Ndola "UroCamp" Week

Urolink Visit Report, Ndola Teaching Hospital, Zambia
September 2025

Background
My first visit to Zambia was with the TUF Urolink travelling fellowship Award, visiting the University Teaching Hospital, Lusaka, in 2022 (link to report XXXX). I then met and hosted Mumba Chalwe, the clinical lead for Urology in Ndola Teaching Hospital. She visited my department in 2024, with a particular focus on prostate cancer diagnostics. We then started a virtual MDT meeting, run along with fellow UK urologist and my previous colleague Nick Campain, and have been in regular contact since.

Pre-Trip Planning
Planning for the trip began in the virtual MDT meetings and then with more focused virtual meetings closer to the time.

Prostate Diagnostics Equipment taken

- Prostate phantom model to practice transrectal ultrasound (kindly donated by BXTA)
- Pivot-Pro biopsy needle guide (kindly donated by Mermaid Medical)
- Clarius transrectal wireless ultrasound probe purchased through Urolink for this trip

Trip documentation

- Copy of visit acceptance letter signed by Ndola Senior Medical Superintendent & Ministry of Health stamp
- Copy of signed letter between Urolink and local host urologists outlining purpose of visit
- Certificate of medical indemnity cover for 'medical humanitarian/voluntary work' cover
- Professional registration

Travel
London Heathrow (via Johannesburg) to Ndola International airport

Accommodation

- The Urban Hotel Ndola (note changed name to Greenwood Manor during our visit)
- Transport each day kindly arranged by hospital and local team

Outline of trip

(Brief description here as further detail included in reports from TUF fellows Mike and Rustam)

From landing at midday on Sunday we went straight to the hospital and did a ward round of the pre-op patients, reviewing the indications and suitability for surgery. Using the wireless transrectal ultrasound probe on the wards enabled us to confirm or change management in several cases. Then we visited theatre, checked and assembled the available endoscopic equipment and met the scrub team.

On Monday we were formally welcomed to Ndola Teaching Hospital by Dr Banda, the medical superintendent. Later in the week he visited us in theatre accompanied by the Principal Secretary for Health. They both were very supportive of the developing link between our centres and the focus on benign and malignant prostate disease.

Later that day we completed the first ever transurethral prostatectomy (TURP) cases in Ndola Teaching Hospital. Whilst in a parallel theatre the local team performed an open transvesical prostatectomy and primary anastomotic urethroplasty. After the operating list we finished the day with a ward round including pre and post-operative patients. This schedule was repeated every day, in theatre and on the wards. In between cases we lectured or taught ultrasound with simulation on the phantom prostate biopsy model and wireless probe. Later in the week we focussed on ultrasound guided transperineal prostate biopsies and on the final day Mumba performed the first local anaesthetic transperineal prostate biopsy in Ndola Teaching hospital. The patient tolerated this well with satisfactory prostate core appearances (histology is awaited).

Highlights

The Ndola urology team were organised and motivated, with most of the team there to welcome us on Sunday afternoon. Their preparation for our visit included booking two operating theatres for the whole week, with about 25 – 30 patients prepared and on standby for surgery. The whole department including consultants and juniors were present daily. This preparation really laid the foundation for a successful trip. The week included the first TURP and ultrasound guided local anaesthetic transperineal prostate biopsies done in Ndola, by myself and then the local team. Every day started with planning, finished with debriefs and full post operative surgical ward rounds and we learned a lot from each other in all these areas.

TURP

Several of the TURP patients had been catheter dependent for long periods, up to 5 years in some cases. After surgery most were successfully catheter free and discharged the following day, which worked well to demonstrate the benefit of TURP and was rewarding for the team. In comparison typically an open prostatectomy can stay on the ward for 5-7 days and can also require up to 4 L irrigation per day, depending on prostate volume.

I had the privilege of performing the first ever TURP in Ndola Teaching Hospital. We used a TURP checklist to ensure the correct equipment was available but still had some challenges. I started the case inserting the rigid cystoscope then resectoscope with blind introducer. Then after starting resection of the middle lobe the diathermy coagulation pedal suddenly became faulty and only working intermittently. This made the case very difficult, and not ideal for training. I had intended to perform a stepwise TURP with time for training, however given this diathermy issue we were only able to complete a middle lobe resection.

Given the faulty diathermy it was a very challenging case. We were however happy with the outcome and would expect this will result in long term benefit for the patient. In hindsight, we may have requested an engineering check of all equipment before the case. I had used ultrasound to measure the prostate volume at 60 ml, with a large middle lobe, but a smaller prostate may have been preferable for the first case.

The coagulation pedal at fault was repaired by engineering after the case. We decided to proceed, and before starting the second smaller case we again tested the equipment. Despite this, after a few minutes the diathermy cutting pedal then became dysfunctional, in a similar fashion to the other pedal. I did complete a full resection, but with difficulty. After these cases there was concern on delivering TURP training in the week. However, the issue was highlighted and both pedals were repaired / cleaned overnight. Dust in the pedals or possibly glucose from the irrigation fluid may have been the issue, so a waterproof bag was used over the pedals for the rest of the week. This proved effective, there were no further issues and TURP training was delivered successfully.

Prostate Cancer Diagnostics

A commissioned Lancet review predicts a surge of cases of prostate cancer in sub-Saharan Africa[1]. The recent Delphi consensus[2] concluded the following priorities for prostate cancer in Zambia were awareness of prostate cancer in the community; the cost of diagnostic investigations; availability of diagnostic services. On this trip I met with the Ndola Teaching hospital Medical Superintendent and their Principal Secretary for Health, and in discussion there was a clear intent to support and develop future work in this area, with an understanding of the associated factors relevant to the local context.

Of note there is no Bemba word for prostate, as part of the male genitalia, and this generally inhibits discussion on the topic. Even many of the local urology team expected that their close relatives or fathers would not disclose a diagnosis of prostate cancer to them if asked. At present Government care does not cover curative treatment. Surveillance or surgical androgen deprivation therapy are the primary management options. Current biopsy practice is predominantly finger guided transrectal biopsies. Learning the ultrasound guided transperineal technique should help improve accuracy and infection rate, improving diagnostics for the local community.

In teaching the biopsy technique we used a combination of simulation and bedside teaching to aid training. Practice on the phantom model enabled quick development of skills and understanding of anatomy. Having used the Clarius wireless transrectal probe previously, I had felt it would be a big asset on the trip as it allows mobile access to high quality ultrasound. It proved excellent for teaching on the wards or outpatients, and in addition led to a change in management for several cases and helped get started quickly, when later in the week we had access to the local transrectal ultrasound machine. Purchasing through Urolink allows this to be an asset going forward in future trips.

Reflections

Our trainees did fantastically this week and made the trip an enjoyable success. They gave multiple talks, showed initiative in reviewing patients, running checklists and assisting in theatre. They were exposed to cases and open procedures not routinely seen in the UK, this activity was also recorded on their ISCP (UK training) portfolio. Talks through the week included TURP operative steps, management of complications, prostate cancer diagnostics, MDT discussions of difficult cases, surgical decision making and patient selection.

Meeting Mumba before the trip and hosting her in my department was helpful to show our workflow and establish our relationship, ultimately helping to plan the trip.

Introducing two new services in one week was very ambitious and required courage and effort from her and her team. Together we were able to establish processes of safe surgery, starting with rigorous review of surgical indications and thorough peri-operative care. In theatre the use of the surgical checklist kept the team consistent and focused and I found this surprisingly successful, especially in a busy theatre environment with unfamiliar kit.

We established both procedures, whilst achieving safe outcomes and importantly I hope the team will be able to continue beyond our visit. We plan to catch up in November to check the longer-term outcomes and help manage complications. Typically, patient follow up is challenging due to long travel distances, but we hope to follow the outcomes of all these early cases for future discussion.

Conclusion

Ndola UroCamp Week was a deeply rewarding and collaborative experience, and one of the most meaningful professional trips of my career. I am proud of what we achieved together — not only in introducing new surgical and diagnostic services, but also in strengthening professional relationships and building sustainable capacity for the future.

It was a real privilege to work alongside such a dedicated and motivated team. The openness, preparation, and commitment shown by Mumba and the entire Ndola Urology Department made the experience inspiring from start to finish. I am sincerely grateful to my UK colleagues Nick, Mike and Rustam for their professionalism, adaptability, and enthusiasm, and to Urolink and TUF for its continuing support in fostering these important global partnerships.

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