

Report on the Emergency Urology Skills Course



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Hawassa University Comprehensive Specialised Hospital

Hawassa, Ethiopia

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Acknowledgement

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Introduction

The First Emergency Urology Skills Course (EUSC) was conducted at Hawassa University Comprehensive Specialist Hospital, 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.

Dr. Fitsum Gebere-Egziabher and Dr. Ramzi Yesuf (Executive members of the Urology Society of Ethiopia) evaluated the course usefulness.

Participants

- **Attendees:**
Eleven surgical residents from Hawassa and nearby medical institutions participated in the program.
- **Faculty:**
The course main organiser was **Dr Tilaneh Leyeh** and well supported by **Dr Getaneh Tesfaye Teferi** and **Dr Tizazu Tsega from Hawassa**
- Five international faculty members from the UK and two experienced urologists from Addis Ababa supported the course.

Objectives

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

1. To introduce surgical 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:

1. Experience Levels:

- Fewer than 30% of participants had hands-on experience in managing acute urological conditions.

2. Confidence Levels:

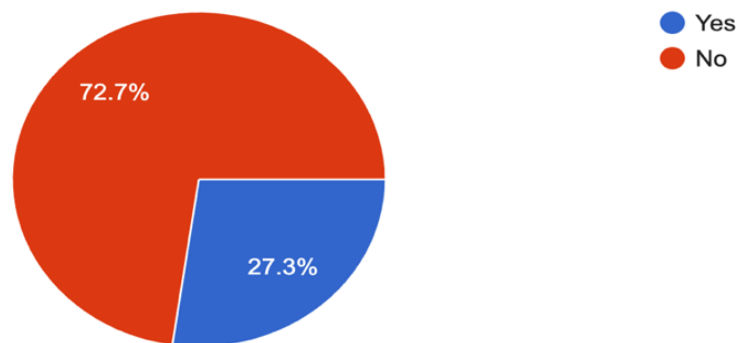
- Over 70% of respondents expressed low confidence in independently managing emergencies such as obstructive uropathy, haematuria, or testicular torsion.

3. Key Challenges Identified:

- Limited access to training resources.
- Lack of exposure to structured urology education during residency.

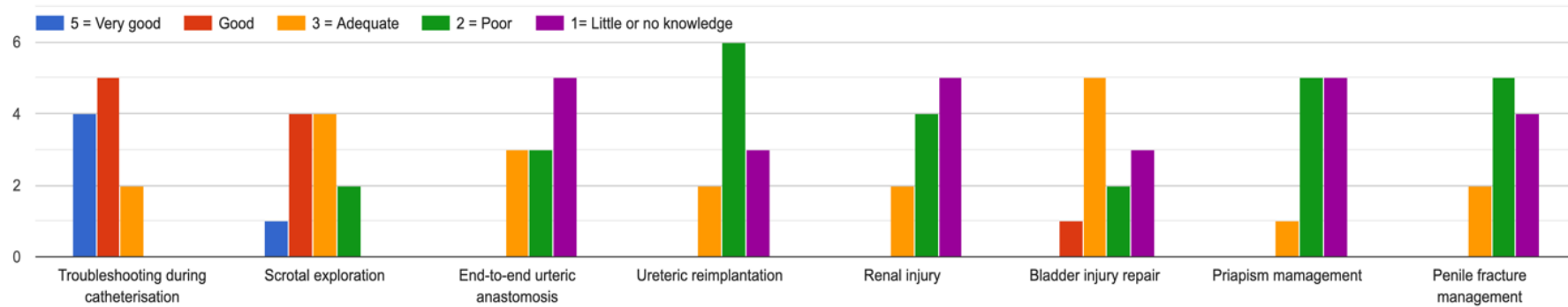
5. Have you attended any urology skills course in the last 12 months?

11 responses

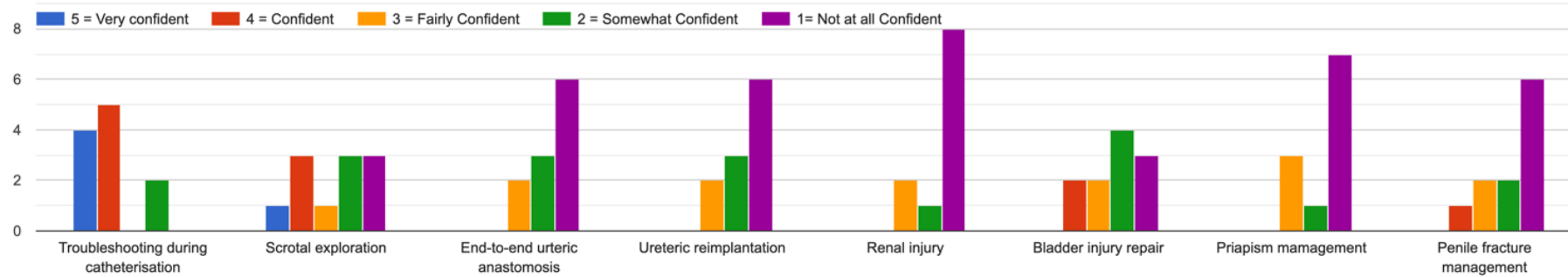


- The majority had observed or assisted in procedures like catheterisation or cystoscopy.

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 personalized, interactive training.

- **Registration and Pre-Course Assessment:**
 - Delegates registered at 8:00 AM, followed by an introduction by Dr Teferi 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).

Modules and Content

Module 1: Emergency Renal and Ureteric Surgery

- **Lead:** Getaneh Tesfaye Teferi
- **Faculty:** Dr. Fitsum Gebreegziabher Gebrehiwot, Dr. Ramzi Yessuf Adem, Steve Payne, Shekhar Biyani

Educational Components:

- Short lectures on:
 - Management of ureteric and bladder injuries (Steve Payne) – Mr. Steve Payne provided a comprehensive session on the management of ureteric and bladder injuries including case discussions involving real-life examples. The talk included an overview of ureteric and bladder injuries, diagnosis and initial management, surgical management techniques, postoperative care and follow-up.
 - Renal and urethral trauma (Getaneh Tesfaye Teferi) - Dr. Getaneh Tesfaye Teferi led a session focusing on the management of renal and urethral trauma. This session provided participants with critical knowledge and hands-on skills to manage these injuries effectively, particularly in resource-limited settings.

Practical Skills Taught:

1. **Ureteric Procedures:**
 - End-to-end ureteric anastomosis
 - Ureteric reimplantation
2. **Bladder Procedures:**
 - Bladder repair

- Boari flap
- 3. **Renal Procedures:**
- Renorrhaphy
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Module 2: Acute Scrotum, Andrology, and Catheterization

- **Lead:** Tilaneh Leyeh
- **Faculty:** Tizazu Tsega, Matthew Trail, Will Finch

Educational Components:

- Short lectures on:
 - Acute scrotum (Will Finch) – Mr. Finch 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 (Tizazu Tsega) - Dr. Tizazu Tsega 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 complications such as erectile dysfunction.
- For **priapism**, Dr. Tsega outlined the distinction between ischemic and non-ischemic types, emphasizing 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.

Practical Skills Taught:

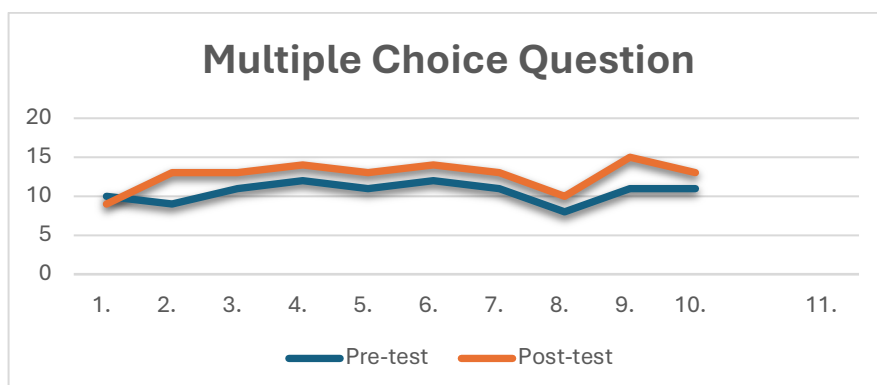
Scrotal and Andrology Procedures:

- 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 [10.72], while the post-course average rose significantly to [12.72], reflecting a [18.65%] improvement in knowledge.

2. Participant Feedback:

- 90% of attendees rated the course as "excellent" or "very good."
- 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.

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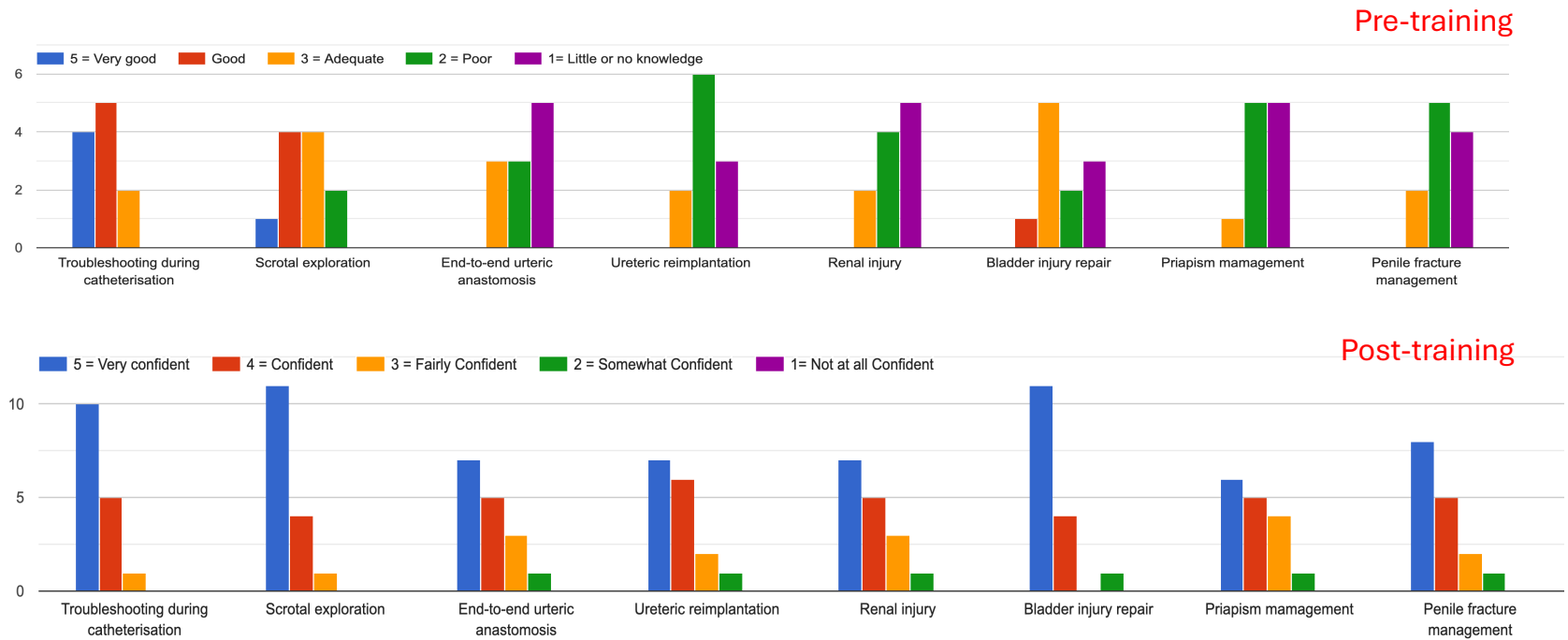
2. Skill Development:

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

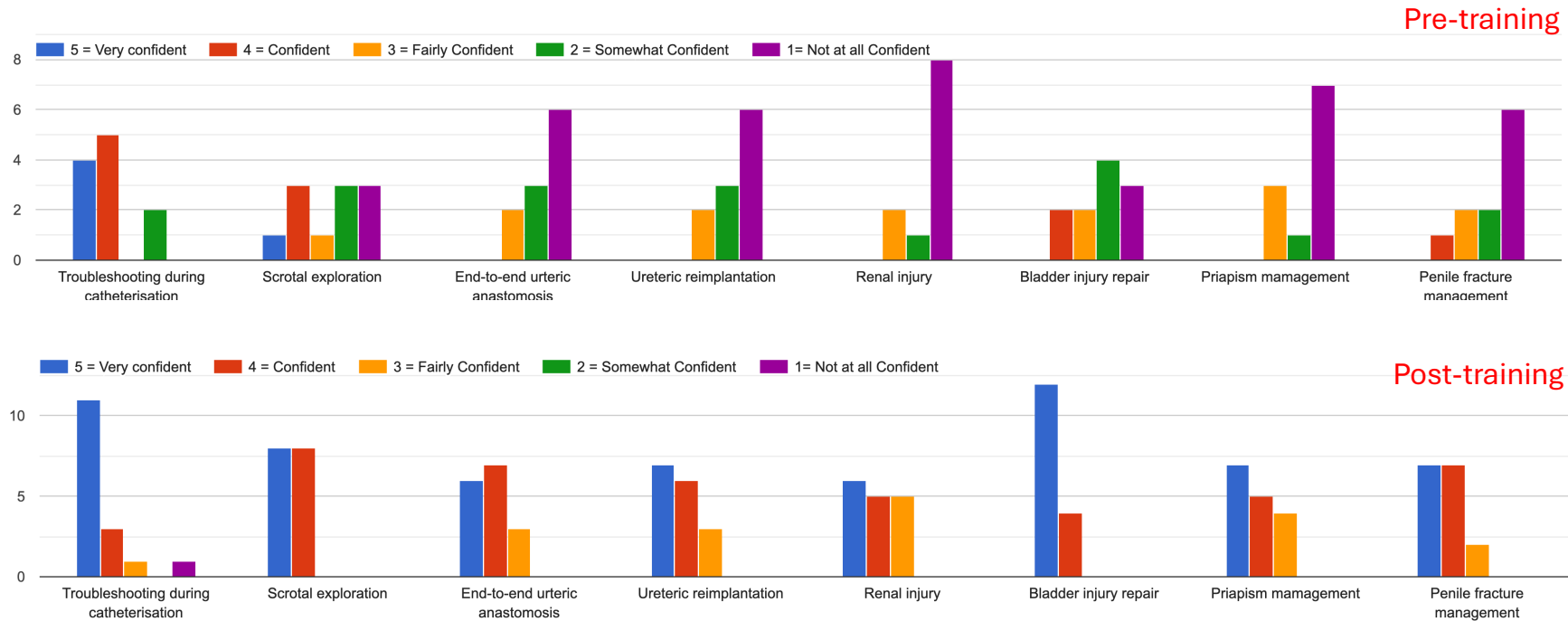
3. Local Support:

- The involvement of faculty from Addis Ababa facilitated knowledge transfer and strengthened local capacity.

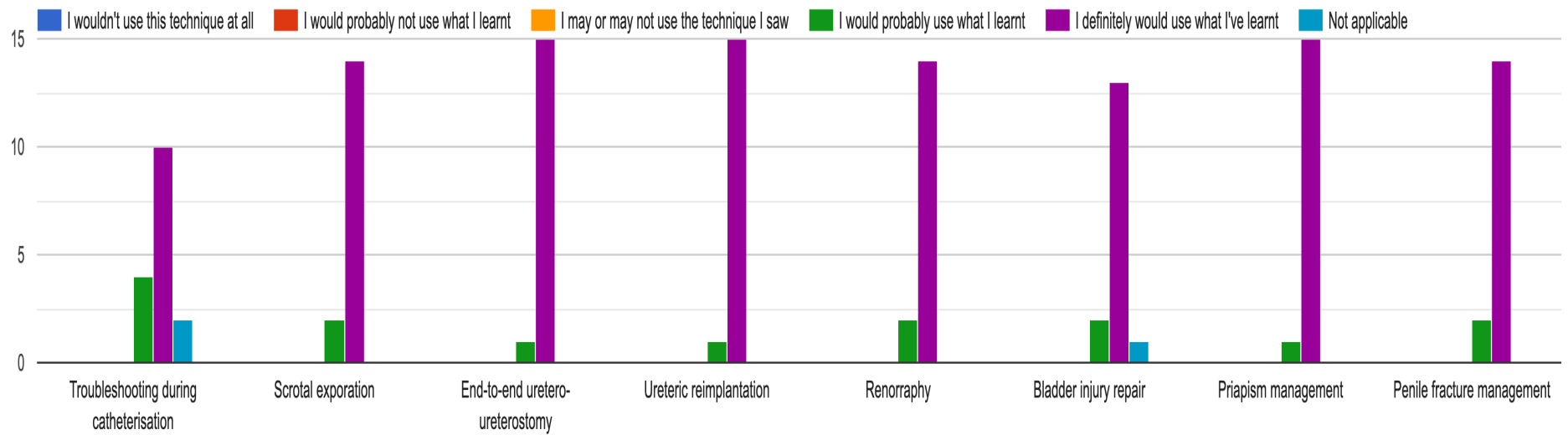
Level of Knowledge (Pre- and post-training)



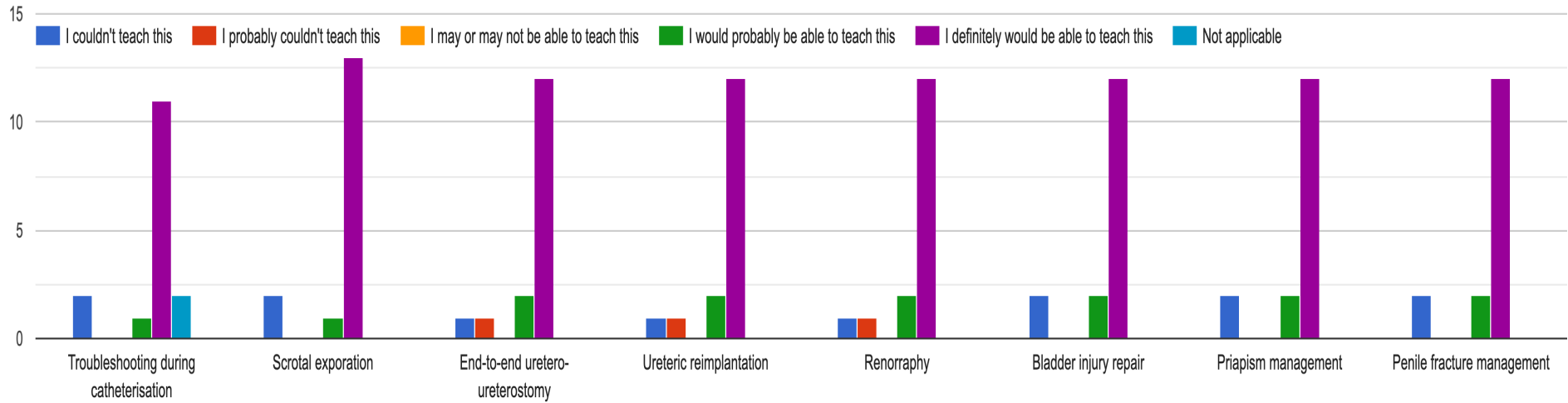
Procedure confidence Level (Pre- and post-training)



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?



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 (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. **Standardized 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 First Emergency Urology Skills Course in Hawassa was a transformative event, equipping surgical residents with foundational knowledge and skills to manage urological emergencies. The collaborative effort between local and the UK faculty highlighted the potential for sustainable education initiatives in resource-limited settings. While the program successfully addressed many challenges, it also underscored the need for continued investment in infrastructure and training to build a self-sufficient urology workforce in Ethiopia. This course serves as a model for future initiatives, emphasising the importance of education, mentorship, and collaboration in improving global healthcare delivery.