Perspectives on Quality

Challenging the world: patient safety and health care-associated infection

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Abstract

Improving the safety of patient care is an issue which affects health systems in both developed and developing countries. To co-ordinate and accelerate improvements in patient safety, the World Health Organization (WHO) has supported the creation of the World Alliance for Patient Safety which was launched in October 2004. The six action areas of the Alliance are Patients for Patient Safety, Taxonomy, Research, Solutions for Patient Safety, Reporting and Learning, and a biennial Global Patient Safety Challenge. The first Challenge covering 2005–2006 was launched in October 2005 under the banner ‘Clean Care is Safer Care’. The Challenge addresses health care-associated infection, a major, patient safety problem affecting hundreds of millions of people worldwide.

Keywords: health care-associated infection, patient safety, prevention, research, solutions, taxonomy, World Health Organization

All health care systems have the potential to unintentionally harm the people they are trying to help through inappropriate decisions and medical errors. Since the 1990s, a powerful body of scientific evidence analysing the occurrence and impact of adverse events occurring worldwide has accumulated [1–12]. Although there is much debate about the exact size of the problem, few would disagree that it is an important source of morbidity and mortality.

As the research evidence has grown, an increasing number of countries have placed systematic action on patient safety on their political agenda as a policy priority. This has been reflected by the 55th World Health Assembly which adopted Resolution WHA55.18 in May 2002 urging countries to pay the closest possible attention to strengthening health care safety and monitoring systems’. This gave impetus to the topic of patient safety as a global issue and was followed by the creation of the World Health Organization (WHO) World Alliance for Patient Safety.

This in itself is not surprising. Evidence-based research demonstrates that adverse events are not just a series of random, unconnected one-off incidents. Such events often demonstrate common root causes provoked by weak systems [9]. There appears to be much that health care can learn from the systematic and sustained attention to improving safety demonstrated by other high-risk industries [13].

Despite this growing interest among health policymakers, much remains to be done. Effective and timely analysis and learning from experience are still largely ad hoc. Many adverse event reporting systems are embryonic and hampered by under-reporting of events by health care workers. Understanding of the epidemiology of adverse events—frequency, causes, determinants, and impact on patient outcomes and of effective methods for preventing them—is limited. Although there are examples of successful initiatives for reducing the incidence of adverse events, few have been expanded to the level of an entire health system within a country, let alone between countries [14].

The World Alliance for Patient Safety

In May, 2004, the 57th World Health Assembly supported the creation of an international alliance to improve patient safety, and the World Alliance for Patient Safety was launched in October 2004 by the director general of WHO, Dr Lee Jong-wook. The Alliance aims to co-ordinate and accelerate international improvements in patient safety by bringing together ministries of health, patient safety experts, national agencies for patient safety, health care professional associations, and consumer organizations.

Six major priority areas have been selected for action in the first forward programme of the Alliance [14]: Patients for Patient Safety, Taxonomy, Research, Solutions for Patient Safety, Reporting and Learning, and a biennial Global Patient Safety Challenge. Three core principles underlie the choice of action areas

1. a commitment to placing patients at the centre of efforts to improve patient safety worldwide. When things go wrong, they and their families are the victims of the harm induced;

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2. a focus on improving the ways to detect and learn from information about patient safety problems within and across countries, with a particular emphasis on methods and tools for detecting patient safety problems in developing countries;

3. a need to build up the knowledge base of interventions which have been shown to help solve patient safety problems, together with a more rapid and systematic dissemination of information worldwide on successful strategies.

**Action areas of the alliance**

Patients for Patient Safety is working to develop an international network of patients and patient organizations active in raising awareness of patient safety and the importance of patient involvement. The Alliance is also keen to ensure active patient involvement across all action areas. A major initiative is to recruit a cohort of ‘Patients for Patient Safety’ champions from around the world.

Taxonomy for Patient Safety is working to develop an internationally acceptable framework for defining and classifying adverse events and near misses. Prevention and mitigation of adverse events require improved information sharing about the prevalence, types, causes, severity, and consequences of near misses and adverse events at both national and international levels. The lack of a standardized nomenclature and taxonomy of near misses and adverse events hinders this effort. This will enable international, comparative analysis of reported data on patient safety problems.

Research for Patient Safety is working to develop an agreed international research agenda for patient safety. The Alliance is also commissioning research in specific areas in which there are knowledge gaps. This includes measuring the nature of patient harm in selected developing and transitional countries to develop improved measurement methodologies and tools.

Solutions for Patient Safety is working to increase international collaboration for the promotion of existing patient safety interventions and better co-ordination of efforts to develop future solutions. The most important knowledge in the field of patient safety is how to prevent harm to patients. A first step to turning such a vision into reality is to ensure that interventions and actions that have solved patient safety problems in one part of the world are made widely available in a form that is not only accessible and understandable, but also adaptable to the local culture.

To further its objectives, the WHO World Alliance for Patient Safety has partnered with the Joint Commission for Accreditation of Health Care Organizations (JCAHCO) and the Joint Commission International to achieve these goals through the designation of a collaborating centre. The collaborating centre will identify, gather, and disseminate existing patient safety solutions as well as facilitate and co-ordinate international efforts to develop and disseminate new solutions. This will be done in conjunction with ministries of health, patient safety experts, national agencies for patient safety, health care professional associations, and consumer organizations from around the world.

Reporting and Learning reporting systems are emerging as a major tool to help identify patient safety problems and provide data for organizational and system learning. As a result, the establishment and improvement of incident-reporting systems is a priority for many countries seeking to develop national patient safety programmes. Much of their design is based on reporting systems which have been successfully used in other high-risk industries for decades.

To support country initiatives, the Alliance has commissioned the development of draft WHO guidelines on adverse event reporting and learning systems to help countries develop or improve reporting and learning systems.

The four core principles underlying the guideline are:

1. the fundamental role of patient safety reporting systems is to enhance patient safety by learning from failures of the health care system;

2. reporting must be safe—individuals who report incidents must not suffer any reprisals;

3. reporting is only of value if it leads to a constructive response. At a minimum, this entails feedback of findings from data analysis. Ideally, it also includes recommendations for changes in processes and systems of health care;

4. meaningful analysis, learning, and dissemination of lessons learned requires expertise and other human and financial resources. The agency that receives reports must be capable of disseminating information and making recommendations for changes and informing of the development of solutions.

**Global Patient Safety Challenge**

The Alliance will also identify specific topics for action which address significant risk to patient safety relevant to all countries. This flagship initiative of the Alliance is known as a Global Patient Safety Challenge. It will identify a new patient safety topic every 2 years. The topic chosen for the first Global Patient Safety Challenge is health care-associated infection. This will focus over 2005–2006 on the theme ‘Clean Care is Safer Care’ [15].

Health care-associated infection is a major threat to the safety of patient care. It affects hundreds of millions of people worldwide, complicates the delivery of patient care, and can lead to patient disability and deaths and generate significant, additional health care expenditure. Unfortunately, it is a growing problem. This reflects a number of factors. More serious underlying illnesses mean that patients are becoming more susceptible to infections [16]. Increased use of invasive procedures in modern, sophisticated medicine creates new sources of risk for infection. In some health care environments, lack of access to safe, clean water, and instruments plays a part. The patient care environment is also important. Factors such as understaffing and high bed occupancy are all present new risks of infection which need to be carefully managed.

Although health care-associated infections cannot be entirely eliminated, there are strategies which have been proven to be effective to reduce them significantly [15]. The fact that some health care organizations have succeeded in
managing infections and the risks to patients much better than others suggests a clear patient safety improvement gap between what is possible and what is currently widely implemented [17].

It is, therefore, timely that the first Global Patient Safety Challenge focuses on health care-associated infection [15,17]. The worldwide launch of the Global Patient Safety Challenge, ‘Clean Care is Safer Care’, took place at WHO Headquarters in Geneva Switzerland, on 13 October 2005. The Challenge brings together the expertise of leading specialists in infection prevention and patient safety. The vision is simple: to catalyse worldwide commitment by policymakers, health care workers, and patients to make ‘Clean Care is Safer Care’ an everyday reality everywhere where health care is provided.

The Challenge aims to achieve this by raising awareness of health care-associated infections as an important priority for patient safety among WHO Member States and promoting more widespread implementation of preventive strategies [15,17]. A key action within the Global Challenge is to promote hand hygiene in health care.

Poor compliance with hand hygiene recommendations among health care providers is a worldwide problem [18]. Improved compliance has the potential to reduce infections across all settings—from advanced health care systems to local dispensaries in developing countries [16]. To provide health care workers, hospital administrators, and health authorities with the best scientific evidence and recommendations to improve practices, WHO has developed new Guidelines on Hand Hygiene in Health Care (Advanced Draft) [19].

Some infection risks have particular importance or significance in specific parts of the world. Well-established WHO programmes 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, and clinical procedures—particularly in first-level, emergency care. The Global Patient Safety Challenge also encompasses specific actions and interventions in these areas which directly bear on health care-associated infection (Table 1).

### Implementing the challenge

Three key elements of the implementation of the Global Patient Safety Challenge can be highlighted.

First, an invitation to ministers of health from all WHO Member States to make a formal statement pledging to tackle

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<th>Table 1</th>
<th>Examples of World Health Organization (WHO) strategies which impact on health care-associated infection [15]</th>
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<td><strong>Blood safety:</strong> Blood transfusion carries a potential risk of complications and transfusion-transmitted infections. The HIV/AIDS pandemic has focused attention on preventing transfusion-transmitted infections. WHO Blood Transfusion Strategy supports countries to establish sustainable national blood programmes to ensure safe, high-quality blood, and blood products accessible to all patients and their safe and appropriate use. Key focus areas include policies for voluntary blood donors, blood screening, and appropriate blood use in patient care.</td>
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<td><strong>Injection practices and immunization:</strong> In 2000, contaminated syringes caused 21.7 million hepatitis B virus infections (33% of all new infections), 2 million hepatitis C infections (40% of all new infections), and 260000 HIV infections (5% of all new infections). WHO Injection Safety Strategy works with countries to support national policies for the safe, appropriate use of injections and facilitates access to high-quality injection equipment. WHO also promotes the use of systems for safe and effective vaccine delivery (i.e. auto-disabled syringes which inactivate after a single use) and management of immunization-related waste.</td>
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<td><strong>Water, basic sanitation, and waste management:</strong> 1.8 million people die every year from diarrhoeal diseases, 88% of which are attributed to unsafe water supply, inadequate sanitation, and hygiene. Water, basic sanitation, and waste management combine to form the safe environment needed for delivering health care. Safe disposal of waste in health care, in particular needle-syringes or infectious body fluids, protects health care workers and the community from infections, toxic effects, and injuries.</td>
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<td><strong>Clinical procedures:</strong> In situations such as road accident trauma or pregnancy complications, there is a vital need for timely and appropriate emergency clinical procedures at the first referral hospital. In many developing countries, the quality of surgical care is often constrained by lack of trained staff, poor facilities, inadequate technology, and limited supplies of drugs and other essential materials. Without essential surgical care, up to 10% of the population dies from injury, and 5% of pregnancies results in maternal death. The WHO Clinical Procedures Strategy is supporting countries to strengthen the basic skills of health care providers to manage essential emergency and surgical procedures at resource-limited health care facilities.</td>
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<td><strong>Hand hygiene:</strong> Hand hygiene, a very simple action, remains the primary measure to reduce health care-associated infection and the spread of antimicrobial resistance across all settings—from advanced health care systems to local dispensaries in developing countries. However, the lack of compliance with hand hygiene among health care providers is problematic worldwide, and continuous efforts are being made to identify effective and sustainable strategies to ameliorate. A key action within the Global Challenge is to promote hand hygiene in health care globally as well as at country level. To provide health care workers, hospital administrators, and health authorities with the best scientific evidence and recommendations to improve practices and reduce health care-associated infections, WHO has developed an Advanced Draft of the Guidelines on Hand Hygiene in Health Care.</td>
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The Alliance intends to set a new Global Patient Safety Challenge designed to minimize complacency and catalyse stronger health care-associated infection within their country. This is table of interest could include the safety of medical devices and areas of 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:

1. acknowledging the importance of health care-associated infection;
2. developing or enhancing ongoing campaigns at national or subnational levels to promote and improve hand hygiene among health care providers;
3. making reliable information available on health care-associated infection at community and district levels to foster appropriate actions;
4. sharing experiences and, where appropriate, available surveillance data, with the WHO World Alliance for Patient Safety;
5. 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.

Table 2 Pledging support

An important part of the Global Patient Safety Challenge will be the opportunity for World Health Organization (WHO) Member States 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.

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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.

Conclusion

Improving the safety of patient care requires system-wide action on a broad range of fronts to identify and manage actual and potential risks to patient safety and implement long-term solutions. This requires actions in performance improvement, environmental safety, and risk management, including infection control, safe use of medicines, equipment safety, safe clinical practice, and safe environment of care. It embraces all health care disciplines and caregivers. No one group can address problems of patient safety on their own. The challenges facing the World Alliance for Patient Safety are enormous—but the rewards are too.

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References


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