REPORT ON THE
MANAGEMENT OF SURGICAL EMERGENCIES

COURSE

and preceding

TRAIN THE TRAINERS COURSE

hosted by

The Surgical Society of Zambia

Sunday 23rd to Friday 28th March 2014

at

LUSAKA UNIVERSITY TEACHING HOSPITAL

In collaboration with the WHO GI EESC Programme

Convener

RHS Lane MS  FRCS Eng  FRCS Ed (ad.hom)  FACS  FWACS (Hon)  FCS (ECSA)
  Project Director - DFID (UK) / THET LPIP Grant
  Programme Director for International Development &
  Past President Association of Surgeons of Great Britain & Ireland
  Honorary Surgical Advisor to the Tropical Health & Education Trust (THET)
  President of the International Federation of Surgical Colleges
Contents

Introduction ................................................................................................................. 3
Acknowledgements ................................................................................................. 4
Faculty ...................................................................................................................... 6
Train the Trainers Course ....................................................................................... 9
Management of Surgical Emergencies Course Introduction ......................... 19
Critical Care Module .............................................................................................. 23
  Programme ......................................................................................................... 24
  Critical Care Module Report ............................................................................. 26
  Course Requirements .......................................................................................... 33
General Surgery Module ......................................................................................... 35
  Programme ......................................................................................................... 36
  General Surgery Module Report ...................................................................... 38
  Trainee Feedback ............................................................................................... 41
  Course Requirements .......................................................................................... 48
Orthopaedics and Trauma Module ....................................................................... 51
  Programme ......................................................................................................... 52
  Orthopaedic & Trauma Module Report ............................................................. 53
  Trainee Feedback ............................................................................................... 59
  Course Requirements .......................................................................................... 65
Urology Module ....................................................................................................... 67
  Programme ......................................................................................................... 69
  Urology Module Report ..................................................................................... 70
  Trainee Feedback ............................................................................................... 73
  Course Requirements .......................................................................................... 77
Obstetrics Module ..................................................................................................... 79
  Programme ......................................................................................................... 80
  Obstetrics Module Report .................................................................................. 81
  Trainee Feedback ............................................................................................... 84
  Course Requirements .......................................................................................... 88
Assessment Report .................................................................................................. 90
Evaluation Report .................................................................................................... 93
Theatre Nurse Training Course ............................................................................. 98
Introduction

The Association of Surgeons of Great Britain and Ireland (ASGBI) undertook a successful Pilot Course on the Management of Surgical Emergencies (MSE) in Lusaka in October 2011 (for report see www.internationalsurgery.org.uk) and as a result successfully applied, together with the College of Surgeons of East, Central and Southern Africa (COSECSA), to the Tropical Health and Education Trust (THET) acting on behalf of the UK Department for International Development (DFID) for a Large Paired Institutional Partnership Grant with the aim of improving emergency surgical care and capacity across the nine member countries of COSECSA by delivering appropriate multi-level accredited training courses at agreed sites across the Region over a period of two and a half years. The application was successful and it was therefore planned to hold three MSE courses in Lusaka for participants from countries in the southern half of the Region and three in Nairobi for countries in the northern half of the Region.

A one day Training the Trainers (TTT) Course was designed and scheduled to be held immediately prior to the five day MSE Course. All equipment to undertake this was provided ahead of the first course held in Lusaka in February 2013 (for report see www.internationalsurgery.org.uk).

The outline of the Courses has not fundamentally changed. Minor adjustments were made with regard to pre-course information, the assessment process and time keeping. An official opening ceremony was conducted by the Minister of Health, Dr. Joseph Kasonde, at the University Teaching Hospital, Lusaka.

Acknowledgements

I should like to thank the UK Department for International Development (DFID) and the Tropical Health and Education Trust (THET) for awarding the Surgical Foundation of the Association of Surgeons of Great Britain and Ireland and the College of Surgeons of East, Central and Southern Africa (COSECSA) a Large Paired Institutional Partnership Grant to undertake a total of 36 surgical training
courses across East, Central and Southern Africa. These comprise 6 Management of Surgical Emergencies Courses and 6 Basic Surgical Skills Courses preceded by 12 Train the Trainers Courses and, in addition, 12 Theatre Nurse Training Workshops. For reasons beyond our control we could not run a BSS Course in Mozambique.

I acknowledge the Veta Bailey Charitable Trust for assisting trainers and trainees from outside Zambia with their travel and accommodation expenses, Johnson & Johnson Professional Export for awarding an Educational Grant to provide sutures for all the above courses, Limbs & Things for contributing in a number of ways to the success of the project and to Tim Beacon and his team at Medical Aid Overseas Ltd for sourcing and shipping all the instruments and manikins to Lusaka. Finally, GB Enviro Solutions Ltd who supply USB sticks which are provided to all trainers containing course materials for future reference.

A special thank you to Professor Krikor Erzingatsian, Project Lead for COSECSA, Dr. Laston Chikoya, Chairman Education and Scientific Committee and Chairman, Surgical Society of Zambia under whose auspices the Courses were run, Dr. James Munthali (Head of Department of Surgery) for allowing us to use his facilities as our main venue, Dr. Robert Zulu (Local Lead) for his considerable efforts to ensure the success of the Course, Ms Angela Garrity (Key Travel), Mrs Bhavnita Borkhatria Patel (Project Manager) and Mrs Jane Gilbert (Executive Assistant to RHSL) for their assistance, patience and support.

Finally, I owe immense gratitude to the visiting faculty who continue to work so hard in updating the Course and making it fit for purpose. Their undoubted commitment is a lesson to us all, especially as the majority have to use up part of their annual leave to support surgical training in Africa.

Robert Lane
Visiting UK Faculty

This was the third and final MSE Course to be held in Lusaka and so only the 5 Module Leads and 1 extra Critical Care trainer were in attendance, as opposed to 13 at the start of the project and this as local trainers took over the role in preparation for running the Courses themselves.

Convener                          Robert Lane

Critical Care                    Fanus Dreyer (Module Lead)
                                 David Ball

General Surgery                  Paul Gartell (Module Lead)

Orthopaedics / Trauma            Yogesh Nathdwarawala (Module Lead)

Urology                          Shekhar Biyani (Module Lead)

Obstetrics / Gynaecology         Shirin Irani (Module Lead)

Theatre Nurse Training Course    Sister Judy Mewburn

Pre-Course Briefing in the Bidvest Lounge, Oliver Tambo Airport, Johannesburg

The Convener advised that there were four trainers from the 2\textsuperscript{nd} TTT and MSE Course in Lusaka who wished to undertake one further training course before having their names submitted to COSECSA for accreditation as a trainer and these were:-

1. Nalowa Mwikisa
2. Martha Lunghi
3. Bruce Bvulani
4. Happiness Rabiel
We had discussed previously the importance of Flow Charts and are awaiting Obs & Gynae to produce theirs but Critical Care, General Surgery, Orthopaedics and Urology have already done so.

Module presentations are now available for Urology, General Surgery and Critical Care. There is nothing at the moment for Orthopaedics or Obs & Gynae.

There is a genuine concern with regard to local trainers as to who gives presentations during Modules. They need time to prepare and have access to appropriate modular presentations. As was ably described, “we need to be flexible, adaptable, responsible and tolerant”. It was again suggested that a plaster technician would be useful for the Orthopaedic & Trauma Module.

Attention was addressed to costing disposables and in particular the circumcision models which are £400 each with additional foreskins at £8.00 apiece. Utilisation of these models will be a local decision.

It was agreed that we could undergo a post course debrief on Saturday 29th March.

The Convener reported that he would personally arrange a reception for all trainers and Faculty from both Zambia and UK towards the end of the Course. It was agreed that each Module would hand over to local trainers at the end of Tuesday for Critical Care and Friday for General Surgery, Orthopaedics, Urology and Obs & Gynae.

It was agreed that Paul (Gartell) would write a report on how to conduct MCQ’s i.e. how each question is designed, marked and interpreted. He would also provide information as to how the graphs are produced on an Excel spreadsheet and advice as to how the bar charts relating to module feedback should be designed. The assessment process has been amply profiled by Fanus Dreyer and all this information will be made available to Robert Zulu for use in subsequent courses when we shall not be present.

Finally it was emphasized that all trainers must attend debriefing sessions so that they learn how to conduct them in the future.
Now this is a good advertisement!

A view of Lusaka
## Train the Trainers Course

**Department of Surgery**  
*Lusaka University Teaching Hospital*  
**Sunday 23rd March 2014**

### 8 Trainers

<table>
<thead>
<tr>
<th>Name</th>
<th>Hospital</th>
<th>Specialty</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mwila Lupasha</td>
<td>Lusaka University Teaching Hospital</td>
<td>General Surgery</td>
<td>Consultant</td>
</tr>
<tr>
<td>Miriam Maimbo</td>
<td>&quot;</td>
<td>General Surgery</td>
<td>Registrar</td>
</tr>
<tr>
<td>Michael Mbambiko</td>
<td>&quot;</td>
<td>General Surgery</td>
<td>Senior Registrar</td>
</tr>
<tr>
<td>Furkat Mirzakarimov</td>
<td>&quot;</td>
<td>General Surgery</td>
<td>Senior Registrar</td>
</tr>
<tr>
<td>Simon Mukosai</td>
<td>&quot;</td>
<td>Urology</td>
<td>Consultant</td>
</tr>
<tr>
<td>Theresa Nkole</td>
<td>&quot;</td>
<td>Obs/Gynae</td>
<td>Senior Registrar</td>
</tr>
<tr>
<td>Mitesh Patel</td>
<td>&quot;</td>
<td>General Surgery</td>
<td>Senior Registrar</td>
</tr>
<tr>
<td>Wakisa Mulwafu</td>
<td>Blantyre, Malawi</td>
<td>General Surgery &amp; Otolaryngology</td>
<td>Consultant</td>
</tr>
</tbody>
</table>
Introduction

The aim of the Train the Trainers (TTT) Course is to introduce the basic concepts of how to run a successful MSE Course. Our objective is to do this in a systematic way which is easy to understand and put into practice and will enable the participant to become a competent trainer.

The MSE Course has been designed to show one safe way of accomplishing procedures and trainers need to abide by this and not be overly critical of the content. The Module Leads have spent a lot of time in designing the MSE Course and distilling the important aspects that can be taught in the time available.

Eight trainers registered; seven from Zambia and one from Malawi. Happiness Rabiel, from Tanzania was excused the TTT Course (having attended in October 2013) and she will attend as Faculty for the MSE Course in order to get more experience. Nalowa Mwikisa, Martha Lunghi and Bruce Bvulani attended the October 2013 Course in Lusaka and wished to undertake a 2nd course before becoming proficient. However, they did not attend on this occasion. It was only Happiness Rabiel who attended and subsequently became an accredited trainer.

All were pre-screened to assess motivation, previous training experience, willingness to work as a team and long term commitment to future MSE Courses. Their position, specialty and place of work were recorded and this gave an indication as to their workload. For instance, a general surgeon in Lusaka University Teaching Hospital (LUTH) will only deal with general surgery whereas a general surgeon in Ndola or Livingstone may also have to manage fractures, obstetric and urological emergencies. The distinction has relevance with regard to which specialty module they wish to become competent in.

The background as to why such a TTT course was deemed necessary was discussed and furthermore that it is not intended to be an opportunity to update specialty knowledge but rather to specifically learn how to run a module(s) within the Course. The trainers were given a USB stick which contained all the presentations in the TTT course.

It was emphasized that trainers must attend the whole of the TTT Course and their chosen module(s) in their entirety on each day. They will not be recommended for
accreditation as an MSE trainer unless they do. The trainers themselves will be assessed on general performance during the one day course (Sunday) and then by the Module Lead during their participation in their chosen module(s) and, if satisfactory, recommendation will be made to COSECSA for accreditation as a trainer for the MSE Course.

**Programme**

- Welcome and Registration
- Introduction – Robert Lane
- The Art of Lecturing - Robert Lane
- Assessment process, monitoring and evaluation - Fanus Dreyer

**Refreshments**

- Background, scope and structure of the MSE Course – Robert Lane
- Presentations from each Specialty Lead on their module: Critical Care, General Surgery, Orthopaedics & Trauma, Urology, Obs & Gynae.

**Lunch**

- Role Play & Critiquing – Faculty
- Safe Surgery & Non-Technical Skills - Fanus Dreyer
- Feedback and Group Photograph

The Convener introduced the Course and explained the programme, the background to the Course, the objectives, the ideal number of participants and who the Course is aimed at. He also mentioned the importance of having a robust and feasible assessment process and the duties of Faculty. Finally, the importance of leadership and effective team working were emphasized.
The first presentation was on the Art of Lecturing by Robert Lane which covered a number of scenarios including large audience lecturing, presenting material on a training course and small group discussions.

This was followed by a presentation on the Assessment Process including feedback, monitoring and evaluation by Fanus Dreyer. These are very important aspects of the course, especially for each individual trainee, for without proper feedback and evaluation we shall never know, for one thing, whether the course is fit for purpose. Formative assessment is undertaken by the faculty concerned during each specialty module. This covers technical and non-technical skills such as judgement and decision making, communication and teamwork. The need for small group assessment is essential to identify poorly performing trainees and to rectify problems at the time. The assessment results and any outliers are considered at the debriefing meeting each evening.

**Coffee Break**

There then followed a presentation by Robert Lane on the Background, Scope and Structure of the MSE Course. The objective is to learn how to assess signs and symptoms of common surgical emergencies and initiate an immediate management plan based upon sound principles of clinical practice. The maximum number of trainees is 18 and these are broken down into three groups of six each. Ideally, all should have attended a BSS Course. The ideal time to attend the MSE course is during the first year of a postgraduate residency programme or during the first or second year of the MCS programme. The timetable allows for five days of activity; **Monday and Tuesday** are devoted to Critical Care and **Wednesday, Thursday and Friday** to the specialties of General Surgery, Orthopaedics and Trauma, Urology and Obs & Gynae. General Surgery and Orthopaedics are undertaken over a whole day whereas Urology and Obs & Gynae over half a day each. Thus three groups of six rotate through the specialties over the three days. The trainees undertake pre and post course MCQ’s and complete a module specific feedback form. At the end of the course on Friday afternoon they complete a whole course generic evaluation form.

Each module lead then described their module in detail and this was a worthwhile exercise for at the end the Trainers knew exactly how the course would be conducted and their particular role within their chosen module.
The trainers undertook Role Playing and Critiquing exercises. These involved the following:

- How to make Origami boats and knot tying to demonstrate the difference in teaching a simple multistep task and more complex procedures.
- How to cope with a participant who is disruptive during a module.
- How to counsel a participant who has been told that he/she has failed the course and who is very reluctant to accept this.
- Clinical scenarios involving teamwork, such as an individual suddenly collapsing on the floor and the trainer has to explain how he/she is going to cope with the situation.

These are some examples of role play during which the other participants critique performance. This activity is very important and brings out a lot of non-technical skills such as decision making, judgement, communication and team work.

The trainers then discussed which module they would prefer to be involved in.
Critical Care:-

Module Lead, Joseph Musowoya supported by Matthew Wazara, Carlos Varela and Happiness Rabiel. (Local faculty)

The trainers would be Mitesh Patel, Furkat Mirzakarimov and Miriam Maimbo.

General Surgery:-

Module Lead, Matthew Wazara supported by Happiness Rabiel and Roy Chavuma. (Local faculty)

The trainers would be Furkat Mirzakarimov and Miriam Maimbo.

Orthopaedics & Trauma:-

Module Lead, Michael Mbalenga supported by James Munthali and Joseph Musowoya. (Local faculty)

The trainer would be Mitesh Patel.

Urology:-

Module Lead, Nenad Spasojevic supported by Michael Silumbe. (Local faculty)

The trainers would be Simon Mukosai, Michael Mbambiko and Mwela Rupasha.

Obstetrics & Gynaecology:-

Lead, Gracelia Mkumba. (Local faculty)

The trainers would be Theresa Nkole, Wakisa Mulwafu and Carlos Varela.

The UK Faculty Leads would be in attendance to support their respective Modules.

Tea Break

After which Fanus Dreyer gave a very informative lecture based on the WHO “Safe Surgery Saves Lives” guidelines but with many additional examples illustrating
technical and non-technical skills or lack of them; some of which were truly frightening!

At the start of the day.....
The TTT Course was rated overall from 0 - 10 (0 = useless, 10= excellent) where the average score was 9.25 with a mode of 10 and median of 9.5.

<table>
<thead>
<tr>
<th></th>
<th>Dissatisfied</th>
<th>Neutral</th>
<th>Satisfied</th>
<th>Very satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td></td>
<td></td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Art of Lecturing</td>
<td></td>
<td>25%</td>
<td>75%</td>
<td></td>
</tr>
<tr>
<td>Assessment, Monitoring &amp; Evaluation Lecture</td>
<td>12%</td>
<td>38%</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Critical Care Module</td>
<td></td>
<td>50%</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>General Surgery Module</td>
<td></td>
<td>50%</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Orthopaedics &amp; Trauma Module</td>
<td>12%</td>
<td>38%</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Urology Module</td>
<td></td>
<td>12%</td>
<td>38%</td>
<td>50%</td>
</tr>
<tr>
<td>Obstetrics &amp; Gynaecology Module *</td>
<td>12%</td>
<td>38%</td>
<td>38%</td>
<td>12%</td>
</tr>
<tr>
<td>Role Play &amp; Critiquing</td>
<td></td>
<td>50%</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Safe Surgery</td>
<td></td>
<td>12%</td>
<td>88%</td>
<td></td>
</tr>
<tr>
<td><strong>Average % Overall</strong></td>
<td>1%</td>
<td>7%</td>
<td>40%</td>
<td>52%</td>
</tr>
</tbody>
</table>

It was very gratifying that 92% of responses revealed that the trainers were either satisfied or very satisfied with the lectures and exercises.

*The Obs & Gynaec Lead was absent so the presentation was given by a colleague at very short notice which explains the low marks.
What went well?

- “Lectures were brief and to the point”
- “The Art of Lecturing was a very useful reminder of how to teach”
- “The programme stuck to time”
- “Very vivid explanations”
- “Participation was good”
- “Good interaction”
- “Presentations were clear, to the point and very informative”
- “Good overview of training techniques”
- “Practical sessions very informative”
- “Role play and critiquing” (2)

What could have been better?

- “Nil” (4)
- “More time Role play and critiquing” (3)
- “More details on Obs/Gynae presentation” (1)

Other comments

- “Nil” (5)
- “Very good modules that suit our African environment. Very helpful to have added the skills involved in teaching trainees”
- “Glad to have the opportunity to be a trainer. I am looking forward to the task”
- “Well organised course”
**Course evaluation by Faculty**

**What went well?**

The concept of a Train the Trainers course was readily accepted and the formal lectures were well received. Those lecturing must remember not to talk too fast! The Safe Surgery and Non-Technical Skills lecture was particularly well received and the impression was that the trainers had not had a great deal of exposure to this subject. It was unfortunate that the Obstetric Lead was not present and somebody had to bravely step in at the very last moment and was not as well prepared as he could have been but that was entirely not his fault and in future we must make sure that if a Module Lead is not present then somebody else is briefed well beforehand.

Re arranging the timetable such that most of the presentations are before lunch meant that there was more time in the afternoon to undertake the Role Playing and Critiquing exercises which are very worthwhile and popular because the Trainers have never experienced such exercises before.

All the trainers attended all the module presentations and this so that they could decide which module(s) to attend in addition to Critical Care. It was specifically designed that the module presentations should occur immediately before lunch. This gave the trainers an opportunity to discuss with the module leads any issues they might have or any questions they might wish to ask.

The lecture on Safe Surgery which includes personal observations by Fanus Dreyer was very well received. However, once this course has finished then in future it will have to be replaced by the standard safe surgery lecture which is readily available from WHO.

Refreshments were taken in the Common Room just opposite the Lecture Theatre and this meant that we could sit down to eat.
What could have been better?

The trainers would have preferred to have had the USB in advance of the Course but, as has been mentioned before, some of the presentations are still in evolution and it was felt that to issue them without a verbal warning was premature.

Recommendations for future courses

We must make sure that the local faculty have everything to hand so that they can run a Train the Trainers Course in our absence. All the lectures etc. have been made available to Robert Zulu apart from the personalised Safe Surgery lecture by Fanus. There is no reason why any aspect of this Trainers Course cannot be changed to suit local requirements.

We also handed out relevant PowerPoint presentations to the Trainers so that they could prepare presentations for their specialty modules accordingly.

We instigated a briefing at the beginning of each day so that Faculty and trainers knew precisely what role they were each going to take during that day. The debriefing at the end of each day worked extremely well.

Once again it was emphasized that the Course shows ONE way of performing tasks/exercises; not necessarily the ONLY way. Trainers must be aware of this and not introduce other ways which could lead to confusion and be counterproductive.

Refreshment break
Management of Surgical Emergencies

Course

24th to 28th March 2014

Held at the Department of Surgery, Lusaka University Teaching Hospital

14 Trainees

PRE-COURSE DAY (Sunday 23rd March):
Registration and pre-course MCQ’s were undertaken in the afternoon.

Course objectives
To learn how to assess signs and symptoms of common surgical emergencies and how to initiate an immediate management plan based upon sound principles of clinical practice.

Course content
The course began promptly at 08:30 each morning.

Monday and Tuesday were devoted to the management of the critically ill surgical patient and involved lectures, demonstrations, DVD’s and practice of procedures, discussion of images and case studies, role play and, finally, critiquing each other’s performance.

14 trainees registered for the MSE Course and were together for these two days but were split into 3 groups for rotation through some teaching stations with each group being allocated a mentor for this part of the course.
**Wednesday, Thursday and Friday** were run in a different manner. The trainees were divided into three groups with 6, 4 and 4 in each which allowed for more supervised tuition.

On **Wednesday**, one group spent all day devoted to general surgical emergencies whilst another spent all day devoted to orthopaedics and trauma. Finally the last group spent the morning devoted to urological emergencies and the afternoon to Obs & Gynae emergencies.

The groups switched over on **Thursday and Friday** such that they rotated through all the specialties during the three days. Mini lectures, DVD’s, demonstrations, case scenarios and much “hands on” practical tuition were the essence of these Specialty modules.
14 Trainees

<table>
<thead>
<tr>
<th>Name</th>
<th>Specialty</th>
<th>Hospital / Place of work</th>
<th>Grade + Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stephen Besa</td>
<td>Gen Surgery</td>
<td>Lusaka University, Teaching Hospital, (LUTH)</td>
<td>Resident PGY1</td>
</tr>
<tr>
<td>Mumba Chalwe</td>
<td>Urology</td>
<td>LUTH</td>
<td>Resident PGY1</td>
</tr>
<tr>
<td>Tapiwa Chikuru</td>
<td>Orthopaedics</td>
<td>Parirenyatwa Hospital, Harare</td>
<td>SHO (GMO) 11 - MCS 2nd Year COSECSA</td>
</tr>
<tr>
<td>Palesa Chisala</td>
<td>General Surgery</td>
<td>Queen Elizabeth Central Hospital, Blantyre</td>
<td>Resident PGY1</td>
</tr>
<tr>
<td>Martin Fungura</td>
<td>Orthopaedics</td>
<td>Bulawayo, Zimbabwe</td>
<td>Medical Officer PGY1</td>
</tr>
<tr>
<td>Seke Kazuma</td>
<td>General Surgery</td>
<td>LUTH</td>
<td>Resident PGY1</td>
</tr>
<tr>
<td>Lufunda Lukama</td>
<td>General Surgery</td>
<td>LUTH</td>
<td>Resident PGY1</td>
</tr>
<tr>
<td>Fred Maaté</td>
<td></td>
<td>Lewanika General Hospital, (Mongu)</td>
<td>Medical Officer PGY2</td>
</tr>
<tr>
<td>Amon Ngongola</td>
<td>Gen Surgery</td>
<td>LUTH</td>
<td>Resident PGY1</td>
</tr>
<tr>
<td>Taurayi Nyarambi</td>
<td>Orthopaedics</td>
<td>Harare Central Hospital</td>
<td>Medical Officer PGY2</td>
</tr>
<tr>
<td>Rajesh Parekh</td>
<td>Gen Surgery</td>
<td>LUTH</td>
<td>Resident PGY2</td>
</tr>
<tr>
<td>Salome Sakala</td>
<td>Gen Surgery</td>
<td>LUTH</td>
<td>Resident PGY1</td>
</tr>
<tr>
<td>Davies Sasa</td>
<td>Obs/Gynae</td>
<td>LUTH</td>
<td>Resident PGY1</td>
</tr>
<tr>
<td>Muyatwa Shakalima</td>
<td>Gen Surgery</td>
<td>LUTH</td>
<td>Resident PGY1</td>
</tr>
</tbody>
</table>
Pre Course Experience Form

Each trainee was asked to complete a form which outlines the subjects to be discussed in the four speciality modules. The aim of this is to give the Module Lead information as to how much experience each trainee has before attending the course and this so that relevant tuition can be provided. This was of particular relevance to the Orthopaedic Module where those orthopaedic trainees who were already experienced in simple fracture management were tutored in more advanced aspects such as external fixation.

We aim to provide maximum benefit from this course and therefore asked each participant how many of these procedures they had performed (with or without senior help) in the last two years.

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>1 to 5</th>
<th>6 to 10</th>
<th>More than 10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ORTHOPAEDICS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tendon repair</td>
<td>43%</td>
<td>50%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Compartment syndrome release</td>
<td>57%</td>
<td>43%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closed reduction distal radius fracture</td>
<td>21%</td>
<td>43%</td>
<td>36%</td>
<td></td>
</tr>
<tr>
<td>Closed reduction ankle fracture</td>
<td>29%</td>
<td>29%</td>
<td>7%</td>
<td>35%</td>
</tr>
<tr>
<td>Closed reduction shoulder dislocation</td>
<td>29%</td>
<td>29%</td>
<td>29%</td>
<td>13%</td>
</tr>
<tr>
<td>Closed reduction hip dislocation</td>
<td>50%</td>
<td>36%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Pelvic fracture primary management</td>
<td>29%</td>
<td>50%</td>
<td>7%</td>
<td>14%</td>
</tr>
<tr>
<td>Below elbow plaster</td>
<td></td>
<td>29%</td>
<td>14%</td>
<td>57%</td>
</tr>
<tr>
<td>Below knee plaster</td>
<td>14%</td>
<td>7%</td>
<td>21%</td>
<td>58%</td>
</tr>
<tr>
<td>Skin traction</td>
<td>21%</td>
<td>14%</td>
<td>15%</td>
<td>50%</td>
</tr>
<tr>
<td>Thomas’s splint application</td>
<td>72%</td>
<td>21%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Skeletal traction proximal tibia</td>
<td>29%</td>
<td>13%</td>
<td>29%</td>
<td>29%</td>
</tr>
<tr>
<td>Skeletal traction distal femur</td>
<td>29%</td>
<td>21%</td>
<td>21%</td>
<td>29%</td>
</tr>
<tr>
<td>External fixation</td>
<td>86%</td>
<td>7%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Plate fixation</td>
<td>79%</td>
<td>14%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Lag screw fixation</td>
<td>86%</td>
<td>7%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td><strong>GENERAL SURGERY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedure</td>
<td>None</td>
<td>1 to 5</td>
<td>6 to 10</td>
<td>More than 10</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>------</td>
<td>--------</td>
<td>---------</td>
<td>--------------</td>
</tr>
<tr>
<td>Chest drain insertion</td>
<td>7%</td>
<td>21%</td>
<td>29%</td>
<td>43%</td>
</tr>
<tr>
<td>Burr hole</td>
<td>98%</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Split Skin grafting</td>
<td>21%</td>
<td>29%</td>
<td>29%</td>
<td>21%</td>
</tr>
<tr>
<td>Laparotomy for trauma</td>
<td>14%</td>
<td>43%</td>
<td>14%</td>
<td>29%</td>
</tr>
<tr>
<td>Splenectomy</td>
<td>79%</td>
<td>7%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Management of Liver trauma</td>
<td>57%</td>
<td>43%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of Upper GI bleeding</td>
<td>14%</td>
<td>50%</td>
<td>22%</td>
<td>14%</td>
</tr>
<tr>
<td>Stoma formation</td>
<td>14%</td>
<td>50%</td>
<td>29%</td>
<td>7%</td>
</tr>
<tr>
<td>Vascular anastomosis</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OBSTETRICS AND GYNAECOLOGY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caesarean section for obstructed labour</td>
<td></td>
<td>14%</td>
<td></td>
<td>86%</td>
</tr>
<tr>
<td>Caesarean section for other reasons</td>
<td>7%</td>
<td></td>
<td></td>
<td>93%</td>
</tr>
<tr>
<td>Vaginal breech delivery</td>
<td>7%</td>
<td>36%</td>
<td></td>
<td>57%</td>
</tr>
<tr>
<td>Cord prolapse</td>
<td>7%</td>
<td>29%</td>
<td>14%</td>
<td>50%</td>
</tr>
<tr>
<td>Procedure for major obstetric haemorrhage</td>
<td>14%</td>
<td>29%</td>
<td>7%</td>
<td>50%</td>
</tr>
<tr>
<td>Management of shoulder dystocia</td>
<td>50%</td>
<td>21.5%</td>
<td>21.5%</td>
<td>7%</td>
</tr>
<tr>
<td>Ectopic pregnancy</td>
<td></td>
<td>50%</td>
<td>14%</td>
<td>36%</td>
</tr>
<tr>
<td><strong>UROLOGY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suprapubic cystostomy</td>
<td>50%</td>
<td>29%</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>Scrotal exploration</td>
<td>29%</td>
<td>29%</td>
<td>13%</td>
<td>29%</td>
</tr>
<tr>
<td>Repair of bladder injury</td>
<td>29%</td>
<td>57%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Repair of ureteric injury</td>
<td>93%</td>
<td>7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of priapism</td>
<td>50%</td>
<td>50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Circumcision</td>
<td>7%</td>
<td>21%</td>
<td>28%</td>
<td>44%</td>
</tr>
</tbody>
</table>
Critical Care Module Report

**Visiting Faculty**

Lead: Mr Fanus Dreyer  
Dr David Ball

**Local Faculty**

Lead: Dr. Joseph Musowoya  
Dr. Matthew Wazara  
Dr. Carlos Varela  
Dr. Happiness Rabiel

**TTT Trainers**

Dr. Mitesh Patel  
Dr. Furkat Mirzakarimov  
Dr. Miriam Maimbo.
### Programme

**DAY 1 (Monday 24th March):**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>08.10 - 08.40</td>
<td>Registration for the day</td>
<td></td>
</tr>
<tr>
<td>08.40</td>
<td>1.1 Welcome &amp; Introduction</td>
<td></td>
</tr>
<tr>
<td>09.10</td>
<td>1.2 Introduction to Critical Care:</td>
<td></td>
</tr>
</tbody>
</table>
| 09.30 | 1.3 ASSESSMENT OF CRITICALLY ILL SURGICAL PATIENT | A. Practical demonstrations by faculty (20 min)  
B. Lecture (20 min) |
| 10.10 - 10.45 | 1.4 CPR | (A) BLS/ALS tutorial and  
(B) BLS demonstration |
| 10.45 - 11.05 | Refreshments | |
| 11.05 - | 1.5 ALS | Practical (Practice CPR in groups of 3 under guidance)  
11.50 |
| 11.50 - | 1.6 ALS in Children (tutorial) | 12.15 |
| Lunch | | 12.15 - 13.00 |
| 13.00 - 13.15 | Meet with Mentors | |
| 13.15 - | AIRWAY, BREATHING: | Rotate through 3 tutorials (30 min each)  
14.45 |
| 14.15 - | 1.7 Advanced Airway management | |
| 14.45 | 1.8 Trauma causes of breathlessness: | o life threatening respiratory injuries  
| 1.9 Post-operative hypoxia in surgical patients | |
| 14.40 - 15.05 | Refreshments | |
| CIRCULATION: | Rotate through 3 tutorials | |
26

(35 min each with 5 minute break between each rotation) 15.05 - 17.00

- 1.10 Shock and Haemorrhage
- 1.11 New approaches to fluid therapy and Oliguria
- 1.12 Cardiac complications in surgical patients

Feedback with Mentors 17.00 - 17.20

DAY 2 (Tuesday 25th March):

2.1 Introduction 08.00

DISABILITY: Rotate through 3 tutorials (30 min each) 08.10 - 09.40

- 2.2 Confusion in surgical patients
- 2.3 Head injuries
- 2.4 Spinal injuries and patient transfer

2.5 Practical: Log roll, transfer etc 09.40 - 10.10

Refreshments 10.10 - 10.30

Rotate through 3 tutorials (35 min each) 10.30 - 12.15

- 2.6 Surgical Sepsis
- 2.7 Obstetric critical care for surgeons
- 2.8 Emergency care of Burns

Lunch 12.15 - 13.00

Rotate through 3 tutorials (30 min each): 13.00 - 14.30

- 2.9 Anaesthesia for surgeons: Ketamine; Local and
  - Regional anaesthesia
- 2.10 Pain management
- 2.11 Monitoring in critical care
Refreshments

14.30 - 14.50

**EXTRAS**: Rotate through 3 stations (30 min each):

**16.20**
- 2.14 SBAR Communication intro + scenarios (2 tutors): PRACTICAL
- 2.15 Quality control in critical care (tutorial)
- 2.16 End-of-life care in critical illness (tutorial)

10 minute break

**TEST**: MCQs and EMQs

16.30 - 17.00
2.18 Course Summary and Feedback

17.00 - 17.20

*END OF CC COURSE*

**Course Delivery**

The UK based travelling faculty members for the critical care (CC) module for this course were Fanus Dreyer and David Ball. Our roles were to be in observational and supportive positions as the course would be delivered in its entirety by local COSECSA tutors. These were to be Joseph Musowoya (Ndola, Zambia; new CC module convenor for MSE in Lusaka), Matthew Wazara (Harare, Zimbabwe), Carlos Varela (Lilongwe, Malawi) and Happiness Rabiel (Arusha, Tanzania).

UK faculty met up with the four local tutors at the Training the Trainers (TTT) course on Sunday 23/3/2014. Dr Musowoya delivered the introduction to the CC module presentation and Drs Musowoya and Varela led on the “Giving feedback” role play session. The Safe Surgery presentation was delivered by myself. Eight new faculty expressed an interest in critical care.

On the Sunday evening the four local tutors were hosted to a handover dinner by the two travelling UK faculty members. The flash drives with all presentations were handed over to Dr Musowoya with a handshake, and then it was down to business, going through the CC programme in detail. Local faculty had been informed in advance on which tutorials they would be responsible for, but not all had faculty handbooks (Alba CCCD SCIO: ISBN 978-0-9927099-0-7); these were now provided
and then everyone's responsibility for the next two days were discussed in detail. It was especially important for individual roles in the practical sessions (Assessment demonstration, CPR practice, Log roll) and end-of-course test. I finished the evening with a feeling of accomplishment and confidence in the local faculty who would take the course forward, especially in Dr Musowoya as local critical care module lead.

On Monday and Tuesday (24-25/03/2014) the CC module was delivered without any difficulty. There were 14 course participants. Local teaching faculty taught all stations independently, although support was provided for CPR and Advanced Airway Management (with David Ball being the only anaesthetist present it made sense to use his expertise) and for Quality Control (QC) and End-of-Life Care (EoL). These two tutorials had been rewritten and simplified since the previous course and local tutors had not previously seen the new presentations. I helped with QC and David with EoL but local tutors took control of the tutorials on the second cycle of teaching. The end-of-course test was delivered by myself on the invitation of Dr Musowoya, to show the trainee participants that visiting faculty still had a hand in quality assurance of the CC module.

As now established, the assessment of participants depended largely on continuous assessment with satisfactory scores in CPR proficiency an absolute requirement. At the end of the two days a 30-minute "best answers" written test on complex clinical scenarios was conducted with participants allowed to discuss scenarios in their groups before answering individually. This was a difficult test and scores of 19-35/40 (mean 28/40) were achieved. All participants attained scores of 5-9/10 for continuous assessment and all participants passed the CC module with no serious reservations (the scores of 19/40 and 5/10 were not by the same trainee).

As previously, participants were given the opportunity to provide feedback on each teaching station on a 1-5 rating scale and to write free text comments. Feedback was the best ever received for a CC module and probably reflects the engagement of local faculty with trainee participants. (Feedback scores and comments are provided in pdf form in Appendix 1, (page 32).

A comparison graph of feedback on all CC courses run within and outside MSE since 2011 is provided in Appendix 2, (page 33).
Strong and weak points of participants were discussed with specialty module leads in a post-CC module meeting.

On Wednesday 26 March the two travelling faculty members for CC conducted critical care teaching for nurses at the UTH School of Nursing from 09h30-14h30. Informal feedback was again very positive.

**Dr. Musowoya demonstrates**

**Positive new developments**

1. Teaching of the critical care module has been taken over very competently by local faculty. They needed some support for revised presentations on two difficult topics but were confident enough to take this over very quickly.

2. The CC faculty handbook and providing presentations as fixed "Powerpoint Shows" underpin effective teaching to the same standard by all tutors.

3. Joseph Musowoya is a very enthusiastic and competent local module lead for future courses in Lusaka. Matthew Wazara, Carlos Varela and Happiness Rabiel established themselves as competent and effective tutors, all achieving very high feedback ratings.
4. Presentations on Quality Control/Audit and End-of-Life Care had been rewritten, as suggested in the October 2013 report, and were well received. These are now incorporated in the 2014 edition of the faculty handbook.

**Essential points for future courses**

1. Having a large enough pool of enthusiastic and competent CC tutors throughout the COSECSA region remains a major challenge.

2. A participants’ CC manual, based on review articles published online at [www.ptolemy.ca](http://www.ptolemy.ca), should be available as an online handbook by end-2014.

3. Having local enthusiasts as Assessment Lead for all modules remains a challenge. The assessment process still needs further refinement towards a simpler process that is easier to standardise.

4. To keep academic input from the original course developers into course contents, written material, course delivery, assessment and course evaluation processes in a way that is acceptable to local faculty and COSECSA, will remain a challenge.

5. To continue to develop an ongoing programme of critical care teaching for all health care providers in surgery for the future, in close liaison with local anaesthetic and surgical leadership, with support from COSECSA.

Lastly, I wish to again thank Mr Bob Lane for his trust and support, travelling and local faculty for their valuable input and enthusiasm, the head of department and other faculty members from the UTH Dept of Surgery for accommodating us and their excellent support, but especially the local critical care faculty members to whom we could hand over the course with confidence and reassurance about future teaching. Meeting so many enthusiastic trainees as course participants who want to learn all they can and new local tutors who want to help teach critical care in future remains a humbling experience.
**Trainee Comments**

**What went well?**

“The general organization of the sessions; very interactive; practical sessions between lectures”.

“Commitment from faculty team was very good”.

“Practical stations/sessions; the interaction”.

---

_Fanus hands over the reins to Joseph, Local Critical Care Module Lead_

_Critical Care Module under way_
“SBAR scenarios very engaging and good”.

“Rotation between discussion groups and having small discussion group sizes aiding participation”.

“Shock and management of haemorrhage; small group discussions”.
“The free interaction with fellow trainees and faculty made learning enjoyable”.
“The learning environment; moderators were eager to teach”.

“Almost all the lectures were presented with clarity and simple illustrations that made it easy to understand”.

“The organization, content and relay of information”.

“The SBAR communication skills, all the practical exercises”.

“Practical sessions”.

“Co-ordination and material presentation plus consolidation; emphasis on learning, work plus communication”.

“Rotating through the tutorials was a good idea”.

What could be better?

“Include spinal anaesthesia in the session of anaesthesia for general surgeons”.

“Food; pictures on earlier slides”.

“More practical “hands on” sessions”.

“The slides were fixed – it was like the moderator was giving a lecture using slides prepared by someone else and didn’t know what some words or pictures meant”.

“ALS and CPR; paediatric ALS”.

“Some presenters need to speak more loudly (audible) and with confidence”.

“Some presentations needed longer time”.

“The days were a bit too long; the course could have been spread out more”.

“More and appropriate pain management strategy”.

Other comments?

“Well presented materials and well understood”.

“Very good and relevant training”.

Points for discussion – the unconscious patient
### Appendix 1. Critical Care Module collated feedback scores

<table>
<thead>
<tr>
<th>Category</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>7</td>
<td>4.42</td>
</tr>
<tr>
<td>Assessment</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>12</td>
<td>4.79</td>
</tr>
<tr>
<td>ALS &amp; CPR</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>10</td>
<td>4.71</td>
</tr>
<tr>
<td>Paed ALS</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>6</td>
<td>4.36</td>
</tr>
<tr>
<td>Airway Mx</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>9</td>
<td>4.64</td>
</tr>
<tr>
<td>Hypoxia</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>10</td>
<td>4.71</td>
</tr>
<tr>
<td>Chest trauma</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>10</td>
<td>4.71</td>
</tr>
<tr>
<td>Shock</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>12</td>
<td>4.86</td>
</tr>
<tr>
<td>Fluid ther/Olig</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>7</td>
<td>4.5</td>
</tr>
<tr>
<td>Cardiac complic</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>7</td>
<td>4.43</td>
</tr>
<tr>
<td>Confusion</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>10</td>
<td>4.71</td>
</tr>
<tr>
<td>Head inj</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>7</td>
<td>4.5</td>
</tr>
<tr>
<td>Spinal inj/Transf</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>8</td>
<td>4.57</td>
</tr>
<tr>
<td>Log roll</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>11</td>
<td>4.79</td>
</tr>
<tr>
<td>Surg sepsis</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>9</td>
<td>4.64</td>
</tr>
<tr>
<td>Obstetric CC</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>6</td>
<td>4.36</td>
</tr>
<tr>
<td>Burns</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>8</td>
<td>4.5</td>
</tr>
<tr>
<td>Anaesthesia</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>7</td>
<td>4.36</td>
</tr>
<tr>
<td>Pain Mx</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>7</td>
<td>4.5</td>
</tr>
<tr>
<td>Monitoring</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>SBAR</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>Quality control</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>11</td>
<td>4.79</td>
</tr>
<tr>
<td>End-of-life care</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>12</td>
<td>4.86</td>
</tr>
<tr>
<td>Written test</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>7</td>
<td>2</td>
<td>3.84</td>
</tr>
<tr>
<td>Organis/Faculty</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>8</td>
<td>4.62</td>
</tr>
</tbody>
</table>

![Bar chart showing feedback scores across various categories](chart.png)
Appendix 2.

Combined feedback scores for all Critical Care courses run as MSE modules or independently by Alba CCCD 2012-2014

**Requirements per Course**

**Equipment: Basic life support, CPR**

2 x Resus Annie Torso Basic with soft pack. *Laerdal* (31000640)

1 x Ambu Spur II adult breathing system. *Ambu*

**Equipment: airway management**

1 x intubating manikin, adult. Deluxe Difficult Airway Trainer*. *Laerdal*

1 x Ambu Spur II adult breathing system. *Ambu*

Air Easy™ Guedel airways. color-coded. *Smiths Medical*

(Green 80 mm 2018) and (Yellow 90mm 2019) and (Red 20mm 2020)

Each in box of 10.
**Nasopharyngeal airways.** *Smiths Medical*

(6.0mm 100/210/060) and (7.0mm) (100/210/070) Each in box of 10.

**Classic Laryngeal Mask Airways, cLMA Basic™.** *Intavent Direct*

1 x (Size3 1113090) and 1x (Size4 1114100) and 1 x (Size 5 1115120)

**Laryngoscope, MAC 4 and 5 (curved blade) with batteries(2C type).** *Proact Medical*

1 x Proact Mac 4 Metal Max 90 laryngoscope blade and handle set. (HMM 90MAC4)
1 x Proact Mac 5 Metal Max 90 laryngoscope blade and handle set. (HMM 90MAC5)

**Tracheal tubes, standard cuffed, sizes 6.0, 7.0, 8.0mm** *Smiths Medical*

Endotracheal tubes, clear PVC/oral/nasal, soft seal, cuffed.
2 x 6.0mm (100/199/060)  NB can be used for cricothyroidotomy training Box of 10
2 x 7.0mm (100/199/070) Box of 10
2 x 8.0mm (100/199/080) Box of 10

**Tracheal introducer, (“bougie”)** *Cook Medical*  Box of 10

Frova Intubating Introducer, without stiffener, without rapi-fit adapter. (C-CAE-14.0-65-FIC)

**Syringe** 10 x 10cc., sourced easily

**Lubricant** *Laerdal* (250-21050)

The sizes of some of the airway tubes listed are chosen to fit the dimensions of the manikins. (bigger sizes jam)

**Scalpel Handles** (small) 1 x No 3

**Size 11 Blades** x 3

**Tracheal Retractors** (Large curved blunt) x 2.
General Surgery Module Report

Visiting Faculty

Lead: Mr Paul Gartell

Local Faculty

Lead: Dr. Matthew Wazara
  Dr. Roy Chavuma
  Dr. Happiness Rabiel

Trainers

Dr. Furkat Mirzakarimov
Dr. Miriam Maimbo.
Wednesday 26th – Friday 28th March 2014

Venue: Tissue Lab and Hot Room, Dept of Surgery, UTH.

Programme

0800 – 0830 Registration

0830 – 0845 Welcome and introduction to the day

0845 – 0930 Blast injury - a mixture of blunt and penetrating trauma

   ABC

   Triage

   Tension pneumothorax

0930 – 1000 Chest trauma blunt and sharp

1000 – 1030 Burr hole surgery

1030 – 1100 Refreshments

1100 – 1300 Indications for laparotomy

   “The 45 minute Laparotomy”

   Liver packing and suturing

   Splenectomy

   Diaphragmatic hernia

   Bowel injury management

   Management of the grossly contaminated abdomen
1300 – 1345  Lunch

1345 – 1445  GI haemorrhage
            DU & Varices
            Underrunning of bleeding vessel
            Pyloroplasty
            Sengstaken tube

1445 – 1545  Bowel obstruction
            Adhesions
            Deflation of Sigmoid Volvulus
            Colostomy
            Ileostomy

1545 – 1600  Refreshments

1600 – 1700  Vascular injury

1700 – 1715  Management of post op complications

1715 – 1730  Summary & MCQ
Introduction

As this was the last of 3 courses, the aim was for the UK faculty of one to support the module rather than be actively involved. The UK profile diminished from some practical assistance and supportive interjection to bring out important points on day 1 to observer status on day 3. The faculty lead was Matthew Wazara and he was ably supported by Roy Chavuma and Happiness Rabiel. There were to 2 trainers, Miriam and Furkat, who watched and gave practical assistance on day 1 and become progressively more involved and taking over more of the lectures and practicals over the following 2 days.

The whole team grew in confidence over the 3 days and delivered the whole module extremely efficiently and well on day 3. The excellent feedback results show no significant change over the 3 days suggesting that the course was being delivered to a high standard throughout.

Having run 3 courses in Lusaka we have learnt that preparation is all important. The development of a ‘flow chart’ so that the lead can organize the day efficiently was of great importance.

Flow Chart for the General Surgery Module

<table>
<thead>
<tr>
<th>Previous Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venue and projector inspection.</td>
</tr>
<tr>
<td>Pig arrangements &amp; rope checked.</td>
</tr>
<tr>
<td>(soap/towels/fly spray/operating light etc.)</td>
</tr>
<tr>
<td>Instrument check &amp; arranged by topics.</td>
</tr>
<tr>
<td>Analyse pre-course MCQ’s &amp; Experience sheets.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Each Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervise pig arrival</td>
</tr>
<tr>
<td>Water proof table and fix pig with rope, prepare for odour, flies, fluids etc.</td>
</tr>
<tr>
<td>@ 07:45</td>
</tr>
<tr>
<td><strong>Orthopaedic team</strong> remove trotters.</td>
</tr>
<tr>
<td><strong>Urologists</strong> remove scrotum, testes, kidneys, ureters and bladder.</td>
</tr>
</tbody>
</table>
**General surgeons** tie off and remove large bowel
Set up projector and computer

**Presentations**

**PRACTICAL and PREPARATION**

**Blast Injury**

*Prepare* venflon, glove, scissors, tie for lecturer demonstration for chest trauma.

**Chest Trauma**
on tension pneumothorax
chest drain insertion?

*Prepare* for Burr Holes, position pig, instruments;

*Prepare* for Split Skin Grafting (SSG).

**Burr Holes**

Do Burr Holes

**SSG**

Do SSG

**CLEAR UP**

**Refreshments**

*Prepare* for Laparotomy, Liver suture, Splenectomy during refreshment break.

**45 Min Laparotomy**

**Liver Trauma**

**Splenectomy**

Do Laparotomy, Liver Suture, Splenectomy

**CLEAR UP**

**Lunch**

*Prepare* for Gastrotomy, Underrunning of D.U., *during lunch.*

**G.I. Haemorrhage**

Pyloroplasty
Do Gastrotomy, underunnning of D.U., Pyloroplasty

**Bowel Obstruction & Stomas**

*Prepare* small bowel for colostomy & loop ileostomy

**CLEAR UP**

**Refreshments**

Harvest Aorta, divide for pairs in group, pin out *during refreshment break.*

**Vascular Injury**

**Post op complications**

Lecture.
MCQ's & Feedback

Closure

Lessons learnt

1. Animal material (pig)

- It is essential to have the pig in a separate room. Even with A/C the olfactory stimulation becomes overpowering during the day.

- Make sure that the pig arrives before the start of the morning session.

- Get the pig pre-treated with boiling water to remove the hair. This is especially useful for the skin grafting.

- Remove the large bowel straight away.

- Always cover the pig when not demonstrating.

2. Lectures

The trainees much prefer an interactive rather than didactic approach. The downside may be time-keeping. It is crucial to keep an eye on the time.

3. Lead Trainer

Keep an eye on time and intervene if necessary.

Make a note of who is leading on all the topics each day and any feedback that you can give. This can be useful, particularly for the trainers, and for choosing trainers for the subsequent courses. I have also tried to correlate this with the comments from the trainees and the MCQ results.
Pre & Post Course MCQs (%)

14 Trainees

Trainee Feedback (14)

Blast Injury
Very dissatisfied | Dissatisfied | Neutral | Satisfied | Very Satisfied
---|---|---|---|---

Triage

Chest trauma

Abdominal trauma

13

13

12
GI bleeding

Burr holes

Skin grafting
Comments from trainees

What went well?

“The practical sessions”

“The CDI”

“Burr Holes”

“ILEOSTOMY”

“Quite eloquent presentations and lively discussions”

“Time taken to explain practical sessions”

“Learnt a lot of new things in practical sessions”

“The moderators were very helpful”

“Lectures well-co-ordinated and beneficial”

“Vascular repair”

“I have learnt a lot of skills and enjoyed myself thoroughly”

What could have been better?

“Some presenters rushed through the presentations”

“Duration. A very long day”

“None”

“More time for practice”

“If the pig didn't smell so bad”

“Lectures too long”

“More time in lectures than demonstrations”

“Correct instrumentation missing”

“Human cadavers”

“MCQs sometimes vague”

“Extra day”

“GI bleeding”
What would you want to learn more about in future?

“Vascular repairs”

“More bowel & visceral surgery”

“Anastomosis and hemicolecotomies”

“Principles of thoracotomy”
## Requirements per Course

<table>
<thead>
<tr>
<th>Instruments for General Surgery</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NEEDLE HOLDERS</strong></td>
<td></td>
</tr>
<tr>
<td>Mayo Hegar</td>
<td>2</td>
</tr>
<tr>
<td>Crile Wood</td>
<td>4</td>
</tr>
<tr>
<td><strong>FORCEPS</strong></td>
<td></td>
</tr>
<tr>
<td>Waughts Fine Toothed</td>
<td>6</td>
</tr>
<tr>
<td>Adson Fine Non Toothed</td>
<td>5</td>
</tr>
<tr>
<td>Lane Dissecting</td>
<td>1</td>
</tr>
<tr>
<td>Spencer Wells Curved Normal</td>
<td>6</td>
</tr>
<tr>
<td>Mosquito (Halstead)</td>
<td>26</td>
</tr>
<tr>
<td>Lahey (Sweet)</td>
<td>2</td>
</tr>
<tr>
<td>Roberts (Artery Curves)</td>
<td>2</td>
</tr>
<tr>
<td>Babcocks</td>
<td>2</td>
</tr>
<tr>
<td><strong>SCALPEL HANDLES</strong></td>
<td></td>
</tr>
<tr>
<td>No 3 (Small)</td>
<td>1</td>
</tr>
<tr>
<td>No 4 (Large)</td>
<td>2</td>
</tr>
<tr>
<td><strong>SCISSORS</strong></td>
<td></td>
</tr>
<tr>
<td>Mayo</td>
<td>8</td>
</tr>
<tr>
<td>Angled Flat Dural (Scheiden Taylor)</td>
<td>1</td>
</tr>
<tr>
<td>Potts De Martell</td>
<td>4</td>
</tr>
<tr>
<td>Metzenbaum</td>
<td>6</td>
</tr>
<tr>
<td><strong>KNIVES</strong></td>
<td></td>
</tr>
<tr>
<td>Humby Knife</td>
<td>1</td>
</tr>
<tr>
<td>Blades (10)</td>
<td>1</td>
</tr>
<tr>
<td><strong>NEUROSURGICAL INSTRUMENTS</strong></td>
<td></td>
</tr>
<tr>
<td>Hudson Drill Brace (+2 Bits)</td>
<td>1</td>
</tr>
<tr>
<td>Hudson Spherical burr</td>
<td>1</td>
</tr>
<tr>
<td>Cushing Flat drill</td>
<td>1</td>
</tr>
<tr>
<td>Nibbler - Northfield</td>
<td>1</td>
</tr>
<tr>
<td>Sewall Elevator</td>
<td>1</td>
</tr>
<tr>
<td>Adson - Baby self retaining clamp</td>
<td>1</td>
</tr>
<tr>
<td><strong>SMALL BOWEL CLAMPS</strong></td>
<td></td>
</tr>
<tr>
<td>Kocher Straight</td>
<td>2</td>
</tr>
<tr>
<td>Kocher Curved</td>
<td>2</td>
</tr>
</tbody>
</table>
## Sutures for General Surgery

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Item Code</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHEST DRAIN</strong></td>
<td>W6327</td>
<td>1 BOX</td>
<td>12 Sutures 2/0 Mersilk, reverse cutting, taper (CS-245)</td>
</tr>
<tr>
<td><strong>LIVER INJURY</strong></td>
<td>W3709</td>
<td>2 BOXES</td>
<td>24 Sutures 1 Ethiguard blunt point Monocryl Suture</td>
</tr>
<tr>
<td><strong>SPLENECTOMY</strong></td>
<td>W9026</td>
<td>1 BOX</td>
<td>12 Sutures 0 Vicryl (150cm) Ligs</td>
</tr>
<tr>
<td></td>
<td>W9025</td>
<td>1 BOX</td>
<td>12 Sutures 2/0 Vicryl (150cm) Ligs</td>
</tr>
<tr>
<td></td>
<td>W9136</td>
<td>1 BOX</td>
<td>12 Sutures 2/0 Vicryl – (½ c) R.B.</td>
</tr>
<tr>
<td><strong>COLOSTOMY</strong></td>
<td>W328H</td>
<td>2 BOXES</td>
<td>72 Sutures 3/0 Mersilk reverse cutting</td>
</tr>
<tr>
<td><strong>VASCULAR REPAIR</strong></td>
<td>W8845</td>
<td>2 BOXES</td>
<td>24 Sutures 4/0 Prolene</td>
</tr>
<tr>
<td></td>
<td>W8830</td>
<td>2 BOXES</td>
<td>24 Sutures 5/0 Prolene</td>
</tr>
<tr>
<td><strong>GI HAEMORRHAGE</strong></td>
<td>W9136</td>
<td>2 BOXES</td>
<td>24 Sutures 2/0 Vicryl (½ c)</td>
</tr>
<tr>
<td></td>
<td>W9130</td>
<td>2 BOXES</td>
<td>24 Sutures 3/0 Vicryl (½ c)</td>
</tr>
<tr>
<td></td>
<td>W9025</td>
<td>1 BOX</td>
<td>24 Sutures 2/0 Vicryl Ties</td>
</tr>
<tr>
<td><strong>PYLOROPLASTY</strong></td>
<td>W9130</td>
<td>2 BOXES</td>
<td>24 Sutures 3/0 Vicryl (½ c)</td>
</tr>
</tbody>
</table>
### Re-usable items for General Surgery

<table>
<thead>
<tr>
<th>Item</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cork Tiles, size 300mm x 300mm x 4mm thick</td>
<td>3</td>
</tr>
<tr>
<td>Push Pins IV stationary <a href="mailto:ltd.sales@ivstationary.com">ltd.sales@ivstationary.com</a></td>
<td>24</td>
</tr>
<tr>
<td>2.5 litre Plastic Paint Kettle</td>
<td>3</td>
</tr>
<tr>
<td>0.5 litre approx adjustable nozzle, trigger flower spray</td>
<td>1</td>
</tr>
<tr>
<td>Oxygen Tubing 2 metres</td>
<td>1</td>
</tr>
</tbody>
</table>

### Disposable items for General Surgery

<table>
<thead>
<tr>
<th>Item</th>
<th>No. (per course)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SURGICAL BLADES</strong></td>
<td></td>
</tr>
<tr>
<td>No 10</td>
<td>48</td>
</tr>
<tr>
<td>No 22</td>
<td>15</td>
</tr>
<tr>
<td>No 11</td>
<td>9</td>
</tr>
<tr>
<td><strong>GENERAL</strong></td>
<td></td>
</tr>
<tr>
<td>Pauls tubing 12cm</td>
<td>10</td>
</tr>
<tr>
<td>Sleek</td>
<td>1 Roll</td>
</tr>
<tr>
<td>Sharp's Bins 1/2 litre</td>
<td>3</td>
</tr>
<tr>
<td>Gloves - latex free, Small, Medium &amp; Large</td>
<td>1 Box of each</td>
</tr>
<tr>
<td>Aprons - white roll of 200 per roll</td>
<td>30</td>
</tr>
<tr>
<td>Black disposable bags</td>
<td>3</td>
</tr>
<tr>
<td>Milton Tabs query quantity, need about 60</td>
<td>6</td>
</tr>
<tr>
<td>Marker Pen - (Burr Hole + Escharotomy)</td>
<td>1</td>
</tr>
</tbody>
</table>
Orthopaedics & Trauma Module

Report

Visiting Faculty

Lead – Mr Yogesh Nathdwawala

Local Faculty

Dr Michael Mbelenga
Dr Joseph Musowoya
Dr James Munthali

Trainer

Dr. Mitesh Patel
26th – 28th March 2014
Venue: Conference Room, Dept of Surgery, UTH

Programme

8.00 Introduction
8.05 Compartment syndrome work shop
8.40 Septic arthritis Osteomyelitis
9.00 Tendon repair & practical
9.30 Fracture reduction & plaster talk
9.40 Closed reduction work shop

Distal radius
Ankle
Supracondylar
Tibial
Shoulder, elbow, hip reductions

10.10 Refreshments
10.25 Plastering exercise

B/E back slab
B/E POP cast
Demo B/K POP, A/K POP and wedging

11.20 Traction talk
11.30 Skin traction Thomas splint work shop

12.00-12.30 Skeletal traction exercise
(Tibial, calcaneal, femoral pin)

12.30 Lunch
13.15 Pelvic fracture and binder
13.35  External fixation talk (including open fracture)
13.45  External fixation exercise
14.55-15.10  Refreshments
15.10-15.20  Internal fixation talk
15.20  Internal fixation exercise
          Lag screw
          DCP
          Ankle
16.30-17.00  MCQ

**Preparation and Delivery**

This was the final course in Lusaka. The central emphasis was to hand over the course to the local faculty. Dr Michael Mbelenga and Dr Joseph Musowoya joined me as the Faculty for the course.

The Train the Trainer course on **Sunday, 23rd March 2014** went smoothly. In absence of Ms Irani I managed the presentation on the Obstetrics and Gynaecology module. Dr Mitesh Patel joined us as a trainer for the orthopaedic module and his contribution was excellent.

On the **Monday 24th** and **Tuesday 25th March** we checked all the equipment and everything was in order.

On the **Tuesday 25th March** we taught the theatre nurses. Topics included skin traction, skeletal traction and internal fixation. The teaching was quite practical and the nurses had an opportunity to put traction on each other as well as practice internal fixation and skeletal traction on plastic bones. They really enjoyed this interactive hands-on session. I am grateful to Judy Mewburn for organising this.

On Monday and Tuesday evening we had a debriefing from the Critical Care Team. The meeting was useful and important information about the group and facilities were
exchanged. Faculty discussed the various talks along with the trainer and decided who is going to deliver which talks.

Once again, for unavoidable reasons, only fourteen out of eighteen places on the Course were filled.

The course was delivered as planned over three days (Wednesday 26th, Thursday 27th and Friday 28th of March).

The model of compartment syndrome was re-used every day. I am grateful to Mr Shekhar Biyani for providing us with a special tape he used for the rectus sheath. We managed to use the tape to produce compartment layers that enabled the trainees to practice each day. Specific evaluation of the model was also collected on the request of Mr Ian Pallister, the eminent trauma surgeon from Swansea, who kindly donated the model.

Mr Robert Zulu provided kitchen towels and a sink in the room and that made a big difference.

On the second day, (Thursday) two trainees had to be away briefly for personal reasons. However, we made ourselves available during the lunch break and provided them with the extra time for the practicals that they had missed.

The local Faculty, Dr Mbelenga and Dr Musowoya, took the lead in the debriefing meetings in the evening on each day.

What went well

- I was fortunate to have a very enthusiastic and energetic Local Faculty - Dr Mbelenga, Dr Musowoya and Dr Patel who made an excellent contribution in the delivery of the course.
- As planned the local Faculty and trainer took the lead in delivery of the course while I simply provided background support.
- The debriefing meeting at the end of the Critical Care module was very useful.
- The Compartment release model remains very popular and useful and we have managed to find a way to re-use it everyday thanks to Mr Biyani.
The flow chart continues to be a very practical tool in anticipating the next task and making adequate preparation. The flow chart has been adapted by the other sub-speciality modules.

Mr. Lane has kindly printed the pre-experience form in colour and that makes them easier to analyse.

I am very grateful to Dr Robert Zulu, the local organising lead, for taking care of various details ensuring that all the equipment was present and available.

Plaster of Paris and bandages obtained locally were satisfactory.

We have also introduced an appraisal form for all the trainers. This gives a valuable feedback to them from their colleagues. I am grateful to Mr Biyani for this. Assessment was carried out jointly by all the trainers towards the end of the day.

Food, drinks, transport and accommodation were satisfactory.

Participants found the course extremely useful and enjoyable and this is reflected in their feedback.

Overall the local faculty must be congratulated in delivering this course to a very high standard leaving us with the satisfaction and reassurance that the course is in safe hands.

**What could have been better?**

Once again all the 18 trainee places were not filled. We fully appreciate that sometimes this is unavoidable. Nevertheless, it does result in loss of valuable training opportunities.

On the last day of the course on Friday evening the situation becomes very hectic. We are required to clean, pack and label the equipment and arrive on time for distribution of certificates. However, there is no additional time allocated to this task. Unfortunately we have not been able to find an easy solution to this problem.

Although it was quite reassuring that all the materials which have been left from the previous course were safe and sound, it would be useful to store training
materials into a number of boxes required for each topic. I have discussed this with the local trainers who are going to take this forwards.

**Sustainability**

The points noted in the previous courses in relation to the sustainability remain valid. We are yet to draw a financial model for each course that would help the local trainers to estimate the cost of the disposable items and other expenses. Although we have a detailed list of the equipment required for each module the financial model will help the sustainability of the course. We have yet to confirm a mechanism in place to repair/replace/maintain any training material and also provide a mentorship to the local trainers as needed.

**Flow Chart for the Orthopaedic module.**

*On the previous day*

- Charge power drills. (Very important).
- Projector and seating area.
- Analyse pre-course experience forms.
- Analyse pre-course MCQ results.
- Check list of instruments and disposables.
- Request animal material.
- Apply bubble wrap and brown tape to the plastic bones.

*On the day of the course*

- Welcome.
- Explain the programme.
- Come back on time from breaks
- Happy to stay back in breaks if needed
- Inform if going out
- Give feedback and attendance forms.
• Request to switch mobiles off.

• MCQ structure and tips.

• **During the compartment syndrome talk** distribute marking pens, scalpel handles without the blades, scissors. Show pain on passive stretching.

• **During septic arthritis / osteomyelitis talk** set up for the tendon repair, give out corkboards, needles, pig’s trotters, scalpel blades, scissors, sutures, gloves, apron, sharp boxes etc.

• **During the fracture reduction and plaster talk** clear the tables from the previous practical (sharps, clear waste and clean instruments) and prepare for the plastering if time permits.

• Closed reduction workshop would include reduction of Colles’ fracture, forearm fractures, elbow dislocation, ankle fractures and tibial fracture reduction in individual groups.

• Reduction of the shoulder and hip needs to be demonstrated to the whole group. Traction and counter traction method along with the Kochers and Hippocrates’ methods. Mention iv canula for dislocation reduction.

• **During the tea break** put the POP, wool, bandages, water buckets on the table.

• Put nine 4 inch plaster bandages on each table. Keep three 4 inch plaster bandages and three 6 inch plaster bandages for demonstration.

• Put nine 4 inch wool rolls on each table. Keep seven 4 inch wool and two 6 inch wool for demonstration.

• Put seven 4 inch crepe bandages on each table.

• Apply protective plastic sheets.

• Put the plaster cutter, splitters and scissors on the table.

• During the plastering exercises the candidates will be doing below elbow back slab and below elbow plaster.

• Below knee plaster of Paris needs to be demonstrated along with wedging.

• Small wooden pieces and tape would be required for wedging.

• Discuss care of plasters.

• **During the traction talk** clear the plastering material.

• Put 2 skin tractions, marking pens, Elastoplast, gauze and traction cord on tables. Prepare Thomas’s splint.

• **During the lunch break** get the skeletal traction material ready.
- Power drills, T handles, 4 Steinman’s splint and 1 Denham pin on each table.
- Marking pen, plastic syringe and artery clip with a scalpel handle without the blade on each table.
- Plastic bones - 1 tibia, 1 femur and 1 calcaneum on each table.
- Fix the clamps to the table.
- Cover the bones with brown tape and bubble wrap if not already done.
- **During the talk on pelvic fractures** clear the table to lie down. Prepare 2 crepe bandages and cloth for pelvic binding. A pillow would be useful.
- Prepare the pelvic external fixation if not done so.
- **During the external fixation talk** include the open fracture discussion in between using a flip chart.
- During the talk prepare the external fixation material. Put one external fixation set on each table.
- Towards the end prepare the plaster bandages to demonstrate pins and plaster external fixation.
- **During the tea break** clear the tables and put internal fixation practical exercise material on each table. This would include the plates, screws, drills, taps, measuring guides, plastic bones etc.
- **During the MCQ’s** clear the tables.
- Put the drills for charging.
- Collect the assessment forms.
- Mark the MCQ’s.
- Discuss the answers of the MCQ’s and any questions arising from the trainees.
- Assessment forms.
- Next day’s pre course experience forms and pairing
- Decide who will deliver which lectures
- MCQs for next day and ensure they are covered
- Debriefing.

**Look back with satisfaction and chill out !!!!**
Pre and Post course MCQ (%)

Trainees

Trainee Feedback (14)

Compartment syndrome
Trainee Comments

What went well?

“The lessons are very practical”

“Enjoyed the practical sessions, internal fixation especially”.

“The facilitation and clarification of concerns”.

“Tendon repair”.

“All”.
“Easy to follow discussion and good illustrations”.

“The practical sessions – enjoyed time given to explain queries”.

“Learnt new techniques of external fixation using plaster of paris”.

“Practically everything”.

“The practicals were very good and very interactive”.

“Practical tips helpful for everyday practise”.

“Made easy to understand”.

“Thoroughly enjoyed the practical sessions”.

“Everyone should do orthopaedics including the Gynaecologists”.

“The demonstrations were good”.

“Lectures”.

“Practical sessions”.

“Class very helpful – eager to teach”.

“Timing was good”.

“I liked the internal fixation techniques”.

What could have been better?

“Next time you could use water washable markers”.

“More practice”.

“More time”.

“More practicals”.

“The course was very enjoyable and informative, have no additions”.

“None”.

“Allocate more time”.

“More demonstrations for compartment syndrome, models for demonstration”.

“None”.

“Increase the number of days for the course so as to practice on actual patients”.

65
What would you like to learn more about in the future courses?

“Internal fixation with intramedullary nail”.

“Internal fixation”.

“Nerve repair”.

“Nil”.

“To add about different types of fixators with the indications”.

Other comments

“Enjoyed session”

“Well organised, extremely important course”

“Well done”
## Requirements per Course

### Instruments for Orthopaedics / Trauma

<table>
<thead>
<tr>
<th>Item</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NEEDLE HOLDERS</strong></td>
<td></td>
</tr>
<tr>
<td>Mayo Hegar</td>
<td>4</td>
</tr>
<tr>
<td>Crile Wood</td>
<td>4</td>
</tr>
<tr>
<td><strong>FORCEPS</strong></td>
<td></td>
</tr>
<tr>
<td>Waugh Fine Toothy</td>
<td>4</td>
</tr>
<tr>
<td>Lane Dissecting</td>
<td>4</td>
</tr>
<tr>
<td>Spencer Wells Curved</td>
<td>4</td>
</tr>
<tr>
<td>Mosquito (Halstead)</td>
<td>8</td>
</tr>
<tr>
<td><strong>SCALPEL HANDLES</strong></td>
<td></td>
</tr>
<tr>
<td>No 4 (Large)</td>
<td>8</td>
</tr>
<tr>
<td><strong>SCISSORS</strong></td>
<td></td>
</tr>
<tr>
<td>Mayo</td>
<td>4</td>
</tr>
<tr>
<td>Bergmann Plaster Scissors</td>
<td>1</td>
</tr>
<tr>
<td><strong>OTHER</strong></td>
<td></td>
</tr>
<tr>
<td>Plaster Shears Stille-Aesculap</td>
<td>1</td>
</tr>
<tr>
<td>Hennig Plaster Spreader</td>
<td>1</td>
</tr>
</tbody>
</table>

### Sutures for Orthopaedics / Trauma

<table>
<thead>
<tr>
<th>Sutures for Orthopaedics / Trauma</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEBRIDEMENT</strong></td>
<td></td>
</tr>
<tr>
<td>W328H 1 BOX</td>
<td>36 Sutures 3/0 Mersilk braided, 3/8 reverse cutting</td>
</tr>
<tr>
<td><strong>TENDON REPAIR</strong></td>
<td></td>
</tr>
<tr>
<td>W8845 2 BOXES</td>
<td>24 Sutures 4/0 Prolene (1/2 c) double needle</td>
</tr>
</tbody>
</table>

### Re-usable items for Orthopaedics / Trauma

<table>
<thead>
<tr>
<th>Item</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cork Tiles, size 300mm x 300mm x 4mm thick</td>
<td>3</td>
</tr>
<tr>
<td>Push Pins IV stationary <a href="mailto:ltd.sales@ivstationary.com">ltd.sales@ivstationary.com</a></td>
<td>24</td>
</tr>
<tr>
<td>2.5 litre Plastic Paint Kettle</td>
<td>3</td>
</tr>
<tr>
<td>0.5 litre approx adjustable nozzle, trigger flower spray</td>
<td>1</td>
</tr>
<tr>
<td>Item</td>
<td>No</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Surgical Blandes No. 22</td>
<td>18</td>
</tr>
<tr>
<td>Pauls tubing 12cm</td>
<td>9</td>
</tr>
<tr>
<td>Sharps Bins 1/2 litre</td>
<td>3</td>
</tr>
<tr>
<td>Gloves - latex free, Small, Medium &amp; Large</td>
<td>1 Box of each</td>
</tr>
<tr>
<td>Aprons - white roll of 200 per roll</td>
<td>3</td>
</tr>
<tr>
<td>Scrubbing brushes small - for debridement</td>
<td>3</td>
</tr>
<tr>
<td>Non sterile gauze swabs (packets)</td>
<td>6</td>
</tr>
<tr>
<td>Black disposable bags</td>
<td>3</td>
</tr>
<tr>
<td>Large white/green IV 16G needles</td>
<td>20</td>
</tr>
<tr>
<td>Rolls plastic sheeting</td>
<td>To be issued</td>
</tr>
<tr>
<td>Velband/cotton wool roll padding, 60 x 4&quot; 2.7mt rolls</td>
<td>60 Rolls</td>
</tr>
<tr>
<td>Velband/cotton wool roll padding, 6 x 6&quot;</td>
<td>6 rolls</td>
</tr>
<tr>
<td>Elastoplast /Adhesive plaster, 6 x 4&quot;, 4.5mt rolls</td>
<td>6</td>
</tr>
<tr>
<td>Crepe Bandage 10 x 4&quot;</td>
<td>10 Rolls</td>
</tr>
<tr>
<td>Milton Tabs</td>
<td>6</td>
</tr>
</tbody>
</table>
Urology Module Report

Visiting Faculty

Lead – Mr Chandra Shekhar Biyani
Dr. Nick Campain

Local Faculty

Dr Nenad Spasojevic
Dr Michael Bambiko,

Trainers

Dr Simon Mukosai
Dr Michael Mbalenga
Dr Mwela Rupasha
26th October to 28th March 2014

Venue: Tissue Lab, Breakout Room, Dept of Surgery, UTH

Introduction

I am thankful to Mr Bob Lane, Convener & Programme Director for International Affairs, ASGBI, for his continued guidance and to Dr Robert Zulu for tireless efforts in facilitating this visit. I could not have done this without the excellent support from Dr Nenad Spasojevic.

I would like to express my sincere appreciation to Dr Nenad Spasojevic, Dr Michael Silumbe, Dr M Bambiko, Dr Simon Mukosai, Dr M Lupasha their help with the urology module.

I am grateful to Mr Ru MacDonagh Chairman, UROLINK, for his continued support.

Finally, I would like to acknowledge Limbs & Things LTD, Sussex Street, St Philips, Bristol, UK for donating circumcision models for the workshop and sincere thanks to Mr Nick Gerolemou, Marketing Manager and Ms Clare Rangeley, Sculptor, Limbs & Things.

Background

Mr Bob Lane, Convener & Programme Director for International Affairs at the Association of Surgeons of Great Britain and Ireland (ASGBI) submitted an application for a grant to the Department of International Development to deliver Multi-level Training for Healthcare Workers to improve emergency surgical care in The College of Surgeons of East, Central and Southern Africa (COSECSA) region and was successful. The pilot “Management of Surgical Emergencies” (MSE) course delivered in October 2011 consisted of five clinical teaching modules - critical care; general surgery; orthopaedics and trauma; urology and obstetrics. The plan is to deliver six courses in the COSECSA region in next two and half years.

Mr Lane’s office had coordinated with all UK faculty members and the first course was organised at the end of February 2013. This was our fourth trip to deliver the course.
**Programme**

08.15 Welcome and introduction

08.30-08.45 Catheterisation

08.45 – 09.00 Acute Scrotum

09.00 – 10.00 Practical (Suprapubic cystostomy & scrotal exploration)

10.01 – 10.10 Refreshments

10.10 – 10.25 Circumcision & Priapism

10.25 – 10.45 Ureteric, Bladder & Urethral trauma

10.45 – 12.00 Practical

12.00 – 12.15 MCQ (Ureteric repair, renorrhaphy & circumcision)

12.15 Feedback

**Urology Module Flow Chart**

<table>
<thead>
<tr>
<th>Task</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DAY BEFORE</strong></td>
<td></td>
</tr>
<tr>
<td>Venue and projector inspection</td>
<td></td>
</tr>
<tr>
<td>Pig arrangements &amp; liaise with general surgical colleagues to harvest bladder, ureter, kidneys and scrotum with testicles (soap/towels/plastic aprons/bins)</td>
<td></td>
</tr>
<tr>
<td>Instruments, slides, &amp; video check</td>
<td></td>
</tr>
<tr>
<td>Analyse pre course MCQ’s</td>
<td></td>
</tr>
<tr>
<td>Analyse experience sheets</td>
<td></td>
</tr>
<tr>
<td><strong>EACH DAY</strong></td>
<td></td>
</tr>
<tr>
<td>Pig arrangements &amp; liaise with general surgical colleagues and harvest bladder, ureter, kidneys and scrotum with testicles (soap/towels/fly/operating light etc) (soap/towels/plastic aprons/bins)</td>
<td></td>
</tr>
<tr>
<td>Set up projector and computer</td>
<td></td>
</tr>
<tr>
<td>Pre course MCQs completion confirm with participants</td>
<td></td>
</tr>
<tr>
<td><strong>TALK</strong></td>
<td>PRACTICAL and PREPARATION</td>
</tr>
</tbody>
</table>
Sunday 22nd March 2014

Training the Trainer Course started on time; there were 8 new trainers.

After a brief introduction, Mr Lane gave a presentation on the ‘Art of Lecturing’; this was followed by a talk on Assessment by Mr Fanus Dreyer. All module leads presented a short summary of their module structure and contents. Dr Shirin Irani, Obstetric Gynaecology module lead, could not come with the team and therefore Mr Yogesh Nathdwarawalla presented her module. After lunch, new faculty trainers were divided into two groups to perform role play and, as this was our 4th visit, this session was conducted by local trainers who had attended the course on previous occasions. In the afternoon, Mr Fanus Dreyer presented a talk on the Safe Surgery. Trainees arrived at 3 o’clock and after registration they finished pre-course MCQs.

Monday 23rd March 2014

I left the hotel early with Judy Mewburn. Judy had arranged for a talk with the nursing staff at the School of Nursing. My first talk was on Catheterisation followed by Errors in Theatre. I took a catheterisation manikin and participants were allowed to catheterise. I finished at 12.30pm and after lunch; I managed to meet all urology faculty members for the course. The module and its content was discussed in detail. Dr Nenad allocated topics to all faculty members and I gave them a urology module handbook. I finished at 4 o’clock and came back to the hotel.
**Tuesday 24th March 2014**

Dr Nenad arranged for myself to give a talk to Final Year Medical Students. After talking to the medical students, I gave a talk on Imaging in Urology and Catheterisation. After lunch there was an opening ceremony and Health Minister was invited. The critical care module finished on Tuesday and in the evening we had a de-briefing session from critical care module faculty members.

**Wednesday 25th March 2014**

Dr Nenad came to the hotel to collect me and we reached the hospital at 7:30 am to set up the room. All other faculty members arrived on time and we had a short discussion. Dr Nenad demonstrated good leadership and give clear instructions to all faculty members about their role and topics. He used the urology flow chart and manual (Appendix 1 & 2). Delegates arrived on time and we started our module with my talk on Troubleshooting and Catheterisation. The rest of the module was delivered by the local faculty. We finished on time and all faculty members decided to have a short meeting to discuss and mark the trainees.

**Thursday 26th & Friday 27th March 2014**

The following two days sessions was delivered by the local faculty members. It was very rewarding to see their excellent coordination, interactive presentations and friendly approach during practical session. They all considered Peer Observation Feedback as an essential tool to maintain standards.

*Dr Nenad, Dr Bambiko, and Dr Lupasha and team & during a session with participants*
At the end of the course certificates were presented to all participants. Dr Zulu suggested a date for the next course in September 2014. All local module leads were in agreement to deliver the course on their own. A sense of achievement was felt by all UK faculty members.

**Saturday 26th October 2013**

The return journey was uneventful.

### Pre & Post Course MCQ’s (%)

**Trainees**
Trainee Feedback (14)

Troubleshooting with catheters

Acute Scrotum
Trainee comments

What went well?

“The illustration and practical session”

“The practical demonstrations are good”

“Ureteric re-implantation”

“Course was very helpful and useful”

“Demonstration were helpful”

“The practical session and videos”

“Learnt ureterostomy with plenty of time to practice”

“Everything”

What could have been better?

“A little more time on some stations would be nice”

“SPC model needs improvement”
“The MC specimen did not depict real specimen - foreskin not retractile”

“An opportunity to practice on actual patients”

“The MCQ post assessment test was confusing, need should be clear

“More time. Some presenters were rushing through presentation”

“None”

What would you have liked to learn more about in this Course?

“Management of urethral injury”

“I think aspects were well covered”

“Nephrectomy, renal stone”

“Nephrectomy as an emergency”

“Trauma in the elderly”

Other comments

“General faculty were very friendly especially during practical sessions, this made learning easy and enjoyable”

“Very well presented”

“Very interesting session, enjoyed”

“Very helpful”
## Requirements per Course

### Instruments for Urology

<table>
<thead>
<tr>
<th>Item</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NEEDLE HOLDERS</strong></td>
<td></td>
</tr>
<tr>
<td>Mayo Hegar</td>
<td>8</td>
</tr>
<tr>
<td><strong>FORCEPS</strong></td>
<td></td>
</tr>
<tr>
<td>Waugh Fine Toothed</td>
<td>6</td>
</tr>
<tr>
<td>Adson Fine Non Toothed</td>
<td>6</td>
</tr>
<tr>
<td>Spencer Wells Curved Normal</td>
<td>12</td>
</tr>
<tr>
<td>Spencer Wells Straight</td>
<td>12</td>
</tr>
<tr>
<td>Babcocks</td>
<td>12</td>
</tr>
<tr>
<td><strong>SCALPEL HANDLES</strong></td>
<td></td>
</tr>
<tr>
<td>No 3 (Small)</td>
<td>6</td>
</tr>
<tr>
<td><strong>SCISSORS</strong></td>
<td></td>
</tr>
<tr>
<td>Mayo</td>
<td>6</td>
</tr>
<tr>
<td>Metzenbaum</td>
<td>6</td>
</tr>
</tbody>
</table>

### Sutures for Urology

<table>
<thead>
<tr>
<th>Suture</th>
<th>Boxes</th>
<th>Sutures</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>W9136</td>
<td>3 BOXES</td>
<td>36 sutures</td>
<td>2/0 Vicryl (1/2 c) RB</td>
</tr>
<tr>
<td>W193</td>
<td>3 BOXES</td>
<td>36 sutures</td>
<td>2/0 silk ligatures</td>
</tr>
<tr>
<td>W9970</td>
<td>4 BOXES</td>
<td>36 sutures</td>
<td>4/0 Vicryl (1/2 c) RB</td>
</tr>
</tbody>
</table>
# Re-usable items for Urology

<table>
<thead>
<tr>
<th>Item</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cork Tiles, size 300mm x 300mm x 4mm thick</td>
<td>6</td>
</tr>
<tr>
<td>Push Pins IV stationary <a href="mailto:ltd.sales@ivstationary.com">ltd.sales@ivstationary.com</a></td>
<td>48</td>
</tr>
<tr>
<td>2.5 litre Plastic Paint Kettle</td>
<td>1</td>
</tr>
<tr>
<td>0.5 litre approx adjustable nozzle, trigger flower spray</td>
<td>1</td>
</tr>
</tbody>
</table>

# Disposable Items for Urology

<table>
<thead>
<tr>
<th>Item</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgical Blades No. 11</td>
<td>24</td>
</tr>
<tr>
<td>50 ml syringes to wash out bladder</td>
<td>2</td>
</tr>
<tr>
<td>Sharps Bins 1/2 litre</td>
<td>3</td>
</tr>
<tr>
<td>Gloves - latex free, Small, Medium &amp; Large</td>
<td>1 Box of each</td>
</tr>
<tr>
<td>Aprons</td>
<td>30</td>
</tr>
<tr>
<td>Black disposable bags</td>
<td>3</td>
</tr>
<tr>
<td>Rolls plastic sheeting</td>
<td>To be issued</td>
</tr>
<tr>
<td>Milton Tabs</td>
<td>6</td>
</tr>
</tbody>
</table>
**Obstetrics & Gynaecology Module Report**

**Visiting Faculty**

**Lead** - Shirin Irani

**Local Faculty**

**Lead** – Dr Gricelia Mkumba

**Trainers**

Dr Therese Nkole

Dr Wakisa Mulwafu

Dr Carlos Varela
Wednesday 26th to Friday 28th March 2014

Venue: Tissue Lab, Dept of Surgery, UTH

Programme

**Introduction** 5 minutes

13.20 - 14.00 **Lectures** (20 mins x 2)
Obstetric emergencies
(cord prolapse / dystocia/ breech)
PPH (atonic/traumatic)

14.00 - 15.00 **Stations**
Shoulder dystocia + breech
PPH (B Lynch, packing, inversion)

15.00 - 15.30 **Refreshments**

15.30 - 16.00 **Stations**
Symphysiotomy / gynae surgery (ectopic/pelvic abscess/MVA)

16.00 - 16.30 Caesarean section (video / discussion)

16:30 - 17.00 **MCQs**

17.00 - 17.20 General Q&A 'mop up'
Last 10 minutes: Debrief/summary

Introduction

The MSE course commenced Sunday with a training the trainers session – introducing the UK faculty to potential trainers. Yogesh Nathdwarawala kindly presented the Obs & Gynae TTT slides in my absence.

The candidates did the pre-course MCQs on Tuesday. They were briefed about the sessions in the week ahead.

The module ran for 3 days - every afternoon following lunch after the morning urology session.

The Trainees

The trainees were good. They were keen, engaged and wanted to learn.

The revised session now includes common Gynaecological emergencies and a video on Caesarean Section in response to feedback from the previous course. We have had to therefore, in this restricted time, remove neonatal resuscitation as a ‘hands on’ session but have included it in the manual.

Feedback

Trainee feedback scores were 4 or 5. They were appreciative of the inclusion of gynae emergencies and wanted more (!), perhaps teaching videos for a hysterectomy and ectopic may be useful but time restrictions are the limiting factor.

Faculty and the Trainers

Gricelia Mkunda, a senior obstetrician at UTH, who has an interest in teaching was the Lead. She and Theresa Nkole a senior Registrar at UTH both excellently ran the sessions on all 3 days without problems. Carlos a general surgeon and Wakisa Mulwafu an ENT surgeon both from Malawi attended as trainers on 2 days and were quick to pick up the PPH/suturing station which they led and were helpful facilitators.
**Flow Chart for the Obs and Gynae Module**

**Sunday**
- Training the Trainers
- Emphasize “TIME KEEPING” - need to elaborate
- Give Pre – Course MCQs

**Monday**
- Go to the venue with the rest of the faculty to familiarise yourself with venue (how far is lunch / where are the other modules running) and take stock of the equipment.
- Check the manikins, the instruments, knitted uterus with the list.
- Check electrical points (e.g. if you need an extension cable) projector and to how use the laptop. Check if room lighting OK and that slides can be seen.
- Make enough copies of MCQs - Use different colour papers for pre and post course MCQs.
- Give the MCQs at registration and mark them before Wednesday to allow for discussion if there is a recurring issue (many get a particular question wrong for example).

**Wednesday**

Go the venue by early lunchtime latest to unpack the manikins and fix the bases and connect laptop. Make sure candidates who did urology in the morning know they have to return after lunch for a prompt start. Better option is to come early and let the urology tutors pass this message on.

The projector +/- laptop is available from the urologists – keep the projector secure on the table and at the end of day it has to be packed up and returned to the urologist.

**Schedule - Wednesday to Friday**

**LUNCH - 12.30 to 13.15** (get there at the start of lunch to identify your group & you will have enough time at lunch to set up the models and stations which remain constant).

**Introduction – 5mins - keep it tight but do introduce faculty again.**

**13.20 TO 14.00 Lectures** see the topics – keep the talks to time and take questions during the hands on session otherwise you will run late.

Split the group into 2 for the STATIONS

**1400 to 1500 STATIONS -**

Shoulder dystocia, Breech in one station (30mins)

PPH – B Lynch, Uterine packing, Rusch balloon, Inversion in the other station (30 mins)

Swap over promptly
Make sure the lubrication gel /oil on the pelvis used during practice is wiped and cleaned well daily.

1500 to 1530 - Refreshment break - during this time get the video on Caesarean Section ready.

15.30 to 1600 STATIONS – Symphysiotomy and Gynae emergencies [ectopic, miscarriage, PID] Room layout is informal chairs in a group and discussion should be interactive: experiences of cases to be shared.

1600 to 1630 – CAESAREAN SECTION – Video and discussion

One of the trainers to clean the manikins and tidy up the room. Use the bin bags for general waste, sharps box for needles used in the B lynch suture.

1630 to 1700 – Post course MCQs

1700 to 1720 – Go through the MCQs, Question time ‘mop up.’

Assessment of trainees and Day debrief.

The same schedule is followed from Wednesday to Friday.

Aim to mark the post course MCQs daily.

On the last day, the trainers assess the trainees’ performance, compare the Pre and post course MCQs and finalise the results.

**TIPS:** the pelvic manikin is expensive and the skin will shear if not kept clean – use wipes or a damp cloth. We always do a *dummy run* with the baby and pelvis to see if the breech or shoulder dystocia is demonstrable – keep pelvis well sprayed. Check the instruments as well so that they do not get stiff from being dirty.

Sometimes there are students who are more experienced than others and take over. They need to be ‘managed’ without curbing their enthusiasm. Give them a directed task (hold the leg or keep a record etc.) so that the group teaching does not get undermined.
Pre & Post Course MCQ's (%)

14 Trainees

Trainee Feedback

Antepartum haemorrhage

Very dissatisfied Dissatisfied Neutral Satisfied Very satisfied

11 3 11
Breech presentation

Cord prolapse

Symphysiotomy
Trainee comments

What went well?

“really enjoyed this course but could have done with more time to practice skills”

“thank you for your enthusiasm and hard work we are grateful”

What could have been better?

“Would like more teaching on hysterectomy but the teaching was useful for emergencies”

“need more time for other techniques like laparotomy for abscess and TB”
### Requirements per Course

#### Instruments for Obstetrics & Gynaecology

<table>
<thead>
<tr>
<th>Item</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NEEDLE HOLDERS</strong></td>
<td></td>
</tr>
<tr>
<td>Mayo Hegar</td>
<td>4</td>
</tr>
<tr>
<td><strong>FORCEPS</strong></td>
<td></td>
</tr>
<tr>
<td>Spencer Wells curved Long</td>
<td>2</td>
</tr>
<tr>
<td><strong>SCISSORS</strong></td>
<td></td>
</tr>
<tr>
<td>Mayo</td>
<td>4</td>
</tr>
<tr>
<td>Blades (10)</td>
<td></td>
</tr>
<tr>
<td><strong>SPONGE HOLDER</strong></td>
<td></td>
</tr>
<tr>
<td>Rampley</td>
<td>2</td>
</tr>
</tbody>
</table>

#### Sutures for Obstetrics & Gynaecology

<table>
<thead>
<tr>
<th>Item</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>W9377</td>
<td>2 BOXES</td>
</tr>
<tr>
<td></td>
<td>24 Sutures</td>
</tr>
<tr>
<td></td>
<td>1 Vicryl (½ cc) Taper cut RB</td>
</tr>
</tbody>
</table>

#### Re-usable items for Obstetrics & Gynaecology

<table>
<thead>
<tr>
<th>Item</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rusch Balloon</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Disposable items for Obstetrics & Gynaecology

<table>
<thead>
<tr>
<th>Item</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roller Gauze pack</td>
<td>2</td>
</tr>
<tr>
<td>Sharps Bins 1/2 litre</td>
<td>1</td>
</tr>
<tr>
<td>Gloves - latex free, Small, Medium &amp; Large</td>
<td>1 Box of each</td>
</tr>
<tr>
<td>Black disposable bags</td>
<td>1</td>
</tr>
</tbody>
</table>
Dr Zulu hands out Certificates of Satisfactory Completion to the MSE Trainees on Friday evening

Bob Lane awards Certificates of Satisfactory Completion to the Trainers who will now be recommended to COSECSA for accreditation as a Trainer for MSE Courses
Assessment Report for MSE Course
Fanus Dreyer

Principles of Assessment
Principles of assessment were unchanged from the previous courses. MSE remains a Pass or Fail course. Course participants were expected to meet the same minimum criteria as previously agreed to by all module leads to successfully complete the course and receive a certificate, which were attendance at all sessions, active participation in discussions and skills sessions, proficiency in cardio-pulmonary resuscitation (CPR) skills, satisfactory scores in continuous assessment and acceptable scores in written tests.

Although primarily a skills course, participants were assessed in the educational domains of knowledge, judgement and decision making, technical skills, communication and teamwork. Different teaching stations focused on different skills and the assessment process was adjusted accordingly. Daily assessment scores were collated from performance in different domains of learning.

Methods of Assessment

Written tests:
Consisted of a mixture of multiple choice questions (MCQs), extended matching questions (EMQs) and best answer questions. The structure and style of questions were different for different modules modified to best fit the teaching methods and contents in each specialty. In critical care the total value of written test points was 40, in general surgery and orthopaedics 30 each and in urology and obstetrics 20 each.

Critical Care:
Only post-course scores were used to record performance in written tests, as explained in previous reports. Participants were asked four complex questions, as in the previous courses, addressing a series of complicated problems in critical care.

General Surgery, Orthopaedics, Urology and Obstetrics:
One hundred points were available from a variety of MCQs; 30 each from General Surgery and Orthopaedics, 20 each from Urology and Obstetrics. Questions were asked in a pre-course test on the Sunday afternoon preceding the course and a selection from the same questions were asked again after each module, Wednesday through Friday; the post-course questions changing each day.
Continuous assessment

The previously described instruments were used for both formative and summative scores, as in previous courses.

CPR proficiency

All participants had to demonstrate that they can do CPR according to current protocol as this is an essential skill in managing emergencies.

Final Scores

A total maximum score of 200 was possible. These were compiled from 140 points for written tests (critical care 40, general surgery 30, orthopaedics 30, urology 20, obstetrics 20), 10 points from CPR proficiency and 50 points from continuous assessment (10 per module).

This meant that each module's contribution to the final score was: Obstetrics 15%, Urology 15%, Orthopaedics 20%, General Surgery 20% and Critical Care 30% (including 5% from CPR proficiency assessment).

Again participants were expected to attain a score of 60% to pass the course.

Outcomes

All course participants passed the course overall although a few were borderline in individual assessment scores.

Table 1: Anonymised collated assessment scores for the 14 trainees:-

<table>
<thead>
<tr>
<th>PostModule</th>
<th>CPR</th>
<th>Continuous Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCQ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC GS Orth Uro O&amp;G</td>
<td>CPR score</td>
<td>CC GS Orth Uro O&amp;G</td>
</tr>
<tr>
<td>28 26 29 16 18</td>
<td>7</td>
<td>7 8 9 7 6</td>
</tr>
<tr>
<td>26 24 28 16 18</td>
<td>8</td>
<td>8 8 8 8 8</td>
</tr>
<tr>
<td>24 23 28 12 16</td>
<td>8</td>
<td>7 7 8 7 6</td>
</tr>
<tr>
<td>19 21 21 16 15</td>
<td>6</td>
<td>7 7 7 6 6</td>
</tr>
<tr>
<td>28 27 28 14 18</td>
<td>5</td>
<td>9 8 9 8 7</td>
</tr>
<tr>
<td>35 24 27 15 18</td>
<td>5</td>
<td>8 6 8 7 7</td>
</tr>
<tr>
<td>28 23 29 13 14</td>
<td>8</td>
<td>8 6 7 7 8</td>
</tr>
<tr>
<td>28 24 27 14 14</td>
<td>5</td>
<td>7 5 7 7 7</td>
</tr>
<tr>
<td>35 28 28 18 16</td>
<td>6</td>
<td>8 8 8 7 7</td>
</tr>
<tr>
<td>35 24 28 15 16</td>
<td>6</td>
<td>9 8 8 8 8</td>
</tr>
<tr>
<td>32 23 29 18 16</td>
<td>6</td>
<td>7 8 9 7 7</td>
</tr>
<tr>
<td>27 25 28 17 17</td>
<td>5</td>
<td>5 7 8 8 7</td>
</tr>
<tr>
<td>25 23 30 16 15</td>
<td>7</td>
<td>8 8 9 7 8</td>
</tr>
<tr>
<td>20 24 28 13 18</td>
<td>7</td>
<td>6 6 8 7 7</td>
</tr>
</tbody>
</table>

| 40 | 30 | 30 | 20 | 20 | 10 | 10 | 10 | 10 | 10 |
Summary

1. Calculating a total score per participant based on written tests and continuous scoring in different domains of learning continues to work well and give a balanced reflection of individual participants' strengths and weaknesses. The weighting for different modules also continues to work well.

2. It is recommended that the assessment framework and scoring system remain unchanged. All assessment tools must continue to be valid, reliable, transferable and evidence-based.

3. The continuous assessment sheet and scoring systems worked well and can remain unchanged.

4. A decision should be taken about the place of written tests for COSECSA taking over the course e.g. where would the bank of MCQs come from.

5. Feedback opportunity should be unchanged in future and results analysed in detail per topic to keep on improving the course.

6. Having a dedicated Assessment Lead in each centre remains a major challenge.

Trainers Overall Evaluation of the MSE Course

(8 Replies)

The average rating for the course from 0 – 10 was 9.5 with a mode and median of 10.

All were requested to answer the following questions:

1. In the light of the last 6 days how prepared are you to become a Faculty member of your preferred specialty as a Trainer for the Management of Surgical Emergencies Course?

¬ All trainers were very prepared to become a trainer for the MSE Course without further instruction.
2. **Do you have any suggestions to improve your training ability with reference to involvement in your Specialty module?**

- Is it possible to attend other modules so as to get an overall picture of the MSE Course?
- Attention to timing
- Trainees should have satisfactorily completed a BSS Course
- Give lecture materials in advance so that trainees can be adequately prepared x 2.

3. **Please give your suggestions to improve the content or delivery of the MSE course material with reference to your preferred specialty.**

- Consider adding two or three minutes of video clips to the presentations.

The remainder of the trainers had no particular improvements to suggest.

4. **Please comment on any other aspect of the MSE course**

- The Course is well structured and appropriate
- Great organisation of the MSE Course
- Would love to include aspects of feedback into my daily teaching practice.
- Excellent Course as evidenced by the good reviews from trainees
- Videos and practical’s are very helpful as they help trainees to understand theory behind the practical aspects.
- The Course is intensive, precise and enjoyable.
- All organised very well; it is a good opportunity to learn.
- Faculty was very helpful in guiding us.
- This is a very relevant course and informative for all
- Thank you all for this opportunity to learn to be a trainer.
**Trainees overall evaluation of the MSE Course**

*(14 replies)*

The average rating for the course from 0 – 10 was **9.2** with a mode **10** and median of **9.5**.

**Have you found the course useful?**

All **14** did with the **most useful** aspects being the Orthopaedic module (**6**) followed by the practical sessions and Critical Care (**5 each**), General Surgery (**3**) and group tutorials (**1**).

**Which part of the course did you find least helpful?**

**11** trainees reported no part of the Course to be **least helpful** but not going through the MCQ’s at the end of each day, the Obstetrics and Gynae and some lectures because of the need to read material prior to listening to them! —**(1 each)**.

**How would you improve the course i.e. what would you like added or removed?**

Most of the responses centred on more time for each module and more topics covered such as thoracotomy, ENT emergencies, colonic surgery, eclampsia, traumatic amputation of limbs etc. This is a continual problem despite all trainees being told at the beginning of the course the time restriction for each module and what is covered. One trainee suggested stretching the course to 7 days in order to get more in. There will never be enough time to fulfil everybody’s wishes! However, all Module Leads are aware of these comments and will try to include some of the topics in their module if they possibly can. It is now stipulated that trainees on the MSE must have satisfactorily undertaken a BSS Course and this covers some of the comments above such as tracheostomy etc. One trainee reported that the Obs & Gynae Module will not be very useful for surgical trainees. This is disputed for the simple reason that if that trainee ends up, as a surgeon, in a rural district hospital then he may well have to do Caesarean Sections, emergency hysterectomies etc. All this is explained to them during the course.
Other comments

“Overall very informative and educational”

“Although the Course was compressed, all important aspects of emergency surgery were covered”

“Well organised, well presented, very useful course”

“Very informative training and it would be great for every surgical trainee to do”

“Learned a lot”

“Many practical aspects directly related to everyday practice were emphasized”

“Course was very good and enlightening”

Conveners Report

This has been another highly successful MSE and Theatre Nurse Training Course. The upgrading of facilities and in particular the rooms available to us has made it much easier to undertake the Course in a satisfactory environment. Also the ability to have the refreshments in the Common Room adjacent to the Dept. of Surgery was very convenient.

It was a little disappointing that there were only 14 as opposed to the maximum of 18 trainees on the Course. For one reason it means that the three groups are not of equal number. It is also more value for money to have the maximum number at any one time.

There were eight trainers who all participated extremely well in their respective modules and their feedback both at the end of the Train the Trainers Course on Sunday 23rd March and of their module was very positive. As this was the third and final Course in Lusaka the Module Leads had critically reviewed and in some cases altered the content of their module and, in particular, had taken special note of timing. Unfortunately there is only a finite amount of time available for each module and this has meant that some topics have had to be transferred from a formal presentation to a handout. However, there is a comprehensive reading list that is sent to all trainees at least three to four weeks prior to the Course. It was especially rewarding that the module leads, in the main, had a back seat during their module which was lead by the local faculty. This is especially rewarding because we all feel very confident that the handover is going to be sustainable. This has always been our concern that there will not be enough local trainers but in Lusaka this will not be the case. The Trainers are very
competent and highly committed to continue the MSE Course. The equipment will remain in Lusaka but the disposable items, such as sutures, POP, etc will have to be obtained on a course by course basis. The venue is excellent.

I cannot speak more highly of the UK Faculty who have worked extremely hard to ensure high standards with regard to content and implementation of each module.

One aspect that has evolved since the first course that was run as a pilot in 2011, has been the development of the assessment process which is really important in not only benchmarking the course but also in feedback which has meant that a number of aspects of the original course have changed. The comments that we now get imply that the Course is now fit for purpose and highly appreciated within COSECSA.

I am confident that Robert Zulu, Local Lead, will strive to maintain the high standards that has contributed to when we have been running the Course in the future. He has an excellent band of colleagues to assist him and I look forward to hearing of success in the years to come. I also thank the Chairman of the Surgical Department, Dr. James Munthali, for his consistent patience with us while we have disrupted his department for the week of the Course. I also wish to thank Prof. Erzingatsian, the COSECSA Lead for the Partnership, who has given excellent advice and above all looked after the finances in Lusaka.

Robert Lane
I should like to begin by thanking Mable Simuchimb and Cooley Musukwa for all the hard work that they put into organising this course. Having never organised one before they really did so well and we had fourteen theatre, ward and ITU nurses. Many of these nurses came from afar and one nurse, who also called herself a farmer, would bring in a large pot of steaming sweetcorn every morning. This was breakfast as many of the nurses had not had time to eat before they travelled. There was a huge amount of camaraderie and friendship amongst the nurses and they all said how lovely it was to be able to spend time together.
I should also like to thank all the team, Shekhar, Shirin, Yogesh, Fanus and David who gave up their spare time in order to teach the nurses. Their efforts were all rewarded with very high scores on the feedback forms. The nurses really appreciated all the knowledge and skills that were passed on to them. Let’s hope it results in better patient care!

Among many other topics addressed during the five day course we spent quite a long time talking about the system of hierarchy that exists in any hospital. The doctor being the most senior, the nurses very much second and lower paid workers, like the porters, way down the kicking line. This system is very divisive and causes many problems. The doctors feel that they have to behave in a high handed way and one doctor remarked that he always yelled at the nurses because he did not know what he was meant to be doing and that yelling made him look more powerful. The nurses, who have many years of experience, feel that their expertise is never appreciated and made use of. The porters, who do all the really dirty and dangerous jobs, feel looked down on and that they do not have a voice. This form of behaviour is very negative; no one benefits from any praise and so the will to do the job properly is gradually undermined and resentment sets in. This problem urgently needs to be looked at by the senior staff, both doctors and nurses, as without a motivated and happy work force the level of patient care will fall way below the optimum. The nurses especially voiced the opinion that they would like to be better supported by the senior nurses who had become distant and not in tune with the needs of the staff.

We ran a full and very interesting five day course for fourteen nurses

On Monday 24th March Shekhar Biyani gave a super lecture on catheterisation. Although the nurses felt that they had good knowledge of this procedure they all said after that they had learnt a lot. They also had the opportunity to catheterise a model. Shekhar then gave the nurses a quiz on errors in the theatre and also played the Elaine video made by her husband after a series of incidents in the operating theatre left her brain damaged. This really made the nurses think and we had long conversations about the situations where nurses are not listened to ……. as happens much too often in Africa.

Shirin gave a wonderful presentation on postpartum haemorrhage. Some of the nurses worked in the Gynae Theatre and on the wards so this was especially useful for them. There is a system, endemic in all African hospitals, where nurses can be moved from one speciality to another without any notice. This means they can feel very de-skilled and incompetent. All of the lectures added to their knowledge base and will therefore empower them should they have to move to a new speciality.
Yogesh talked about fractures and how to treat them. This involved lots of hands on experience, drilling and inserting screws and putting on traction ….. on my leg! “Hands on” is always good for learning and laughing!

Fanus and David gave the nurses a lot to think about with their talk on Care of the Critically ill patient and also anaesthesia. Their expertise was put to very good use!

I spent an afternoon in the theatres with the porters. I had a shifting audience of 15 to 20 porters. The porters really do all the nasty tasks, washing all the instruments and clearing up and cleaning the theatres. I spent a long time emphasising the importance of looking after themselves, wearing protective measures when washing and clearing up. I have asked Robert Zulu to make sure that the porters are properly equipped to carry out the tasks demanded of them. Also the paramount importance of proper patient lifting and handling. Very often the doctors will exit the theatre without thought to the transfer of their patient from table to trolley leaving the porters and the nurses struggling. The protocol of four staff to lift each patient must be adhered to. The porters all felt enthused and motivated by this short time with them. I would ask that the staff of UTH carry this forward. Team work means team work.

On Thursday and Friday I was ably assisted by many of the nurses in giving lectures on the following topics:

- Theatre techniques
- Infection control
- Shock
- Care of the patient
- Care of a tracheostomy
- Scrubbing, gowning and gloving
- Resuscitation
- Care of the cervical spine.

We also did a SWOT analysis. The nurses all felt that they were competent and gained satisfaction from giving patient care, especially the ward nurses. Suturing, interrupted, mattress, subcuticular, continuous and episiotomy all took time to perfect and all the nurses learnt a lot. We had two quizzes and the prizes were much appreciated. I am sure Mable
and Cooley will do their very best to carry on some form of training for the nurses and I must ask that they are supported by the senior nurses in their endeavours.

The comments on the course included the following:-

- Amazing to have more knowledge as this will improve patient care
- More nurses from other hospitals should be invited. Its very helpful
- We wish to effect the changes. More courses please
- I have learned a lot of skills in care of the trauma patient.

The nurses had a long list of other topics they would like to be taught on. As we are not planning to run another course at the moment I will keep these in reserve.

Finally, just to say that the nurses much appreciated the snacks, drinks and lunch. So thank you to the grant for giving enough money to be able to provide this.

I hope all the nurses will put to use all the new skills they have learned and that patient care will improve enormously.

_ Judy addressing the gathering!_