Message from the President, College of Surgeons of East, Central and Southern Africa

Dear College of Surgeons of East, Central and Southern Africa (COSECSA) fellows, members, invited guests, ladies and gentlemen;

I feel honoured to welcome you all to the 18th COSECSA Annual General Meeting (AGM) and Graduation Ceremony in this beautiful city of Maputo.

We celebrate this year’s AGM with great achievements. Two new countries, South Sudan and Namibia, have joined the College as constituent members. So, we are now functioning in 12 countries. The number of graduates registered in Fellowship Courses of the College of Surgeons (FCS) has exceeded more than one hundred; it confirms that we are going to achieve our 5-years strategic plan within the next three years (500 surgeons).

We are also celebrating our partnership with the Royal College of Surgeons of Ireland (RCSI) and commemorating the 10th year anniversary of this vibrant association. We remain in debt to RCSI; without their support, we would not have achieved today’s success. Several other partners have shown interest to work with our college; this is mainly as a result of the strong commitment of COSECSA fellows and their leadership. I would like to thank COSECSA Council members, who have devoted their time, material and knowledge for the development of the College in a priceless service.

COSECSA’s International image has reached new heights in the last few years; we have been a centre of attraction in many symposiums and conferences of many international organizations (WHO, UNGA, AU, etc.), and its unique activities and success stories have been told as an example for other similar associations to follow.

This year, Global Initiative for Emergency and Essential Surgical Care (GIEESC) and Global Initiative for Children’s Surgery (GICS); will hold parallel international meetings with our AGM and Conference, in Maputo. It will be an excellent opportunity for interaction and networking with our colleagues and fellows.

We are honoured by the presence of many global surgical leaders; I welcome you all on behalf of the Council and myself.

Many world figure female surgeons including the President of American College of Surgeons (ACS), Dr Barbara Bass, are attending the conference. Our female surgeons and trainees should use this opportunity to meet these world class professional role models. I would also expect Women in Surgery Africa (WiSA), the female surgeon’s wing of COSECSA, to take this opportunity to network with them.

Ladies and gentlemen, I wish you all the best in your Maputo stay and hope that you enjoy the beauty and delicious seafood while you are here!

I welcome you once again!

Miliard Derbew FCS-ECSA, FRCS
President of COSECSA

December 2017, Maputo, Mozambique
Message from President Associação Moçambicana de Cirurgia

Dear Delegates and Colleagues,

On behalf of Associação Moçambicana de Cirurgia, (A.M.C. Mozambican Association of Surgery), I am honoured to invite you to the 18th AMC-COSECSA Surgery Conference and A.G.M. to be held in Maputo from the 4th to the 8th of December 2017.

The Local Organizing Committee and Scientific Committee of A.M.C. have worked hard to ensure that this conference is a success leaving pleasant memories on the delegates participating and on their interaction in the medical field.

All surgical specialties and sub-specialties have come together to share and provide insight on their experiences and therefore enrich the scientific aspect of the Conference.

It is my pleasure to welcome you to Maputo, the Pearl of the Indian Ocean, a beautiful coastal city which along with the warm hospitality of its people turns this destination into an unforgettable experience.

Welcome to Maputo!

Bem-vindo a Maputo!

Dr Hélder de Miranda FCS-ECSA
President of Associação Moçambicana de Cirurgia
December 2017, Maputo, Mozambique
Message from Chief Executive Officer, College of Surgeons of East, Central and Southern Africa

Welcome Note

The College of Surgeons of East Central and Southern Africa (COSECSA) is delighted to hold its 18th Annual General Meeting and Scientific Conference in this beautiful coastland of Maputo. Appropriately themed ‘Surgery and the Child’, the Conference will address the most critical issues in ensuring that quality surgical service and care is accessible and affordable to the child who needs it, to prevent mortality and morbidity.

Our conferences generally attract a spectrum of speakers and participants from each continent of the world and this will not be different! The agenda is rich with inspiration and insights from the best. We are optimistic that this conference will provide a great forum for engagement, discussion, debate and challenge on how we should move forward.

We are proud of our Women’s Wing (Women in Surgery Africa) who will make significant contribution to this conference.

We acknowledge our partners, sponsors, participants, exhibitors and friends for their participation, support and continued interest in the college’s activities.

This is an exciting time for us as we continue to grow, share ideas, get inspired and learn from each one of you.

We celebrate you all.

Viva COSECSA!

Rosemary Mugwe

CEO-COSECSA

December 2017, Maputo, Mozambique
## Programme summary

### 6th December 2017

#### GRADUATION CEREMONY

<table>
<thead>
<tr>
<th>TIME</th>
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<tr>
<td>07:30-09:00</td>
<td>REGISTRATION, AGM-COSECSA and Election COSECSA</td>
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<tr>
<td>09:00-10:00</td>
<td>Full Dress Rehearsal for Graduation Ceremony</td>
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<tr>
<td>10:00-10:10</td>
<td>Preparation of Reception Committee</td>
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<tr>
<td>10:10-10:15</td>
<td>Arrival of H.E. Minister of Health</td>
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<td>10:15-10:20</td>
<td>Arrival of H.E. Prime Minister of the Republic of Mozambique</td>
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<td>10:20-10:30</td>
<td>Mobile Surgical Skills Unit Inauguration</td>
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<tr>
<td>10:30-10:40</td>
<td>All seated in Graduation Hall</td>
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<tr>
<td>10:40-10:50</td>
<td>National Anthem</td>
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<tr>
<td>10:50-11:00</td>
<td>Welcome Address by President of AMC</td>
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<tr>
<td>11:00-11:10</td>
<td>Address by H.E. Ambassador of Ireland</td>
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<tr>
<td>11:10-11:20</td>
<td>Address by President of COSECSA</td>
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<tr>
<td>11.20 -11:25</td>
<td>Address by H.E. Minister of Health</td>
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<tr>
<td>11.25-11.45</td>
<td>Address by H.E. Prime Minister of the Republic of Mozambique</td>
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<tr>
<td>11:45-14:00</td>
<td>Graduation Ceremony</td>
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<td>14:00-15:00</td>
<td>LUNCH</td>
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<tr>
<td>15:00-16:30</td>
<td>Rahima Dawood Travelling Fellow Lecture- Prof Michael Hollands</td>
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<tr>
<td>16:30-17:30</td>
<td>AMC-COSECSA Session</td>
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<tr>
<td>17:30-18:00</td>
<td>TEA BREAK</td>
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<td>19:30</td>
<td>Graduation Dinner</td>
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### 7th December 2017

<table>
<thead>
<tr>
<th>TIME</th>
<th>SESSIONS</th>
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<tbody>
<tr>
<td>07:00-8:00</td>
<td>Registration</td>
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</table>
| 08:00-10:30   | 1. Opening Plenary session on Surgical education: “TO SCULPT A SURGEON!”
<p>|               | SPONSORED BY SAFARMEX                                         |
| 10:30-11:00   | TEA BREAK                                                    |
| 11:00-13:30   | 2. Surgery and the child! CONFERENCE THEME SESSION            |
| 13.30-14:30   | Lunch                                                        |
| 14:30-16:30   | 3. GIEESC-WHO                                                |
| 16:30-17:00   | TEA BREAK                                                    |
| 17:00-19:00   | 4. GIEESC- WHO                                               |
| 19:30-23:00   | GALA DINNER                                                  |</p>
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<thead>
<tr>
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<th>HALL:1</th>
<th>HALL:2</th>
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<tbody>
<tr>
<td>7:30-9:00</td>
<td>5. GENERAL SURGERY- THL</td>
<td>5a. ORTHOPAEDICS - OSSOTECH</td>
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<tr>
<td>9:00-10:30</td>
<td>6. GLOBAL SURGERY- OSSOTECH</td>
<td>6a. NEUROSURGERY- OSSOTECH</td>
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<tr>
<td>10:30 -11:00</td>
<td>TEA BREAK</td>
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<td>11:00-12:00</td>
<td>7. CARDIO-THORACIC- THL</td>
<td>7a. UROLOGY- THL</td>
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<tr>
<td>12:00-13:30</td>
<td>8. PLASTIC- IRISH AID</td>
<td>8a. PAEDIATRIC SURGERY - IRISH AID</td>
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<td>13:30-14:30</td>
<td>LUNCH</td>
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<tr>
<td>14:30 -15:30</td>
<td>9. FREE PAPERS- DR FREDERICO ARMINDO FORTES</td>
<td>9a. FREE PAPERS- DR ALÍRIO FERNANDES</td>
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<tr>
<td>15:30 -16:00</td>
<td>10. POSTERS</td>
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<tr>
<td>16:00-16:30</td>
<td>TEA BREAK</td>
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<td>16:30 - 17:30</td>
<td>11. PLENARY SESSION – MODERN ADVANCES- OSSOTECH</td>
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<td>17:30 - 18:00</td>
<td>CLOSING CEREMONY</td>
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<td>18:00-18:30</td>
<td>Post Conference COSECSA Council meeting</td>
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<td>18:00-19:00</td>
<td>AGM AMC</td>
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<tr>
<td>20:00</td>
<td>INFORMAL DINNER</td>
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SESSION 1: SAFARMEX OPENING PLENARY SESSION- SURGICAL EDUCATION

“TO SCULPT A SURGEON!”

Moderator: Professor Pankaj Jani

1. “Innovating to save more lives through surgical education”
   Harshad Sanghvi
   Chief medical Officer,
   Jhpiego, An affiliate of Johns Hopkins University

2. “Leveraging simulation fundamentals and faculty assets to optimize training of surgical resident”
   Barbara Lee Bass MD, FACS, FRCS (Hon)
   President
   American College of Surgeons
   Professor of Surgery and Chair
   Department of Surgery
   Houston Methodist Hospital
   Houston, Texas, United States of America

3. COSECSA’s training program: Historical perspectives and the way forward
   Abebe Bekele MD, FCS (ECSA)
   Associate Professor of Surgery
   Thoracic and General Surgeon
   Former Dean: School of Medicine, Addis Ababa University
   Chairman: Examinations and Credentials Committee
   College of Surgeons of East Central and Southern Africa

4. Mentorship: an essential component of surgical training
   Dan Deckelbaum, MD
   Assistant professor, general and trauma surgery, critical care medicine.
   Co- Director, Centre for Global Surgery, McGill University

SESSION 2: SURGERY AND THE CHILD!

Moderator: Professor Eric Borgstein

   Prof Kokila Lakhoo

   Dr Stephen Bickler/ Prof Mouafo Tambo Faustin

3. Incorporation of children’s surgery into National Surgical Plans being developed
   Dr Doruk Ozgediz/ Dr Lubna Samad
4. Geospatial mapping of access to children's surgical care  

*Dr Marilyn Butler*

5. Developing paediatric surgical units in East Africa in partnership with the ARCHIE Foundation.  

*Mr David Cunningham/ Dr John Sekabira*

6. GICS - Operation Smile Partnership: improving access to surgical care in Nicaragua  

*Dr Jordan Swanson/ Dr Neema Kaseje*

7. Royal College of Surgeons of England - Vellore Partnership: Improving access to children’s surgical care in rural communities through a collaborative training programme  

*Prof Kokila Lakhoo/ Dr Vrisha Madhuri*

8. Global General Paediatric Surgery Partnership: The UCLA- Mozambique experience  

*Dr Vanda Amado*

9. Identifying the met and unmet need for children’s surgical care across Somaliland  

*Dr Emily Smith/ Ms Tessa Concepcion*

10. Africa Club Foot Training Programme  

*Prof Chris Lavy*

11. A multi-centre prospective cohort study on the management and outcomes of congenital anomalies in low, middle and high-income countries.  

*Dr Naomi Wright*


*Dr Clementine Affana*
### Session 3: Member State Updates

**Chair:** Prof Miliard Derbew

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<th>Presenter</th>
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<tbody>
<tr>
<td>14:30</td>
<td>Opening of the Meeting</td>
<td>Djamila K Cabral</td>
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<tr>
<td>14:40</td>
<td>COSECSA</td>
<td>Miliard Derbew</td>
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<tr>
<td>14:50</td>
<td>Updates on resolution A68.15 and the way forward</td>
<td>Emmanuel Makasa</td>
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<tr>
<td>15:00</td>
<td>Ethiopia</td>
<td>Abebe Bekele</td>
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<td>15:10</td>
<td>Mozambique</td>
<td>Matchecane Cossa</td>
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<td>15:15</td>
<td>Malawi</td>
<td>Wakisa Mulwafu</td>
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<td>Zimbabwe</td>
<td>Godfrey Ignatius Muguti</td>
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<td>Tanzania</td>
<td>Kitugi Samwel Nungu</td>
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<td>Kenya</td>
<td>Russ White</td>
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<td>15:35</td>
<td>Uganda</td>
<td>Olivia Kituuka</td>
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<td>15:40</td>
<td>Rwanda</td>
<td>Emile Rwamasirabo</td>
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<td>15:45</td>
<td>Burundi</td>
<td>Gabriel Ndayisaba</td>
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<td>15:50</td>
<td>Zambia</td>
<td>Michael Mbambiko</td>
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<td>15:55</td>
<td>West Africa College of Surgeons</td>
<td>Serigne Gueye</td>
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<tr>
<td>16:00</td>
<td>ECSA-HC Director -General</td>
<td>Dambisya Yoswa**</td>
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<td>16:05</td>
<td>College of Anaesthesiologists ECSA</td>
<td>Mpoki Ulisubisa</td>
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<tr>
<td>16:10</td>
<td>College of Obstetrics &amp;Gynaecology ECSA</td>
<td>Belington Vwalika</td>
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<tr>
<td>16:15</td>
<td>ECSA College of Nursing</td>
<td>Susan Agunda Otieno</td>
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<td>16:20</td>
<td>Women in Surgery Africa-COSECSA</td>
<td>Faith Muchemwa</td>
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<tr>
<td>16:25</td>
<td>SURG Africa</td>
<td>Eric Borgstein</td>
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<td>16:30</td>
<td>COFFEE BREAK</td>
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## SESSION 4: WHO-GIEESC

**ECSA: East, Central and Southern Africa**

### SPEAKERS:

- **Djamila K Cabral**: WHO Country Representative, *Mozambique*
- **Emmanuel Makasa**: Ministry of Health, *Zambia*
- **Abebe Bekele**: COSECSA country representative, *Ethiopia*
- **Matchecane Cossa**: National Director, Surgery Programme, *Mozambique*
- **Wakisa Mulwafu**: COSECSA country representative, *Malawi*
- **Godfrey Ignatius Muguti**: COSECSA country representative, *Zimbabwe*
- **Kitugi Samwel Nungu**: COSECSA country representative, *Tanzania*
- **Russ White**: COSECSA representative, *Kenya*
- **Olivia Kituuka**: COSECSA country representative, *Uganda*
- **Emile Rwamasirabo**: COSECSA country representative, *Rwanda*
- **Gabriel Ndayisaba**: COSECSA country representative, *Burundi*
- **Michael Mbambiko**: COSECSA country representative, *Zambia*
- **Serigne Gueye**: Vice-President, West African College of Surgeons

### Session 4: Partnerships

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<th>Session</th>
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<tr>
<td>17h00</td>
<td></td>
<td>American College of Surgeons</td>
<td>Barbara Bass</td>
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<tr>
<td>17h05</td>
<td></td>
<td>Royal Australasian College of Surgeons</td>
<td>Michael Hollands</td>
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<tr>
<td>17h10</td>
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<td>Pan-African Academy of Christian Surgeons</td>
<td>Keir Thelander</td>
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<td>17h15</td>
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<td>Royal College of Surgeons in Ireland</td>
<td>Eric O’Flynn</td>
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<tr>
<td>17h20</td>
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<td>Global Initiative for Children’s Surgery</td>
<td>Neema Kaseje</td>
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<td>17h25</td>
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<td>Operation Giving Back</td>
<td>Girma Tefera</td>
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<td>17h30</td>
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<td>World Federation of Neurosurgical Societies</td>
<td>Laston Chikoya</td>
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<tr>
<td>17h35</td>
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<td>World Federation of Societies of Anaesthesiologists</td>
<td>Jannicke Mellin-Olsen</td>
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<td>17h40</td>
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<td>International Federation of Surgical Colleges</td>
<td>Bob Lane</td>
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<td>17h45</td>
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<td>International Federation of Peri-operative Nurses</td>
<td>Ruth Melville</td>
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<td>Program in Global Surgery and Social Change</td>
<td>Kee Park</td>
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<td>17h55</td>
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<td>Session 4: Future Directions</td>
<td>Walt Johnson</td>
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<td>17h55</td>
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<td>GIEESC—the way forward</td>
<td>Walt Johnson</td>
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<td>18h00</td>
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<td>Discussion</td>
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<td>19h00</td>
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<td>Meeting Adjourned</td>
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Session-5: THL- GENERAL SURGERY SESSION

Moderators: Prof Thandinkosi Madiba, Dr Hélder de Miranda

1. Surgical outcome of Gastrooduodenal ulcer perforation in a Mbarara Hospital

Ronald Okidi, Noralis Benitez, David Mutibwa

Mbarara Institute of Science and Technology, Uganda

Background:

Gastrooduodenal ulcer perforation is one of the potentially fatal surgical emergencies and a major world health burden. The mortality associated with the disease remains very high which makes prompt resuscitation and appropriate surgical management of utmost importance.

Methods:

Case series of 29 patients treated for gastrooduodenal perforation over a period of 12 months with a post-operative maximum follow up of 30 days at Mbarara Regional Referral Hospital. Ethical approval was obtained from the relevant authorities. Data were collected and analysed using STATA software version 12.0.

Results:

Twenty-two (75.9%) patients were male and seven (24.1%) females with a ratio of 3.1: 1. The patient’s age ranged from 13 to 80 years with a median of 60 years. The duration of symptoms ranged from 2 to 8 days with a mean duration of 4.2 ± 1.98 days. None of the patients presented...
within 24 hours of symptoms onset. Most perforations were located at the antrum 8 (27.59%), the ratio of gastric to duodenal perforation was 1.6:1, and 1 (3.4%) patient had both small intestinal (jejunal) perforation and antral perforation. 26 (80.6%) had Graham’s omental patch of the perforations with a pedicle patch. 1(6.9%) had perforation on the body of the stomach suspicious of malignancy had subtotal gastrectomy with Billroth II anastomosis. Histology revealed a well differentiated adenocarcinoma. Factors significantly related to mortality were Shock at admission (\( P = 0.000 \)), duration of illness (\( P = 0.010 \)), site of perforation (\( P = 0.003 \)), and presence of complication (\( P = 0.005 \)). The hospital length of stay ranged between 1 – 13 days, average time 6.93 ± 2.96 days and median 7 days. Conclusions Perforation of gastro duodenal ulcer remains a clinical problem in our environment predominantly affecting men above the age of 30, not known to suffer from PUD. Simple closure with omental patch followed by Helicobacter Pylori eradication was effective in majority of the cases despite late presentation to our centre.

2. Pancreatic Surgery in Sudanese Patients, early outcome and complication

Alaa Eldin Awad Nogoud, Abdurrahim Ali Dabora, Waleed Alha

National Centre of Gastrointestinal & Liver Diseases, Sudan

Background:

No data was available about the magnitude of pancreatic Cancer in Sudan and most of the patients – who afford- used to travel abroad seeking medical management, out team was the first to establish the first dedicated hepato-biliary-pancreatic surgery unit in Sudan.

Material and methods:

Our medical records were retrospectively reviewed and analysed using data sheet and SPSS

Results:

Fifty-four patients were operated in the period from January 2016- January 2017, 43.8% were males, 56.2% were females. Mean age was 56+-11.1 (34-75), Mean duration of symptoms 3.3+-2.6 months, 93.7% had T.Bilirubin > 15 mg/dl , 53.3% had T.Bilirubin preoperative biliary drainage was done in 85% of the patients .Classical Whipple surgery was performed in 80% and PPPD in 20%. Tumour diameter 3.5+/-1.5cm. it was T3 in 72% of the cases and N1 in 67%.

Specimen pathology showed PDAC in 58%, CCa in 16.6%, Deoudenal adenocarcinoma 9.3%, Ampullary tumor in 3.2%, NET in 6.2% and 3.1% other pathologies. Pancreatic anastomosis was duct to mucosa in 91% and Dunking in 9%. Postoperative pancreatic fistula Grade A developed in 6 patients (11%), and Grade B 1.8%. venous resecion (portal vein and Superior mesenteric vein) was done in 3 patients (5%)

Conclusions:

We succeed in establishing new service in our country with results similar to international results, with acceptable complication rate and excellent outcome although our patients present late with big tumours and high bilirubin levels, that is why preoperative biliary drainage is mandatory in our setting.

3. The Mortality rate in Emergency Trauma Unit at Beira Central Hospital from August 2016 to May 2017

Reginaldo Inácio Domingos Barreto, Hélder de Miranda

Central Hospital of Beira, Mozambique
Background:

Data about the lethality and mortality rates are essential for the evaluation of hospital conditions and quality and provision of health care to our patients. The mortality rate according to the national inquiry (INCAM 2007) was 3.9 %, rating the 6th position. The Emergency unit of trauma at Beira Central Hospital began to operate in August 2016. To evaluate the lethality rate in the Emergency Trauma unit from August 2016 to May 2017.

Methods:

Retrospective cross-sectional study. Data was collected from the log book of the trauma unit from August 2016 to May 2017. Data was analysed using Excel 2013.

Results:

Only cases over the age of 14 were considered with a total number of 311. 12 deaths were reported. The lethality rate was 3.85%. Most of the patients belonged to the age, from 15 to 35 years (57.2%) the most prevalent were males, with 77.4%. The main cause of trauma was road traffic accidents (52%) followed by physical injury (9.3%), falls (9%) and labour injuries (4.5%). The main cause of death was due to severe brain injury (41.6 %).

Conclusions:

Road traffic accidents are the main cause of trauma, affecting mainly males in the range of 15-35 years. Brain injury remains the leading cause of death, as described in other series.

4. Abdominal Catastrophe, a new surgical diagnosis in a Tertiary Referral Hospital in Democratic Republic of Congo

Kabuyaya Kakule Medard

HEAL Africa Hospital, Goma, Democratic Republic of Congo

Background:

The term ‘abdominal catastrophe’ was developed to describe a cohort of patients referred with peritonitis, sepsis and often a bowel or urinary injury after multiple laparotomies. The peritonitis resulted from visceral injury and is associated with high mortality and morbidity. The aim of this study was to identify the epidemiology, the cause and the outcome of abdominal catastrophe in this Tertiary Referral Hospital.

Methods:

A prospective observational study of peritonitis was conducted at HEAL Africa Hospital, in Goma in Eastern DRC. All patients admitted as an emergency with peritonitis between 2015 and September 2017 were included.

Results:

The diagnosis of peritonitis was suggested clinically in sixty-three (63) patients. Of 63 patients with peritonitis, 40 were admitted with the diagnosis of abdominal catastrophe. These cases had undergone a mean of 2 laparotomies (range 0-6) prior to referral. The most common cause of the abdominal catastrophe included anastomotic leak (15 cases = 23.8%) and inadequate caesarean section (15 cases = 23.8%). The in–hospital mortality occurred on 31.7% (n=20) patients. The mean in-hospital costs associated with peritonitis was 1826.6 USD. An analysis of mortality and the various
causes of ‘abdominal catastrophe’ indicated that the highest contribution of mortality was inadequate caesarean section performed (25% of death).

Conclusion:

Cases of abdominal catastrophe constituted the majority of cases of peritonitis admitted at the tertiary referral hospital. Poor surgical technique may significantly contribute to the high frequency of cases and demonstrates the need for training in basic essential and emergency surgery.

5. Surgical Management of a misdiagnosed Appendicular Mass

Frederick Khamis Tawod, Mayen Machut Achiek

College of Physicians & Surgeons, School of Medicine, Juba, South Sudan

Background:
Appendicitis is a common indication of acute surgical admission (25-30%). It is largely diagnosed clinically, but often may not be straightforward. Appendicitis may present as a complication; localized abscess, generalized peritonitis or a palpable mass in the right iliac fossa. Management is operative interventions (appendectomy).

Our study aims to audit the surgical management of intra-operatively diagnosed appendicular mass without resorting to staged management with antibiotics followed by an interval appendectomy.

Methods:
We conducted between January 2015 to August 2017, a prospective observational study of sequential patients that presented to us with clinical symptoms of appendicitis and a diagnosis of appendicitis. We included 45 patients, age range (11- 48), males 20/45, females 25/45. We excluded children below 10 years, unfit patients for surgery, those who refused and patients who presented with abdominal pain that is not consistent with the clinical diagnosis appendicitis. All patients were assessed clinically by history and examination, blood tests and ultrasound scans. Patients were consented and prepared for open surgery.

Results:
All underwent surgery, open appendectomy 34/45, or through midline laparotomy 11/45. The findings were; appendicitis (21/45), appendicular mass 18/45, abscess with significant peritonitis 6/45. Appendectomy done in all, appendectomy with abscess drainage, (18/45) had abscess mass. During recovery 8/45 had superficial wound infection and 3/45 had deep major abscesses that needed surgery and no entero-cutaneous fistulae.

Conclusion:
An appendicular mass if diagnosed intra-operatively could be safely managed surgically with no major post-operative complications.

6. Caecal Volvulus: A review of patients at a rural hospital in Kenya

Kimutai Ronoh Sylvester, Philip Blasto

Tenwek Hospital, Kenya

Background:
Caecal volvulus refers to torsion involving the caecum, terminal ileum, and ascending colon around its own mesentery resulting in a closed-loop obstruction. It is a rare cause of all adult intestinal obstruction, and often has a low pre-test probability. Bowel gangrene or perforation is associated with significant morbidity and mortality.
Methods:

A 7-year retrospective review of patients’ records with an intra-operative diagnosis of caecal volvulus between 2009 and 2016 at Tenwek Hospital, Bomet, Kenya, was done. The study aimed at reviewing clinical presentation, management and outcome of patients with caecal volvulus.

Results:

11 patient records were reviewed. The mean age was 55.6yrs and mean symptom duration was 6.18 days. All patients presented with abdominal pain and distension. Peritonitis was present in 5 cases. Leucocytosis was associated with perforation, gangrene or gross peritoneal contamination. Plain abdominal radiography coupled with the clinical presentation was diagnostic in 1 case. 3 risk factors were established intra-operatively in 3 cases: Ladds bands with mal-rotation, adhesions and sigmoid tumour. Procedures performed included primary resection and anastomosis in 7, damage control surgery with resection and anastomosis on second look in 3, and surgical detorsion and caecopexy in 1. 1 patient developed fascial dehiscence with subsequent bowel evisceration, while 3 died. The mean hospital duration was 6.09 days.

Conclusion:

Caecal volvulus should be considered early in the differential diagnosis of intestinal obstruction to reduce the morbidity and mortality associated with the delay in preoperative diagnosis. Resection and anastomosis is the preferred method of treatment.

7. Oesophageal Cancer in Mozambique: The Maputo Central Hospital Surgical Experience

Adriano Tivane, MD, MSc, Matchecane Cossa, MD, Ernestina Chidocoro, MD, Atilio Morais, MD, MPh

Hospital Central de Maputo, Mozambique

Background:

Oesophageal Cancer is the 8th most frequent cancer worldwide and the 6th most common cause of cancer deaths (12).

There are two subtypes: adenocarcinoma more frequent in Europe and North America, and the squamous cell cancer occurring mainly in Sub-Saharan Africa and Asia (1), where it is the 5th cause of deaths for cancer (14).

The risk factors are still unclear but HPV, HIV infection, malnutrition, alcohol and tobacco consumption are implicated (7).

It is more frequent in males than females 2-4:1 (5) and its peak of incidence occurs at age of 50.

Studies from Malawi show that the oesophageal cancer is the 2nd most common cancer in males and 3rd in females. Unfortunately, due to poor preventive measures, lack or deficient health facilities and poor literacy on population, patients have a very late presentation limiting the treatment options (8).

The aim of this study is to describe the characteristics of oesophageal cancer patients seen at Maputo Central Hospital.

Methods:

We present a retrospective Cross-Sectional study analysis of 40 Consecutive patients with dysphagia from January 2015 to June 2016. Database and analysis were performed at Xcel.
Results:

The where no gender difference. The peak of incidence occurred at age of 50-70 years, 36 (90%) patients. In all 40 (100%) patient’s endoscopy with biopsy was performed, CT-Scan was done in 23 (58%) patients, and 26 (65%) had a barium X-Ray. The lower 1/3 oesophagus was involved in 22 (55%) of cases. Squamous cell subtype was present in 35 (88%) patients. HIV infection was detected in 12 (30%) patients.

Palliative or transient gastrostomy was performed in 33 (83%) of patients, jejunostomy in 4 (10%) and Ivor Lewis in 6 (15%).

Pre-operative chemotherapy was done in 19 (48%) and post-operatively in 4 (10%) patients.

Follow-up was completed at 3 months for 13 (33%) patients with an overall mortality with and without surgery of 13 (33%).

CONCLUSIONS:

Oesophageal cancer is the 2nd cause of hospitalization at CCVT division. Similar to several studies in Africa, the Squamous cell carcinoma is the most common subtype affecting middle age people. It affects mainly the lower 1/3. All patients have an advanced disease leading to palliative procedures and a high overall mortality. Despite several limitations all patients had access to endoscopy and the vast majority to barium X-Ray and CT-Scan allowing to access with accuracy the diagnosis and staging. HIV is a common co-infection in this setting of patients.

A prospective and follow-up studies are needed.

SESSION 5A: OSSOTECH ORTHOPAEDIC SURGERY SESSION

Moderators: Dr James Munthali, Dr José Langaio

1. Management of Children with Complicated Spinal Deformities in Countries with Minimal Resources

Alaaeldin Azmi Ahmad

PICA – Palestinian International Cooperation Agency, Palestine

Background:

With unique constraint facing doctors dealing with complex and demanding medical cases who are working in an institutionally underdeveloped country. The institutional context is a variable we cannot really change (or with SOME improvements on the margin). But the medical variable is slightly easier to handle. We can innovate ways to make the surgery have less postoperative demands, or to make those demands easier to handle given the adverse institutional context. Clawing rib construct is a surgical choice that can be used

Methods:

13 cases presented with severe spinal deformity, all previously surgically treated for scoliosis, 7 congenital, 3 iatrogenic, 2 syndromic, 1 idiopathic. 8 of them with other associated problems, 6 with scoliosis, 6 with kyphoscoliosis and 1 with kyphosis.

Results:
Mean age at surgery with 3,4 rib construct 10.5 years, with mean follow up time 34 months, all were done with 4 rib constructs proximally and pedicular or iliac screws distally. Mean preoperative thoracic scoliosis was 83 became 66, thoracic kyphosis 113 became 70, thoracolumbar scoliosis 60 became 40, thoracolumbar kyphosis 63 became 22. Conclusions: 3 rib construct can be an alternative choice in developing countries 1- No massive bleeding 2- No dangerous procedures 3- follow-up problems are not life threatening with this complex and demanding medical condition in developing countries, we think that 4 rib constructs may be a good and safe surgical option.

Conclusions:

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2. The Malawi Trauma Score: A Model for Predicting Trauma-Associated Mortality in a Resource-Poor Setting

Jared Robert Gallaher, Carlos Varela, Malcolm Jefferson, Anthony Charles

University of North Carolina at Chapel Hill, United States of America

Background:

Traumatic injury is a leading cause of morbidity and mortality in low-income countries. Current tools for predicting trauma-associated mortality are often not applicable in low-resource environments due to few diagnostic adjuncts. This study sought to derive and validate a model for predicting mortality that requires only a history and physical exam.

Methods:

We conducted a retrospective analysis of all patients recorded in the Kamuzu Central Hospital trauma surveillance registry in Lilongwe, Malawi from 2011 through 2014. Using statistical randomization, 80% of patients were used for derivation and 20% were used for validation. Logistic regression modeling was used to construct the Malawi Trauma Score (MTS). The model fitness was tested.

Results:

62,425 patients were included. The MTS is tabulated based on initial mental status (alert, responds to voice, responds only to pain or worse), anatomical injury location, the presence or absence of a radial pulse, age, and sex, with a total possible score of 32. Mental status exam of only responding to pain or worse, head injury, the absence of a radial pulse, extremes of age, and male sex all conferred a higher probability of mortality. The ROC area under the curve for the derivation cohort and validation cohort were 0.83 and 0.84, respectively. A MTS of 25 confers a 50% probability of death.

Conclusions:

The MTS provides a reliable tool for trauma triage in sub-Saharan Africa and helps risk stratify patient populations. Unlike other models previously developed, its strength is its utility in virtually any environment, while reliably predicting injury-associated mortality.

3. INORMUS: The International Orthopaedic Multi-center Study on Fracture Care. The Africa Experience at Study Mid-Point. The INORMUS Africa Investigators

Paul John Moroz, Mohit Bhandari, Fred Otsyeno, Benjamin Ndeleva, Mark B. Lutomia, Tony Mutanda.
**Department of Surgery, University of Hawaii, United States of America**

**Background:**

INORMUS is a global, multi-national observational study of 40,000 patients in Africa, Asia (India and China), and Latin America starting in 2014 and funded to 2019. INORMUS seeks to determine the incidence of major complications (mortality, re-operation, infection) following musculoskeletal injury and treatment to determine factors associated with these complications in LMICs.

**Methods:**

Patients 18 years and older with an orthopaedic injury (fracture, +/- dislocation) of the appendicular skeleton or spine were surveyed for demographics, mechanism of injury, treatment complications and outcomes. Analysis of major complications (mortality, re-operation and infection) and the factors (system and patient variables) associated with these within 30 days post-hospital admission by type of fracture treatment provided (e.g. conservative versus operative fixation) was performed.

**Results:**

Currently, 46 sites Worldwide are recruiting patients, including 14 sites in Africa (Kenya, South Africa, Tanzania, Uganda, Nigeria, Botswana, and Ghana). As of May, 2017, 22,660 patients have been enrolled Worldwide, including 6,287 Africans. Mid-study results show motor vehicle crashes affect Africans more than the rest of the world (54% vs 39.5%). Africa has the lowest rate of operative internal fixation (31.3% vs worldwide mean of 66.3%) and also highest delays in treatment due to lack of hospital resources (47.7% vs 32.6%). African trauma victims are generally younger (40 years +/- 16 versus 48 +/- 20), which may yield higher DALYs in Africa.

**Conclusions:**

African trauma centres can contribute high-quality data for largescale orthopaedic studies, although barriers to study participation are identified. African trauma victims receive less operative management, which may also be delayed, than other regions.

**4. Development and validation of a neglected clubfoot score to predict the response to Ponseti casting for children aged 2 to 10.**

Tim Richard Nunn

CURE Hospital, Ethiopia

**Background:**

There is no validated appropriate scoring system for neglected clubfoot. Our aim was developed a simple and reliable clinical scoring system for untreated clubfeet and assess how this score predicts the response to Ponseti casting.

**Methods:**

We measured all elements of the Diméglio and the Pirani scoring systems. To determine which aspects were useful in assessing children with neglected clubfoot 4 assessors examined 42 feet (28 patients) between the ages of 2-10 years. Selected variables demonstrating good agreement were combined to make a novel score and were assessed prospectively on a separate consecutive cohort of children with clubfeet aged 2-10, comprising 100 clubfeet (64 patients).

**Results:**
Inter-observer and intra-observer agreement was found to be greatest using the following clinically measured angles of the deformities. These were; Plantaris, Adductus, Varus, Equinus of the ankle and Rotation around the talar head in the frontal plane (PAVER). Measured angles of 1-20, 21-45 and >45 degrees scored 1, 2, 3 points respectively. The PAVER Score was derived from both the sum of points derived from measured angles and a multiplier according to age. The sum of the points was multiplied with 1, 1.5 or 2 for ages 2-4, 5-7 and 8-10 respectively. This demonstrated a good association with the total number of casts to achieve a full correction (tau=0.71). A score greater than 18 out of 30 indicated a cast-resistant clubfoot.

Conclusions:
The PAVER score could be used clinically for prognosis and treatment, and for research purposes to compare the severity of clubfoot deformities.

5. Trans-fracture Abduction Osteotomy: A solution for non-union of femoral neck fractures

Jairamchander Pingle

Apollo Hospital, Hyderabad, India

Background:
Non-union and avascular necrosis (AVN) of the femoral head remains one of the major complications following femoral neck fractures. Despite various surgical techniques and internal fixation devices, the incidence of non-union and AVN has remained unsolved. Neglected non-union of femoral neck fracture is common in the developing world. Treatment options include rigid internal fixation with or without bone grafting, muscle pedicle bone graft, valgus osteotomy of the proximal femur with or without bone graft, or hip arthroplasty. We conducted a retrospective analysis of cases of non-union of femoral neck fracture treated by trans-fracture abduction osteotomy (TFAO)

Methods:
Over a period of 35 years (1974-2008), 30 patients with non-union of femoral neck fractures were treated with TFAO. All patients were less than 50 years of age. Absence of clinical or radiological signs of union after four months was considered as non-union. Patients more than 50 years of age were excluded from the study. Union was assessed at 6 months radiologically. Limb length was measured at 6 months. The mean duration of femoral neck fracture was 19 months (range 4 months to 10 years). Results were analysed in terms of radiological union at six months. Average follow up was five years and six months.

Results:
Consistent union was noted at follow-up after six months in 29 cases. One case was lost to follow-up after five and a half months postoperatively. However, the fracture had united in this case at the last follow-up. Average shortening of the limb at six months was 1.9cm. Average neck shaft angle was 127° (range 120-145°). Five cases went into AVN but were asymptomatic. Two cases required reoperation due to back out of Moore’s pins. These were reopened and cancellous screws were inserted in the same tracks.

Conclusion:
Consistent union of non-union femoral neck fracture was noted at follow-up after six months in 29 cases. The major drawback of the procedure is immobilization of the patient in a hip spica for eight weeks.

6. Knee Fusion Using SIGN Nail: Change in Armamentarium
Anthony Muchiri Maina
AIC Kijabe Hospital, Kenya

Background:

Knee arthrodesis still has indications in this modern era of arthroplasty; and ranges from failed total knee arthroplasty, advanced tuberculous infection to severe contractures. There are several implants that can used for knee fusion, but intramedullary devices have the lowest rates of major complications, shortest time to fusion and the highest fusion rates.

Methods:

It’s a retrospective review of prospectively collated data. We enrolled 6 patients, 4 male and 2 females. Average age 37 was and were all followed up for at least 6 months. All the surgeries were performed using the same technique and were assessed for clinical and radiologic union.

Results:

83% (n=5) of the patients went on to primary union. 1 (17%) patient needed bone-grafting and dynamization but is progressing to union. All patients are ambulant full weight-bearing without any support (crutch/walker).

Conclusions:

Intramedullary devices are load sharing implants which allows early weight-bearing in addition to being less prominent. From our small series, we found using the SIGN nail is safe and has good outcomes.

7. Post-traumatic Elbow Stiffness: Outcomes after Open Surgical Release

Basil Vrettos, Stephen Roche, Robert Dachs, Jean-Pierre Du Plessis,
University of Cape Town, South Africa

Background:

Stiffness is a common complication of elbow trauma. Outcomes of a cohort of patients who underwent an open surgical release for post traumatic elbow contracture were investigated.

Methods:

A retrospective review was completed on thirty-five consecutively managed patients who underwent an open elbow release for posttraumatic stiffness between 2007 and 2012. Pre-operative and post-operative range of motion (ROM), pain scores and functional outcomes were recorded.

Results:

Mean follow-up was 31 months. The interval from injury to time of release was 26 months. An improvement in flexion arc from 49° to 102° was obtained. The improvement in flexion arc was great in patients with in patients with heterotopic bone. Intra-articular fracture, previous surgery or release performed after 2 years did not affect the improvement. There was an average of 25° loss of flexion arc when comparing immediate post-operative ROM and final ROM. Improvement in range of motion was seen up to 6 months post release. Release of the posterior band of the medial collateral ligament resulted in improved final flexion. Final elbow extension was greater if anterior release was performed from a lateral approach. In total, 74% of the cohort achieved a functional final flexion arc. The complication rate was 26%, and re-operation rate was 11%.
Conclusions:

Open release for post-traumatic elbow stiffness results in satisfactory functional outcomes in the majority of cases. There may be significant losses in ROM from intra-operative measures. A functional arc may take 6 months to achieve. Reoperation rate is high.

SESSION 6: OSSOTECH GLOBAL SURGERY SESSION

Moderators:  Dr Dan Decklebaum, Dr Matchekane Cossa

1. The African Surgical Outcomes Study: A 7-Day Prospective Observational Cohort Study

T. E. Madiba, Bruce Biccard,

University of KwaZulu-Natal, South Africa

Background:

Postoperative mortality represents a major global health burden. There is little internationally comparable data from Africa of outcomes following surgery.

Methods:

Seven days, national, multicentre, prospective, observational cohort study of patients ≥18 years of age undergoing in-patient surgery in Africa. The primary outcome was in-hospital postoperative surgical complications. Secondary outcomes included; i) in-hospital mortality, ii) and the relationship between postoperative complications and postoperative mortality, and the risk factors independently associated with in-hospital mortality and postoperative complications.

Results:

11422 patients participated from 25 countries in Africa. In-hospital complications following surgery were observed in 1977/10885 (18.1%, 95% CI 17.4-18.9) patients, and mortality was 239/11193 (2.1%, 95% CI 1.8-2.4). The median duration of hospital stay was 3 (IQR 2-5) days which was significantly increased to 6 (IQR 4-13) days (p<0.001) following a complication. The postoperative admission in intensive care unit was 511/10991 (4.6%, 95% CI 4.3-5.0). When compared to the International Surgical Outcomes Study (ISOS), patients in Africa were twice as likely to die following surgery and following a surgical complication (p<0.001).

Conclusions:

Although, surgical patients in Africa have a lower risk profile than high-income countries, there is a significantly increased mortality following a surgical complication in Africa.

2. Operative Volume, Case Distribution, and Associated Drivers in Uganda’s Public Health Sector

Katherine Albutt, Maria Punchak, Peter Kayima, Didacus Namanya, Mark G Shrime

Program in Global Surgery and Social Change, Harvard University, USA

Background:
The majority of Ugandans seek healthcare from public facilities but relatively little is known about operative volume, case distribution, and capacity of this system to deliver essential surgical services.

Methods:

A standardized hospital assessment survey and retrospective 30-day operative logbook review were completed at 17 randomly selected hospitals serving 64.0% of Uganda's population.

Results:

A total of 3,014 operations were recorded, annualizing to a surgical volume of 36,670 cases/year or 144.5 operations/100,000 people/year. Absolute surgical volume was greater at regional referral than general hospitals (p<0.001); however, relative surgical volume/catchment population was greater at the general versus regional level (p=0.03). Most patients undergoing operations were women (78.3%) with a mean age of 26.9 years. The overall case distribution was 69.0% obstetrics/gynaecology, 23.7% general surgery, 4.0% orthopaedics, and 3.3% other subspecialties. Caesarean sections were the most common operation (55.8%), followed by skin/soft tissue (9.2%), laparotomy (7.5%), and herniorraphy (5.0%). The case distribution and anaesthesia type varied significantly by hospital level and region (p<0.001 for all). Operative volume was strongly predicted by number of surgical, anaesthetics, and obstetric physician providers (=13.0, p<0.001) and presence of trainees (=108.6, p=0.01); this multivariate regression analysis was statically significant (F (2,13) =36.98, p<0.001, R2=0.828). Notably, operative volume was not correlated with availability of electricity, oxygen, blood, instruments, suture, intravenous fluid, or antibiotics.

Conclusions:

A detailed understanding of case volume and distribution is essential in facilitating targeted interventions to strengthen surgical capacity. These data suggest that innovative strategies are being used to maintain operative volume despite extreme infrastructural and supply constraints.

3. An assessment of access to neurosurgical care in the COSECSA member states

Meghal Shah, Sophie Park, Kee Park.

Warren Alpert Medical School of Brown University, United States of America

Background:

The global unmet surgical need affects 5 billion people, disproportionately in low and middle-income countries. The state of neurosurgical care within these countries has yet to be assessed. In this study, we describe access to neurosurgery in the 10 member states of the College of Surgeons of East, Central and Southern Africa (COSECSA).

Methods:

For each COSECSA country, data on neurosurgical workforce density and access to a neurosurgeon were collected from the World Federation of Neurosurgery’s (WFNS) Global Neurosurgery Workforce Map and its Neurosurgical Access and Capacity Maps, available on the WFNS website, www.wfns.org. The data was used to assess those countries’ neurosurgical coverage.

Results:

The COSECSA countries are ranked on neurosurgical workforce density (per 100,000): Zambia (0.438), Uganda (0.264), Kenya (0.049), Zimbabwe (0.039), Mozambique (0.029), Ethiopia (0.025), Rwanda (0.017), Tanzania (0.015), Malawi (0.011) and Burundi (0.009). They are then ranked on 2-hour access to a neurosurgeon (% of population): Rwanda (78.3), Malawi (61.1), Burundi (58),...
Uganda (46), Kenya (43.1), Ethiopia (17.6), Zimbabwe (22.5), Zambia (21.7), Mozambique (21.2), Tanzania (16.4).

Conclusions:

Neurosurgical workforce density does not accurately reflect neurosurgical coverage for a country’s populace; rather, 2-hour accessibility is a better indicator. This discrepancy can be attributed to concentration of the workforce and the geographic size of the country. The continued collection of subnational data is vital for benchmarking, tracking of progress, and planning in improving access to neurosurgical care within the region.

4. Surgical equipment in Africa: availability, barriers, equipment journey and novel redesign

Roos Marieke Oosting, Linda Wauben, Reinou Groen, Jenny Dankelman

Delft University of Technology, Netherlands

Background:

Besides increased workforce capacity, increased availability of surgical equipment will be required to improve surgical capacity worldwide.

Methods:

A survey to identify the current availability and barriers of surgical equipment was conducted among surgeons attending the annual meeting of the College of Surgeons of East, Central and Southern Africa (COSECSA) in December 2016. Secondly, the surgical equipment journey (procurement, active use and disposal) in Kenya was identified during interviews with 8 biomedical engineering technicians (BMETs), 1 local distributor of medical equipment, 2.

Results:

Forty-three respondents participated in this study, representing 33 individual health facilities (14 public referral, 9 public districts and 10 private (for-profit and non-profit). The respondents worked in 9 countries across Africa. The largest barriers and unavailability were found for electrosurgical units, endoscopes, defibrillators, infusions pumps and electrocardiogram monitors. Lack of maintenance and old/overused equipment were identified as major reasons to failure of equipment. The surgical equipment journey in Kenya showed that maintenance and repair of surgical equipment in Kenya relies mostly on the skills of BMETs working in the hospitals, due to the absence of service contracts.

Conclusions:

Novel context appropriate redesign that is reparable by local BMETs with easily accessible spare parts requires a different design and implementation strategy by biomedical companies, but does not need to compromise on quality (safety and functionality). It is expected that these strategically efforts will increase the lifespan of surgical equipment across Africa. We are currently working on context appropriate designs of a cryo device, an electrosurgical unit and a video laryngoscope based on this strategy.

5. Assessment of low- and middle-income country trauma registry quality and user satisfaction – a Strength, Weakness, Opportunity and Threat (SWOT) survey.

Etienne St-Louis, Lucy Luo, Elizabeth Tissingh, Tarek Razek, Dan Poenaru,

McGill University Health Centre, Canada
Background:

Trauma registries are critical adjuncts for quality improvement in trauma care. However, registry implementation in low-resource settings can be challenging. We sought to study the perceptions, experiences and satisfaction of trauma registry users and non-users in low- and middle-income countries (LMICs).

Methods:

A tri-lingual survey was designed to investigate the strengths, weaknesses, opportunities, and threats (SWOT) relating to trauma registry implementation in LMICs. After obtaining institutional ethics approval, the survey was piloted in 10 respondents and subsequently adjusted. It was then sent to 100 trauma care providers with and without trauma registry experience in LMICs. The SWOT survey data was analysed quantitatively using descriptive statistics. Additional qualitative data was obtained through focused telephone interviews, which were recorded, transcribed, and analysed by thematic analysis using a ground-based theory model.

Results:

Response rate was 50%. Among respondents, 86% answered in English, 64% were LMIC providers with trauma registry experience, and most worked in university-affiliated, publicly-funded institutions where both adults and children receive care. Thirty-two (64%) survey respondents consented to a focused interview. Twenty-six respondents (52%) were registry users, 19 (38%) were non-users, and 5 (10%) were high-income country collaborators. Registry characteristics ranked as most important were cost and user-friendliness, and the three most cited perceived threats to registry implementation were lack of personnel, high costs, and time constraints.

Conclusions:

Successful implementation strategies for trauma registries in LMICs should account for the context-specific challenges highlighted by the survey and interview responses to maximize user satisfaction and sustainability.

6. The Establishment of a Trauma Registry in Gondar, Ethiopia.

Annie Lalande, Kristin DeGirolamo, Dessie Yirdaw, MeronBerhanu, ShahrzadJoharifard, Richard Simons

University of British Columbia, Canada

Background:

Trauma constitutes a major cause of morbidity and mortality worldwide, and its burden is highest in low- and middle-income countries. Collection of standardized data on trauma patients allows for targeted injury prevention programs, improved allocation of resources and supports advocacy. A minimal trauma dataset had been deployed in Gondar previously; unfortunately, data collection had not been sustained. Given an ongoing interest in a registry, another visit was planned. The objective of this project was to re-establish the trauma registry in the Gondar University Hospital, to identify key players and interventions to ensure continuity.

Methods:

During the field visit in June 2017, focus-group discussions were held with the key interested surgeons and information sessions were held with the residents and interns, the main data collectors. A statistician joined the team as an archivist entering the data collected on paper at the bedside into a tablet-based application, creating a standardized trauma registry.
Results:

Data collection has been ongoing since the visit in June 2017, with a total of 418 patients currently in the trauma database. Some of the most significant interventions in ensuring continuity of collection were creating a data flow involving bedside data collection by the interns, and having access to an archivist with dedicated weekly time for data entry.

Conclusions:

Successful implementation strategies for trauma registries in LMICs should account for the context-specific challenges highlighted by the survey and interview responses to maximize user satisfaction and sustainability.

7. Global Perceptions of Surgery as Part of Universal Health Care Coverage

Yerokun, O, Yohannan, P.

Johns Hopkins Bloomberg School of Public Health, General Preventive Medicine. Baltimore, MD, United States of America

Background:

The global health community is starting to embrace surgery as an essential aspect of universal health care. World Health Organisation resolution 68.15 passed during the World Health Assembly in 2015 focused on providing essential surgical care and anaesthesia services as a part of universal health care coverage. Many global organizations are increasing the number of resources aimed at improving access to surgical care in low resource settings but not all of the global community has embraced this idea, seeing surgery as a specialty service. The integration of surgery and anaesthesia in universal health care systems requires more than just increased quality, access and resources, but also a change in overall perception of surgery.

The global community’s efforts to include surgery as part of universal health care systems may be futile without acceptance by clinicians and stakeholders globally. Different health systems have different health challenges to prioritize but there are basic services that all agree should be included in a universal health care system. We seek to explore clinician’s perceptions of surgical and anaesthesia care by surveying those who work in a variety of settings.

SESSION 6A: OSSOTECH NEUROSURGERY SESSION

Moderators: Dr Laston Chikoya, Dr Yunnus Assane

1. Tracheostomy without Mechanical Ventilation in Traumatic Brain Injury did not Improve Survival in a Tertiary Referral Hospital in Malawi

Gift Mulima, Asma Bilal Hanif, Anthony Charles, Sven Young.

Kamuzu Central Hospital, Lilongwe, Malawi

Background:

The role of tracheostomy without mechanical ventilation (TwMV) in traumatic brain injury (TBI) is not well delineated in the literature. We describe our experience with TwMV in TBI in our setting with minimal critical care capacity.

Methods:
This is a retrospective review of medical records and trauma surveillance data of patients admitted to Kamuzu central hospital, Lilongwe, Malawi, with TBI from January 2010 to December 2015. In-hospital mortality rates were examined according to registered TBI severity and airway management.

Results:

We reviewed 1895 patient’s records. There was a male preponderance at 83.4% with an average age of 32.6 ± 12.9 years. 14.3 % (n=270) of the patients had a definitive airway management with or without mechanical ventilation. Among patients with severe TBI (n=262), 9.2 % received TwMV and 26.0 % neither had endotracheal intubation (ETT) nor tracheostomy. Mortality was 41.7% (n=10) in TwMV and 20.6% (n=14) in the no ETT/tracheostomy (p= 0.043). Among those who were mechanically ventilated, 35.1% (n=92) who had ETT and 29.8 % (n=78) who had tracheostomy had severe TBI. Mortality in these groups was 73.3% (n=66) and 43.6 % (n=34) respectively, (p<0.001). The overall tracheostomy complication rate of was 11.3%.

Conclusions:

Tracheostomy without mechanical ventilation in severe TBI did not improve survival outcomes in our setting. This compounds airway management in TBI in settings like Malawi where critical care resources are inadequate. Efforts to improve critical care facilities and proper use of mechanical ventilation in severe TBI should be a high priority in this setting.

2. The Impact of The Introduction of Pecarn Head Ct Rules on The Utilisation of Head CT Scans in a Private Tertiary Hospital in Sub-Saharan Africa

Isaac Oluoch Kobe

Aga Khan University Hospital, Nairobi

Background:

The decision to order head CT scans to rule out clinically significant traumatic brain injury in mild head injury in children is made on the basis of clinical decision rules of which the PECARN CT head rules have been found to be most sensitive. Objectives were to determine the proportion of head CT scans done for children with mild head injury and to determine disposition of patients from casualty after the introduction of PECARN head CT rules compared to the period before. Research question: Will introduction of the PECARN CT head rules reduce the proportion of head CT scans requested for children under 18 years with mild head injury at the AKUHN.

Methods:

A before and after quasi experimental study with a study population including all children under 18 years presenting to the AKUHN with mild head injury and a Glasgow coma scale of 14 and above on presentation. Sample size was 85.

Results:

A total of 42 patients files were analysed in the before study while 43 patients were selected for the after study. The median age was 5 years. The proportion of head CT scans reduced from 56% in the before group to 33% in the after group with no missed clinically significant traumatic brain injury. More patients were discharged home after evaluation in the after group (81%) than in the before group (58%).

Conclusions:
The number of head CT scans ordered reduced without missing any clinically significant traumatic brain injury.

3. The Ethiopian Neurosurgery Outcome Monitoring Database: Development and Progress With Emphasis on Neurotrauma

TsegazeabLaKe Teklemariam, Abenezer TirSt Aklilu, Sundstrom Terje Sundstroem, Lund Johansen Morten

Addis Ababa University, College of Health Sciences, Ethiopia

Background:

Neurosurgical practice in sub-Saharan countries is hampered by a deficiency of human resources and adequate hospital facilities. Ethiopian neurosurgery has seen great progress since the start of the residency training program in 2006, and sustainable academic neurosurgical practice is under development. However, there are some unmet challenges when it comes to patient monitoring and outcome assessment. To this end, we developed an outcome monitoring database to provide better overview of the quality and quantity of the neurosurgical service.

Methods:

Pretested questionnaires were developed for neuro-trauma and elective cases. We collected data prospectively from October 2012 to May 2015 at three main teaching hospitals: Black Lion, Zewditu and MCM Korean Hospitals. Data analysis was performed using SPSS 21 software.

Results:

The total number of patients registered in the database was 2078, of which 1163 (56%) were neuro-trauma cases. A documented preoperative diagnosis was registered for 1151 neuro-trauma patients; 995 (86.4%) had traumatic brain injury and 156 (13.6%) had spine injury. There were 14.2% severe head injuries and 31.6% moderate head injuries. Postoperative complications were seen in 6.2% of all operated emergency patients, and the most common complication was postoperative infection (42%). The mortality rate among all operated emergency patients was 6.8%.

Conclusions:

The neurosurgical outcome monitoring database has become an integral and important part of the neurosurgical practice in Ethiopia. Building on this database, and with a particular emphasis on the prevalent neuro-trauma cases, we hope to gain a better overview and understanding of the services provided in our resource-limited setup.

4. The African Surgical Outcomes Study: A 7-Day Prospective Observational Cohort Study

T E Madiba, Bruce Biccard.

University of KwaZulu-Natal, South Africa

Background:

Postoperative mortality represents a major global health burden. There is little internationally comparable data from Africa of outcomes following surgery.

Methods:
Seven days, national, multicentre, prospective, observational cohort study of patients ≥18 years of age undergoing in-patient surgery in Africa. The primary outcome was in-hospital postoperative surgical complications. Secondary outcomes included; i) in-hospital mortality, ii) and the relationship between postoperative complications and postoperative mortality, and the risk factors independently associated with in-hospital mortality and postoperative complications.

Results:

11422 patients participated from 25 countries in Africa. In-hospital complications following surgery were observed in 1977/10885 (18.1%, 95% CI 17.4-18.9) patients, and mortality was 239/11193 (2.1%, 95% CI 1.8-2.4). The median duration of hospital stay was 3 (IQR 2-5) days which was significantly increased to 6 (IQR 4-13) days (p<0.001) following a complication. The postoperative admission in intensive care unit was 511/10991 (4.6%, 95% CI 4.3-5.0). When compared to the International Surgical Outcomes Study (ISOS), patients in Africa were twice as likely to die following surgery and following a surgical complication (p<0.001).

Conclusions:
Establishing training programs in order to expand the surgical workforce, improve surgical capacity, and ultimately improve outcomes is a necessary step to meet the demand for neurosurgery given the current burden of disease. In addition, targeted injury prevention programs are needed to reduce the overall burden of neurosurgical trauma.

5. Self-sustainable and high-quality data acquisition model for Spine Trauma Data collection in developing countries.

_Salim Rashidi Msuya, Andreas Leidinger, Eliana Kim, Pasco Joakim Semda, Hamisi Kimario Shabani, Roger Hartl_

_Muhimbili Orthopaedic Institute, Dar-es-Salaam, Tanzania_

Background:
In developing countries, non-existent data collection often obscures the gravity of damage Spine Trauma has on Public Health. At the Muhimbili Orthopaedic Institute (MOI) in Dar-es-Salaam, Tanzania, spine trauma cases were registered for the past 12 months by a research group (Weill-Cornell Medicine). Thereafter, a comprehensive Data Collection Model (DCM) was proposed, which involve local practitioners to collect data as part of their daily duties. The main objectives of this study were: To establish a tailored and self-sustainable system for data collection; and second, to determine if the quality of data changed after transferring data collection responsibilities to local practitioners.

Methods:
In July 2017, we implemented a DCM with Quality Assurance (QA). We retrospectively compared the quality of data collection and patient registry before and after the implementation of our DC.

Results:
Among 118 patients in the database in total, 98 patients were collected by Weill Cornell Medicine from October 2016 to 2017; 20 patients were collected by MOI from July 2017 to present under our DCM. After the implementation of our method, the number of missing forms, failed data entry and unclear data remained low. Also, the duration of hospital stay decreased by 5.7% and time to surgery decreased by 15%. For ASIA incomplete patients, the time to surgery was reduced by 27.3%.
Conclusions:
Implementing high quality self-sustainable data collection is possible in developing countries. In our experience, it systematizes patient management and can lead to higher efficiency.

6. Outcomes of C1-C2 Instability Fixation with C1 lateral mass and C2 Pars screws

Anthony Muchiri Maina, Morris Kitua
AIC Kijabe Hospital, Kenya

Background:
Atlantoaxial fixation can be done either trans-orally, through the anterior retropharyngeal route, laterally or posteriorly. The posterior approach dominates. Posterior fusion with C1 lateral mass screws and C2 pars/pedicle screws has been shown to produce better clinical outcomes than posterior C1/C2 wiring.

Methods:
It’s a retrospective review of prospectively collated data between 2016 and 2017. All the 5 patients, with an average age of 39 years, were followed up for at least 6 months after surgery and had C1 and/or C2 instability secondary to trauma. There were 4 males and 1 female patients. The ASIA Impairment Scale and Oswestry Neck Disability Index were the clinical outcome measuring tools. Radiographically, plain x-rays were used to assess radiologic union.

Results:
Clinically, no patient deteriorated and all (100%) attained ASIA Scale E. On the Oswestry Neck Disability Index grading, there was no disability in 20%(n-1) and minimal disability in 80%(n-4). All (100%) the patients attained radiographic union. There was 1(20%) acute deep infection in a diabetic patient.

Conclusions:
The use of C1 lateral mass screws and C2 pars screws is safe and effective for fixation of C1-C2 instability.

7. Neurosurgery at a Mission Hospital in Rural Kenya

Will Copeland
Tenwek Hospital, Kenya

Background:
Tenwek Hospital is located in the city of Bomet in southwestern Kenya. It is a Christian mission hospital serving a largely rural patient population. Prior to September 2016 the hospital had never had a full-time neurosurgeon on faculty.

Methods:
A description of the Division of Neurosurgery at Tenwek Hospital, including a prospective database of neurosurgical cases performed between September 2016 and September 2017.

Results:
During the study period, there were more than 500 admissions to the neurosurgical service, over one-third of which were the result of head or spine trauma. Of the more than 300 operations performed, the majority of cases were of an urgent or emergent nature wherein significant delay would have likely led to neurologic compromise or death. Operations spanned a wide variety of subspecialty disciplines including cerebrovascular and skull base, instrumenting spine, paediatrics, and peripheral nerve. Overall 30-day operative mortality rate was 4%. More than 90% of patients were stable or improved from their preoperative status.

Conclusions:

There is a great need for neurosurgical services in Kenya and throughout East Africa, particularly in rural areas. Despite financial restraints and limitations in infrastructure, good outcomes can be achieved in such settings. Efforts to improve neurosurgical care in Africa do not necessarily have to focus solely on large urban centres.

SESSION 7: THL- Cardio-thoracic Surgery and Cancer surgery

Moderators: Prof Stephen Ogendo, Dr Adriano Tivane

1. Left thoraco-abdominal penetrating knife-stab injuries with diaphragmatic hernia

Jacques Fadhili Bake, Neil Robert Wetzig, Medard Jean KakuleKabuyaya, Luc MalemoKalisya,

HEAL Africa Hospital, Congo

Background:

Traumatic diaphragmatic hernia is a defect in the continuity of the diaphragm due to blunt or penetrating thoraco-abdominal trauma, which allows communication between abdominal and thoracic cavities. The reported incidence of diaphragmatic injuries resulting from penetrating trauma in the left thoraco-abdominal area is particularly high. The recognition and management of these injuries remain challenges for surgeons.

Method:

Information collected on a specific challenging case.

Results:

We report a clinical case of a 22-year-old male who was brought into the emergency department with two knife stab injuries to the left chest. The type and length of the knife were not available at arrival. A chest x-ray and later CT scan demonstrated a hydro-pneumo-thorax. An intercostal catheter was inserted and debridement of wounds performed. The persistent drainage of fluid and then some undigested foods through the chest tube resulted in a contrast study of the upper gastrointestinal tract which has showed contrast passing from stomach to the chest. Surgical exploration was performed through a midline laparotomy which revealed intrathoracic herniation of the stomach through two separate defects in the diaphragm and two defects in the stomach.

Conclusions:

Complex traumatic diaphragmatic herniation with hollow organ perforation may be a difficult diagnosis but should be suspected in the presence of penetrating thoracic trauma. Details of the diagnostic dilemmas in this case will be discussed. Such challenging cases may need a laparotomy for diagnosis and management.
2. Solid organ cancer burden in South Sudan Fathoming the extent of the problem A collaborative survey by a group of specialist doctors

Mayen Machut Achiiek, Frederick Khamis Tawad

University of Juba, South Sudan

Background:

Solid organ cancers are at the top of public health concern worldwide as clearly shown by the WHO periodic reports on these cancers and their incidence trends. In South Sudan, we have our share of cancer burden, except that it has not been measured. To know the size of this, we conducted a prospective simple epidemiological surveying study over a year.

Methods:

Patients & Methods This was a prospective study conducted by Physicians, Gynaecologists and Surgeons over a year in 6 hospitals in South Sudan (JTH, JM, SS MSH, MS Maternity H, and Gudele Surgical Home). This was carried out prospectively between Jan.2015 to Jan.2016. All patients who were diagnosed with solid organ cancers were included and registered, detailing their demographic particulars, type of cancers, common clinical presentation, and type of cancer, management and one year survival.

Results:

During this year we recorded about 114 patients, (74/114) males, (40/114) females, with an age range (3-83) and a mean of (44) years. The commonest cancers were hepatocellular 18/114(15.78%) and gynaecological malignancies 16/114(14.03%) followed by oropharyngeal, breast and penile cancers in that sequence. This study demonstrated that all the common solid organ malignancies are prevalent in South Sudan.

Conclusion:

Solid organ cancer prevalence is significant in Africa as shown by the collaborative sampling study in South Sudan and deserves a designated budget in healthcare plans.

3. Determining the prevalence of Oesophageal Squamous Dysplasia via Lugol’s Chromo endoscopy in South-western Kenya

Michael Mwachiro

Tenwek Hospital, Kenya

Background:

Oesophageal cancer (EC) is the 8th most common cancer and the 6th most common cause of cancer death in the world. The dominant histologic subtype of EC in most high-risk areas is squamous cell carcinoma (ESCC). ESCC is one of the top causes of cancer morbidity and mortality. In Kenya, it is the 3rd most common cancer in females and 2nd most common cancer in males. ESCC is the most common cancer at Tenwek, a 300-bed facility where we offer both curative and palliative care for ESCC through surgical resection and endoscopic palliation with stents. Oesophageal squamous dysplasia (ESD) is the precursor lesion for ESCC. This study was designed to determine the feasibility of screening for ESD and to determine the prevalence of ESD in our area. Normal oesophageal squamous cells reversibly stain with Lugol’s Iodine whereas dysplastic cells do not take up the stain.
Methods:

This was a prospective, cross-sectional cohort study, where we recruited 313 asymptomatic adults to undergo trans-oral video-endoscopy of the oesophagus with Lugol’s iodine staining and biopsy of identified non-staining lesions. The hypothesis was that ESD is common in our region, due to high ESCC rates. The subjects were stratified by age, gender and geographic location. Participants also completed a detailed questionnaire and provided blood and urine samples. The feasibility of screening was evaluated by the proportion of participants who completed the endoscopy, the number of adverse events, and participants’ evaluation of procedural discomfort. We calculated the overall and age-specific prevalence of ESD and analysed the association between potential risk factors and ESD using logistic regression.

Results:

305 (97%) completed endoscopy. Study procedures were well tolerated and there were no adverse events. Eighty percent of the participants reported experiencing mild discomfort during the procedure. The overall prevalence of ESD was 14.4% (95% CI: 10-19%), including 11.5% with low grade dysplasia and 2.9% with high grade dysplasia. The prevalence of ESD was >20% among men older than 50 years and women older than 60 years. Residence location was significantly associated with ESD Zone A adjusted OR 2.37, 95% CI: 1.06-5.30, and Zone B adjusted OR 2.72, 95% CI: 1.12-6.57, compared to Zone C. Age, alcohol consumption and geographic location were associated with an increased risk of dysplasia. Twenty percent of the dysplastic biopsies were visible by standard endoscopy, 55% more were identified only after staining with Lugol’s Iodine and 25% came from normal appearing mucosa. Iodine chromo endoscopy with biopsy of unstained lesions was more sensitive than white light endoscopy or random mucosal biopsy for detection of ESD, and had 67% sensitivity and 70% specificity.

Conclusions:

The prevalence of ESD in asymptomatic subjects in south-western Kenya is common especially in those >50 years and those living in particular geographic zones. Endoscopic screening for ESD and early cancer is feasible, safe, and patient-acceptable in this high-risk population. Lugol’s staining increases the sensitivity of screening and is necessary for reliable detection of squamous dysplasia. Findings from this study will help to refine the design of screening and intervention programs for dysplasia in this area but more accurate and less invasive screening tests would be beneficial.

4. Breast Conserving Surgery and Reconstruction

T.P.S. Bhandari

New Delhi, India

Background:

The surgical management of Breast Cancer has undergone an evolution over the last century when Radical and supra radical breast resections failed to improve cure rate’s and with better understanding of the biology of the disease with its pattern of spread, the Early Breast Cancer Trialists Collaborative group established the equivalency of Mastectomy and BCS in 1985, BCS has remained the Optimal surgical procedure. However Aesthetic success in BCS is dependent upon variety of pts and tumour specific factors like small breast size, large Tm, medial quadrant Tm, multicentric disease and large volume resection which led to poor cosmetic goal of optimizing cosmetic and oncologic outcomes of BCS has been addressed by Breast Reconstructive Surgery using an assortment of techniques for volume replacement using myocutaneous tissue flaps, Implants and local advancement flaps.
Oncoplastic Breast Surgery involves immediate breast reconstruction incorporating plastic surgical techniques to improve aesthetics and quality of life without comprising local control of disease. It is based on three surgical principles ontologically sound breast cancer surgery with clear margins, immediate breast reconstruction and symmetry with contralateral breast.

5. Improving standards of breast cancer treatment in Africa: a new approach to education and training

Richard Myles Rainsbury, Leena Shaukat Chagla

UK Association of Breast Surgery, United Kingdom

Background:

Breast cancer (BC) is the commonest cancer in low Health Development Index (HDI) countries (WHO/CRUK), accounting for 25% of the global cancer burden. BC mortality in Africa approaches 50% (incidence: mortality 37:18/100,000; Globocan 2012), as a result of poor education, late presentation, and restricted access to limited care. In the UK, earlier detection, better surgery, better multidisciplinary management, national guidelines and annual audits have increased survival by >25% since 1990.

Methods:

UK training for breast surgeons has included the acquisition of breast and plastic skills since 1996. This has significantly increased immediate reconstruction rates during partial and total mastectomy for BC, making outcomes much more acceptable to patients. The Association of Breast Surgery (ABS) has recently launched an International Forum to support ‘best practice’ overseas. The Forum’s remit is to work with surgical teams in HDI countries, teaching modern BC surgery and multidisciplinary care. Planned initiatives include ‘best practice’ courses and visiting professorships in African countries, fellowships and observerships in recognized UK breast units, and complementary places at ABS conferences.

Results:

We aim to achieve: better BC outcomes in Africa through combined initiatives; earlier BC presentation through training and education; more psychological support for patients through nurse-led training; unique training opportunities for African surgeons in top UK breast units.

Conclusions:

These proposed initiatives have real potential to raise the standards of BC care in Africa

SESSION 7A: THL- UROLOGY SESSION

Moderators: Dr Christopher Samkange, Dr Igor Vaz


Kasonde Bowa

Copperbelt University, Zambia
Background:

Cancer of the Bladder is the 9th leading cause of cancer in developed countries. There is a 15-fold variation in the incidence of the cancer internationally. 1. There is little written on Cancer of the Bladder in Sub-Saharan Africa in the literature. 2. The predominant histological sub-type of Cancer of the Bladder in developed countries is Transitional Cell Carcinoma (TCC). In much of Sub-Saharan Africa the predominant sub-type continues to be Squamous Cell Carcinoma (SCC) of the Bladder. Most of the literature has focused on TCC of the Bladder. The staging and treatment guidelines focus almost exclusively on TCC2,3. Urologists and Surgeons practicing in Sub-Saharan Africa, are faced with the challenge of managing Bladder Cancer of SCC subtypes which presents in a very different way from TCC4. While the aetiology of TCC relates in part to industrialisation, much of SCC aetiology is related to a high burden of Schistosomiasis.

Methods:

A systematic review of all published journal articles in pub med search engine was done. The key search words used were Cancer of the Bladder in Africa. There are very few articles available on the pub med on this subject. All articles available on pub med were included in the search. A secondary search was done using google scholar with the same keywords. All papers published on the subject in Africa were included in the review. The review followed the sub topics of epidemiology, aetiology, presentation, pathology and management. These sub topics were used to report on the Cancer of the Bladder in Africa in contrast to Cancer of the bladder in Europe. The review focused in particular on the subject of pathology and staging of Cancer of the Bladder in Africa.

Results:

The clinical presentation of TCC is mostly with painless haematuria, while in contrast, that of SCC presents with painful haematuria and necroturia4. Like most urological diseases in developing countries, SCC presents late to the urologist, when already advanced with muscular invasion2,3,4. In contrast most TCC presents relatively earlier with only mucosal involvement. The management of TCC is mostly by Transurethral Resection of Bladder Tumour (TURBT) and bladder instillation2,3. On the other hand SCC is managed mostly by Open surgery. Bladder Cancer staging uses the TNM staging, has a histological basis, and is more applicable to TCC than to SCC. SCC is in practice better staged by an organ based staging system1,2,3,4.

Conclusions:

The recommended Bladder Cancer staging, uses the TNM system. This staging system, is based on histological layer invaded. This is more applicable to TCC than to SCC. In practice SCC lends itself better to an organ based staging system 1,2,3,4. This paper highlights the key differences in clinical presentation of SCC and TCC in African Urological practice. It also proposes a practical system of staging SCC, which makes the management easier in the clinical settings of African urological practice. Zambia is a country in South Central Africa with large fresh water bodies. It is because of these fresh water bodies that there is high prevalence of Schistosomiasis in many parts of the country. Cancer of the Bladder is the second most common urological cancer in Zambia5. This cancer has shown a declining proportion of SCC over the last 20 years. However, the predominant subtype still remains SCC. The clinical presentation is similar to that described in other Sub-Saharan African countries.

2. Burden and Clinico-pathological Characteristics of Urological Malignancies At Kamuzu Central Hospital In Malawi

Charles Ekari Mabedi

Department of Surgery, Kamuzu Central Hospital, Lilongwe, Malawi
Background:

Globally, urological cancer incidence rising. Currently, the burden of urological cancer is ≥14.9%. (Geolani W. et al., 2017). In Malawi, the burden and clinico-pathological characteristics of urological malignancies treated at the national urological referral centre, Kamuzu Central Hospital (KCH), remain undocumented. Such knowledge would direct uro-oncology care and research. The study aimed at establishing the burden and clinic-pathological characteristics of urological malignancies treated at KCH.

Methods:

A retrospective descriptive analysis of all histologically confirmed urological malignancies at KCH from July 2011- March 2017.

Results:

658 urological malignancies retrieved, representing 9.7% burden. 3.5% of these are in children. Top three cancers are prostate (48.3%), bladder (23.8%) and penile (20%) respectively. 99.4% of prostate cancer is Adenocarcinoma and 48% are high grade. 56% of bladder cancers occur in females. The histological subtypes are SCC (61.7%), TCC (28%) and adenocarcinoma (5%). When staged (n=52) 94.2% of bladder cancer are muscle invasive, and when graded 59.1% are high grade. For penile cancer (21-94 yrs.), SCC is the commonest histological type at 95.5%. When staged (n=83), 100% are invasive. When graded (n=48), high grade tumours (43.8%) predominate. HIV prevalence in penile cancer stands at 78% (n=45).

Conclusions:

KCH has a considerable (9.7%) burden of urological cancer for the current attending two urologists. Majority of cancers are high grade and present late. There is a huge demand for radical uro-oncological surgeries due to the invasive nature of bladder and penile cancer. More research in bladder and penile cancers is warranted in an attempt to alter these cancer burdens.

3. Circumcision: A minor procedure with major complications. A case series of patients presenting to the University Teaching Hospital, Lusaka, Zambia.

Mumba Chalwe, Nenad Spasojevic

University Teaching Hospital, Zambia

Background:

Circumcision is one of the most commonly performed surgical procedures, and is generally considered a simple procedure that can be performed by any health care provider with basic training. As a minor procedure circumcision carries with it the risk of complications that are usually not considered high grade based on the Clavien-Dindo grading system for surgical complications; these are typically Grade I complications such as surgical site infections, minor bleeding, and hematoma formation. However, it is important to make mention of the higher-grade complications that would require specialist intervention and at times several surgical procedures to correct.

Methods:

Case series

Results:

Three cases are reported: urethral injury with subsequent fistula formation, skin loss, and bleeding necessitating transfusion. In terms of patient age groups represented, there was one paediatric case
that had undergone neonatal circumcision and presented with urethra cutaneous fistula and two adults that had undergone voluntary male circumcision who presented with penile skin loss while the other presented in haemorrhagic shock and required a blood transfusion.

Conclusion:

it can be said that circumcision, a minor and relatively simple surgical procedure is best carried out by adequately trained providers to avoid potentially debilitating complications.

4. Prostate Cancer – An Update and a Path Forward

Louis Leon Pisters

The University of Texas M.D. Anderson Cancer Centre, United States of America

Background:

Prostate cancer mortality is high in many COSECSA countries. Prostate cancer trials are unfortunately commonly flawed leading to potential harm. For prostate cancer mortality to improve, physicians need to understand randomized studies of PSA screening and prostate cancer treatment.

Methods:


Result:

An updated analysis of the PLCO trial shows that up to 90% of the control arm had at least one PSA before or during the trial. (Shoage JE, NEJM, 2016). Sadly, the PLCO trial is therefore completely flawed and led to potential harm with less PSA testing in the USA. The PLCO trial also adversely affected US government policy. PSA testing saves lives. Radical prostatectomy reduces prostate cancer death.

Conclusions:

Prostate Cancer centres of excellence could be developed in COSECSA countries. The critical elements are reliable PSA testing, prostate biopsy, skilled pathologists, and surgeons to perform radical prostatectomy.

5. Preputial mucosal graft for substitutional Urethroplasty

Kasonde Bowa

Copperbelt University, Zambia

Background:

The Buccal Mucosa graft (BMG) is a wet mucosa of stratified squamous epithelium non-keratinised. This makes it an ideal replacement for the diseased urethra. In our setting, this adds additional operating time and the requirement for the patient to have general anaesthesia and intubation. The preputial mucosa is of the foreskin of the uncircumcised penis is also a wet mucosa which has similar epithelium to the BM. The use of the Preputial Mucosa graft (PMG) for Urethroplasty was described
by Barbagli and was shown to produce good results. In this report, we have found the use of PMG easier than BMG 2.

Methods:

The urethral stricture is first confirmed by a Urethrogram. This will show a long urethral stricture greater than 4cm, with complete occlusion of the urethral lumen. The technique is best suited for anterior urethral strictures. Technique 1. Harvesting the preputial skin. The best result is obtained in a patient with a full-length prepuc which covers the whole length of the glans. Studies have shown that up to 15% of men have partially absent preputial skin length3. The length of the preputial graft required is measured using a tape from a sterile drape. A free graft is excised from the dorsal preputial mucosa ensuring as thin a graft is taken as possible. The skin is closed routinely with interrupted absorbable sutures. Figure 1 shows the outcome from the donor site. 2. Quilting and placement. The stricture site is prepared by excision of the whole length of the urethral stricture using a standard urethrectomy technique. A raw fresh dorsal bed is left for the placement of an onlay Preputial Mucosa graft. The graft is spread on a skin graft board and perforated using a surgical knife. The PMG graft is placed as a dorsal onlay graft and secured with 3/0 vicryl sutures centrally and peripherally. This type of dorsal onlay graft is supported by the Corpora Cavernous bed and is less prone to complications in comparison to the ventral onlay graft. The graft is left to take and fix for 3 to 6 weeks. The patient is taken to theatre after this for the second stage of the Urethroplasty 3. 2nd stage Urethroplasty after 3 to 6 weeks. The proximal and distal ends of the urethral are dilated to ensure patency. A size 18ch Foley’s catheter is placed. Over this routine closure of the urethra is done in 2 or 3 layers using 3/0 Vicryl sutures. The first layer is extra-mucosal continuous repair. The patient will have a suprapubic catheter for urinary diversion, so that the penile catheter is only a stent not a drain. The catheter in the penile urethra is removed after 3 weeks and the suprapubic catheter spigoted to determine urinary flow and patency.

Results:

Good urethral patency and good cosmetic appearance.

Conclusions:

The high prevalence of urethral strictures, and their severity in Africa requires innovative approaches to prevent morbidity. The use of preputial mucosal graft (PMG) is one way of reducing morbidity caused by urethral stricture disease in low resource settings. This method has been widely used and shown to be as effective as Buccal Mucosal graft (BMG). In our low resource settings in Africa we have found it much easier to use than buccal mucosa graft. The patient does not need to have general anaesthesia or intubation for the procedure. Only one team of surgeons is required operating in one local area and the outcome is good. The technique appears ideal for the settings of sub-Saharan Africa and requires less skills to perform 4.
Preoperative determination of breast weight to be removed aids plastic surgeons in counselling the patient, application for insurance coverage and ensures optimal postoperative breast symmetry. Various mathematical formulas have been developed to preoperatively predict resection weights. We validate and determine which formula is most accurate.

Methods:

A sample of 24 consecutive women undergoing reduction mammoplasty were involved; anthropometric measurements of each individual breast (48 samples) was collected and used to predict mass of breast excised within a 1 year period. Predicted weight deviations from the actual weight of breast tissue excised were compared between 4 formulas using repeated measures ANOVA at 95% confidence interval.

Results:

On average patients were aged 31.7(±2.1) years and 60.8% of the patients undergoing reduction mammoplasty were aged 35 years and below. Three-quarter of the respondents were obese (BMI ≥ 30kg/m2). While two formulas significantly under-estimated breast mass to be excised; the other two provided accurate predictions with formula 1 predicting 78.1% (correlation = 0.884) of actual mass excised and formula 2 predicting 77.1% (correlation = 0.879).

Conclusions:

Lymph node transplant offers an effective treatment modality to lymphedema with minimal morbidity.

2. Causes and Pattern of Hand Injuries at Yekatit 12 Hospital Medical College

Abdurezak Ali Mohammed, Mekonen Eshete Abebe, Taye Hailu Cifeta, Fikre Abate Gebrehiwot

Yekatit 12 Medical College, Ethiopia

Background:

The hand is a very complex organ with multiple bones, joints, different types of ligaments, tendons and neurovascular structures. With constant use, it is no wonders that hand injuries are common in society. Hand injuries can result from excessive use, degenerative disorders or trauma. Little is known about the prevalence of hand injury in Ethiopia, this study helps to find out the patterns of hand injury in Addis Ababa. It will also assist in the process of establishing preventive measures. Objective The economy of Ethiopia is evolving; this resulted in the rise of traumatic injuries in general and hand injuries in particular. The main objective of this study was to determine the pattern and common causes of traumatic hand injuries and also to indicate preventive measures.

Methods:

This was a hospital based retrospective descriptive study conducted at Yekatit 12 Hospital medical College reconstructive surgery unit from January 2011 to December 31, 2013. The records of 85 patients with hand injuries managed at the study institution were assessed.

Results:

We have reviewed the medical records of had injured patients managed at Yekatit 12 hospital medical college and we found the records of 85 patients’ to be complete and included in this review. The patients whose medical record was found to be incomplete were excluded. 80% of the patients were males and 20% females. The majority of the patients enrolled for this study were in the age range of 15-40 years 70 (82%). Most of the patients were seen at the study institution in less than a
week time 62 (73%). Off these, 28 (33%) seen with in 24 hours of the injury. The leading cause of
hand injury was occupational 37 (44%) followed by leisure activity. In the study group tendon injury
was the leading final diagnosis 42.4% followed by fingertip injury 24.7% with or without amputation
and only few of the patients had associated injuries.

Conclusions:

Hand injury in Addis Ababa is mainly due to occupational trauma and the majority of injured were in
the age range of 15-40 years. This study indicates that many of the injuries could prevented with the
enforcement of safety rules at the working places.

3. 25 years of partnership in Paediatric Burn-care between Blantyre and Scotland- the importance
of prevention, training, and data collection.

Howard Stevenson, Tilinde Chokotho, Emily Broadis

Malawi

Background:

A long-term partnership between surgeons in Blantyre, Malawi, and Dundee/Glasgow, Scotland, UK,
with the main objective of reducing the incidence and mortality in patients with Burn Injuries, has
successfully introduced new initiatives in Prevention, Training, Staffing, and Facilities

Methods:

Analysis of the Database of admissions, including aetiology, geographical area, surgical intervention,
mortality.

Results:

1; Targeted Burn Injury Prevention workshops, using a locally based performing arts group, can be
effective in reducing the incidence of burn injuries in children 2; Reduction in Mortality Rate has
been recorded - the factors contributing to this are discussed. 3; Partnership helps develop skills for
professional on both sides of the Partnership.

Conclusions:

The most recent data from 2014 to 2016 has shown - 1; A reduction in incidence of paediatric burns
by 39%, most marked in areas targeted by the prevention workshops. 2; A reduction in Mortality rate
in children admitted to the Burn Unit from 29% to 16% 3; Long-term clinical specialist based
partnerships offer great benefits in developing clinical skills, and increasingly to attract funding from
large governmental and other aid organisations.

4. Burns: Epidemiology, Treatment and Outcomes at a Regional Referral Hospital in Uganda

Katherine Albutt, Martin Tungotyo, Gustaf Drevin, Paul Firth, Deepika Nehra

Program in Global Surgery and Social Change, Uganda

Background:

Approximately 95% of burn injuries occur in lower- and middle-income countries. The aim of this
study was to study the epidemiology, treatment, and outcomes of burn injury amongst patients
presenting to a regional referral hospital in Uganda.

Methods:
We conducted a retrospective observational study of all patients who were admitted with a burn injury to Mbarara Regional Referral Hospital (MRRH) in western Uganda between August 2013 and January 2017.

Results:
During the study period, a total of 375 patients were admitted to MRRH with a burn injury. Most burn patients were children, with 59.2% under the age of 5 years (\(X=11.5\) years/M=3.0 years). The average total burn surface area (TBSA) burn was 22.715.6%, ranging from 2-100%. The majority of burns were partial thickness/second degree (197,52.5%) followed by superficial/first degree (26,6.9%), full thickness/third degree (24,6.4%), and fourth degree (4,0.8%). Overall, 47.5% of patients underwent bedside wound care alone whereas 28.0% underwent operative intervention. While most patients were discharged (204,54.4%), others absconded (70,18.7%), died (44,11.7%), or were referred (14,3.7%). Burn mortality was significantly predicted by TBSA when controlling for confounders including age, gender, burn depth, and operative intervention (p<0.001). Notably, mortality was not associated with burn mechanism, anatomic location, or length of stay.

Conclusions:
In Uganda, burns contribute significantly to the surgical burden of disease, morbidity and mortality. A detailed understanding of burn injury epidemiology, treatment, and outcomes is essential in facilitating primary prevention, targeting interventions to strengthen capacity, and facilitating provision of safe, timely, and affordable burn care.

5. Reconstructive Principles of Post Burn Head and Neck Contractures

Einar Eriksen

Myungsung Christian Medical Center, Ethiopia

Background:
Appropriate facilities, adequate resources and skilled manpower to address the various complicated head and neck burns encountered in many developing countries, are often not available. Consequently, burn survivors frequently appear with various degrees of disfigurements as the result of longstanding scar development. Given limited resources, the burn surgeon needs to standardise surgical solutions that are appropriate. Surgical procedures should be outlined in a practical protocol enabling surgeons and residents to perform the surgery with confidence.

Methods:
A number of various surgical techniques are at hand. The author has for a number of years used full thickness skin grafts (FTSG) in most post burn head and neck contractures. FTSG are harvested from the Supraclavicular and Retro-auricular areas, the Medial side of the Upper Arm, the Abdomen / Flank areas and the Thighs, - all depending on the FTSG size required, and available scar free donor areas.

Results:
FTSGs have proved to provide excellent functional as well as aesthetic results as the tendency to contract and shrink over time is minimal. To reach the best possible result, the surgeon needs to make adequate scar release, making sure the wound surface appears free of scar tissue before applying the skin graft. Meticulous haemostasis is mandatory. Details regarding surgical techniques and post-operative results will be demonstrated during the presentation.

Conclusions:
Post burn facial and neck contractures are best addressed with complete scar release followed by FTSG cover. Surgical techniques and post-operative results will be discussed in the presentation.

SESSION 8A: IRISH AID- PEDIATRIC SURGERY SESSION

Moderators: Prof Miliard Derbew, Dr Vanda Amado

1. Outcomes of Management of Non-Palpable testes: Fowler Stephen Versus Traction Orchidopexy

John Muma Nyagetuba, Bethleen Waisiko Matiko, Eric N Hansen

AIC Kijabe Hospital, Kenya

Background:

Laparoscopic staged Fowler-Stephen(FS) technique is widely used in the management of intra-abdominal testes. Traction orchidopexy is a more recently described procedure with good outcomes. The outcome of laparoscopic procedures is influenced by patient demographic data as well as technique used. This study sought to compare traction and staged FS techniques.

Methods:

Retrospective data was collected from files of patients who had undergone laparoscopic orchidopexy between January 2013 and June 2017. A total of 36 cases were identified. The information was corroborated with the institution Access database. Outcomes of interest were postoperative testicular atrophy and ascent.

Results:

Of the 29 patients who had completion of procedure and subsequent follow up, the average age of presentation was 56.7 months, 95% CI (43.11, 70.34). Median age for the first operation was 40 weeks for the FS compared to 44 weeks for the Traction orchidopexy group. The average inter-stage duration was 6.2 months for Fowler-Stephens technique and 3.3 months for traction orchidopexy. Overall complication rate was 30%. The rate of atrophy was higher for children who underwent traction.

Conclusions:

Delayed age at presentation and consequently at operation in patients with intra-abdominal testis results in lower success rate of laparoscopic orchidopexy in general, regardless of technique. Fowler-Stephens technique may be preferred due to slightly higher success rate.

2. Pediatric Transplantation

Sandeep Guleria

Indraprastha Apollo Hospital, New Delhi, India

Background:

Children comprise approximately 2% of the patients with ESRD. However only 4 to 8% of transplants are done in children in the developed world. This number is far lower in the developing world and is because of the high cost of transplantation and the fact that renal transplants have a finite life.
However, when a child has CKD there are only two options: dialysis or a renal transplant. The commonest cause of renal failure in the developing world is obstructive nephropathy, Reflux Nephropathy or Glomerulonephritis. This is in contrast to the developing world where glomerulonephritis is the commonest cause.

The tragedy of treating CKD in the developing world is that the vast number of families opt for no treatment rather than go for dialysis or transplant.

CRF in India carries a poor prognosis due to late referral and the limited availability and high cost of renal replacement therapy.

There is now convincing evidence that transplantation is the ideal treatment for children. It not only is associated with better graft and patient survival, better growth and development but also with a better quality of life,

The best time to transplant children is to do a pre-emptive transplant as there is enough evidence to indicate that the longer the duration of dialysis prior to transplant the worse is the graft survival.

The transplant operation is technically challenging and can be associated with prolonged hypotension. A number of these children are electively ventilated for a few days post transplantation.

The immunosuppressive regimen used is essentially Tacrolimus and Mycophenolate Mofetil. A number of centres are using steroid free regimens with excellent short and long-term survival.

There is excellent graft and patient survival in this group of patients. However, PTLD and infections are a cause of great concern in this age group.

3. Pediatric road traffic injuries at Kamuzu Central Hospital, Malawi

Mads Sundet, Joanna Grudziak, Anthony Charles, Leonard Banza, Carlos Varela, Sven Young

Kamuzu Central Hospital and Haukeland University Hospital, Malawi

Background:

According to WHO estimates, Malawi has the third highest death rate due to road traffic injuries (RTIs) in the world. To develop effective intervention strategies for paediatric road traffic injuries, it is important to understand the epidemiology of these injuries.

Methods:

Data from the Kamuzu Central Hospital Trauma Database on all children aged 16 or less that were treated in the casualty department at this central hospital in Lilongwe, Malawi, between January 1st 2009 and December 31st 2015 were reviewed retrospectively.

Results:

4667 children were treated for RTIs in the time period. Median age was 8 years, 64 % were male. The incidence increased significantly during the period, from 428 per year in 2009 to a maximum of 834 in 2014. The pedestrian children represented 53.7% of the injuries, but 77.2% of deaths, and 72% of those with moderate to severe head injuries. Pedestrians were mostly hit by cars (36%) and by large trucks, buses and lorries (36%). 40 (0.8%) children died in casualty or during the hospital stay, while 84 (1.7%) children were brought in dead.

Conclusions:
There has been a large increase in the incidence of RTIs in children in Lilongwe, Malawi from 2009 to 2015. Pedestrian children were most severely afflicted, both in terms of severity and incidence. Large trucks, buses and lorries caused a disproportionately large number of injuries. The in-hospital mortality was only 0.8%, possibly indicating high prehospital mortality. There is an urgent need for implementation of preventive measures.

4. Assessment of Current Paediatric Surgical Delivery in the College of Surgeons of East, Central and Southern Africa (COSECSA) Region: A Survey of Practicing Consultants

Neema Kaseje, Waruguru Wanjau, Milliard Derbew, Walter Johnson

Tropical Institute of Community Health, Ethiopia

Background:

In the COSECSA region, a significant proportion of the population that lacks access to surgical care is paediatric; a major contributor to this lack of access is the scarcity of a paediatric surgical workforce. Our aim was to survey surgical consultants practicing in the region to determine their exposure to paediatric surgical training, their satisfaction with their training, their paediatric volume, and their comfort level with paediatric cases.

Methods:

During the COSECSA annual meeting in December 2016, we administered a survey designed specifically for COSECSA. Filling out the survey was voluntary. The survey included both quantitative and qualitative questions addressing training in paediatric surgery, satisfaction with training in paediatric surgery, volume, and comfort level with paediatric cases. We calculated proportions and determined significance using confidence intervals.

Results:

We surveyed 47 surgeons currently practicing in the COSECSA region; the majority were general surgeons with some paediatric surgical training; 75%(0.7-0.8) had paediatric rotations during their specialty training; 55%(0.5-0.6) felt they needed additional training in paediatric surgery to improve their skills in managing congenital disorders. Over a 3-month period, 79%(0.7-0.9) performed less than 50 cases, and only 17%(0.1-0.2) felt comfortable performing paediatric cases; 51%(0.4-0.6) had practiced for > 10 years.

Conclusions:

Many experienced surgeons practicing in the COSECSA region feel they could benefit from additional training in paediatric surgery particularly with regards to congenital anomalies. Initiatives to improve access to paediatric surgical care should include training opportunities for experienced surgeons practicing in the COSECSA region.

5. “Less-is-More” for Gastroschisis

Daniel DeUgarte

University of California - Los Angeles, United States of America

Background:

Gastroschisis is a congenital abdominal wall defect with high mortality in low-resource settings but low mortality (<5%) in specialized centres with intensive neonatal care. The purpose of this study
was to evaluate the early results of a “less-is-more” management pathway, which could be more easily adopted in low resource settings.

Methods:

A gastroschisis pathway that recommends expeditious closure of the defect (allowing for non-operative bedside skin closure), minimizing use of ventilator, and reducing peri-operative antibiotics was implemented at the University of California – Los Angeles as part of a quality improvement project in 2015. We prospectively tracked the days to closure, ventilator days, peri-operative antibiotic days, and length of stay. Results were compared with historical data.

Results:

Of the 24 patients born with gastroschisis, 6 were complicated by atresia/stricture and required reoperation. Of the 18 cases of uncomplicated gastroschisis, 6 patients were managed without intubation and without operative repair (bedside skin closure was performed). When comparing the 18 cases of uncomplicated gastroschisis with 28 historical controls, we observed significantly lower median [interquartile range] days to closure of the defect (2.5 [0,3] vs. 6 [4,7]; p<0.001); ventilator days (0.5 [0,4] vs. 10 [8,13]; p<0.001); and peri-operative antibiotic days (4 [2,7] vs. 15 [7,22]; p<0.001); however, the length of stay was similar (32[22,51] vs. 32 [26,44]; p=0.74).

Conclusions:

Standardized pathways that emphasize “less-is-more” have the potential to improve outcomes by minimizing potential complications from unnecessary mechanical ventilation, operative repair/anaesthesia, and the overuse of antibiotics.

SESSION 9: DR FREDERICO ARMINDO FORTES FREE PAPERS SESSION

Moderators: Dr Alex Buteera, Dr Matthias Schmauch

1. Treatment of Traditional bone setter’s complications; reducing the impact of an unsolved dilemma

Waleed Ahmed Mekki

Ministry of Health, Kuwaiti specialized hospital, Khartoum, Sudan

Background:

The problem of traditional bone setting (TBS) still prevailing especially in developing countries and in Africa it is endemic! Until recently these complications continue to ruin the lives of many patients who present with simple fractures and dislocations but end up in complete disaster. the author believe that treatment of these complications would help to reduce patronage to TBS in addition to relieving these patients.

Methods:
A retrospective review of 78 patients who were presented and admitted (the study does not include those who refused treatment or admission) to Eldewaim Teaching hospital from 2011 to 2015 age range (5 - 70 years) with different complications related to the practice of traditional bone setters; cellulitis, abscess, gangrene, ischemia, mal-union, non-union, chronic osteomyelitis, neglected dislocation and Joint stiffness were all treated surgically. Those with cellulitis and stiffness and Volkmann’s ischemic contracture were treated with IV Antibiotics and physiotherapy, one of those with Ischemic contracture was treated using external fixator and bone shortening.

Results:

All patients were treated successfully and followed up from 1- 5 years, they reported significant improvement and returned to their pre-injury status except five patients, two patients with gangrene needed above elbow and below knee amputations, two patients had chronic Osteomyelitis and one patient had severe hetero topic ossification around the elbow after open reduction and triceps lengthening.

Conclusions:

O Complications of traditional bone setters present one of the most challenging conditions to orthopaedic surgeons, treatment of these complications will improve the life quality of these patients who are in need of intact and functional limbs to carry out their daily living activities and jobs.

2. Neonatal and Paediatric Surgery across Sub-Saharan Africa: Results from a Multi-Centre Prospective Cohort Study

Naomi Jane Wright, Sinkeet Ranketi, Mike Ganey, Robert Parker, Micheal Mwachiro

King’s Centre for Global Health and Health Partnerships, London, United Kingdom

Background:

Sub-Saharan Africa (SSA) has the highest unmet need for surgical care in the world with an estimated shortfall of 41 million cases/ year. Children constitute up to 50% of the population yet there is limited research on neonatal and paediatric surgery from the region. We undertook the first large-series multi-centre prospective cohort study comparing outcomes of five common neonatal and paediatric surgical conditions between SSA and high-income countries (HICs).

Methods:

Data was collected using REDCap on all patients presenting primarily with gastroschisis, anorectal malformation, appendicitis, intussusception and inguinal hernia over a continuous 1-month period of collaborators choice between October 2016 and April 2017. Primary outcome was all-cause in-hospital mortality; secondary outcomes included post-intervention complications. Differences between observed outcomes in SSA and published benchmark data from HICs were compared using Chi-squared analysis and Fisher’s exact test. Multi-level, multivariate logistic regression analysis was used to identify factors affecting outcomes. p<0.05 was deemed significant.

Results:

220 collaborators from 76 hospitals in 23 SSA countries participated in the study. 1407 patients were included: 111 with gastroschisis, 188 with anorectal malformation, 250 with appendicitis, 225 with intussusception and 633 with inguinal hernia. Mortality was significantly higher for all five conditions in SSA (10.02%) compared to HICs (0.65%) p<0.0001. Gastroschisis had the greatest disparity in outcome with 76% mortality in SSA compared to 4% in HICs (p<0.0001).
Conclusions:
These results highlight the need for enhanced neonatal and paediatric surgical services across SSA and incorporation of children into National Surgical Plans being developed.


Mouafo Tambo Faustin Felicien

University of Yaoundé I, Cameroon

Background:
The prevalence of disorders of sex development (DSDs) is not known in our African milieu where late diagnosis is common. The management of DSDs is in full expansion in our country through the support an ongoing partnership with the North. The aim of this study was to assess the importance of the local need and assess the feasibility of providing optimal care for children with DSDs in the context of a developing country.

Methods:
From November 2009 to October 2017, 15 surgical team trips concerning DSDs were carried out at the YGOPH. All patients aged less than 18 years presenting with malformations of the external genitalia in whom a precise diagnosis had been made were included in the study.

Results:
Overall 1120 patients were seen during the study period of which 200 had a precise diagnosis. The mean age of the patients was 7.2 years. During this same period, 224 surgeries were carried out at YGOPH of which 146 hypospadias reconstructions and 17 feminizing genitoplasties. After a median follow-up of 3 years (7months -7 years) no infectious nor serious metabolic complications were recorded. Seven patients had a total breakdown of the urethroplasty and 6 others had a urethocutaneous fistula.

Conclusions:
The authors stress on the necessity of an early diagnosis and confirm the feasibility of the optimal management of these disorders in our setting.

4. Most Frequent Causes of Intestinal Obstruction at Emergency Service at Central Hospital of Beira in 2016

Mahomed Afzal Mussa, Hélder de Miranda.

Central Hospital of Beira, Mozambique

Background:
Intestinal obstruction, defined as interruption of intestinal flow, is one of the main causes of surgical urgency at the Beira Central Hospital. Studies point out as the leading cause to African-level strangulated hernia at Central hospital of Maputo. In this study, we intend to present some verified causes in patients attended at the emergency departments of Beira Central Hospital during 2016.

Methods:
To identify the main causes of intestinal obstruction in the emergency department of Beira Central Hospital during the year 2016. Methods: Retrospective cross-sectional descriptive study. Analysed 32 clinical process of patients with bowel obstruction during the year 2016.
Results:

Of the analysed processes, 72% were male and 28% female. Most patients, about 56% from the city of Beira and the remaining transferred from the District of Sofala Province. Most of the patients belonged to the age, from 16 to 45 years (68%). The mortality rate was 9%. The prevalence of HIV was 18.7%.

Conclusions:

The most frequent cause of intestinal obstruction at emergency service at Central Hospital of Beira in 2016 was Sigmoid Volvo (31%), followed by a strangulated hernia (25%).


Jared A Forrester, Nicholas J Boyd, J Edward F Fitzgerald, Iain H Wilson, Abebe Bekele, Thomas G Weiser

Stanford University, Stanford, California, United States of America

Background: Safe surgery requires high quality, reliable lighting of the surgical field. Little is reported on the quality or potential safety impact of surgical lighting in low-resource settings, where power failures are common and equipment and resources are limited.

Methods: Members of the Lifebox Foundation created a novel, non-mandatory, 18-item survey tool using an iterative process. This was distributed to surgical providers practicing in low-resource settings through surgical societies and mailing lists.

Results: We received 100 complete responses, representing a range of surgical centres from 39 countries. Poor quality surgical field lighting was reported by 40% of respondents, with 32% reporting delayed or cancelled operations due to poor lighting and 48% reporting electrical power failures at least once per week. Eighty percent reported the quality of their surgical lighting presents a patient safety risk with 18% having direct experience of poor quality lighting leading to negative patient outcomes. When power outages occur, 58% of surgeons rely on a backup generator and 29% operate by mobile phone light. Only 9% of respondents regularly use a surgical headlight, with the most common barriers reported as unaffordability and poor in-country suppliers.

Conclusions: In our survey of surgeons working in low-resource settings, a majority report poor surgical lighting as a major risk to patient safety and nearly one-third report delayed or cancelled operations due to poor lighting. Developing and distributing robust, affordable, high-quality surgical headlights could provide an ideal solution to this significant surgical safety issue.

SESSION 9A: DR ALÍRIO FERNANDES FREE PAPERS SESSION

Moderator: Dr Carlos Viera, Dr Domingos Mapasse

1. Complications of Limb lengthening; how to avoid and to treat them

Waleed Ahmed Mekki

Kuwaiti Specialized Hospital, Khartoum, Sudan

Background:
Limb lengthening is relatively a new procedure in orthopaedic history with few practicing orthopaedic surgeons in any country doing this subspecialty. Even in best and pioneer centres this procedure still carry some risks and complications due to its nature of using the force of tension stress to create new tissues, a process referred to as distraction histogenesis.

Methods:

A clinical review of the complications of nine cases who had limb lengthening, two femora and 7 tibiae and fibulae (leg) from 2014 to 2017, four females and five males, age range (12-32), all patients were treated using circular external fixators (Ilizarov frames) for lengthening and consolidation period.

Results:

All lengthening procedures achieved their desired length gain, but most of them had complications ranging from pin tract infection to common peroneal nerve entrapment, all these complications were treated successfully during or after the end of lengthening.

Conclusions:

Limb lengthening is a high magnitude surgery that requires a special training for the orthopaedic surgeon, moreover, it has a steep learning curve and surgeons are recommended to be able to deal with the rising or anticipated complications according to each individual case.

2. Intensive Care is an Essential Part of a Trauma System

Laina Niquice, Julie Valenzuela, Farida Urci

Instituto Superior de Ciências e Tecnologia, Mozambique

Background:

Traumatic injury is a surgical disease that is among the top causes of death and disability worldwide. As attention is made to improving access to safe surgery and anaesthesia, a similar focus is needed regarding intensive care access for trauma patients. Currently, there is very limited data on how many trauma patients require intensive care.

Methods:

A retrospective data review was performed from April 2015 to March of 2016 of patient records admitted to the intensive care unit an urban tertiary hospital in Maputo, Mozambique. Number of admissions with poly-trauma as primary diagnosis were identified. Mortality rate among this subset of patients identified.

Results:

From April 2015 to March of 2016, 1512 patients were admitted to the ICU. 222 trauma patients identified with a mortality rate of 35.5%. From 2015 to 2016, there is increased admissions into the intensive care unit for poly-trauma.

Conclusions:

Though the majority of trauma patients do not require intensive care, the mortality rate among trauma patients remains high among the severely injured. An improved trauma registry would help elucidate how best to improve outcomes for the critically injured. In Maputo, the most severely injured are assessed by critical care physicians well versed in resuscitative efforts and as increasing
admissions are for poly-trauma, intensive care skill sets are essential to developing a robust trauma system which is still underway in Maputo.

3. Higher injury severity in upper extremity gunshot wounds. Epidemiologic evaluation of 294 consecutive ballistic extremity injuries at a level I trauma centre in South Africa

Basil Vrettos, Stephen Roche, Michael Held, Sithombo Maqungo, Maritz Laubscher

University of Cape Town, South Africa.

Background:

Upper extremity gunshot fractures can be treated conservatively or surgically using open reduction internal fixation (ORIF), intramedullary nails or external fixators. However, there is no gold-standard for the management of these often complex, multi-fragmentary upper extremity fractures. Our aim was to describe and identify the injury patterns, complications and associated risk factors in gunshot wounds of the upper extremity.

Methods

Data of patients with upper extremity gunshot injuries presenting to a level I Trauma Unit in Cape Town, South Africa, were collected prospectively over a ten-month period. Clinical notes and radiographs were reviewed retrospectively. Injury patterns, complications with associated risk factors were analysed using multivariate analysis, [chi]², two-sided Fisher’s exact test and logistic regression models with p<0.05 regarded significant.

Results

Most fractures were diaphyseal, multi-fragmentary and extra-articular. Fractures were treated conservatively in more than half of the cases; when surgically treated, ORIF was used most often, followed by intramedullary nails and external fixation. Median fracture length was 55.5 millimetres. Fracture length seemed to influence the decision to treat surgically. fracture was statistically associated with surgical treatment. Median hospital stay was six days; treatment strategy, infection and ISS were associated with length of hospital stay. Five patients had ten re-operations; two were unplanned due to sepsis. Six cases of secondary infections were seen in 51 patients and no risk factors could be identified.

Conclusions

In contrast to studies from the USA and Europe, most fractures in this study were managed conservatively. Most fractures were diaphyseal and multi-fragmented. 30% had neurovascular injuries and 75% were associated with non-orthopaedic injuries. Infection and injury severity prolonged hospital stay.

4. A Decade of Partnership in Training African Surgeons

Bruce Carl Steffes, Keir Thelander, Eric O’Flynn

Pan-African Academy of Christian Surgeons, United States of America

Background:

PAACS (Pan-African Academy of Christian Surgeons) and COSECSA began in Kenya in 1996, recognizing that university teaching hospitals were not able to provide sufficient numbers of
surgeons to meet community needs. Both advocated a uniform curriculum and a longer training period.

Methods:

Retrospective review of PAACS and COSECSA organizational records.

Results:

PAACS (Pan-African Academy of Christian Surgeons) and COSECSA began in Kenya in 1996, recognizing that university teaching hospitals were not able to provide sufficient numbers of surgeons to meet community needs. Both advocated a uniform curriculum and a longer training period.

Conclusions:

PAACS has 100% retention of surgeons within Africa - most serving the poor. Although training in English, for 40% of PAACS trainees English is not a primary language. This has created educational challenges for PAACS and will challenge COSECSA as they expand. An analysis of the PAACS experience will be presented.

5. Ethics as a Non-Technical Skill in Surgical Education

Beryl Akinyi Mawe, John L Tarpley, Ainhoa Chavarri Costas, Margaret J Tarpley

Kijabe Hospital, Kenya

Background:

In recent years, surgical education has increased its focus on the non-technical skills such as communication and interpersonal relationships while continuing to strive for technical excellence of procedures and patient care. Ethical aspects of surgical practice are of vital concern to surgical educators and involve disparate issues ranging from adequate supervision of trainees to surgical care access.

Methods:

This bibliographical research presentation employing PubMed, PubMed Central, African Journals Online (AJOL), Bioline, etc., will report on ethical issues from a sub-Saharan perspective discussed in the peer-reviewed literature and share strategies to address issues such as:

- supervision of trainees
- informed consent and communication about reasonable expectations post procedure
- research ethics, both local and international collaboration
- resource utilization and decision-making based on availability of resources, including ICU
- terminal extubation
- access to care, both socio-economic and location
- quality and safety
- religious and cultural issues

Results:
The information and challenges gleaned from these sources should serve as a background for increasing the awareness of ethical issues and serve as an avenue for educational approaches concerning ethical issues in surgical care and training for both faculty and residents.

Conclusions:

Ethics education is a vital component of surgical education.

SESSION 10: POSTER SESSION

JURY:

Dr Abebe Bekele, Dr Pankaj Jani, Dr Francisco Cândido

1. Strengthening Anaesthesia Systems Through National Surgery Plans in LICs

Kelly McQueen, Paulin Ruhato

Rwanda

2. Enhanced Recovery After Surgery: Rational and Principles for Low-income countries

Robel Beyene, Olle Ljungqvist, Kelly McQueen

Rwanda

3. An Audit of The Utilisation of The Surgical Safety Checklist at Kamuzu Central Hospital

Vanessa Jasinta Msosa

Malawi


Abay Gosaye Wondimu, Tihitena Nigussie Mamo, Belachew Dejene Wondemagegnehu

Ethiopia

5. A case report of Incomplete Sternal Cleft Defect with a Covering Membrane

Ndibanje Alain Jules, Michele Curci

Rwanda

6. Female Circumcision or Genital Mutilation/Cutting: The Power of Naming

Margaret Tarpley

United States of America


Mark Johannes Olooo

Kenya
8. huge sarcoma phyllodes breast tumor; case report

*Solomon Bekele Assefa*

*Ethiopia*

9. Grisel Syndrome Presenting as Hemiplegia In A Patient With Multifocal Staphylococcal Sepsis

*Vincent Lewis Mkochi, Nyengo Mkandawire*

*Malawi*

10. Tropical Diabetic Hand Syndrome: 4 illustrative case reports from Beira Central Hospital.

*Zacarias Mateus, Hélder de Miranda*

*Mozambique*

11. Breast Reduction as a Prerequisite for Marriage - a Case Report

*Raymond Taban Ladu*

*Botswana*

12. Dilemma In The Diagnosis Of Mirizzi Syndrome – A Case Report

*Raymond Taban Ladu*

*Botswana*

13. Evaluating the Utility of the Primary Trauma Care Course for Healthcare Providers at Gondar University Hospital in Gondar, Ethiopia

*Kristin De Girolamo, Shahrzad Joharifard, Meron Berhanu, Mohammed Ibrahim, Mensur Osman, Richard K Simons.*

*Ethiopia*


*Raymond Taban Ladu*

*Botswana*

15. Experience with a novel hands-on educational model of "training the trainers" in LMIC’s

*Mark Barry*

*Tanzania*

16. Extradural Empyema a Possible Sequela of Tear Gas Exposure case report and literature review

*Biplab Nandi, Dalits Zeka, Cara Swain*

*Malawi*

17. Spectroscopic Analysis of Metal Content in Mosquito Nets Used in Hernia Repair Surgery

*Jason Fader, Bruce Steffes, Elizabeth Peterson, Hannah Peterson, Rachael Bouwman, Kummar Sinniah*
Burundi
18. Laparoscopic surgery in Central Hospital of Beira. Laparoscopic cholecystectomy as a day surgery procedure

Mário Antunes, Hélder de Miranda

Mozambique
19. Case Report: Tension Pneumocephalus From Bag Mask Ventilation in A Trauma Patient

Valentine Cherono Mbithi

Kenya
20. Management of neglected traumatic hip dislocation in children

Rick Gardner, Tewodros Tilahun, Mesfin Etsub, Tim Nunn

Ethiopia
21. The staged Girdlestone-Schanz osteotomy for reconstruction of severe Hip Sepsis sequela

Tim Nunn

Ethiopia
22. Assessment of Current Pediatric Surgical Training in the College of Surgeons of East, Central and Southern Africa (COSESCA) Region: Survey of Surgical Trainees

Neema Kaseje, Waruguru Wanjau, Milliard Derbew, Walter Johnson

Ethiopia
23. Adrenogenital Syndrome or Feminine Pseudohermaphroditism - case report at hospital central of Beira

Zelia Cristina, Hélder de Miranda

Mozambique
24. Primary Biliary Cirrhosis (PBC), Rare Case in the General Surgery Service of the Central Hospital of Beira

Mahomed Afzal Musso, Hélder de Miranda

Mozambique
25. Satisfactory Radiographic Alignment Following Retrograde Femoral Nailing: Early Results of the SIGN Fin Nail.

Mbonisi Felix Malaba, Philemon Nyambati, FastoLadu Yugusuk, Daniel Galat, Paul Whiting

Ethiopia
26. An Estimation of Global Volume of Surgically Treatable Epilepsy Based on A Systematic Review and Meta-analysis of Epilepsy

Kerry A. Vaughan, Christian Lopez Ramos, Meghal Shah, Abbas Rattani, Michael Dewan, Kee B. Park

United States of America

27. Limb Reconstruction in a New Born Female with Right Double fibulae and Nine Foot Rays Polydactyly

Waleed Ahmed Mekki

Sudan

28. Outcomes of Fixation of Pelvic fractures: Early results

Anthony MuchiriMaina, Morris Kitua,

Kenya

29. Married to Fellow Women; A Case Report of Delayed Presentation of Congenital Adrenal Hyperplasia

William Muronya, Charles EkariMabedi,

Malawi

30. Adrenogenital Syndrome or Feminine Pseudohermafroditism

Zelia Cristina da Josefa

Mozambique

31. Missed Posterior Dislocations of the Shoulder

Basil Vrettos, Stephen Roche, Mathys De Beer

South Africa

32. Singapore flap vaginoplasty of 2 consecutive adult cases of vaginal agenesis

Alex O Wamalwa, Stanley O Khainga

Kenya

33. Anthropometrics in preoperative prediction of resection weight in reduction mammaplasty: Is it really accurate?

Alex O Wamalwa, Joseph K Wanjeri, Ferdinard W Nangole, Stanley O Khainga

Kenya

34. Burden of Pediatric Surgical Conditions in Uganda: Epidemiology and Mortality from a Prospective Database at a Tertiary Care Center

John Sekabira, Maija Cheung, NasserKakembo, Phyllis Kisa, Arlene Muzira, DorukOzgediz
35. Socioeconomic impact of pediatric surgical conditions requiring ostomies: a pilot study

John Sekabira, Nasser Kakembo, Arlene Muzira, Monica Ianger, Tamara Fitzgerald, Doruk Ozgediz

Uganda

36. Proximal Humeral Fractures Treated with Locking Plates.

Basil Vrettos, Stephen Roche, Nicholas Martin

South Africa

37. Open Reduction and Internal Fixation of Scapula Fractures

Basil Vrettos, Stephen Roche, Pedro Sanchez, Hayden Hobbs

South Africa

38. The Role of Imaging in Acute Care Surgery Patients in a Malawian Tertiary Hospital

Jennifer Kincaid, Ryan Embertson, SuzgoMzumara,

Malawi

39. Microsurgical skill acquisition; how can performance be evaluated?

Jenny Reid

Scotland

40. How sweet is surgical skills teaching? Liquorice and strawberry pencil candy as a novel approach to teaching tendon repair

Jenny Reid, Eilidh Bruce,

UK

41. Age-disparate prevalence of untreated surgical conditions in rural Rwanda: a cross-sectional study

Allison F Linden, Rebecca G Maine, Robert Riviello, Emmanuel Kamanzi, Gita Mody, Georges Ntakiyiruta.

Rwanda

42. Degloving Injuries with versus without underlying fracture in a sub-Saharan African tertiary hospital: a prospective observational study

Herve Monka Likuya, Rose Alenyo, Moses Galukande, Isaac Kajja

Uganda
SESSION 11: OSSOTECH PLENARY SESSION ON MODERN ADVANCES IN SURGERY

Moderator:  Prof Ignatius Kakande


Rahul Lath
Apollo Hospital, Hyderabad, India

Robotic Surgery: The Future is Here!!

Sherry M Wren
Professor of Surgery
Stanford University School of Medicine, United States of America

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