



Report on the Emergency Urology Skills Course



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Funded by: The BJU International





Acknowledgement

We would like to thank all trainers for their support in designing and facilitating the course. We could not have done without the excellent support from skills lab staff. We are also indebted to the Urolink Team from the UK, for his encouragement and support.

Introduction

Building on the success of the first Emergency Urology Skills Course in Hawassa, a second course was planned and delivered in Addis Ababa. The Second Emergency Urology Skills Course (EUSC) was conducted at Black Lion Hospital, Addis Ababa, Ethiopia. The Emergency Urology Course was designed to provide a practical, hands-on learning experience for delegates, enabling them to develop critical surgical skills in managing urological emergencies. This landmark event aimed to address the critical need for enhanced emergency urological care in the region. Utilising bovine tissue, participants gained exposure to a wide range of emergency surgical techniques under the guidance of an experienced faculty.

A collaboration between local and international urology experts, the one-day course focused on equipping surgical residents and healthcare professionals with the skills and knowledge necessary to manage common urological emergencies effectively.

This initiative also underscored the importance of sustainable education models in resource-limited settings, where infrastructure and trained personnel are often lacking.

Participants

• Attendees:

Twelve urology residents from Addis Ababa and nearby medical institutions participated in the program.

• Faculty:

The course main organiser was **Dr Ramzi Yesuf** and well supported by **Dr. Fitsum Gebere-Egziabher.**





• Three international faculty members from the UK also supported the course. Dr. Vincent Medeyi, Urologist from Kampala, Uganda travelled to see the course with a plan to replicate it in Kampala.

Objectives

The boot camp construct was utilised to achieve the following objectives:

- 1. To introduce surgical/urology residents to the fundamentals of managing urological emergencies.
- 2. To assess and improve participants' theoretical knowledge and practical skills.
- 3. To create a sustainable framework for emergency urology training in Ethiopia.

Pre-Course Assessment

A comprehensive pre-course survey was conducted to evaluate participants' baseline knowledge and prior experiences in managing urological emergencies.

Survey Findings:

Experience Levels:

- The survey revealed a mixed bag of prior experience among participants. While 62.5% had attended a urology skills course in the preceding 12 months, a significant 37.5% had not.
- Those with prior exposure listed diverse experiences, ranging from a "Urology year one attachment for a month" to more specific skill labs covering "cystoscopy, DIVU, PCN and lap," "Laparoscopic surgery," "PCNL," and "Skill courses on PCNL, TUR, URS".
- The professional backgrounds of the respondents primarily consist of urology residents (Year 1, 2, and 3) and some general surgery residents, alongside a urology fellow and a trained urologist.

Confidence Levels:

• Participants' self-assessed confidence levels varied across different procedures. While troubleshooting during catheterization and scrotal exploration showed relatively higher confidence, procedures like end-to-end ureteric anastomosis, ureteric reimplantation, renal injury, bladder injury repair, priapism management,





and penile fracture management demonstrated lower confidence scores, with a notable number rating themselves as "Somewhat Confident" or "Not at all Confident". This indicates a perceived need for enhanced practical skills and decision-making abilities in these complex emergency scenarios.

Key Challenges Identified and Course Expectations:

- Nearly 60% of trainees had no exposure to the skills training.
- Despite varying confidence, there was unanimous agreement among all 16 respondents regarding their expectations from the course. Every participant anticipated "Improved confidence in managing urological emergencies,"
 "Improved technical skills in managing urological emergencies," and "Skills that I can pass on to others".
- These expectations directly align with addressing the identified challenges, particularly the low confidence in managing acute urological conditions. Comments also highlighted the desire for practical learning, with one suggesting the inclusion of "basic laparoscopic training" and another seeking access to "textbooks, video lectures" to support continuous learning.
- The overwhelming desire to acquire skills to pass on to others underscores a strong commitment to local capacity building and knowledge dissemination within their respective institutions.



5. Have you attended any urology skills course in the last 12 months? ^{16 responses}





8. How would you rate your knowledge about the following procedures?



9. How would you rate your level of confidence for the following procedures?







Course Outline

The course was structured around two main modules, with six trainees and 4-6 tutors per module. Each module included skill stations, allowing personalised, interactive training. Dr Ramzi provide the outline of the course.



Dr Ramzi outlining the timetable for the day

• Registration and Pre-Course Assessment:

- Delegates registered at 8:00 AM, followed by an introduction by Dr Ramzi and pre-course MCQ evaluation. However, due to some administrative issues start was delayed.
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• Timetable:

- Training sessions were split between **Group A** and **Group B**, alternating between Module 1 and Module 2 to ensure all participants gained comprehensive exposure.
- Breaks included two coffee sessions (10:00–10:15 and 15:00–15:15) and lunch (12:15–13:00).









The course was supported throughout by the staff from the Black Lion Skills lab and there was plenty of catering throughout the day to sustain faculty and delegates!

Modules and Content

Module 1: Emergency Renal and Ureteric Surgery

• **Faculty:** Steve Payne, Shekhar Biyani, Dr Mezgeb Gedfe, Dr Seid Mohammed, Dr Mohammed Abdulaziz

Educational Components:

- Short lectures on:
 - Management of ureteric and bladder injuries (Steve Payne) Steve provided a comprehensive session on the management of ureteric and bladder injuries including case discussions involving real-life examples. The session included an overview of ureteric and bladder injuries, diagnosis and initial management, surgical management techniques, postoperative care and follow-up.





• Renal and urethral trauma – due to the limited time this was taught during the practical training.

Practical Skills Taught:

- 1. Ureteric Procedures:
 - End-to-end ureteric anastomosis
 - Ureteric reimplantation
- 2. Bladder Procedures:
 - o Bladder repair
 - o Boari flap
- 3. Renal Procedures:
 - o Renorraphy







Module 2: Acute Scrotum, Andrology, and Catheterisation

• Faculty: Will Finch, Dr Vincent Medeyi, Dr Fitsum Gebreegziabher, Dr Ibsa Daba, Dr Mensur Mohammed

Educational Components:

- Short lectures on:
 - Acute scrotum Will delivered a focused talk on the management of **acute scrotum**. The talk emphasised the importance of prompt diagnosis and intervention to prevent complications such as testicular loss. Key topics included the differentiation of conditions like testicular torsion, epididymitis, and scrotal trauma, along with the use of Doppler ultrasound for diagnosis where available. Delegates participated in hands-on training for surgical detorsion, orchidopexy, and scrotal exploration, gaining practical skills to manage this urological emergency effectively, even in resource-limited settings.
 - Priapism and penile fracture management (Dr. Ibsa Daba) Dr. Ibsa led an engaging session on the management of **priapism** and **penile fractures**. The session highlighted the urgency of diagnosing and treating these conditions to prevent long-term erectile dysfunction.
 - For priapism, Dr. Ibsa outlined the distinction between ischemic and nonischemic types, emphasising ischemic priapism as a surgical emergency requiring aspiration and intra-cavernosal medication or surgical shunting. For penile fractures, the focus was on immediate surgical exploration and repair, with practical guidance on recognising key clinical signs such as a "cracking sound" during trauma and hematoma formation.
 - Participants also benefited from gaining hands-on experience in managing these emergencies effectively using a bull's penis.
 - Discussion on catheterisation was omitted due to the good level of confidence on the topic during the pre-course survey.

Practical Skills Taught:

Scrotal and Andrology Procedures:

- $_{\odot}$ $\,$ Scrotal exploration and testicular fixation
- Priapism management
- Penile fracture repair







Post-Course Assessment

A post-course MCQ was conducted to evaluate the knowledge gained by participants.



Results:

1. Improved Scores:





- The average pre-course MCQ score was [10.75], while the post-course average rose significantly to [12.41], reflecting a [15.46%] improvement in knowledge.
- Post-test scores are consistently higher than pre-test scores across all 10 questions.
- This indicates a **positive impact of the training or educational activity** on participants' knowledge.

2. Participant Feedback:

- $_{\odot}$ 95.2% of attendees reported that their course objectives were met.
- Many participants noted the practical workshops as the most valuable aspect of the program.

Key Achievements

1. Enhanced Knowledge and Confidence:

• All participants reported improved confidence in handling emergencies such as urinary retention and acute scrotum.

2. Skill Development:

• Hands-on workshops provided critical skills that attendees could immediately apply in clinical settings.

3. Local Support:

• The involvement of colleagues around Addis Ababa facilitated knowledge transfer and strengthened local capacity.

4. A Blueprint for Expansion:

• Successful replication of the "Hawassa" template with excellent feedback.





Level of Knowledge (Pre- and Post-training)

Pre-training



Post-training







Procedure Confidence Level (Pre- and Post-training)

9. How would you rate your level of confidence for the following procedures?



Post-training







How satisfied are you with what you learnt on the following urological emergencies and skills? (THEORETICAL PART)



How satisfied are you with that you learned on the following urological emergencies and skills? (PRACTICAL PART)







What will you take back and utilise in your everyday management of urological patients?







What do you think you could teach other trainee colleagues when you are back at your home institution?







17. How helpful was the pre-training course book? 21 responses



19. Do you think this training needs an additional follow-up training session? ^{21 responses}



On the Course - What was very good? 21 responses

Participants highlighted several strengths of the course, primarily revolving around the hands-on, practical nature of the training and the quality of instruction:

- Hands-on and Practical Training: The course was highly praised for being "skilloriented hands-on training" and having a "practical session". The "use of actual tissues" and "animal specimen" were particularly valued, with one participant stating, "I enjoyed every part. This is the best training I ever attended. I wish I will attend again".
- Faculty and Monitoring: The "Trainer trainee ratio was excellent", and the "One to one monitoring" and "Hand on hand practice side" were greatly appreciated. There was "Excellent faculty support during the strike time", and the "Use of local





faculty from Addis and neighbouring hospitals" helped make it "a national urology course not just a hospital organised course".

- **Relevance and Simulation:** The course "Addressed the most common and important emergency conditions with hands on simulation training almost one to one". The "freshness of the animal simulation" was also noted positively.
- **Organisation and Content:** The "Organisation, consultant and materials" were found to be very good. The "Anastomosis concept" and the "techniques we learned" were also highlighted as strong points.

On the Course - What could be better? 21 responses

Respondents also provided constructive feedback on areas for improvement:

- **Time and Duration:** A recurring suggestion was for "More time" or to "Make it long for more days", as "3 days might have been short enough". One comment noted "Time was short". It was suggested to "Maybe add a half or full day and cover the topics fully".
- **Supplies and Equipment:** Participants recommended to "Improve supplies" and expressed a need for "More instruments and sutures; some JJ stents". There was also a specific comment that the "Scrotal model needs to have skin so that can do 3-point fixation to scrotal wall" and that "Some delegates found it confusing about the TV and having to pretend it was scrotal wall for the fixation".
- **Content and Delivery:** Suggestions included to "Improve endoscopy" and "Include other topics". Regarding lectures, it was noted that "Lecture Should be frequent to address all professionals in the field" and "We should consider pre-recorded talks on topic to save time and allow more time for the hands-on experience".

What would you want to learn more about in future? 19 responses

- Endourology: This was a frequently requested topic, with specific mentions of "More endourology," "Endourology," and "Endo-urology procedures. specially PCN".
- **Minimally Invasive/Laparoscopic Surgery:** Several participants expressed interest in "Minimally invasive surgery (mainly Laparoscopic)" and "Laparoscopic urologic procedures".
- Urethroplasty and Ureteral Procedures: "Urethroplasty" and "ureteral implantation" were specifically requested, along with "Ureteric reimplantation





and bladder mobilisation and how to assess when to use each technique". Interestingly, ureteric reimplantation was very well taught during the course.

- Emergency Urology and Trauma Management: While some felt the course should "just keep emergency skills for this course," specific additions like "Insertion of a nephrostomy could be added" and "Damage control surgery on emergency urology and urosepsis treatment guidelines" were suggested.
- **Other Surgical Techniques:** General requests for "Other elective surgery techniques" were also noted.
- **Course Structure and Content:** Participants also inquired about "Where the next course is" and expressed a desire for other topics addressed in the pre-course book. Some wished to "repeat the Psoas and Boari" procedures.

Other comments about Course organisation, content, pace of the training, length or delivery.19 responses

Positive Aspects:

- **Overall Satisfaction:** Many participants described the course as "excellent," "very great," "very good," and "perfect," indicating high overall satisfaction.
- **Practicality and Skill Development:** The course was effective in enhancing surgical skills, with comments noting that "Surgical skills were generally quite good and clearly the residents have been doing some operating." The "good theoretical knowledge from them" was also appreciated.
- **Team and Support:** The "Excellent and very enthusiastic local team" was highlighted, particularly their support in "providing lunch." There was also appreciation for "well done for arranging and executing the course in difficult national times with the strikes." The local team was described as "Brilliant."
- **Content and Level Appropriateness:** The course was praised for "Appropriate length of course" and for "arranging delegates who were at the correct level for the course."

Suggestions for Improvement/Future Considerations:

- Duration: A common suggestion was to "Make it longer" or increase its "Length."
- **Program Expansion:** There was a desire for "other programs" and a hope that "next time to be endourology."





Integration into Training: One valuable suggestion was that it "would be nice if it is incorporate in each year of training based on the level," indicating a desire for a structured, progressive learning experience.

Strengths and Weaknesses

- Strengths:
 - Hands-on experience in a simulated setting
 - Experienced faculty providing expert guidance
 - Diverse range of procedures covered
 - Collaborative learning environment
- Weaknesses:
 - Limited time for each procedure
 - Potential for variability in trainee skill levels

Challenges Identified

- Resource Limitations:
 - The lack of advanced equipment restricted the scope of practical demonstrations for certain procedures (nephrostomy, cystoscopy and stenting).
- Time Constraints:
 - A one-day course limited the depth of discussion and hands-on practice for complex topics.

Recommendations for Future Programs

- 1. **Extended Duration:** Expanding the boot camp to a two- or three-day event to cover advanced procedures and provide more hands-on training.
- 2. **Standardised Training Modules:** Develop standardised training modules and a training manual to ensure consistency and quality across different boot camp iterations
- 3. **Equipment Support:** Securing essential tools like a dedicated model to simulate nephrostomy, j stenting and priapism for the urology unit to enable advanced training.
- 4. **Post-Training Assessment:** Implement a post-training assessment to evaluate the effectiveness of the course and identify areas for improvement
- 5. **Ongoing Education:** Establishing a regular series of workshops and online learning modules to ensure continuous professional development.





Conclusion

The 2nd Emergency Urology Skills Course in Addis Ababa empowered Ethiopian urology residents with critical emergency management skills through a collaborative local and UK faculty partnership. This course demonstrated the possibility to 'seamlessly' transport the EUSC concept into different resource poor environments where it can be run by local trainers with appropriate support.

This initiative demonstrates the viability of sustainable education programs in resource-constrained environments, effectively addressing immediate training gaps. However, it also revealed persistent challenges, including the necessity for enhanced infrastructure and ongoing professional development to cultivate a self-reliant urology workforce for patient benefit.

As a blueprint for future efforts, the course underscores the pivotal role of cross-border mentorship, targeted education, and long-term partnerships in advancing equitable healthcare outcomes globally.





2nd Ethiopian Emergency Urology Skills Course, Addis Ababa

Participants Lists

1. Trainee List

S. No	Name	Institution	Position
1	Dr. Dereje Assefa	SPHMMC	Resident
2	Dr. Emanuel Justo	SPHMMC	Resident
3	Dr. Efrem Assa	SPHMMC	Resident
4	Dr. Semira Ahmed	SPHMMC	Resident
5	Dr. Fentaw Misgan	SPHMMC	Resident
6	Dr. Gibson James	SPHMMC	Resident
7	Dr. Gashaw Huluye	SPHMMC	Resident
8	Dr. Samuel Fekadu	AAU/TASH	Resident
9	Dr. Yosef Abebe	AAU/TASH	Resident
10	Dr. Bemnet Baye	AAU/TASH	Resident
11	Dr. Suni Arkangew	AAU/TASH	Resident
12	Dr. Amin Hassen	SPHMMC	Resident

2. Local Trainers List

S. No	Name	Institution	Position
1	Dr Ramzi Yesuf	SPHMMC	Urologist
2	Dr Fitsum Gebreegziabher	SPHMMC	Urologist
3	Dr Seid Mohammed	SPHMMC	Urologist
4	Dr Mohammed Abdulaziz	SPHMMC	Urologist
5	Dr Mensur Mohammed	Mekelle University	Urologist
6	Dr Ibsa Daba	Ambo University	Urologist
7	Dr Mezgeb Gedfe	Menilik II Hospital	Urologist

3. International facilitators

S. No	Name	Institution	Position
1	Mr Shekhar Biyani	LTHT Leeds	Urologist
2	Mr Will Finch	N&NFT Norwich	Urologist
3	Mr Steve Payne	MUFT Manchester	Urologist
4	Dr Vincent Medeyi*	Mengo Hospital	Uganda

*Attended to observe the course and plan a similar course in Uganda.