

Teaching the urology module - **'Management of Surgical Emergencies'** Course

Nairobi, Kenya

Sunday 12th - Friday 17th October, 2014

held at

The Nairobi Surgical Skills Centre

Chiromo Campus, University of Nairobi



Acknowledgments

I would like to thank Mr Bob Lane, course convenor, for the opportunity to assist as faculty on the 'Management of Surgical Emergencies' (MSE) course, along with the rest of the UK and local faculty. Particular thanks to Mr Shekhar Biyani (urology module lead for previous MSE courses) who gave me advice and assistance prior to departure, and who developed and wrote the original material for the urology module. I would also like to thank Dr Nenad Spasejovic (University Teaching Hospital, Lusaka, Zambia) who led the urology module on this occasion in place of Mr Biyani. Nenad provided invaluable support and great company during the week. Thanks also to Dr Samson Maina (Narok District Hospital, Kenya), Dr Charles Waihenya (Nairobi, Kenya) and Dr Aberra Gobezie (Hawassa University Hospital, Ethiopia) who also helped deliver the urology teaching and practical sessions.

Thank you also to Dr Andrew Ndonga, Edwin Bore and the team at the Nairobi Surgical Skills Centre for welcoming us and helping us prepare material and facilities for the course.

Finally, thank you to BAUS Urolink for supporting the MSE course and for the ongoing commitment to supporting training for the management of urological emergencies in Africa.

Background

The MSE course is run by the Association of Surgeons of Great Britain & Ireland (ASGBI) and the College of Surgeons of East, Central & Southern Africa (COSECSA) to teach emergency surgical skills to trainees within the COSECSA region of Africa. The MSE course also includes a one day 'train the trainers' course, designed so that local faculty are also supervised to run and teach the individual module sections. Modules included; critical care, general surgery, obstetrics and gynaecology, urology and orthopaedics.

Mr Shekhar Biyani is the urology module lead and has taught on several previous MSE courses. I had previously assisted with the urology module at the MSE course held in Lusaka, Zambia, in 2013, whilst undertaking research as the BJUI/Urolink Educational Fellow. Mr Biyani was unable to attend the Nairobi MSE course so I was asked if I would attend as teaching faculty to deliver the module, alongside Dr Nenad Spasejovic (a urologist practicing in Zambia). This was the second of three MSE courses to be held in Nairobi.



Nairobi Surgical Skills Centre (NSSC)

Travel arrangements and accommodation

We flew with British Airways directly to Nairobi from London Heathrow. In Nairobi we stayed at the Southern Sun Mayfair hotel which was 10 - 20 minutes (depending on traffic) from the NSSC.

Management of Surgical Emergencies - Urology Module

Saturday 11th October

We arrived late in the evening to the hotel, checked in and had an early night to prepare for the week ahead.

Sunday 12th October

We had an early breakfast and met the rest of the faculty. It was great to meet up with Dr Nenad Spasejovic again and we discussed over breakfast the arrangements for the week and how we would deliver the module. At 8 AM we went to the NSSC for introductions and opening lectures. After the presentations we unpacked the urology mannikins and equipment from storage to ensure we had everything available for the module. After spending some time sorting through everything and locating missing items we prepared the instrument sets for each practical station.

We then went to prepare the room for teaching our module. We were using the veterinary lab which was adjacent to the NSSC, which was large and had sinks/worktops which provided ample space to set up practical stations and handle animal material. We met with Dr Samson Maina and Dr Aberra who were also assisting with the module. We spent some time planning who would deliver the various lectures and we familiarised ourselves with the set-up for the practical stations and mannikins.

Later in the afternoon we had a meeting with the rest of the faculty from the other modules to plan timetables and groups for each day. Back at the hotel in the evening Nenad and I went through all the urology lecture presentations to make amendments and ensure we would stick to time.

Monday 13th October

There was no urology module running on the first 2 days of the MSE course so Nenad and I were asked to deliver some teaching at a local hospital (Mater Hospital) by Sister Judy Mewburn. The first session was delivered to a group of around 15 nurses from various departments. We took along the urology mannikin and went through 'pitfalls of urethral catheterisation'. The session was well received but was more relevant to some participants than others. In the afternoon we delivered the same session to a group of junior doctors

(interns) which was much more relevant as they had minimal practical experience of inserting catheters/managing complications.



Teaching nursing staff at Mater hospital

Tuesday 14th October

After breakfast we went to the NSSC to make final preparations before starting the urology module which would run over the next 3 days. We made sure the projector was working and set-up stations for the practical sessions. This included setting up the circumcision and suprapubic mannikins and checking all instruments and sutures.

Wed 15th October

After an early breakfast we arrived at the NSSC before 8 AM. Despite our preparations the previous day, the room was locked and we had to wait for the person with the key to arrive. Nenad did the introductory lectures on 'urethral catheterisation' while I went to harvest animal material for the practical stations (pig's scrotum). Unfortunately the pig was also late in being delivered (on the back of a motorbike) which meant we had some time pressures to ensure we covered all material.



Pig arriving late on day 1 of urology module



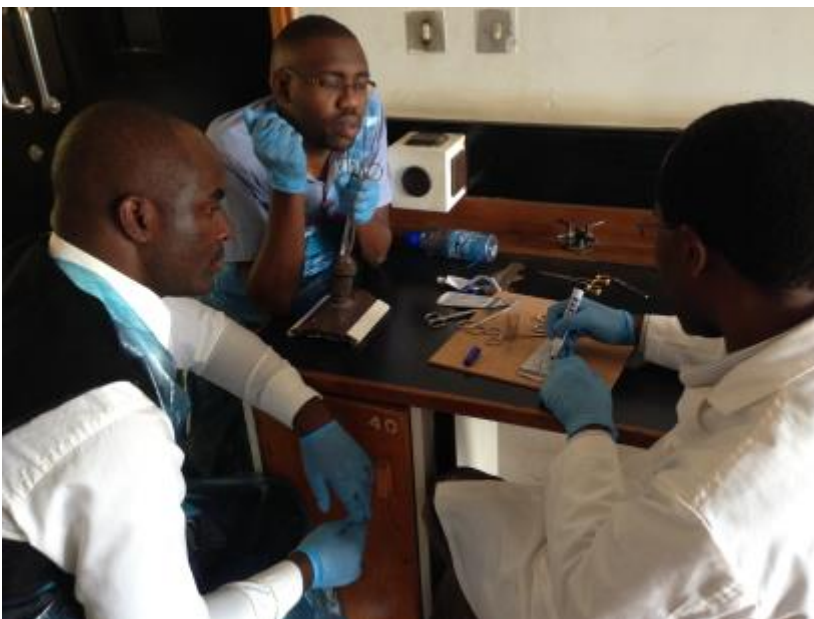
Scrotal exploration station



I then delivered the lectures on scrotal exploration whilst Nenad went to harvest the animal material (kidney, ureters, bladder) for the second half of the session. Samson and Aberra also helped to supervise the practical stations on the first day.



Dr Aberra teaching suprapubic cystostomy



Dr Samson teaching circumcision on simulated model

Due to the late start we missed the coffee break and continued straight on with the rest of the session. I gave a talk about renal trauma, and then Nenad and Samson gave talks and went through videos on ureteric and bladder trauma. This gave just enough time for myself and Aberra to prepare the practical stations, which was made easier as we had some extra spare bladders and kidneys harvested from the butchers on the previous day. After finishing the second round of practical stations, the students completed the multiple-choice

questions. Following this we washed up, prepared all the instruments for the next day and sat down together to allocate the students their continuous assessment scores. In the late afternoon Samson drove myself, Nenad and Aberra out of Nairobi to a view-point over the rift valley and we used the time to get to know each other and discuss how to run the next two days.

Thursday 16th October

We had an early breakfast and left early to ensure we could find the key to the room in good time. Nenad gave the talk on catheters and Aberra delivered the scrotal exploration lecture whilst I harvested all the animal material in order to save time. This ensured that the session ran much more smoothly and we also kept ureters and bladders from the previous day to make sure all students had the opportunity to practice on each practical station. Overall the day ran very smoothly and we had more time to assess students, demonstrate the practical procedures and answer questions.



Nenad teaching on scrotal exploration model

After the participants had completed MCQs and we again sat down and assigned assessment scores. We also discussed who would deliver the different lectures for the final day. In the evening Nenad and I marked the MCQs for the previous 2 days.

Friday 17th October

For the final day of the course the last group of students rotated through the urology module and we repeated the lectures and stations similar to the previous days. Everything went very smoothly and we had become much more time efficient as the week had progressed. We then had a final meeting late in the afternoon and awarded students their course certificates before heading back to the hotel. We had time to have a shower, say our goodbyes and then negotiate the Nairobi rush-hour traffic to get to the airport in time for our flight back to the UK.



Samson delivering lecture on final day



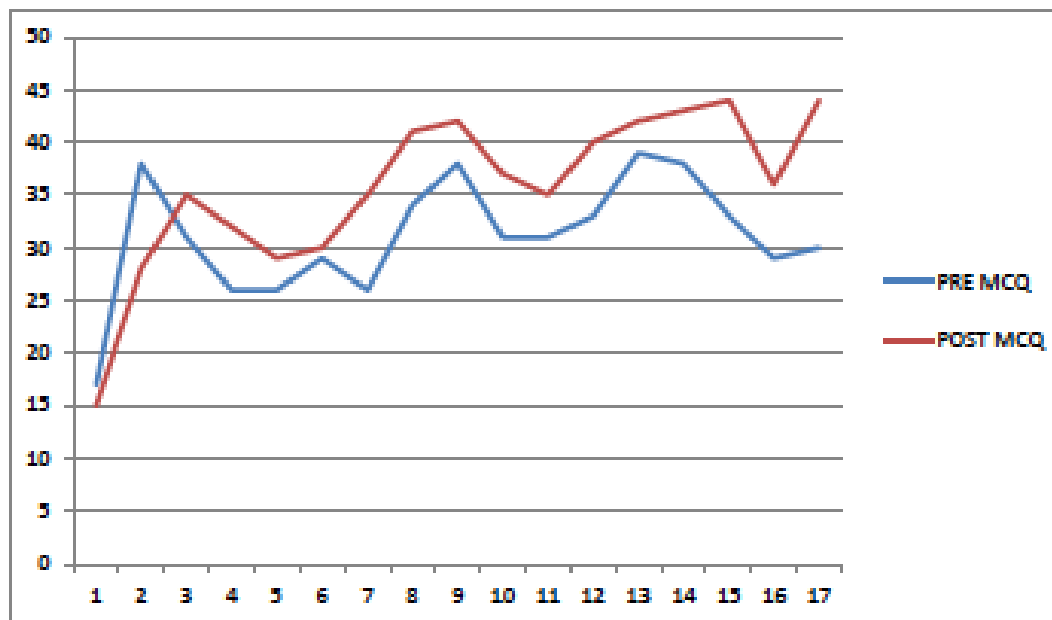
Urology faculty

Participant results

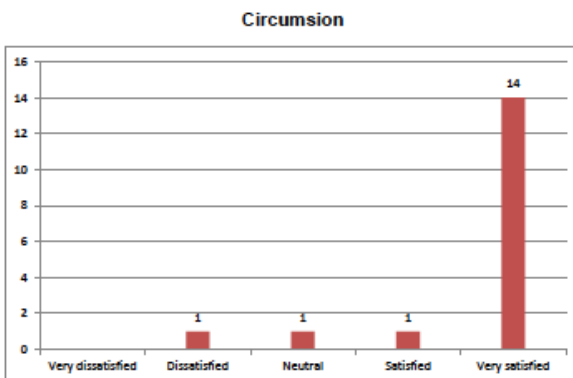
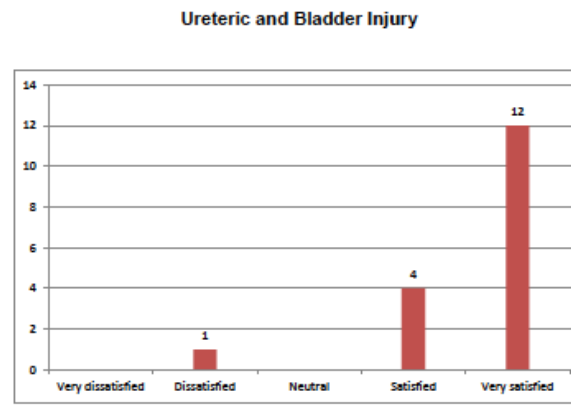
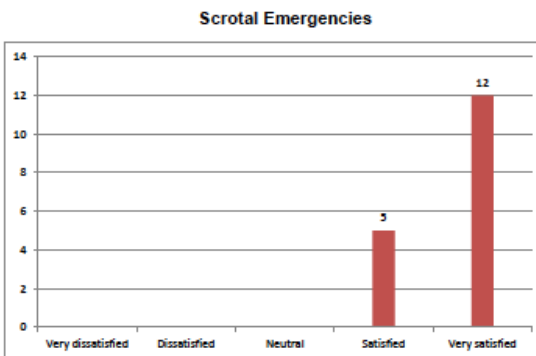
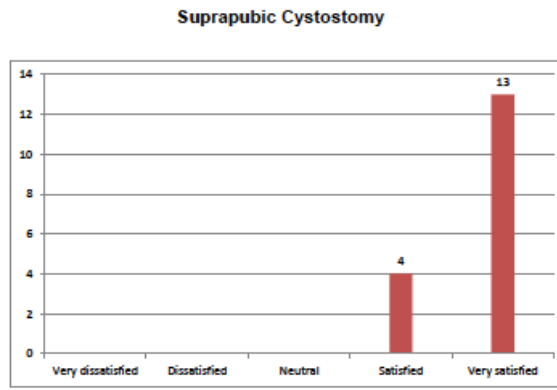
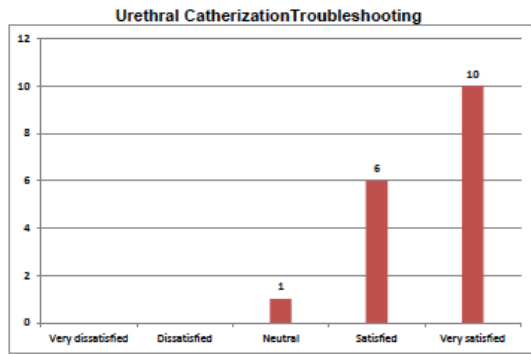
Results below show the number of times course participants had performed procedures prior to undertaking the MSE course and pre and post course MCQ results.

	<i>None</i>	<i>1 to 5</i>	<i>6 to 10</i>	<i>More than 10</i>
UROLOGY				
Suprapubic cystostomy	12%	24%	24%	41%
Scrotal exploration	6%	41%	29%	24%
Repair of bladder injury	12%	65%	12%	12%
Repair of ureteric injury	59%	35%	6%	0%
Management of priapism	52%	41%	6%	0%
Circumcision	29%	24%	6%	41%
Urology – Average %	28%	38%	14%	20%

Pre and Post course MCQ's (%)



Trainee



Participant feedback on satisfaction with practical skills station

Future plans

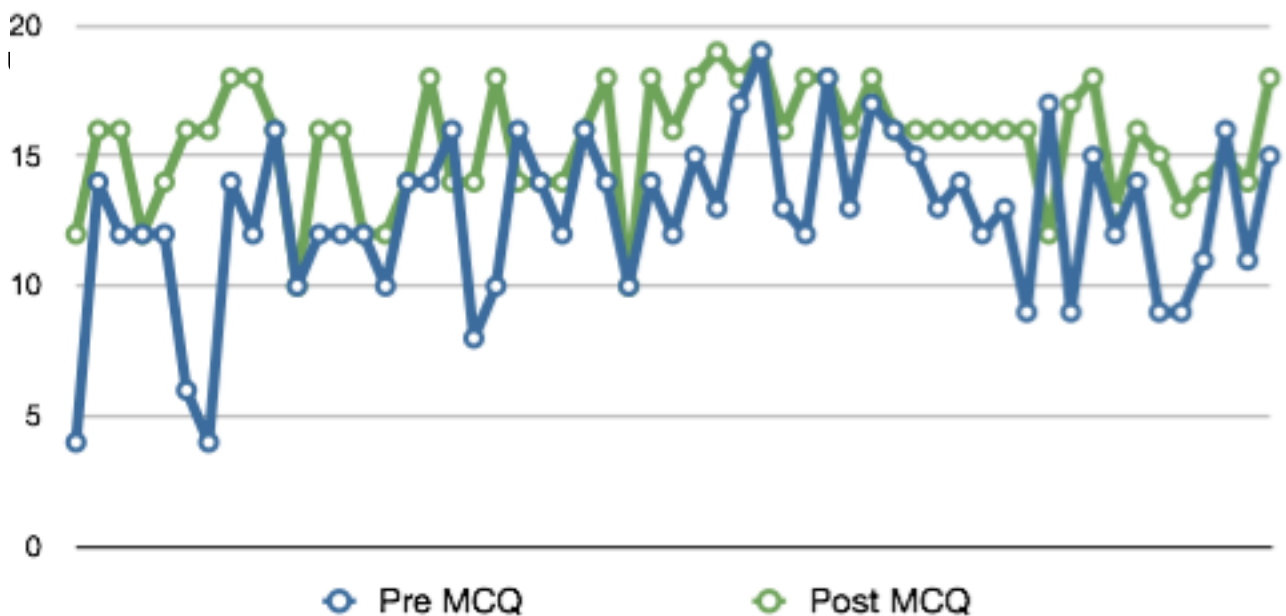
Attending the MSE course has been enormously beneficial as it allowed me to gain experience as teaching faculty on an internationally recognised course. By contributing to the delivery of this course I hope that I was able to help in some small way with the teaching of emergency urological skills in the region. I also learnt a huge amount, both clinically and practically, about the challenges of dealing with urological emergencies in sub-Saharan Africa.

It also enabled me to deliver a TURP and optical urethrotomy set to Nenad on behalf of Urolink. This has allowed endoscopic work and stricture treatment to begin in the government hospital in Lusaka, Zambia. Since November 2014, over 600 cystoscopies have been performed using the equipment. The endoscopic service is developing which will benefit a huge number of patients and hopefully allow a training programme to develop for Zambian urological trainees. I hope that BAUS/Urolink can continue to support this endeavour.



Finally, I hope that the MSE course can be used as evidence to support greater investment in improving access to essential surgical (and urological) care. Below is a summary of the results from the urological component of all MSE courses to date. I intend

Participants Knowledge Scores



to write this up for publication, with the support of Mr Shekhar Biyani and Urolink, to help disseminate this important message.

Summary of results from urology module of MSE course:

Since 2011, 7 MSE courses have been delivered, with a total of 108 residents completing the urology module. The course content evolved, in response to feedback, to include more time on dealing with urological trauma (a common issue in the African setting). Seven local faculty have been trained to teach the urology module. In September 2014 the first MSE course was run independently without any overseas funding or assistance (in Zambia). Participants feedback was excellent, with candidates rating course content, delivery and usefulness very highly. Pre course and post course multiple choice questions indicated clear improvements in knowledge of urological emergencies (Figure 1). After six months 90 % of course participants indicated that the course had significantly improved their ability to manage surgical emergencies.