLINICAL AND OUTPATIENT SETS AND SURGICAL TEAM ACTIONS

INFECTION PREVENTION AND CONTROL (IPC) TEAM

<http://www.who.int/infection-prevention/tools/surgical/reminders-advocacy/en/>

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Bringing improvement to life



Example Scenario – surgical staff would like to establish a standard preoperative bathing regimen for all patients undergoing surgery

What is the presenting problem – no standard protocol, procedures or guidance for preoperative bathing exist

Case study – The surgical team received a call from a nurse on a surgical ward saying that a patient had been admitted, asking questions about preoperative bathing. The nurse said she wasn't clear how to answer these questions. The surgeon told the nurse that all patients should bathe prior to surgery and had thought this was standard procedure. When informed that it was not, the surgeon met with colleagues to establish a protocol for preoperative bathing for both inpatients and outpatients. The surgical and nursing teams met with the IPC team to understand challenges and pose questions. The IPC team noted that plain soap would be sufficient for preoperative bathing but the nursing teams highlighted that soap is not routinely available and that patients are not counseled on perioperative bathing when presenting for surgery as an out-patient. The IPC team provides WHO information on the guidelines recommending preoperative bathing, and reinforced that outpatients should be counseled to bathe and all inpatients should be routinely bathed the night before surgery.

What has to be addressed to make the improvement required?	Why? Reinforcing evidence based recommendations	When? Help teams know exactly when to act	Who should be involved to make sure improvement happens?	How should you make the improvement?
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Prevention of Surgical Site Infections

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Summary of a multimodal improvement strategy



In other words, the WHO multimodal improvement strategy addresses these five areas:

- 1. Build it (system change)**

What infrastructures, equipment, supplies and other resources (including human) are required to implement the intervention?
Does the physical environment influence health worker behaviour? How can ergonomics and human factors approaches facilitate adoption of the intervention?
Are certain types of health workers needed to implement the intervention?
Practical example: when implementing hand hygiene interventions, ease of access to handcubes at the point of care and the availability of WHO observational toolkits (short and easy) are important considerations. Are these available, affordable and easily accessible in the workplace? If not, action is needed.
- 2. Teach it (training & education)**

Who needs to be trained? What type of training should be used to ensure that the intervention will be implemented in line with evidence-based practice and how frequently?
Does the facility have trainers, training aids, and the necessary equipment?
Practical example: when implementing infection safety interventions, formal training of those responsible for administering safe injections, including nurses and community workers, are important considerations, as well as adequate disposal methods.
- 3. Check it (monitoring & feedback)**

How can you identify the gaps in IPC practices or other indicators in your setting to allow you to prioritise your intervention?
How can you be sure that the intervention is being implemented correctly and safely, including at the bedside? Are there methods in place for closure of track practices?
How and when will feedback be given to the target audience and managers? How can patients also be informed?
Practical example: when implementing surgical site infection interventions, the use of key tools are important considerations, such as surveillance data collection forms and the WHO checklist (linked to hand reminders).
- 4. Sell it (reminders & communications)**

How are you promoting an intervention to ensure that there are cues to action at the point of care and messages are reinforced to health workers and patients?
Do you have capacity/funding to develop promotional messages and materials?
Practical example: when implementing interventions to reduce catheter-associated bloodstream infections, the use of visual cues to action, promotional/reminder messages, and planning for periodic campaigns are important considerations.
- 5. Live it (culture change)**

Is there demonstrable support for the intervention at every level of the health system? For example, do senior managers actively fund the equipment and other resources? Are they willing to be champions and role models for IPC improvement?
Are teams involved in co-developing or adapting the intervention to their environment and do they feel ownership and the need for accountability?
Practical example: when implementing hand hygiene interventions, the way that a health facility approaches this as part of safety and quality improvement and the value placed on hand hygiene improvement as part of the clinical workflow are important considerations.

Figure 5.1 The five components of the WHO multimodal hand hygiene improvement strategy

- 1a. System change – alcohol-based handrub at point of care
- 1b. System change – access to safe, continuous water supply, soap and towels
2. Training and education
3. Evaluation and feedback
4. Reminders in the workplace
5. Institutional safety climate

Source: <http://www.who.int/infection-prevention/tools/core-components/cc-implementation-guideline.pdf?ua=1>

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New WHO implementation package for SSI prevention



Infection prevention and control

Surgical site infections tools and resources

A range of tools exist for you to adopt and adapt to support local improvement. They are proven to achieve change if used as part of a multi-modal strategy as represented in the 5 components listed here.

Link to Global guidelines on the prevention of surgical site infection publications page

- Home page
- About us
- Campaigns
- Implementation tools and resources
- Evidence, guidelines and publications
- Work in countries
- News and events

- System change
- Communications for awareness raising
- Training and education
- Institutional safety climate and culture
- Evaluation and feedback

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Understanding the multimodal strategy for SSI prevention (1)



System change
“Build it”

- Ensuring that the health care facility has the **necessary infrastructure and resources in place** to allow for steps to be taken to prevent SSI based on the known modifiable risk factors
- The right infrastructure and available resources can streamline interventions for consistent delivery of care and make execution easier and safer.

Source: Preventing surgical site infections: implementation approaches for evidence-based recommendations. Geneva: World Health Organization; 2018 (<http://www.who.int/infection-prevention/tools/surgical/en/>).

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System change - “Build it” (cont’)
Necessary infrastructure and resources



- Allocated budget
 - Standard operating procedures, protocols, local policies and tools/mechanisms for training
 - An IT system (or paper) for monitoring and feedback on infrastructure and resources and other improvement steps
 - Laboratory services
 - Surgical services/human resources including a dedicated, competent team for ensuring SSI prevention activities working to an action plan
 - Supplies for surgical hand preparation*
 - ABHR, antimicrobial soap
 - Sterile drapes and gowns
 - The correct antibiotics for SAP (and if need to be given with MBP) - easily accessible
 - Clippers (if hair removal essential)
 - Chlorhexidine- alcohol-based (skin prep) solution*
 - Mupirocin 2% ointment
 - Oxygen
 - Standard postoperative wound dressings
- To consider:
- Antimicrobial-coated sutures
 - Negative pressure wound therapy devices
 - Nutritional formulas
 - Warming devices
 - Fluid therapy
 - Aqueous povidone iodine solution (irrigation)

* Procurement vs local production

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System Change: Modified WHO formulations for surgical hand preparation



Formulation I

Final concentrations: ethanol 80% wt/wt, glycerol 0.725% vol/vol, hydrogen peroxide 0.125% vol/vol.

Ingredients:

1. ethanol (absolute), **800 g**
2. H₂O₂ (3%), **4.17 ml**
3. glycerol (98%), **7.25 ml** (or 7.25 x 1.26 = 9.135 g)
4. top up to **1000 g** with distilled or boiled water

Formulation II

Final concentrations: isopropanol 75% wt/wt, glycerol 0.725% vol/vol, hydrogen peroxide 0.125% vol/vol.

Ingredients:

1. isopropanol (absolute), **750 g**
2. H₂O₂ (3%), **4.17 ml**
3. glycerol (98%), **7.25 ml** (or 7.25 x 1.26 = 9.135 g)
4. top up to **1000 g** with distilled water



Source: Suchomel M KM, Kundi M, Pittet D, Rotter ML. Modified World Health Organization hand rub formulations comply with European efficacy requirements for preoperative surgical hand preparations. Infect Control Hosp Epidemiol. 2013; 34(3):245-250.

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System change - considering decontamination



<http://who.int/infection-prevention/publications/ssi-guidelines/en/>

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Understanding the multimodal strategy for SSI prevention (2)



Training and education – “Teach it”

- *Practical **training and education** methods aligned with the recommendations for SSI prevention*
- Onsite hospital courses
- Bolus (single relatively large) sessions
- Simulation sessions for skills training
- Use of locally made or online videos
- Online e.learning courses and webinars
- Focus groups and workshops
- Bedside training
- In-person sessions, e.g. during ward or grand rounds, town hall meetings, coaching visits
- Pre and post knowledge and perception tests
- Training support materials (handouts, e-learning, etc.)

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Education and training improving surgical hand preparation



1. Local production of modified WHO formulation for ABHR



2. Surgical hand preparation

- **Antimicrobial soap + water** = 2–5 minutes
- **Alcohol-based** = 1.5–3 minutes
- The right technique is crucial
- Nailbrushes are not recommended.



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Education and training - surgical hand preparation

World Health Organization

YouTube

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

Video <https://www.youtube.com/watch?v=h16JPBcOIGs>

HUG Hôpitaux Universitaires Genève
University of Geneva Hospitals and Faculty of Medicine, Geneva, Switzerland

WHO Collaborating Centre on Patient Safety Infection Control & Improving Practices 41

Education and training - skin site preparation

World Health Organization

How to perform

PREOPERATIVE SURGICAL SITE SKIN PREPARATION

An educational video produced by the World Health Organization

0:02 / 5:03

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Education and training - wound management

Training video - Surgical Wound Evaluation and Dressing

How to perform

SURGICAL WOUND EVALUATION AND DRESSING

An educational video produced by the
World Health Organization

0:03 / 7:54

13/11/2018 | Title of the presentation
43


Education and training - key facts documents

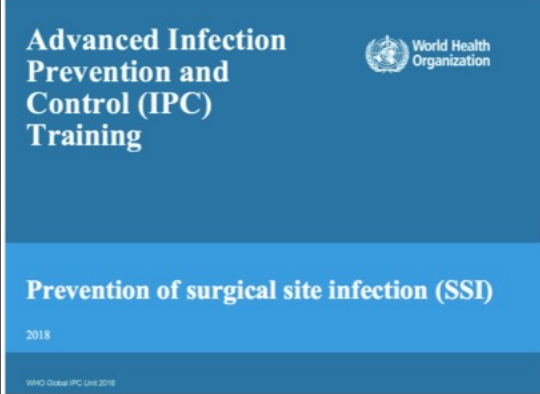
SURGICAL SITE INFECTION PREVENTION Key facts on decontamination of carriers of Staphylococcus aureus	SURGICAL SITE INFECTION PREVENTION Key facts on surgical site skin preparation	SURGICAL SITE INFECTION PREVENTION Key facts on patient bathing and hair removal
<p>THINGS YOU SHOULD KNOW What does the World Health Organization recommend?</p> <p>The 2014 WHO Global guidelines for the prevention of surgical site infections (SSI) recommend that:</p> <p>cardiothoracic and orthopaedic surgery should be performed with antiseptic applications of aqueous 2% chlorhexidine gluconate (CHG) body wash (strong recommendation).</p> <p>This recommendation applies to facilities where screening for S. aureus carriage is performed. Based on the lack of evidence, this recommendation is not applicable to patients with a prosthetic joint.</p> <p>WHAT should be done?</p> <p>Preoperative bathing/showering</p> <ul style="list-style-type: none"> ➤ Involve patients and ask for their collaboration and compliance instructions. ➤ Decontaminate patients on how to correctly and locally perform a CHG body wash before the operation (see the appendix 11.3.1.1). CHG 2-4% soap body wash should be applied to the same instructions for patients apply as above. ➤ Support access to necessary products – provision to patients may be required or desirable in some countries. ➤ CHG 2-4% soap body wash. ➤ For other types of body wash, in particular, in identification population, see other publications. ➤ Monitor antibiotic resistance. 	<p>THINGS YOU SHOULD KNOW What does the World Health Organization recommend?</p> <p>The 2014 WHO Global guidelines for the prevention of surgical site infections (SSI) recommend that:</p> <p>alcohol-based antiseptic solutions containing chlorhexidine gluconate (CHG) should be used for surgical site skin preparation.</p> <p>Surgical site skin preparation is the preoperative treatment of the skin within the operating room (OR).</p> <p>WHAT should be done?</p> <p>Preoperative bathing/showering</p> <ul style="list-style-type: none"> ➤ Carefully wash and clean the skin around the incision site. Full-body washing with detergents or antiseptics should be performed before the operation and outside of the OR (see "Key facts on patient bathing and hair removal"). ➤ Use an alcohol-based antiseptic solution for skin preparation. ➤ Ensure that the drapes are not saturated with alcohol or that the alcohol-based solution has not formed a pool underneath the patient before opening. ➤ Support colleagues to adhere to this recommendation and be an advocate for it. ➤ Ensure the associated investigation. ➤ Local protection 	<p>THINGS YOU SHOULD KNOW What does the World Health Organization (WHO) recommend?</p> <p>The 2014 WHO Global guidelines for the prevention of surgical site infections (SSI) recommend that:</p> <p>It is good clinical practice for patients to bathe or shower before surgery with either a plain or antimicrobial soap.</p> <p>In patients undergoing any surgical procedure, hair should either NOT be removed or, if absolutely necessary, only removed with a clipper. Shaving is strongly discouraged at all times, both preoperatively and in the operating room.</p> <p>The evidence here is focused on adult patients, but the recommendations are also considered valid for paediatric patients.</p> <p>WHAT should be done?</p> <p>Preoperative bathing/showering</p> <ul style="list-style-type: none"> ➤ Instructions to patients – provide clear instructions to perform a thorough bath or shower before the operation. ➤ Type of soap – either plain or antimicrobial soap can be used to bathe with clean, running water. ➤ Provision of soap to patients may be required or desirable in some countries. ➤ In paediatric patients, manufacturers' instructions on the use of antimicrobial soap should be followed. ➤ Record key information on preoperative bathing on surveillance forms and in patient records. ➤ Support patients and colleagues to adhere to this recommendation and be an advocate for it. <p>Hair removal</p> <ul style="list-style-type: none"> ➤ Instructions to patients – provide information on NOT shaving prior to coming to the facility or to surgery. However, shave the genital area as a cultural habit should be suggested for specific situations. ➤ Hair removal should be avoided unless the surgeon considers that it might interfere with the operation site. In this case, the surgeon should carefully evaluate if hair removal is necessary with the help of a nurse. ➤ When hair removal is necessary, it should be performed with a clipper (single-use heads are preferred) and never be shaved with a razor.

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Claire Kilpatrick, World Health Organization
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Education and training - training package







- **Slides deck**
- **Trainer's manual**
- **Student's handbook**
- **E-learning module**

<http://www.who.int/infection-prevention/tools/core-components/en/>

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Understanding the multimodal strategy for SSI prevention (3)



Evaluation and feedback

“Check it”

*Regular **monitoring** and timely **feedback** of:*

- *risk factors for SSI;*
- *compliance with recommended procedures and practices;*
- *infrastructures and available resources and supplies;*
- *knowledge and perception of the problem;*
- *SSI rates.*

It should not be seen as a component separate from implementation or only to be used for scientific purposes. Targeted tools and use of observations are inherent.

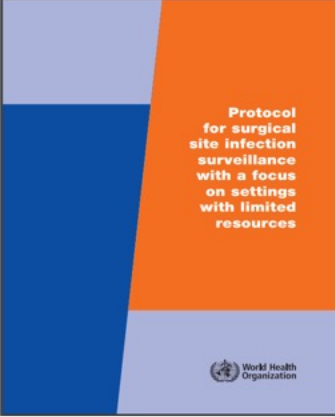
This is an essential step in:

- identifying areas deserving major efforts and feeding crucial information into development of local local action plan;
- measuring the changes induced by improvement efforts and ascertaining whether interventions have been effective;
- engaging staff in deciding upon different formats for providing feedback (real time and personalised feedback have proven beneficial).

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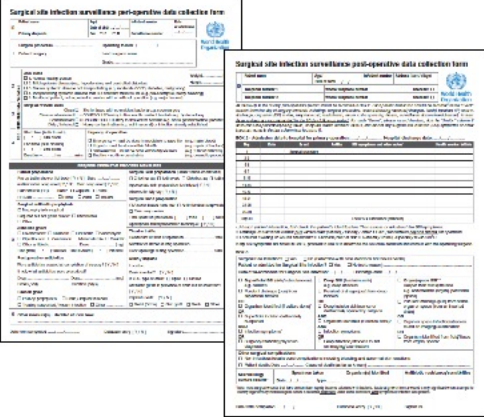
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Claire Kilpatrick, World Health Organization
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Monitoring example - recording SSIs



Protocol for surgical site infection surveillance with a focus on settings with limited resources

World Health Organization






<http://www.who.int/infection-prevention/tools/surgical/SSI-surveillance-protocol.pdf?ua=1>

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The WHO approach to SSI surveillance in settings with limited resources



Adapted approach that has been used in settings with limited resources to conduct surveillance in the context of interventions to reduce SSI.

The protocol is based on the widely accepted US Centers for Disease Control and Prevention –National Healthcare Safety Network (CDC-NHSN) definitions for SSI but **definitions based on clinical signs and symptoms should be prioritized**, given the lack of quality microbiology laboratory support.

For feasibility reasons, this protocol is based on **post-discharge surveillance up to 30 days** only.

Patient follow-up after discharge includes **phone calls and involvement of the patient** in recognizing signs and symptoms of SSI.


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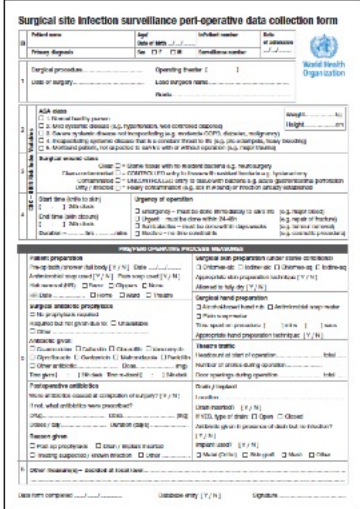
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Monitoring example – tools







Patient Safety

A Shared Mission for Safer Health Care

SAVE LIVES

Clean Your Hands

Observation Form

Facility: _____

Service: _____

Ward: _____

Department: _____

Country: _____

Period Number: _____

Date: (dd/mm/yy) / /

Start/End time: : / :

Session duration: (min)

Session Number: _____

Observer: (initials)

Page N°: _____

City: _____

Prof. cat Code N°			Prof. cat Code N°			Prof. cat Code N°			Prof. cat Code N°		
Opp.	Indication	HH Action	Opp.	Indication	HH Action	Opp.	Indication	HH Action	Opp.	Indication	HH Action
1	<input type="checkbox"/> def. post. <input type="checkbox"/> def. asept. <input type="checkbox"/> aft. b. f. <input type="checkbox"/> aft. pat. <input type="checkbox"/> aft. p. surt.	<input type="checkbox"/> HH <input type="checkbox"/> HHV <input type="checkbox"/> missed <input type="checkbox"/> missed	1	<input type="checkbox"/> def. post. <input type="checkbox"/> def. asept. <input type="checkbox"/> aft. b. f. <input type="checkbox"/> aft. pat. <input type="checkbox"/> aft. p. surt.	<input type="checkbox"/> HH <input type="checkbox"/> HHV <input type="checkbox"/> missed <input type="checkbox"/> missed	1	<input type="checkbox"/> def. post. <input type="checkbox"/> def. asept. <input type="checkbox"/> aft. b. f. <input type="checkbox"/> aft. pat. <input type="checkbox"/> aft. p. surt.	<input type="checkbox"/> HH <input type="checkbox"/> HHV <input type="checkbox"/> missed <input type="checkbox"/> missed	1	<input type="checkbox"/> def. post. <input type="checkbox"/> def. asept. <input type="checkbox"/> aft. b. f. <input type="checkbox"/> aft. pat. <input type="checkbox"/> aft. p. surt.	<input type="checkbox"/> HH <input type="checkbox"/> HHV <input type="checkbox"/> missed <input type="checkbox"/> missed
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Understanding the multimodal strategy for SSI prevention (4)



Reminders and communications

“Sell it”

- **Reminding and prompting health care workers about the importance of practices to prevent SSI when they are working at the point of care**
- **Informing patients and their visitors of the standard of care that they should expect to receive**
- **Communications to inform senior leaders and decision-makers regarding the standards that they should assure**

- Posters
- Leaflets
- Banners
- Stickers
- Flowcharts
- Infographics
- Letter templates
- Advocacy messages suitable to the local setting, e.g. memos
- Manuals
- Electronic reminders (built in to hospital IT system)
- Telephone call (including for patient reminders)

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Reminders and communication




DO THE RIGHT THING AT THE RIGHT TIME TO STOP SURGICAL SITE INFECTION
 Recommendations for safe surgical care




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SSI prevention throughout the patient journey – IPC in action



Surgical Handrubbing Technique

- Handwash with soap and water on arrival to OR, after having donned theatre clothing (gloves, hairnet and mask), and after an alcohol-based handrub (ABHR) product for surgical hand preparation, by carefully following the technique illustrated in images 1 to 12, before every surgical procedure.
- If any residual hair or biological fluids are present when gloves are removed following the operation, handwash with soap and water.




World Health Organization

Checklist for Hand Hygiene for a patient with operative wound


Immediately before touching the post-operative wound dressing, for example:

- Before physically touching the post-operative wound site including bandage, using alcohol swabs for disinfecting the skin.
- Wearing gloves.
- Washing hands using the alcohol-based handrub (ABHR) technique (including the wrists) for minimum 20 seconds.
- Wearing gloves regarding the actual post-operative wound dressing.



SAVE LIVES CLEAN YOUR HANDS

HYGIENE SURGICAL PATIENT JOURNEY



SAVE LIVES CLEAN YOUR HANDS

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Embedding hand hygiene in a surgical patient's journey

WHAT'S THE SOLUTION?
 A range of precautions - before, during and after surgery - reduces the risk of infection

BEFORE SURGERY

- Ensure patients bathe or shower
- Do not shave patients
- Only use antibiotics when recommended
- Use chlorhexidine alcohol-based antiseptic solutions to prepare skin
- Surgical scrub technique: hand wash or alcohol-based handrub

DURING SURGERY

- Limit the number of people and doors being opened
- Ensure all surgical equipment is sterile and maintain asepsis throughout surgery

AFTER SURGERY

- Do not continue antibiotics to prevent infection - this is unnecessary and contributes to the spread of antibiotic resistance
- Check wounds for infection and use standard dressings on primary wounds

SEE YOUR HANDS
 HAND HYGIENE SUPPORTS SAFE SURGICAL CARE

Surgical patients are **IN** your hands. See what's **ON** your hands. Practice hand hygiene for surgical patients **FROM ADMISSION TO DISCHARGE.**

World Health Organization #SAFE SURGICAL HANDS SAVE LIVES CLEAN HANDS 53

HANDLE ANTIBIOTICS WITH CARE IN SURGERY

Misuse of antibiotics puts all surgical patients at risk

Up to 33% of surgical patients get a postoperative infection, of which **51%** can be antibiotic resistant

Up to 15% of women around the world get an infection after a caesarean section

43% of patients have surgical antibiotic prophylaxis (SAP) inappropriately continued after the operation

REDUCE the risk of surgical site infection (SSI) by improving SAP and infection prevention and control practices

IMPROVE quality of care and patient safety and reduce antimicrobial resistance (AMR) through SSI reduction

WHAT SHOULD HEALTH WORKERS DO TO PREVENT AMR IN SURGERY?

- Give intravenous SAP - when recommended, depending on the type of operation - within 120 minutes preceding surgical incision
- For effective SAP, adequate antibiotic tissue concentrations should be present at the time of surgical incision and throughout the procedure. Thus, antibiotics with a short half-life should be administered closer to incision time.

WHO SHOULD BE INVOLVED IN ENSURING APPROPRIATE ANTIBIOTIC USE IN SURGERY?

- Surgeons
- Anesthetists
- Operating Room Nurses
- Infection Prevention & Control Unit
- Pharmacists
- Senior Nurses and Procedure Staff
- Patients and their Families (Education)

WHAT SHOULD YOU NOT DO?

- Avoid prolonging SAP postoperatively
- Avoid antibiotic wound irrigation
- Avoid continuing antibiotic prophylaxis because there is a doubt (evaluate each case)
- Avoid giving antibiotic treatment unless there is a proven or suspected SSI or other infection

Improvement of antibiotic use in surgical services should be part of the antimicrobial stewardship programme

These recommendations are based on evidence from studies in adult patients, but they are considered valid also for paediatric patients

<http://www.who.int/infection-prevention/tools/focus-amr/en/>

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Understanding the multimodal strategy for SSI prevention (5)



Institutional safety climate and culture

“Live it”

*Creating an **environment and the perceptions** that facilitate awareness-raising about SSI prevention at all levels:*

- *a climate that understands and prioritizes surgical safety issues;*
- *team spirit and cohesion;*
- *awareness of self-capacity to make a change, ownership of the intervention.*

- Motivated, multidisciplinary well functioning teams
- Champions
- Role models
- Visible leadership including on ward/grand rounds, through photographs and signatures
- Morbidity and mortality meetings including senior hospital staff – to learn from defects and facilitate sharing for improvement
- Advocacy messages from leaders (delivered in a timely manner)

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Example adaptive tools – addressing the culture



CUSP for Safe Surgery Perioperative Staff Safety Assessment

Purpose of this form: The purpose of this form is to tap into your experiences at the frontlines of patient care to find out what risks jeopardize patient safety in your clinical area.

Who should complete this form: All staff members.

How to complete this form: Provide as much detail as possible when answering the 4 questions. Drop off your completed safety assessment form in the location designated by the SUSP team.

When to complete this form: Any staff member can complete this form at any time.

CUSP for Safe Surgery (SUSP) Executive Safety Rounds Kickoff Template



The Learning From Defects Tool


Date of Safety Rounds:

Unit:

Attendees:

1.	5.
2.	6.
3.	7.
4.	(Please use back of form for additional attendees.)



Sources: Toolkit to promote safe surgery [website]. Rockville, MD: Agency for Healthcare Research and Quality; 2018
<https://www.ahrq.gov/professionals/quality-patient-safety/hais/tools/surgery/index.html>; <http://www.who.int/infection-prevention/tools/surgical/en/>

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Leadership videos - in local context supports culture change



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New WHO SSI Prevention Implementation Package



PREVENTING SURGICAL SITE INFECTIONS: IMPLEMENTATION APPROACHES FOR EVIDENCE-BASED RECOMMENDATIONS

World Health Organization



Protocol for surgical site infection surveillance with a focus on settings with limited resources

http://www.who.int/infection-prevention/tools/surgical/evaluation_feedback/en



WHO SSI Prevention Facility Implementation Manual (launch, Dec 2018)



WHO Adaptive Tools to Support SSI Prevention Implementation



Fact sheets on SSI recommendations



NEW IMPLEMENTATION PLATFORM
Launching Soon!

<http://www.who.int/infection-prevention/tools/surgical/en/> 59

Announcing the focus for 5 May 2019

SAVE LIVES: Clean Your Hands campaign



- Assessing and monitoring your infection prevention progress
- WHO resources exist for use at the facility level



INFECTION PREVENTION AND CONTROL ASSESSMENT FRAMEWORK AT THE FACILITY LEVEL DRAFT 2017





Patient Safety

A WHO initiative to make health care safer

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 changes. 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. Detailed use of the Hand Hygiene Self-Assessment Framework will also allow documentation of progress with time.

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 recognize 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.

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The spirit of assessments



- Regular assessments of IPC programmes are essential for **continuous quality improvement**.
- Assessment helps to create a **sense of urgency** for the changes needed to improve IPC, taking account of the WHO core component guideline recommendations.
- Assessment also helps to identify **existing strengths** and take stock of achievements made so far to convince decision-makers that success and **progress is possible**.
- By using a **validated tool** (e.g. WHO IPCAT2), you can be confident that the information collected is meaningful and will support improvement.

13/11/2018 | Title of the presentation

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WHO IPC global survey 2019

Use the two tools*, calculate your score, show your progress, act on your gaps!

Prepare: Read the tools and documents ¹⁻⁴	Take part in WHO webinars, hear more about using the tools and how to take part in the global survey ⁵	Jan-Feb - complete IPCAF ³ , act on your results and submit your results to WHO online	Mar-Apr – complete HHSFA ⁴ , act on your results and submit your results to WHO online
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Be part of the WHO global survey starting Jan 2019!

(the report will be launched end of 2019)

*Facility level tools to be used: IPC Assessment Framework (IPCAF), Hand Hygiene Self Assessment Framework (HHSFA)

1. <http://www.who.int/infection-prevention/tools/core-components/en/>
2. <http://www.who.int/infection-prevention/tools/hand-hygiene/en/>
3. http://www.who.int/infection-prevention/tools/core-components/IPCAF-facility_PDF?ua=1
4. http://www.who.int/spss/country_work/hhsa_framework_October_2010.pdf?ua=1
5. Find more here soon <http://www.who.int/infection-prevention/news-events/current-news/en/>

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A Webber Training Teleclass
Hosted by Dr. Kemal Raşa, Anadolu Medical Center, Gebze/Kocaeli, Turkey
www.webbertraining.com

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Survey: Practice variation perioperative O₂ use

Perioperative high FiO₂ may help prevent SSI

WHO, CDC & ACS recommendation on high FiO₂ sparked debate

Research indicates a large global practice variation may exist

Survey to quantify the problem and guide potential implementation efforts – led by the University of Amsterdam (The Netherlands) & supported by WHO

Contribute by filing in the survey via the link and forward it to your colleagues!

<https://goo.gl/forms/5POsbT4eK9xTGSmd2>

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WHO Infection Prevention and Control Global Unit
Thank you



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Hosted by Dr. Kemal Raşa, Anadolu Medical Center, Gebze/Kocaeli, Turkey
www.webbertraining.com

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www.webbertraining.com/schedulep1.php	
November 15, 2018	<p>HEPATITIS C IN PRISONS - FROM INDIVIDUAL CARE TO VIRAL ERADICATION STRATEGY: A BENEFIT FOR THE COMMUNITY</p> <p>Speaker: Dr. Roberto Ranieri and Dr. Ruggero Giuliani, Penitentiary Infectious Diseases Unit, Santi Paolo e Carlo Hospital, University of Milan, Italy</p>
November 22, 2018	<p><i>(FREE Teleclass)</i></p> <p>NEONATAL SEPSIS PREVENTION IN LOW-RESOURCE SETTINGS</p> <p>Speaker: Prof. Dr Angela Dramowski, Stellenbosch University, Cape Town</p>
December 6, 2018	<p>INFECTIOUS DISEASE HIGHLIGHTS AND LOWLIGHTS IN 2018, AND WHAT TO EXPECT IN 2019</p> <p>Speaker: Dr. Larry Madoff, ProMED Editor, Director, Division of Epidemiology and Immunization, Massachusetts Dept. of Public Health</p>
December 12, 2018	<p><i>(South Pacific Teleclass)</i></p> <p>CONTROL OF CARBAPENEMASE-PRODUCING ENTEROBACTERIACEA IN AN ENDEMIC SETTING: DO CLASSICAL IPC METHODS WORK FOR NEW AGE BUGS?</p> <p>Speaker: Dr. Kalisvar Marimuthu, Tan Tock Seng Hospital, Singapore</p>
December 13, 2018	<p><i>(FREE Teleclass)</i></p> <p>THE BEST WAYS TO GET YOUR HOSPITAL TO TALK ABOUT INFECTION CONTROL</p> <p>Speaker: Prof. Andreas Voss, Radboud University, The Netherlands</p>

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