was no statistically significant difference in age, sex and stone size among the groups. The spontaneous passage rate was statistically significantly higher (P < 0.05) in all three treatment groups vs the control, at 54% in group 1 (15/28 patients), 79% group 2 (23/29), 79% group 3 (22/28) and 76% group 4 (22/29). The number of pain episodes, analgesic dosage and expulsion time were significantly reduced (P < 0.05) in all three treatment groups vs the control. There was no statistically significant difference in the primary endpoints among the three treatment agents used. This study therefore seemed to suggest that all α-blockers are equally effective at increasing the spontaneous passage rate and speed of ureteric calculi, with reduced pain and analgesia.

Porpiglia et al. [9] assessed 114 patients with radio-opaque distal ureteric stones of ≥5 mm (vesico-ureteric junction and juxtavesical ureter) and divided them into four groups who were treated for 10 days with diclofenac as needed and hydration: group A, 33 on tamsulosin; group B, 24 on deflazacort; group C, 33 on tamsulosin and deflazacort; group D, 24 controls (no other treatment). The primary endpoints were expulsion rate, analgesic consumption, number of ureteroscopies and safety. There was no statistically significant difference in age, sex and stone size among the groups. The expulsion rate was 60% in group A (18/30 patients), 38% in group B (nine of 24), 85% in group C (28/33) and 33% (eight of 24) in group D. The analgesic consumption followed a similar trend, with a statistically significant difference between groups C and D (P < 0.001). Two patients in group A had hypotension but continued with treatment; there were no side-effects in the other groups. Those patients who did not expel their stone were scheduled for ureteroscopy, and no patients in groups A and B, but the remaining five in group C and six in group D (38%) subsequently passed the stone whilst on the waiting list. The authors concluded that the use of steroids is efficient only in combination with tamsulosin, and that tamsulosin alone has good efficacy. The major criticism of these studies is that the patients were not randomized but divided according to the doctor treating them; clearly this limits the interpretation of the results, but they still seem consistent with evidence from previous studies.

The remaining four trials showed a similar encouraging trend towards increased stone passage rates in patients given an α-blocker, with De Sio et al. [6] and Autorino et al. [7] also reporting a better expulsion rate, need for analgesia and hospital admission.

In summary, there appears to be an increasingly persuasive body of evidence that α-blockers are useful in the management of acute renal colic due to distal ureteric calculi ≤5 mm. This has been reinforced by findings from a recent meta-analysis [10]. Although stones larger than 7 mm have been included in some of the studies, these included trials where combined therapies were given. Tamsulosin has been the most frequently studied, but it was shown that the choice of α-blocker is not important [8]. The studies to date have weaknesses in their design, but they still provide level 2A evidence. Until a robust randomized placebo-controlled trial is published, individual departments must decide their policy for the use of α-blockers in patients with acute renal colic.

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MODERNISING UROLOGICAL CAREERS: THE ‘NUMBERS GAME’
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INTRODUCTION

Urology is currently in the midst of major changes in training and service that are being closely followed by clinicians within and outside the speciality, both in the UK and abroad. ‘Modernising medical careers’ (MMC) has been the impetus behind the changes that are designed to streamline training, to provide ‘trained staff that are able to meet the needs
of patients [1]. This development in training has generated much anxiety for prospective and incumbent trainees who are uncertain as to the precise nature of their eventual job plans, and as to the likelihood of a post existing by the time they complete their training.

The UK General Medical Council set the background for the changes brought in by MMC by recognizing in the early 1990s that current speciality training was producing over-trained doctors who were, in practice, dealing with high-volume, relatively unspecialized routine work [2]. The UK Department of Health addressed these issues by reconfiguring the training process so that training would become more streamlined and ‘fit for purpose’ to produce specialists who can meet hospital and community needs.

The MMC training changes commenced with the development of the 2-year foundation programme (FY1 and FY2), that will feed into speciality training programmes, with a possible additional year (ST1) to extend foundation experience (Fig. 1). The first year of the speciality training will provide generic surgical training before 4 years of speciality training. This will culminate in the core urologist with a completed certificate of training (CCT) and a select few will continue with a further year or two of subspeciality training. Currently we are in the transition period, with existing research fellows, clinical fellows and junior trainees feeding into the training scheme at postgraduate year 4 or 5 (PGY4 or PGYS).

Urology has been praised as well as denounced for becoming the vanguard speciality to pilot the MMC changes. In 1998 The Future Group of the BAUS published a review of the future of urology [3]. The review addressed the issue of urological practice developing to include a significant non-surgical component. The coexistent increase in sub-specialization of existing urologists gave support to the ‘hub-and-spoke’ structure of service provision that permitted such specialization to exist in central units (the hub). The creation of a new consultant body (the core urologist), that would be able to manage the simpler caseload and refer on complex cases to their consultant urological surgeon colleagues, provided a basis upon which modernization could be addressed within urology.

Following a consultative process within the speciality and with the UK Department of Health, the first of the ‘new style’ trainees were recruited in 2005, with all subsequent appointments being to the core urology training scheme. The development of the fellowship programmes is now underway with the finalisation of specialty curricula and designation of fellowship posts. In 2007, the first of the foundation trainees will be entering the urology training schemes and thereby complete the transition of urology into a ‘seamless’ training scheme.

**MANPOWER PREDICTIONS**

The structure of the training changes behind MMC is now clear, but uncertainty remains as to the manpower requirements for the new core urologist and the urological surgeon. The manpower predictions need to be made in conjunction with certain assumptions as to the future working practices within urology. The centralization of urological services to 30 or 40 units nationally would permit the ‘hub-and-spoke’ structure to develop. The urologists would work at the spokes (and centrally), and most sub-speciality work would take place in the hub, carried out by the urological surgeons [4]. The urologists would carry out the minor and intermediate cases with the major and major-complex cases carried out by the urological surgeons. On this basis, it is possible to make manpower predictions by reviewing current workload data and extrapolating the number of consultants required nationally, based upon workload data.

The BAUS manpower data reviewed the work of 10 urological units and determined the number of cases per 100 000 that would be suitable for a consultant urologist or a consultant urological surgeon. The number of surgeons and urologists required nationally also depends on the number of consultants the consultants would carry out each week. Hence if the urological surgeon can complete two cases each week then ≈400 will be required (currently about 650 are in post) and this would decrease if more cases were completed (250 for three cases, 200 for four cases). The number of urologists is also dictated by the caseload, hence ≈750 are required if six cases are completed each week, falling to 450 if 10 cases are completed.

An alternative approach to manpower prediction is to determine the contribution...
that the current caseload (types of cases) makes to the total workload (operative time). We reviewed our regional data and found that 32.6% of inpatient cases were either major or major-complex, which accounted for almost 60% of operative time [5]. Extrapolation of this workload data gives national requirements for urological surgeons of 375 (two programmed activities, PAs, of operative sessions), that decreases if more operative PAs are carried out (250 for three PAs, 190 for four PAs). The urologist requirements can also be derived from the workload data and is ≈600, based upon two PAs of operative sessions each week.

The manpower predictions from these two approaches give broadly similar values of ≈1000 consultants, with about a third being urological surgeons. These estimates have been made based on current working practices and will only be valid if existing patient demands remain constant. The current number of urological surgeon consultants exceeds the manpower predictions, and the creation and expansion in the consultant urologist position has only just begun. Urological working practice continues to develop with the expansion in the ‘hub-and-spoke’ structure for cancer services, and the move to similar structures for reconstructive, andrology and complex stone surgery.

CONCLUSION

The central shift in working practice inevitably leaves the peripheral ‘spokes’ to provide the core urological services, with the central ‘hub’ providing the complex urological surgeon services. Although a discrepancy in the manpower estimates (urological surgeon vs urologist) might currently exist, this is due in part to the retention of urological surgeon nomenclature by consultants operating outside the main centres. The success of MMC in urology will depend in large part upon the continued successful development of working practices and urological networks, but also upon the expansion of the consultant urologist role. The transition to the modernised urological career is now underway and with adequate financial and organizational support, it will provide urology services that are suited to the needs of the modern world.

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Abbreviations: MMC, ‘Modernising medical careers’; PAs, programmed activities.