



MINISTRY OF HEALTH
KAMUZU CENTRAL HOSPITAL



Report on the Emergency Urology Skills Course



21st November 2025
Kamuzu Central Hospital
Lilongwe

Course Director: Dr Chales Mabedi

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 their encouragement and support.

A special thanks to Ms. Gillian Wills for his considerable support in organising pre-course materials on the BJUIKnowledge platform. In addition, we would like to acknowledge excellent funding support from Ms. Sophia Anderton, Chief Executive, BJUI. We are also indebted to Medi Tec Trust (<https://meditechtrust.org/>) for providing 50 trays with instruments for skills training.

Summary

SWOT Analysis

Strengths

- The Emergency Urology Skills Course (4th course) demonstrated a strong educational impact, supported by both quantitative and qualitative outcomes.
- Pre-course assessments across centre confirmed a substantial training gap (100%), particularly in complex emergency and reconstructive procedures such as ureteric reimplantation, ureteric anastomosis, penile fracture management, and renal trauma.
- Post-course MCQ analysis showed a significant improvement in knowledge (32.9% increase), indicating effective knowledge transfer.
- Participant feedback was overwhelmingly positive, with 95.2% reporting that course objectives were met.
- The hands-on, simulation-based approach directly addressed areas of lowest pre-course confidence, leading to improved self-reported confidence in managing common urological emergencies.
- Strong collaboration between visiting UK faculty and local teams further enhanced skills transfer and mentoring, while successful replication across multiple centres confirmed the course's transferability.

Weaknesses

- Despite its success, several limitations were identified. The one-day course format constrained the depth of training, particularly for technically demanding procedures that delegates identified as priority learning needs.

- While simulation was highly valued, variability in specimen quality occasionally affected the realism of suturing practice.

Opportunities

- The results provide clear direction for future development. Expanding the course to a multi-day format would allow greater focus on procedures consistently associated with low confidence, such as ureteric reconstruction and penile fracture repair.
- Pre-course survey data can be used to refine curricula by reducing time spent on higher-confidence skills and prioritising identified gaps.
- The strong desire among participants to pass on skills supports further development of a structured train-the-trainer model.
- Increased engagement of local faculty, supported by pre-bootcamp planning meetings, would enhance sustainability and promote regional capacity building.

Threats

- Potential threats include continued reliance on external funding and international faculty, which may affect long-term sustainability.
- Competing clinical demands may limit faculty availability, while infrastructure constraints in resource-limited settings could restrict scalability if programmes expand.

Metric	Malawi (Kamuzu Central Hospital)	Uganda (Mengo Hospital)
Knowledge Improvement	32.87% increase (Average MCQ score rose from 8.0 to 10.63)	21.43% increase (Average MCQ score rose from 9.33 to 11.33)
Course Objectives Met	95.2% of attendees	78.6% (Strongly Agree)
Confidence Levels	100% reported improved confidence in handling urinary retention and acute scrotum	All participants reported improved confidence in handling urological emergencies
Participant Profile	Balanced gender distribution (52.9% Female, 47.1% Male)	Overwhelmingly male (85.7%)
Key Achievement	Successful transferability of the course confirmed	Verified 100% training gap in the region was successfully addressed



Introduction

Building on the success of the Emergency Urology Skills Course in Hawassa, Addis Ababa and Kampala, the **4th course** was delivered at Kamuzu Central Hospital (KCH), Lilongwe, Malawi. 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.

Pre-visit preparations

A WhatsApp group was created in September 2025. Shekhar Biyani and Steve Payne worked on the online resources after the Addis course in May 2025. The following learning resources were created and uploaded on the BJUIKnowledge (Appendix 1).



	
SIMULATION TRAINING	SIMULATION TRAINING
Emergency Urology Simulation Training: Faculty Resource...	Emergency Urology Simulation Training: Delegate Resourc...
Emergency urology simulation training has been evolved to allow delegates to learn about the principles of emergency urology and its management in the pre-hospital environment.	Emergency urology simulation training (EUST) has been evolved to help you learn about the principles of emergency urology and its management.
In progress	In progress

Resources for the COURSE ORGANISER:

- [EUST Organiser Checklist](#)
- [EUST Introduction Slide Pack](#)
- [EUST Logo for Flyers](#)
- [Pre-course delegate MCQ](#)
- [Post-course delegate MCQ](#)
- [Cost Calculation for EUST](#)
- [Report on EUST](#)

Supporting files (Online Training the Trainer resources)

- [Faculty TTT Assessment - narrated.pptx](#)
- [Faculty TTT Feedback - narrated.pptx](#)
- [Faculty TTT Teaching skills - narrated.pptx](#)

We started regular meetings with the UK Team on Zoom. A Google Form was created for delegates and faculty to register on the BJUIKnowledge platform to access the learning resources.



The UK team received a reasonable amount of support from the Medi Tech Trust and managed to carry basic instrument sets and sutures for the skills training.



The UK Team arrival

The UK Team (Steve Payne, Shekhar Biyani, Mary Garthwaite and Will Finch) arrived on 20th November 2025. The KCH Hospital staff received the team.

Skills Lab set-up

We decided to deliver the course at the surgery simulation skills lab. Steve, Shekhar, and Will met with Dr Mabedi in the evening. They spent nearly 3 hours to set up the room for the event.



Participants

- **Attendees:**
Eleven urology, surgery and O & G residents from KCH participated in the program.
- **Faculty:**
The course main organiser was **Dr Chales Mabedi** and well supported by **local** colleagues.
- Four international faculty members from the UK also supported the course.

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 Malawi.

Pre-Course Assessment

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

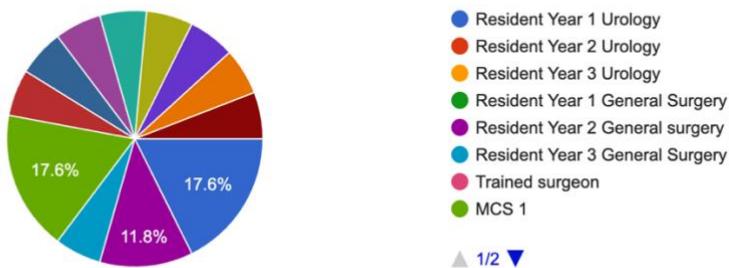
Survey Findings:

The gender distribution was nearly equal, indicating a balanced representation among potential attendees. **Female:** 52.9% (9 respondents), **Male:** 47.1% (8 respondents). The largest single groups were Resident Year 1 Urology (17.6%, 3 respondents) and MCS 1 (17.6%, 3 respondents). Other represented positions included Resident Year 2 General Surgery (11.8%, 2 respondents), OBGYN Resident Year 3, Year 4 Gen Surg, and Orthopaedic Resident (each 5.9%, 1 respondent).



7. Your position

17 responses



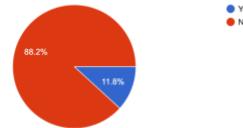
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Prior Urology Skills Course Attendance

The data strongly suggests a significant need for the course, as most participants have **not** attended prior training recently.

5. Have you attended any urology skills course in the last 12 months?

17 responses



Course Expectations

All respondents were unanimous in their desired outcomes from the course, indicating clear goals for the curriculum design.

- **Improved confidence in managing urological emergencies:** 100%
- **Improved technical skills in managing urological emergencies:** 100%
- **Skills that I can pass on to others:** 100%

Self-Rated Knowledge and Confidence

Participants rated their knowledge and confidence for a range of key urological procedures using a 5-point Likert scale (5 being highest).

The comparison reveals a consistent trend: Confidence levels were generally lower than knowledge levels across most procedures, suggesting a strong need for hands-on, practical training.

Procedure	Highest Knowledge Rating	Lowest Knowledge Rating	Highest Confidence Rating	Lowest Confidence Rating
End-to-end ureteric anastomosis	1 (Very good)	7 (Poor)	0 (Very confident)	8 (Not at all Confident)

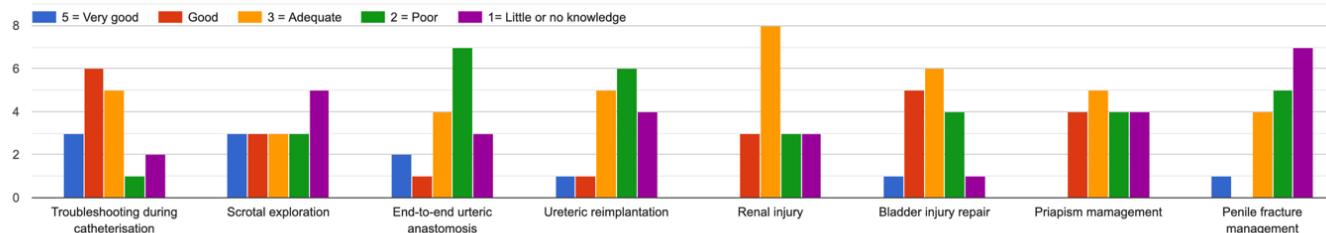


Ureteric reimplantation	1 (Very good)	6 (Poor)	0 (Very confident)	9 (Not at all Confident)
Penile fracture management	0 (Very good)	7 (Little or no knowledge)	0 (Very confident)	12 (Not at all Confident)

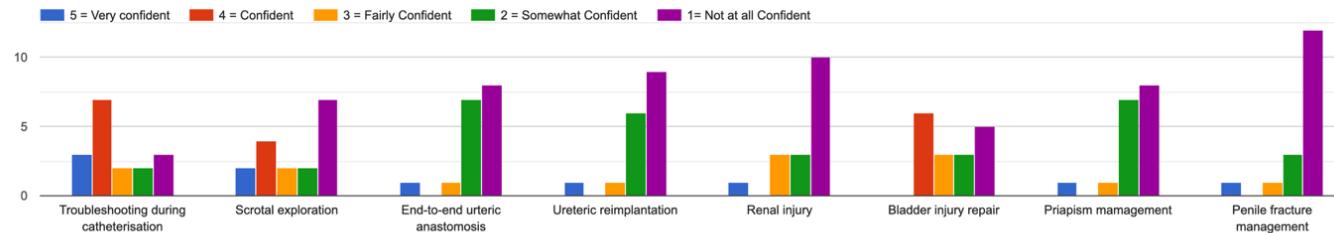
Key Areas of Low Confidence/Knowledge:

- Penile fracture management:** This procedure received the highest number of "**Not at all Confident**" responses (12 respondents).
- Ureteric anastomosis/reimplantation:** These complex reconstructive procedures show high numbers in the "**Poor Knowledge**" and "**Not at all Confident**" categories, indicating they should be a major focus of the advanced modules.
- Scrotal exploration and troubleshooting during catheterisation** show relatively higher knowledge and confidence scores (receiving several "Very good/Very confident" ratings), suggesting these may require less instructional time than other topics.

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



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





4. Qualitative Feedback (Comments)

The open-ended comments reinforce the quantitative data, emphasising the need for practical, hands-on experience in managing urological emergencies.

- **Focus on Emergencies:** Comments specifically mention the need to manage **life-threatening urological conditions** such as testicular torsion, obstructive uropathy, urosepsis, and urological injuries.
- **Hands-on Experience:** Multiple respondents explicitly requested a "**hands-on practical day**" and expressed hope for "**more practical / hands on experience.**"
- **Relevance to Other Specialties:** One resident (OBGYN) specifically noted the significant number of **ruptured uterus with bladder involvement** and **post-surgery ureteric injuries**, highlighting the cross-specialty relevance of the course content.

Conclusion

The survey confirms a strong, diverse, and engaged audience for the proposed urology skills course, with a critical need for training, as **88.2%** did not attend courses recently. The curriculum should prioritise **technical skills and confidence building** in managing complex conditions, particularly **ureteric procedures** and **penile fracture management**, through **practical, hands-on sessions**.

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 Charles Mabedi provided the outline of the course.



Dr Mabedi outlining the timetable for the day

- **Registration and Pre-Course Assessment:**
 - Delegates registered at 8:00 AM, followed by an introduction by Dr Mabedi and pre-course MCQ evaluation.
- **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 KCH staff and there was plenty of catering throughout the day to sustain faculty and delegates!

Dr Taurai Kithinji, Obstetrician and Gynaecologist, Deputy Head of Training, visited the course and spoke to trainees.

Modules and Content

Module 1: Emergency Renal and Ureteric Surgery

- **Faculty:** Steve Payne, S Biyani, A Symon, W Mgunda, W Muronya, C Sungani, Nkhonjera.

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:

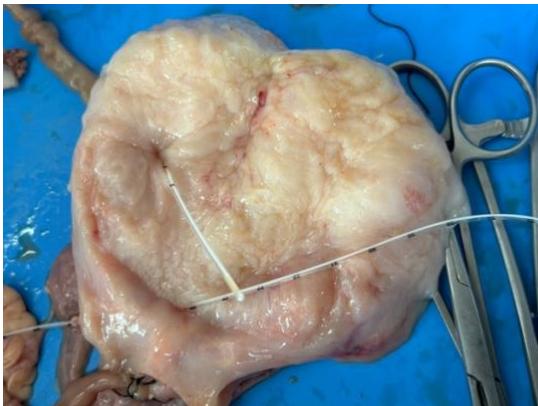
- End-to-end ureteric anastomosis
- Ureteric reimplantation

2. Bladder Procedures:

- Bladder repair
- Boari flap

3. Renal Procedures:

- Renorraphy



Module 2: Acute Scrotum, Andrology, and Catheterisation

- **Faculty:** Will Finch, W Chisenga, I Imran, E Limbe, Bright Nkhata

Educational Components:

- Short lectures on:

- Acute scrotum Dr Alinafe Chinsangu 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.

- A synthetic model developed by the King's College London Team was evaluated as well.



3D-printed testicular torsion model

- Priapism and penile fracture management (Dr. A Chinsangu) - Dr. A Chinsangu 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.
- 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:

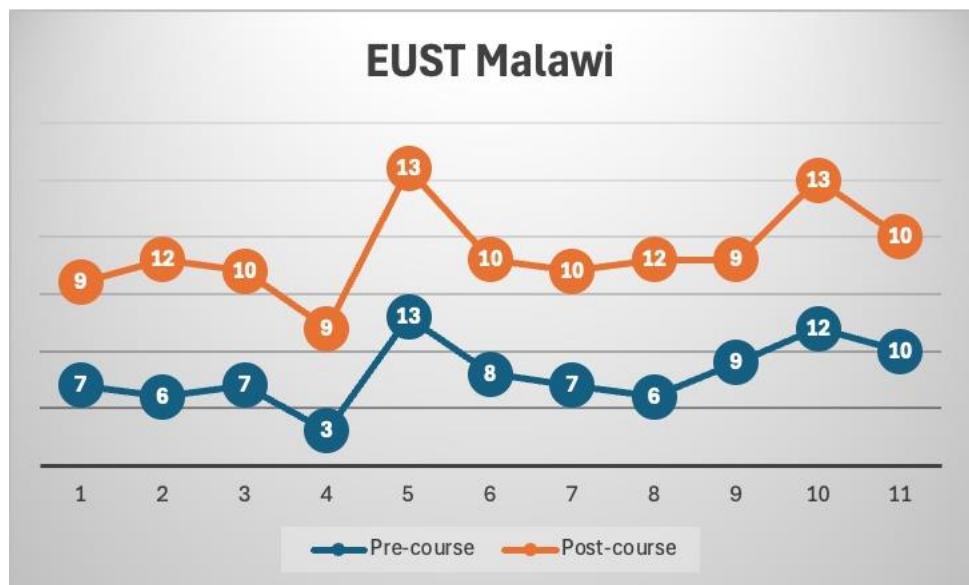
- Scrotal exploration and testicular fixation
- Priapism management
- Penile fracture repair



Presentation by DrAlinafe Chinsangu on acute scrotum

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 [8.0], while the post-course average rose significantly to [10.63], reflecting a [32.87%] improvement in knowledge. (% improvement = New value-old value/old value x 100)
- This indicates a **positive impact of the training or educational activity** on participants' knowledge.

2. Participant Feedback:

- 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.

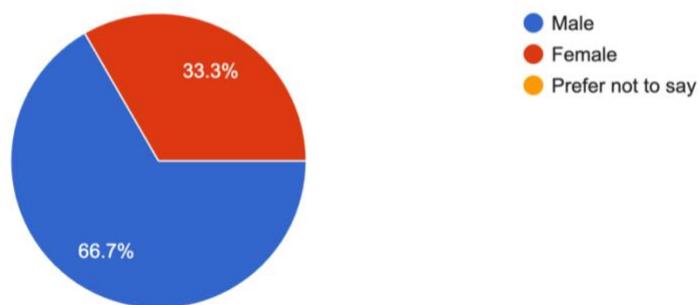
3. Transferability:

- Successful delivery of the course has confirmed its transferability.

Post-course feedback

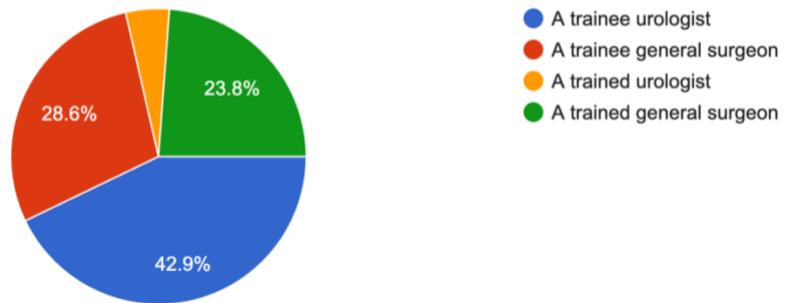
2. What best describes your gender?

21 responses



6. Are you

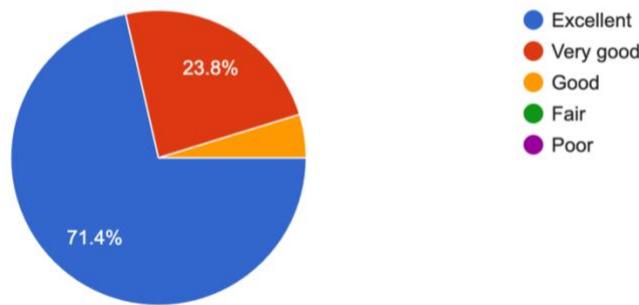
21 responses





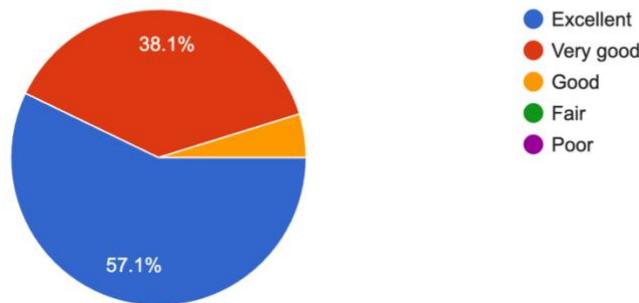
7. Course organisation was

21 responses



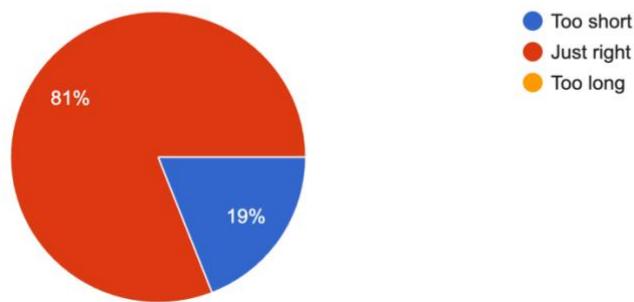
8. Communication about the course

21 responses



9. Length of the course

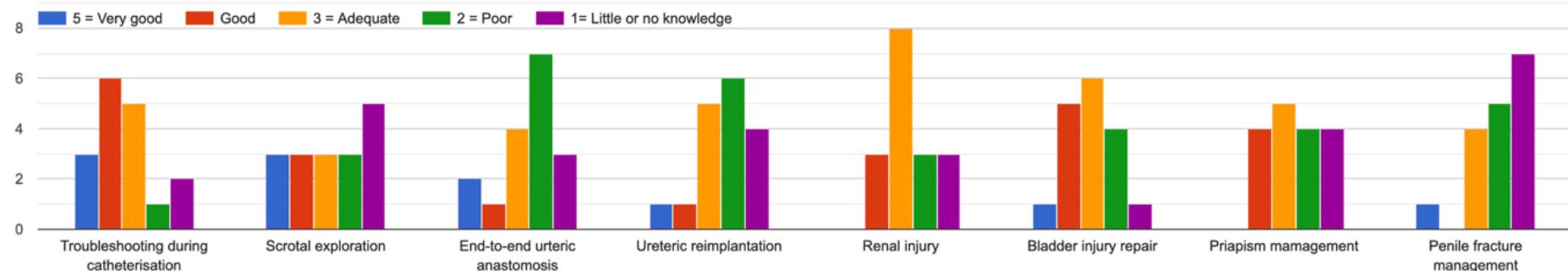
21 responses





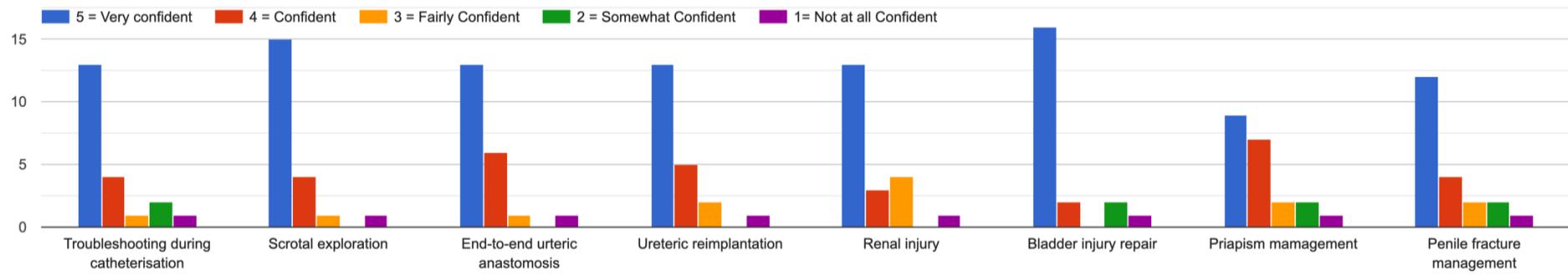
8. How would you rate your knowledge about the following procedures?

Pre-training



10. How would you rate your knowledge about the following procedures? (Post-training)

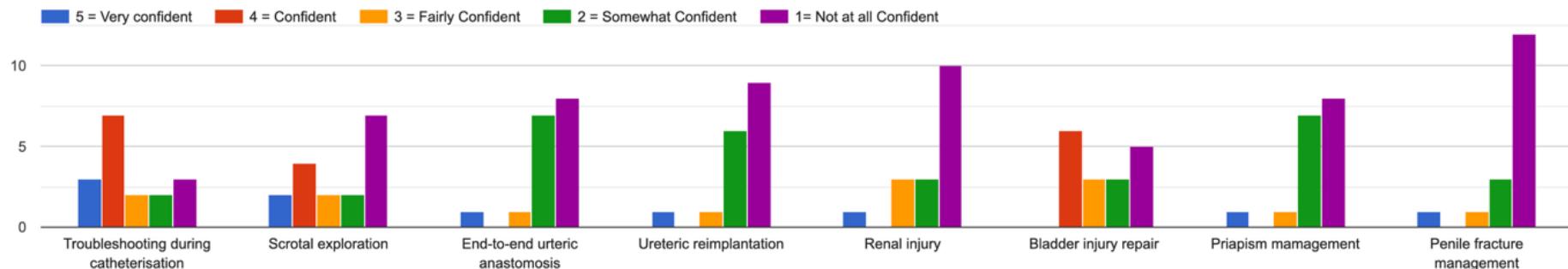
Post-training





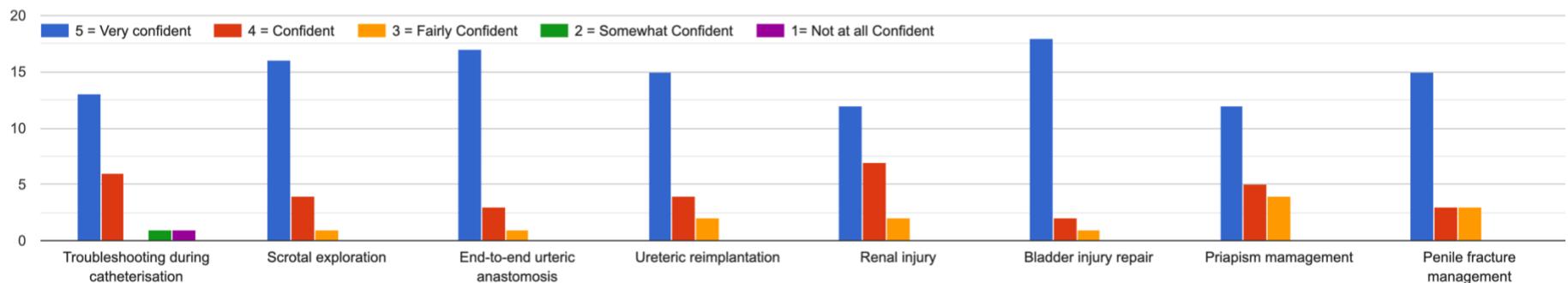
9. How would you rate your level of confidence for the following procedures?

Pre-training



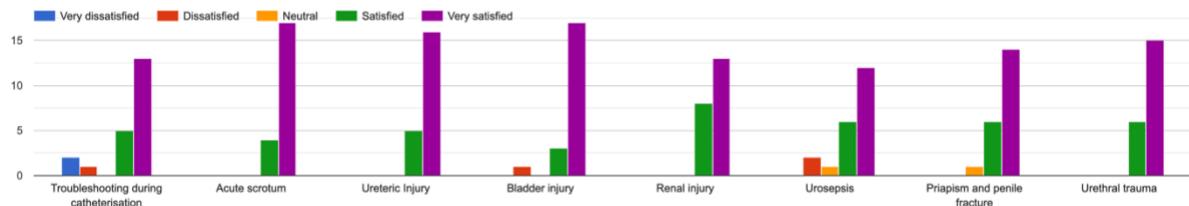
11. How would you rate your level of confidence for the following procedures? (Post-training)

Post-training

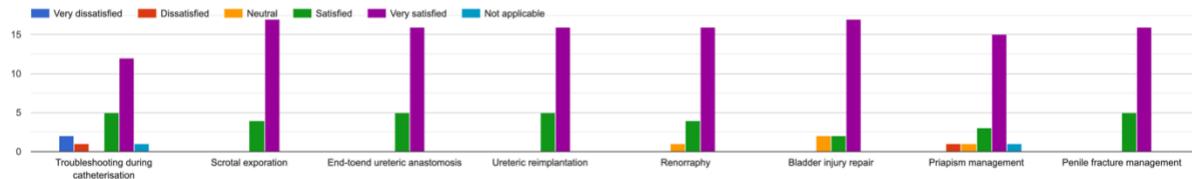




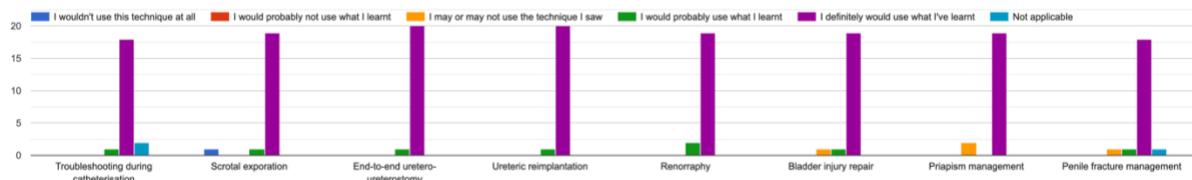
12. How satisfied are you with what you learnt on the following urological emergencies and skills? (THEORETICAL PART)



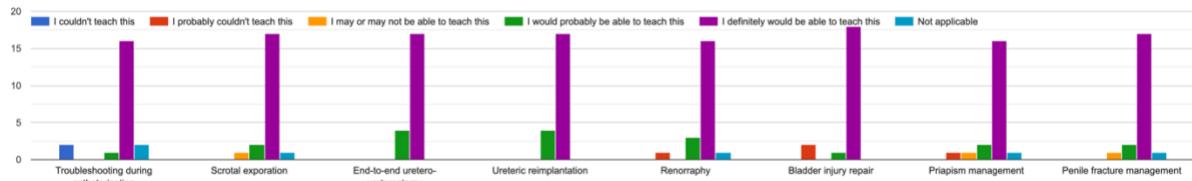
13. How satisfied are you with that you learned on the following urological emergencies and skills? (PRACTICAL PART)



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



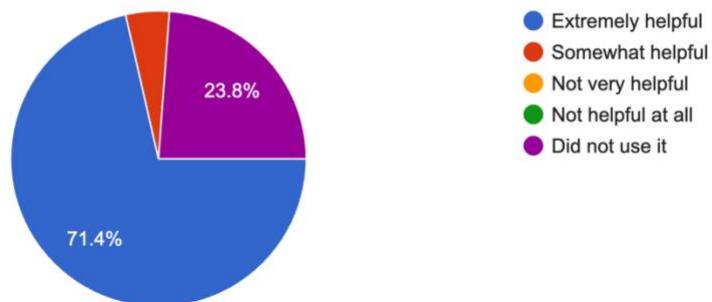
15. What do you think you could teach other trainee colleagues when you are back at your home institution?





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

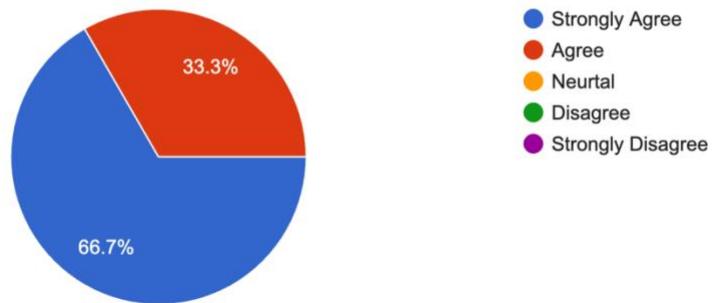
21 responses



- Extremely helpful
- Somewhat helpful
- Not very helpful
- Not helpful at all
- Did not use it

18. Did the training meet your learning objectives?

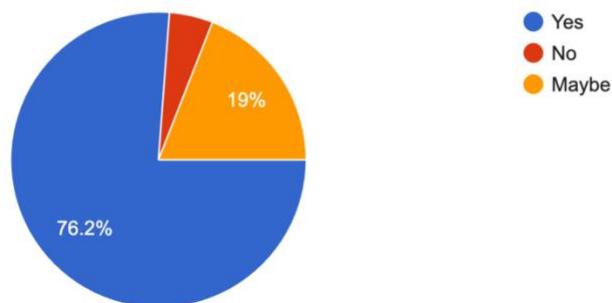
21 responses



- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

19. Do you think this training needs an additional follow-up training session?

21 responses



- Yes
- No
- Maybe



20. On the Course - What did you think was very good? 21 responses

The teaching was interactive

Lead and Supervisor coordination

There was enough time to practice and the 1 on 1 sessions made sure that everyone was able to practice

The use of specimens

Very good practical sessions, I appreciate that they were one on one for individualized learning

The one on one approach of the training. It gave time to ask questions and practice thoroughly practicality , presence of experts and highly organized, 1 to 1 training, handson

One on one interaction with trainers

Very organized and practical

Ureteric reimplantation

The one-to-one nature of the practical sessions

One on one with Faculty members

Hands one Ureteric reimplantation and generally all modules

Management of Scrotal emergency, kidney, ureter, and Kidney injury management. Priapism management.

Both theory and practical sessions

The one on one hands on practical sessions

Well detailed content

Organisation was excellent before and after the day of the course

Organization, very interactive sessions, hands on sessions

The fact that each lecture was followed by a practical session

Different ureteric injury repairs

21. On the Course - What do you think could be better? 21 responses

It was good

Learning materials could have been released earlier

Incorporate Audiovisual support before the actual hands on practice

Was good set up

More time. A lot of content was crammed into one day.

No additions

not much

Nothing

None

Streamline the training according to specialities so that ob/gyn's get to focus on the parts of the training are relevant to them

Increase number of days to two

Material could have been provided earlier

These trainings should be done frequently maybe 3times a year. Again should be carried out maybe for 3-5days

Practical session

Improve on the simulation specimens

It met my expectations

Bull penis models left out overnight so a bit tough and difficult to suture

The samples we were working on were very hard.... in future we need fresh samples

Make the training longer, increase the number of days

Stenting using an actual ureter

Resolve challenges with access to electronic precourse materials

Faculty

1. Ismail Imran
2. William Muronya
3. Chimwemwe Nkhonjera
4. Andrew Symon
5. Charles Sugani
6. Yamikani Ellard Limbe
7. Brighton Nkhata
8. Atanazio chifuniro Mgunda
9. William Muronya
10. Alinafe Chinsangu
11. Wanangwa Chisenga

Delegates

1. Timothy Mutafya
2. Carol Dzorani
3. Hlulose Mukire Chafuwa
4. Truder Kawaza
5. Jacqueline Kanjadza
6. Dingile Madise
7. Mwayiwawo Nkhumbwah
8. James Folias Mbewe
9. Maxwell Chikuni
10. Hamstone Muchinga Lwesha
11. Madalitso Palesa Kamvaunamwali



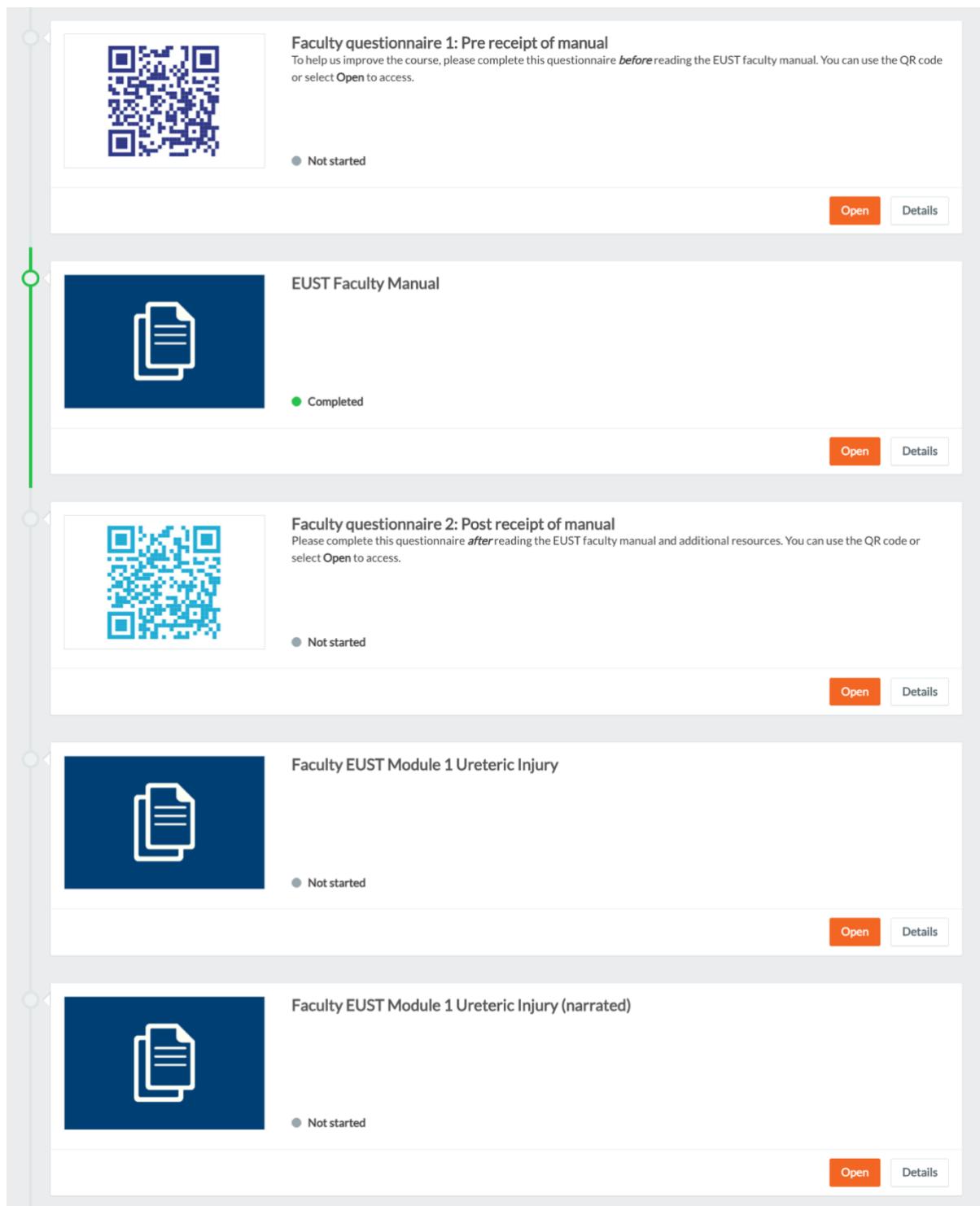
DELEGATE REGISTRATION 21 NOV 2025: MANAGEMENT OF UROLOGICAL EMERGENCIES. LILONGWE.			
	Name	Email	Phone number
(Faculty)	1. ISMAIL IMRAN	ismailimran@ynhro.co.uk	0992 661395
(Faculty)	2. Hamstone Lwesha	hamstonelwesha@gmail.com	0997822564
(Faculty)	3. Chimimba Nkhajinga	chimimba.nkhajinga@gmail.com	0881200480
(Faculty)	4. Jacqueline Kajadza	Kajadza.jac@gmail.com	0994273020
(Faculty)	5. Timothy Matafua	timmatafua@gmail.com	0777702011
(Faculty)	6. William Muranya	wmuranya@fthmalawi.com	0881985815
(Faculty)	7. Dingile Madlizi	dingilemadlizi@gmail.com	0888353753
(Faculty)	8. Hlulose Chafua	hlulosechafua@gmail.com	0999427158
(Faculty)	9. Maxwell Chikunzi	max.chikunzi@gmail.com	0881025138
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FACULTY REGISTRATION 21 NOV 2025. MANAGEMENT OF UROLOGICAL EMERGENCIES. LILONGWE.

	Name	Email	Phone number
1.	James Mbende	folasumbawera@gmail.com	0888153069
2.	TAMILCANI LIMBE	Yamilcanilimbe@gmail.com	094228895
3.	CHIFUNZWA MGWADA	Will.mfunzwa@gmail.com	0888623255
4.	ANDREW SYMOW	Symonandrew1@gmail.com	0993810917
5.	ALWA F CITINSANU	achinsanu@gmail.com	0991070916
6.	Madatho Kamwana mosh	meda_pkamwa@gmail.com	0992265076
7.	Tauder Kawaza	marvelkawaza@gmail.com	0885590111
8.	Carol Dzorani	cdzorani@icloud.com	0996936721
9.	MWAYI NKHUMBA wa	nkhumba.mwayi@gmail.com	0999971425
10.	BRIGHTON NIAHITA	brightonniahita@gmail.com	0997332065
11.	MUKUNGUWA KATHULU	mkukhulu@gmail.com	08
12.	CHARLES SUNDANI	csundani@kutes.ac.mw	08838524621
13.	KUNANGWA CHISINGA	drwunangwa@yahoo.com	099625456
14.			
15.			

Appendix 1



Faculty questionnaire 1: Pre receipt of manual
To help us improve the course, please complete this questionnaire *before* reading the EUST faculty manual. You can use the QR code or select **Open** to access.

● Not started

EUST Faculty Manual

● Completed

Faculty questionnaire 2: Post receipt of manual
Please complete this questionnaire *after* reading the EUST faculty manual and additional resources. You can use the QR code or select **Open** to access.

● Not started

Faculty EUST Module 1 Ureteric Injury

● Not started

Faculty EUST Module 1 Ureteric Injury (narrated)

● Not started



	Faculty EUST Module 1 Renal, Bladder and Urethral Trauma (Narrated)	● Not started	Open	Details
	Cognitive Task Analysis - Module 1	● Completed	Open	Details
	Faculty EUST Module 2 Acute Scrotum (narrated)	● Not started	Open	Details
	Faculty EUST Module 2 Penile Injury	● Not started	Open	Details



Cognitive Task Analysis - Module 2



Not started

[Open](#) [Details](#)

Faculty questionnaire 3: Post-course feedback

Please complete this feedback form **after** the EUST course. You can use the QR code or select **Open** to access.



Not started

[Open](#) [Details](#)

EUST course feedback

Please complete this feedback form after the EUST course. You can use the QR code or select **Open** to access the form.



Not started

[Open](#) [Details](#)



Delegate form 1: Pre-course experience
Please complete this form **before** reading the EUST manual and attending the course. You can use the QR code or select **Open** to access.

Not started

Open **Details**

EUST Delegate Manual

Completed

Open **Details**

Faculty EUST Module 1 Ureteric Injury

Not started

Open **Details**

Faculty EUST Module 1 Renal, Bladder and Urethral Trauma

Not started

Open **Details**

Faculty EUST Module 2 Penile Injury

Not started

Open **Details**

EUST course feedback
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MINISTRY OF HEALTH
KAMUZU CENTRAL HOSPITAL



Certificate of Attendance

This certificate is awarded to for serving as a member of
the Faculty during the **Emergency Urology Skills Course** held at Kamuzu Central Hospital, Lilongwe,
Malawi on 21st November 2025.

.....
Dr Charles Mabedi
Course Director



Certificate of Attendance

This certificate is awarded to for serving as a **Delegate**
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November 2025.

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Dr Charles Mabedi
Course Director

