WORLD ALLIANCE FOR PATIENT SAFETY

GLOBAL PATIENT SAFETY CHALLENGE

2005 - 2006

CLEAN CARE IS SAFER CARE

World Health Organization

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Contents

Simple measures save lives

"Clean Care is Safer Care" is the title of the Global Patient Safety Challenge for 2005-2006. The focus is on preventing infection associated with health care, and the core message is: simple measures save lives.

Hand hygiene is one very simple action that can greatly reduce health care-associated infection and its risks. The Global Patient Safety Challenge for 2005-2006 will bring together the WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft) with ongoing actions on blood safety, injection and immunization safety, safer clinical practices, and safer water, sanitation and waste management.

The Global Patient Safety Challenge will catalyse commitment by all players – policy-makers, international experts, front-line staff, patients and managers – to make clean care and, therefore, safer care an everyday reality in all countries.

It is fitting that the World Alliance for Patient Safety has selected health care-associated infection as the topic for its first Global Patient Safety Challenge. These infections are a major patient safety concern. They affect hundreds of millions of people worldwide every year. Infections take their toll in terms of avoidable patient deaths and disability. They also waste scarce health-care resources. No country can claim to have solved the problem completely.

Indeed, health care-associated infection is growing as a problem. Patients are becoming more susceptible to infections because of more serious underlying illnesses. Poor compliance with hand hygiene by health-care staff, lack of access to safe water, unclean instruments and environmental surfaces all contribute to the problem. The environment of patient care is also important. Factors such as under-staffing, high levels of bed occupancy and increased transfer of patients, all create new risks of infection.

The world has the knowledge and resources to dramatically reduce the impact of health care-associated infection. What is needed is commitment and action at all levels, to ensure that every patient's right to the cleanest and safest care is achieved. We want every country, every hospital and every health clinic around the world to support the Global Patient Safety Challenge. The opportunity for action has never been greater, nor its need more urgent.

Sir Liam Donaldson
Chair
World Alliance for Patient Safety


Today, perhaps for the first time in the history of public health, it is possible to launch a powerful global response to tackle the infections that spread in health care settings worldwide.

Preventing infection associated with health care: a patient safety priority

Today, perhaps for the first time in the history of public health, it is possible to launch a powerful global response to tackle the infections that spread in health-care settings worldwide.

The World Alliance for Patient Safety at the World Health Organization, and its technical partners, have developed low-cost strategies to address this global challenge. A core element of the World Alliance for Patient Safety is the Global Patient Safety Challenge, and the topic chosen for 2005-2006 is health care-associated infection.

Every year, the treatment and care of hundreds of millions of patients worldwide is complicated by infections acquired during health care. As a result, some patients become more seriously ill than they would otherwise have been. Some have prolonged stays in hospital, some experience long-term disability and some die. As well as the human cost, health-care systems carry a massive additional financial burden.

Health care-associated infection – also referred to as nosocomial infection – presents many of the characteristics of a major patient safety problem. It has multiple causes, relating both to the systems and processes of care provision, as well as to behavioural practices.

Health care can and does save lives, and has brought unprecedented benefits to generations of patients and their families. However, it also carries risks. Health care-associated infection is sometimes the unfortunate consequence of modern medicine: new procedures, new treatments for advanced cancers, organ transplantation and intensive care are associated with an increased risk of infection.

Health care-acquired infection: scale and cost

At any time, over 1.4 million people worldwide are suffering from infections acquired in hospital.

Between 5% and 10% of patients admitted to modern hospitals in the developed world acquire one or more infections.

The risk of health care-associated infection in developing countries is 2 to 20 times higher than in developed countries. In some developing countries, the proportion of patients affected by a health care-acquired infection can exceed 25%.

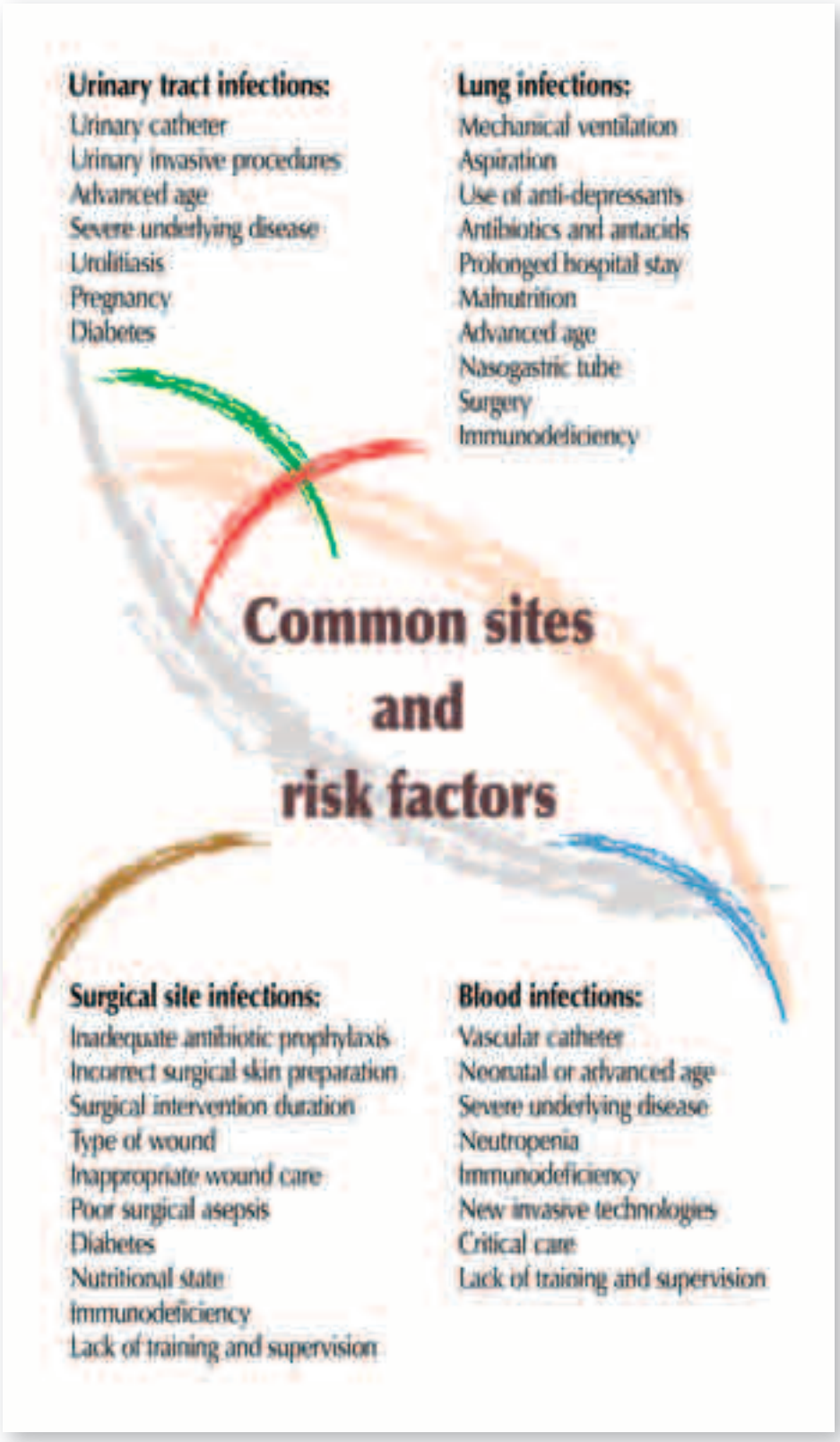
In the United States, 1 out of every 136 hospital patients becomes seriously ill as a result of acquiring an infection in hospital; this is equivalent to 2 million cases and about 80 000 deaths a year.

In England, more than 100 000 cases of health care-associated infection lead to over 5000 deaths directly attributed to infection each year.

In Mexico, an estimated 450 000 cases of health care-associated infection cause 32 deaths per 100 000 inhabitants each year.

Health care-associated infections in England are estimated to cost £1 billion a year. In the United States, the estimate is between US$ 4.5 billion and US$ 5.7 billion per year. In Mexico, the annual cost approaches US$ 1.5 billion.

Figure 1 *The most common sites of health care-associated infection (urinary tract, lung, surgical site, blood) and some specific risk factors underlying the occurrence of these infections.*



Health care-associated infection cannot be entirely eliminated. Nevertheless, several low-cost, simple and effective strategies have proven to be effective in reducing the burden of disease. Data can be assembled to assess the size and nature of the problem and to create a basis for monitoring the effectiveness of prevention efforts. Many health-care facilities have succeeded in controlling the problem and decreasing the risks to patients. Unfortunately – for a number of reasons – others have not. There is a gap between the patient safety improvements that are currently possible and the improvements that are actually being made. This gap arises because existing tools and interventions are not being widely implemented.

Risks of infection are particularly high in some parts of the world. Many projects, in both developed and developing countries, have shown that use of available interventions and strategies can dramatically reduce the disease burden of health care-associated infections.

Well-established WHO strategies already address some of these risks in areas such as:

- blood products and their use;
- injection practices and immunization;
- safe water, basic sanitation and waste management;
- clinical procedures, particularly in first-level emergency care.

Health care-associated infection: areas of care

Health care-associated infection is one of the leading causes of premature mortality in some countries.

In intensive care, health care-associated infection affects about 30% of patients and the attributable mortality may reach 44%.

In Brazil and Indonesia, more than half of the babies housed in neonatal units are affected by health care-associated infection, with a fatality rate between 12% and 52%.

The infection rate associated with vascular devices among neonates is 3 to 20 times higher in developing than in developed countries.

During the SARS pandemic, the proportion of infected health-care workers ranged from approximately 20% to 60% of cases worldwide.

Unsafe blood transfusion causes 16 million hepatitis B infections, 5 million hepatitis C infections, and 160 000 cases of HIV worldwide every year.

Invasive procedures and unsafe blood transfusion were responsible for the largest documented outbreak of HIV nosocomial transmission in 400 children in the Libyan Arab Jamahiriya.

The greatest risk of nosocomial transmission of hepatitis B virus takes place from patients to personnel. Nevertheless, hepatitis B vaccine is not available to immunize health-care workers in the majority of developing countries.

The Global Patient Safety Challenge embraces these strategies and promotes specific actions and interventions which have a direct bearing on health care-associated infection and patient safety. These actions are combined with efforts to implement the *WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft)*, in response to the message "Clean Care is Safer Care".

The Global Patient Safety Challenge

The Global Patient Safety Challenge with the theme "Clean Care is Safer Care" means working worldwide to assist countries to reduce the burden of health care-associated infection. The challenges are enormous but so are the rewards: saving lives, improving patient safety, and making life better for countless millions of patients and their families. The objectives are to:

- raise awareness of the impact of health care-associated infections on patient safety and promote preventive strategies within countries;
- build commitment from countries to give priority to reducing health care-associated infections;
- test the implementation of the WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft) in specific districts worldwide, as part of an integrated package of actions derived from existing WHO strategies in the areas of clean products (blood safety), clean practices (safe clinical procedures), clean equipment (injection and immunization safety), and clean environment (safe water and sanitation in health care).

How the Global Patient Safety Challenge works

The Global Patient Safety Challenge aims to support countries as they set priorities to address health care-associated infection. Implementation of the Global Patient Safety Challenge is comprised of three major strategies:

- awareness-raising and campaigning;
- country statements pledging to address health care-associated infection;
- testing implementation in districts.

Awareness-raising and campaigning

Building global awareness and understanding of the importance of health care-associated infection will help catalyse leadership, commitment and action. Political commitment – particularly when translated into funds, policies and multi-sectoral involvement – is required to reduce the burden of health care-associated infection. Commitment by decision-makers, front-line health-care staff, patients and their caregivers is necessary to develop and embed improved practices for "Clean Care is Safer Care". An international awareness-raising campaign is being initiated, focusing primarily on hand hygiene.

Countries pledging

Member States are invited to make a formal statement pledging their support to implement actions to reduce health care-associated infection within their countries and to share results and learning internationally.

The statement will be a pledge by the minister of health of a country interested in addressing health care-associated infection. The statement, drafted by the country, is likely to cover some of the following areas:

- Acknowledging the importance of health care-associated infection;
- Developing or enhancing ongoing campaigns at national or sub-national levels to promote and improve hand hygiene among health care providers;
- Making reliable information available on health care-associated infection at community and district levels to foster appropriate actions;
- Sharing experiences and, where appropriate, available surveillance data, with the WHO World Alliance for Patient Safety;
- Considering the use of WHO strategies and guidelines to tackle health care-associated infection, in particular in the areas of hand hygiene, blood safety, injection and immunization safety, clinical procedures safety and water, sanitation and waste management safety.

The statement may also urge health professional bodies and associations to ask their members to promote the highest standards of practice and behaviour to reduce the risks of health care-associated infection.

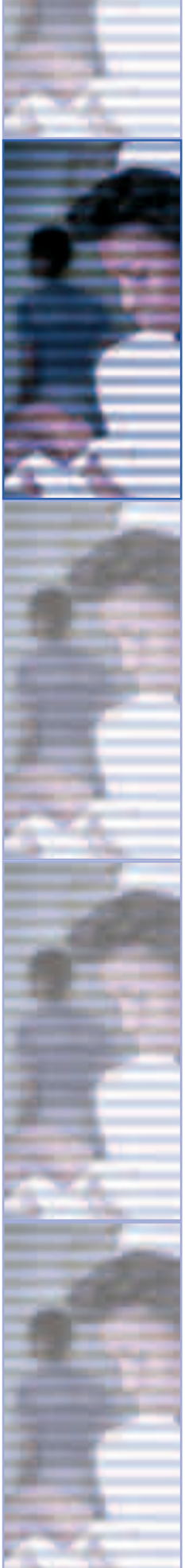


Figure 2 *Concerted and coordinated actions contribute to minimising risks to patients.*

Testing implementation

The World Alliance for Patient Safety is providing support to monitor and evaluate the implementation of the *WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft)* and the other actions included in the Global Patient Safety Challenge, in several selected health-care districts worldwide, for the period of the Challenge. One of the main objectives is to better understand how to support effective implementation of such actions in a range of health-care environments. Reducing health care-associated infection can be achieved by using a multifaceted approach focusing on: high-level leadership and commitment; safe practices; clean environments; and well-designed processes and systems. The measurement of processes, structures and outcomes before and after implementation will help to monitor and assess the acceptability, feasibility and impact of the integrated package of strategies and guidelines. Lessons will also be learned about how to scale up actions in the future.

Elements of the Global Patient Safety Challenge

Blood safety

Millions of lives are saved each year through blood transfusion. However, blood transfusion carries a potential risk of acute or delayed complications and transfusion-transmitted infections. No country in the world can ignore the problem of blood safety, with the potential transmission of viruses such as HIV, hepatitis B virus and hepatitis C virus. In recent years, efforts to tackle the HIV/AIDS pandemic have focused attention on the importance of preventing transfusion-transmitted infections.

The WHO Strategy on Blood Transfusion supports the establishment, in all countries, of sustainable national blood programmes that can ensure the provision of safe, high-quality blood and blood products, accessible to all patients, and their safe and appropriate use. Key areas of focus include the development of effective national programmes, policies for recruitment, selection and retention of voluntary blood donors, blood screening, and appropriate clinical use of blood in patient care.

The following actions to improve blood safety are integrated within the Global Patient Safety Challenge through the:

- promotion of optimal hand hygiene associated with procedures for collection, processing and use of blood products;
- promotion of donor skin antisepsis to prevent blood contamination;
- in-service education and training on safe transfusion practices at the bedside.

Blood safety and health care-associated infection

Between 5% and 10% of HIV infections worldwide were transmitted through transfusion of contaminated blood and blood products in the past.

In 2000-2001, over 70 countries did not test all donated blood for HIV, Hepatitis B virus, Hepatitis C virus and syphilis.

Currently, the risk of bacterial contamination from transfusion exceeds the risk of HIV, HBV and HCV transmission in developed countries.

Vigilance data from around the world have shown that errors in transfusion procedure leading to ABO incompatibility is the most common serious hazard of transfusion.

It is possible to build up effective blood safety programmes: South Africa and Zimbabwe are currently able to maintain levels of HIV infection rate in blood donors below 0.5% despite HIV rates exceeding 20% in the general population.

Injection practices and immunization

Around 16 billion injections are administered each year in developing and transitional countries. More than 95% are given for curative purposes. A safe injection does not harm the recipient, does not expose the provider to any avoidable risks, and does not result in any waste that is dangerous for other people.

The WHO Injection Safety team works with countries to support the formulation of national policies for the safe and appropriate use of injections, and facilitates access to safe, high-quality single-use injection devices.

Major areas of focus include raising awareness of risks of unsafe injection practices and educational programmes to promote behavioural change among patients and health-care workers. The aim is to decrease injection overuse, and increase the adoption of safe injection practices and effective management of sharps waste.

The Safe Injection Global Network (SIGN) is a voluntary coalition of stakeholders aiming to achieve collaboration between organizations and individuals sharing a common interest in preventing bloodborne pathogen transmission.

Immunization safety is also an important area of focus. Activities in this field include the promotion of vaccine safety and quality, injection safety, management of immunization-related waste, and the establishment and improvement of mechanisms to monitor and respond to adverse events following immunization. A particular strategy has been to promote the use and accessibility of auto-disable syringes, a special injection device which inactivates itself after a single use. High-level commitment to this project is embodied in a joint WHO/UNICEF/UNFPA statement on the use of auto-disable syringes in immunization services. The priority is to help both countries lagging behind with the introduction of auto-disable syringes and those for which sustainability of procurement of these syringes using national funds is in doubt.

Another area of focus is the improved global dissemination – via the Internet – of information on vaccine safety that adheres to good information practices. With this goal in mind, the Vaccine Safety Net Project was established in 2003.

Injection safety and health care-acquired infections

One injury from a needle used on an infected patient carries risks of 30%, 1.8% and 0.3%, respectively, of transmitting hepatitis B virus, hepatitis C virus and HIV.

Safer practices are to be applied worldwide.

In 2000, reuse of contaminated syringes in developing and transitional countries caused an estimated 21 million hepatitis B virus infections (33% of new infections), 2 million hepatitis C infections (40% of new infections), and 96 000 HIV infections (2% of new infections).

The proportion of injections given by syringes or needles reused without sterilization ranges from 1.5% to 69.4% in transitional and developing countries.

In a multicentre survey in Italy, the hepatitis C virus seroconversion rate was 4% among dialysis workers with percutaneous injuries.

In some parts of the world, up to 96% of people seeking primary health care receive injections, of which over 70% are unnecessary or could be replaced by an oral formulation.

By the end of 2003, following implementation of WHO interventions, 55% of non-industrialized countries reported the use of auto-disable syringes.

The following actions to improve injection safety are integrated within the Global Patient Safety Challenge:

- promotion of optimal hand hygiene practices at time of injection and immunization;
- strengthening of high-level commitment within countries to use auto-disable syringes for immunization services;
- actions to ensure the safe disposal of sharps as part of integrated management of waste within health-care facilities.

Water, basic sanitation and waste management

Water, basic sanitation and waste management in health-care settings include actions to achieve the safe environment needed for health care and to support health-care providers to be responsible for the safe disposal of the waste generated.

Health-care facilities require: access to safe water to prevent infections that are transmitted by the faecal-oral route; low risks to health from microorganisms that grow in the environment; and physically clean surfaces and tools. Safe disposal of waste in health care, in particular syringes and needles or infectious body fluids, protects heath-care workers and the community from infections, toxic effects and injuries. These efforts can be applied across a range of facilities, from the reference hospital to village health posts, residential care accommodation, dental facilities, and so on, including home-based care. Safe water and sanitation are vital components of hygiene and well-being; and water quality and cleanliness are also essential to ensure effective hand washing during patient care.

Key areas of focus include the development of guidelines, tools and policies or minimum standards in water, sanitation, hygiene and waste management in health-care settings and schools. The WHO Water, Sanitation and Health programme works closely with partners on implementing projects in countries across the world.

Water, sanitation, waste management and infections

1.8 million people die every year from diarrhoeal diseases, 88% of which are attributed to unsafe water supply, inadequate sanitation and hygiene.

200 million people in 74 countries are infected with schistosomiasis and soil-transmitted helminths and 20 million suffer severe consequences.

The disease burden from water, sanitation and hygiene accounts for 4% of all deaths and 5.7% of the total disease burden occurring worldwide.

At least 10% of legionella cases are nosocomial and concern health-care facilities worldwide.

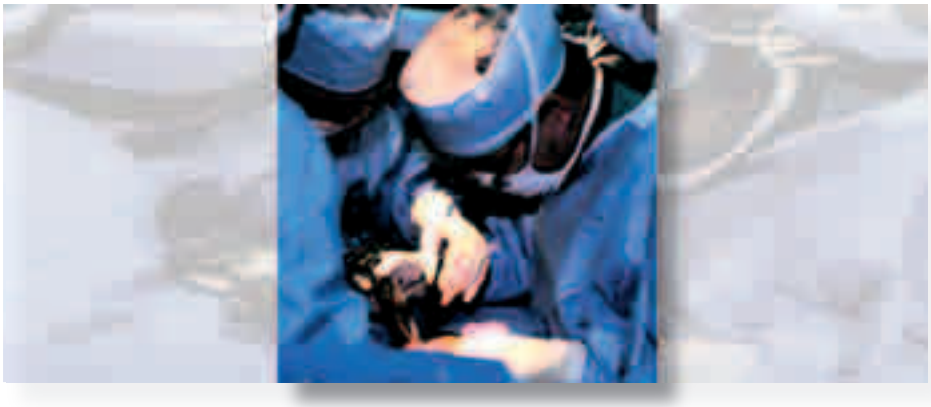
Improved water supply and sanitation decrease diarrhoea morbidity by up to 25% and 32%, respectively, and overall mortality by 65%.

Hygiene education and promotion of hand washing can lead to a reduction of diarrhoeal cases by more than 50%.

In 22 developing countries, the proportion of facilities not using proper waste disposal methods ranges from 18% to 64%.

The following actions to improve water quality and availability, and waste management, are integrated within the Global Patient Safety Challenge:

- ensuring access and water quality to support hygiene, and hand hygiene in particular, at the level of health-care facilities;
- ensuring sound management of waste, particularly of highly infectious health-care waste.



Clinical procedures safety

Every year five million people worldwide die from injuries. Each year around one million people lose their lives because of road traffic accidents. In situations such as these, the capacity to implement correct and timely emergency clinical procedures at primary-care hospitals is vital. In practice, however, the quality of emergency and essential surgical care in such settings in developing and transitional countries is often constrained by: lack of trained staff; poor facilities; inadequate training in life saving, emergency procedures and equipment; and limited supplies of drugs and other essentials.

In addition, surgical procedures, especially in emergency situations, carry the risk of causing infection. Regardless of the resources available, patients undergoing surgical procedures are threatened by surgical site infection, the second most frequent type of hospital infection. The occurrence of this adverse event reflects a number of factors including: lack of surgical experience or inadequate training and supervision; incorrect surgical hand preparation; poor hygiene conditions; lack of or incorrect application of antibiotic prophylaxis and other preventive measures; and inappropriate wound care.

Countries are being supported by the WHO Clinical Procedures programme to build capacity to reduce death and disability through strengthening the basic skills of health-care providers to manage emergency and essential surgical procedures, especially at resource-limited health-care facilities. A particular focus is on the implementation of best practice guidelines for monitoring and evaluating the appro-

Clinical procedures, essential surgical care and health care-acquired infection

Without essential surgical care, up to 10% of the population dies from injury and 5% of pregnancies result in maternal death.

Every day, 16 000 people die from injuries and several thousand more are injured, many of them with permanent sequelae.

Surgical site infection accounts for about 14% of possible adverse events threatening patient safety in hospitals in developed countries.

Surgical site infection occurs in at least 2% to 5% of the 27 million patients undergoing surgical procedures every year.

In the United States, 15 523 patients out of 593 344 undergoing surgery (3%) developed post-surgical infections over a 10 year-period.

Higher surgical site infection rates are reported in some hospitals in developing countries: from 12% in Bolivia to 19% in the United Republic of Tanzania.

Surgical site infection accounts for about 25% of health care-associated infections.

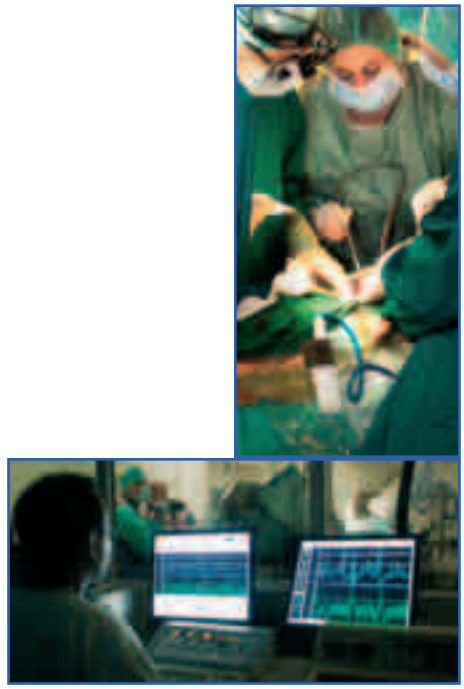
In countries with a low prevalence of health care-associated infection, surgical site infection is the most frequent infectious complication.

In the United States, surgical site infection prolongs hospital stay by an average of 7.4 days at an average cost of US$ 400 to US$ 2600 per wound infection.

priate use of essential emergency procedures and equipment for patient safety at primary health care facilities. Major strategies include supporting the development of national policies to provide basic requirements for emergency surgical services, education and training of health-care providers in life-saving clinical procedures, and development of needs assessment and planning tools. More recently, the work is also targeting the reduction of infections associated with surgical procedures. Education and training of health-care workers to adopt the best prevention interventions, starting with surgical hand preparation and optimal training and supervision, are among the most promising and important approaches.

The following actions to improve the safety of clinical procedures are integrated within the Global Patient Safety Challenge:

- specific education programmes promoting safety in surgical procedures, tailored to the needs of health-care facilities;
- surgical hand preparation using either antimicrobial soap and water or alcohol-based hand rub to reduce infections associated with surgical procedures;
- access to safe emergency and essential surgical care, including the availability and use of best practice protocols on clinical procedures and equipment.

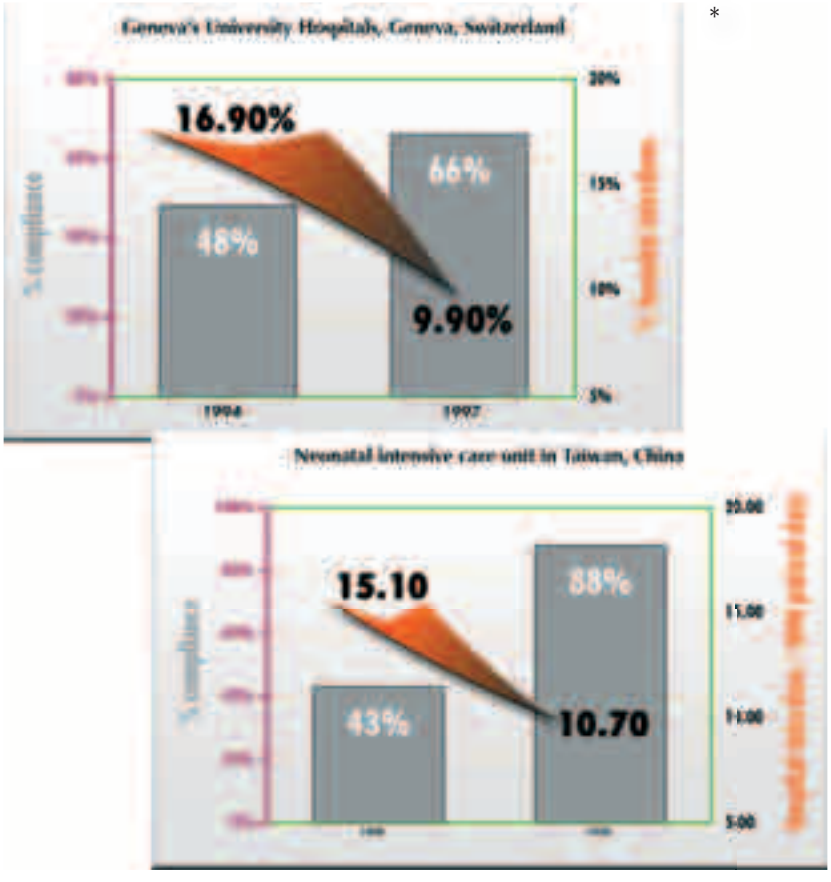


Hand hygiene

Hand hygiene, a very simple action, remains the primary measure for reducing health care-associated infection and the spread of antimicrobial resistance. Health-care workers' adherence to good practice is, however, extremely low. Nurses and physicians usually clean their hands less than half of the number of times they should. In critical care situations where there are severe time constraints and the workload is higher, adherence to good practices might be as low as 10%. Poor adherence is related to parameters associated with system constraints as well as individual, group and community behaviour.

Recent progress in understanding the epidemiology of hand hygiene compliance suggests new approaches to improve matters. Recommendations for hand hygiene have been revisited; their application in some health-care facilities has been associated with significant changes in standards

Successful examples of multimodal campaigns to promote hand hygiene



*costs equal to less than 1% of the costs associated with hospital infections.

and practices, to the benefit of patient safety. All means to ensure hand hygiene should be promoted.

Clean hands reduce the burden of disease. In several centres, strategies to improve hand hygiene have led to a substantial decrease in health care-associated infection rates, both in critical care and hospital-wide. Major interventions have targeted system and behavioural changes, through the adoption of antiseptic hand rubs and the implementation of educational programmes. Hand hygiene improvement combined with other infection-control measures has been effective in reducing the transmission of harmful nosocomial pathogens, both in outbreak and endemic situations.

Multimodal strategies are the most effective approach to promote hand hygiene practices. Key elements include staff education and motivation, adoption of an alcohol-based hand rub as the gold standard, use of performance indicators, and strong commitment by all stakeholders, such as frontline staff, managers and health-care leaders.

Risk factors associated with poor adherence to hand hygiene among health-care workers

Individual level:

- lack of education or experience
- lack of knowledge of guidelines
- being a refractory noncomplier
- skin irritation by hand hygiene agents.

Group level:

- lack of education or lack of performance feedback
- working in critical care or in high workload conditions
- downsizing or understaffing
- lack of encouragement or role modelling from key staff.

Institutional level:

- lack of written guidelines
- lack of suitable hand hygiene agents
- lack of skin-care promotion or agents
- lack of culture or tradition of compliance
- lack of administrative leadership, sanctions, rewards or support.

Governmental level:

- lack of awareness and commitment regarding the importance of health care-associated infection
- lack of specific regulations and policies on prevention of health care-associated infection
- lack of guidelines on hand hygiene in health care
- lack of promotion of national or regional campaigns to improve hand hygiene in health care
- insufficient allocation of financial resources for this purpose.

"Hand hygiene is the primary action to prevent health care-associated infection and reduce the spread of multi-resistant organisms. Health-care worker adherence to hand hygiene standards is less than optimal. Leadership and role modelling are key elements for the successful promotion of best practice. Managers and political leaders, as well as senior staff, need to pave the way to improved practice.

Now is the time for action!

Tools for change are known. Successful promotion of appropriate practice requires education and motivation of caregivers, leadership and clinical governance, administrative support, patient participation, and systemic change to ensure that hand-hygiene agents are available at the point of care."

Professor Didier Pittet
Leader of the Global Patient Safety Challenge

The *WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft)* have been developed by renowned experts around the world as a major part of the

Global Patient Safety Challenge. The guidelines are being tested in a pilot phase to obtain the most reliable and adaptable strategies to be applied worldwide. This work in progress is being accompanied by ongoing discussions within specific task forces and dedicated working groups addressing critical topics relating to implementation, such as: patient involvement; global implementation of a WHO hand hygiene formulation; glove use and reuse; water quality for hand washing; national guidelines on hand hygiene; education, communication and campaigning; and religious, cultural and behavioural aspects of hand hygiene.

The following actions to improve hand hygiene are integrated within the Global Patient Safety Challenge:

- strengthening high-level commitment within countries to implement national strategies to promote hand hygiene;
- testing implementation of the WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft) in specific districts worldwide.

Figure 4


GLOBAL PATIENT SAFETY CHALLENGE
Ministerial-level country pledges
Step-change improvement programmes in pilot areas
National strategies to promote hand hygiene based on new guidelines
Strengthened blood safety programmes
Strengthened injection and immunization safety programmes
Strengthened water, sanitation and waste management programmes
Enhanced safety of clinical procedures

Implementing the Global Patient Safety Challenge

The selection of countries for the district-testing of implementation relies on the following criteria: balance among developing, transitional and developed countries drawn from all WHO regions; strong commitment from senior government sponsors at country level, and of senior management and clinicians at facility level; access to a range of primary care and acute care sites; ability to mobilize external resources; rapidity in mobilization; and close collaboration with the relevant WHO regional office and country representative.

Links to other action areas of the World Alliance for Patient Safety

Reducing health care-associated infection requires multifaceted interventions. To this end, the Global Patient Safety Challenge "Clean Care is Safer Care" has created strong links with other action areas of the World Alliance for Patient Safety. In particular, through links with the action area Patients for Patient Safety, opportunities for greater involvement of consumers, patients and their families in reducing the risks of health care-associated infection have been explored and will continue to be promoted, for example through the education of patients and their families on hand hygiene. Links are in place with Solutions for Patient Safety, in particular regarding the implementation strategies for the *WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft)*. Links are also in place with the research action area to ensure that hand hygiene and health care-associated infection form an important part of the global agenda for patient safety research.

Strong links have been established with the new WHO Collaborating Centre on Patient Safety Solutions to assist in promoting the dissemination and spread of successful outcomes from the various test districts.

Country-level activities to achieve the Global Patient Safety Challenge

The challenge at country level is to:

Catalyse and sustain strong and visible leadership and stewardship by government, health authorities and professionals, and minimize complacency;

Promote hand hygiene based on the new guidelines, blood safety strategies, injection safety programmes, safety of clinical procedures, and efforts that ensure access to safe water and sanitation in health care;

Assist countries to identify and reduce national barriers and implement these strategies and programmes;

Invest in the development of monitoring tools and support the establishment of independent systems to track progress and impact;

Help develop or strengthen mechanisms within countries to ensure the availability of goods and commodities relating to cleaner and safer care, and access to them;

Identify elements of success and lessons learned from the district test implementation, and disseminate them widely;

Work through partnerships with civil society and patient groups to maximize the impact of efforts.

The potential to make a difference

The Global Challenge for Patient Safety is committed to making a difference: to working closely with countries in order to reduce health care-associated infection. Preventing health care-associated infection is not an easy task. It will require concerted and coordinated actions, engaging a broad range of public and private health establishments and agencies, to reach hundreds of millions of patients with cleaner and safer care.

Three elements are of particular importance.

First, there should be even stronger leadership and greater commitment from governments, in particular health ministers, to increase resources, strengthen infrastructural processes and systems, and sustain partnerships with key players – professional bodies, industry, patients, front-line staff – to implement simple measures to help save lives.

Second, the foundation of the required systemic changes to support sustainability should be in place. If national efforts to minimize risks to patients are to be sustainable, efforts will be required to strengthen the capacity of health systems, not only to deliver cleaner and safer care, but also to ensure continuous provision of specific goods and equipment.

Third, efforts should be made to increase patients' and people's awareness and knowledge about their own health.

The Global Patient Safety Challenge will build on national experience of what works best, and learn from the successes and shortcomings of the district test implementation. While there will be a lot to learn, and while the countries' health-care circumstance will continue to change, the experience of implementing the Global Patient Safety Challenge in districts will be valuable in scaling up activities in the future.

Action areas of the World Alliance for Patient Safety

Global Patient Safety Challenge, focusing in 2005-2006 on the challenge of health care-associated infection, "Clean Care is Safer Care"

Patients for Patient Safety, mobilizing patients and patients' organizations to become involved in patient safety efforts worldwide

Taxonomy for Patient Safety, developing internationally acceptable data standards for collecting, coding and classifying adverse events and near misses

Research for Patient Safety, improving tools and methods to measure harm to patients in developing countries, and defining a global research agenda on patient safety

Solutions for Patient Safety, spreading proven patient safety interventions worldwide and coordinating future international efforts to find solutions

Reporting and Learning, generating tools and guidance for developing patient safety reporting systems and improving existing systems within countries.

Commitment

Leadership

Evidence-based practice

Awareness

Numbers to assess impact

Consumer involvement

Action plans

Regular reviews of progress

Exemplar studies and learning

IS SAFER CARE

Conclusion

Health care-associated infections affect hundreds of millions of people each year worldwide. No health-care system is spared. The WHO World Alliance for Patient Safety has chosen the prevention of health care-associated infection as the first Global Patient Safety Challenge.

This challenge is enormous because it:

- touches many aspects of health care and health-care systems at different levels;
- tackles problems which have been recognized for years – if not decades;
- requires commitment at all levels in the patient safety chain.

Tools for change and improvement are being made available. Most health care-associated infections are preventable. Some health-care centres around the world succeed much better than others in preventing such unintended, undesirable, intolerable events.

It is time for action.

Success relies more on the willingness of human nature to change and accept changes than on systems and economic constraints. Both developed and developing countries provide models to be followed for the improvement of patient safety.

"Promoting "Clean Care is Safer Care" is not a choice. It is our duty to patients, their families, and health-care workers. Let us move forward together. Each of us can make a small difference; significant improvement requires an effort from all of us."

Professor Didier Pittet
Leader of the
Global Patient Safety Challenge

SELECTED REFERENCES

A report from the NNIS system; summary from October 1986 to April 1996. *American Journal of Infection Control*, 1996, 24:380-8.

Blood supply and demand. Editorial. *The Lancet*, 2005, 365:2151.

Boyce JM, Pittet D. Guideline for hand hygiene in health-care settings. Recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/ IDSA Hand Hygiene Task Force. Society for Healthcare Epidemiology of America/Association for Professionals in Infection Control/Infectious Diseases Society of America. *Morbidity and Mortality Weekly Report Recommendations and Reports*, 2002, 51(RR-16):1–45.

Department of Health (England). *Winning Ways: Working together to reduce Healthcare Associated Infection in England. Report from the Chief Medical Officer*, 2003.

Donaldson L. When will health care pass the orange-wire test? *The Lancet*, 2005, Oct 30; 364 (9445):1567-1568.

Eriksen HM et al. Surgical-site infections at Kilimanjaro Christian Medical Center. *Journal of Hospital Infection*, 2003, 55:14-20.

Girou E et al. Risk factors and outcome of nosocomial infections: results of a matched case-control study of ICU patients. *American Journal of Respiratory and Critical Care Medicine*, 1998, 157:1151-8.

Gottrup F. Prevention of surgical-wound infections. *The New England Journal of Medicine*, 2000, 342:202-203.

Health-care waste management. Geneva, World Health Organization (WHO Fact Sheet No. 281) (http://www.who.int/mediacentre/factsheets/fs281/en/index.html).

Lam BC, Lee J, Lau YL. Hand hygiene practices in a neonatal intensive care unit: a multimodal intervention and impact on nosocomial infection. *Pediatrics*, 2004, 114:565–571.

Larson EL et al. An organizational climate intervention associated with increased handwashing and decreased nosocomial infections. *International Journal of Behavioral Medicine*, 2000, 26:14–22.

Lazzari S, Allegranzi B, Concia E. Making hospitals safer: the need for a global strategy for infection control in health care settings. *World Hospitals and Health Services*, 2004, 40:32-42.

Leape LL, Brennan TA, Laird N et al. The nature of adverse events in hospitalized patients: results of the Harvard Medical Practice Study II. *The New England Journal of Medicine*, 1997, 324:377-379.

Looking back: looking ahead. Five decades of challenges and achievements in environmental sanitation and health,Geneva, World Health Organization, 2003. (http://www.who.int/water_sanitation_health/hygiene/envsan/Lookingback.pdf).

Lorena Soleto BS, Pirard M, Boelaert M, et al. Incidence of surgical-site infections and the validity of the national nosocomial infections surveillance system risk index in a general surgical ward in Santa Cruz, Bolivia. *Infection Control and Hospital Epidemiology*, 2003, 24:26-30.

Luby SP et al. Effect of handwashing on child health: a randomised controlled trial. *The Lancet*, 2005, Jul 16-22; 366(9481):225-33.

Mayhall, Glen C. Hospital Epidemiology and Infection Control, 3rd ed. Philadelphia, Lippincott Williams and Wilkins, 2004.

Mayor S. Hospital acquired infections kill 5000 patients a year in England. British Medical - Journal, 2000, 321:1370.

McDonald LC et al. SARS in healthcare facilities, Toronto and Taiwan. *Emerging Infectious Diseases*, 2004, May; 10(5):777-81.

NPSA/PASA Hand Hygiene Project 2004 (http://www.npsa.nhs.uk/cleanyourhands/resources/documents).

Pessoa-Silva CL et al. Healthcare-associated infections among neonates in Brazil. *Infection Control and Hospital Epidemiology*, 2004, 25:772–777.

Petrosillo N et al. The Italian Multicenter Study on Nosocomial and Occupational Risk of Infections in Dyalisis. The Risk of occupational exposure and infection by human immunodeficiency virus, hepatitis B virus, and hepatitis C virus in the dialysis setting. *American Journal of Infection Control*, 1995, 23:278-85.

Pittet D. Clean hands reduce the burden of disease. *The Lancet*, 2005, 366:185-7.

Pittet D et al. Effectiveness of a hospital-wide programme to improve compliance with hand hygiene. Infection Control Programme. *The Lancet*, 2000, 356:1307–1312.

Pittet D et al. Hand hygiene among physicians: performance, beliefs, and perceptions. *Annals of Internal Medicine*, 2004, 141:1–8.

Pittet D. Improving compliance with hand hygiene in hospitals. Infection Control and Hospital Epidemiology, 2000, 21:381–386.

Pittet D. The Lowbury lecture: behaviour in *infection control*. *Journal of Hospital Infection*, 2004, 58:1–13.

Ponce-de-León Rosales S, Sigfrido Rangel-Frausto M. Infection Control in Developing Countries. In: Bennett JV, Brachman PS, eds. *Hospital Infections*, 4th ed. Philadelphia, Lippincott-Raven, 1998:291-296.

Starfield B. Is US health really the best in the world? *Journal of the American Medical Association*, 2000, 284:483–485.

Surgical and Emergency Obstetrical Care at First Referral Level. Geneva, World Health Organization, 2003 (Aide-Memoire). (http://www.who.int/surgery/publications/en/Aide-Memoire_surgery.pdf).

Tikhomirov E. WHO Programme for the Control of Hospital Infections. *Chemiotherapia*, 1987, 3:148–151.

Vincent JL. Nosocomial Infections in adult intensive-care units. *The Lancet*, 2003, 361: 2068-77.

Visco-Comandini U, Cappiello G, Liuzzi G, et al. Monophyletic HIV type 1 CRF02-AG in a nosocomial outbreak in Benghazi, Libya. AIDS Research and Human Retroviruses, 2002, 18:727-3.

Won SP et al. Handwashing program for the prevention of nosocomial infections in a neonatal intensive care unit. *Infection Control and Hospital Epidemiology*, 2004, 25:742–746.

Wong ES. Surgical site infections. In: Mayhall CG, *Hospital epidemiology and infection control*, Baltimore, MD: Williams and Wilkins, 1999:189.

World Health Organization Aide Memoire for National Blood Programmes National Nosocomial Surveillance System (http://www.cdc.gov/ncidod/hip/SURVEILL/NNIS.HTM).

World Health Organization Essential emergency surgical care. (http://www.who.int/surgery/en/).

World Health Organization Injection safety First do No Harm. (http://www.who.int/injection_safety/about/en/InjectionSafetyFirstDoNoHarm.pdf).

World Health Organization Water, Sanitation and Hygiene links to health. Facts and Figures. Updates November 2004. (http://www.who.int/water_sanitation_health/publications/facts2004/en/index.html).

World Health Organization World Alliance for Patient Safety (www.who.int/patientsafety)

Zaidi AK et al. Hospital-acquired neonatal infections in developing countries. *The Lancet*, 2005, Mar 26-Apr 1; 365(9465):1175-88.

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