



The British Association  
of Urological Surgeons

**UROLINK visit**

**The College of Medicine & Health Sciences School of  
Medicine, Hawassa, Ethiopia**



**26<sup>th</sup> February – 4<sup>th</sup> March 2011**



**Hawassa Referral Hospital**

**Shekhar Biyani**

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## **Acknowledgements**

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We would like to express our sincere appreciation to Dr Yifru, Dr Belay, Dr Tariku Tadele and Dr Eskedar for organising and supporting teaching sessions. Thank you to everyone for your hospitality and patience.

I would like to acknowledge Olympus KeyMed Group Companies, London for donating endoscopic equipment for the workshop and arranging shipment at very short notice and sincere thanks to Daneille Booth, Product Specialist – Urology, Olympus KeyMed Group Companies, London.

We are indebted to Mr Ru MacDonagh Chairman, UROLINK for his encouragement and guidance.

The UROLINK team is also grateful to Mr Rob Lane MS FRCS Eng FRCS Ed FACS FWACS (Hon), Convener & Programme Director for International Affairs at the ASGBI for his fantastic support and being such a good, caring and inspiring group leader throughout this trip.

Finally, I am would like to thank Mr Joby Taylor, Mr Jaimin Bhatt and Sister Ellis for their extraordinary support. All projects during the program would be nothing without the enthusiasm and imagination from all of you. Mr Bhatt's knowledge of local geography and culture was extremely valuable. Furthermore, a special acknowledgment goes to him for assistance in preparing this report.

**Funding**        This trip was funded by UROLINK.

## **Abbreviations**

ASGBI	Association of Surgeons of Great Britain & Ireland
DRE	Digital Rectal Examination
HRH	Hawassa Referral Hospital
IV	Intra venous
TURBT	Transurethral Resection of Bladder Tumour
TURP	Transurethral Resection of Prostate

## **Faculty**

Mr Shekhar Biyani  
Mr Jaimin Bhatt  
Mr Joby Taylor  
Sister Denise Ellis

## Pre-visit preparation

The UROLINK team was invited by Dr. Aberra Gobeze, senior surgeon at Hawassa Referral Hospital and by Mr Biku Ghosh, founder of the Southern Ethiopia Gwent Healthcare Link, to run a Basic Endourology Skills Course and to help to develop cystoscopy, urethrotomy and TURP.

It was requested by Dr. Aberra that we have two full days for the urology course. A programme (appendix 1) was prepared in consultation with faculty and Mr Ru MacDonagh Chairman, UROLINK. In addition to this it was requested by Dr. Aberra that we have a half day for urology emergencies course for MSc students. This will be preceded by the ASGBI course. Furthermore, we were asked to teach 4<sup>th</sup> year medical students on 4<sup>th</sup> March at 14:30. We were given 2 topics (renal cell cancer and bladder cancer) on the request of medical students.

I visited Hawassa last year as part of the UROLINK programme and was impressed by Dr Aberra's enthusiasm and commitment. My detailed report can be accessed on <http://www.baus.org.uk/urolink/visits/uk-teams>.

As we were asked to conduct a workshop and a course for MSc students, I approached Olympus and other companies for support, especially with instruments. I contacted our regional Olympus representative Mr Rob Dewhurst; he asked me to get in touch with Daniella Booth at the Head Office. I was looking for old instruments for the workshop which delegates could try and assemble. To my surprise I got a call from her stating that Olympus are going to donate equipment and send it by air on 12<sup>th</sup> February 2011. For the urology emergency course Astra Tech Ltd. provided manikins for catheterisations, multiple catheters and urine bags. Dr Aberra did a fabulous job getting them released from customs. A pre-departure consultation was done with Mr Taylor, Mr Bhatt, Mr Ghosh, Dr Aberra and Mr Ru MacDonagh and the content of the course was discussed in detail (Appendix 1).

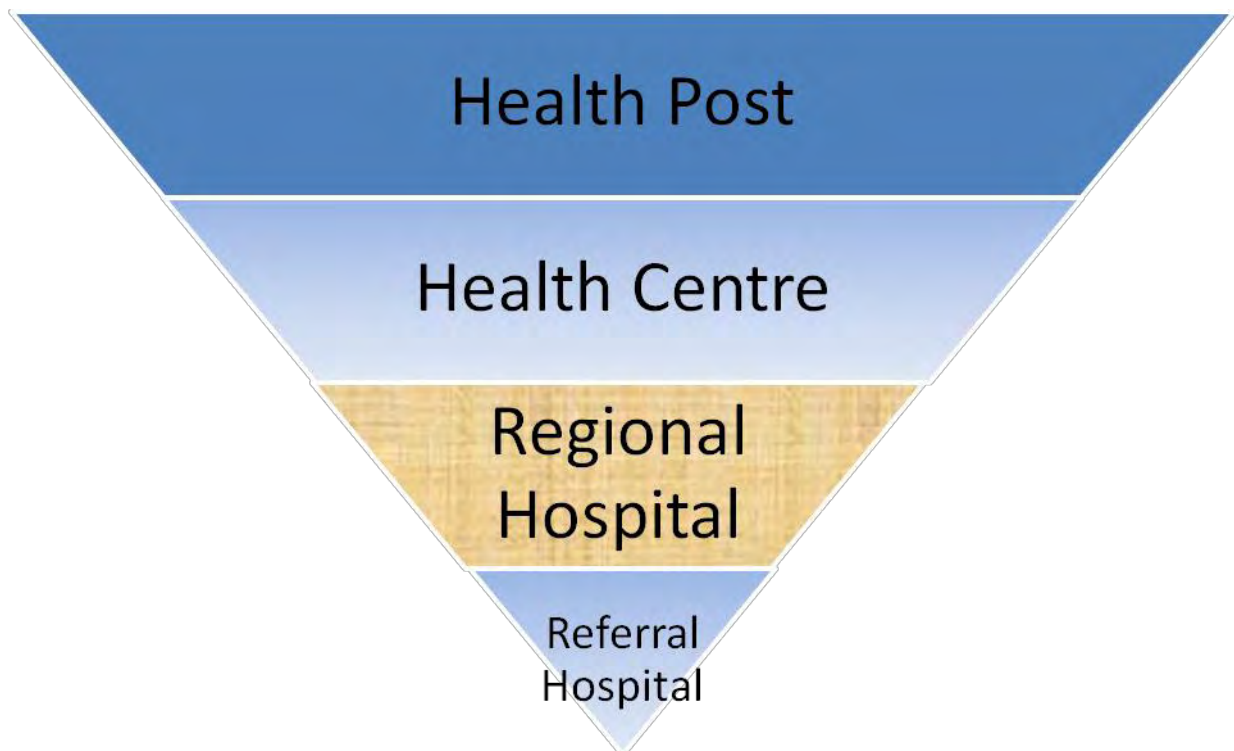
Three members of the UROLINK Faculty (Shekhar Biyani, Joby Taylor, and Denise Ellis) flew to Ethiopia with the Gwent Team (Mr Biku Ghosh, Robyn Phillips, Brydon Williams and Mr. Yogesh Nathdwarawala) and the ASGBI Team (Mr Rob Lane, Mr Paul Gartell, Simon Fleming, and Ruth Bird) members on Friday 25<sup>th</sup> February 2011. Mr Jaimin Bhatt flew from his UROLINK visit to Zambia via Nairobi and joined the UROLINK team in Addis Ababa on 26<sup>th</sup> February 2011. Mr Steve Mannion, Consultant Orthopaedic Surgeon from Blackpool joined the group on 1<sup>st</sup> March 2011.

## Objectives of visit

1. Assisting the surgeons at Hawassa Referral Hospital to develop the skills and expertise in basic endourological procedures (cystoscopy, urethrotomy), and TURP. In Ethiopia, the availability of endourological equipment is limited. More importantly, TURP is done only in Addis.
2. To run a 2-day workshop on Basic Endourology Skills.
3. To participate in the local teaching program for MSc and medical students.

## Background and General Presentation

Ethiopia has a population of about 85 million of whom 83% live in rural areas. About 80% of the population depends on agricultural employment and the economy is agriculturally based. Ethiopia has a median age of 17.2 years, life expectancy of 55.41 years, a birth rate of 43.97/1,000 population and a death rate of 11.83/1,000 population. The infant mortality rate is 80.0/1,000 live births. The HIV/AIDS adult prevalence rate is 2.1%. Ethiopia is changing its health service system into a four-tier system



**Health Post** - emphasizes disease prevention measures, provides limited basic clinical services and is to be manned by 2 female health extension workers who have completed 10th grade and undergone 1 year of health service training. The goal is to serve a population of about 5,000 people.

**Health Centre** - provides in-patient and out-patient services that include laboratory services. Health centres should be led by health officers who are BSc holders trained for 4 years and serve 5 surrounding health posts. A combination of a health centre and its 5 surrounding health posts make up a primary health care unit to serve a total population of 25,000 people.

Ethiopia currently has eleven medical schools (nine public, one private, one military). Estimates for the current number of physicians in practice vary, but the total physician workforce is 2,000 by all accounts for a population of 85 million or about 3 per 100,000 inhabitants.

**Urology in Ethiopia** - There are only six urologists in Ethiopia, three in Black Lion and 3 outside. Surgical trainees spend 6 months in urology. Training schemes are needed to let

trainees go to Addis and teachers are needed for teaching basic endoscopy skills, including ureteroscopy and PCNL (percutaneous nephrolithotomy).

Hawassa Health Sciences College is part of Hawassa University and has two faculties: medical and public health. The college, a potentially best excellence centre in the southern part, has its own referral hospital that serves one of the nation's largest regions.

### **Saturday 26<sup>th</sup> February 2011**

We reached Addis 07:15 hours. We managed to come out of customs without any problems even though we had a lot of equipment with us. Dr Aberra was there to greet us. Very soon Mr Jaimin Bhatt also joined us. Mr Biku Ghosh had arranged 3 mini buses for us to travel to Hawassa. We did stop for a short break and arrived early evening at the Haroni International Hotel in the centre of Hawassa.

### **Sunday 27<sup>th</sup> February 2011**

After breakfast we went straight to the Hawassa Referral Hospital around 09:00. The Skills Lab was on the ground floor at the rear of the hospital facing the Hawassa Lake. This was a large room divided by glass partitions into one large cubicle and 5 small cubicles with plenty of desks and chairs. There was a screen in the large cubicle with an air conditioner. The large cubicle accommodates ~50 delegates and small cubicle ~15 delegates. This year facilities at the Skills Lab have improved significantly.

We unpacked instruments given by Olympus and assembled them (Appendix 2). It was a bit disappointing as the camera head would not fit in the unit and there were a few missing instruments. We could not complete the urethrotome set. There were fantastic light source and resectoscope sets. Unfortunately the diathermy lead would not fit in their machine. We all felt a bit low but were reassured as the Storz resectoscope was working. We also visited theatre to check their equipment, camera and diathermy machine.

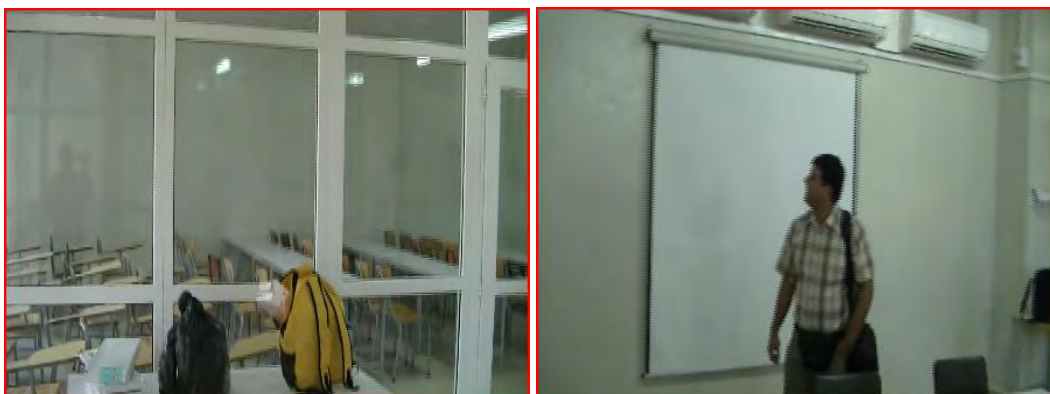


Figure 1 & 2: Skills Lab

**Monday 28<sup>th</sup> February 2011**

Dr Aberra listed 2 patients for a TURP. The idea was to perform TURPs to assess endoscopic equipment and expose theatre staff to endoscopic urology surgery prior to the workshop. I discussed indications, contraindications, equipment, room set-up and complications with Dr Aberra and the anaesthetist. We ensured that there was a bladder wash syringe in theatre and on the ward. I had taken few 3-way coude tip catheter with me for the procedure. I performed the first TURP at the Hawassa Referral Hospital along with Dr Aberra. We used IV infusion set for irrigation and 5% dextrose as an irrigation fluid. Dr Aberra performed a rigid cystoscopy. Due to thin bore of the IV set, flow was not adequate for a TURP. Although Dr Aberra was expecting me to bring an irrigation set from the UK, intentionally I did not take one because I wanted to use local products to ensure regular supply in the future. During the first TURP Mr Taylor devised an irrigation set from single-use catheter components. It worked well and I managed to complete the TURP. For future procedures Mr Bhatt constructed a reusable, sterilisable system using an Ellick connector, IV set and wide bore tubing (Figure 3).



Figure3: Reusable wide bore irrigation set



Figure 4 Sister Ellis helping urology staff nurse.



Figure 5- Dr Aberra arranged wellington for theatre.



During this operation I demonstrated to Dr Aberra how to use loop, roly ball and Ellick evacuator. Dr Aberra performed diathermy with a roly ball after resection. We managed to stress to Dr Aberra that to perform endoscopic procedures without problems a good theatre set up, equipment and teamwork are very important. Mr Taylor's and Mr Bhatt's help was significant during the operation. They demonstrated use of diathermy, camera system and irrigation fluid to the theatre staff. At the HRH, spirit is used to prepare the operating site therefore we stressed that light source intensity should be turned down when scope is left on the drape to avoid skin burn and fire. In addition, Sister Ellis scrubbed with me for the first case and showed how to set up the operating trolley to Yashee, Urology Sister from Hawassa Referral Hospital. The next patient DRE showed a large prostate and cystoscopy performed by Dr Aberra confirmed DRE finding. We suggested that he should have an open prostatectomy. Dr Aberra performed a transvesical prostatectomy and Mr Taylor assisted him. Mr Bhatt took the responsibility of preparing course manual, certificates, audio-visual and TURP manikin. We finished list around 15:30 pm. Sister Ellis, Mr Taylor and I assembled equipment provided by Olympus. Mr Taylor managed to rectify the diathermy machine settings and the resectoscope (Olympus) started to work. Obviously this was great news and a big relief to all of us as we had 3 working TURP sets (1 Storz and 2 Olympus) for the workshop.

I went to the ward to review the patient and explain post operative care to the ward staff. I was surprised to know that patients are kept nil by mouth for 24 hours after spinal. Interestingly they were astonished when I asked them to feed the patient after a TURP.

After theatre I went with Dr Aberra to the clinic and evaluated 20 patients. I selected 2 cases for the workshop (live surgery) on 2<sup>nd</sup> March 2011. We finished clinic at 18:45.



Figure 6 -First TURP

### **Tuesday 1<sup>st</sup> March 2011**

We drove to the Skills Lab at 08:00. Sister Ellis had an upset stomach therefore we decided to leave her in the hotel with plenty of support, ciprofloxacin and peanuts. I gave Dr Aberra's contact number to the receptionist at the hotel. There were 7 General surgeons from surrounding hospitals including 3 from the HRH. All signed the register for the workshop (Appendix 2). They arrived at 09:30 for the workshop. There was a delay in

starting the workshop due to the late arrival of a few delegates. Informal chat with delegates revealed that all of them had seen and assisted endoscopic urological procedures and a few had equipment in their hospital but did not use them.

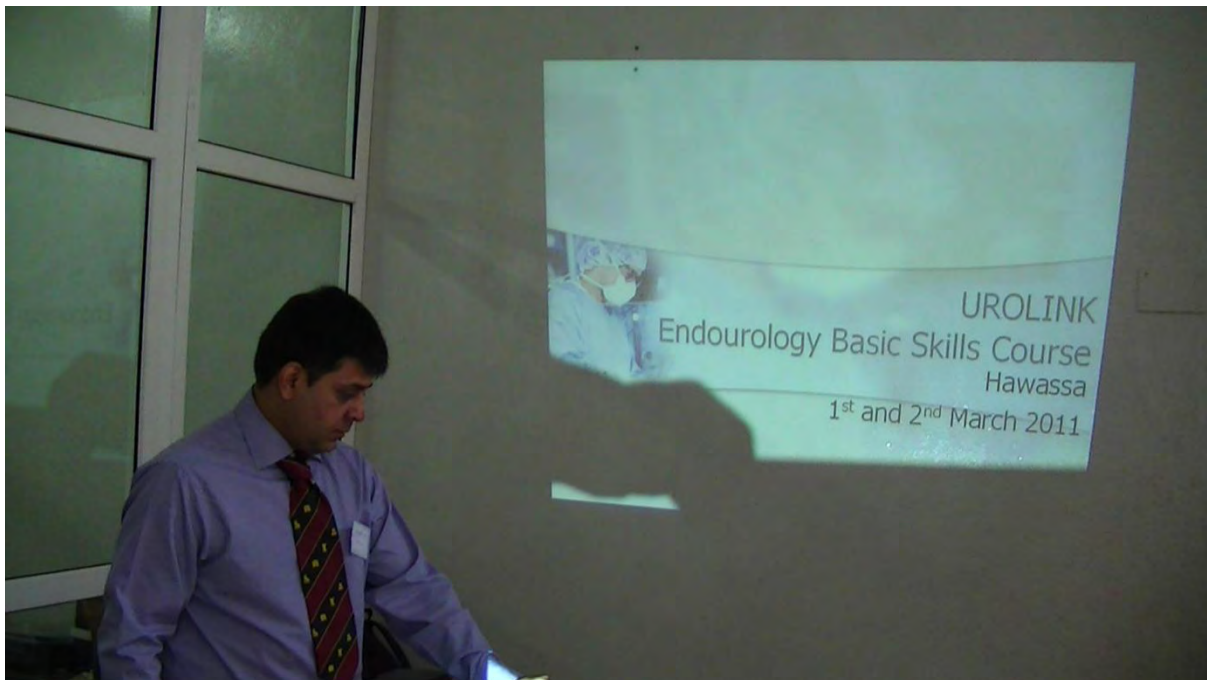


Figure7 : Mr Bhatt checking audio-visual prior to the workshop

However, limiting factors were lack of knowledge regarding equipment, cost of repair and poor training. Dr Tariku arranged a data projector and this was connected to Mr Bhatt's laptop. We all spoke fairly slowly so that all the participants could understand what was being said. After a brief introduction, I invited Dr Aberra to present his audit of urology activity at the HRH in last 12 months. In addition to share his problems and solutions of developing endoscopic urology services from scratch. Mr Taylor explained and demonstrated the technique of cystoscopy very well. Delegates were given instruments to handle and it appeared that they all enjoyed the session. Initially they were a bit reticent but slowly started to ask questions and became quite involved in discussion. Mr Bhatt talked about urethral stricture and urethrotomy. As urethral strictures are quite common, delegates found this useful. In addition we also discussed set up for TURP, preop prep, techniques and complications. The mid morning lunch was available just outside the Skills Lab. This was very convenient and the food was excellent. During the lunch break, I enquired about Sister Ellis and was relieved to know that she was feeling better.

After lunch, Mr Taylor and Mr Bhatt went to the theatre to set up the TURP resection model (Bristol TURP Trainer) and equipment station. I showed cystoscopy (male and female) and TURP videos to participants. After an hour we all went to theatre. Participants were divided in to 2 groups; one group was asked to handle and assemble equipment and the second group did resection of the prostate model. The group doing resection was asked to play the roles of a surgeon, a nurse and a technician (managing fluids, light, and diathermy). After an

hour groups were swapped. All participants enjoyed the prostate model resection and a couple showed good endoscopic skills.



Figure 8- TURP on manikin

Dr Aberra had arranged for me to see 10 patients in the clinic. After finishing clinic I went back to the ward to review patients and finished at 19:00.

### Wednesday 2<sup>nd</sup> March 2011

We all reached the hospital at 08:00 and went to theatre to check set up. There were 2 patients for TURP and 2 for open prostatectomy. All participants arrived by 09:30. They all enjoyed the previous day and felt that they should learn diagnostic endoscopic procedures. In the operating theatre, delegates were shown the room set up by Mr Taylor and Mr Bhatt. I performed a TURP and explained the technique to all participants. I am grateful to Mr Taylor, Mr Bhatt and Sister Ellis for their assistance. They were keeping an eye on irrigation fluid, light source and diathermy. Our local irrigation set worked well! Thanks to Mr Bhatt. I demonstrated use of an introducer during catheterisation to all participants. After lunch participants decided to go and I was told that a couple had to leave due to emergencies and a few were scared of MCQs. With regards to MCQs, our aim was to have few questions and discussion to assess course benefits. We had no plan to mark their answers. I feel this was my fault and a good learning point for me. In the future we shall avoid putting this on the programme. Mr Taylor assisted another open prostatectomy.



Figure 9: Mr Taylor assisting an open prostatectomy to Dr Aberra

Mr Taylor then performed second TURP along with Dr Aberra. On this occasion the patient had multiple small stones and a slightly big prostate. During resection we faced problems with supply of irrigation fluid from pharmacy. Due to lack of fluid we did not resect the right lobe of the prostate. Furthermore, there was a lack of involvement from theatre staff apart from the anaesthetist. Sister Ellis, Mr Bhatt and I were doing everything. This was upsetting and I had to stress to Dr Aberra that unless we have 3 boxes of fluid in theatre and help from staff, we will not be doing any TURP. We finished operating at 15:30. I asked Dr Aberra and urology nurse from HRH to join us to understand equipment, diathermy and light source working once again. Sister Ellis prepared individual sets (Cystoscopy, Cystoscopy +biopsy, TURP, optical urethrotome sets all Storz and TURP sets (2) Olympus). These were packed for sterilisation. We also demonstrated working of a flexible cystoscope and assembled 3 scopes for use. We all went to the ward to review patients.

Dr Aberra again asked me see patients in the clinic and there were 12 patients. We selected 7 patients (2 for TURP and 5 for flexible cystoscopy). We finished clinic at 18:30.

#### **Thursday 3<sup>rd</sup> March 2011**

We all arrived on time and it was heartening to see theatre staff ready to start. In addition, Dr Belay, general surgeon from HRH was there. However, I was disappointed to know that patients I selected in the clinic were not admitted due to lack of beds. Dr Aberra performed a rigid cystoscopy on the first patient along with Mr Bhatt and found a large bladder tumour on the posterior wall of the bladder. Mr Bhatt conducted a TURBT. In theatre, all staff members were looking after their role. After TURBT, in second operating theatre, we asked Dr Aberra to set-up a flexi cystoscopy list. He arranged all equipment along with urology nurse from HRH. We performed 5 cystoscopies with Dr Aberra and Dr Belay. Last 2 cases, were performed under supervision. Dr Aberra performed a rigid cystoscopy on the second patient and on this occasion the patient had a very large gland. The patient underwent an

open prostatectomy and Mr Bhatt assisted Dr Belay. We finished theatre at 16:00. We went to the ward to review patients. I was asked to see patients again in the clinic as they have travelled from long distances due to their campaign. Patients were disappointed as they were told by Dr Aberra that we have finished operating. I also felt very bad. I finished at 18:30 and then travelled back to hotel.



Figure 10: Mr Bhatt assisting an open prostatectomy (A), UROLINK Team supervising a flexible cystoscopy session (B,C,D)

In the evening, I stayed behind to have a discussion with Dr Aberra along with Mr Biku Ghosh. We discussed about the workshop and I asked Dr Aberra to highlight what went well and what we can improve. Dr Aberra informed that all participants liked the course and learnt from it. He was disappointed that they left without meeting us. He also recognised the lack of teamwork and shortage of irrigating fluids in theatre and assured us that it will improve.

#### Friday 4<sup>th</sup> March 2011

We drove to the Skills Lab and at 08:15 the MSc students arrived. This is the first time we have done a session on urology emergencies as a part of the ASGBI course. We prepared a model to teach suprapubic cystostomy using an obstetric manikin, saline bag, foam and rubber sheets. We had thought about this model a day before and were pleased to see that it worked well. There were 19 health officers who were in their 2<sup>nd</sup> year (of three) of their MSc in Emergency Surgery and 8 were in 3<sup>rd</sup> year (Appendix 3). They were divided in to 3 groups and were rotated after an hour. Mr Taylor discussed suprapubic cystostomy and all participants performed the procedure on the model.



Figure 11: Mr Taylor supervised suprapubic cystostomy procedure on a model

Mr Bhatt took a session on urological emergencies. I discussed urethral catheterisation and delegates were asked to practice male and female catheterisation on manikins. We finished our session at 12:00. Mr Taylor started to feel slightly unwell and returned back to hotel. Mr Rob Lane Convener & Programme Director for International Affairs at the ASGBI, arrived at 10:30 to prepare certificates of attendance for participants. After our session he asked them to fill up an evaluation form. I did manage to go through all of them and it appeared that they all liked the urology session. Mr Lane did ask them to give verbal feedback and again urology session was appreciated by delegates. I am sure Mr Lane will pass us detailed analysis of feedback in due course. Mr Lane and Dr Aberra handed over certificate of attendance to all participants.



Figure 12: Mr Lane talking to MSc Students and Dr Aberra handing over certificate of attendance to a student.

In the afternoon Mr Biku Ghosh had organised a small session to handover donations from Olympus (Appendix 4) and Astra Tech Ltd. He had invited the Medical Director, Sub Dean, Dr Yifru Berhan and the local press. Mr Ghosh informed the press about the events of the week and highlighted that there is some way to go before endoscopic urology surgery (eg.TURP) becomes a routine procedure at the HRH. Mr Ghosh also thanked UROLINK, Olympus and Astra Tech Ltd. for their support.



Figure 13: Sub Dean, Dr Aberra, Mr Biku Ghosh, Medical Director, Mr Shekhar Biyani, Mr Jaimin Bhatt, Dr Yifru Berhan (from left to right) with equipment donated by Olympus and Astra Tech Ltd (Lo Fric).

We were taken to the lecture theatre by Dr Tariku to teach 4<sup>th</sup> year medical students. There were ~35 students (not bad for Friday afternoon!). I gave a presentation on renal cell carcinoma and Mr Bhatt talked about bladder cancer. We finished at 16:00 and travelled back to Haroni Hotel. Due to problems with very loud music throughout the night and poor maintenance of rooms, every one decided to move out and stay for one night at Haile Resort. This hotel is owned by world marathon record holder Haile Gebrselassie. This was our treat to end our trip - and a treat it was. The hotel was beautiful. Rooms were clean and very comfortable. Dr Aberra and Mr Biku Ghosh joined all of us for dinner.

### **Saturday 5<sup>th</sup> March 2011**

We set off for the Addis to catch our return flight at 11:30. We reached Addis around 17:00 and met Mr Yogesh Nathdwarawala, Consultant Orthopaedic Surgeon from Gwent and Mike Lawrance, retired Consultant Orthopaedic Surgeon from London at the Black Lion Hospital. We were surprised to see Steve Mannion, Consultant Orthopaedic Surgeon from Blackpool as he missed his flight. We all went to an Italian restaurant for a meal and headed to the airport around 22:00 after saying goodbye to Mike and Steve. Mr Bhatt took his flight to Nairobi and we all came back to London. Mr Biku Ghosh stayed in Hawassa to go for a trekking trip.

## Summary (S Biyani & J Bhatt)

What has improved since my last trip?

1. There is a strong commitment from hospital team to establish endoscopic urology service.
2. There is a urology nurse in theatre and has completed a 2 week training session on endoscopic urology equipment at Black Lion Hospital, Addis.
3. In the last 12 months, Dr Aberra has done a few endoscopic procedures.
4. I was told by Dr Aberra that there is a plan to appoint a new specialist in surgery.
5. We observed use of the generator during a power cut in operating theatre.
6. The Skills Lab is very well equipped.

What went well?

1. The Endourology Basic Skills Workshop model worked well, in all areas: teaching, manual, simulated model and demonstration. It is certainly thought to be reproducible.
2. It was well attended and generated some interest in local surgeons.
3. We involved Dr Aberra in our faculty for the course.
4. Dedicated urology theatre nurses (Yeshee / team) – willing to learn, always helpful with a smile (though language may be a potential barrier), dedicated anaesthetic CO (Josh) who doubled up as honorary runner for most cases.
5. We managed to perform and train local surgeons in basic endoscopic urological procedures at the Hawassa Referral Hospital.
6. We have succeeded in introducing TURPs outside the Addis.
7. MSc Students found Urology Emergency Session to be useful.
8. The AV equipment and refreshment facilities were very good.
9. Having the ASGBI and Gwent team members around simultaneously was fantastic: not only for the MSc workshop, but we acted as sounding boards for one another at the end of a day's work, and shared meals, costs and importantly a most enjoyable social time together.

What could we do better?

1. Decide on a set minimum standard of practice that the local surgeons are already performing before we set our objectives for the workshop, or tone down the content to match their skills and equipment.
2. Perhaps have fewer attendees, to increase the hands on experience.
3. Verify that the equipment sent by donors is complete, as a workshop of this nature is extremely dependent on having all the bits of equipment.
4. Reduce the didactic content of the workshop, or intersperse it with more hands-on instrument handling.
5. We witnessed a lack of teamwork in the local theatre environment. We should have spent some time with all the theatre staff **before** the workshop, explaining the nature of the operations, safety aspects (diathermy, fluids, etc), the importance of teamwork, and equipment set up and maintenance, as most of them probably have very little, if any, prior exposure to endourology procedures. We should have



explained that the runners in this case have a very different role to runners in open cases which they are used to.

6. We were surprised to see that interns from surgical wards did not attend theatre during our visit.
7. We should incorporate ward based teaching in our programme.
8. A large number of patients came to HRH with anticipation that they will have endoscopic surgery, however they were disappointed. I feel we should select patients more carefully and have realistic expectations.
9. Acquire a taste for 'injera' – local Ethiopian delicacy!

The UROLINK team proposes the following set of recommendations

1. To promote training of all theatre staff, and teamwork in theatre.
2. To define roles in theatre (equipment, camera system etc)
3. To increase man power in the surgery department. We felt that Dr Aberra is too stretched and needs another colleague.
4. To encourage interns to attend operating sessions.
5. To start doing cystoscopy routinely on all patients undergoing open prostatectomy. This will help theatre staff getting use to equipment, camera system and irrigation.
6. To establish good foundation (team, equipment, training) to develop basic endoscopic urology surgery at HRH.
7. To explore the possibility of a UK trainee visit for 2 weeks in 3 to 4 months time to help Dr Aberra and to get exposure to open prostatectomy along with routine general surgical procedures ("skill exchange").
8. To support training of theatre nurses, and maintenance technicians, with the help of BAUN and the technology industry.
9. We think that the Hawassa Referral Hospital can become a very good training centre in the southern part of Ethiopia because of mutli-speciality support (UROLINK, ASGBI [Surgery and Orthopaedic] and Gwent Link). We are quite positive that this will improve provision of healthcare to the local population. We would like to pursue this educational initiative further and hope to accomplish our goal under the auspices of UROLINK.

## **Audit**

1. Dr Tariku has agreed to review last 50 open prostatectomy notes. Our main objective is to assess gland volume.

## Appendix 1

### Report from Mr Taylor

#### Hawassa visit March 2011

##### Initial Assessment:

Since previous urolink visit (Mr Biyani) there has been only minor progress in urology service provision.

Surgeons remain keen, but underskilled, with expectations too high.

Theatre adequate, equipment good, but use and organisation poor

##### Assets:

- Sound infrastructure – theatre block, skills lab etc
- Surgical staff committed to developing urology
- Trained theatre sister
- Patient volume to support local urology service
- Up-to-date, functional equipment for endoscopic urology
- Well established UK links

##### Weaknesses:

- Knowledge of instruments and set-up poor (stack, diathermy etc)
- Poor packing and labelling of equipment
- Inadequate ancillary equipment (giving sets, catheter bags etc)
- Poor electrical safety
  - No plugs on adaptors, diathermy burn sustained, power blackouts
- No designated roles for theatre staff
- Lack of support for lead surgeon – larger ‘team’ needed
- Underuse of available equipment (due to above issues)
- Patient factors – some techniques may not be easily transferrable

##### Visit achievements:

- Delivered and demonstrated donated equipment
- Undertook first endoscopic procedures in Hawassa (TURP, TURBT)
- Explained and demonstrated team roles for endoscopic urology
- Improved staff understanding of equipment – use, packing, sterilisation
- Catalogued and repackaged equipment
- Provided teaching and hands on experience to local surgeons and students
- Established use of flexible cystoscopy
- Expectation management – what is achievable and how to get there.

**Future plans – Hawassa side:**

- Regular cystoscopy – before all open prostatectomy
- Regular flexible cystoscopy
- Improve theatre teamwork – with better role identification
- At least one further designated urology nurse (and hopefully surgeon)
- Maintain improvements in equipment packing and identification
- Audit of retention cases to assess if gland volume small enough to make TURP feasible

**Future plans – UROLINK side:**

- Continue commitment to developing urology in Hawassa
- Source cables , camera head etc to allow best use to be made of donated equipment
- Plan further visit with increased operating time for training
- Continue to support MSc programme
  - ?formalise position on BSS course
- Develop awareness and skills in urology for ward doctors/nurses to support theatre activity

**Intermediate future:**

- Review progress to see if cystoscopy adequately established
- Review audit to see if TURP realistic proposal for local pathology
- Further development of TURP if appropriate
  - ?extra support by trainee exchange visits (is TVP 'enough' in return?)
- Consider other avenues for development – are they more relevant or achievable than TURP
  - ?stenting
  - ?urethroplasty
  - ?continence/fistula
- Improve exposure of MSc and med students to urology
  - Focused on need and available equipment

**Appendix 2**  
**Endourology Basic Skills Workshop**  
**Hawassa, 1st and 2<sup>nd</sup> March 2011**

**1<sup>st</sup> March 2011**

08:30	Registration	
09:00	Basic endoscopic anatomy of the urethra, prostate and bladder	SB
09:30	How do I do Cystoscopy (Indications, technique, tips)	JT
10:00	Optical Urethrotomy	JB
10:30	Coffee	
10:45	TURP- Indication and preoperative workup	JT
11:15	TURP- equipment	SB
11:45	TURP- technique and post op care	JB
12:15	TURP- complications	JB
12:45	Lunch	
13:30-17:00	Hand-on training on models (JB, JT, DE, SB, AG)	
	Station 1	Setting-up equipment
	Station 2	TURP on manikin
	Station 3	Procedure video (cystoscopy, urethrotomy, TURP)

**2<sup>nd</sup> March 2011**

Operating Theatre, Hawassa Referral Hospital (JB, JT, SB)

08:30- 14:00	Live case (Cystoscopy, urethrotomy and TURP) discussion during live demo
14:00-14:30	MCQ
15:00	Feedback

### Appendix 3

#### List of MSc students

4th March 2011

1	ESRAEL AYELE	MSc YIII
2	ARTJA TELLO	MSc YII
3	GEZANEGN ENDASHAW	MSc Yr-II
4	ABEBECH YILMA	MSc Yr-II
5	SHEMELIS TISLI	" "
6	EJARA - TOLOSA	" "
7	ASRAT KASSA	" "
8	Teshag'ev Tesfaye	III <sup>rd</sup> yr.
9	GEMEDA DAFISA	II
10	ADANJE ASEFFA	I
11	ANTERIEH HABTAMU	II
12	BORU BORONTO	III
13	Yasin Yasin	II
14	Banawosen Mechar	II
15	Leabtye Teblemariam	III
16	AGEGNEHU BEKELE	II
17	SELAM SEID	II
18	GELETA GURINA	II
19	SIBHAT GETACHEW	II
20	TEWODROS SHIFERAW	II
21	Ewunetu Belete	II
22	Hagos Keros	II
23	Tsegaye <del>OLISA</del>	II
24	Klayn Abraham	III
25	IRDAW Robale	II
26	KEBEDE SEID	III <sup>rd</sup>
27	AYELE MULATU	III <sup>rd</sup>

## Appendix 4

### Report from Sister Denise Ellis

#### Saturday 26<sup>th</sup> February 2011

Arrived in Ethiopia Addis Abbaba on Saturday 26<sup>th</sup> February and met the other members of the whole team. We journeyed down to Hawassa in three buses, arriving late afternoon at the hotel in Hawassa.

#### Sunday 27<sup>th</sup> February 2011

Sunday at 8am we went to the hospitals education centre to sort out the instruments and equipment that we had brought with us, plus manikins for teaching medical students. Sunday afternoon visited theatre and met some of the theatre staff who were on duty, they showed us around their theatres, recovery, utility and sterilising rooms.

#### Monday 28<sup>th</sup> February 2011

Met at the education centre to take all the instruments to theatre and with their own instruments made them into sets for TURP's on Wednesday and get the instruments sterilised checked that all the fibre light cables fitted the scopes and light monitor and they all worked. Checked what fluid we were using and there was enough for the list and for post-op irrigation. Explained all this to Sr Yeshworle Metoke who is going to be the Lead Urology Sister. They have two symptoms of urology instruments Storz and Olympus so had to make sure that the telescopes cables diathermy leads cutting electrodes didn't get mixed up. Also we sterilised two sets of Otis Urethratomes used for urethral strictures.

#### Tuesday 1<sup>st</sup> March 2011

Did not attend the hospital today as I was sick.

#### Wednesday 2<sup>nd</sup> March 2011

Spent all day in theatre with Yeshi doing TURPS with Dr Aberra, Mr Biyani, Jaimin and Joby. All patients had spinal anaesthesia and Josh the anaesthetic nurse was excellent and very interested in what we were trying to achieve because alcohol was being used to prep the skin of the patient we had to explain that the fibre light source was set at minimum when not in use as the light set on maximum could set the cotton sheets on fire. Had problems with fluids, as we under-estimated the volume of fluids required. One of the patients had to have an open operation because the prostate gland was too big for a TURP, Dr Aberra did this with Joby Taylor assisting. It was interesting to see an open operation being performed.

#### Thursday 3<sup>rd</sup> March 2011

We found 3 flexible cystoscopes and sterilised in glutaraldehyde (cidex) then revised them thoroughly with water, they can also be sterilised by alcohol and rinsed with water. We did a list of flexible cystoscopy on patients, two patients had to have open prostatectomy and two patients we found to have urethral strictures.

### Friday 4<sup>th</sup> March 2011

Helped to set-up the room in the education centre for the medical students who were being taught TURP and catheterisation on manikins. I went to the big store room in pharmacy to see if I could find any instruments and trays. Theatre Staff were attending lectures by two nurses from Vancouver Canada.

### Saturday 5<sup>th</sup> March 2011

Went to say goodbye to everyone and to say that it had been a great pleasure working with all the theatre staff and they had made me very welcome into their department. It has been a privilege to have experienced this opportunity given to me to come to Hawassa and I hope to be able to visit again in the near future.

I would like to thank Dr Aberra and all the staff for making me feel very welcome.

### **Recommendations**

- They need an enclosed gluteraldehyde cabinet with fume evacuation
- For irrigation, 3 litre bags and dual and single tubing for irrigation
- Simplastic 20 three way catheters or Caude Tip three way irrigation catheters
- Macs or sterifields to cover trolleys and towels
- Instrument sterilising trays
- Pressure water to clean endoscopic equipments.

Gail Denise Ellis (Denise)

Theatre Sister

**Appendix 5**

Invoice S/33624

Olympus KeyMed

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Part Number	Full Item Description	Serial Number	Commodity Code	Origin	Qty	Unit Value	Total Value
Otis Urethrotome	Otis Urethrotome		9018902000	DE	2	10.00	20.00
A0285	Sterilisation Case		9018902000	DE	2	5.00	10.00
A22021A	27 Fr Outer Sheath		9018902000	DE	3	10.00	30.00
A22041A	24 Fr Inner Sheath		9018902000	DE	4	10.00	40.00
A42071A	Visual Obturator		9018902000	DE	2	10.00	20.00
A22085A	24 Fr Obturator		9018902000	DE	3	10.00	30.00
A22081A	24 Fr Obturator		9018902000	DE	2	10.00	20.00
A22060A	Active Working Element		9018902000	DE	1	10.00	10.00
S-1514-1	Storz modified working element		9018902000	DE	2	10.00	20.00
A22051A	Single flow collar		9018902000	DE	2	5.00	10.00
A20976A	One way bridge		9018902000	DE	1	5.00	5.00
	Adaptors		9018902000	DE	3	2.00	6.00
A3661	Bladder Stone Punch		9018902000	DE	1	10.00	10.00
A20712A	Biopsy Forceps 12 degree		9018902000	DE	1	5.00	5.00
O0125	9Fr grasping forceps		9018902000	DE	1	5.00	5.00
	Christmas Tree Adaptors		9018902000	DE	5	2.00	10.00
A22071A	24 Fr Visual Obturator		9018902000	DE	1	10.00	10.00
O0124	Flexible Biopsy Forceps		9018902000	DE	1	5.00	5.00
A3552	27 Fr Outer Sheath		9018902000	DE	1	10.00	10.00
A3551	Urethrotome sheath		9018902000	DE	1	10.00	10.00
A3550	Working element for A3351		9018902000	DE	1	10.00	10.00
A00012A	Diathermy cable		9018902000	DE	3	5.00	15.00
A20913A	Cystoscope sheath		9018902000	DE	1	10.00	10.00
A20950A	Sheath		9018902000	DE	1	10.00	10.00
A22001A	Telescope - 12 degree		9018902000	DE	2	10.00	20.00
A22003A	Telescope - 70 degree		9018902000	DE	1	10.00	10.00
WA00032A	Light guide cable		9018902000	DE	1	5.00	5.00
A22253C	90 Degree 24/28Fr needle electrode		9018902000	DE	1	5.00	5.00
WA22351C	Electrodes		9018902000	DE	1	5.00	5.00
WA22503D	Electrodes		9018902000	DE	1	5.00	5.00
A22265C	24-28 Fr Knife		9018902000	DE	1	5.00	5.00
	Titan Chip Camera Head	0000-0078	9018902000	US	1	15.00	15.00
	IDC-1500	50000589, 50000591	9018908500	US	2	10.00	20.00
	LCD Monitor - SC-5X-19-A1 A11	05-54321, 05-54320	8528598000	US	2	12.00	24.00
	Tray	524-7766	9018908500	DE	1	5.00	5.00
LS-300	Xenon Light Source	07H1887D0732, 06A1834D792A, 07H188780728	8525803000	US	3	25.00	75.00
						<b>Total Invoice Value</b>	<b>GBP 525.00</b>