"Second International Consultation on WHO Guidelines on Hand Hygiene in Health Care: Implementation Strategies"

Global Patient Safety Challenge 2005/2006 "Clean Care is Safer Care"

Geneva, 27-29 April 2005

FINAL REPORT
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1. Background and objectives of the meeting

1.1 Background to the Global Patient Safety Challenge
Health care-associated infection is a major, global patient safety issue which affects hundreds of millions of people worldwide and complicates a significant proportion of the delivery of patient-care. Infections add to the burden of resource use, promote resistance to antibiotics, and contribute to patient deaths. Hand hygiene, a very simple action, remains the primary measure to reduce health care-associated infection and the spread of antimicrobial resistance, enhancing patient safety across all settings, from advanced health care systems to local dispensaries across countries. Nevertheless health care workers’ adherence to good practice may be extremely low. Risk factors for the lack of adherence to hand hygiene have been identified through research. Promotion must be multimodal and include staff education and motivation, adoption of waterless hand disinfection as the gold standard, use of performance indicators, and strong commitment by stakeholders (e.g. hospital management, community leaders). A system change must be addressed in most health care settings where systematic use of waterless hand disinfection has not become standard of care.

WHO launched the World Alliance for Patient Safety on 27th October 2004. The fundamental purpose of the Alliance is to raise awareness and commitment to improve the safety of care and to facilitate the development of patient safety policy and practice in all WHO Member States. Each year the Alliance will deliver a number of work programmes covering advocacy, systemic and technical aspects of patient safety. A key programme of the Alliance is the "Global Patient Safety Challenge". The topic chosen for the first challenge for 2005 -2006 is the prevention of health care associated infections and the focus of the challenge is "Clean Care is Safer Care". A key action within the "Global Patient Safety Challenge" is to promote hand hygiene in health care globally and at country level.

The objectives of the Global Patient Safety Challenge are:

- Raise awareness of the impact of health-care associated infection on patient safety and promote preventative strategies within countries for "Clean Care is Safer Care".
- Build commitment from countries to prioritize reducing health-care associated infections.
- Implement in specific districts worldwide the WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft) as part of an integrated package of actions derived from existing WHO strategies in the areas of: Clean products (blood safety), clean practices
With hand hygiene as the cornerstone, the Challenge also aims to integrate a number of existing interventions included in WHO strategies and guidelines on infection control and prevention. Together, these interventions will be promoted by the Alliance to encourage their use by all Member States. Implementation of the strategies will be tested in specific districts, one in each WHO region, and will be closely monitored to assess their impact and identify lessons for "scale-up".

1.3 Objectives of the Second International Consultation on WHO Guidelines on Hand Hygiene in Health Care: Implementation Strategies

The purpose of the 2005 April meeting was to reach an experts' consensus on the WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft), and discuss the implementation strategies, including acceptability and feasibility issues in developing countries. Implementation strategies include:

- Patients' involvement.
- Procurement and distribution of the WHO waterless hand rub solution
- Education/training/tools development
- Structure, process, and outcome indicators for service implementation and monitoring
- Advocacy, communication and campaigning
- Regulation and accreditation
- Behavioural changes
- Religious and cultural aspects

The economic implications of these topics were taken into account in the discussion.

The Consultation was a follow-up meeting to the First International Consultation which took place on December 3rd, 2004. During the First International Consultation, evidence available on hand hygiene was reviewed, working groups were designated to discuss specific topics in hand hygiene, and experts were invited to contribute to the preparation of the draft WHO Guidelines on Hand Hygiene in Health Care.

Following the first consultation, a core group of experts coordinated the work of writing the chapters of the draft guidelines, reviewing content, and fostering discussion among authors.
2. Structure of the meeting

2.1 Welcome from WHO

Dr Tim Evans, Assistant Director General, along with Ms Pauline Philips, leading the Patient Safety team, and Dr Brad Kay, Medical Officer CDS/CSR/LYO, welcomed participants to the meeting and presented the overview of the World Alliance for Patient Safety and the work of the WHO Lyon Office for National Epidemic Preparedness and Response (LYO) and its objectives.

2.2 Participants

Professor Didier Pittet, University of Geneva Hospitals, Switzerland, chaired the meeting, Ms. Rosemary Sudan and Dr Delphine Mc Adams, WHO, agreed to act as rapporteurs. Participants included representatives from WHO departments at HQ and from all regional offices. Representatives from the Centers for Disease Control and Prevention (CDC), USA, Health Protection Agency, UK, International Confederation of Midwives, International Council of Nurses, International Hospital Federation, Italian Red Cross, and the National Patient Safety Agency, UK were present. Several NGOs and Patients' groups also attended, including the People's Health Movement, Partnership for Patient Safety and Consumers Advancing Patient Safety, along with international technical advisers from Australia, Brazil, Egypt, Hong Kong, India, Kenya, Saudi Arabia, Thailand, Tunisia, Viet Nam, United States of America and several European and Scandinavian countries. Experts from the field were invited to provide input, along with other stakeholders. The list of participants can be found in Appendix 2.

Sir Liam Donaldson, Chair of the World Alliance for Patient Safety, gave a presentation on the work of the Alliance. Dr Lee, WHO Director General, also briefly attended the meeting.

2.3 Venue


2.4 Method of work

• Presentations summarized the main components of the "Global Patient Safety Challenge"
• Plenary discussions aimed at reaching an experts' consensus on the WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft), and discussed various aspects of the implementation strategy, in particular the criteria for selection of the specific pilot study districts.
• Working groups composed of experts focused on the principal issues of the implementation strategies and presented their conclusions.
Before and after the Consultation, task forces composed of experts were set up, and initiated an on-going work on various issues linked to the implementation strategy. A summary of the work from the task force on patient involvement which met prior to the consultation was presented on the first day. Other task forces met immediately following the Consultation.

3. Presentation of the Global Patient Safety Challenge

Ms Pauline Philip, leader of the Patient Safety Team, introduced the World Alliance for Patient Safety and its 6 areas of action:

1. Global Patient Safety Challenge, focusing on the challenge of health-care associated infection entitled "clean care is safer care".
2. Patients for Patient Safety, mobilizing patients and patients' organizations in implementing patient safety efforts worldwide and participating in the work of the Alliance.
3. Taxonomy for Patient Safety, developing internationally acceptable data standards for collecting, coding and classifying adverse events and near misses.
4. Research for Patient Safety, measuring the nature of patient harm in selected developing and transitional countries and improving methodology and tools for assessing the nature and extent of adverse events in health care.
5. Solutions for Patient Safety, promoting existing patient safety interventions and actions worldwide and coordinating international efforts on future solutions.
6. Reporting and Learning, generating tools and guidelines for developing patient safety reporting systems and improving existing systems.

Dr Tim Evans, Assistant Director General-Evidence and Information for Policy, WHO, emphasized the importance of Hand Hygiene as a vital part of the Alliance work and as a link between all the actions taken within the Alliance.

Dr Brad Kay, Communicable Diseases, WHO; also expressed the interest and the support of other groups within WHO in this work.

Professor Didier Pittet presented the work of the Global Patient Safety Challenge in the area of Hand Hygiene. The Guidelines are at an advanced stage, and integration of purposes has already been reached between this work and the other components of the Challenge, i.e. those looking at safety of the environment, surgical procedures, blood products, and injection equipment. The
Alliance is creating a link between all these activities which share a common interest in controlling infection in health-care settings, and hand hygiene as a universal and primordial measure to initiate infection control strategies in any type of health care setting. Altogether, these groups are looking at defining indicators and implementation strategies to be started in specific districts in all WHO regions in the autumn of 2005.

**Clean products:** Dr Neelam Dhingra-Kumar, Coordinator, Health Technology and Pharmaceuticals, WHO, described the work done by the Department of Blood Transfusion Safety to promote better and safer use of blood and blood products. The programme encourages National Transfusion Boards in each country to develop policies to limit unnecessary use of blood transfusions by encouraging prevention and early diagnosis, use of alternatives to reduce blood loss and for volume replacement, and to promote safe procedures from collection to transfusion. A number of Guidelines and aide-memoires are available, as well as education and training material.

**Clean procedures:** Dr Meena Cherian, Health Technology and Pharmaceuticals, WHO, presented the challenges met by health care workers in resources limited health settings where lack of trained personnel and of safe equipment impairs the delivery of safe surgical procedures. Among a number of manuals and guidelines published to this effect, a manual called "Surgical Care at the District Hospital" has been published as a tool in which recommendations on hand hygiene are covered as part of the basic necessary procedures.

**Clean equipment:** Dr Sophie Logez, Health Technology and Pharmaceuticals, WHO, introduced the work of the WHO Injection Safety team, which aims to promote safe and appropriate use of injections through policies at country level. Major areas of focus include raising awareness of risks of unsafe injection practices, and educational programmes to promote behaviour change among patients and health care workers. The aim is to decrease injection overuse, and increase adoption of safe injection practices and effective management of sharp waste. Immunization safety is also an important area of focus, with activities relating to vaccination safety and quality, injection safety, management of immunization-related waste, and monitoring of adverse events. The Injection Safety Team has been actively promoting the use of auto-disable syringes, which inactivate themselves after a single use.
Clean environment: Mr Yves Chartier, Sustainable Development and Healthy Environments, WHO, identified 3 areas of action which link the work of Water Sanitation to safe care:
- Water quality needed for Hand Hygiene: work is underway to determine acceptable standards.
- Health Care waste management for immunization activities
- Waste resulting from blood transfusion.

4. Patients for Patient Safety

Ms Susan Sheridan, Chair of the Patient for Patient Safety Programme, presented her own experience as the mother and wife of patients victims of tragic medical errors, and emphasized the need for health care workers to recognize that patients should be invited to actively participate to their own care. As partners, patients can record medical errors, become more knowledgeable and influence guidelines and policies.

Peter Mansell, Director for Patient Experience and Public Involvement, National Patient Safety Agency, England and Wales, described the aims of the Patients for Patient Safety, action area of the Alliance to promote a patient-centred approach in health care safety, to generate consumers' interest and build-up networks in patients' safety using "champions" to trigger global awareness.

Professor Didier Pittet then presented the work of the task force on patients' involvement which took place the morning prior to the beginning of the consultation. Major themes of the discussions included:
- Promoting Hand Hygiene (as part of the Global Challenge) is a unique opportunity to encourage patients' participation to the safety loop.
- Patients' input into their own care (or that of their relatives, especially in the case of unconscious patients) can be viewed as a way to collaborate with the health care workers; for example they can help minimising the degradation of practices which occur gradually with any routinised practice.
- However, the approach to encourage patients' involvement needs to be adapted to all cultural contexts to avoid misunderstanding and confrontations. Other perspectives, including outside health care, such as anthropology, may be of benefit in this regard.
- Finally, some of the pilot studies sites could be used to explore patient involvement in hand hygiene in different contexts.

5. Guidelines on Hand Hygiene in Health Care
**Professor Carmem Pessoa-Da-Silva**, Communicable Diseases, WHO, reminded the participants that the First Consultation (3rd December 2004) resulted in the presentation of a draft document, which was then reviewed on March 10 and 11, 2005 by a core group of advisors. She thanked all the participants who contributed in the making of these Guidelines and presented for discussion a short list of unresolved issues.

The following points were subsequently agreed:

- Surgical hand preparation: hand rubbing with an alcoholic formulation should pass the EN12791 standards (showing persistent effect for at least 3 hours) in order to be approved. Hand washing with a medicated soap followed by drying should be used when hands are soiled or to remove spores and parasites when necessary.
- Although alcohol has a limited activity on parasites or *Clostridium difficile* spores, hand rubbing covers the main healthcare-associated pathogens (bacteria, viruses and fungi) and should be recommended as the standard of care.
- Re-use of gloves: although re-use of gloves is not recommended, it was acknowledged that the issues around re-use for resources poor countries needed more consideration by one of the planned task forces. However, it was agreed that the recommendations should strongly discourage such practices.
- Hand drying: the use of air-dryers should be discouraged (take too long to dry and dispersal of micro-organisms). The use of hand rub circumvents this. Single-use paper or cloth towels should be used, and the quality of paper should be sufficient to avoid damaging the skin.
- Finally, the issue of patient involvement should be addressed recognising differing cultural contexts, adapting to individual needs and customs.

### 6. Implementation strategy

**Dr Benedetta Allegranzi**, Communicable Diseases, WHO, presented the strategic elements of the challenge:

- A media and awareness campaign, globally and locally will raise awareness and advocacy.
- A formal pledge to address the burden of health care associated infections and the need for prevention will be written to be signed by Ministers of Health which will bring "on board" all major health professional bodies in the country, and which also includes a commitment to have a campaign within the health care system to achieve a better performance of hand hygiene among health care workers.
In specific health care districts worldwide, the Alliance will support, monitor and evaluate the implementation of the WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft) and the other strategies integrated in the Global Challenge.

Dr Allegranzi asked the participants to identify unresolved questions relating to the implementation strategy and to address the following issues during the working groups:

- Secure access to a WHO alcohol based hand rub formulation should be ensured by addressing the availability of alcohol in every country and the possibility of local production (procurement and distribution), recommendations for dispensers, fire hazard issues, and the validation of a WHO formulation.
- Determination of indicators for implementation and monitoring
- Easy-to-use guidelines summary and other toolkits, including pre and post assessment tools.
- Ways to ensure commitment of Ministers of Health and policy makers.

7. Working groups

The participants were allocated into 8 working groups over two days, with the task of addressing specific issues for the implementation strategy. A summary of the conclusions was presented and the unresolved issues highlighted. The work on some topics will then be pursued by task forces until the implementation phase effectively starts.

A/ Behavioural changes: A working group led by Professor Marie-Louise McLaws, Director, Hospital Infection Epidemiology & Surveillance Unit, Sydney, Australia, discussed the issues of behavioural changes needed to trigger a new culture of hand hygiene.

1. The public needs to gain the perception that hand hygiene is for the benefit of others as well as the individual, and education should start in primary schools.
2. Health care workers need to modify their community-learnt hygiene behaviour to integrate elective practices into their routine. An assessment of the barriers to hand hygiene, including possible religious ones such as the use of alcohol in Muslim countries, via a rapid interview should be performed prior to any action.
3. Health care organizational management should demonstrate leadership, and ownership by the health care workers of the programme should be encouraged.
4. Feedback of programmes should be given annually or bi-annually and improvement in hand hygiene rates should be publicly acknowledged and encouraged. A system of peer-
based "buddies" where each one would be reminded by his/her peer would encourage and place responsibility with health care workers.

It was suggested that WHO could provide simple tools for auditing hand hygiene opportunities and encourage the Ministers of Health to engage in promoting hand hygiene at school and including hand hygiene in the curriculum of nursing and medical schools.

Further research should focus on the acceptance of patients' involvement by the patients themselves and by the health care workers. Ethnology could provide some indications and answers on hand hygiene barriers in diverse cultures. And finally, an alcohol smell free rub could address possible barriers to the use of alcohol in Muslim countries where it may be an issue.

**B/ Education, training, tools development:** The group was jointly led by **Professor WH. Seto**, Chief, Department of Microbiology, Queen Mary Hospital, Hong Kong, and **Dr Hugo. Sax**, Service du Contrôle de l'Infection, Hôpitaux Universitaires de Genève.

- **Basic Conditions to be fulfilled before education:**
  - Assure full endorsement for the programme by decision makers and opinion leaders in the health care institution.
  - The Infection Control teams should retain ownership of the educational programme.
  - Infrastructure essentials for infection control (e.g. sinks, accessible alcohol-based hand rubs, paper and cloth towels, soap, and gloves) should be in place when education starts.
  - WHO should increase the profile of hand hygiene and state the need for education.

**Resources:**
- Allocation of adequate funds, human and equipment resources for the educational programme. WHO may help in identifying the minimal requirements for education and implementation.
- Broad range modular education toolkit to help in the education programme will be extremely helpful. WHO could enhance the programme by providing such tool kit.
- Health Care Workers must be given time to participate in the programme although attempts must be made to fit the programme into the Health Care Workers’ schedule.

**Contents and Methods:**
- Target issues that relate to HCW resistance (see Guidelines, Part I, Chapter 13.3).
- Foster interdisciplinary interactions wherever possible.
- Make full use of local data to make the problems palpable.
- Organised hands-on role-plays and practical sessions.
- Include wherever possible the infection control link nurses and opinion leaders.
- WHO can provide material on “How to do it” guides to such programmes.
- Technology such as CD-ROMs, videos and interactive computers may be utilized.

**Sustainability**
- Change the approaches in a creative manner when needed.
- Must include new personnel in the programme.
- Use innovative ideas with knowledge tests, competitions and follow up with on-site teaching/supervision.
- Empower and encourage good role models
- WHO can help by initiating accreditation of good educational programmes.

**C/ Procurement and distribution of the WHO hand rub formulation:** Professor Andreas Voss, Canisius-Wilhelmina Hospital, The Netherlands, led the discussions of this group.
- Issues concerning the limited activity of an alcoholic hand rub for some micro-organisms:
  - There is anecdotal evidence that the incidence of *C. difficile* decreased after the introduction of alcoholic hand rub.
  - A switch to hand washing with soap and water is likely to result in lower compliance, therefore counter-acting a better in-vitro effect.
  - In endemic situations, hand cleaning with soap and water is only part of the solution.
  - Are parasites actually a nosocomial problem? Some evidence shows that parasites are also likely to be introduced by family, visitors. A search for any reported spread of transmission of parasites from the hospital environment is needed.
  - The group recommended that hands be washed with soap and water after contact with faeces (ex: nappy changes, WC). However, some of the common pathogens of faecal-oral transmission that may contaminate the environment (e.g.) are susceptible to alcohol.
- Choice of an alcohol: in all cases, the efficacy tests of the WHO hand rub should be performed centrally according to both standards (CEN and ASTM), and not at a local level.
  - An industrial product should be used where affordable
  - Ethanol 77% V/V
  - Ethanol 85% V/V: more effective than ethanol 77% V/V but lower flash-point.
  - Isopropyl 70 m/m: more expensive than ethanol, but more effective, and higher flash-point.
  - Methyl alcohol: too toxic at ingestion and absorption.
• Surgical Hand rub:
  o The persistent and sustained effect of added chlorhexidine is valuable
  o Both WHO formulations (ref Guidelines, Chapter 9.16) have a sustained effect for approximately 3 hours, longer with isopropyl).

• Production of the WHO Hand rub formulation: It was acknowledged that advice from industrial producers should be sought on additives (bad taste) and validation of the production process.
  o The formulation I in guidelines would be the cheapest of the 2 proposed:
    - Ethanol 77% V/V (equivalent to 70% m/m) should be spore-free by adding H₂O₂ or by filtration (more difficult to perform): 985.5 ml
    - Glycerine: 14.5 ml
  o Additives: methylethylketone is too toxic. Copper-sulphate should be evaluated as a deterrent (colour).

• Suggestions for future research
  o A survey is needed to assess needs and availabilities in different countries and the possibility of local vs. national production (price and safety).
  o Dispensers must be evaluated for accessibility, practicability, standardization, …
  o Storage and transportation issues (fire hazard, safety regulations)
  o Validation of the production and regulatory issues for the WHO formulation. It was suggested that the hand rub should be part of the WHO essential drugs list.
  o Participation of the producing companies to educational material was envisaged.

D/ Patient involvement: Ms Julie Storr, Assistant Director, Infection Control, National Patient Safety Agency, London led the work of this group.
It was acknowledged that whilst further research is required, this should not prevent patient involvement from being a recommendation in the final guidelines. Such a move aligns with the commitment to ensure patients shape the safety agenda as part of the Patients for Patient Safety work of the World Alliance.
• Work to strengthen the involvement of patients (the term patient as used here, embraces family members and informal carers) in hand hygiene improvement should be part of a wider programme of work to ensure that patients and their family members become part of the healthcare safety net.
• Efforts to involve patients in hand hygiene improvement should not be constrained by narrow definitions which encourage only direct invitation.
Hand hygiene improvement, as one facet of the broader Global Challenge, offers WHO a unique vehicle for promoting positive patient partnerships.

Critical factors for successful involvement:

- Flexible definition of participation; in this context it is more than merely encouraging patients to ask staff to clean their hands. A broader awareness of the issues must be fostered to facilitate an environment in which opportunities for participation flourish and questions relating to any aspect of hand hygiene and infection control can be asked.
- Education; to prepare people for the impact of patient participation on for example staff responses.
- Clarity of information; relating to risk and danger (underpinned by a robust communication strategy).
- The value added by participation: both to health care and patients (through a robust communications campaign).
- Promotion of the different levels of ‘empowerment’: individual and group.
- Marketing materials to motivate staff and patients should take a range of forms
- Adaptability; strategies must be capable of being adapted for different contexts and environments (resource poor; chronic diseases).
- Joint working; with partner organization and stakeholders across all disciplines.
- Management (high level) support.
- Involvement must be evaluated and lessons learnt.

The environment of care (and possible re-design) and its impact on participation warrants further scrutiny.

It is evident that the six pilot sites will require considerable support to focus on patient participation.

There is a need to understand the context for implementation from multiple perspectives (including the anthropological perspective).

A ‘bundle’ of interventions to facilitate involvement could offer a useful model, with different targets for different environments.

E/ Religious and cultural aspects. Dr Benedetta Allegranzi led this group, which looked at existing indications for hand hygiene and alcohol prohibition in different religions.
Each religion has rituals during which hand hygiene is performed and encourages hand washing as a symbolic gesture in various situations. When it comes to alcohol use, the major religious groups prohibiting alcohol are:

- **Buddhism**: alcohol kills live organisms, such as bacteria.
- **Hinduism**: alcohol leads to mental impairment
- **Islam**: alcohol disconnects from a state of awareness or consciousness.
- **Sikhism**: alcohol is considered an intoxicant.

It was agreed that work should be done to address these prohibitions to promote the use of alcoholic hand rub and gain approval from religious leaders.

**F/ Indicators for service implementation and monitoring.** This group, led by **Professor John Boyce**, Infectious Diseases Section, Saint Raphael Hospital, USA, allocated the indicators to 2 categories: Structure and processes. For each proposed indicator, they described the level of complexity to achieve them (e.g. the resources required), and the level of requirement (minimum requirement=high priority, and low priority).

**Structure:**

- **Hand rub at bedside/point of care**: high priority requirement, easy to achieve and monitor. Dispensers should be filled and in working order.
- **Sinks**: sinks should be adequately placed, in working order, equipped with soap and single use towels. However, there is no evidence demonstrating the correlation between number of sinks and compliance for hand hygiene.
- **Gloves**: their availability at point of care in settings such as ICU and other high risk settings was rated as minimum complexity and high priority.
- **Skin care products**: high complexity to achieve properly due to their cost and the risks of contamination from big tubs.
- **Adequate storage of products**: high priority requirement due to the risks inherent to storage of alcohol. Necessity to display a warning such as "avoid storing near flames or at high temperature.
- **Adequate provision of hand hygiene products**: continuous availability of hand hygiene products has to be ensured by the institution and must be controlled by existing systems for distribution within the institution. High priority and low complexity.
- **Written hand hygiene guidelines/recommendations available**: such guidelines, in the form of either full guidelines to little pamphlet has to be available to all HCWs and should be seen as high priority.
Processes:
- Extensive and complete educational programme: an active and structured HH programme should be implemented as a high priority and may not be necessarily complex.
- Product selection process: high complexity to set up.
- Feedback performance to staff: it is a high priority and has to be a goal in all settings.
- Understaffing and overcrowding: while it was acknowledged that these factors may contribute to HCAI, no benchmark could be given for acceptable standards.
- Active participation at individual and institutional levels: such participation, although necessary is complex to evaluate.
- Senior management: high priority and easy to evaluate (meetings and activities engaged by senior management).

Monitoring and evaluation of the outcome:
- Monitoring of HCWs' compliance with hand hygiene: this is a high priority but requires human and time resources. Direct observation tools should be developed, such as monitoring of the appropriate use of gloves.
- Monitoring of adherence at times of outbreaks: this was not seen as a good indicator for compliance.
- Monitoring of adherence to nail/artificial nail, jewellery, watches and long sleeves policies should be limited to high risks settings.
- Monitoring of the amount of hand rub used: this indirect indicator may not fully reflect the compliance with hand hygiene, and requires systems for tracking purchases of hand rub.
- Monitoring of single use towels: resource intensive and not a good indicator.
- Reduction of infection rates, including the reduction in cross-transmission rates (MRSA, VRE) and reduction in antimicrobial resistance: high complexity to evaluate, but high priority requirement.
- 2 additional indicators were suggested: line related infection rates (peripheral or central catheters), and the consumption of antimicrobials.

G/ Regulation and accreditation: Dr Ahmed Abdellatif, WHO Regional Office for the Eastern Mediterranean, Egypt, coordinated the work of this group on regulation and continuous improvement.

Strategic Focus of hand hygiene:
• Sustain a culture of hand hygiene in all health care organizations at all levels and in both public and private sectors

• Hand hygiene is a system property: need to lay foundations of integrated, sustainable, continually improving approach to hand hygiene with regulation as the enabler.

**Key elements of the approach include:**

• **Building hand hygiene into internal quality and external standard setting and review**
  o Establish baseline, draw on experience and share country experience more widely
  o Devise and implement hand hygiene performance plans and targets for both national and operational levels
  o Develop guidelines and operating procedures for hand hygiene based on WHO guidelines

• **Making hand hygiene an essential part of clinical governance and risk management**
  o Develop standards and compliance mechanisms, and perform compliance assessments
  o Review and include hand hygiene within recruitment criteria, job descriptions and performance assessment

• **Undertake an economic evaluation of supply and distribution of hand hygiene materials**
  o Discuss pros and cons of national versus local production of hand hygiene materials
  o Weigh issues relating to economies of scale against ensuring quality and safety of hand hygiene materials.

• **Develop and enforce regulations relating to use and supply of hand hygiene materials**
  o Develop and share database of currently available regulation both nationally and internationally
  o Develop regulations relating to quality, transportation and use of WHO formulation starting with regulation at the institutional level
  o Good Manufacturing Practices: regulate production and certification of local, centrally and internationally-produced HH supplies

• **Advocate and raise awareness of best practices**
  o Prepare for and Pilot the initiative of “Hand Hygiene Friendly Hospital” (HHFH) in 6 districts in 6 WHO Regions
  o Launch HHFH in the 6 districts and beyond
  o Adopt a learning by doing approach and disseminate lessons learnt to all stakeholders
  o Involve and share successes with donor agencies.
H/ Advocacy, communication and campaigning: Dr Agnes Leotsakos, Patient Safety team, WHO, led the work of the group on communication and campaigning.

Landscape:

- 1st time that Hand Hygiene in Health Care is being addressed at a global level.
- Hand Hygiene is part of a bigger picture to improve health care associated infection.
- There is a huge missed opportunity for health care professionals to contribute to hand hygiene as they miss 1 in 2 of all hand cleaning opportunities.
- Awareness of illnesses related to poor hand hygiene is poor among health care providers and public.

Vision:

- “Nobody should die/become ill from diseases spread by dirty hands.

Who:

- Anyone providing care for patients in the most common local care setting. Prime prospect health care workers within this setting.

What:

- Establish “need” – education
- Highlight “solution” - hand hygiene in top 5 risk situations

How:

- Holistic communications campaign, which should have an identifiable “brand identity”
  - 12 month global plan supportive and synergistic to 6 local initiatives
  - US $1-2 million for global programme
  - US $200 – 400K for each pilot country (based on developed country cost)

Next Steps:

- Prepare 12 month communication plan brief (including branding)
- Identify suitable agency support (communications / brand)
- Continue to work with working group on ongoing basis to develop plan

8. Presentation by Sir Liam Donaldson

Sir Liam Donaldson, Chair of the Alliance and Chief Medical Officer of the United Kingdom, described all the components of the World Alliance for Patients Safety and its background and driving force, and chaired a session of questions and answers.

Drawing on the experiences of patients who died as a result of errors associated with medical treatment, Sir Donaldson illustrated the role of system factors in contributing to the occurrence of adverse events. These included factors such as follow up of communication, content of referral
letters, transmission of laboratory results, fragmented clinical information, practice lagging behind research, and absence of formal guidelines and training. He emphasized the fact that (in the words of Dr Lucian Leape) “human beings make mistakes because the systems, tasks and processes they work in are poorly designed”.

Sir Donaldson alluded to systematic approaches to safety that have been pioneered within the aviation industry. He also made reference to the increasing body of research on adverse events worldwide which suggests that around 10% of hospital admissions may be associated with unintended harm to patients. He stressed the importance of strategies to improve patient safety and the ineffectiveness of punishing individual clinicians when things go wrong. In conclusion, Sir Donaldson introduced the work programme of the World Alliance. All these programmes have a lead body and are supported by a Secretariat within WHO to ensure coordination and communication of their progress.

To this day, 150 countries out of the 192 WHO member States have expressed interest in the Alliance.

9. Selection criteria for identification of the specific pilot districts for implementation.

Dr Benedetta Allegranzi presented the participants with a list of criteria which they had to rate by order of importance for the selection of the specific pilot districts:

1. Countries representative of each WHO region;
2. Balance according to resources and capacities: developing, transitional, developed countries;
3. Sites in which WHO work is already underway
4. Commitment of senior government sponsor at country level;
5. Commitment to implementation of senior management and clinicians at facility level;
6. Access to a range of primary care and acute care sites;
7. Ability to mobilize external resources to support;
8. Ability to mobilize quickly.
9. Countries where partners who have pledged to help are positioned

The result of the survey ranked the criteria as follows:

1. Balance according to resources and capacities: developing, transitional, developed countries;
2. Commitment of senior government sponsor at country level;
3. Commitment to implementation of senior management and clinicians at facility level;
4. Countries representative of each WHO region
5. Access to a range of primary care and acute care sites
6. Countries where partners who have pledged to help are positioned
7. Sites in which WHO work is already underway
8. Ability to mobilize external resources to support
9. Ability to mobilize quickly

On the role of governments and senior management at hospital level, WHO will approach governments to seek their help in selecting the districts. The commitment of the health care staff within the pilot district will be an important element of this selection process. The pilot sites will be drawn from a variety of countries as representative as possible of all people and settings. Each pilot study will be run in an administrative district or region, not at national scale. The practical implementation will vary with each site and needs, but hand hygiene will be a core and binding element. External finance sources will be considered. WHO will agree a detailed description of the proposed pilot (protocol and indicators) within each country which will host a district.

The pilot projects are expected to run for one year, and the Guidelines adjusted according to the results.

10. Conclusions.

Professor Pittet closed the Consultation by thanking all participants and by presenting the agenda for the next actions.

The WHO Guidelines on Hand Hygiene in Health Care Setting (Advanced Draft) will be submitted over the summer for external peer-review and for internal review prior to publication as an advanced draft, which will be available for the launch of the Global Challenge on October 13th, 2005.

To follow up the outcomes of the Consultation, task forces composed of experts will work independently on the following subjects:

1. Patients' involvement
2. Religious, cultural and behavioural aspects
3. Global implementation of the WHO formulation and alcohol absorption
4. Glove use and re-use
5. Water quality for hand washing
6. Communication
7. National Guidelines on Hand Hygiene
8. Frequently asked questions.

As their work progresses, it will be expected that they will merge by topic to ensure continuity and coherence of the entire work.

The selection and evaluation of the districts will be made during the summer in order to initiate the pilot studies at the time of the launch of the Global Challenge.