



**World Health  
Organization**

**Patient Safety**

A World Alliance for Safer Health Care

## **Global Priorities for Patient Safety Research**

Better knowledge for safer care



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# Global Priorities for Patient Safety Research

**Better knowledge for safer care**

# Foreword

Research is vitally important to increase the world's body of knowledge about patient safety. How research is conducted, what priorities are determined, and how the results are disseminated can have significant impact on government health policies, the introduction of improved health-care practices and as a result better patient care.



The work commissioned by WHO Patient Safety that underpins the dialogue in this publication, represents the opinions of patient safety experts worldwide. In their deliberations, they analysed results from developing, transitional and developed countries and while there were exceptional differences across the three areas, there were also commonalities.

The priorities outlined in the following pages become even more important when we consider how funding is prioritized for research globally, and how much and to what extent we can influence decision makers at all levels, whether they are involved in policy, administration or are clinicians working at the coal face.

There is no doubt, that the changes required to improve safer care for patients everywhere will come about through the positive energies channelled and endorsed by governments, International organizations or other agencies to support greater levels of research.

I endorse the opinions of the research team that undertook the original study and identified the global priorities for patient safety. How we advocate for greater funding is now our big challenge.

Sir Liam Donaldson  
Chair, WHO Patient Safety

A handwritten signature in black ink that reads "Liam Donaldson".

# Introduction

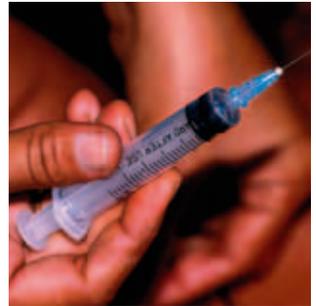
Patient safety is a global issue affecting countries at all levels of development. Although estimates of the size of the problem are scarce, particularly in developing and transitional countries, it is likely that millions of patients worldwide suffer disabilities, injuries or death every year due to unsafe medical care. Health care-associated infections, misdiagnosis, delays in treatment, injury due to the inadequate use of medical devices, and, adverse events due to medication errors, are common causes of preventable harm to patients. Reducing the incidence of patient harm is a matter for everyone in health care and there is much to be learned and shared between developed nations, developing countries and countries in transition.



Understanding the magnitude of the problem and the main contributing factors is essential in order to devise appropriate solutions. New research will be key to improving safety in health care, and setting global priorities to focus on the most critical aspects of patient safety is essential to yield the maximum possible benefit especially when research funds are limited. This will contribute to improving patient safety and reducing harm.



Most research has been done on hospital (secondary) care in developed countries and these studies show an adverse event rate of about 10%, this is to say, one in every ten patients admitted to hospital suffers an adverse event. Little research has been done in other settings such as primary care, long term care and mental health care. However, the available evidence indicates patient safety in these settings may be as great a problem as in secondary care.



### Research Initiative

WHO Patient Safety brought together a working group of research experts from around the world to focus on identifying research priorities in developing, transitional and developed countries. This work, published in May 2009, provides a crucial focus and starting point for global research into patient safety.



The identification of these priorities enables a more collaborative global approach, finding solutions that can be applied in different countries and thus avoiding duplication of research. Although priorities differ in different parts of the world, there is considerable overlap in priorities between developing countries and countries in transition.

Ranking the issues identifies the stark fact that organizational behaviour is as important as clinical practice and as such should be of interest to researchers in the field of psychology and management.

# Priority Table

There must be a strong emphasis on applied and evaluative research leading to developing or locally adapting effective, appropriate and affordable solutions. Experience shows that while many solutions exist for certain patient safety hazards, many countries cannot apply them as they are costly or inappropriate to the local context and circumstance.

The following table shows the top six research priorities across developing countries, countries in transition and developed countries. It highlights where there are similarities. As such, this is an important starting point, providing a focus where research funds are limited. The WHO Patient Safety expert group is currently developing a method for countries to identify their own priorities.

The full list of 50 priorities and research questions is available at [http://www.who.int/patientsafety/research/priorities/global\\_priorities\\_patient\\_safety\\_research.pdf](http://www.who.int/patientsafety/research/priorities/global_priorities_patient_safety_research.pdf)

**Table 1** Six ranked research priorities

|    | Developing Countries                    | Countries with Economies in Transition  | Developed Countries   |
|----|---|---|---|
| 1. | Counterfeit & substandard drugs         | Inadequate competence & training skills   | Lack of communication & coordination (including coordination across organizations, discontinuity & handovers) |
| 2. | Inadequate competence training & skills | Lack of appropriate knowledge & transfer  | Latent organizational failures  |
| 3. | Maternal & newborn care                 | Lack of communication & coordination (including coordination across organizations, discontinuity & handovers) | Poor safety culture & blame-oriented processes  |
| 4. | Health care-associated infections       | Health care-associated infections   | Inadequate safety indicators  |
| 5. | Unsafe injection practices              | Maternal & newborn care   | Adverse drug events due to drugs & medication errors  |
| 6. | Unsafe blood practices                  | Adverse drug events due to drugs & medication errors  | Care of the frail & elderly   |



# Research Questions

Standardized methods for research will be used to answer questions formulated around the identified priorities. This will ensure the validity of the solutions suggested as a result of research.

Table 2 outlines some of the priority topics and potential research questions. The complete list is available for download on the WHO Patient Safety website.

**Table 2** Research topics and research questions

| Topic  | Research questions  |
|--|---|
| <b>Extent &amp; nature of the problem of patient safety</b>  | <p>What are the incidence and prevalence of patient safety problems in various health-care settings?</p> <p>What is the burden of unsafe care on the general population in terms of morbidity and mortality?</p> <p>What is the burden of unsafe care on special populations, such as the elderly, minorities and children?</p>   |
| <b>Maternal &amp; newborn care Identification design &amp; testing of locally effective and affordable solutions</b> | <p>What are costs and benefits of adapting already established guidelines as opposed to designing new solutions?</p> <p>What mechanisms are needed to ensure specific solutions are valid, effective and responsive to changing needs and sustainable and measurable over time?</p> <p>What solutions for preventing common adverse events are effective in low resource situations?</p>                              |
| <b>Counterfeit and substandard drugs</b>   | <p>How effective are regulatory actions and interventions in addressing this issue?</p> <p>How much do counterfeit and substandard drugs contribute to the problems of patient safety?</p> <p>What are the factors that lead to the use of counterfeit and substandard drugs?</p>   |
| <b>Inadequate competence training and skills</b>   | <p>Are health-care professionals adequately trained in assessing and dealing with patients with reported adverse events or medical errors?</p> <p>Is patient safety a specific topic in the core curricula of physicians, nurses and health managers?</p> <p>What kind of continuing medical education programmes are most effective for ensuring that physicians and nurses retain competency in patient safety?</p> |

| Topic                                    | Research questions   |
|--|--|
| <b>Maternal and newborn care</b>         | <p>What are the main safety issues in maternal and newborn care?</p> <p>What is the burden of unsafe maternal and newborn care?</p> <p>What are the most cost-effective strategies for improving the safety of maternal and newborn care?</p> <p>What resources and systems are needed to implement recommended maternal and newborn care interventions effectively?</p>   |
| <b>Health care-associated infections</b> | <p>What are the epidemiology of and risk factors for health care-associated infections in hospitals?</p> <p>What is the availability and cost of commercial handrub products and how does that affect hand hygiene promotion strategies?</p> <p>What strategies are effective in optimizing participation in infection control practices?</p> <p>Are there effective plans in place for the control of epidemic outbreaks of health care-associated infections?</p> <p>Does use of new practices (e.g. silver-coated catheters) reduce the incidence of health care-associated infections?</p> |



‘With so many unanswered questions on patient safety, it is (often) difficult for researchers to know where to begin.’

*(Bates BMJ 2009; 338:b1775)*



However, WHO Patient Safety through its research programme, since its establishment in 2005, has developed a growing network of experts worldwide who can contribute to this important work. WHO provides the facility for research to take place to meet the strategic priorities it sets. It works on concepts and definitions and guidelines to give guidance on the best approaches and methods for researchers to adopt when undertaking studies and surveys. In addition, it has set up a small grants initiative to which researchers can apply on an annual basis for funding to undertake smaller research in topics that are aligned to the priorities identified. While the emphasis must be on developing countries and countries in transition, it is important to appreciate the global learning that can be harnessed from quality, well researched and resourced findings.

Greater understanding of patient safety issues and the spread of knowledge based on solid evidence will contribute to reducing the incidences of harm and death to the world's patient population.

Research requires funding and commitment from organizations and individuals who are in positions where they can allocate the required resources. WHO Patient Safety extends an invitation to participate and advocate in its quest to reduce the continuing global incidents of patient harm and death by supporting the call for greater research to be undertaken on patient safety.





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