Zambia Urolink Report - Dominic Teichmann 2017

University Teaching Hospital (UTH) – Zambia

At present the Urology department has three firms which are presided over by by Dr Nenad Spaojevic, Dr Victor Mapulanga and Dr Bassem Yani.

They have under their supervision nine Urology trainees of various grades. This represents a significant increase in number of specialty trainees from the past years, with only one person in training six years ago.

The firms operate the usual structure, each rotating through periods of on-call, clinic/ward commitments and theatre lists. I will elucidate areas of need in these domains in due course.

Some of the firms also undertake rural practice in which members of the team will spend periods of 1-3 days in remote settings running clinics and theatre lists to cater for those areas of need.

The practice of Urology is expanding in Zambia and newly qualified Urologists will be posted to areas of maximum need. Most rural settings have no regular Urology service and those that do, still face challenges in respect of equipment availability to conduct their practice in an effective and efficient manner.

The department appears to be developing well with a formal training structure being in place during term time, although some of the senior consultants expressed some dissatisfaction with the assessment process for trainees. The emphasis seems to be primarily on getting registrars through training to fill staff shortages nationwide, rather than on a rigorous assessment process to ensure candidates have the required skills and knowledge to practice safely.

During my time here in Lusaka I attended the inaugural meeting of the Zambian Urology Society which serves as testament to the growth of Urology in Zambia.

Challenges

Despite much progress in the department, the teams still face significant challenges on many fronts.

In UTH the problems are not so much associated with staff numbers, which appear sufficient, but with equipment availability and maintenance. This significantly compromises the care doctors are able to give patients on a daily basis. Simple deficiencies such as the absence of urine diptsicks and bladder scanner in clinic, compromise decision making and therefore treatment. PVR's could only be measured by catheterising the patient in a flow clinic thus using the precious resource of a catheter and introducing the potential for infection. Infections can often complicate the post-operative course. I saw several post TVP wound-site infections, with micro-organisms having a worrying degree of antibiotic resistance. There was one case of a Carbapenem resistant organism in a wound, an occurrence which I was led to believe is not uncommon.

Deficiencies abound and thus the re-use of equipment is widespread, even of single-use prostate biopsy guns were being used for months until they broke. Although sub-optimal, this is pragmatic and ensures the delivery of a service where otherwise none would exist. The deficiencies were even more notable in rural settings.

Where good equipment is available, such as the endoscopy/TURP tower donated by Urolink some years ago, maintenance becomes an issue. During my time here the BIPOLAR TURP service had all but collapsed as a consequence of the machine requiring maintenance and there being little in the way of a plan to have this completed. Some teams were continuing with monopolar TURP in dextrose although some valid safety concerns caused other teams to not follow suit.

Regrettably my assistance in terms of practical help was limited during my stay. This was due to the fact that the paperwork I had sent to the department and the University following our Urolink meeting at EAU in March had not been processed by the individuals responsible for facilitating my registration through the hospital and the department of health, thus limiting my clinical interaction in the domain of an 'observership'. This was due to a total lack of engagement on their part. This was frustrating at times and significantly limited any practical help I could render, especially in the context that this did not seem to be an issue for a visiting consultant urologist from the USA three weeks after my stay. Sadly, I was not extended the same courtesy. Nonetheless I delivered a daily hour-long teaching programme for the trainees, based upon the Urology Curriculum and gave them some practical advice and assistance when possible. We also had a TURP dry/wet-lab SIM session which I think the trainees found helpful.

In retrospect, my limited clinical interaction with the patients was of little importance and I spent the time undertaking a service and needs assessment and exploring ways in which Urolink could help with service development.

Audit

As a benchmarking exercise I performed a retrospective audit examining TURP/TVP/TURBT/Optical Urethrotomies/Nephro-/Pyelo-Lithotomies and Ureterolithotomies. There is also a significant urethral stricture practice although they have the means and expertise with which to manage this.

I have attached the Audit results as an addendum but in summary, TURP's are being done, but only in limited numbers and TVPs are still the preferred operation in most teams. Only one of the Urology firms are actively performing TURPs. The barriers are two-fold, equipment and training.

Equipment: The Storz stack was in need of a service during my visit and therefore was unusable. There was no clear plan as what was being done to rectify this and thus Mr Spasojevic and I arranged a meeting with a Chilufya Chilangwa (Hitgalut Consultants Ltd) who will be the region's equivalent of the Storz Rep, as they do not have a Storz employee in the country. The stack was originally sourced from Zimbabwe and following the sale the Zimbabwean company/Storz have no longer been involved in the maintenance of the equipment. The reasons for this are unclear but it appears no service contract was taken out at the time and any visit to rectify problems lacks incentive and is also geographically inconvenient.

I had a productive meeting with Chilufya. She made an honest and reliable impression and I think she would be a reliable partner through whom to acquire any new/service any old equipment if Urolink chose to do so. I emphasised that an arrangement needs to be made with the Hospital to meet the ongoing costs of consumables and maintenance of the equipment. It is not realistic that Urolink contributes to the everyday running of equipment. She went on to have a productive meeting with Dr Zulu (Head of Clincial Care, UTH) who agreed with this and we are expecting the service to be completed in mid-september. I have contacted Chilufya since and offered for her to contact myself/Jaimin if there are any one-off issues which we could help resolve if she is struggling to make progress locally.

Training: TURP expertise still seems to be lacking locally. One firm was performing them, however the skillset was inferior to that which would be considered adequate in the UK. Following discussions with members of each team the consensus seems to be that Dr Maoulanga wishes to take this work on. There are other interested parties however the consensus of previous Urolink visits suggested that he is the most appropriate member of the consultant team to take this on. He is still in need of training and I think an intensive 2-week course in the UK would be most productive. I think trying to pursue further local training will only have limited impact due to the number of people wanting to be trained, theatre availability, case availability and the general inefficiency of circumstances. I believe a far more effective way of engaging with this problem would be to train Mr Mapulanga in the UK and then have him train his residents locally.

Meeting with Mr Victor Mapulanga

I had several informal meetings with each of the Consultans in the department, but one with Mr Victor Mapulanga was particularly productive. Following my observations we had several important discussions centring around clinical governance, patient safety, skills development and departmental cohesion. There exists some friction in the department and firms do not operate together in a cohesive manner, with some detrimental impact on patient care. There is little communication between the firms and few opportunities for them to discuss cases and communicate. I have been trying to garner a consensus regarding the establishment of an MDT/M&M/Audit meeting, where issues can be discussed and departmental guidelines could be established to prevent significant variability in practice within the department (eg: testicular biopsy in suspected tumours!!!) I have acquired contacts for Pathologists, Radiologists and Oncologists whom we should put in touch with UK based equivalents to help support their fledgling MDT. Mr Mapulanga is very keen on this idea.

Mr Mapulanga is, I feel, somewhat of a visionary for the department. He recently established the Zambian Urology Association to foster communication and support. I was lucky enough to attend the inaugural meeting of this organisation.

We also discussed the importance of audit, and how this is the cornerstones of service evaluation and improvement. I purchased an inexpensive laptop which I brought to Lusaka to leave at UTH with some Urological teaching/learning resources on the hard-drive. This also gives them a tool with which to undertake audit practice. I also extended Urolink's offer of support for a trainee's attendance at the COSECSA meeting with a successful audit submission. Mr Victor Mapulanga is keen to initiate audit practice in the department. I emphasised that a robust audit practice mapping change/impact would make it easier for Urolink to support any new projects in the future.

Equipment Requirements

These are immediate and significant;

-Urine Dipsticks – none available in hospital

-TRUSS Biopsy Guns and Needles

-Bladder Scanner – none in clinic, unable to perform PVR in flow clinic (flow machine present)

-Stone Crusher/Cystolithalopaxy Set – all procedures done via open route at present.

-Lithoclast: to prevent open pyelolithotomies, a rigid URS is already available

-Catheter introducers and Silicone Catheters/LTC

-SPC Sets

-Urethral Dilators

-Light source for peripheral clinics

-JJ-Stents and Nephrostomies- patients have to buy these themselves and bring them to hospital

-Flexible cystoscope stent graspers (for stent removal)

-Biopsy forceps – very limited supply (single forcep in private ownership in whole department)

Ultrasound-scanner with TRUSS/Abdo/Pelvic probe for O/P department. Currently Prostate biopsies are mostly finger guided but on rare occasions the list occurs in the radiology department. The

radiology department is actually very good and radiologists are willing to train Urologists in the use of equipment for TRUSS/Nephrostomies etc, however equipment availability is the current limiting factor. This is true of almost all the Urological practice in Zambia.

Peripheral Clinics:

Kabwe (2 hour drive from Lusaka) / Katete (5 hour drive from Lusaka)

I had to good fortune to be invited along to some peripheral hospitals during my stay. This involved clinics of up to 70 patients and operating lists of 21 patients and over 14hours in duration. The work included cystoscopies/biopsies, prostate biopsies, hypospadias repairs, inguinoscrotal work, open stone extractions and TVP. A significant impediment regarding the access to Urological care in Zambia are the sheer distances involved and the lack of expertise in rural settings. These public/mission hospitals are largely staffed by very experienced generalists that will try anything. I met a retired Dutch professor who did laparotomies as easily as he did ex-fixes for fractures. The government plan at present seems to be to get specialists through training and then post them to rural settings to increase access and availability. In one capacity this makes sense however in another light, they are completely devoid of the equipment required to undertake their practice in these settings, and were they to acquire it through government grants, few of them have been trained how to use it. Here TURP is a perfect example. They have a TURP machine 6 hours north in the 'Copperbelt' region but no-one has the skills to use it. I discussed this with Mr Mapulanga and Mr Spasojevic and it seems sensible to centralise training resources in UTH establish this as a 'centre of training/excellence' thus giving each trainee adequate exposure prior to being posted to more a rural setting in their early practice. Of course the pre-requisite is the availability of skills and equipment in UTH.

Terms of Engagement:

I think this is an area to which Urolink need to give some thought in respect of Zambia. The dynamic in the department is a complex one. The department does not function as a unit and thus there is also no cohesive training approach for the registrars. I believe this is sub-optimal for patient care and does not instil best practice principles in the trainees. Regrettably trainee engagement with the training process is also often limited. Supervised clinical time is somewhat limited, unless this occurs in theatre, which is a rarity due to theatre refurbishment. At present each consultant has one session in theatre every 2 weeks.

I think immediate support in terms of equipment and expertise is necessary, however I think further support in terms of larger financial commitments need to be allied with a requirement for the department to engage with some service evaluation and audit. I think the seed has been sewn here and I am hopeful it will continue with incentives for trainees (COSECSA) and the utensils with which to perform it (Laptop)

There is an awful lot of potential for Urology in Lusaka and indeed, Zambia. I think the leadership is evolving and generally moving in the right direction. I have been impressed with the lengths to which Consultants will go to provide care for their patients in very austere circumstances. I feel with the right interventions Urolink can make a significant contribution to the development of Urological practice in Zambia.

Suggested interventions:

Supply basic equipment immediately.

Provide a 2 weeks TURP/TURBT training course for Mr Mapulanga in UK

Consider purchases of larger equipment items through Hitgalut Consultants but make this dependent on demonstrable service/audit improvements.

Encourage development of MDT with UK liaison Consultants in the relevant specialty.

UTH and Urology Clinic

St Francis Hospital, Katete

TURP Wet Lab sessions with trainees

The Urologists of Zambia and the inaugural meeting of the Zambian Urological Society

A conference in the sun!