My UK reconstructive urology fellowship experience

BY PAUL DAVIS, MOHAMMED BELAL AND ROWLAND REES

Surgical training is a long and hard pathway. Having completed medical school, I undertook my internship at the Alfred Hospital in Melbourne. The Alfred Hospital is a leading tertiary teaching hospital in Australia's second largest city. Prior to commencing my internship, I already knew that I was surgically inclined. Over the course of my internship and resident years, this was further consolidated. Urology is certainly not an area that medical students are greatly exposed to throughout training. I had taken an elective rotation in urology in my final year of medical school and was impressed by the specialty. The wide variety of surgical techniques was appealing as was the breadth of sub-specialties within urology such as oncology, reconstruction, transplant and so on. I was fortunate in my resident year to do a 13-week rotation of urology and from that point on, I was keen on pursuing a career within it.

The Urological Society of Australia and New Zealand administers the Surgical Education and Training (SET) programme through the Royal Australasian College of Surgeons. The first two years of the programme are within surgery in general and include rotations in intensive care. Thereafter there is a focus on urology specifically. Each year of training, one is rotated to a different health service, not necessarily within the same state within Australia. My urological training was within the state of Victoria. I rotated through Eastern Health, Albury-Wodonga Health, Alfred Health, Monash Health and Barwon Health Services.

There is no doubt that training between the UK and Australia differs significantly. The UK certainly has much clearer sub-specialty services within larger urological departments. Throughout training in Australia, I developed an interest in reconstructive urology. I was always keen to pursue fellowships abroad and the Australian system encourages us to do so. The higher volume of work within sub-specialty areas was certainly appealing, as was working within a different health system altogether.

Mr Mohammad Belal, Consultant Urologist and Head of Female, Functional and Reconstructive Urology at the Queen Elizabeth Hospital of Birmingham, undertook his urological fellowship at the Alfred Hospital in Melbourne. I was aware of the work that he was doing within the West Midlands and knowing that I was interested in these areas, I decided to undertake a 12-month fellowship with him and his team.

Mohammed Belal and Paul Davis in UHB Theatre

As one of the largest tertiary teaching trusts within the NHS, this West Midlands post provided excellent training. My clinical activities included outpatient clinics with a focus on female, functional and reconstructive patients but also transitional urology. Complex urological patients from the nearby Birmingham Children's Hospital would continue their ongoing urological management at the Queen Elizabeth Hospital. Standard and video urodynamics were an essential component of the workup of many of these patients and this post provided high volume experience in this regard.

Procedures commonly performed within the unit included sacral neuromodulation for the overactive bladder or female voiding dysfunction. There was a weekly sacral neuromodulation operating list. I performed 64 sacral neuromodulation cases during this year, including evaluative and implantation stages of the procedure. I performed 47 incontinence procedures, including male and female artificial urinary sphincter insertion, autologous fascial sling surgery as well as other incontinence procedures such as male urinary sling insertion and colposuspension. In total, 28 bladder augmentation, Mitrofanoff urinary diversion and ileal conduit procedures were performed throughout this fellowship. There were various other reconstructive procedures performed including vesico-vaginal fistulae repair, female urethroplasty with buccal mucosal grafting, urethral and bladder diverticulum repair and so on. A memorable case included an inverted seven bilateral ileal interposition in conjunction with a bladder augmentation for a young woman affected by the urological consequences of radiation treatment for her primary gynaecological malignancy. In conjunction with the Birmingham Women's Hospital, it was also a dedicated surgical mesh removal centre.

Upon relocating from Australia, it took time to settle into a new way of life within the UK but also to the NHS itself and the way in which the unit functioned. I enjoyed my time at the Queen Elizabeth Hospital in Birmingham and learnt a great deal throughout my time there. Mr Belal was a great mentor. This is particularly important within reconstructive urology given the complexity of many cases.

Whilst in Birmingham, I felt there was one area in particular that I wanted to gain further clinical and surgical experience within to complement everything I had gained from my time there. This area was urethral stricture disease management. I was fortunate in my Australian training to have had the opportunity to do urethroplasty for urethral stricture disease. Nevertheless, further training within this area was something I deemed very important.

As I approached the completion of my time in Birmingham, I started to look into jobs that would focus on urethral stricture disease management. Via the NHS website I found an interesting advertisement from the University Hospital Southampton. It was a new role with a focus on andrology and genito-urinary reconstruction. The fellowship would be with Mr Rowland Rees, one of the UK's leading Andrologists and former Chair of the Andrology and Genito-Urethral Surgery Section of the British Association of Urological Surgeons. The fact that it was a new position did make me somewhat nervous. After seeking input from urologists within the area and middle grade staff, I decided to commit to this position.

The week I was due to relocate to Southampton, the UK Government announced a national lockdown and that the NHS was to postpone non-urgent surgery as a result of the evolving COVID-19 situation. The Australian Government's Department of Foreign Affairs and Trade encouraged all residents to return home before further border closures were implemented. I made

the difficult decision to return home to Australia. Mr Rees and the UHS urology department were particularly understanding. Whilst in Melbourne, I monitored the UK situation closely and the whole time was keen to return. In August 2020 I somewhat apprehensively boarded a plane back to the UK, insightful to the risks of further lockdowns and waves, but keen to further my training in these areas.

Mr Rees and his team provide a regional specialist service for urethral stricture disease, Peyronie's disease, male infertility, erectile dysfunction, testosterone deficiency, male incontinence, and male malignant and benign genital skin lesions. This fellowship involved a weekly outpatient clinic with an excellent mix of patients with issues in these areas and a weekly telephone clinic having a focus on testosterone deficiency and its management. I also attended a male specific infertility clinic at Princess Anne Hospital Southampton. I had not previously been exposed to male infertility as part of my urological training. This became a very rewarding and enjoyable aspect of the fellowship.

The fellowship was mostly funded by Bayer Pharmaceuticals and involved the setting up of a remote telephone follow-up programme for men on testosterone therapy, thus reducing demand on face-to-face clinics while retaining follow up within the specialist secondary care team.

An advantage of a part-industry and part-NHS funded fellowship was the flexibility to work across the sectors, allowing additional exposure to additional caseloads, as well as experience of andrological procedures not normally performed in the NHS, such as vasectomy reversal.

From a surgical perspective, we were extremely fortunate to continue surgical activity as best as able throughout the pandemic. As a team we focused predominantly on those with severe voiding issues due to their urethral stricture disease. In a 10-month period 47 urethral reconstructive procedures were performed,

Rowland Rees and Paul Davis outside UCL.

most commonly urethroplasty with buccal mucosal grafting. Much of this work was performed in nearby private hospitals contracted by the NHS throughout this period to continue urgent clinical activity.

Part of this fellowship also involved supra-regional penile cancer management and penile prosthetic implantation surgery as part of a surgical network between University Hospital Southampton and University College London Hospital. I enjoyed these regular ventures to London very much.

No doubt the COVID-19 situation had an impact on this fellowship given its impact on benign urology non-urgent surgical work. That said, over 40 male infertility procedures, including microscopic vasectomy reversal, microscopic varicocoele repair and microsurgical testicular retrieval of sperm, were performed. And over 20 penile straightening procedures and 15 male incontinence procedures were also performed.

My Australian urological training was advantageous throughout the peaks of the pandemic when less andrological work was being performed. To continue my surgical operating as much as possible, I diverted across to the cystectomy service in particular. I had also availed myself of the opportunities within open oncology that Birmingham presented a year early, maintaining skills in open cystectomy and prostatectomy. The surgical skills from large open oncological cases are certainly of significant benefit for reconstructive urology and hence I was always keen to be involved in these cases.

Working with Mr Rees and the teams at University Hospital Southampton and University College Hospital London was an extremely rewarding experience both surgically and non-surgically. This second fellowship significantly complemented what I had already gained from Birmingham and my Australian training. In adjunct it also provided excellent training in areas that I had not expected to gain expertise in.

The combination of both fellowships has provided me with an excellent surgical education and training in these often-neglected areas of urology. I feel very ready to provide a comprehensive patient-focused benign urology service inclusive of female, functional, reconstructive and andrological urology.

However, surgical fellowships are not solely about surgical education and skill acquisition. I have gained in both, and they are obviously essential to the working life of a surgeon. But I have gained much more from both fellowships. Living abroad and working in a different health service has helped me appreciate both the positive and negative aspects of each health system and also within general life in both nations. Significantly, from both fellowships I take great friendship and mentorship with me. Both Mr Belal and Mr Rees were excellent mentors who have taught me much clinically and operatively. They have also taught me about how to develop a service and team. This is essential for all sub-specialty areas of urology. I look forward to utilising my clinical and surgical skills to the best of my ability upon returning to Australia to work within Alfred and Monash Health Services. I am very grateful for the opportunities that the UK provided me during these past two years and would encourage anyone considering fellowships to pursue their goals and do so.

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