LAPAROSCOPIC RADICAL PROSTATECTOMY IN THE UK: DEFINING AND OVERCOMING THE OBSTACLES  Francis X. Keeley Jr, Mathias H. Winkler*, Christopher J. Anderson†, Robert Rabenalt*, S. Alan McNeil‡, Hartwig Schwaibold§ and Jens-Uwe Stolzenburg*  — Bristol Urological Institute, Bristol, UK, *Department of Urology, Leipzig University, Germany, †St. George’s Hospital, London, ‡Western General Hospital, Edinburgh, UK, and §Department of Urology, Klinikum am Steinenberg, Reutlingen, Germany  

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INTRODUCTION

Laparoscopic radical prostatectomy (LRP), when done by experienced surgeons in high-volume centres, offers unique advantages over other surgical approaches, but it is a particularly complex procedure which requires intensive training [1,2]. The development of LRP in the UK has been slower than in most other Western countries, despite considerable enthusiasm for the technique. In this comment we explore the obstacles to its development and propose some potential solutions to overcome them.

EXPERTISE

There is little doubt that LRP is among the most challenging procedures in urology. The initial experience in many centres in the UK and abroad involved an operative duration of >8 h. However, in recent years the procedure has become more standardized, improving operative times and allowing for a structured, modular approach to training [2]. In several centres in Europe and North America LRP is performed daily, allowing rapid learning by repetition. As yet, no UK centre has achieved anywhere near this level of volume and is unlikely to do so unless there are changes related to referral practice, funding and training. From a European perspective it seems obvious that too many British centres are carrying out a few complex procedures, despite evidence that high-volume centres cause less morbidity from RP than low-volume centres [3].

Schonlau M, Litwin MS. Patterns of care for men with prostate cancer after failure of primary treatment. Cancer 2006; 107: 258–65


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Abbreviations: EORTC, European Organisation for the Research and Treatment of Cancer; SWOG, Southwest Oncology Group; RT, radiotherapy; RP, radical prostatectomy; bPFS, biochemical progression-free survival; MSF, metastases-free survival; RTOG, Radiation Therapy Oncology Group.
Although a few surgeons in the UK have mastered the technique of LRP there are no recognized centres for training. The reasons for this include the relatively low volume of cases being done in teaching centres and the high degree of difficulty of the procedure. One cannot realistically expect a trainee to learn the procedure during a 12-month rotation, during which time a registrar might be involved in, at most, 50–70 cases.

As a result of inadequate training of specialist registrars, most urologists learning the technique are newly appointed consultants. Consultants have considerable clinical and administrative commitments that restrict their ability to learn a complex new technique ‘on the job’. The resulting ‘learning curve’ is no longer acceptable in a patient-centred healthcare system, and rightly so.

Furthermore, consultant job-plans typically involve at most 1 day of inpatient operating per week, roughly 42 weeks per year. Thus, the number of cases a consultant is likely to do is severely restricted.

At present the most practical way to learn the procedure might be to spend a period, perhaps 6 months, in a high-volume centre in Europe, where the trainee is allowed to operate regularly. Arguably, the less complex aspects of the procedure could be taught in a relatively low-volume centre in the UK before the trainee spends time at a high-volume centre abroad. There are considerable advantages to learning in a traditional apprenticeship environment, where the trainee can absorb every aspect of the procedure, from consent and preoperative care through every technical step of the operation and postoperative care. Of vital importance is the prevention and management of complications. However, a newly appointed consultant might be in an awkward position to take time out from his or her post. A short-term observership is relatively easy to arrange, but woefully inadequate training for such a complex procedure; instead, emphasis should lie on funding and organising fellowships for registrars in high-volume centres before they become consultants.

**CLINICAL GOVERNANCE**

Consultants wishing to start using a new procedure on the scale of LRP in the UK are required to obtain approval from the local clinical governance committee. Part of that procedure involves informing the medical director and clinical director, as well as putting into place consent and audit arrangements. Consultant urological surgeons introducing LRP need to be aware not only of the guidelines of the National Institute of Clinical Excellence, but also BAUS Guidelines for both Laparoscopic Training and Mentorship [4]. These guidelines stipulate that surgeons should identify a mentor who is very experienced in the technique. This might represent another considerable obstacle, as very few UK consultants qualify and fewer still are willing to act as a mentor. Those guidelines also state that at the end of the training period the consultant should perform the procedure solo with an independent observer, such as a local consultant colleague. These guidelines might be considered quite stringent, but relatively few mentors will be needed if LRP is concentrated in only a few high-volume centres.

**WARNING: COVER YOUR POSTERIOR!**

Complications are associated with any surgical procedure, especially one as complex as LRP. Rectal injuries can be particularly devastating for the patient and the budding laparoscopic surgeon. Inadequate training can compound these complications by delaying appropriate management, ultimately leading to patient complaints or litigation. New procedures can raise patient expectations to unrealistic levels, making complications more difficult to handle.

Despite the considerable effort involved in learning LRP, several British urologists have since abandoned the procedure, voluntarily or otherwise. In addition to inadequate training, hostility from colleagues or staff appears to be a common theme. Support from staff and colleagues can be eroded by complications, conversions and prolonged surgery, all of which will be more common after inadequate training. We should look to Europe, where working in a supportive team environment is fostered.

At its core, the British consultant system is defined by the fact that each practices independently. However, LRP requires team-working of the highest order. Continental European centres typically do not have independent surgeons working in the same hospital; all are part of one team. British hospitals assume that lists can be carried out by at most one consultant and a trainee, but LRP requires two assistants (or one and a robotic camera holder). The experience of the assistants and the nursing staff contribute greatly to the efficiency of the operation. There are relatively few British consultants who work together as part of an operative team; furthermore, trainees typically move on too frequently to become adept assistants for this demanding procedure.

**COST**

While a business case can be made that LRP is cost-effective or might even save money, this might not be the case while a consultant is learning the procedure. Additional costs will stem from equipment, training and theatre time. These extra costs will be made very apparent if open RP is concurrently done by an experienced and fast surgeon. Indeed, prolonged theatre time might be the single most important factor in limiting the acceptance of LRP.

Increasing pressure is placed on cancer centres in the UK to perform higher volumes of pelvic cancer surgery, as a result of the ambitious targets for the treatment of prostate cancer and the centralization of pelvic cancer surgery. The introduction of tariffs forces hospitals to look closely at costs as well as throughput. If the length of stay for patients undergoing open RP is 6–7 days [5], LRP will save on the length of stay; however, many UK centres have reduced the length of stay considerably in recent years.

Although LRP will still be slightly more expensive than open surgery, it can be shown to be cost efficient over the adjusted national tariff [6]. It might be more difficult to build a realistic business case for using robotic LRP, given the large overheads and running costs involved; however, the relative ease of learning the procedure might obviate some of the issues raised above.

**OVERCOMING THESE OBSTACLES**

Once adequate training has been completed, the surgeon must achieve a ‘critical mass’ in terms of case volume. Changes related to cancer centres and centralization of pelvic cancer surgery will help. The introduction of the office urologist will soon further
Concentrate pelvic surgery in the hands of a few surgeons. A change in a job plan would be useful to allow more access to theatre time, combined with an agreement within the cancer network to refer cases.

Appropriate training opportunities in the form of fellowships nationally and abroad need to be organized. The funding for these fellowships is by no means secure. Although much has been done by the British Urological Foundation, there is an urgent need for institutions like BAUS to take responsibility. Exchange fellowships might help by cutting costs. Six-month fellowships at high-volume centres could be set up under the umbrella of BAUS.

Stolzenburg et al. [2] have shown that registrars with minimal previous experience in open pelvic or laparoscopic surgery can adhere to a modular training scheme and successfully perform LRP with a similar outcome to that of the mentor.

In summary, there are considerable obstacles to the rapid development of LRP in the UK; some of these issues will, by nature, recede with time as training in laparoscopy improves. Consultants and trainees should be aware of these obstacles at the outset and ensure that the training is more than adequate to overcome them. Last but not least, urologists in the UK should embrace the undeniable advantages of working in pelvic surgery teams. Consultants have worked in isolation for far too long.

CONFLICT OF INTEREST

None declared.

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Abbreviation: (L)RP, (laparoscopic) radical prostatectomy.

UROLOGY LED ULTRASOUND SERVICES — TIME TO FOCUS

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INTRODUCTION

The introduction of an independent urology led ultrasound service was proposed in 2004 through the publication of two key documents: ‘Ultrasound by urologists – an action-on project’ from the modernisation agency [1] and ‘Ultrasound training recommendations for medical and surgical specialties’ from the Royal College of Radiologists (RCR) [2]. These publications clearly outlined the commercial and clinical drive for establishing new training programmes in urology to allow urologists to deliver an ultrasound service at a level 1 standard as set by the European Federation of Societies for Ultrasound in Medicine and Biology (EFSUMB) [3]. The proposed impact for patients would be a streamlined urology service with fewer hospital visits and quicker diagnostic capabilities. Benefits would also be seen for the annual cost, with savings of £30 000 per consultant per year. This could mean an estimated national saving in excess of £30 million annually.

However, since the initial assessment of ‘Ultrasound by urologists’ by Brian Ellis and colleagues [1], disappointing progress has been made in implementing the training that was proposed. BAUS have been keen to embrace the changes imposed through Modernising Medical Careers and has supported the introduction of urology led ultrasound services. The new urology syllabus, accessed via the Intercollegiate Surgical Curriculum Project website, describes the level of knowledge and practical skills required at each level of specialist training in urology. The syllabus clearly includes diagnostic ultrasound of the urogenital tract [4]. It is clear that at present the necessary infrastructure to support the current syllabus is not in place. So, why have plans for ultrasound training stalled and what needs to be done to speed the development of robust ultrasound training in urology?

BENEFITS AND COSTS

The perceived benefits of urologists performing ultrasound scans of the urogenital tract in the outpatient department, in urological emergencies and intraoperatively have been well described. However, for patients to experience these benefits a clearer idea of the impact on service delivery needs to be evaluated. Concerns regarding time constraints in the outpatient clinic might be outweighed by reduced visits and a shorter time from referral to diagnosis and treatment; this is particularly of concern in the ‘18-week wait’ era. The financial implications for establishing a urological ultrasound service are significant and include equipment costs and crucially training costs if we are to abandon ad hoc training and self-taught scanning. In the long term, the initial