Urolink: past, present, future

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The mission of Urolink, a sub-committee of the British Association of Urological Surgeons (BAUS) since 1996, has been: "To promote and encourage the provision of appropriate urological expertise and education worldwide, with particular emphasis on the materially disadvantaged."

The importance of this work and gravity of the problem in low and low-middle income countries (LMICs) cannot be underestimated. In this article we review the origins of Urolink and its ethos (past), current initiatives (present) and where we go to next (future).

Urolink origins and ethos (past)

Urolink was developed to encourage BAUS members to coordinate and contribute more actively and effectively to urology in the developing world. It does not aim to compete with the many other national and international urological organisations but merely to complement them by adhering to the Urolink philosophy. Urolink's basic rights charter is that all supported units should be able to achieve essential care when presented with one of the listed urological conditions [1] (Table 1). This was initially developed in 1995 but changes in patient populations have necessitated an update and inclusion of additional conditions.

Figure 1: Kilimanjaro Christian Medical Centre in Moshi Tanzania. One of Urolink's link centres and a regional urology training centre.

As the name Urolink (derived from Urology Overseas Links) suggests, the belief is that individuals forming links with overseas counterparts is the most effective way to help deliver training and lead to sustainable changes to urological care. The ethos of Urolink is to achieve this through five key areas of activity: links, visits, training, equipment and advice. This model has arguably been most effectively demonstrated through the long-standing link with the Kilimanjaro Christian Medical Centre (KCMC) in Tanzania (Figure 1).

In 1991 Dr Lester Eshleman set up a training course for local surgeons in basic urology at KCMC and, in conjunction with the Association of Surgeons of East Africa (now merged with the College of Surgeons of East, Central and Southern Africa [COSECSA]), it became an institute of urology to support training in the region. KCMC is now one of four zonal referral hospitals in Tanzania serving a population of 11 million people. Although the urology department receives referrals from across Tanzania, which has a population of over 66 million, in 2024 there were only three practising consultant urologists at KCMC. Urolink has been closely associated with KCMC since the institute started, and it is the most frequently visited Urolink centre. Once contact is made, a preliminary visit, and then ongoing discussions, are used to assess the needs and opportunities at the centre. Visits then consist of a small faculty, typically two to four consultants, for a brief visit of a five to ten-day period to train local staff. In preparation for this there are several considerations, not least of which is any equipment required, which can be scarce and is almost always reusable (Figure 2). Following this visit the faculty continue to provide remote mentoring, advice and follow-up visits to the link centre to ensure sustainability of what they have learnt. Once the local surgeons are in a position to train their residents in these skills then this initial phase of our

Table 1: Urolink basic rights charter.

Condition	Basic right
Retention of urine	Early relief by urethral or suprapubic; developing endoscopic prostate surgery.
Haematuria	Education about pathology and the importance of early diagnostic investigations, especially in areas with endemic schistosomiasis.
Urinary stones	Promotion of endoscopic management techniques such as URS and PCNL.
Urethral strictures	Treatment by bounginage or visual urethrotomy, then self-catheterisation.
Urethral trauma	Safe initial management followed by referral for definitive treatment. Training in urethroplasty, especially in the surgical treatment of pelvic fracture.
Female urinary incontinence	Increasing awareness of the consequences of urinary incontinence in women. Early surgical repair of vesico-vaginal fistula.
Male circumcision	Safe techniques.
Penile cancer	Early diagnosis and treatment.
Prostate cancer	Enable early diagnosis and facilitate management.

Figure 2: During a stone workshop Equipment being cleaned in Cidex ready for the next case.

Figure 3: Urology residents being taught during a nephrectomy around the operating table.

support is over. Where a centre requests and engages, we continue to provide further sub-specialist training and in some centres, such as KCMC, this has really strengthened the relationship with Urolink. The journey with each centre is different, needs to be tailored to their needs and, unfortunately, isn't always initially a success with a new approach then required.

Since its inception urologists involved with Urolink have visited 24 countries to deliver workshops, teaching and to participate in examinations: Cameroon, Ethiopia, Ghana, India, Iraq, Kenya, Liberia, Malawi, Mozambique, Namibia, Nepal, Nigeria, Rwanda, Senegal, Sierra Leone, Sudan, Tanzania, The Gambia, Trinidad, Uganda, Vietnam, Zambia, Zanzibar and Zimbabwe. Many people have questioned why much of Urolink's work has been centred on sub-Saharan Africa. There are 26 countries across the world currently listed as low income where the gross national income (GNI) per capita is $1145 or less, and 22 of these are in sub-Saharan Africa. There are 51 countries currently listed as low-middle income where the GNI is $1146–4515, of which a further 19 are in sub-Saharan Africa [2]. It is for this reason that much of Urolink's work has been focused in the region.

Current initiatives (present)

Working in LMICs is different with numerous challenges including: patient disease and the treatment options available; social acceptability of receiving treatment; financial constraints for both delivery and access for patients; travel distance to receive medical care; availability and cost of treatment; medical infrastructure and facilities, such as access to water and electricity [3]. Urolink cannot tackle the complex political and socio-economic problems but can provide motivation, skill and support to local surgeons to deliver urological care.

Whilst there are increasing numbers of surgeons practising in sub-Saharan Africa this has just about kept up with the increase in population growth. A recent analysis of the surgeon workforce of 12 member countries of the COSECSA found there to be an estimated 0.59 surgeons per 100,000 population, with only 6% of all surgeons across the region specialising in urology [4]. With such a demand on the service it can be challenging to teach resident doctors who are enthusiastic to learn about the management of urological problems (Figure 3). The hugely successful Urology Simulation Bootcamp in the UK is a well-tested method ensuring trainees are prepared for the multi-faceted demands of their role [5]. In November 2024 the first Emergency Urology Bootcamp was run in Hawassa, Ethiopia, supported by the *BJUI*. Eleven surgical residents participated in the programme involving faculty made up of local and UK urologists equipping the residents with the foundation and skills to manage urological emergencies. Following its huge success, a second bootcamp has already taken place in Ethiopia with further discussions about rolling the programme out across further LMICs.

It is not just local trainees that have benefited from involvement with Urolink. UK trainees have, over the years, been integral to continuing the ethos of Urolink. Trainees can play a vital role in data collection and quality improvement during Urolink visits, as well as carrying out theoretical and practical teaching sessions on urological topics for local medical students as well as postgraduate trainees of many different grades. A misconception is that UK trainees go out to receive operating experience. Whilst there is a huge amount to gain from being involved in a Urolink visit, the visit is orientated around the local urologists and their training needs to ensure the sustainability of the education delivered. But for trainees and consultants alike it offers the opportunity to learn to adapt to adverse situations with limited supplies and certainly makes them appreciate more the relative luxuries available to them in the NHS. Urolink has been generously supported by The Urology Foundation (TUF) and one of the easiest ways for a trainee to get involved is via a TUF Urolink fellowship. Running since 2020, this fellowship has enabled trainees to join a Urolink visit. More information can be found at **www.theurologyfoundation.org/research-and-training/apply-for-a-grant/research-grants/tuf-urolink-fellowships**

Urology, as a specialty, has embraced technology with wide-spread innovations in minimally invasive surgery (MIS). There are significant barriers to implementing MIS in LMICs, including cost, equipment and trained surgeons. However, the benefits of MIS, including quicker recovery time, can also be particularly valuable in these settings where many patients self-fund and are often the single breadwinner for their family. There is enthusiasm from local surgeons to develop these services, and several recent workshops have focused on developing sustainable endoscopic stone surgery (Tanzania, Ethiopia) (Figure 4) and laparoscopy.

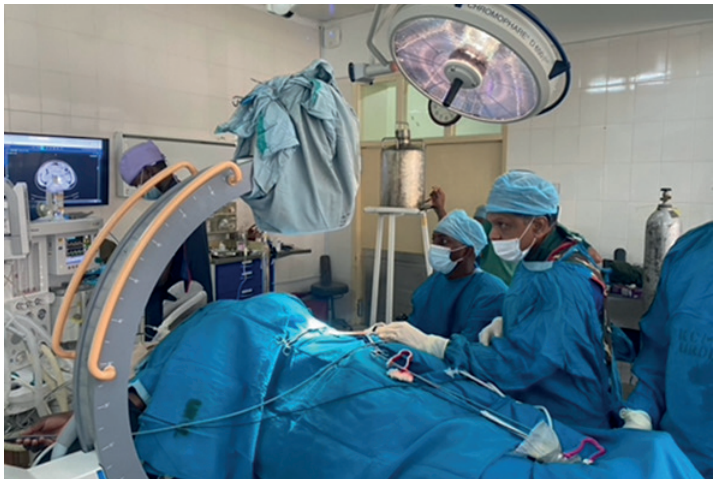

Figure 4: PCNL workshop at KCMC in Tanzania.

Table 2: Increasing life expectancy in countries with current Urolink link centres [7].				
Country	**1960**	**1990**	**2020**	**2023**
Ethiopia	39.62	45.12	65.97	67.31
Malawi	34.99	43.58	65.22	67.35
Tanzania	42.6	51.98	66.77	67
Uganda	45.63	47.56	66.41	68.25
Zambia	50.65	48.2	63.36	66.35

The Covid-19 pandemic brought about several challenges for global healthcare. During this time Urolink visits were suspended due to travel restrictions. It forced everyone to find new ways to deliver care and education with the use of digital platforms at the forefront. This enabled Urolink to develop a virtual learning webinar series [6], and to offer continued surgical support to local surgeons through multidisciplinary teams (MDTs). We learnt a lot through this process during the pandemic, and digital platforms are now routinely used to better support the local surgeons remotely and enhance our visit preparation. For urologists practising in LMICs, access to information and educational resources can be extremely limited or non-existent. Urolink, through an initiative with the *BJUI*, has enabled trainees in link centres to access BJUI Knowledge, which is an extensive training resource.

Urolink remains cost neutral for BAUS, but we continue to look for funds to support its work in an international environment. Generous grants have been received from various sources over the years which have enabled Urolink's work. This year the new BAUS CEO, Mary Suphi, has facilitated the channelling of donations through a BAUS JustGiving page **(www.justgiving.com/charity/britishassociationofurologicalsurgeons)** and this has been used to simplify fundraising for Urolink's activities, including ST5 Urology trainee Rustam Karanjia undertaking the 2025 London Marathon. Through such efforts, we look forward to being able to use this platform to continue to financially support Urolink's vital work independent of reliance on large-scale institutional donors.

Future

The needs of urological care in LMICs are changing, in part due to improving life expectancy (Table 2) [7].

This has led to problems like prostate cancer becoming more of a concern where it had infrequently been seen at a treatable stage before. Over the coming years there will naturally be a need to develop cancer diagnostics and treatment. Alongside, there will continue to be a need to support paediatric urology, with just over 40% of the population in sub-Saharan Africa being under 14 years of age [8], as well as continuing to teach basic MIS, female and reconstructive skills. With the development of MIS comes the challenge of equipment, arguably one of the hardest problems to solve. It will require a comprehensive approach likely with political buy in, improvements in supply chain management and fostering local engineers in equipment management.

Until now the work of Urolink has focused on UK urologists undertaking visits in link centres to train local surgeons as this reduces the risk of the LMIC surgeon not returning to their country of origin [9]. This does not mean that there is little for local urologists to gain by visiting centres in high-income countres. BAUS has recently supported an initiative for urologists in LMICs to undertake observerships in the UK as well as attending the BAUS Annual Scientific Meeting, offering further opportunity for the exchange of ideas as well as more specialist training. Urolink will be advertising this opportunity later this year. There will also be opportunities for UK urologists to become a host for one of these surgeons in their centre. We hope to be able to offer more ways for UK urologists to become involved with Urolink both at home and abroad.

Finally, we need to better evaluate outcomes, innovate and undertake research to better understand the needs of the wider population in resource-poor environments. Urolink will be working on this in conjunction with local surgeons, together with coding exercises to help them understand the work they are doing and the outcomes they are achieving from their endeavours.

Conclusion

Urolink has been a success due to the unending passion for development from the surgical community in LMICs, and the unerring help from selfless members of the UK urological community. Our LMIC partners are ultimately responsible for effecting any change, but Urolink can offer expertise, acting as a catalyst, to enhance training. Over the coming years Urolink will strive to match local needs, helping grow and sustain the urological workforce available to patients and enhance their urological care in line with Urolink's founding ethos. Whilst there is no perfect model for how to achieve this objective, experience has shown that help must be well planned, responsive to local needs and, most importantly, be accompanied by longitudinal ongoing support to make it sustainable.

www.baus.org.uk/professionals/urolink/urolink_home.aspx

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