

Report on the

**First regional workshop on patients for patient
safety in the Eastern Mediterranean Region**

Cairo, Egypt
26–28 March, 2007

© World Health Organization 2007

All rights reserved.

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

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

The World Health Organization does not warrant that the information contained in this publication is complete and correct and shall not be liable for any damages incurred as a result of its use.

Publications of the World Health Organization can be obtained from Distribution and Sales, World Health Organization, Regional Office for the Eastern Mediterranean, PO Box 7608, Nasr City, Cairo 11371, Egypt (tel: +202 2670 2535, fax: +202 2670 2492; email: DSA@emro.who.int). Requests for permission to reproduce WHO EMRO publications, in part or in whole, or to translate them – whether for sale or for noncommercial distribution – should be addressed to the Regional Adviser, Health and Biomedical Information, at the above address (fax: +202 2276 5400; email HBI@emro.who.int).

CONTENTS

1.	INTRODUCTION	1
2.	THE WORLD ALLIANCE FOR PATIENT SAFETY	2
2.1	Definition of patient safety	2
2.2	Patient safety from the perspective of a patient	2
2.3	The Swiss cheese model	3
2.4	The work of the World Alliance for Patient Safety	3
3.	PATIENTS FOR PATIENT SAFETY	5
4.	PATIENT'S EXPERIENCES	6
4.1	Egypt	6
4.2	Jordan	7
4.3	Lebanon	7
4.4	USA	7
4.5	Yemen	8
5.	BEST PRACTICES: SUCCESS STORIES FROM THE EASTERN MEDITERRANEAN REGION	9
5.1	The White Beds Society and the Jordan Psychiatric Rehabilitation Society	9
5.2	Governmental efforts in patient safety in Jordan	10
5.3	A model for a patient safety-orientated health care system	10
5.4	Experience of active patient participation in the reduction of risks of nosocomial infection in Tunisia	12
5.5	National programme for infection control and injection safety in Egypt	13
6.	THE POWER OF PARTNERSHIP: SUCCESS STORIES	14
6.1	Patient safety at Ain Shams University Hospital, Cairo	14
6.2	Establishing the Parents of Infants and Children with Kernicterus (PICK) Foundation of America	16
6.3	The Moroccan Federation for associations supporting patients of renal insufficiency and kidney transplantation	17
6.4	Moroccan Association for Blood Transfusion	18
7.	HOPES, PRIORITIES AND OPPORTUNITIES	18
7.1	Hopes	18
7.2	Priorities	19
7.3	Opportunities	20
8.	THE WORK OF THE REGIONAL OFFICE ON PATIENT SAFETY	20
9.	COUNTRY PLANS OF ACTION	23
10.	RECOMMENDATIONS	24

Annexes

1. Agenda	25
2. Programme	26
3. List of participants	27
4. Country plans of action for patient engagement in patient safety initiatives.....	36
5. Draft of the regional endorsement of the Declaration on Patients for Patient Safety.....	45

1. INTRODUCTION

The first regional meeting on patients for patient safety in the Eastern Mediterranean Region was held at the WHO Regional Office for the Eastern Mediterranean, Cairo, on 26 March, 2007. The meeting was held under the auspices of WHO World Alliance for Patient Safety (WAPS). The objectives of the meeting were to:

- develop consumer champions to work in effective partnerships with WHO Regional Office; international, national, regional and local policy-makers; patient safety advocates and health care providers in all Member States of the Region;
- articulate values, principles and commitments to govern the patients for patient safety consumer partnerships in the Region, building on and further developing the WHO London Declaration issues at the first global patients for patient safety workshop in November 2005;
- develop new tools to address the prioritized patient safety goals of WHO and its Member States in the Region;
- develop partnerships with the recognition that each participant has a responsibility in promoting patient safety.

In his opening address, Dr Hussein A. Gezairy, WHO Regional Director for the Eastern Mediterranean, said that the meeting represented a critical landmark in the history of patient safety and an unprecedented step forward in the path to promoting safe health care in health systems of the Region and in establishing a constructive dialogue between patients and health care providers.

Dr Gezairy reflected on the state of patient safety in the Region, emphasizing the significance of placing patient safety at a high position on the priority list in developing countries. Indeed, inadvertent patient harm inflicted by health care facilities was likely to be more imminent in developing countries than in developed countries due to a lack of resources and fragility of the information system. While previous efforts to acknowledge the magnitude of the problem and work on solutions had been veiled by a culture of blame and a potentially punitive error reporting procedure, current conceptual thinking placed prime responsibility on a faulty system design rather than on individual error. The lack of transparency on the part of health care providers and the lack of trust on the part of patients further reinforced the need for interventions that allowed for endorsement of high-quality health care delivery within the context of a constructive and conducive environment.

Dr Gezairy stated that before patient safety could be achieved in health care facilities in the Region, an effective governance system demonstrating explicit transparency, responsibility and accountability had to exist. In addition, measurement of patient harm and voicing of patient opinion were prerequisite for implementation of safe health care practices. Indeed, the voice of patients and families who had suffered preventable medical injury was a powerful motivational force for health care providers across the globe. Mr Martin Hatlie (USA) was elected Chair of the meeting and Dr Riham El-Asady (Egypt) was elected as Rapporteur. The agenda, programme and list of participants are included as Annexes 1, 2 and

3, respectively. Country plans of action for patient engagement in infection control initiatives are included in Annex 4. Annex 5 contains a draft of the regional endorsement of the London Declaration on Patients for Patient Safety.

2. THE WORLD ALLIANCE FOR PATIENT SAFETY

2.1 Definition of patient safety

The broad definition of patient safety comprises the general concept that patients may be harmed by the health care system, either in a hospital setting, community setting or at home. It may result from the conducting of a wrong or inadequate procedure, a wrong decision or from the use of incorrect medical equipment. Breaches in patient safety may be the result of a system error or an individual error. Developed countries have shown that 10% of inpatients suffer some form of harm from the health care system. A staggering 1.4 million people in the world, at any time, will suffer from a hospital-acquired infection. These numbers are alarming and further underscore the importance of the issue.

2.2 Patient safety from the perspective of a patient

Jennifer Ofori was a 22-year-old girl who died in 2001 as a result of a failure in the medical system in the United Kingdom (UK), a country with a well-funded, well-organized medical system. Her story highlights the complexity of the health care system and how health system failures may result in unwarranted patient harm. Jennifer went out with friends, felt unwell and sought medical attention. She received medical care and yet died two days later. Although the infection she had was serious, her death could have been avoided.

The general practitioner (GP) who first visited Jennifer called the ambulance and called attention to her symptoms which indicated septicemia. Following arrival at the hospital, there was a 43-minute delay before she was able to see a doctor. The attending physician did not see the referral note and wrongly diagnosed her with severe gastroenteritis. Based on the incorrect diagnosis, the decision was made to transfer Jennifer to a neighbouring hospital. Again, there was delay of an hour and 45 minutes before she was seen. Although blood was drawn for laboratory tests and was marked "urgent", it was taken to the wrong hospital by mistake. Furthermore, although a lumbar puncture was appropriately ordered, there was a further delay in its execution. Another delay was introduced when antibiotics were prescribed yet could not be administered because only one nurse was available. In that particular hospital, there was a rule that two nurses had to be present for a medicine to be administered to a patient. In addition, penicillin was prescribed to Jennifer despite her allergy to penicillin, noted by the GP and recorded on the referral paper which had not been read. Following further deterioration, Jennifer had to be transferred to the intensive care unit, which was at a different site requiring ambulance transportation. This resulted in further delays. The ambulance was not properly equipped and when Jennifer went into cardiac arrest, they were unable to resuscitate her.

2.3 The Swiss cheese model

The Swiss cheese model describes several protective barriers and defences in the health care system that are structured to avoid the occurrence of medical error: procedures, timely decision-making, information availability, etc. Such barriers need to be as effective as possible. However, gaps and holes in the barriers exist, as they do in a slice of Swiss cheese. From the health system perspective, such holes need to be minimized in order not to allow the occurrence of error or to reduce harm if error is inevitable. In the case described in Section 2.2, several gaps existed and compromised the quality of clinical decisions. These gaps included: poor protocols; time delays; defective transportation and transportation delay; and missing and fragmented medical information.

2.4 The work of the World Alliance for Patient Safety

The World Alliance for Patient Safety (WAPS) endorses the concept that patient safety is everyone's business starting with the patient and his family, health care providers, health institutions and national health systems, in addition to concerned regional and international organizations such as WHO. However, the burden of patient safety remains on health care systems, although patients and their families can be engaged in improving patient safety.

WAPS was launched in October, 2004, in Washington, D.C., in response to a World Health Assembly resolution in 2002 urging the WHO and Member States to pay the closest possible attention to patient safety. This worldwide endeavour brought together the heads of agencies, health policy-makers, WHO and patient groups to advance the fundamental goal of "First do no harm" and reduce the potential for unwarranted harm to be inflicted on patients. The fundamental purpose of WAPS is to facilitate the development of a patient safety policy and practice through the fulfilment of a number of core functions and other short-term initiatives.

Among the most dominant action areas implemented by WAPS is the "Patients for patient safety" (PFPS) strand, designed to ensure that the perspective of the patients and their families is a central reference point in shaping the focus of WAPS's work. In fact, PFPS is defined as the "soul" of the Alliance. In that regard, a major strategy involves developing a cohort of patient champions from different countries around the world. The Alliance is also keen to enlist active patient involvement across all action areas.

Among other programmes encouraging patient engagement is the first global patient safety challenge "Clean care is safer care". This challenge was developed for the commission, the support and the adoption of safe practices in hand hygiene. It represents a priority action of WAPS aimed at identifying and disseminating best practices for improving patient safety and developing a reporting system for medical errors and near misses to facilitate the analysis of root causes of errors. In addition, WHO has issued guidelines on hand hygiene in health care. Such guidelines represent the consensus of international experts and up-to-date technology information on hand hygiene within the health care context.

In terms of country commitment, 70% of the world's population live in countries that have signed a formal pledge to commit to the cause of clean care. Five elements in which patients can be engaged in this multi-modal strategy have been identified.

- system change (including alcohol rub availability, supplementation of sinks with soap and water, etc.);
- training of health care workers and institutions;
- observation and feedback on implementation of guidelines;
- setting reminders in the workplace (e.g. through posters or personal reminders);
- creating a culture of safety in which patients have the ability to contribute, speak up and request clean care.

WAPS is currently developing pilot sites in each of the WHO Regions and there are complementary sites to support this. Among the many issues under scrutiny in the first global patient safety challenge, "Clean care is safer care", is the point of care at which hand hygiene should be implemented. Thus, there are several points at which the health care provider is likely to come in contact with the patient from the initial interaction, to the equipment around the patient, to the bed coverings and curtains all the way to the next patient. These are all areas that represent a risk of infection and are therefore potential sites for the use of alcohol rub. Patient involvement in hand hygiene is one of the recommendations of WHO. In fact, a patient involvement task force was developed to identify what the patient's role is likely to be. A survey was generated to answer the question of why patients are not involved in the implementation of hand hygiene practices in health care facilities. Several factors contributing to such disengagement were highlighted including: fear, shyness, concerns of being disrespectful, cultural barriers and the fact that it should not be necessary to ask the provider to clean his/her hands. To break this barrier, several campaigns have been developed in the UK encouraging patients to ask if health care providers actually did wash their hands before patient manipulation.

"Safe surgery saves lives" is the second global patient safety challenge, the development of which is under way. The early phases of planning of this challenge involved a patient safety champion further endorsing the involvement of patients at every stage and in all the work of the Alliance. There are four major elements to this challenge: clean surgery; safe anaesthesia; the surgical provider; and measuring the safety of surgery. Patients, yet again, play an important role in creating a checklist for safe surgery in this initiative.

The development of baseline studies pertaining to patient safety and adverse event measurement in developing countries is also of high priority to WAPS. Some of the action areas in research are built around research priorities, methodologies, recommendations for capacity building, methods of fostering research in developing countries and strengthening network relationships. Research on patient safety was coordinated into a research council. Again, it was ensured that a patient champion was involved in the governance of this area. A list of research priorities has been created by the council and includes:

- lack of communication and coordination;

- latent organizational failure;
- poor safety culture and blame-orientated processes;
- cost-effectiveness of risk-reducing strategies;
- developing better safety indicators, including a global safety indicator;
- procedures that lack consideration of the human factor;
- health information technology systems;
- the role of patients in shaping the research agenda;
- devices that lack consideration of the human factor in design and operation; and
- adverse drug events and medication errors.

Furthermore, a list of questions were developed and submitted by patient champions expressing the perspective of the patients directly. These include: the cost of medical error to patients and families; how patients and families can be actively engaged in reporting systems to contribute to achieving better treatment outcomes for themselves and others; and what types of education materials are effective in engaging patients to be more involved.

In that regard, a conference will be held in Portugal in September, 2007. The meeting will include a dedicated session on patient engagement. In addition, patient engagement is reflected on the advisory committee of the meeting as well as that of a future grants initiative. The latter will ensure that the funding is directed to areas that are of interest to patients.

Six countries in the Region have been actively engaged in performing research on the nature and magnitude of adverse events in health care facilities in countries of the Region. The project is managed by WHO Regional Office and involves medical record review in selected health care facilities. Early results show that health care is causing permanent disability and death in developing countries (more than 100 deaths so far). Furthermore, the results indicate that much of this harm (75%) is preventable. The commitment and enthusiasm has spurred much interest in the Pan American Health Organization Region to follow the research route.

Stakeholder engagement is absolutely critical for the work of WAPS. There is US\$ 12 million annual funding, which is not an enormous resource to address patient safety issues. Thus, the most significant contribution that WAPS can make is to galvanize the commitment, support and enthusiasm of others, including nongovernmental organizations and international organizations, e.g. international health professional organizations and the International Alliance for Patient Organizations. This will increase the level of available funding. PFPS is a living embodiment of the importance of stakeholder engagement.

3. PATIENTS FOR PATIENT SAFETY

A patient safety champion is anyone who has a passion for including patients as partners in health care. The term was developed during the inaugural patient safety meeting in London (2005) which culminated in the issuance of the London Declaration. It includes patients, patient's relatives and other consumers, health care providers and ministry of health representatives, etc.

The involvement of patients in patient safety is built on the promise that safety will be improved if patients are included as full partners and learning can be used to inform systemic quality and safety improvements. The patient's voice, experience and perspective ensure the work of WAPS is authentically patient-centred. Unlike many other organizations that call themselves patient-centred, WHO has flipped the model for patient engagement such that patients are indeed full partners in activities. Thus, patients sit on the governance committees of all the strands of the work of WAPS, helping to ensure consumer involvement from the very beginning of activity development.

Patient safety workshops have been held in: Argentina, Canada, Chile, Costa Rica, Mexico, Peru, UK, Ukraine and the USA. There are plans to hold future workshops in South-East Asia and Europe in 2007. In addition, members of the PFPS will work diligently to ensure champions' voices are infused into new areas of focus for WAPS and to develop further support tools. Among the most critically planned action points, PFPS will work to build champion capacity and skills to advocate and work in partnership with leaders, health professionals and policy-makers and will monitor successes in order to document change.

4. PATIENT'S EXPERIENCES

Consistent with the objectives of the meeting and the overall goals of the PFPS group, the experiences of patients and their families are highlighted in the following section.

4.1 Egypt

My wife complained of symptoms of cholecystitis, for which she was told that medical treatment would suffice. However, on consultation at a major flagship hospital in Cairo, we were told that immediate surgery was required. I was initially quite concerned when I became aware that the surgeon operating on my wife had performed five surgeries before he was to perform hers. I was particularly concerned because her procedure was endoscopic, requiring a high degree of accuracy and meticulous attention. Following surgery, my wife spent 45 minutes in recovery, which I came to learn later was a relatively long time. Importantly, the doctor left the hospital immediately after performing the surgery and did not wait until his patient was fully recovered. We then discovered that my wife was bleeding profusely and that one of the main branches of the aorta had been severed during the procedure. At that point, a major cultural issue stood as an obstacle against her receiving an appropriate emergency life-saving intervention. It is customary that if a senior physician performs surgery, no other junior physician is to interfere in his case before receiving his permission. No one was able to locate the surgeon as he had left the hospital and switched his mobile phone off. We then came to learn that the surgeon in question had gone to a different hospital to perform four further surgeries.

After my wife passed away, there was no support system for the family. There was no source of comfort or support. We felt that the hospital management were united against us. I was strongly discouraged to request an autopsy to be performed on my wife because I was told that this would result in significant delays in the procedures required for burial. We were

also not informed of our rights and there was no source to guide us through appropriate procedures for investigation. Already distraught by our experience, we felt helpless.

4.2 Jordan

My father died of lung cancer at the age of 52 in 1992. My father started smoking at the age of 16, thus, education had failed to stop him from pursuing a hazardous habit. He was otherwise healthy. Several attempts failed to make him quit smoking. On development of symptoms in May 1991, a chest X-ray was verbally reported to be negative for suspicious (potentially malignant) lesions. Two other chest X-rays following the first were both verbally reported to be negative. On aggravation of the condition, a chest computerized axial tomography (CAT) scan showed a lesion suggesting early lung cancer. After diagnosis, several conventional modes of treatment were attempted but they all failed and he later died at home.

4.3 Lebanon

In May 2001, my father complained of chest pain and we took him to the emergency room. The electrocardiogram (ECG) revealed unstable angina. A few hours later, cardiac catheterization was performed and it was decided to perform immediate open heart surgery. Several months later, my father noticed a small hernia at the site of the thoracic drain. It was operated on after one year and he was discharged a week after his surgery. We visited the doctor 10 days later for a follow-up procedure during which time the doctor discovered that the wound was infected.

We were frustrated because this problem was avoidable had proper care been in place to avoid nosocomial infections. We had to drive 90 km daily in extremely hot weather to have my father's incision checked. He was under intravenous antibiotic therapy during the first month of his treatment.

My father became very nervous and eventually depressed due to his situation. He lost trust in everyone and started to believe that we were keeping news of a serious illness from him.

The surgery ultimately failed and we were told that further surgery was required. Not only did my father refuse surgery, but completely refused to discuss the matter. In this situation, the whole family suffered as a result of medical malpractice. My father is an old man and suffered emotionally as a result of his dependency on others. Family members endured physical and financial stress which could not be compensated.

4.4 USA

Twelve years ago my son, Cal, was born as the result of a normal pregnancy and normal delivery. 16 hours after his birth, my son was jaundiced as determined by visual assessment. We were told that our son's jaundice was normal and that we should not worry. On day 4, Cal

became floppy. After calling the hospital, I was told that I was worrying unnecessarily because I was a first-time mother. Cal was seen by a paediatrician, who again, visually assessed him and we were told to wait for 24 hours. We went to the hospital against the doctor's advice, where, for the first time, a blood test was performed. His bilirubin level was extremely high (34.6, > 500 molar units). However, doctors were not alarmed due to unfamiliarity with brain damage from jaundice, which is considered a problem of the past in developed countries. My son started arching backwards and developed symptoms indicative of deterioration. A magnetic resonance imaging (MRI) was performed and we were told that it was normal. We were again reassured that this was common and that there was no reason to be alarmed. No exchange transfusion was performed and once again, he was discharged. Cal could no longer breastfeed, he had an overly-sensitive nervous system and could not develop normally. We took Cal out of the state where he was immediately diagnosed with kernicterus. On examination of his previous medical record, there was clear damage to the brain evident in the MRI (which we were previously told was normal). The most important damaging phenomenon in health care is failure to tell the truth and lack of transparency.

Cal now has cerebral palsy, he cannot walk independently and is significantly speech- and hearing-impaired. He has also had to undergo surgery to his teeth and eyes.

What is devastating in retrospect, is that there were several layers in the system that failed Cal: there were no standard nursing or hospital protocols for bilirubin testing, when he was admitted to the hospital it was midnight, the end of the attending doctor's shift, and the doctor wrote down a wrong blood type for Cal, and thus, there was a failure to determine incompatibility.

Four years later, my husband developed a pain at the back of his neck. A mass was removed from his neck by a neurosurgeon. We were told that it was a benign tumour (shwannoma). Six months later, we were told that this time it was a malignant sarcoma. When we were asked why he did not receive therapy after his first surgery, I responded that it was a benign tumour. I asked the doctors if they had known otherwise from the previous records and I was told that they did not. I therefore went to the medical records department myself to find out that a final pathology report had been submitted for the tumour excised after the first surgery and had come back indicating malignancy 23 days after our discharge. Thus, there was failure to communicate this information to us. His chances of surviving with that form of cancer fell from 60%–80% to 5%. We were discharged by a nurse and we did not see a doctor. Thus, again the failure to disclose the truth about an error was devastating.

My husband gradually became disabled and died after chemotherapy and radiation. While I know that nothing can change what happened to my son and my husband, I am hopeful that I can make some change to ensure that this never happens again.

4.5 Yemen

My mother went into hospital where she was scheduled to have a kidney transplant. After pre-operative tests and matching with the donor, my uncle, she was prepared for

surgery. Surgery was prolonged because anastomosis of the renal artery was difficult due to the presence of an atheroma. My mother developed severe intestinal pain. After X-ray, it was discovered that she had intestinal perforation. Surgical repair was performed. As she was immunocompromised, my mother developed a wound infection, septicaemia and an abscess. Re-exploration followed three times and a drain was placed in the abdomen. My mother stayed in the intensive care unit for 3–4 months during which time she became depressed and confused and did not recognize close family members. She started anti-depressant therapy. Due to the septicaemia she became hypocalcaemic. Culture examination of the abdominal abscess revealed the presence of several bacteria which were resistant to many antibiotics. Furthermore, she developed cytomegalovirus infection following a blood transfusion. Consequently, she received antiviral therapy. After staying at the hospital for six months, she developed an abdominal hernia as a result of the many explorations she went through. Moreover, she developed a retro-vaginal fistula from the steroid intake and deep venous thrombosis.

5. BEST PRACTICES: SUCCESS STORIES FROM THE EASTERN MEDITERRANEAN REGION

5.1 The White Beds Society and the Jordan Psychiatric Rehabilitation Society

The White Beds Society represents a voluntary effort on the part of a non-profit nongovernmental organization in Jordan. The organization was formed in the 1970s to initiate an endeavour to benefit the elderly as these services were not then the responsibility of the Ministry of Health. The three main goals for this endeavour were to:

- promote nursing, as the medical system at the time was mostly dependent on the recruitment of foreign nurses, which was exhausting national resources;
- increase preparedness for old age. This was especially required as it was culturally challenging to have older family members be taken care of by others. In addition, women were increasingly joining the job market, thus making it difficult for them to take care of older family members;
- assist Jordanian hospitals in providing social and humanitarian services for their citizens.

The first nursing home in Jordan was thus initiated, with a capacity of 110 beds. In its first 20 years, the home has seldom been full. At present, it is commonly over-occupied, with 120 residents and 52 dedicated committed staff. The centre is now considered a training centre for nursing and medical students. Funds have been raised to undertake further construction and improvement. In fact, a steering group is in the process of constructing small units, with an occupancy rate of six individuals each, supervised by one staff member. This will help simulate family life for occupants and will likely also cut staff costs.

Several challenges face this humanitarian effort. The steering group is responsible for planning, implementation and fundraising. The latter, in particular, is a difficult responsibility. Thus, the steering group is over-burdened. In addition, the group is mainly comprised of

relatively senior individuals. The presence of junior staff would add benefit to the project. Finally, as is the case with many other nongovernmental organizations, the organization is under-funded. However, this remains one of the most outstanding stories of success and perseverance to establish best practices in the country.

5.2 Governmental efforts in patient safety in Jordan

Over the past few years, particularly following the involvement of Jordan in the performance of WHO HQ-, WHO WAPS- and WHO Regional Office-supported studies to determine the magnitude and nature of adverse events in Jordanian health care facilities, there has been an increasing interest in the quality and completeness of medical records. Furthermore, educational and training programmes for personnel have been initiated and the Ministry of Health is being urged to purchase new equipment.

Three levels of accreditation are currently offered in Jordan. These comprise: international (in collaboration with the Joint Commission International (JCI)); national (focused on Ministry of Health hospitals); and an Arab programme.

The quality directorate at the Ministry is striving towards achievement of hospital “friendliness”, which would not only encompass the important issue of patient safety, but also patient rights, care and the hospital environment.

5.3 A model for a patient safety-orientated health care system

Abou Kir hospital is located in one of seven districts in the city of Alexandria, Egypt. The mission and vision of the hospital are clearly stated in Arabic and English at the hospital's entrance. The hospital was constructed in 1965 and was renovated in 1995. It now has a capacity of 250 beds. In 1994, the decision was taken to identify and train leaders from all sectors of staff—nurses, doctors, technicians, cleaners. Various measurement indicators, such as occupancy rates, number of admissions and average length of stay, reflect a dramatic improvement in the 10 years between 1995 and 2005. This hospital thus serves as an excellent model to study.

Hospital management initiated a survey of the most common diagnoses on admission and the most common causes of death to determine where attention needed to be focused. Diabetes and its complications, in addition to burns were found to top both lists. A special unit, specialized in the management of diabetic foot and burns was therefore constructed from donations. PEST (political, economic, social and technological) and SWOT (strengths, weaknesses, opportunities, threats) analyses were performed by the hospital management to identify the root causes of hospital problems and to identify priorities, needs and challenges. Five major problems were identified, which included:

- destruction of hospital infrastructure (electricity, drainage, water supply, sterilization and buildings);
- missing vital services;

- bad quality services and poor relations with all community sectors;
- expired medical and non-medical supplies and old furniture;
- lack of commitment of hospital staff, in addition to managerial, financial and legal defects.

In response to the analyses, partnerships were commenced and five major strategic objectives were developed:

- development of the eight main hospital systems: management; medical records; quality; infection control; biomedical engineering; operating rooms; nursing; and finance;
- renovation projects according to a time-scaled plan;
- establishment of missing services;
- human resource development;
- participating in all national programmes held by the Ministry of Health and Population and WHO.

The hospital board of trustees is mostly comprised (8 out of 11 members) of members of the community, rather than staff from the hospital, to ensure that the needs of the community are appropriately met and prioritized. A meeting for the board of trustees is held every two weeks. Activities additionally started in several directions including the medical record department, implementation of an infection control unit and establishment of a bioengineering unit. Several quality activities have been initiated and implemented including: training, establishment of a complaints and suggestions committee, improvement of safety, community participation, use of auditing, drug use policy development and establishment of a morbidity and mortality committee. A manual and a logo for the hospital were developed in addition to a hospital newsletter. A reward system was also established to encourage excellence in performance.

An in-depth analysis of hospital-acquired infection, one of the most outstanding issues, revealed that the main causes of this problem were: improper antibiotic use; improper sterilisation; improper hand hygiene; inadequate use of protective barriers; and improper waste management. Handling these problems would solve 80% of the problems faced by the hospital. Immediate action was then taken and the hospital joined the national infection control programme. Steps were taken to ensure appropriate awareness raising and implementation of the concepts of hand hygiene, use of protective barriers and antibiotic policies. The hospital's policy regarding the use of antibiotics was posted in every department and tailored according to the needs of each department. Finally, a sterile services department was constructed to ensure a hospital-wide, standardized sterile services policy.

Successful outcomes of this experience were that expenses were dramatically cut due to implementation of the antibiotic policy, hospital stays were restricted to the minimum required for each case, national infection control guidelines were followed and nurses' time was saved through the development of the central sterilization unit. Approaches undertaken for fundraising included collecting donations and contracting and renting out hospital facilities (e.g. lecture halls).

The four key secrets to the success of this experience were: planning; innovation; delegation and decentralization; and improved management. Quality should be at the top of the priority list of any health care facility. Implementation of accreditation should be meticulously studied. Patient and doctor rights and responsibilities should be shared and empowered. Informed consent should be practised in a manner that ensures fairness and transparency. Re-licensing of health care professionals is a potential area requiring extra work and warranting research. Doctors need to be engaged in managerial and administrative issues to ensure success.

5.4 Experience of active patient participation in the reduction of risks of nosocomial infection in Tunisia

In 1997, the department responsible for the haemodialysis sector at the Tunisian Ministry of Health noted from its analysis of activity reports from haemodialysis centres that the prevalence of hepatitis C was 32%, with peaks of 50% in some centres that had been providing care to renal failure patients for several years.

All the internationally available literature on the subject concurs in attributing the propagation of the infection primarily to virus transmission by medical personnel from one infected patient to another when connecting/disconnecting dialysis patients to/from the machine. In light of discussions with health sector professionals during a seminar attended by public and private sector hospital representatives, a number of measures were suggested to address the situation.

These were based essentially on the strict application of universal rules of hygiene, and included the earmarking of specific machines for patients already having contracted the hepatitis C virus (these machines were to be identified by red stickers). The reason for this measure was that even though the internal circuit through which the blood flows for cleansing is properly sterilized between two patients, and the external surfaces of the dialysis machine are cleaned with disinfectants, there is still a risk that infections may be transmitted. Other suggested measures included:

- individual trays being made available for patients during haemodialysis sessions;
- nursing staff systematically washing their hands between dialyses;
- nursing staff wearing disposable gloves and changing them when moving from one patient to the next;
- an interval being allowed between connecting patients carrying the hepatitis C virus to the dialysis circuit and other patients;
- more washbasins equipped with automatically opening taps being provided in haemodialysis centres.

The Ministry of Health has introduced periodic inspections to ensure that these measures are properly monitored and applied in the presence of patients. The success of the programme to reduce nosocomial infections in haemodialysis centres is due to the active participation of the patients themselves. Having been made aware of the issue, they are ideally

placed to observe that measures are being implemented. This has enabled a sort of internal control mechanism to be set up that is far more efficient than occasional visits.

Ten (10) years later, the result is that the rate of prevalence of hepatitis C has been reduced to 14%, despite a significant increase in the number of dialysed patients from approximately 3000 to the current 7000.

5.5 National programme for infection control and injection safety in Egypt

There is no doubt that nosocomial infections are a major problem in Egypt. In fact, a baseline assessment performed in 2001 showed that sepsis is a leading cause of death in intensive care units. Hospital-acquired infections can affect anyone in the health care setting (patients, doctors and other health care workers). It was shown, however, that the most common form of transmission is patient-to-patient infection.

The infection control programme was initiated in 2001, when a baseline assessment was performed, followed by a planning phase in 2002. Implementation started in 2003. Assessment was based on interviews with directors of health care facilities, assessment of infection control practices at facilities, observation of indicators and standard precautions and observation of injection practices at the community level. In addition, a survey was performed on hepatitis B vaccination coverage. The results of the assessment phase were alarming. Only 35% of hospitals had an infection control committee. There were no guidelines or policies in place at facilities and existing resources were not appropriately used. Moreover, there was very little understanding of standard precautions, poor waste management systems, inappropriate sterilization at most health care facilities and a high frequency of needlestick and sharps injuries (4.9 per person per year). In fact, it was estimated that out of an average of 281 million injections administered in Egypt every year, approximately 23 million were unsafe. As a result, the infection control programme was initiated. The programme started in 2003, at which time 24 hospitals began to implement the programme. Currently, 215 hospitals are implementing the programme. Its objectives are to: reduce the transmission of the hepatitis C virus and all other bloodborne pathogens; reduce the rate of nosocomial infections; and increase the quality of health care services.

As an integral part of the programme, national infection control guidelines were developed in collaboration with national and international experts. Training packages were offered to several medical school hospitals in the interest of capacity building. In the occupational safety arena, three doses of hepatitis C vaccinations were offered to all doctors free-of-charge. Supervision and monitoring were offered at central, governorate and facility level and covered both process (adherence to standard precautions), and outcome (through surveillance data, e.g. for infection control rates). The monitoring process was based on a special scoring system, comprised of four categories:

- Category 1: covering administrative and organizational aspects (e.g. the hospital has an infection control committee and an infection control team);

- Category 2: covering infrastructure related to infection control (e.g. presence of sterilization services, laundry, waste storage);
- Category 3: covering the availability of supplies related to infection control;
- Category 4: assessment of adherence to infection control guidelines (by observation of at least four departments in the hospital).

After follow-up on implementation of the programme, performance measurements were very encouraging. For example, project implementation resulted in improvement of the average score in hospitals from 30% to 73%. Surveillance data from dialysis centres revealed that the incidence of hepatitis C was reduced from 37% to 16%, thus raising the number of patients in Egypt protected from infection following dialysis to 2196.

Other activities undertaken by the Ministry of Health and Population include public campaigns, conferences and seminars and promoting safe injections in Egypt. Leaflets, posters and television and radio advertisements further promote public awareness.

6. THE POWER OF PARTNERSHIP: SUCCESS STORIES

6.1 Patient safety at Ain Shams University Hospital, Cairo

In 2002, a group of volunteers with no medical background were 'recruited' by word of mouth. In the initial phase, the group met with the Dean of the Medical School to obtain authorization for their activities. Ain Shams University hospital was selected because it is a teaching and public hospital, serving a very large number of underprivileged people. Following a tour around the hospital, the group decided that their activities would start at the obstetrics/gynaecology (Ob/Gyn) unit of the hospital, due to the vulnerability of newborn babies and mothers who had recently experienced delivery. The group decided that they did not want to simply hand over donations to the hospital, but wanted to see some tangible results. Thus, they divided themselves into groups and spread themselves between different wards in the hospital, performing and recording simple observations and reporting back to discuss with hospital management what was missing and what needed to be done. Observations included simple issues, such as general cleanliness, the presence around the rooms of blood-stained items and proper disposal of sharps and needles, etc.

The group encouraged the setting up of systems and plans for improvement in infection control and equipment maintenance. In addition, the group worked with nurses to discuss specific patient safety concerns and to involve nurses in the solutions. The group developed a fundraising system, encouraging donations and raised funds (LE 3 million raised thus far) to fix equipment. External advisers, offering inspiration and guidance to success, were invited to the hospital by the group.

Although initially met with reluctance, the group were eventually welcomed by the hospital management team after observing the beneficial outcomes that resulted from the intervention of the volunteer group. In addition, hospital management were reassured that the intention was to collaborate with the hospital team to improve service delivery through a non-

punitive, constructive and continuing dialogue. The fact that the group could actually sit with nurses, doctors and patients and actively engage in conversation with them was a critical element in this experience and an important entry point, encouraging participation of the hospital team. The group has now expanded to involve approximately 50 members from different areas of the country. Importantly, the group attracted young individuals with a strong passion for reform and health care improvement.

Achievements include the development of vital units in the hospital which included: renovation of units (emergency room, sterilization, incubator room, operating theatre); replacement of obsolete equipment; the purchase of equipment which was lacking; establishment of a new information technology system; and supplying of medical and non-medical supplies. Patient advocacy was improved through raising patients' awareness of their rights; ensuring privacy of patients (no examinations without curtains); and emphasizing the human side of the relationship with patients. This was important because patients were previously regarded as case studies in a teaching hospital. Hospital management was supported through: helping to solve problems with hospital management; conducting regular weekly meetings with management to study reports and reassess the needs of the hospital; supporting management to introduce changes; and holding monthly board meetings for all departments. The development of safety initiatives (for patients and staff) included:

- focusing on infection control;
- encouraging and reinforcing glove use;
- applying the use of plastic bed sheets on every bed;
- placing sharps containers in every ward;
- improving cleanliness of the facility;
- development of poster campaigns for hand hygiene;
- development of hepatitis B and C vaccination programmes for staff;
- establishment of training courses in infection control and hygiene;
- acquisition of infection control supplies.

Several challenges still face the group. There is immense difficulty in changing the attitudes and behaviour of caregivers. This remains a major hurdle despite many efforts. Also, the number of nurses working is still insufficient to meet the needs of the patients. Financial incentives for nurses and other professionals are also poor. The hospital management system remains poor, lacking the optimum degree of accountability, despite many improvements, and educational curricula containing information on patient safety, patient rights and responsibilities, remain deficient. Finally, performance indicators have yet to be established and used to measure success and improvement.

It has been proposed that every hospital in Egypt should have a hospital-based nongovernmental organization involved in the running of its affairs through the Ministry of Social Affairs, with the organization sharing in the management of the hospital.

6.2 Establishing the Parents of Infants and Children with Kernicterus (PICK) Foundation of America

Following her experience with major medical errors that resulted in the death of her husband and left her son suffering from complications of kernicterus, Mrs Susan Sheridan wrote letters to most health care entities in the USA, until she was finally called to testify. Her experience and that of her family was posted on the front page of *U.S.A Today*. The focus of the media coverage of the story was that a simple test (measuring the bilirubin level in the blood) was required to avoid occurrence of kernicterus and that parents needed to be well informed and made well aware of this condition and its potential complications. As soon as the story was advertised in the media, Mrs Sheridan received many calls from parents whose children had suffered from similar conditions. Following several communications, all involved parents flew to Chicago for a meeting. Parents were interviewed and a second newspaper article was published, emphasizing the information that parents needed to know. This was therefore an opportunity to educate the public on the disease. Within 10 days, a further article was published. The reporter asked for exclusive interviews, ensuring that parents would not hold interviews with other reporters. In return, the parents insisted on having the reports focused on progress rather than on a punitive approach that targeted individuals with blame.

The PICK organization was then established with a crystal clear mission: the prevention of kernicterus through partnership by implementing universal protocols to test babies for jaundice in all hospitals of the USA. The mothers in the organization raised money, and with doctors, held the first parent-governmental agency workshop for the prevention of kernicterus. Invitations to the workshop were issued to many authorities, including public health schools, the Centres for Disease Control, JCI, pediatric organizations, nursing organizations, the national institutes of health, the Maternal and Child Health Bureau and the Harvard School of Public Health. Surprisingly, all invited bodies came to the meeting. The mothers presented their case, including excerpts from medical charts and videos of affected children. Researchers, in turn, presented a cost-effective, evidence-based solution: to blood test all babies for bilirubin prior to discharge from the hospital.

Furthermore, the mothers gave the group of health care authorities (called the “Dream Team” by the mothers), a “wish list” of some actions that they wished to see prioritized. For example, the Centres for Disease Control (CDC) was requested to issue a public health alert and to increase grant funding to support research in the area. The JCI was requested to issue a sentinel event alert. This was initially challenged because it was thought to be difficult to issue such a publication based on consumer voices rather than on their internal database. The National Quality Forum was requested to put kernicterus on the “never event list” and within two months, actions were taken as requested.

PICK came to be recognized as a success story of partnership. A presentation by the PICK Foundation to the Hospital Corporation of America resulted in implementation of a universal jaundice screen. In fact, a retrospective research study showed that neonatal

jaundice was indeed a problem that was not adequately recorded or managed and was therefore missed as an important health priority.

Later, a campaign was developed over a period of 7 years, using a grant provided by the Government and under the leadership of the PICK mothers, to host focus groups. Research was conducted to provide mothers with additional information required. This campaign extended to obstetrics/gynecology as well as paediatricians' offices. As is the case for any other initiative instigating change, it was met with resistance and sparked debate in the USA. Another source of debate was a report issued in the *Wall Street Journal*. The latter was the result of four months of research and interviews. Ultimately, following many reports, symposia and debates, the Hospital Association in Colorado assembled and passed a resolution requiring the performance of a test on all babies to screen for jaundice before being discharged from the hospital.

6.3 The Moroccan Federation for associations supporting patients of renal insufficiency and kidney transplantation

The Federation was formed in May 2005, in Rabat, Morocco, as a nongovernmental organization. Its formation was triggered by a medical error to which a patient was exposed during treatment of hypertension and which resulted in renal impairment which was suffered for six years. The Federation was established as part of a solution devised to support patients of renal insufficiency and help in ameliorating their physical, emotional and financial suffering. The Federation is mainly comprised patients and family members with different specialties (doctors, nurses, engineers, etc.). A year later, it was decided that the initiative would be taken nationally, spreading to 35 cities of the country. Although challenging, the initiative was endorsed by strong partnerships. The main goals were to establish a network of coordination between different organizations involved in the treatment of renal insufficiency; endorse solutions for such organizations and facilitate their communication; offer financial support for organizations involved in the management and support of patients with renal insufficiency.

The initiative aimed at enhancing the role of the local community and uniting the vision of those involved. It was built on transparency, partnership and collaboration. Several actions were taken by the Association including: endorsing member associations as well as supporting health care facilities involved in the management of renal insufficiency and renal failure, human resource development to achieve the goals of the national initiative and organizing workshops and scientific meetings to raise awareness, discuss progress and disseminate information and results of scientific research. The Association also coordinated with the Ministry of Health to undertake a joined strategy. Campaigns, flyers and brochures were among the tools used to approach schools, hospitals and other entities with the ultimate goal of promoting patient safety and raising awareness to the existence and suffering of patients with renal insufficiency, emphasizing that prevention is a top priority.

6.4 Moroccan Association for Blood Transfusion

The Moroccan Association for Blood Transfusion was founded in 1958 and activated in 1972. It represents a union of individuals sharing the common objective of raising awareness of blood transfusion. The main objectives of the Association are: to sensitize the community to, and raise public awareness of, blood donation; collaborate with blood donation centres in organizing blood donation drives; support blood donation centres during disasters to facilitate recruitment of volunteers; facilitate the exchange of experiences between different concerned organizations; advocate for the rights of blood donors; and ensure the quality of transfused blood.

Until 1979, blood was imported to Morocco from France. The Association initiated some blood drives, explaining to donors the process, the method of drawing blood, the potential side-effects and the fate of the donated blood, thus encouraging voluntary donation. Among the many targets, the association worked in schools, universities, clubs, youth centres and in organizations that had health programmes. The group also contacted the media to advocate for the cause through television programmes and newspapers and partnered with several organizations.

Studies conducted at a national level show that the number of donors increased from 135 627 in 1995 to 168 613 in 2006. In fact, most blood donation in Morocco is currently obtained through voluntary donation.

7. HOPES, PRIORITIES AND OPPORTUNITIES

7.1 Hopes

Following group meetings and discussions, aspirations for the future of patient safety in the Eastern Mediterranean Region were discussed. The following main items were highlighted.

Patients should have the right to speak up and engage with providers in discussions concerning health care; they should: know their rights; be appropriately informed of their condition; be educated through various advocacy programmes; be informed and prepared before and after a procedure; be properly and respectfully treated; have and understand choices in the management of their health care; be able to view the hospital profile prior to admission; be able to participate in updating his/her medical chart or to express his perception of its contents.

Nongovernmental organizations should be involved in advocating for patient education and rights; and expand their activities to reach patients effectively.

Health policy-makers should ensure patient safety will be engrained in health policy at its highest level; policies will reinforce patient safety issues; a patient safety mindset prevails in the culture; enforcement of a governmental law to force physicians to inform patients and

provide appropriate explanation if an adverse event takes place; patient safety is included in national medical and nursing school curricula; and a conducive environment for providers.

Providers should provide a proper monitoring system for checking the safety of medical equipment and to ensure that safe technology is used; and work to improve the social and psychological support provided for patients.

Health systems should experience improved communication strategies; have established non-punitive reporting systems; demonstrate transparency, attainability and accessibility by all; and provide a record-keeping system that entitles the patient to full access of his records when required.

WHO should have a stronger role at country level to ensure support and intercountry information-networking.

The media should work to spread the proper message at national level through advertisements and campaigns, thus raising national awareness of patient safety; provide honest and responsible updates on patient safety issues as they occur; work as a neutral party between patients and providers providing open, transparent, honest and unbiased views of the national patient safety status; and initiate discussions on how improvements can be made.

7.2 Priorities

The patient has to play a role in shaping and planning the health care system. Nongovernmental support will be required to achieve this goal. Establishment of a record-keeping system that entitles the patient to full access of his records when needed is another important priority. Increased sensitization to, and raising awareness of, patient safety and patient rights among health care workers and patients, is critical and the promotion of quality management in hospitals is essential. Other priorities include:

- reinforcing regulations and the establishment of a sense of accountability on the part of health care management;
- ensuring an appropriate physical environment in hospitals;
- human resource development and training; re-licensing health care professionals every five years;
- development of a reporting system.
- focus on equipment maintenance and calibration.
- development of standards protecting health care provider rights;
- prevention of radiation hazards;
- implementation of hand hygiene and other infection control practices at healthcare facilities;
- adoption and application of medical protocols;
- documentation.

Nonetheless, the Eastern Mediterranean Region is faced with a tremendous challenge, having to tackle many obstacles that hinder success including: lack of job descriptions, poor medical education, lack of accountability, lack of a culture of auto-evaluation, prevalence of a culture of blame, lack of orientation with teamwork, poor equipment maintenance systems and the prevalence of myths.

7.3 Opportunities

There are several opportunities that should be taken advantage of. For example, the prevalence of family support in the culture of the Region, as well as the dominance of religious teachings strongly support the improvement of the health care system. In many countries of the Region, local nongovernmental organizations are already well-established. Along with the global advancement of the human rights movement and a tendency for medical education reform in countries of the Region, this forms a solid foundation on which improvement in the area of patient safety and patient engagement in the health care system can be built. Finally, the media form a forceful tool that easily reaches most sectors of society. The media, therefore, form an open window through which efforts and information can reach the public.

8. THE WORK OF THE REGIONAL OFFICE ON PATIENT SAFETY

The definition of patient safety in this Region derives from WHO literature. Simply, it involves aspiration for the freedom from unintended health care errors and tackles how health care could be delivered properly. Health care errors are the result of health care management rather than a consequence of the disease process. Examples of adverse events include: hospital-incurred patient injury; adverse drug reaction; development of neurological deficit not present on admission, unexpected death (not an outcome of the disease); and cardiac/respiratory arrest, and a low Apgar score.

Most studies demonstrate that adverse events occur for approximately 10% of hospital admissions in developed countries; 2% of admissions are associated with health care-inflicted serious harm or disability. Adverse events are costly and account for 5%–10% of total health expenditure. Importantly, 50%–80% of adverse events are preventable.

With an estimated average of 10% of all inpatient visits resulting in some form of unintended harm, along with the knowledge of the number of inpatient admissions made within the Region, the potential magnitude of unsafe practice is glowingly underscored. In fact, there is greater probability that adverse events are more frequent in developing countries where resources are lacking, information and technology are outdated and the health care system is not well-organized. Orchestrated within a network of poor infrastructure and weak communications, the latter factors highlight a problem of potentially enormous magnitude and dire consequences. Furthermore, developing countries experience, for the most part, poor technical design of medical equipment and packaging, ineffective communication strategies and a weak safety culture with a generalized prevalence of a culture of denial and blame.

WHO figures show that developing countries account for approximately 77% of all reported cases of counterfeit and substandard medicines. In addition, at least 50% of all medical equipment in most of these countries is unusable, or only partly usable. A quick survey in the Region demonstrated that post-operative infection among cardiac surgery patients reached 60%, and that 50% of deaths in emergency cases were due to improper case management, indicating a problem of enormous magnitude.

The Regional Office has been working on patient safety from a multitude of angles. Among several activities performed by, or in collaboration with, the Regional Office are the following:

- integration of patient safety in hospital accreditation guidelines (2002);
- raising awareness of the problem of patient safety in the Region, involving stakeholders and engaging ministries of health and ministry officials;
- development and circulation of a patient safety questionnaire for Ministry and facility officials;
- development of patient safety standards (Joint WHO/Arab League Facility Accreditation 2004);
- establishment of a consensus framework on regional patient safety;
- development of a regional patient safety strategy;
- capacity building and provision of training packages (2005) for countries in the Region to empower research on patient safety;
- The patient safety friendly hospital initiative (PSFHI);
- development of a patient safety glossary in collaboration with countries of the Gulf Cooperation Council (GCC).

Partnerships have been developed between the Regional Office and several other bodies including: WAPS, the Patient Safety Centre (Kuwait), the Arab League, member countries of the GCC, as well as with countries of the Region through the Joint Government/WHO Programme Review Missions (JPRMs). Starting in 2005, a research project was initiated between the Regional Office and WAPS. The main objectives of the project were to: estimate the size and nature of patient harm in developing and transitional countries; develop methodologies for measuring patient harm in data-poor environments; provide input into the development of patient safety research; build local awareness of patient safety problems; and ensure the will to act.

There are several methods currently in use in developed countries to assess the magnitude of unsafe practice. Medical record review remains the gold standard for that purpose. As such, retrospective medical record review was undertaken in six countries of the Region (Egypt, Jordan, Morocco, Sudan, Tunisia and Yemen) and two countries from the African Region (Kenya and South Africa). 500 records were randomly selected from between three and five hospitals in each participating country. Records were examined by trained nurses and doctors according to criteria previously tested and validated. The following main framework was followed in each country: hospital selection/agreement; 500 random records

chosen; record location; first stage review (nurses); second stage review (doctors); data entry/analysis/report; and action.

As a sequel to the medical record review project currently undertaken in the Region, teams are in the process of testing alternative tools devised for use in data-poor environments. Such methodologies include: combining medical record review with structured interview with clinical staff; using nominal group methods to obtain information from a clinical focus group; and using observation of a clinical interaction against agreed standards.

Results of medical record review from countries participating in the project are in the phase of analysis. Owing to confidentiality, interim results will not be released. Results will be shared in an aggregated form as soon as data analysis is complete and information is available at the Regional Office.

Approximately 15 000 records have been entered thus far. Preliminary data reveal that health care is causing permanent disability and death in developing and transitional countries and that much of this harm is preventable. Moreover, the absence of protocols and the poor quality of medical records have been pointed out as serious problems. Nursing notes have proved to be extremely beneficial and vital.

Building a team is essential for completion of the patient safety project, as well as for using the results positively to instigate change. Patient safety can galvanize attention and interest and connecting the project through the Regional office to health ministries in each country is crucial. The quality of medical records is improved by promulgation of standards, as in Egypt and Kenya.

Several items have been flagged for follow-up and development during the course of the patient safety research study in the Region. For example, the use of the data to drive change locally and internationally is an item of utmost importance. Data publication/presentation as well as data ownership are equally important and were discussed in the third meeting on patient safety research held in Luxor from 12–15 February, 2007.

Research studies additionally highlighted practical issues, such as the quantity of data that would be sufficient to perform similar studies. Most country teams experienced some element of difficulty in obtaining the data for the research studies because of the poor quality of medical records. This issue spurred a common interest in pursuing methods to improve the quality of medical records in the Region. For example, disease coding has been suggested in several countries where it was not practised until the time of the current studies.

While research studies are expected to conclude with results that demonstrate the adverse event rate in health care facilities in countries of the Region, an equally important outcome is the development of measurement tools that could be applied in data-poor environments. On-going studies have clearly demonstrated that the medical record review methodology may not be applicable in rural areas and other under-privileged facilities in

which a reliable record-keeping system may not be in place. Leaving the countries with a measurement tool that is locally manageable is another priority.

The patient safety friendly hospital initiative (PSFHI), is a programme pioneered by the Health Care Delivery Unit in the Regional Office. It aims to instigate and encourage safe health practices in hospitals of the Region. This programme endows upon participating health care facilities certification upon meeting set standards of patient safety. The objectives of this project are to: make patient safety a leadership and management priority; create an accountability framework for patient safety; and create a culture of patient safety in health care.

The development of standards and implementation guidelines is already in progress at the Regional Office. An expert panel will be recruited to examine these standards in accordance with the guidelines provided by WHO. The standards cover a wide array of areas including: patient and public performance measurement; hospital self-regulation performance measurement; evidence-based safe health care practice performance measurement; and life-long hospital learning performance measurement.

Hospital surveillance will be performed by trained surveyors. Wherever possible, in the interest of cost-effectiveness and sustainability, focal points will be appointed in each participating hospital to help in the dissemination of awareness, capacity building and training, as well as in follow-up and monitoring. This initiative will additionally establish partnerships with ministries of health.

Following hospital inspection for implementation of set standards, surveyors will issue a certificate indicating that the participating hospital is, indeed, a patient safety friendly hospital, abiding by the standards set by WHO and approved by the local ministry of health.

This initiative is likely to encourage hospital participation and more importantly, to raise awareness of the issue of patient safety. The PSFHI is not intended as a means of accreditation, but will likely go hand-in-hand with quality assurance and health care system accreditation programmes towards the ultimate goal of enhancing safe health practices in the Region. It has the advantage of providing a platform for accreditation, using patient safety as an entry point and has the potential for rapid intervention at the facility level to enhance the safety of health care delivery.

9. COUNTRY PLANS OF ACTION

Country representatives prepared country plans of action for patient engagement in patient safety initiatives, tailored to suit the situation in each country. The country plans are included as Annex 4.

10. RECOMMENDATIONS

Member States

1. The patient safety friendly hospital initiative should be implemented in countries of the Region.
2. Every effort should be made in Member States to raise the awareness of the community to the importance of patient safety patient engagement, enlisting the support of the media.
3. The engagement of nongovernmental organizations in the patient for patient safety initiative is critical for success and every hospital should work with a nongovernmental organization. Dual campaigning to target both providers and organizations together is essential to communicate patient safety messages. The infrastructure is already in place with many nongovernmental organizations already functional. Proper networking and information sharing should be established through patient safety champions.
4. The inclusion of patient safety and information on patient rights in medical and nursing school curricula, as well as in pre-medical school programmes, should be recognized as a top priority.
5. In-service training on patient safety issues should be provided for health care professionals in hospitals.
6. The rights of patients should be posted in hospitals in order that they can be easily accessed by patients.
7. A hotline for patient complaints should be established in each hospital.
8. A reporting system, tailored to suit the operating health system in each country, should be established.
9. Human resource development and training should be conducted and health care professionals should be re-licensed every 5 years.

WHO Regional Office

10. Outreach to national stakeholders and governments should be conducted in order to convene similar workshops to ensure that action is appropriately taken at country level.
11. WHO should have a stronger role at country level to ensure support and intercountry information-networking.

Annex 1

AGENDA

1. Inauguration
2. Opening address and keynote address
3. Adoption of agenda of the workshop
4. Identifying the objectives, expected outcomes and methodology of the meeting
5. Presentations on experiences of health care and common issues
6. Orientation to the World Alliance for Patient Safety (WAPS) and patients for patient safety programme
7. Discussions: Hopes for safer care in the Eastern Mediterranean Region
8. Presentation on patient safety in the Eastern Mediterranean Region
9. Group discussions: priorities and challenges
10. Partnership and patient engagement
11. The patient safety friendly hospital initiative
12. Consolidation of issues discussed
13. Action planning: country groups
14. Conclusions and recommendations

Annex 2

PROGRAMME

Monday, 26 March 2007

08:30–09:00	Registration
09:00–09:30	Opening session Address of Dr Hussein Gezairy, WHO Regional Director for Eastern Mediterranean Regional Office
9:30–10:30	Introduction of participants and resource persons Election of officers (moderators and rapporteur) Adoption of agenda and programme Objectives and expected outcome of the workshop
11:00–12:30	Orientation to the World Alliance for Patient Safety and patients for patient safety programme
12:30–15:30	Participants' presentation on the experiences of health care and common issues
15:30–17:30	Discussions: Hopes for safer care in the Eastern Mediterranean Region

Tuesday, 27 March 2007

08:30–09:30	Presentation on patient safety in the Eastern Mediterranean Region
9:30–10:30	Partnership and patient engagement
11:00–13:00	Group discussions: Priorities and challenges
14:00–15:00	Patient safety friendly hospital initiative
15:30–17:00	Consolidation of issues discussed during the day

Wednesday, 28 March 2007

08:30–10:30	Panel session
11:00–16:00	Action planning: country groups
16:30–17:00	Review of conclusions and recommendations Follow-up completion of evaluation forms
17:00	Closing session

Annex 3

LIST OF PARTICIPANTS

EGYPT

Dr Mohamed El Genedy
Physician
Infection Control Department
Ministry of Health and Population
Cairo

Dr Hoda Zaki
Nursing Counsellor
Ministry of Health and Population
Cairo

IRAN, ISLAMIC REPUBLIC OF

Dr Seyed Mohsen Zahraei
Infectious Disease Specialist
Director of nosocomial infection control program
Center of Disease Control
Ministry of Health and Medical Education
Tehran

JORDAN

Dr Mohammad Al Kharabsheh
Director of Hospital Monitoring
Ministry of Health
Amman

Dr Safa Qusous
Quality Director
Ministry of Health
Amman

MOROCCO

Dr Amina Sahel
Head of Department
Outpatient Care
Directorate of Hospitals and Outpatient Care
Ministry of Health
Rabat

SUDAN

Dr Malik Abdo Ali
Focal Point of Patient Safety
Federal Ministry of Health
Khartoum

Mrs Nabawia Mohamed Ahmed Al-Sharief
Director of Quality Directorate
Gezira State

Mr Hussien Ismail Ahmed Ibrahim
Director of Quality Directorate
State Ministry of Health
Khartoum

TUNISIA

Dr Nouredine Cherni
Director of regulations and health professions
Ministry of Public Health
Tunis

YEMEN

Mr Nasr Ali Ahmed
National Coordinator
Patient Safety Programme
Sana'a

Patients

EGYPT

Dr Mohammed Tawilah
Cairo

JORDAN

Dr Ahmed Kloub
Member of Patient Safety Team
Ministry of Health
Amman

LEBANON

Miss Norma Rizk

B-S Nursing

B-S Midwifery

PHD Public Health International

Consultant in Mother and Child Health Care

Beirut

MOROCCO

Mr Said El Kharrazi

President of “Fédération Marocaine

des Association de Soutien des Insuffisants Rénaux”

de Transplantation d’organs

Rabat

TUNISIA

Mr Chedly Ben Sliman

Vice president of ONG

(Consumer Defence Organization)

Tunis

YEMEN

Mr Mohamed Mohamed Abdallah Abaadani

Sana'a

Health care providers

EGYPT

Dr Mahmoud Al Damaty

Shark El Madina Hospital

Center of Specialists

Alexandria

IRAN, ISLAMIC REPUBLIC OF

Dr Alireza Nateghian

Pediatric Infectious Disease Sub-Specialist

Office Member of National Committee for Infection Control

Faculty Member of Iran University of Medical Sciences

Tehran

JORDAN

Dr Abdelhadi Breizat
Head of El Ameer Hamza Hospital
Amman

LEBANON

Mr Mohamad Hamandi
Deputy Hospital Director/Nursing Director
Makassed Hospital
Beirut

MOROCCO

Dr Nabil Kanjaa
Professeur de Réanimation and Anesthésia
Centre Hospitalier Universitaire de Fès
Fes

TUNISIA

Prof Mohamed Haouissa
Professor of Anaesthesia and reanimation
Charles Nicolle Hospital
Tunis

YEMEN

Mr Abdelkareem Thamer
Head of the Medical Syndicate
Sana'a

Nongovernmental organizations

EGYPT

Mrs Nagwa Metwalli
Cairo

Dr Mahmoud Al Tayeb
Ain Shams University
Cairo

JORDAN

Ms Haifa Al Bashir

President of the White Beds Society

President of the Jordan Psychiatric Rehabilitation Society

Amman

MOROCCO

Ms Malika Mazine

Head of Division

Social Assistance

Directorate of Hospitals and Outpatient Care

Ministry of Health

Rabat

SUDAN

Mrs Sadia Botros Went

Katsha Organization

Khartoum

TUNISIA

Mme Aouatef Dali

TV broadcaster of a Health program

Tunis Channel TV 7

Tunis

World Alliance for Patient Safety

UNITED KINGDOM

Ms Helen Hughes

Head of WHO Office for Patient Safety

World Alliance for Patient Safety

London

Miss Rachel Heath

WHO Patients for Patient Safety Project Manager

London

UNITED STATES OF AMERICA

Mrs Susan Sheridan

Lead of Patients for Patient Safety Programme

Boise, Idaho

Mr Martin Hatlie

Patients for Patient Safety Steering Group

Chicago

INDIA

Mr Murganantham Ramaiah

Patients for Patient Safety Champion

Mumbai

Observers

Mrs Azza Kabil, Cairo

Dr Hala Moustafa Zaid, Cairo

Mrs Mervat Abou Shabanah, Cairo

Dr Manal Aziz Gerges Sorial, Cairo

Ms Alaa Tajuddin Al-Sharief, Khartoum

WHO Secretariat

Dr H. Gezairy, Regional Director, WHO/EMRO

Dr M. Abdi Jama, Deputy Regional Director, WHO/EMRO

Dr B. Sabri, Director, Health Systems and Services Development, WHO/EMRO

Dr Ahmed Abdellatif, Coordinator Health Systems and Regional Adviser, Health Care Delivery, WHO/EMRO

Dr Riham Elasady, Technical Officer/HCD, WHO/EMRO

Dr Injy Khourshid, Technical Assistant, WHO/EMRO

Mr Mohamed Abdelmohsen, Technical Support, WHO/EMRO

Mrs Heba Elkhoudary, Senior Secretary, DHS/BUD, WHO/EMRO

Mrs Hoda Elsabbahy, Secretary, HCD/DHS, WHO/EMRO

COUNTRY PLANS OF ACTION

Table 1. Egypt

Task 1: Raising awareness of patients and patient engagement in infection control initiatives and accessing medical records		timeline
A	Who should be involved to make this happen in our country (partners)? • Ministry of Health • Universities • Ministry of Social Affairs • Ministry of Education • Media • Medical syndicates • Patients and their families	1-2 years
B	What must be the next steps? Organizing a committee for patient safety Briefing authorities Holding a meeting with representatives from concerned authorities	Within 1 year
C	What recommendations do we have for the role of EMRO/PFPS? To call for integrating patient safety in ministry of health policies during the Regional Committee Meeting Provision of technical support, training and information for implementation of PSFHI To hold follow-up workshops, including the seeking of funding from the World Alliance for Patient Safety	
D	What will success look like? Patient involvement in several hospitals Inclusion of patient safety in medical school curricula Inclusion of patient safety in evaluation forms Inclusion of patient safety as a standard in the accreditation programme through the quality department	Within 1 year
E	What will I personally do? Ministry of Health and Population representatives: Will include patient safety concepts in infection control and quality programmes, the agenda and preventative and curative departments, and health education and drug management departments Nongovernmental organizations: Will increase patient awareness and will extend our activities to most hospitals University representatives: Will work on inclusion of patient safety in the curriculum of faculties of medicine and nursing Media: Will approach some health programmes and engage celebrities for advocacy	Within 1 year

Table 1. Egypt (cont.)

Task 2: Education and training of individuals in medical and nursing professions, especially for implementation of the PSFIII		timeline
A	Who should be involved to make this happen in our country (partners)? • Universities • Ministry of Health • Higher Institute of Nursing • Syndicates • Hospitals (governmental and nongovernmental)	1–2 years
B	What must be the next steps? 1. Designing a curriculum and protocols including patient safety measures and patient rights 2. Organizing workshops on a regular basis to promote training and education through the deans of medical schools 3. Designing evaluation sheets for the process education and training	
C	What recommendations do we have for the role of EMRO/PFPS? Support in approaching and briefing policy-makers Support for education and training Offering scholarships for young students	
D	What will success look like? Raising the level of education of health care providers on patient safety Improving the patient–provider relationship Promoting patient involvement and partnership	
E	What will I personally do? Media: Will approach some health programmes and engage celebrities for advocacy	

Table 2. India

Task 1: Raising awareness of patients and provider education		timeline
A	Who should be involved to make this happen in our country (partners)? • Nongovernmental organizations • Active health social workers • Patients • Retired physicians who are willing to serve on the mission • Policy-makers • Media • Medical and nursing colleges	
B	What must be the next steps? 1. Networking 2. Disseminating information on the PSFHI 3. Attempting to reach people in need (particularly low-income)	Within 1 year
C	What recommendations do we have for the role of EMRO/PFPS? To share experiences in country meetings Advocacy and support for initiative implementation at country level Regular update of media	
D	What will success look like? PSFHI will be widely disseminated There will be reduction of harm that results from human and systems error	
E	What will I personally do? I am already supporting many individuals by voicing their opinions electronically (as well as through print media) Will create a platform for patient-centred health care provision	

Table 3. Islamic Republic of Iran

Task: Patient engagement in infection control initiatives		timeline
A	Who should be involved to make this happen in our country (partners)? Policy-makers Hospital managers Infection control committees (national, provincial and hospital levels) Ministry of Education Media Nongovernmental organizations Physicians	6 months
B	What must be the next steps? 1. Briefing of policy-makers on all issues of patient safety (including PSFHI) 2. Preparation of instructive materials and guidelines for patient education 3. Conducting patient safety workshops at hospital level 4. Using feedback from patients for guidance within the infection control committee 5. Establishing direct relationships between patients and infection control teams 6. Encouraging establishment of national active NGOs dedicated to patient safety 7. Encouraging mass media to develop shows, projects and programmes related to patient safety	1 year
C	What recommendations do we have for the role of EMRO/PFPS? Providing technical and financial support for national programmes Advocating for the development of a national plan for patient safety, including an infection control programme	
D	What will success look like? It is hoped that the above-described goals would be achieved.	
E	What will I personally do? We will try to convince our hospital director to implement PSFHI as a pilot study. We will hold some workshops at hospital level and will submit an article in the press addressing the issue of patient safety. The above-described goals will be included within activities of the infection control committee at the hospital. We will also follow-up and stress on the incorporation of patient safety concepts in our national infection control sessions and workshops	

Table 4. Jordan

Task 1: Patient engagement in implementation of WHO patient safety friendly hospital initiative		timeline
A	Who should be involved to make this happen in our country (partners)? • Decision-makers at the Ministry of Health • Health care orientated nongovernmental patient-based organizations • WHO Regional Office • Mass media to promote awareness	
B	What must be the next steps? 1. Obtaining official approval 2. Establishment of a steering committee 3. Sensitization to the issue 4. Development of a detailed action plan	
C	What recommendations do we have for the role of EMRO/PFPS? Technical support Directed workshops for guidance and follow-up Financial support	
D	What will success look like? Tangible success in the form of improvements in patient safety	
E	What will I personally do? 1. Establish the steering committee 2. Involve nongovernmental organizations 3. Recruit and evaluate interested volunteers 4. Enlist the involvement of the mass media to be involved in patient-orientated work 5. Develop guidelines	

Table 5. Lebanon

Task 1: Raising awareness of patients on patient safety and implementation of the patient safety friendly hospital initiative		timeline
A	Who should be involved to make this happen in our country (partners)? • Patients • Hospital administration • Nongovernmental organizations • Doctors and nurses • Quality managers • Media • Universities	
B	What must be the next steps? 1. Awareness sessions for patients, nongovernmental organizations, doctors, nurses, quality and administration staff, universities. All such activities are to include media coverage 2. Sensitization of hospitals to the patient safety friendly hospital initiative 3. Training of trainers on the guidelines and implementation of PSFHI and ensuring the involvement of at least six major hospitals	August 2007 January 2008 May 2008-May 2009
C	What recommendations do we have for the role of EMRO/PFPS? Technical Collaboration through the JPRM Support from the World Alliance for Patient Safety	
D	What will success look like? At least 500 concerned individuals will attend the awareness sessions Six major hospitals will be voluntarily involved in PSFHI as a pilot group	
E	What will I personally do? Contact WHO Office in Lebanon and provide them with a copy of the work plan Start preparing for the awareness session Gather ideas from awareness sessions to present at the research meeting in Portugal (September, 2007)	April–August 2007

Table 6. Morocco

Task 1: Raising awareness of patients on patient safety and implementation of the patient safety friendly hospital initiative		timeline
A	Who should be involved to make this happen in our country (partners)? • National and hospital committees of nosocomial infections • Nongovernmental organizations and consumer associations • Media • Ministry of education	
B	What must be the next steps? 1. Meetings with partners 2. Development of an implementation group 3. Inclusion of PSFHI in the national strategy	
C	What recommendations do we have for the role of EMRO/PFPS? Observation Support Benchmarking	
D	What will success look like? Change in the behaviour of patients and providers Establishment of active dialogue with patients Reduction of infection rates	
E	What will I personally do? Hospital provider: Approach hospital staff and raise awareness to patient safety Identify partners Implement initiatives Nongovernmental organizations: Sensitize patients Study the topic and implement the initiatives	

Table 6. Morocco (cont.)

Task 2: Introduction of patient safety in medical curricula		timeline
A	Who should be involved to make this happen in our country (partners)? • Ministry of Health • Universities/educational centres	
B	What must be the next steps? 1. Approach deans, directors of educational centres 2. Prepare contents of the curriculum	
C	What recommendations do we have for the role of EMRO/PFPS? Technical support	
D	What will success look like? Institutionalization of educational programmes	
E	What will I personally do? University: Elaborate on contents of curriculum Provide education on patient safety Conduct research on the topic Ministry of Health: Coordinate Nongovernmental organizations: Hold conferences, provide education	

Table 7. Sudan

Task: Raising awareness of patients on patient safety and the importance of patient partnership with the health care system		timeline
A	Who should be involved to make this happen in our country (partners)? • Patient groups • Civil society organizations • Nongovernmental organizations • Community leaders • Selected media groups	1–6 months
B	What must be the next steps? 1. Develop network for stakeholders to increase the awareness of patients on the issue of patient safety 2. Prepare materials for communicating messages and information (e.g. films, etc.) 3. Conduct workshops, lectures, seminars and focus group discussions 4. Initiate mass media campaigns	3–12 months
C	What recommendations do we have for the role of EMRO/PFPS? 1. Technical support for national level 2. Funding 3. Provision of materials and supplies	
D	What will success look like? 1. Patients will be aware of their rights and will be involved in decisions related to their health 2. Reduce adverse event rate 3. Health providers will be committed to reporting medical errors and adverse events	12–24 months
E	What will I personally do? 1. We will start conducting workshops, lectures and seminars to increase the awareness of patient safety 2. We will participate in network development	

Table 7. Sudan (cont.)

Task 2 : Patient engagement in the infection control initiative		timeline
A	Who should be involved to make this happen in our country (partners)? • Patient groups • Schools • Mass media and community leaders • Health authorities	1–6 months
B	What must be the next steps? 1. Increase awareness of patients on nosocomial infections (leaflets, posters etc.) 2. Empower patients through having a patient representative on the hospital board 3. Encourage patients and patient groups by providing rewards and incentives	3–12 months
C	What recommendations do we have for the role of EMRO/PFPS? 1. Technical support for national 2. Funding 3. Provision of materials and supplies	
D	What will success look like? Reduction of the nosocomial infection rate	12 months
E	What will I personally do? We will be actively involved in the awareness-raising process	1 month

Table 8. Tunisia

Task 1: Raising patient awareness		timeline
A	Who should be involved to make this happen in our country (partners)? • Nongovernmental organizations • Health associations • Ministry of Public Health • Media	
B	What must be the next steps? Workshop including the above-mentioned partners Sensitization of the Tunisian population through different methods (audio-visual, press releases, mass media) Commencing action at hospital and clinic levels Expansion of actions to reach out to other governorates and municipalities	6 months 9 months 2 years
C	What recommendations do we have for the role of EMRO/PFPS? Provide technical support Enlist support from the World Alliance for Patient Safety through documents, patient safety champions and networking.	
D	What will success look like? Significant reduction of adverse events in the two hospitals in which initial assessment study by the Regional Office was initiated	End of 2008
E	What will I personally do? Establish a special TV programme related to the topic of patient safety Conduct follow-up	3 months

Table 9. Yemen

Task 1: Raising awareness of patients on patient safety and the importance of patient partnership with health care services		timeline
A	Who should be involved to make this happen in our country (partners)? • Ministry of Health • At ministry of health: Patient safety programme, medical services, quality department, health education department, hospital directors, health institutes, infection control programme • Universities • Syndicates • Nongovernmental organizations • Community/local authorities (district system) • Patients	
B	What must be the next steps? 1. Finish the current study on assessment of patient harm in the proposed hospitals. 2. Hold a national workshop gathering all stakeholders to discuss the results of the study and develop proper methods to increase patient awareness on the issue of patient safety 3. Launch a campaign on hand hygiene in different languages (to ensure the involvement of expatriates), training health care professionals within the infection control programme 4. Coordinate with the health education department to develop some TV programmes on patient safety	
C	What recommendations do we have for the role of EMRO/PFPS? Provide technical and financial support Collaborate through the JPRM	
D	What will success look like? Stakeholders will be cooperative and supportive Health care personnel will be aware of patient safety and patient harm A code of conduct will be developed	
E	What will I personally do? 1. Suggest an action plan that includes all of the above-mentioned steps, to be submitted to the Ministry of Health 2. Follow up 3. Form a national task force for patient safety that represents all governorates 4. Secure funds for implementation	

Annex 5

**DRAFT OF THE REGIONAL ENDORSEMENT OF THE
DECLARATION ON
PATIENTS FOR PATIENT SAFETY**

We, Patients for Patient Safety, envision a different world in which health care errors are not harming people. We are partners in the effort to prevent all avoidable harm in health care. Risk and uncertainty are constant companions. So we come together in dialogue, participating in care with providers. We unite our strength as advocates for care without harm in the developing as well as the developed world.

We are committed to spread the word from person to person, town to town, country to country. There is a right to safe health care and we will not let the current culture of error and denial, continue. We call for honesty, openness and transparency. We will make the reduction of health care errors a basic human right that preserves life around the world.

We, Patients for Patient Safety, will be the voice for all people, but especially those who are now unheard. Together as partners, we will collaborate in:

- Devising and promoting programmes for patient safety and patient empowerment.
- Developing and driving a constructive dialogue with all partners concerned with patient safety.
- Establishing systems for reporting and dealing with health care harm on a worldwide basis.
- Defining best practices in dealing with health care harm of all kinds and promoting those practices throughout the world.

In honour of those who have died, those left disabled, our loved ones today and the world's children yet to be born, we will strive for excellence, so that all involved in health care are as safe as possible as soon as possible. This is our pledge of partnership.

This declaration was issued in London on 29 March 2006 and was endorsed by the participants in the Patients on Patient Safety Workshop which took place in the Regional Office, Cairo, from 25–28 March 2007.