ADVOCACY FOR STRENGTHENING EMERGENCY AND ESSENTIAL SURGICAL CARE

Dissertation
At
World Health Organization Headquarter Geneva,
Switzerland

By
Shruti Chaturvedi

Under the guidance of
Dr. J.P. Singh

MBA Hospital & Health Management
2013–15

Institute of Health Management Research
Jaipur
2015

TO WHOMSOEVER MAY CONCERN

This is to certify that Shruti Chaturvedi student of MBA Hospital and Health Management from IIHMR University, Jaipur has undergone internship training at World Health Organization, Headquarter Geneva, Switzerland from 2nd Feb 2015 to 30th April 2015.

The Candidate has successfully carried out the study designated to her during internship training and her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish her all success in all his future endeavors.

Dean, Academics and Student Affairs
IIHMR, Jaipur

Professor
IIHMR, Jaipur

World Health Organization

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To Whomever it May Concern

Ms Shruti Chaturvedi, Masters student from Institute of Health Management Research, Jaipur has successfully completed her internship from 2nd Feb to 30th April 2015, at the World Health Organization (WHO), Headquarters, Geneva, under Dr Meena Cherian, *WHO Emergency & Essential Surgical Care Program* (EESC) Lead, in Service Delivery and Safety Department.

She provided advocacy for the WHO *Global Initiative for Emergency and Essential Surgical Care* (GIEESC) activities and managed the GIEESC global network. She entered the WHO Situational Analysis Tool (SAT) for health facilities from various low and middle income countries into the WHO EESC Global Database and assisted countries in sending validated data for the preparation of reports.

Ms Chaturvedi assisted in the WHO meeting for 12 countries of Africa on the WHO Rapid Advice Guidelines on Evidence Informed Decision Making for Patients with Surgical Conditions in the context of Ebola Virus Disease. She updated the WHO *Integrated Management for Emergency & Essential* Toolkit for the production of CD's and for the website: http://www.who.int/surgery/publications/imeesc/en/

She assisted in the WHO meetings on advocacy tools for the upcoming 68th World Health Assembly resolution on EESC to be adopted in May 2015. In particular, she had an important role in finalizing the draft of a short film on EESC, to address universal access to timely and safe surgical care.

During her internship she showed a lot of interest in learning about EESC's role in public health, and was very hardworking and delivered all the tasks on time.

We hope she will utilize her experience of the WHO internship in her future work and we wish her all the best in her career.

Yours faithfully,

Dr Meena Nathan Cherian MD

Emergency & Essential Surgical Care Program, Lead

IIHMR UNIVERSITY

INSTITUTE OF HEALTH MANAGEMENT RESEARCH, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled Advocacy for Strengthening Emergency and Essential Surgical Care and submitted by Shruti Chaturvedi Enrollment No. 1502 under the supervision of J. P. Singh for award of MBA Hospital and Health Management/ MBA Pharmaceutical Management of the university carried out during the period from 2nd February 2015 to 30th April 2015 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Shruti Chaturvedi

Signature

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Abstract

Advocacy for Strengthening Emergency and Essential Surgical Care

The **WHO Program for Emergency and Essential Surgical Care (EESC)** is dedicated to strengthening health systems, achieving universal health coverage, and ensuring the safety and efficacy of clinical procedures in Anaesthesia, Surgery, Orthopaedics, and Obstetrics.

The mission of WHO EESC is to work with other WHO departments and global multidisciplinary partners to:

- Support the development and adoption of evidence-based policies and plans towards strengthening surgical services.
- Set norms and standards for surgical care.
- Strengthen education and training programmes to improve anaesthesia and surgical services.
- Build capacity for safe and high quality surgical care at all levels; and Monitor the progress and impact of our strategies in reducing global surgical burden.

Surgical care is inaccessible to several billion people around the world. Many developing countries still lack the infrastructure, supplies and trained personnel to perform essential surgical procedures. In rural sub-Saharan Africa, on average, there is 1 surgeon per 2.5 million people approximately and 1 trained anesthesiologist per 8.9 million people approximately.
If local health care practitioners in developing countries possessed adequate surgical knowledge and equipment, countless lives could be saved and long-term disabilities could be prevented. Hence the areas of work are Injuries, Infectious Disease, Cancer, Pregnancy Related Complications, Disaster and Emergencies and Congenital Anomalies.

The WHO Global Initiative for Emergency and Essential Surgical Care (GIEESC) was established in December 2005. This global forum convenes multidisciplinary stakeholders representing health professionals, public health experts, health authorities, academia, leaders of education and training programs, NGOs, civil and professional societies, local and international organizations. WHO GIEESC includes more than 1800 members from 130 countries interested in collaborations towards reducing death and disability from injuries, pregnancy-related complications, congenital anomalies, disasters, and other surgical conditions in low-and middle-income countries.

For universal and safe access to surgery, WHO Emergency and Essential Surgical Care (EESC), is doing a lot of things, Sending WHO Situational Analysis Tool (SAT) to various low and middle income countries to get to know the condition of health facility and analyze it for future programs.

There is WHO Integrated Management for Emergency and Essential Surgical Care (IMEESC) toolkit as a e-learning platform for various countries to upgrade the knowledge set.

WHO EESC program has made a short film (5 minutes) to make policy makers, donors, all common people aware about the importance of safe and timely access to surgery.

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Introduction

WHO began when its Constitution came into force on 7 April 1948 – a date WHO celebrates every year as World Health Day. WHO is having now more than 7000 people working in 150 country offices, in 6 regional offices and at our headquarters in Geneva.

Constitution of the World Health Organization: Principles

- Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.
- The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.
- The health of all peoples is fundamental to the attainment of peace and security and is dependent on the fullest co-operation of individuals and States.
- The achievement of any State in the promotion and protection of health is of value to all.
- Unequal development in different countries in the promotion of health and control of diseases, especially communicable disease, is a common danger.
- Healthy development of the child is of basic importance; the ability to live harmoniously in a changing total environment is essential to such development.
- The extension to all peoples of the benefits of medical, psychological and related knowledge is essential to the fullest attainment of health.
- Informed opinion and active co-operation on the part of the public are of the utmost importance in the improvement of the health of the people.
- Governments have a responsibility for the health of their peoples, which can be fulfilled only by the provision of adequate health and social measures.

The **WHO Programme for Emergency and Essential Surgical Care (EESC)** is dedicated to strengthening health systems, achieving universal health coverage, and ensuring the safety and efficacy of clinical procedures in Anaesthesia, Surgery, Orthopaedics, and Obstetrics.

Vision of WHO Emergency and Essential Surgical Care:

WHO EESC vision is universal access to high quality and safe emergency and essential surgical services.

Mission of WHO Emergency and Essential Surgical Care:

WHO EESC mission is to work with other WHO departments and global multidisciplinary partners to:

- Support the development and adoption of evidence-based policies and plans towards strengthening surgical services.
- Set norms and standards for surgical care.
- Strengthen education and training programmes to improve anaesthesia and surgical services.
- Build capacity for safe and high quality surgical care at all levels; and Monitor the progress and impact of our strategies in reducing global surgical burden.

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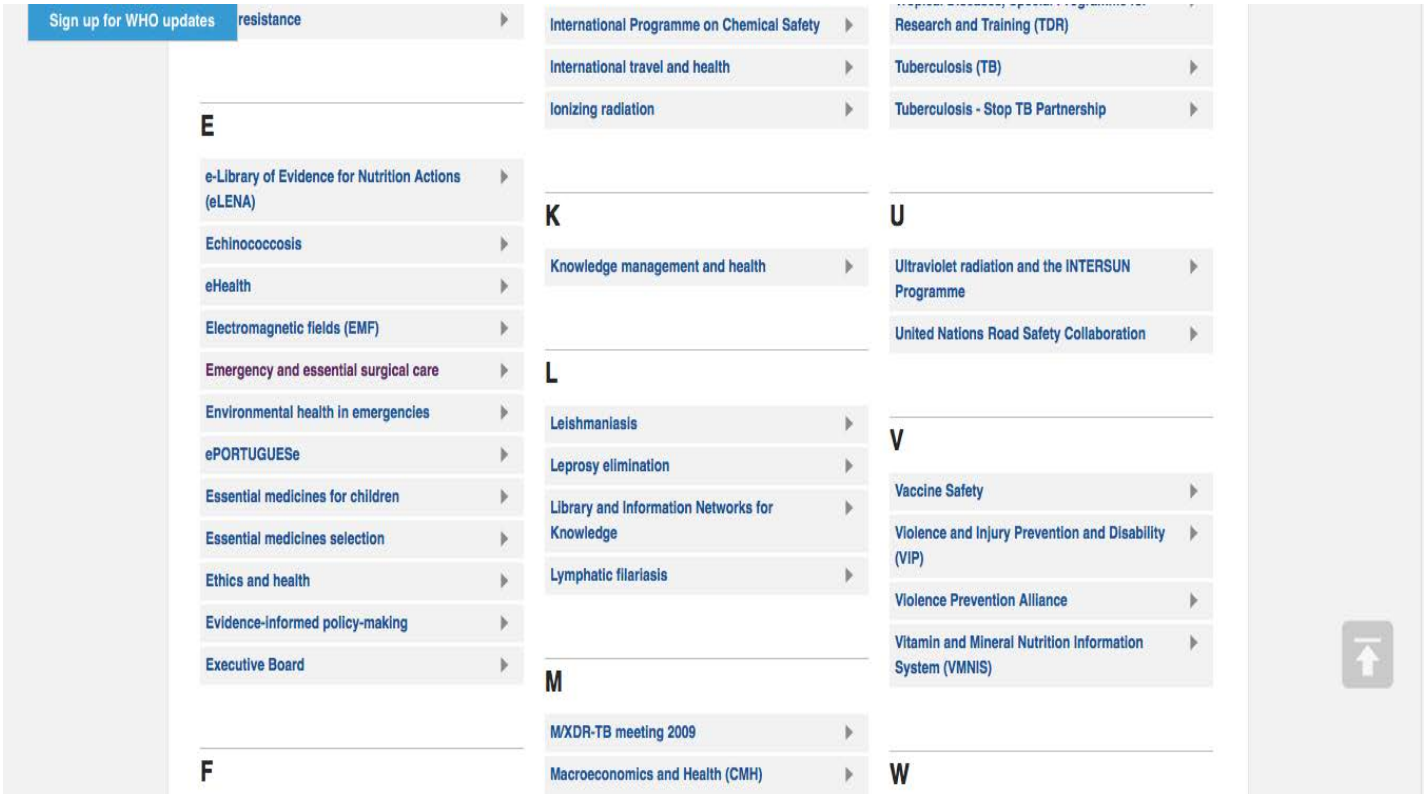

Organization Profile

WHO is the directing and coordinating authority on international health within the United Nations' system:

- Providing leadership on matters critical to health and engaging in partnerships where joint action is needed;
- Shaping the research agenda and stimulating the generation, translation and dissemination of valuable knowledge;
- Setting norms and standards and promoting and monitoring their implementation;
- Articulating ethical and evidence-based policy options;
- Providing technical support, catalysing change, and building sustainable institutional capacity; and
- Monitoring the health situation and assessing health trends.

Leadership priorities

For each 6-year programme of work priority areas are identified where our leadership is most needed.

Areas of Work:

1. Health systems

WHO's priority in the area of health systems is moving towards universal health coverage. WHO works together with policy-makers, global health partners, civil society, academia and the private sector to support countries to develop, implement and monitor solid national health plans. In addition, WHO supports countries to assure the availability of equitable integrated people-centred health services at an affordable price; facilitate access to affordable, safe and effective health technologies; and to strengthen health information systems and evidence-based policy-making.

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2. Non-communicable diseases

Non communicable diseases (NCDs), including heart disease, stroke, cancer, diabetes and chronic lung disease, and mental health conditions - together with violence and injuries - are collectively responsible for more than 70% of all deaths worldwide. Eight out of 10 of these deaths occur in low- and middle-income countries. The consequences of these diseases reach beyond the health sector and solutions require more than a system that prevents and treats disease.

3. Promoting health through the life-course

Promoting good health through the life-course cuts across all work done by WHO, and takes into account the need to address environment risks and social determinants of health, as well as gender, equity and human rights. The work in this biennium has a crucial focus on finishing the agenda of the Millennium Development Goals and reducing disparities between and within countries.

4. Communicable diseases

WHO is working with countries to increase and sustain access to prevention, treatment and care for HIV, tuberculosis, malaria and neglected tropical diseases and to reduce vaccine-preventable diseases. MDG 6 (combat HIV/AIDS, malaria and other diseases) has driven remarkable progress but much work remains.

Preparedness, surveillance and response

During emergencies, WHO's operational role includes leading and coordinating the health response in support of countries, undertaking risk assessments, identifying priorities and setting strategies, providing critical technical guidance, supplies and financial resources as well as monitoring the health situation. WHO also helps countries to strengthen their national core capacities for emergency risk management to prevent, prepare for, respond to, and recover from emergencies due to any hazard that pose a threat to human health security.

5. Corporate services

Corporate services provide the enabling functions, tools and resources that makes all of this work possible. For example, corporate services encompasses governing bodies convening Member States for policymaking, the legal team advising during the development of international treaties, communications staff helping disseminate health information, human resources bringing in some of the world's best public health experts or building services providing the space and the tools for around 7000 staff to perform their work in 1 of WHO's more than 150 offices.

Services Provided by WHO Emergency and Essential Surgical Care Program:

As there many challenges to Surgical Care such as mentioned below.

1. Injuries

Injuries and trauma alone are responsible for the deaths of more than 5 million people each year. Every day

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accidents result in manageable injuries like fractures and lacerations; however, due to a lack of resources or timely access to surgical care, people are left permanently disfigured or disabled. Consequently, they are unable to find work and to provide for their families. This leads to the perpetuation of a cycle of poverty, as a great share of the limited resources of the family is dedicated towards caring for caring for the disabled one.

2. Cancer

Cancer is one of the world's leading causes of morbidity and mortality. It is projected to increase by 70% in the next 20 year. Simple biopsy procedures can diagnose cancers early. Surgery can also remove disfiguring tumours and be curative for certain cancers.

3. Disaster and Emergencies

4. Infectious Diseases

Antibiotics alone are not always effective in treating infections. Simple and timely surgical procedures can prevent worsening of the infection and the resulting complications. For example, an abscess, which is a collection of pus in the skin, requires surgical drainage in order to be properly cured. In diabetes, a small foot wound can develop into a deep infection of the bone that can progress into a life-threatening condition without surgical intervention.

5. Pregnancy related complications

More than 289,000 million women die each year from pregnancy related complications. 11% of deaths in

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children under 5 years of age are due to complications at birth. Maternal and childhood death in the developing world can be readily decreased with access to timely caesarean sections and other emergency surgical care.

6. Congenital Anomalies

These are all conditions in which treatment with conventional medicine is inadequate, and surgical intervention is essential. They account for 11% of the Global Burden of Disease, with lower and middle income countries (LMIC) carrying the majority of the burden. More than 200 million surgeries are performed every year but only 3.5% of these are delivered to the world's poorest population.

Areas of work

The WHO Emergency and Essential Surgical Care (EESC) program is dedicated to providing life-saving surgical care to meet the need in areas of the world where the burden is high, access is low, and the disparity is great.

Surgical care is inaccessible to several billion people around the world. Many developing countries still lack the infrastructure, supplies and trained personnel to perform essential surgical procedures. In rural sub-Saharan Africa, on average, there is 1 surgeon per 2.5 million people and 1 trained anesthesiologist per 8.9 million people.
If local health care practitioners in developing countries possessed adequate surgical knowledge and equipment, countless lives could be saved and long-term disabilities could be prevented

Hence the areas of work are as mentioned below:

1. Injuries
The optimal management of injury starts at the first-referral health facility. The WHO EESC program works to strengthen EES delivery at the first-referral facility level.

2. Infectious Diseases
The surgical workforce at the first-referral health facility in Africa faces high HIV transmission risk. The WHO EESC program works to improve the safety of performing clinical procedures.

3. Cancer
Simple procedures at the first-referral health facility allow early detection and referral of cancer patients. The WHO EESC program works to increase early detection of cancer in low- and middle-income countries.

4. Pregnancy related complications

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One-third of all pregnancy-related complications can be treated with surgery. The WHO EESC program works to improve maternal healthcare delivery in district and sub-district health facilities.

5. Disaster and Emergencies

Timely access to emergency surgical care in humanitarian crisis is important to reduce death and disability. The WHO EESC program works with partners to provide guidance for disaster preparedness and response.

6. Congenital Anomalies

50% of congenital anomalies can be treated with surgery. The WHO EESC Program promotes investment into cost-effective and disability-preventive measures of treatment

To cope up with all the challenges and improve the conditions in areas of work, WHO has formed Global initiative for Emergency and Essential Surgical Care (GIEESC)

WHO Global Initiative for Emergency and Essential Surgical Care

The WHO Global Initiative for Emergency and Essential Surgical Care (GIEESC) was established in December 2005. This global forum convenes multidisciplinary stakeholders representing health professionals, public health experts, health authorities, academia, leaders of education and training programs, NGOs, civil and professional societies, local and international organizations. WHO GIEESC includes more than 1800 members from 130 countries interested in collaborations towards reducing death and disability from injuries, pregnancy-related complications, congenital anomalies, disasters, and other surgical conditions in low-and middle-income countries.

Department Worked:

I worked in **Service Delivery and Safety Department (SDS)** under guidance of Dr Edward Kelly (Director of Department), Dr Hernan (Coordinator for all the program running under Service Delivery and Safety Department) and Dr Meena Cherrian (Lead, Emergency and Essential Surgical Care).

I worked for Strengthening Emergency and Essential Surgical Care for universal access; the main goal of the program is timely and safe access to all ages of people, whether rich or poor.

I worked for Patient for Patient Safety Program also, where I worked for Patient communication tool to make patients aware of various general and basic questions that they need to ask when they underwent any surgical procedure.

Methodology:

The WHO EESC program ensures the universal and safe and timely access to surgery in all the conditions where surgery is needed by all possible methods. To promote universal access to Surgery WHO EESC program is adopting lot of tools such as

1. **Flyers:**

WHO EESC Flyer contains all the information about the program in brief, what areas it wants to serve.

Universal access to emergency and essential surgical care… …reach the unreached

World Health Organization

Timely access to surgical care saves lives and prevents disability.

Surgical and Anaesthesia Services

Emergency and Essential Surgical Care Programme

Ensuring the safety and efficacy of clinical procedures in anaesthesia, surgery, orthopaedics and obstetrics

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2. WHO Integrated Management for Emergency and Essential Surgical care (IMEESC) toolkit
it is the e-learning platform, with the help of which, any surgeons, or health worker sitting in any location can upgrade his/her knowledge using WHO standard tools.
All the information is available in the website below:
http://who.int/surgery/publications/imeesc/en/

3. Surgical Care at District Hospitals
A book has been launched by WHO stating all the standards and procedures need to be followed in the district hospitals.

http://who.int/surgery/publications/en/SCDH.pdf?ua=1

4. **WHO Emergency and Essential Surgical Care (EESC) Short Film**
WHO EESC has made a short film to promote surgery with the help of Mission of Zambia and other NGOs. It will be presented in the 68th World Health Assembly(WHA) in Geneva, Switzerland.

Projects Undertaken:

During my internship at World Health Organization, Headquarter Geneva, Switzerland for 3 months, I worked on various projects.

1. Due to Ebola Outbreak, a new department came into existence in WHO for EBOLA affected countries, people from WHO were doing their level best to support the affected people, but in spite of all that some surgeons, health workers died as they got infection while treating EBOLA patients, so the surgeons and health workers demanded from WHO to make a rapid guideline which can be followed to make a decision to treat the Ebola patient.
I assisted in the WHO meeting for 12 countries of Africa on **WHO Rapid Advice Guidelines on Evidence Informed Decision** making for Patients with surgical conditions in context of Ebola Virus Disease.
WHO prepared an **Algorithm** with the all the surgeons and other expert committee. I have noted down the shared experience by all the EBOLA affected region surgeons, accordingly with the evidences I helped in making WHO algorithm for surgeons to make an informed decision when there is an EBOLA suspected patient.
The objective of Algorithm was to avoid the losses of the health worker while treating EBOLA suspected patients.
There was no 1-2 pager algorithm for all health worker to understand and make informed decision whether to treat urgent patient or not.

2. Provided **Advocacy for WHO global initiative for Strengthening Emergency and Essential Surgical Care** (GIEESC) and managed the global network by inviting members from all over world to support the cause.

WHO GIEESC works on EZCollab platform where Surgeons, or anyone interested in joining the global network can send request to join the network and support to strengthen the WHO Emergency and Essential Surgical Care into primary level of health.

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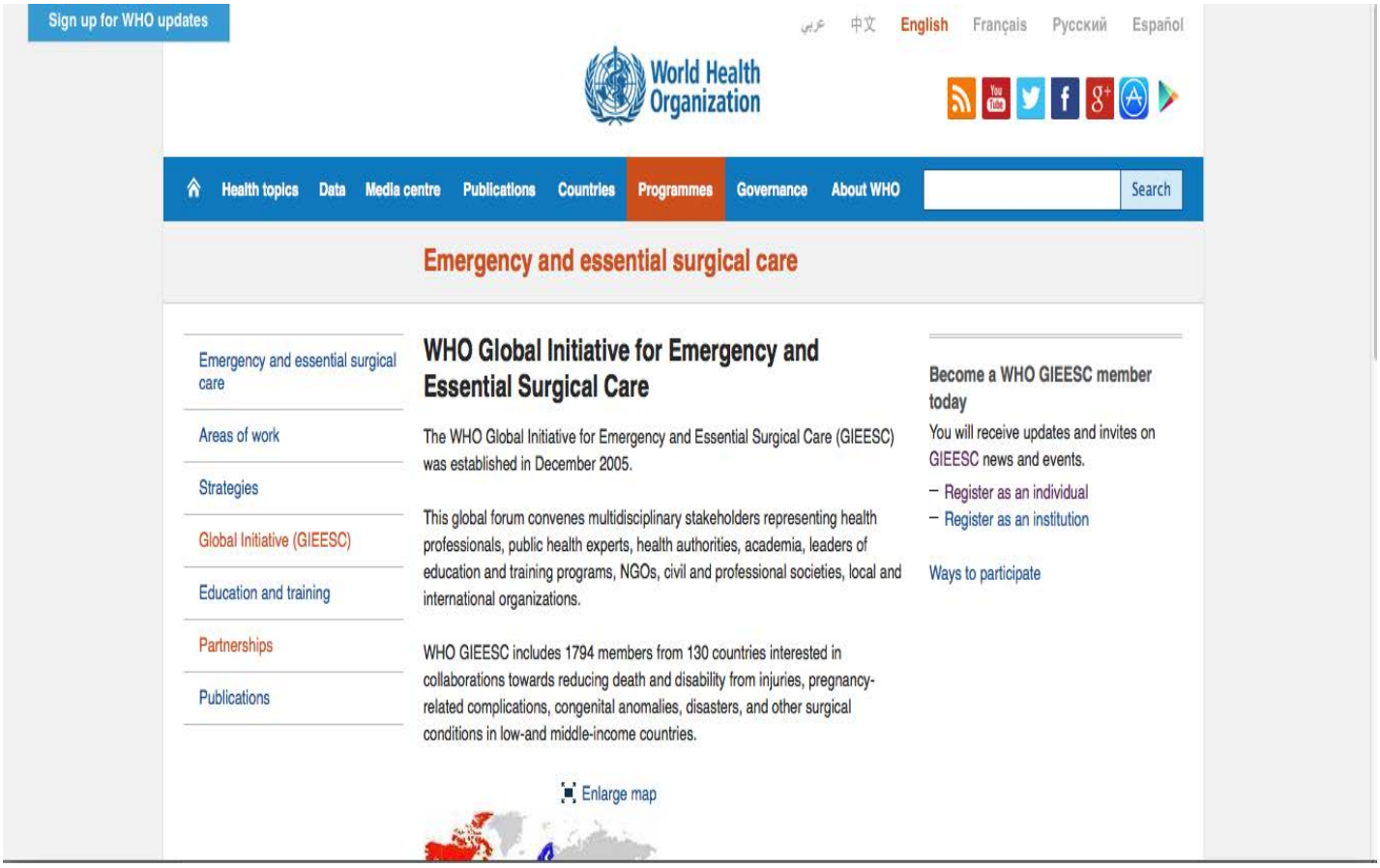

3. Updated GIEESC weekly about all the activities related to surgery and had discussion forum for the same.

WHO keeps on updating all the members of GIEESC on any possible events related to surgery.

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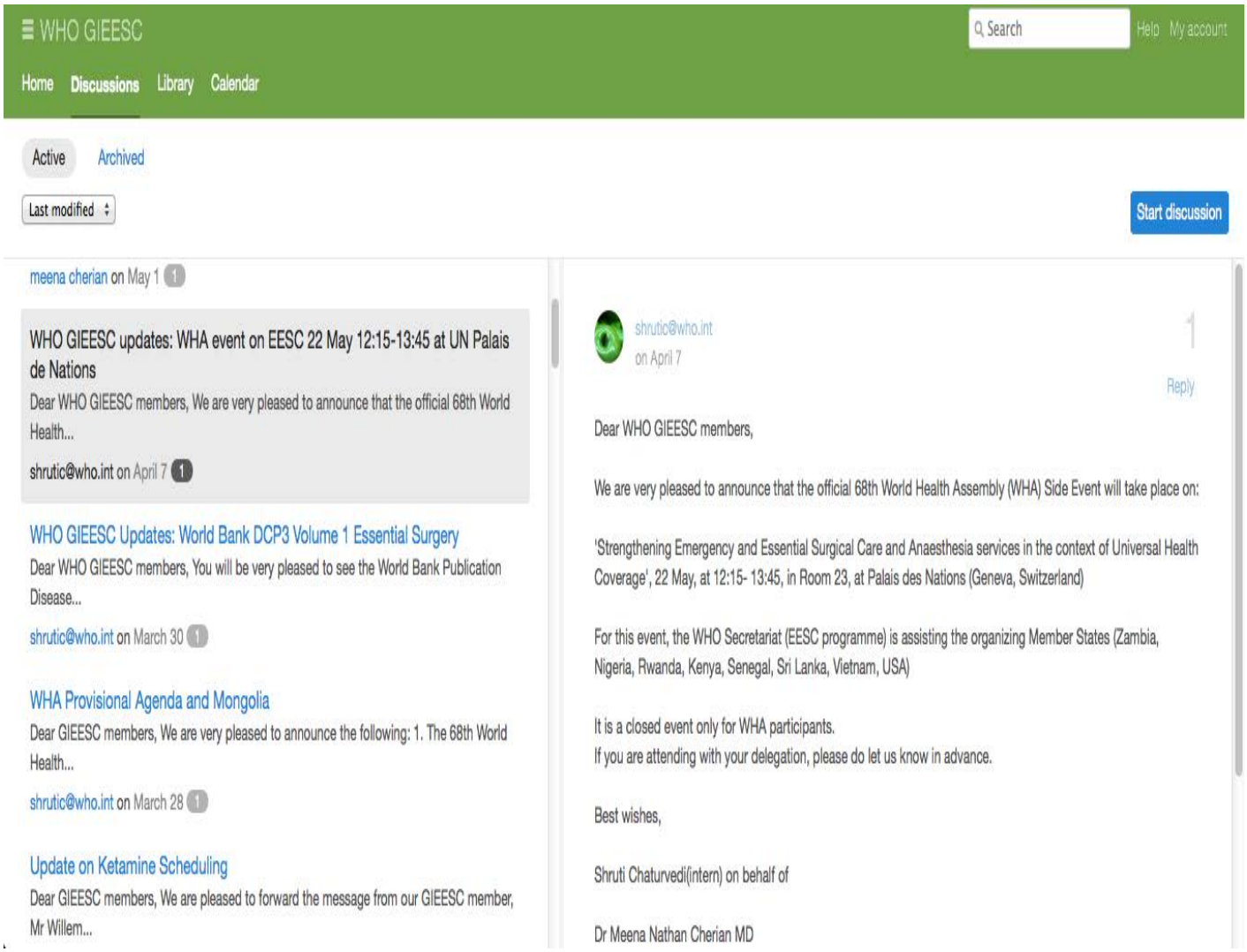

4. WHO has e-learning tool **Integrated Management for Emergency and Essential Surgical Care** (IMEESC) tool, millions of doctors, surgeons, anesthesiologists and all medical personnel are upgrading their knowledge and learning through it.
Updated the content of the Integrated Management for Emergency and Essential Surgical Care (IMEESC) toolkit for CDs and for the website;

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http://who.int/surgery/publications/imeesc/en/

5. WHO has Situational Analysis Tool (SAT), which contains 108 questions regarding the facilities available at health care center, people fill the form pre knowledge of toolkit and later again how they have improved the condition of health care center.

Rationale: To make any guideline or policy, we need to be aware of actual condition in the respective scenarios, SAT has been sent to different low and middle income countries to get to know the Infrastructure, Human resource available to the health facility, Intervention for various procedures and Emergency and Essential Surgical equipment list.

Process:
Entered WHO Situational Analysis Tool (SAT) data from various low and middle income countries into WHO EESC global database and analyzed the data and assisted countries in sending the validated data for preparation for reports and papers.

SAT is attached with Annex 1.

6. Another program in WHO called Patient for Patient Safety Program came along with Surgery program in WHO to empower the patients, WHO has developed Patient Communication tool containing some of the basic questions to be asked from the doctor before proceeding for any surgery.

Patient Communication Tool is attached with Annex2.

7. WHO has Emergency and Trauma Care (ETC) eLearning Training Course Modules on its website.

WHO believes in feedback about the WHO Emergency and Trauma Care eLearning Training Course Modules.
As the end-user, people are in the best position to evaluate the material and make suggestions for its improvement.
They encircle the responses that reflect their opinions most accurately. Please answer all items.

Updated the feedback form for the end users in easy and simple language to make it more user friendly.
Feedback from is attached in Annex3.

I have analyzed the feedback given by Mongolia country for the ETC program to get to know they are finding it useful the e-learning tool of Integrated Management for Emergency and Essential Surgical care.

8. WHO EESC Short film (5 minutes)
Played an important role in finalizing the draft of the short film for up coming 68th World Health Assembly (WHA) to address the universal access to safe surgical care.
Starting from script of the film to finalizing the pictures to be used in the making of the film, played critical role in the finalizing all things.

Rationale:
As people are losing their lives due to lack of timely and safe access to surgery, so it became necessary to strengthen WHO Emergency and Essential Surgical Care (EESC) for universal access.

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Procedure:
As a picture is worth of thousands of words, so we thought to make a WHO Emergency and Essential Surgical Care (EESC) short film of 5 minutes to make people aware the use of simple surgical procedure in primary level.

I started to write the script consisting of every area, which we want to cater through Surgery (i.e Injuries, Cancer, Diabetic Complications, Pregnancy related Complications, Congenital Anomalies and Infections) with full evidence of the data how much these areas cater to surgical problems.

To prepare script have to meet to the communication department, as the message we are trying to convey should be simple and easy to understand by people. Script was finalized after rounds of reviews from various people.

After the preparation of script, the use of pictures with the respective words was difficult and the finalization of the pictures that would be used took a long time as the pictures must have a copyright, pictures from other movies can not be used and when we combine picture and script together, it must make a sense and people must be able to relate it and understand the importance of surgery.

After reviews from communication department, other people from Service Delivery and Safety Department (SDS), the final draft is ready to be presented in the 68th World Health Assembly.

Conclusion:

WHO Emergency and Essential Surgical Care (EESC) Program is trying hard in providing universal access to safe surgical care to all people across all ages, rich or poor through various means.

Global Initiative for Emergency and Essential Surgical Care (GIEESC) has now more than 1800 members from 130 countries, who are playing an important role in strengthening surgery in the primary level.

WHO Situational Analysis Tool (SAT) is collecting data from low and middle income countries to put into the global database for analysis and taking measures accordingly.

WHO Integrated Management for Emergency and Essential Surgical Care (IMEESC) tool kit is helping health workers sitting in any location to upgrade their knowledge and get benefitted.

WHO EESC short film will promote Universal access to safe surgical care.
Timely access to safe surgery is crucial in reducing childhood mortality, improving maternal health and combating HIV/AIDS and other disease.

Lack of access to surgical services is life threatening and disabling, but they are solvable, with universal access to emergency and essential surgical care.

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References:

1. Ozgediz, Doruk, and Robert Riviello. "The "Other" Neglected Diseases in Global Public Health: Surgical Conditions in Sub-Saharan Africa." PLoS medicine 5.6 (2008): e121.
1 Bickler, S.W., Spiegel, D.A. Global Surgery—defining a research agenda. The Lancet, June 25, 2008. DOI:10.1016/S0140-6736(08)60924-1
2. Bartolomeos K, Kipsaina C, Grills N, Ozanne-Smith J, Peden M (eds). Fatal injury surveillance in mortuaries and hospitals: a manual for practitioners. Geneva, World Health Organization, 2012.
3. WHO Maternal Mortality Fact Sheet N348. May 2014 http://www.who.int/mediacentre/factsheets/fs348/en/
4. CHERG-WHO methods and data sources for child causes of death 2000-2013 (Global Health Estimates Technical Paper WHO/HIS/HIS/GHE/2014.6.2)
5. WHO Cancer Fact Sheet N297. Feb 2015 http://www.who.int/mediacentre/factsheets/fs297/en/
6. Pollock, Jonathan D., et al. "Is it Possible to Train Surgeons for Rural Africa? A Report of a Successful International Program." World journal of surgery 35.3 (2011): 493-9.
7. Lokossou, T. “Anesthesia in French-speaking Sub-Saharan Africa: an overview.” Acta Anaesth. Belg. 58. (2007):197-209. Accessed on 9 November 2010.

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Annex1:

World Health Organization

Tool for Situational Analysis to Assess Emergency and Essential Surgical Care

Reference: WHO Integrated Management for Emergency & Essential Surgical Care (IMEESC) toolkit: http://www.who.int/surgery/publications/imeesc/en/index.html

Objective: to assess the gaps in the availability of Emergency and Essential Surgical Care (EESC) at resource-constrained health facilities.

If you prefer to complete the paper version, please print and return this form by email to cherianm@who.int or post or fax to the following address:

Dr Meena Cherian
Emergency & Essential Surgical Care program
Clinical Procedures Unit
Department of Health Systems Policies & Workforce
World Health Organization
20 Avenue Appia, 1211 Geneva 27, Switzerland
Fax: 41 22 791 4836 www.who.int/surgery

Facility Information

Fields marked with an asterisk (*) are mandatory

COUNTRY*	
DATE OF DATA COLLECTION* (dd/mm/yyyy)	
NAME of person(s) filling out form*	
PHONE NUMBER of person(s) filling out form*	
EMAIL*	
NAME and ADDRESS of health care facility* (include city, state or province)	
Phone number of health care facility*	

Type of health care facility	Health Centre	Subdistrict / Community Hospital	District / Rural Hospital	Provincial Hospital	General Hospital	Private / NGO / Mission Hospital
	○	○	○	○	○	○

Section A: Infrastructure

	Insert number
1. Population served by this health care facility	
2. Number of beds	
3. Number of total admissions in one year	
4. Number of total outpatients in one year	
5. Number of total functioning operating rooms (major & minor)	
6. Number of patients at this facility requiring major & minor surgical (including obs/gyn) procedures per year	
7. Number of children (aged less than 15 years) at this facility requiring surgical procedures per year	
8. Number of patients to this facility that you refer for surgical intervention to a higher level facility per year	
9. How far (in km) does the average patient travel to get to your health facility for surgical services?	(km)
10. If you do not provide surgical services, how far does the average patient travel to access surgical services?	(km)

Fill in with either **Not available**, **Sometimes** or **All the time**	Not available	Sometimes	All the time
11. Do you have oxygen cylinder or concentrator supply with mask and			

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Fill in with either **Not available**, **Sometimes** or **All the time**	Not available	Sometimes	All the time
tubing?			
12. Do you have running water?			
13. Do you have an electricity source/operational power generator?			
14. Do you have a functioning anesthesia machine?			
15. Do you keep medical records?			
16. Do you have an area designated for Emergency care?			
17. Do you have an area designated for Postoperative care?			
18. Do you have management guidelines available for Emergency care?			
19. Do you have management guidelines available for Surgery?			
20. Do you have management guidelines available for Anesthesia?			
21. Do you have management guidelines available for Pain Relief?			
22. Do you have a blood bank available at the facility?			
23. Do you have a facility to test hemoglobin & urine?			
24. Do you have a functioning X-ray machine available?			
25. Do you have a functioning pulse oximeter available?			

Section B: Human Resources

	Number of Full Time Workers	Number of Part Time Workers
26. Surgeons (qualified)		
27. Anesthesiologist physicians (qualified)		
28. Obstetricians/Gynecologists (qualified)		
29. General doctors providing surgery (including obstetrics)		
30. General doctors providing anesthesia		
31. Nurses/Clinical officers providing anesthesia		
32. Clinical officers providing surgery (including obstetrics)		
33. Paramedics/Midwives providing surgery (including obstetrics)		

Section C: Interventions

	Do you perform these procedures?		If you refer, is it due to… **(circle ALL that apply)**		
	Yes/No	**Do you refer?**	Lack of skills?	Non-functioning equipment?	Lack of supplies/ drugs?
34. Resuscitation (airway, hemorrhage, peripheral percutaneous intravenous access, peripheral venous cut down)	Y N	Y N	Y N	Y N	Y N
35. Cricothyroidotomy/Tracheostomy	Y N	Y N	Y N	Y N	Y N
36. Chest tube insertion	Y N	Y N	Y N	Y N	Y N
37. Removal of foreign body (throat/eye/ear/nose)	Y N	Y N	Y N	Y N	Y N
38. Acute burn management	Y N	Y N	Y N	Y N	Y N
39. Incision & drainage of abscess	Y N	Y N	Y N	Y N	Y N
40. Suturing (for wounds, episiotomy, cervical & vaginal lacerations)	Y N	Y N	Y N	Y N	Y N

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Section C: Interventions

	Do you perform these procedures?		If you refer, is it due to… (circle ALL that apply)		
	Yes/No	Do you refer?	Lack of skills?	Non-functioning equipment?	Lack of supplies/ drugs?
41. Wound debridement	Y N	Y N	Y N	Y N	Y N
42. Caesarean section	Y N	Y N	Y N	Y N	Y N
43. Dilatation & curettage/vacuum extraction (obstetrics/gyn)	Y N	Y N	Y N	Y N	Y N
44. Obstetric fistula repair	Y N	Y N	Y N	Y N	Y N
45. Tubal ligation/vasectomy	Y N	Y N	Y N	Y N	Y N
46. Biopsy (lymph node, mass, other)	Y N	Y N	Y N	Y N	Y N
47. Appendectomy	Y N	Y N	Y N	Y N	Y N
48. Hernia repair (strangulated, elective, congenital)	Y N	Y N	Y N	Y N	Y N
49. Hydrocelectomy	Y N	Y N	Y N	Y N	Y N
50. Cystostomy	Y N	Y N	Y N	Y N	Y N
51. Urethral stricture dilatation	Y N	Y N	Y N	Y N	Y N
52. Laparotomy (uterine rupture, ectopic pregnancy, acute abdomen, intestinal obstruction, perforation, injuries)	Y N	Y N	Y N	Y N	Y N
53. Male circumcision	Y N	Y N	Y N	Y N	Y N
54. Neonatal surgery: abdominal wall defect, colostomy imperforate anus, intussusceptions	Y N	Y N	Y N	Y N	Y N
55. Cleft lip repair	Y N	Y N	Y N	Y N	Y N
56. Clubfoot repair	Y N	Y N	Y N	Y N	Y N
57. Contracture release/skin grafting	Y N	Y N	Y N	Y N	Y N
58. Closed treatment of fracture	Y N	Y N	Y N	Y N	Y N
59. Treatment of open fracture	Y N	Y N	Y N	Y N	Y N
60. Joint dislocation treatment	Y N	Y N	Y N	Y N	Y N
61. Drainage of osteomyelitis/septic arthritis	Y N	Y N	Y N	Y N	Y N
62. Amputation	Y N	Y N	Y N	Y N	Y N
63. Cataract surgery	Y N	Y N	Y N	Y N	Y N
64. Regional anesthesia blocks	Y N	Y N	Y N	Y N	Y N
65. Spinal anesthesia	Y N	Y N	Y N	Y N	Y N
66. Ketamine intravenous anesthesia	Y N	Y N	Y N	Y N	Y N
67. General anesthesia inhalational	Y N	Y N	Y N	Y N	Y N

Section D: Emergency & Essential Surgical Care Equipment and Supplies

For details refer to WHO IMEESC toolkit www.who.int/surgery/publications/imeesc; WHO ETC guidelines www.who.int/violence_injury_prevention/services; WHOEML www.who.int/medicines/publications

	0 absent	**1** available with frequent shortages or difficulties	**2** fully available for **all** patients **all the time**
Capital Outlays			
68. Resuscitator bag valve & mask (adult)			
69. Resuscitator bag valve & mask (pediatric)			
70. Stethoscope			

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	0 absent	**1** available with frequent shortages or difficulties	**2** fully available for **all** patients **all the time**
71. Suction pump (manual or electric) with catheter			
72. Blood pressure measuring equipment			
73. Thermometer			
74. Scalpel with blades			
75. Retractor			
76. Scissors			
77. Oropharyngeal airway (adult size)			
78. Oropharyngeal airway (pediatric size)			
79. Forceps, artery			
80. Gloves (sterile)			
81. Gloves (examination)			
82. Needle holder			
83. Sterilizer			
84. Vaginal speculum			
85. Nasogastric tubes			
86. Light source (lamp & flash light)			
87. Intravenous fluid infusion set			
88. Intravenous cannulas/scalp vein infusion set			
89. Syringes with needles (disposable)			
90. Sharps disposal container			
91. Tourniquet			
92. Needles & sutures			
93. Splints for arm, leg			
94. Urinary catheters (Foleys disposable)			
95. Waste disposal container			
96. Face masks			
97. Eye protection			
98. Protective gowns/aprons			
99. Soap			
Supplementary equipment for use by skilled health professionals			
100. Magill forceps (adult)			
101. Magill forceps (pediatric)			
102. Endotracheal tubes (adult)			
103. Endotracheal tubes (pediatric)			
104. IV infusor bags			
105. Chest tubes insertion equipment			
106. Laryngoscope Macintosh blades with bulbs & batteries (adult)			
107. Laryngoscope Macintosh blades with bulbs & batteries (pediatric)			
108. Cricothyroidotomy set			

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Annex2:

World Health Organization

Patient's Communication Tool for Surgical Safety

If you or your child will shortly undergo a surgical procedure, communicate the following to your health-care provider:
(you may wish to involve a family member or friend)

BEFORE SURGERY

1. Tell them about your previous surgeries, anaesthesia and medications, including herbal remedies
2. Tell them if you are pregnant or breast-feeding
3. Tell them about your health conditions (allergies, diabetes, breathing problems, high blood pressure, anxiety, etc.)
4. Ask about the expected length of your hospital stay
5. Ask for personal hygiene instructions
6. Ask them how your pain will be treated
7. Ask about fluid or food restrictions
8. Ask what you should avoid doing before surgery
9. Make sure that the correct site of your surgery is clearly marked on your body

Emergency and Essential Surgical Care Programme
&
Patients for Patient Safety Programme

Service Delivery and Safety Department
World Health Organization
Geneva, Switzerland
www.who.int/surgery
surgery@who.int

AFTER SURGERY

1. Tell them about any bleeding, difficulty breathing, pain, fever, dizziness, vomiting or unexpected reactions
2. Ask them how you can minimize infections
3. Ask them when you can eat food and drink fluids
4. Ask when you can resume normal activity (e.g. walking, bathing, lifting heavy objects, driving, sexual activity, etc.)
5. Ask what, if anything, you should avoid doing after surgery
6. Ask about the removal of stitches and plasters
7. Ask about any potential side effects of prescribed medications
8. Ask when you should come back for a check-up

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Annex 3:

Name: (Optional)					
Email address: (Optional)	**Profession:**				
Organization:	**City:**				
Date:	**Country:**				
A. Content	**Very Poor**	**Poor**	**Aver-age**	**Good**	**Excel-lent**
1. Information is relevant.	**1**	**2**	**3**	**4**	**5**
2. Topics are discussed clearly and easy to understand.	**1**	**2**	**3**	**4**	**5**
3. References are adequate and easy to follow.	**1**	**2**	**3**	**4**	**5**
4. Activities are helpful for self-study.	**1**	**2**	**3**	**4**	**5**
5. Activities are relevant to the material.	**1**	**2**	**3**	**4**	**5**
6. Language used is easy to understand.	**1**	**2**	**3**	**4**	**5**
7. Information covered in the course is adequate.	**1**	**2**	**3**	**4**	**5**
8. Areas of the course that you would like more information?					
B. Design	**Very Poor**	**Poor**	**Aver-age**	**Good**	**Excel-lent**
1. The material contains a good mix of multimedia elements - text, graphics, video, animation – which are appropriate to the content and enhance the presentation.	**1**	**2**	**3**	**4**	**5**
2. The background and text color, font and font size make it easy to read the text.	**1**	**2**	**3**	**4**	**5**
3. It is easy to move from one page/section to another (easy to navigate).	**1**	**2**	**3**	**4**	**5**
4. The buttons and links are working well.	**1**	**2**	**3**	**4**	**5**
5. The graphics, animation and videos are of good quality.	**1**	**2**	**3**	**4**	**5**