

Global Surgery: Bridging the Gap Enlighten, Educate, Engage

















Organized by:

Department of Surgery

Collaborating Departments:

Critical Creative Innovative Thinking (CCIT)
Department of Anaesthesiology
Department of Community Health Sciences
Department of Emergency Medicine
Department of Obstetrics and Gynaecology
School of Nursing & Midwifery (SONAM)

Information:

Department of Surgery Aga Khan University, Karachi, Pakistan

Tel: +92 21 3486 4374 / 3486 4759

Email: surgery@aku.edu or shariff.charania@aku.edu



Syed Ather Enam
Chair, Department of Surgery
Aga Khan University Karachi, Pakistan

I welcome all the national and international participants to the 4th AKU Annual Surgical Conference of the Aga Khan University, Karachi. The AKU Annual Surgical Conferences has indeed provided the Aga Khan University, particularly the Department of Surgery, a platform to maintain its reputation as regional academic leaders. We have been able to build upon last year's conference both in terms of the scale, and the scope.

This year's theme and scientific program on 'Global Surgery' is an integral part of Global Health. Although the history of Global Health goes back to the post-world war II era, Global Surgery remained somewhat a neglected segment of the UN and WHO's efforts in public health initiatives. It has only been in this decade that Global Surgery has started gaining attention. The main reason for this focus grew as the non-communicable diseases became more prominent: when the burden of surgical diseases and a lack of appropriate treatment in Low- and Middle-Income Countries became quite evident. The assumed cost associated with the treatment of surgical problems kept the leaders of the Global Health shying away from this aspect of Public Health. Impetus in this effort came on with The Lancet Commission on Global Surgery in the first assembly of The Lancet Commission on Global Surgery in 2014. Subsequently, Global Surgery was incorporated in the Sustainable Millennium Development Goals of United Nations in 2015.

AKU is ideally positioned to create an impact in Global Surgery. Our geopolitical and socioeconomic location along with the infrastructure of Aga Khan Health System and the quality of faculty and health workers puts us in an ideal situation to become leaders in Global Surgery. The focus of our efforts should be to overcome the obstacles in delivery of surgical care to everyone. The two main hurdles for Global Health, affordability and access, are even more pertinent when it comes to Global Surgery. Several other obstacles include

incompetent healthcare system, corrupt government and a rudimentary health insurance that further complicate the delivery of appropriate surgical care to the masses. All of these hindrances collectively cause the majority of the 7 billion world population to either suffer from untreated surgical problems or put them at risk of suffering due to a lack of adequate surgical treatment if need occurs. The goal of this conference is to understand these issues and come up with concrete steps that can be implemented within tight timeframes after the conference. A conference is meaningless if it does not lead us to practical steps. We are particularly focusing to that end in this .conference and want to see results in the coming year. Hackathon has been incorporated in this conference for the same purpose. Furthermore, debates and sessions in this conference have been designed with one objective in mind: To learn and analyze the steps that must be taken for a positive impact on Global Surgery in Pakistan and beyond.

I am thankful to all the guests who have gathered here upon our invitation. I must also thank our collaborating partners and contributors, who have helped make this event possible. Finally, I must congratulate the Organizing Committee for this herculean effort.

S. Ather Enam, S.I.

MD, PhD (USA), FRCS (Ire), FRCS (Can, SN), FRCS (Glas), FACS (USA) (Diplomate American Board of Neurological Surgeons)
Professor of Neurosurgery
Chair, Department of Surgery
Aga Khan University, Karachi



Sadaf Khan Chair, Organizing Committee 4th AKU Annual Surgical Conference

As Chair of the 4th Annual AKU Surgical Conference, it is my pleasure to welcome surgical, emergency medicine, anesthesia & community health specialists, nurses, trainees, students, and health administrators from across Pakistan and the World.

The theme of our conference this year is 'Global Surgery'. We are honored to receive endorsements from the G4 Alliance, the World Federation of Societies of Anesthesiologists (WFSA), Sigma Theta Tau International Honor Society of Nursing (STTI), and the Journal of Pakistan Medical Association (JPMA), which has published a special supplement devoted to Global Surgery.

The Scientific program is intense and inclusive, aiming to address the multiple issues that Low and Middle-Income countries face in the delivery of quality surgical care. The initial section of the program addresses these problems and their solutions in the 'Global' arena. The subsequent section focuses on issues particular to the Pakistan context. You will have the opportunity to learn from and interact with a diverse panel of national and international experts. We hope to create many opportunities for networking and collaboration.

This year we are partnering with Critical Creative Innovative Thinking (CCIT) to present the Global Surgery Hackathon. We hope that this event will serve as a platform for innovators - "medical" or not - to put their heads together, generate new ideas, and develop them into implementable projects. These projects will have the opportunity to be matured to implementation through the i2S incubator at AKU.

You will also have the opportunity to attend workshops and seminars that address essential and emergency procedures, and the delivery of surgical care in resource-constrained environments. All workshops, seminars and scientific sessions are accredited by the AACME.

I would like to thank Dr. Ather Enam, Chair Department of Surgery, for his vision and support. I appreciate the many hours of work by members of the Organizing Committee, Scientific Committee, Hackathon Committee, Workshop Committee, Sponsorship Committee, Publications Committee, Inauguration Committee, Global Surgery Grand Round committee, and workshop coordinators. This exercise would be meaningless without the passion and involvement of our collaborators – surgeons from across different AKU and AKHS entities, Departments of Anesthesia, Community Health Sciences, Obstetrics and Gynecology, CCIT, Emergency Medicine, and Nursing. We greatly appreciate input from our colleagues at The Indus Health Network. Last, but certainly not least, we must thank our partners in the pharmaceutical and implant industry for their continuing support of our academic endeavors.

We look forward to hosting you, learning from you, and collaborating with you to bring quality surgical care to the farthest reaches of Pakistan.

Dr. Sadaf Khan

MBBS, ABS, ABSCRS Associate Professor, Surgery Chair, 4th AKU Annual Surgical Conference Department of Surgery Aga Khan University, Karachi

Conference Leadership



Syed Ather Enam Professor, Neurosurgery Chair, Department of Surgery



Sadaf Khan Chair, Organizing Committee Associate Professor, General Surgery



Masood UmerCo-Chair, Organizing Committee
Associate Professor, Orthopaedics



Hasanat Sharif Chair, Scientific Committee Professor, Cardiothoracic Surgery



Hammad Ather Chair, Workshop Committee Professor, Urology



Shahzad Shamim Co-Chair, Workshop Committee Associate Professor, Neurosurgery



Asad I. Mian Director CCIT, Associate Professor & Chair, Emergency Medicine



Amir Shariff
Chair, Hackathon Committee
Assistant Professor, General Surgery



Sohail Dogar Co-Chair, Hackathon Committee Senior Instructor, Pediatric Surgery



Tabish ChawlaChair, Inaugural Committee
Assistant Professor, General Surgery



Shahid Sami Chair, Exhibition Committee Consultant, Cardiothoracic Surgery



Fazl ur Rahman Co-Chair, Exhibition Committee Assistant Professor, Plastic Surgery



Jan Ringers
Chair, Global Surgery Grand Round Committee
Professor & Head, Transplant Surgery



Nadeem Siddiqui Coordinator, Alumni Reunion Assistant Professor, Vascular Surgery



Waris Ahmad Chair, Publication Committee Assistant Professor, Cardiothoracic Surgery



Rehan Nasir Co-Chair, Publication Committee Senior Instructor, Urology



Gulzar S. Lakhani Conference Manager Sr. Administrator & Lecturer, Surgery



Shariff Charania Conference Secretary Associate, Surgery

Committee Members

Organizing Committee Members

Sadaf Khan, Chair, Organizing Committee Associate Professor, General Surgery

Masood Umer, Co-Chair, Organizing Committee, Associate Professor, Orthopaedics

M Sohaib Khan, Resident, Surgery

Fahad Umer, Assistant Professor, Dentistry

Muhammad Nazim, Assistant Professor, Urology

Nadeem Siddiqui, Assistant Professor, Vascular Surgery

Raziuddin Biyabani, Associate Professor, Urology

Sana Zeeshan, Lecturer, Breast Surgery

Shahzad Shamim, Associate Professor, Neurosurgery

Gulzar S. Lakhani, Sr. Administrator & Lecturer, Surgery

Murad Bana, Associate, Surgery

Shariff Charania, Associate, Surgery

Scientific Committee Members

Hasanat Sharif, Chair, Scientific Committee, Professor, Cardiothoracic Surgery

Hammad Ather, Co-Chair, Scientific Committee, Professor, Urology

Aliya Aziz, Associate Professor, Obstetrics and Gynaecology

Jan Ringers, Professor, Urology & General Surgery

Laila Akber Cassum, Senior Instructor, School of Nursing & Midwifery

Lubna Vohra, Assistant Professor, Breast Surgery

Munira Amin, Administrator, Operation Room & Surgical Day Care

Nuzhat Faruqui, Assistant Professor, Urology

Rashid Jooma, Professor, Neurosurgery

Rehman Alvi, Associate Professor, General Surgery

Rizwan Khan, Associate Professor, General Surgery

Sameen Siddigi, Professor & Chair, Community Health Sciences

Shabbir Akhtar, Associate Professor, Otolaryngology

Sharmeen Akram, Assistant Professor, Ophthalmology

Syed Shahab, Assistant Professor, Cardiothoracic Surgery

Zohra Jetha, Senior Instructor, School of Nursing & Midwifery

Publication Committee Members

Waris Ahmad, Chair, Publication Committee, Assistant Professor, Cardiothoracic Surgery

Rehan Nasir, Co-Chair, Publication Committee, Senior Instructor, Urology

Amir Shariff, Assistant Professor, General Surgery

Khabir Ahmad, Associate Professor, Research

Mahim Malik, Assistant Professor, Cardiothoracic Surgery

Nida Zahid, Senior Instructor, Research

Workshop Committee Members

Hammad Ather, Chair, Workshop Committee, Professor, Urology Shahzad Shamim, Co-Chair, Workshop Committee, Associate Professor, Neurosurgery Masood Umer, Associate Professor, Orthopaedics

Inaugural Committee Members

Tabish Chawla, Chair, Inaugural Committee, Assistant Professor, Surgery Moghira Siddiqui, Assistant Professor, Otolaryngology Mujahid Jamil, Assistant Professor, Orthopaedics Syed Ather Enam, Professor, Neurosurgery

Sponsorship Committee Members

Shahid Sami, Chair, Exhibition Committee, Consultant, Cardiothoracic Surgery Fazl ur Rahman, Co-Chair, Exhibition Committee, Assistant Professor, Plastic Surgery

Special Function Committee

Jan Ringers, Chair, Global Surgery Grand Round Committee, Professor, Surgery M Sohaib Khan, Member, Global Surgery Grand Round Committee Resident, Surgery Sameen Siddiqi, Chair, Policy Debate, Professor, Community Health Sciences Rashid Jooma, Co-Chair, Policy Debate, Professor, Neurosurgery

Orations

Ali al-Ḥusayn Ibn Sina Orator



Haile T. Debas
Chairman pro-tem Board of Trustees
Aga Khan University, Karachi
Former Chancellor, Dean of Medicine &
Chair of Surgery, University of California
San Francisco, USA

Abu al-Qasim al-Zahrawi Orator



Zulfiqar Bhutta
Founding Chair, Centre of Excellence
in Women and Child Health and
Co-Director, Director of Research
Centre for Global Child Health
The Hospital for Sick Children, Canada

International Faculty



Adrian Gelb
Professor, Anaesthesiology
University of California, USA &
Secretary, World Federation of Societies of
Anaesthesiologists



Ai-Xuan Le HoltermanProfessor, Pediatric Surgery
Co-Director, Global Health
University of Illinois, College of Medicine
USA



Amber MehmoodAssociate Director, Trauma & Emergency Care
Systems, Johns Hopkins International Injury
Research Unit, USA



Asad Latif Assistant Professor Anesthesiology and Critical Care Medicine Johns Hopkins University, USA



Gijs Walraven Director, Community Health Aga Khan Development Network



Junaid RazzakProfessor, Emergency Medicine
Johns Hopkins University, USA



Khan Mohammad Siddiqui Founder, Chief Medical Officer & Chief Technology Officer, Higi, USA



Lynette Dominguez
Trauma Surgeon & Surgical Adviser
Médecins Sans Frontières (MSF)



Mark Holterman
Professor, Pediatric Surgery
University of Illinois College of Medicine, Peoria &
CEO, Mariam Global Health, USA



Tamara FitzgeraldAssistant Professor, Pediatric Surgery
Duke University School of Medicine
North Carolina, USA



Tareq RahimiChair Surgery, Pediatric Surgery
French Medical Institute for Mothers and Children
Afghanistan

National Faculty



Abdul Bari Khan Chief Executive Officer & Founder The Indus Health Network, Karachi



Abdul Rehman Alvi Chief General Surgery DHQ Teaching Hospital, Gujranwala



Adil HaiderProfessor & Dean, Medical College
Aga Khan University, Karachi



Adeebul Hasan RizviProfessor & Founder
Sindh Institute of Urology and Transplantation
Karachi



Amer Aziz
Professor, Orthopaedic Surgery
Ghurki Trust Teaching Hospital
Lahore



Assad HafeezDirector General (DG)
Ministry of Health, Pakistan



Farhat Abbas Professor, Urology Aga Khan University, Karachi



Farhat Moazam
Chairperson and Professor
Centre of Biomedical Ethics and Culture (CBEC)
Sindh Institute of Urology & Transplantation
Karachi



Fauzia Khan
Chair, Safety and Quality of Practice Committee
World Federation of Societies of Anaesthesiologists
& Professor, Anaesthesiologist
Aga Khan University Karachi



Hasnain Zafar Service line Chief, GI and Surgery & Associate Professor, Surgery Aga Khan University, Karachi



Jamshed AkhtarProfessor, Pediatric Surgery
National Institute of Child Health
Karachi



Lubna SamadConsultant Pediatric Surgeon, The Indus Hospital Program Director
Center for Essential Surgical and Acute Care
Global Health Directorate-Indus Health Network



Major General (Retd) Saeed AleemFormer Chairman
National Disaster Management Authority Pakistan



Mohammad Tariq Khan Professor, Neurosurgery Northwest General Hospital & Research Center Peshawar



Mumtaz Maher Consultant General Surgery South City Hospital Karachi



Mushtaq Ahmed Vice Dean, Medical College & Professor, Surgery Aga Khan University, Karachi



Noor Khan Consultant General Surgeon Aga Khan Medical Centre, Gilgit



Narjis Rizvi Associate Professor, Community Health Sciences Aga Khan University, Karachi



Philomena Drago Consultant General Surgeon St. Teresa's Hospital, Mirpurkhas



Rafat JanPresident
Pakistan Nursing Council



Rashid Jooma Professor, Neurosurgery Aga Khan University, Karachi



Rehman Alvi Chair, Office of Education & Training in Surgery & Associate Professor, Surgery Aga Khan University, Karachi



Rizwan Azami
Chair Surgery and Allied & Acting Medical Director
Memon Medical Institute Hospital
Former Councilor and Vice President
College of Physician and Surgeons Pakistan



Rozina Karmaliani Professor, School of Nursing & Midwifery Aga Khan University, Karachi



Saeed Minhas
Professor
Trauma and Orthopaedic Surgeon
Jinnah Post Graduate Medical Centre, Karachi



Saeed Qureshi Professor & Vice Chancellor Dow University of Health Sciences Karachi



Saleem Sayani Director, Aga Khan Development Network Digital Health Resource Center & Director, Technology Innovation Support Center Aga Khan University, Karachi



Sameen Siddiqi Professor, Community Health Sciences Aga Khan University, Karachi



Shershah Syed President, Pakistan National Forum on Women Health, President, International Source of Obstetric Fistula Surgery & Head, Obstetrics & Maternal Health, Koohi Gooth Hospital, Karachi



Tariq RafiProfessor & Vice Chancellor
Jinnah Sindh Medical University, Karachi



Usman Chachar Chief Secretary, Health Department Government of Sindh, Pakistan



Fazlullah Pechuho Former Senior Secretary Health & Finance, Sindh

Student Session



Dominique Vervoort Chair, International Student Surgical Network & Global Surgery Research Associate Harvard Medical School, Boston, USA



Parisa Fallah National Chair, Global Surgery Student Alliance & MS3, Harvard Medical School, Boston, USA



Muhammad Nabeel Ashraf Research Program Coordinator Center for Essential Surgical & Acute Care Global Health Directorate - Indus Health Network

Students Organising Committee Members

Aisha Tariq, Medical College, AKU
Fatima Mustansir, Medical College, AKU
Ajia Syed, Medical College, AKU
Muhammad Ali, Medical College, AKU
Shahmir Chauhan, Medical College, AKU
Ayesha Noor, Medical College, AKU
Musab Munir, Medical College, AKU
Maheen Mansoor, Medical College, AKU
Asma Merchant, Medical College, AKU
Alizeh Abbas, Medical College, AKU
Kirar Wali Khan, School of Nursing, AKU
Shafi Ullah, School of Nursing, AKU
Javed Akhtar Sultan, School of Nursing, AKU

Hackathon Committee

Patron:

Adil Haider, Dean, AKU Medical College, Professor, Surgery Syed Ather Enam, S.I., Professor and Chairman, Surgery

Consultants:

Asad I. Mian, Director CCIT AKU, Associate Professor & Chair, Emergency Medicine Taha Anver, Manager, IT Infrastructure
Walid Farooqi, Co-Director, CCIT
Rafeh Ahmed, Program Manager, CCIT
Sarosh Madhani, Coordinator, CCIT
Haider Ali, Coordinator, CCIT

Core Committee:

Sadaf Khan, Chair, 4th AKU Annual Surgical Conference & Associate Professor, Surgery Amir Shariff, Chair, Hackathon Committee & Assistant Professor, Surgery Sohail Dogar, Co-Chair Hackathon Committee & Senior Instructor, Surgery Narjis Rizvi, Associate Professor, Community Health Sciences Hameed Ullah, Associate Professor, Anesthesia Abida Sattar, Assistant Professor, Breast Surgery Qamar Riaz, Senior Instructor, Surgery & Educational Development Uzma Chishti, Assistant Professor, Obs/Gyn Zia ur Rehman, Assistant Professor, Surgery Gulzar S. Lakhani, Senior Administrator & Lecturer, Surgery Hina Inam, Resident, Surgery M Sohaib Khan, Resident, Surgery Umer Hasan, Resident, Surgery Marium Khan, Assistant Manager, Surgery Murad Bana, Associate, Surgery Shariff Charania, Associate, Surgery

Mentors & Judges

Mentors:

Amber Mehmood, Associate Director, Trauma & Emergency Care Systems, Johns Hopkins, USA Asad Latif, Consultant Anaesthesiologist, Johns Hopkins Hospital, USA Faisal Khan, Founder, Averos and Assistant Professor, CECOS University, Peshawar Imran Moinuddin, Founder & CEO - NexDegree Pvt Ltd. Inam Pal, Consultant General Surgeon, Aga Khan University, Karachi Kausar S Khan, Senior Lecturer, Community Health Sciences, Aga Khan University, Karachi Khan Mohammad Siddiqui, Founder, Chief Medical & Technology Officer, Higi, Chicago, USA Mohsin Ali Mustafa, Co-Founder Clinic5 - Primary Health Care Interventions, Pakistan Namra Nasir, Critical Creative Innovative Thinking, Aga Khan University, Karachi Omer Manya, Director IT Infrastructure, Aga Khan University, Karachi Philomena Drago, Consultant General Surgeon, St. Teresa's Hospital, Mirpurkhas Russel Withers, Chief Information Officer, Aga Khan University, Karachi Saad Wahab Siddiqui, Entrepreneur, findmydoctor.pk Saleem Sayani, Director, Aga Khan Development Network Sara Saeed Khurram, CEO, Sehat Kahani, Pakistan Shahjahan Chaudhary, Director, National Incubation Center Karachi Syed Nabeel Zafar, Surgical Oncologist, MD Anderson Cancer Center, Houston, USA Tamara Fitzgerald, Consultant Pediatric Surgeon, Duke University, North Carolina, USA Tariq Alexander Qaiser, TAQ Associates, Architecture & Interior Design, Karachi Tashfeen Ahmad, Consultant Orthopaedic Surgeon, Aga Khan University, Karachi

Judges:

Adrian Gelb, Secretary, World Federation of Societies of Anaesthesiologists Gijs Walraven, Director, Community Health, Aga Khan Development Network Jehan Ara, President, Pasha Fund for Social Innovation, Karachi Saba Khalid - Founder - Aurat Raaj, Karachi Sameen Siddiqi, Professor & Chair, Community Health Sciences, AKU, Karachi Sheheryar Malik, Dean, Faculty of Management Sciences, Iqra University, Karachi



Ali al-Ḥusayn Ibn Sina, also known as Avicenna (c. 980 – June 1037) was a Persian polymath who is regarded as one of the most significant thinkers and writers of the Islamic Golden Age. Known as the father of Medicine, his most famous works are The Book of Healing – a philosophical and scientific encyclopaedia in which he described a theory of motion, where he made a distinction between the inclination (tendency to motion) and force of a projectile. Avicenna authored a five-volume medical encyclopaedia: The Canon of Medicine (a medical encyclopaedia which became a standard medical text at many universities and remained in use as late as 1650). The Canon still plays an important role in Unani medicine. Besides philosophy and medicine, Avicenna's corpus includes writings on astronomy, alchemy, geography and geology, psychology, Islamic theology, logic, mathematics, physics and poetry. Ibn Sina was among those who argued that light had a speed, observing that "if the perception of light is due to the emission of some sort of particles by a luminous source, the speed of light must be finite".



Abu al-Qasim al-Zahrawi, known also by his Latin name Albucasis, was born near Cordoba in 936 CE. Considered to be the father of surgery, his outstanding contribution to medicine is his encyclopaedic work *Al-Tasrif li-man 'ajaza 'an al-ta'lif*, a long and detailed work in thirty treatises. The book contains the earliest pictures of surgical instruments in history. of all the contents of Al-Zahrawi's Al-Tasrif, book 30 on surgery became the most famous and had by far the widest and the greatest influence. In it, he developed all aspects of surgery and its various branches, from ophthalmology and diseases of the ear, nose, and throat, surgery of the head and neck, to general surgery, obstetrics and gynaecology. Military medicine, urology, and orthopaedic surgery were also included. Expressing his credo in this book he states: "Whatever I know, I owe solely to my assiduous reading of books of the ancients, to my desire to understand them and to appropriate this science; then I have added the observation and experience of my whole life."

Scientific Sessions

Friday February 1, 2019 07:30am - 05:30pm

Venue: Auditorium, AKU

07:30am - 08:15am	Breakfast & Registration	
08:15am - 08:20am	Tilawat-e-Quran	
08:20am - 08:30am	Welcome	Hasanat Sharif

Session One: Introduction to the Issue

08:30am - 09:30am

Chair: Gijs Walraven | Co-Chair: Junaid Razzak | Moderator: Hasanat Sharif

Time	Topic	Presenter
08:30am - 08:45am	An overview of Global Surgery	Adil Haider
08:50am - 09:05am	Accessing Surgical Care	Syed Ather Enam
09:10am - 09:25am	Pakistan's National Vision for Surgical Care	Lubna Samad

Session Two:

Global Perspectives

09:30am - 11:00am

Chair: Philomena Drago | Co-Chair: Asad Latif | Moderator: Masood Umer

Time	Topic	Presenter
09:30am - 09:45am	Anesthesia and Global Surgery	Adrian Gelb
09:45am - 10:00am	Obs/Gyn and Global Surgery	Rahat Qureshi
10:00am - 10:15am	Low cost surgical innovations for the developing world	Mark Holterman
10:15am - 10:30am	Trauma and disaster care	Lynette Dominguez
10:30am - 10:45am	Nurses and allied health workers: The Backbone of surgical care	Rozina Karmaliani
10:45am – 11:00am	Question & Answer	

Tea Break			
	Tea Break	Tea Break	Tea Break

Session Three:

Essential Components for Development of Systems for Surgical Care 11:30am - 12:15pm

Chair: Adrian Gelb | Co-Chair: Tareq Rahimi | Moderator: Hammad Ather

Time	Topic	Presenter
11:30am – 11:45am	Strategies to attract and maintain a rural work force	Gijs Walraven
11:45am – 12:00pm	Ensuring quality in surgical care	Asad Latif
12:00pm - 12:15pm	Tele-surgery experiences	Saleem Sayani

Ali al-Ḥusayn Ibn Sina Oration Presenter: Haile Debas 12:15pm - 01:00pm

01:00pm – 02:15pm Prayer & Lunch Break

Session Four:

Challenges and Opportunities

02:30pm - 05:00pm

Chair: Mark Holterman | Co-Chair: Anwar Naqvi | Moderator: Sharmeen Akram

Time	Topic	Presenter
02:30pm - 02:45pm	Translating Evidence into Practice	Amber Mehmood
02:45pm - 03:00pm	Primary Trauma Care: A trauma training course for low-middle income countries	Saeed Minhas
03:00pm - 03:15pm	First responders: Role in service delivery	Junaid Razzak
03:15pm - 03:30pm	A model for on-the-ground capacity building at children hospitals for developing countries	Aixuan Holterman
03:30pm - 03:40pm	Multi-Generational Global Surgery	Tamara Fitzgerald
03:40pm - 03:50pm	Training of rural health workforce - surgical perspective	Abdul Rahman Alvi
03:50pm - 04:00pm	Challenges of living away from the lights	Rehman Alvi

Moderated Panel Discussion Adversity to Success in Global Surgery

> 04:00pm - 05:00pm Moderator: Lubna Samad

Opening Remarks by Adeebul Hasan Rizvi

Panelists: Adeebul Hasan Rizvi, Farhat Moazam, Saeed Qureshi, Tariq Rafi,

Usman Chachar, Rizwan Azami

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01:15pm - 03:30pm	Global Surgery AKU Leadership Summit	By Invitation
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Inaugural Ceremony

Friday, February 1, 2019 05:30pm - 07:30pm Venue: Auditorium, AKU

Programme

Welcome Address by Chair, Department of Surgery, AKU

Syed Ather Enam

Address by Guest of Honour President, AKU

Firoz Rasul

Address by Provost & Vice President, Academic, AKU

Carl Amrhein

Address by Dean, Medical College, AKU

Adil Haider

Abu al-Qasim al-Zahrawi Oration

Zulfigar Bhutta

State-of-the-Art to 'Jugaar' - My Journey from AKU to the Desert

Philomena Drago

Creative Entertainment

AKU Students

Closing Remarks

Sadaf Khan

Gala Dinner

Male Hostel Lawn, AKU

Hackathon V4.0

Saturday February 2, 2019 08:30am - 07:00pm

Venue: Centre for Innovation in Medical Education (CIME), AKU

(Pre-registration required)

Time	Topic
08:30am - 08:55am	Sign in & Breakfast
08:55am – 09:00am	Welcome Back Address and Day Outline
09:00am – 09:20am	Survey of Non-large city Public Sector Hospitals (Broadcast from Auditorium)
09:20am - 10:00am	Team Name and Problem Presentation
10:00am - 01:00pm	Hacking and Solution Development
01:00pm – 02:00pm	Prayer & Lunch Break
02:00pm - 03:30pm	Development of Presentations
03:30pm - 04:00pm	Pulse Check
04:00pm - 05:30pm	Mock Presentations I
05:30pm - 06:00pm	Refine Presentations
06:00pm – 07:00pm	Mock Presentations II

Scientific Sessions

Saturday February 2, 2019 09:00am - 04:00pm

Venue: Auditorium, AKU

Session Five:

Survey and Debate 09:00am - 11:45am

Chair: Sameen Siddiqi | Co-Chair: Mubasher Ikram | Moderator: M Sohaib Khan

Time	Topic	Presenter
09:00am – 09:20am	Survey of Non-large city Public sector hospitals (Broadcast to CIME)	Narjis Rizvi
09:20am – 09:40am	Survey of AKHSP Northern Area Hospitals	Noor Khan

Policy Debate 09:45am - 11:15am

Moderators: Sameen Siddiqi & Rashid Jooma Panelists: Fazlullah Pechuho, Assad Hafeez, Junaid Razzak, Haile T. Debas, Lynette Dominguez, Mumtaz Mehar

11:15am – 11:40am Tea Break

Session Six: Perspectives

11:40am - 01:00pm

Chair: Lynette Dominguez | Co-Chair: Amber Mehmood | Moderator: Rizwan Khan

Time	Topic	Presenter
11:40am – 12:00pm	Fostering Public Private Partnership	Abdul Bari
12:00pm – 12:20pm	Role of International Organizations in promoting Global Surgery in Pakistan	M Tariq Khan
12:20pm - 12:40pm	Readiness in Disaster Management	Amer Aziz
12:40pm - 01:00pm	Question / Answer	

01:00pm - 02:00pm	Lunch & Prayer Break	Male Hostel Lawn
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Session Seven:

Pakistan relevant experiences 02:00pm - 04:00pm

Chair: Assad Hafeez | Co-Chair: M Tariq Khan | Moderator: Shaista Khan

Time	Topic	Presenter
02:00pm - 02:15pm	Global Surgery and Anaesthesia safety: Pakistan perspective	Fauzia Khan
02:15pm - 02:30pm	State of Obs/Gyn care	Shershah Syed
02:30pm - 02:45pm	State of Children's Surgery	Jamshed Akhtar
02:45pm - 03:00pm	State of Trauma Surgery	Hasnain Zafar
03:00pm - 03:15pm	Surgical Education and Training	Mushtaq Ahmed
03:15pm - 03:30pm	State of Nursing in Pakistan	Rafat Jan
03:30pm – 03:50pm	Role of Armed Forces in emergency and disaster management	Major General (Retd) Saeed Aleem
03:50pm - 04:00pm	Closing Statement	Assad Hafeez

Surgery Alumni Dinner

06:30pm - 08:30pm

Venue: Male Hostel Lawn, AKU

Scientific Sessions Sunday February 3, 2019 07:30am - 02:00pm

Student Breakfast with Conference Faculty

07:30am - 08:45am

Venue: Male Hostel Lawn, AKU

Student Session

Training leaders in Academic Global Surgery

09:00am - 10:30am

Venue: Auditorium, AKU

"Test yourself! Do you think you know Global Surgery?"

Introduction Aisha Tariq

Global Surgery for Students Internationally Parisa Fallah

> Being a Global Surgeon Tamara Fitzgerald

Interview with Muhammad Nabeel Ashraf
Interviewer: Muhammad Ali

Panel Discussion: So you want to be a global surgeon?

Moderator: Fatima Mustansir

Panelists: Philomena Drago, Tamara Fitzgerald, Lubna Samad & Dominique Vervoort

Closing Speech Chief Guest

Hackathon Presentations

10:30am - 01:00pm

Venue: Auditorium, AKU

01:00pm - 1:15pm	Vote of Thanks and Certificate Distribution	Syed Ather Enam Sadaf Khan Hasanat Shariff
01:15pm – 2:00pm	Prayer & Lunch	Male Hostel Lawn
01.10pm	114) 01 00 2411011	11010 1100001 201111

Residents Lunch with Conference Faculty

01:00pm - 2:00pm

Venue: Male Hostel Lawn, AKU

Post-Conference Workshops

Monday February 4, 2019

Venue:

Centre for Innovation in Medical Education (CIME), School of Nursing (SON)

&

Medical College, AKU

Title: Workshop on Update on Management of Open Fractures

Day/Date: Monday February 4, 2019

Time: 9:00am to 3:00pm

Venue: Room 5 & 10, School of Nursing Coordinators: Masood Umer & Tashfeen Ahmad

Objectives:

• By the end of the workshop the participants should be able to:

- Assess soft tissue, neurovascular and bony injuries in patients with limb trauma
- Plan acute and definitive management of open fractures
- Apply splints and traction in limb fractures
- Apply external fixator to tibia n femur
- Describe dissection for common skin flaps in the leg

Includes:

- Assessment of limb injuries
- Decision making in open limb injuries
- Surgical management of open fractures
- Soft tissue coverage in complex limb injuries

Hands-on:

- Application of splints, traction and external fixator
- Skin flap demonstration / video

CME Activity # 2

Title: Emergency Vascular Surgery Course for Non-Vascular Surgeons

Day/Date: Monday February 4, 2019

Time: 9:00am to 5:00pm

Venue: Anatomy Seminar Room, CIME

Coordinator: Zia ur Rehman

Includes:

- Acute Limb Ischemia
- Compartment Syndrome
- Extremity Vascular Injuries
- Abdominal Vascular Injuries

Hands-on:

- Dissecting of a vessel and getting control
- Placement of temporary shunt
- Handling an embolectomy catheter
- Closing an arteriotomy
- End-to-end anastomosis

Title: Workshop on Simulation based management of Post Partum

Haemorrhage

Day/Date: Monday February 4, 2019

Time: 9:00am to 1:00pm

Venue: Debriefing Room 1st Floor & Obs/Gyn Room, CIME

Coordinators: Aliya Aziz, Uzma Chishti & Azra Amerjee

Objectives:

At the end of the workshop participants should be able to:

Demonstrate knowledge of guidelines and procedures for PPH management

Administer uterotonic medications in correct dose, route and time

Apply tamponade device to control bleeding

• Apply compression suture

• Perform internal Iliac artery ligation

CME Activity # 4

Title: Workshop on Circumcision and Vasectomy

Day/Date: Monday February 4, 2019

Time: 2:00pm to 5:30pm

Venue: Simulation Room 1st Floor, CIME & CHC Clinic

Coordinators: Raziuddin Biyabani & Saqib Qazi

Includes:

Circumcision:

- Global load of circumcision
- Overview
- Safe circumcision
- Technical aspects

Vasectomy:

- Patient selection and counseling
- Technical aspects

Hands-on:

- Demonstration of circumcision with plastibell
- Hands on vasectomy on animal tissues

Title: Workshop on Tube Thoracostomy (Chest Tube Insertion)

Day/Date: Monday February 4, 2019

Time: 2:00pm to 5:30pm

Venue: Debriefing Room Ground Floor, CIME

Coordinator: Syed Shahbuddin

Objectives:

• To understand the indications of tube thoracostomy in trauma and life threatening situations

• To have knowledge of anatomical landmark and equipments

• To learn the procedure and perform Hands-on training on Simulated Model

CME Activity # 6

Title: Symposium on Abdominal Emergencies & Acute Breast

Conditions

Day/Date: Monday February 4, 2019

Time: 9:00am to 1:00pm

Venue: SONAM Auditorium, School of Nursing

Coordinators: Rehman Alvi

Objectives:

- Mortality of emergency abdominal surgery a global prospective
- Breast abscesses challenges in diagnosis & management
- Quality indicator and strategies for better outcome
- Evidence based surgery and its scope in developing countries
- Rational use of resources to improve infrastructure and human resource development
- How to achieve optimal outcomes in limited resource situation

Title: Workshop on Airway Management in Emergency & Trauma

Day/Date: Monday February 4, 2019

Time: 9:00am to 1:00pm

Venue: Conference Room & (5) PBL Rooms, CIME

Coordinator: Faisal Shamim

Objectives:

Recognize normal and difficult airway by bedside assessment methods.

- Be able to conduct basic airway management with use of adjuncts
- Know when and how to use various tools and adjuncts for managing the difficult airway
- Develop a plan for dealing failed airway

Features:

- Intubation, Supraglottic devices & Airway adjuncts
- Fiberoptic intubation & simulation
- Videolaryngoscope & Optical Stylet
- Airway Ultrasound

CME Activity # 8

Title: Workshop on Cleft Lip - NasoAlveolar Molding

Day/Date: Monday February 4, 2019

Time: 9:00am to 5:00pm

Venue: High Fidelity Room, CIME

Coordinator: Fazl ur Rehman

Objectives:

- Preoperative assessment of cleft lip
- Indications for nasoalveolar molding
- Technique of nasoalveolar molding

Features:

- Keynote lectures
- Sessions taught by renowned plastic surgeons in cleft care
- Hand-on surgical training

Title: Workshop on Mass Casualty Incidents (MCI): Hospital-Based

Management

Day/Date: Monday February 4, 2019

Time: 9:00am to 5:00pm

Venue: Multipurpose Educational Hall B & (4) Simulation Wards, CIME

Coordinator: Rashid Ageel

Objectives:

• Learn about Mass Casualty Incidents (MCI) & Hospital Incident Command System (HICS)

- Learn about building Hospital Emergency Plan, Preparation and Response during MCI
- Learn how to organize your Emergency Department
- Learn about Resuscitation in mass casualty trauma and final disposition of victims

Features:

- Interactive Lectures & Discussions
- Reading Materials
- Hands-on skills Stations
- Simulation Based Exercise in state of art Virtual Emergency Department

CME Activity # 10

Title: Workshop on Tracheostomy Care for Professionals

Day/Date: Monday February 4, 2019

Time: 9:00am to 1:00pm

Venue: Debriefing Room Ground Floor, CIME Coordinators: Moghira Siddiqui & Shabbir Akhtar

Objectives:

- Minimizing operative complications in tracheostomy
- Types of tracheostomy tubes
- Long term tracheostomy care and decannulation
- Tracheostomy tube change when and how?
- Practice session on mannequins for tracheostomy tube change

Title: Symposium on Manual Small Incision Cataract Surgery

Day/Date: Monday February 4, 2019

Time: 9:00am to 1:00pm

Venue: Debriefing Room 2nd Floor, CIME

Coordinator: Sharmeen Akram

Objectives:

Knowing and performing all surgical steps of MSICS

- Identifying key microsurgical instruments and supplies
- Managing common intraoperative complications
- Proper suturing techniques and knots
- Pre-operative cataract evaluation and documentation

• Patient consent process

CME Activity # 12

Title: Workshop on Safe Patient Care & Optimized Operating Room

Functions

Day/Date: Monday February 4, 2019

Time: 9:00am to 1:00pm

Venue: Multipurpose Educational Hall A, CIME

Coordinators: Ehsan Ali & Munira Amin

Objectives:

- Learn patient safety in Operating Room:
- Safe surgery as per WHO and JCIA
- Surgical safety Checklist
- Prevention of infection and minimizing infections
- Learn the critical steps to enhance Operating Room Functions
- What is Operating Room Utilization
- Efficiency parameters contributing to Operating Room functions
- Lean Management and principles to manage operating room

Title: Workshop on Relief of Urinary Obstruction

Day/Date: Monday February 4, 2019

Time: 2:00pm to 5:00pm

Venue: Multipurpose Educational Hall A & (2) PBL Rooms

Coordinator: Sajida Chagani

Objectives:

• Develop understanding about urinary tract obstruction and its management.

• Demonstrate hands-on skills for indwelling catheterization and clean intermittent self-catheterization simman 3G / mannequin.

• Develop proficiency for handling suprapubic catheter and its care.

CME Activity # 14

Title: Workshop on Primary Trauma Care (PTC)
Day/Date: Saturday to Monday, February 2-4, 2019

Time: 9:00am to 5:00pm

Venue: Anatomy Dissection Studio Coordinators: Saeed Minhas & Rashid Jooma

Objectives:

- Trauma epidemiology and the burden of trauma
- Rapid and accurate assessment of patient's condition
- How to identify common life threatening injuries
- Adequate resuscitation, stabilization and re-evaluation of patients

Mission Statement

The PTC team works in conjunction with local medical and health educational systems to train doctors and nurses to treat the severely injured patient quickly and systematically using what equipment is available to improve the early management of trauma at the district hospital.

Title: Workshop on Obstetric anal Sphincter Injury and Repair

Day/Date: Monday February 4, 2019

Time: 2:00pm to 5:00pm Venue: (2) PBL Rooms, CIME

Coordinator: Novera Ghayoor, Urooj Kashif & Raheela Mohsin

Objectives:

- By the end of workshop the participants would be able to:
- Learn pelvic anatomy
- Classification of perineal tears
- Management of perineal tear including future mode of delivery

Global Surgery Organizations

WHO Global Initiative for Emergency & Essential Surgical Care (GIEESC)



The WHO Global Initiative for Emergency and Essential Surgical Care (GIEESC) is a global forum that convenes multidisciplinary stakeholders representing health professionals, public health experts, health authorities and local and international organisations. Established in December 2005, the GIEESC has grown to include over 2300 members from 140 countries which collaborates to share

knowledge, advise policy formation and develop educational resources to reduce the burden of death and disability from conditions that could be treated through surgery. WHO has been actively involved in the global surgical initiative especially for the countries most in need. With the safe surgery Saves live initiative in June 2008, early steps were taken towards this huge goal. Through different partnership programmes WHO has established and extended the program

The G4 Alliance



The Global Alliance for Surgical, Obstetric, Trauma and Anaesthesia Care (The G4 Alliance) is committed to advocating for the neglected surgical patient and is driven by a mission to provide a collective voice for increased access to safe, essential, and timely surgical, obstetric, trauma, and

anaesthesia care as part of universal health coverage. The G4 Alliance exists to increase global political priority for surgical and anaesthesia care. The G4 Alliance also works to mobilize resources to help provide access to safe surgical care for patients in need. They are comprised of more than 80 organizations working in over 160 countries, united in advocating for the neglected surgical patient. They engage in advocacy activities in partnership with our members to influence and engage policy makers, funders and the general public. The scope of this work includes public awareness campaigns, advocacy events, engagement at multilateral meetings and global calls to action.

International Federation of Medical Students' Associations (IFMSA)



The International Federation of Medical Students' Associations (IFMSA), founded in 1951, is one of the world's oldest and largest student-run organizations. It represents, connects and engages every day with medical students from 135 NMOs in 125 countries around the globe. Their work is divided into four main global health areas: Public Health, Sexual and Reproductive Health, Medical Education and Human Rights and Peace. Each year, the

IFMSA organizes over 13,000 clinical and research exchanges programs for students to explore innovations in medicine, healthcare systems and healthcare delivery in other settings. IFMSA brings people together to exchange, discuss and initiate projects to create a healthier world. It trains its members to give them the skills and resources needed to be health leaders. It advocates for the pressing issues that matter to us to shape the world we want. Students of the Federation are active members of society, who not only identify and question certain issues and policies, but also engage in advocacy for change. Via workshops dedicated solely to external representation, IFMSA also ensures that students are equipped to understand international governmental decision making processes and are able to actively participate in the Federation work. IFMSA is truly, deeply and genuinely committed to find solutions to some of the biggest populations issues and this is why we provide the space for students to educate themselves so to become the leaders they want and proactive healthcare professionals.

Global Surgery Student Alliance (GSSA)



The Global Surgery Student Alliance is a US based, national student run, global surgery working group, affiliated with InciSioN (the International Student Surgical Network). This organization works with the belief that students are a valuable resource for the advancement of global surgery,

and that being unified in our efforts will help further our initiatives and can also facilitate more collaboration amongst overall global surgery efforts, both now and in the future. By exposing students to the field early on, they hope to help them build their surgical careers with global surgery in mind. Ultimately, many students are willing and able to make significant contributions to global surgery. The primary goals and objectives of the GSSA include to educate, inspire and unite students through engagement and mentorship in global surgery, including anesthesia & OB/Gyn.

World Federation of Societies of Anaesthesiologists (WFSA)



Safe anaesthesia and perioperative care are essential for safe surgery. 11% of the global burden of disease could be treated by surgery and anaesthesia. The World Federation of Societies of Anaesthesiologists is a unique, global network of

National Societies that brings together qualified practitioners of this specialised area of medicine. As an essential element of any safe and pain free surgical intervention anaesthesiology is a major contributor to positive health outcomes. The WFSA works to make safe anaesthesia universally accessible and to improve patient care around the world. It is currently the foremost global alliance of anaesthesiologists, the specialist physicians dedicated to the total care of the patient before, during and after surgery. Anesthesiologists are leaders in teamwork and patient safety, and are experts in anaesthesia and perioperative care, resuscitation, intensive care medicine and pain management. They deliver their mission through programs that are implemented together with national, regional and specialty anaesthesiology societies. They also work with other organisations that share their objectives, including, but not limited to, the World Health Organisation, governments, non-governmental organisations, specialist medical organisations, academic institutions, patient groups, hospitals, and industry. The WFSA welcomes partnerships aimed at strengthening health systems and achieving universal health coverage.

Global Anaesthesia, Surgery and Obstetric Collaboration (GASOC)



The Global Anaesthesia, Surgical and Obstetric Collaboration (GASOC) is a UK based trainee-led group made up of surgical, anaesthetic and obstetric junior doctors. This organization if focused with learning and sharing medical knowledge and experience to improve surgical outcomes in low and middle income countries. They work to encourage junior doctors, our future consultants, to become actively involved in global surgery, by partaking in clinical

projects as well as by encouraging education and research in developing countries. The GSSA seeks to promote the value of the involvement of junior doctors in this field and push for more support and encouragement from training bodies for trainees pursuing this interest. As a multidisciplinary organisation they aim to be a go-to-hub of cross-specialty discussion and information sharing between trainees, providing up to date clinical skills and knowledge and sharing training opportunities around the globe.

Médecins Sans Frontières (MSF)



Médecins Sans Frontières (MSF), otherwise known as 'Doctors Without Borders', is a humanitarian group initially founded in 1971 in France by a group of doctors and journalists in the wake of war and famine in Biafra, Nigeria. Today, they grown to a global movement of more

than 42,000 people. MSF was formed with the ideology that all people should have access to healthcare regardless of gender, race, religion, creed or political affiliation, and that people's medical needs outweigh respect for national boundaries. They provide medical assistance to people affected by conflict, epidemics, disasters, or exclusion from healthcare; guided by medical ethics and the principles of impartiality, independence and neutrality. The MSF teams conduct independent evaluations to determine medical needs and assess what assistance to provide, which may depend upon the magnitude of a given crisis, the levels of illness and mortality in the population, the severity of exclusion from healthcare, and the added value that they can bring to the affected people. MSF is a field-based movement engaging MSF volunteers and staff from all over the world in a shared commitment to medical humanitarian action. They currently operate from 24 countries in the form of independent legal associations which are registered in the country where they operate. Furthermore they have regional offices worldwide to directly mediate their humanitarian actions.

Operation Giving Back - American College of Surgeons



Operation Giving Back (OGB) came into inception in 2004, under the leadership of Andrew L. Warshaw, MD, FACS, and Robert V. Stephens, MD, FACS. The intention was to serve as a comprehensive resource

center through which surgeons could be equipped to engage in surgical volunteerism and humanitarianism efforts domestically or internationally. The ultimate goal is to foster further inspiration and education for all parties interested in such endeavors, including: volunteers, partners, philanthropists, policy makes, and the public. OGB's mission is to facilitate humanitarian outreach among surgeons of all specialties, at all stages of the profession at both international and domestic levels. Central feature of the OGB program is the website, created to serve as a platform and a dynamic hub of information, resources, and networks for those interested in addressing the unmet surgical needs of the underserved around the globe. By delivering information on opportunities to volunteer through patient care, education, training, systems strengthening, advocacy efforts, and donation of needed equipment and supplies, OGB focuses these resources to address critical public health issues as they relate to the provision of safe, timely, necessary surgical care around the globe. Through a network of high-impact partner organizations, OGB directs you to volunteer opportunities that align with your skills, passions, and beliefs.

International Committee of the Red Cross



The IRC is an independent and neutral organization based in Geneva, Switzerland. It was established in 1863, stemming from mandate of the Geneva Conventions of 1949. They operate worldwide, helping people affected by conflict and armed violence and promoting the laws that protect victims of war. Today the IRCs employs some 16,000 people in more than 80 countries, and is funded primarily by voluntary donations from governments and from National Red Cross and Red Crescent Societies. They are an impartial, neutral and

independent organization whose exclusively humanitarian mission is to protect the lives and dignity of victims of armed conflict and other situations of violence and to provide them with assistance. The ICRC also endeavors to prevent suffering by promoting and strengthening humanitarian law and universal humanitarian principles. The ICRC responds quickly and efficiently to help people affected by armed conflict. They also respond to disasters in conflict zones, because the effects of a disaster are compounded if a country is already at war. In addition to Emergencies the International Committee of Red Cross also address matters of sexual violence, Building respect for the law, Economic security, Enabling people with disabilities, Helping detainees, Humanitarian diplomacy, helping Migrants, refugees, asylum seekers, water and habitat, as well as Restoring family links. Their work in war torn countries is truly commendable.

Program in Global Surgery and Social Change - Harvard Medical School



Harvard Medical School has a specific program for the Global surgical burden especially for the resource limited population. This Program in

Global surgery and Social change (PGSSC) started with their strategic plan in September 2015. The vision has been was to implement through research, advocacy and training of leaders in Academic Global surgery. The program works with aims to support the local partners in research that focuses on improving Universal access to safe and affordable surgical and anesthesia care where and when needed especially on low –resource settings. The center for Global surgery Evaluation (CGSE) was established in 2018. It aims to produce scientific research focused on outcomes to increase access to surgical care and surgical policies on Global scale. CGSE offers fellowships with intentions to train future leaders in Academic Global Surgery. The Global Surgery Student Alliance (GSSA) is a US national student run global surgery working group and is affiliated with the International Student Surgical Network (InciSioN). This is an active student group with partnerships across the globe with the common aim of safe affordable global provision of surgical and anesthetic care.

German Global Surgery Association (GGSA)



The German Global Surgery Association (GGSA) brings together interdisciplinary researchers at different levels in their career who aim at advocating for universal access to safe, affordable, surgical and anaesthesia care and shed light on the situation of surgical care in health systems. The GGSA analyzes and reports on the status of global surgery at the global, regional and national level and make policy recommendations based on their findings. They reach out to

students, medical residents and professionals from different fields, who express an interest in Global Surgery, and are affiliated with other Global Surgical Bodies, including InciSioN (the International Student Surgical Network) and the G4 Alliance. Their primary aim is to promote and engage in research, education and advocacy to achieve health equity for all people requiring surgical care, shed light on subjects related to global health, and raise awareness about the field of global surgery among students and professionals in general and surgical students and personnel in particular. They aim to improve the evidence-base around global surgery to ensure universal access to safe, affordable, surgical and anaesthesia care and shed light on the situation of surgical care in health systems for health system strengthening. And plan to address the rising worldwide surgical disease burden in low-resource settings both domestically and internationally by mobilizing a community of surgical leaders to engage in international partnerships, implement quality improvement and training protocols, increase awareness, and establish the role of the GGSA in the global surgical landscape by working towards the expansion of opportunities for people to lead healthy and productive lives; promoting research, education and advocacy in order to achieve health equity for all people requiring surgical care; and by educating, inspire, and uniting researchers through engagement and mentorship in global surgery.

Sigma - Global Nursing



The Sigma Theta Tau International Honor Society of Nursing (Sigma) is the second-largest nursing organization in the world with approximately 135,000 active members. The Rho Delta Chapter (Pakistan based chapter – hosted by Aga Khan University Hospital and School of Nursing and Midwifery) of the Sigma Theta Tau International (STTI) began its journey in

1994. Sigma's mission is advancing world health and celebrating nursing excellence in scholarship, leadership, and service. From its inception, Sigma has recognized the value of scholarship and excellence in nursing practice. Today, Sigma supports these values through its numerous professional development products and services that focus on the core areas of education, leadership, career development, evidence-based nursing, research, and scholarship.

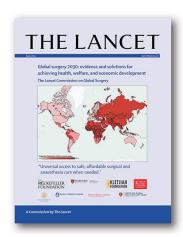
Students for Global Health - Formerly Medsin



Formerly working under the banner of Medsin, the Students for Global Health is a student run body and registered charity tackling global and local health inequalities through education, advocacy and community action. Currently operating over 30 branches in universities across the UK, they run many national activities and several national working groups alongside collaborating with numerous external partner organisations both nationally and

internationally. Formed with the vision of a fair and just world in which equity in health is a reality for all, this organization works with the recognition that students are in a unique position to serve their local and international community through global health projects. They now have at their disposal an impressive network of thousands, tackling global and local health inequalities from the grassroots level right up to the global determinants of health and healthcare, and our force for change will only continue to grow stronger

Lancet Commission on Global Surgery



In 2013, a group of surgeons approached editors at The Lancet to discuss the neglected role of surgery in public health. The journal responded by opening a Commission on Global Surgery to develop and assemble the best evidence on the state of surgery worldwide, to study the economics of surgical and anesthesia care delivery, and to develop strategies for improving access. Three co-chairs lead the Commission. They are joined by 22 commissioners. Four working groups were formed, focusing on health care delivery and management; workforce, training, and education; information management; and finance and economics. On April 27, 2015, the Commission Report was launched in London, UK at the Royal Society of

Medicine. The report itself, titled Global Surgery 2030: Evidence and Solutions for Achieving Health, Welfare, and Economic Development; contained five key messages for health policy makers: *Key Message 1:* 5 billion people lack access to safe, affordable surgical and anesthesia care when needed. *Key Message 2:* 143 million additional surgical procedures are needed each year to save lives and prevent disability. This need is greatest in the poorest regions of the world, including Western, Eastern, and Central sub-Saharan Africa, and South and Southeast Asia. *Key Message 3:* 33 million individuals face catastrophic health expenditure due to payment for surgery and anesthesia each year. *Key Message 4:* Investment in surgical and anesthesia services is affordable, saves lives, and promotes economic growth. *Key Message 5:* Surgery is an indivisible, indispensable part of health care.

Full text: www.thelancet.com/journals/lancet/article/PIIS0140-6736(15)60160-X/fulltext

Department of Surgery, Aga Khan University Karachi, Pakistan

