Section of Urology

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The Development of Urology

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(*London*)

You may think that the development of urology is a dull subject for a Presidential Address but those of us who are interested in the establishment of urology as a specialty in this country think that we are now at the critical point in time. The years of open and sometimes underground struggle by a few dedicated men are at last beginning to bear fruit and I personally believe that, if we now adhere to certain basic principles and leave the details to sort themselves out, we can make urology a specialty within the near future.

I am probably preaching here to the converted but there may be some who still question whether it is necessary to develop urology as a separate specialty – some who still think they can devote enough energy and thought to their urological patients and at the same time practise active general surgery. There are always the exceptions in life, but the ordinary mortal can concentrate only on a limited field – he can never be master of all.

In 1934, 1935 and 1936 I was a registrar at All Saints Hospital and at St Paul's Hospital and a Clinical Assistant at St Peter's Hospital. Urology then consisted of strictures, prostatectomy, nephrectomy, removal of stones, and fulgurations of bladder growths; these were simple uninhibited technical manœuvres with very few overtones of doubt or indecision. The basic philosophy was 'if thine eye offend thee, pluck it out'. Based upon this philosophy I would agree that a special interest in urology might be compatible with a parallel interest in general surgery: in other words it might be possible to do both with equal efficiency. But even thirty years ago I was never convinced about this. It was very obvious to me and my fellow registrars that the urologists at All Saints and Peter's and Paul's did certain things better than we had seen them done elsewhere.

President's Address

Since those days urology has progressed so enormously and has become so complex that I do not believe it possible any longer to dabble – it is a whole-time study. If we try to combine urology with active general surgery, one or the other or both will suffer. So many other disciplines in medicine, surgery, biochemistry, biophysics, &c., are being drawn into the field of urology today that it is not possible to read all the literature relevant to urological problems, let alone to keep up with general surgery at the same time.

We have now reached the stage where the actual knife or cutting procedures are only one aspect of the growing field of urology. In fact the least difficult part of our specialty is now the cutting – when and when not to cut are far more important and constitute a whole-time study.

The Great Few

It is always useful to look back to see how other men before us achieved their objectives. It is particularly interesting to look back at the work of the 'great few' in urology. I say 'few' because, even in London, only a few of the 'great men' practised urology exclusively and these were the great individualists – perfecting their specialty within a nest of opposition.

To me these men had one great failure: they were always individualists and failed to establish a department of urology as such in order to ensure continuity when they retired. The result was that when they left the scene urology was swamped and lost to the general surgeons again. The great teaching hospitals throughout the country abound with such examples.

One should learn from history – and it should be obvious today that, no matter how much we may fight to build up a department and no matter how well we may succeed, unless we have a second younger man already established long before it comes our turn to retire, the whole venture may collapse. It may be useless waiting until we retire and then relying upon our colleagues to reappoint another urologist. The records contain too many examples to show that this does not happen. A

two-man department is essential for continuity and this should be one of our basic requirements for a department. Most fortunately, a two-man department fits into the pattern of the Platt Report[1] and is accepted by the Ministry. We must therefore press for its implementation.

Returning to the 'great few' again, it becomes obvious that within certain limits a man can always achieve what he sets out to do, if he really wishes to do it. In the past, those who wished to practise urology exclusively, even in centres of opposition in big teaching hospitals, were able to do so and one must conclude that in those centres where no urological department exists today this is due more to the absence of a urologist anxious to do the work than to the opposition of other clinicians. I must stress this fact as being my personal impression gained during my visits round the whole country with Professor L N Pyrah. We were not impressed by any argument put forward to explain why a man, though he said he wished to do so, could not establish a urological department. All the professed reasons and arguments could have been overcome if the man had genuinely wished to do so. I hope and believe that one of the greatest benefits arising from our visits round the country has been the encouragement of the man who was beginning to despair by reminding him that, without exception, all of the existing urological departments in the country started from virtually nothing but a desire to practise urology. This is the British way – rightly or wrongly. If you expect to be provided with a ready-made department containing your own beds, outpatient clinic, operating theatre and secretarial cover, you will fail – you must start with anything you can beg, borrow or steal and build it up.

The established urological departments in the country today vary considerably in magnificence. Some of them reflect the personal drive and managerial skill of their authors, of men who will remain legends in British urology; some spring to mind immediately. Other equally efficient departments doing their basic primary job of caring for the patient properly are just as magnificent in their way, whether they are housed in a Ministry hut, or in a subterranean corridor containing the hospital heating and electrical supplies. At this juncture do not be put off by the criticisms of 'empire building'; this is the argument used by the other fellow, usually with a chip on his shoulder. We all make jokes about the growing X-ray empire and the pathology empire but, let us face it, these empires are the departments (with certain exceptions due to 'personalities') with which we as urologists wish to work. We must try to join them, not beat them.

'*Difficulties in the Way*'

There are four arguments used by people to show why they cannot become urologists: (1) There is not enough work. (2) Colleagues would not let them. (3) Cannot afford financially. (4) Cannot do it because structurally impossible in the hospital, that is to say difficulties with beds, X-ray department, pathology, outpatients, &c. Now let us take these one by one:

(1) *Not enough work:* If you do not do it, of course there is not enough work, and this is the trouble. In large areas of the country adequate investigation and treatment of urological pathology is not being attempted at all – it is going by default. This was made abundantly clear to Professor Pyrah and me on our visits round the country. Figures which we obtained from the Senior Administrative Medical Officers in the different Regions were most illuminating. It was also very illuminating to note that, when discussing the statistical figures, no single SAMO claimed that they were accurate – and, when discussing them round a table with surgeons, the figures given for their own personal work were apparently even more inaccurate! Nevertheless I have drawn certain conclusions from these figures, wherever the figures are available. The number of prostatectomies per hundred thousand of the population is much the same throughout the country. This I think is probably an accurate figure because the bulk of prostatic patients are admitted of necessity; something has to be done for them. Now an interesting point emerges: in the well run, efficient urological departments, the prostatectomy figures per hundred thousand are not necessarily greater than in the areas with no special urological cover at all but, taking three items only, urinary stones, bladder papillomas and endoscopic procedures of any kind are comparatively rare in areas away from a urological unit. As the prostate figures are relatively constant, I cannot believe that the incidence of stones and papillomas can differ very much and one can only conclude that these cases are just not being discovered or treated, or at least not recorded as existing at all.

There is no doubt, therefore, that the work is there, just waiting to be done. The official figures from all sources show that approximately 25 per cent of all admissions to general surgical beds have urological pathology. Since urological pathology requires much time and care during investigation it is fair to state that at least one in four of the surgeons in a group should be a urologist.

[1]**Ministry of Health & Department of Health for Scotland (1961) Report of the Joint Working Party on the Medical Staffing Structure in the Hospital Service. London**

(2) *His colleagues will not allow him:* The great objection raised against one surgeon changing to urology exclusively in a small hospital group is that there is one less surgeon on the general emergency duty rota. In many cases this may be an insuperable difficulty until more consultant staff are appointed but, where a group has at least four surgeons, one of them could well be a urologist. It should of course be remembered and stressed that a urological department admits its own emergencies seven days a week and, since every acute retention will be admitted to the urological ward, this will account for a large proportion of the cardiac failures and chronic bronchitis patients admitted to the whole hospital throughout the year.

Apart from this problem of the emergency duty rota, which can be overcome and is exaggerated in any event, I can see no reason for one's colleagues objecting to one of their members practising urology exclusively. When Professor Pyrah and I went round the Regions we naturally got into communication with the surgeons who were doing the urology locally, because these were the people we already knew. On many occasions they said they would like to change over to urology exclusively but were doubtful how their colleagues would react to this suggestion. In fact, when everyone was seated round the table it became obvious that many surgeons were only too pleased to be able to hand over their urology to someone else – particularly when it was explained that because one man practised urology exclusively there was no reason at all why the other surgeons should not continue to do the odd prostate when they wished to do so – in their own beds! Incidentally I can assure you that if you are a single-handed urologist in a group you will be only too happy to allow your colleagues to do the odd prostatectomy. The situation is therefore not whether your colleagues will allow you to do urology exclusively but whether you really wish to do so.

For a while your colleagues will continue to do their own little bit of urology and refer the dull cases to you. Then they will begin to refer the awkward case – and at this stage you have arrived. You should be flattered. From now on the general practitioners will send the urology to you – but do not begrudge the general surgeon his odd prostate. The one vitally important point is that you must not do any general surgery just because the other man still keeps his urology.

I will digress for a moment about this doing no general surgery. I deplore the system whereby if a hole has to be made in the gut or if a hernia can be repaired at the same time as a prostatectomy, a general surgeon has to be called in. If we train our urologists properly they can resect or isolate a piece of gut as well as anyone, or repair a hernia if it is called for during the treatment of a urological patient. At St Paul's Hospital we have emergencies such as gastric perforations and intestinal obstructions developing in our urological patients in the wards and I trust we will always be able to deal with them efficiently, but I think it is wrong in principle for the urologists to seek to do the occasional *cold* gall-bladder or stomach; nowhere is this more important than in private practice.

(3) *'I cannot afford financially to give up general surgery':* This problem, though only very rarely quoted, is quite naturally in everyone's mind but is a nettle which must be grasped firmly. If a man decides to be a urologist, he must not accept private practice outside his chosen field. The biggest single factor responsible for opposition to urology as a specialty is the fear that the general surgeon will lose private practice. One must not expect the general surgeon to hand over the urology unless we in turn pass back the general surgery. Time and time again one hears the argument: 'I really cannot afford not to do the odd appendix and varicose veins in private.' This is just not true once you get over the first year: if you refer such patients with a bland smile to your previously greatest rival you will find that it is 'casting your bread on the waters'; I can assure you that the effect is dramatic, if not on your rival at least on the general practitioner and on the patient. If, added to this, as a result of your concentration and application, you become better at the urology than the other man (you inevitably will) you need never look back.

(4) *Structural impossibility* – beds, X-rays, theatre accommodation – the fourth argument as to why the formation of a unit is impossible at the present time – note always this little rider 'at the present time' – always waiting for the millennium. This millennium is not going to come in your lifetime and you had better press on with the best you have whilst you can. I doubt whether this recent election will add many extra bricks to a new urological unit for you in your working lifetime. On the other hand there are many odd corners in a hospital (the older the hospital the more odd the corners) and you might as well use them.

It is obvious to everyone that the structural facilities and the competing demands for beds, &c., in some groups are intolerable – and yet if you journey round the country you cannot avoid being most impressed by the ingenuity shown by some of our colleagues in adapting dead space and overcoming their difficulties.

The urological outpatient clinic is basically a room in which to question and examine a patient with a degree of privacy. There is no need to have a cystoscopy unit in outpatients to start with – in

fact there are some of us who are not really happy about cystoscopies in outpatients anyhow – I wonder how many of you would like to be cystoscoped under local anæsthesia as an outpatient.

I would think that efficient secretarial cover in the background is just as important as a new set of consulting rooms. This secretarial help is a serious bone of contention throughout the hospital service but I think we are much more likely to obtain improvement along this line than we are to obtain new accommodation in the near future.

Theatre accommodation was a difficulty referred to repeatedly during our visits to the Regions and, if we remember that there have been over 1,000 new consultant appointments in the past few years and relatively little new theatre space, this is not surprising. Here again one cannot expect a theatre for the exclusive use of urology in the early stages; separate urological lists can generally be arranged and this allows the staff to develop an interest and an expertise in the use of specialized apparatus. There is nothing more illuminating than to watch, say, the catheterization of a ureter in the middle of a general surgical operating list: time and tempers can be stretched and the casual cystoscopy can, not infrequently, lead to the loss of friends.

And now to beds. This is the one topic calculated to alienate you with your colleagues, your medical committee and the Regional Board but certain basic facts must be established and remembered. On the Monday morning when you become a urologist, you will have no more patients than you had on the previous Friday as a general surgeon with an interest in urology. Therefore, though you may expect, you are unlikely to get, any more beds. You will merely have urological patients in your beds as opposed to a mixture of patients. The chief principle to be established is that there may have to be a reallocation of the existing beds to allow for the fact that 25% of the patients in all general surgical beds have urological pathology.

Even if you have only one end or one side of an indifferent ward for your urological patients, this will be infinitely better for the patients and the nursing staff and yourself than having your cases scattered around. I must repeat this principle: you are unlikely at first to be given any extra beds – they must come out of a pool; but, remember, a urologist can often achieve a greater bed occupancy and discharge rate through a given number of beds than the general surgeons. In other words, we can generally get by with fewer beds if we can organize the cystoscopy work efficiently. I can hear some of you saying that all this compromise is a philosophy of despair but I would remind you that, without exception, all the clinics in this country have started in this hole-in-the-corner way; no urology department in the country started in new, specially designed accommodation; those which are today housed in elegant buildings merely grew out of their holes in the corner. This is, of course, typically British – nothing appears to please the British more than the first-rate chap doing an excellent job against great odds. Mind you, the Americans think that this is a completely crazy approach – but then you are not in America.

The vital factor is therefore the man – not the facilities. If the man wishes to become a urologist he can. Once having declared himself the rest will follow surprisingly quickly.

Basic Requirements of a Urological Department

Let us now look at the problems which we have to overcome today if we are to justify and to achieve the establishment of urology as a separate specialty.

Many people are very disillusioned about the much publicised Ministry Hospital Plan and certainly if you divide £50,000,000 per annum up into little parcels it does not go very far today. I do not think that many of you will ever work in a new hospital, while the chances of your having a 'custom-built' urological department will be very small indeed. Nevertheless we should have a clear view in our minds of what we consider to be the basic requirements for a department of urology: we are much more likely to get what we want if we know what we want. This is particularly important at the present time because there is an influential body of opinion, both medical and at the Ministry, who feel that the only possible way of curbing the astronomical cost of hospital buildings would be to accept a large measure of structural standardization. You may not like this idea but it may be very much better than having nothing at all. Those of us who are still working in the so-called temporary huts erected in the second, or even first, world war are rightly and thoroughly disgusted with them but they are better than nothing.

We have estimated that a unit serving a population of 200,000 people will require at least 30–35 beds if the urology is to be done properly. The male patients must be in one ward to enable the staff to develop the necessary interest and expertise. The female patients can be accommodated in a general surgical ward until such time as the department grows sufficiently to require its own female urological ward, while children are better dealt with in a pædiatric ward if this is available.

Theatre Accommodation

The urological unit should have access to an operating theatre, by right, on at least five days

per week. Although I do not agree with emergency prostatectomies, I feel equally strongly that a man should not have to wait longer than it takes to investigate him before he can obtain a place on a theatre operating list for his prostatectomy. If full theatre accommodation is not available every day, adequate arrangements must be available elsewhere for proper cystoscopy sessions, otherwise the bladder growths cannot be adequately reviewed.

Training

It is not possible to discuss the establishment of urology as a specialty without considering a proper training programme and we have to face the fact that the majority of senior urologists in this country today are self-taught – a fact of which I personally am only too conscious: that I did a gynæcological house job and a job in a sanatorium and that these subsequently proved invaluable to me, was purely accidental; there was very little to indicate at that time that the knowledge acquired would be specially useful to me in urology – but how I wish I had learnt a little plastic surgery and much more biochemistry, while some pædiatric experience would have been invaluable. When I was a registrar many of the aspects of modern urology were unrelated to surgery at all. The primary FRCS examination was designed to broaden one's outlook on physiological problems – but it was largely theoretical and one did not really expect to have to apply the knowledge in practice. There is no question about this today. It is therefore necessary to draw up a list of the things a urologist must do and learn about during his training period or he will develop as we have done with large hiatuses in his knowledge.

The training of surgeons in general is receiving attention in many quarters, especially in Professor F W Holdsworth's Committee at the Royal College of Surgeons. Whatever is finally agreed, it would appear to be sensible to broaden the type of experience at the registrar stage, while a man is working for his final Fellowship. This I think is the stage at which he should rotate through some of the specialties, such as orthopædics, plastic and thoracic surgery and urology, &c. This specialized rotation would prove much more useful in his Fellowship examination than the present system of rotating from one general firm of gastrectomists to another firm of gastrectomists, and would make him an infinitely better general surgeon. Such a scheme of rotation at registrar level is already in operation in Sheffield and has proved most successful, particularly in the final Fellowship results.

Incidentally, I have never quite understood the argument that only a general surgeon could teach undergraduates, or for that matter junior hospital staff. With great humility and respect I must state that some of the urological views expressed by my pre-registration house surgeons, are, to put it mildly, quaint and homely. Undergraduate rotation through a urological department for even a couple of weeks would avoid some of the more incongruous hallucinations.

However, the training of undergraduates and of surgical registrars is not part of my crusade here, but when we come to senior registrars – in urology – I think that we as urologists have the right and the responsibility to plan this programme – a programme which should be much more positive than it has been up to now in this country.

Our review of the Regions so far indicates that 30 or more urological consultants will be required in the next four to five years. This fact has been presented to the Ministry and I think and hope that further senior registrar posts in urology will be established. The one thing that should not occur – and I do not think it will be allowed to occur – is the use of a senior registrar in a department instead of a second consultant. If the department cannot run without a senior registrar there should be a second consultant. It is really quite surprising how often one hears the phrase 'I must have a senior registrar' or 'I cannot continue without a senior registrar', but the answer is obvious – a second consultant.

One of the features of the Platt report which is frequently criticized is the view that a senior registrar should be a 'teaching post' and not a 'pair of hands'. People argue that a man cannot learn without being a pair of hands. This is true, but he should be a pair of hands under suitable supervision and he should have time to think. The department should not collapse if he is removed and, unfortunately, in many instances today, this is in fact the state of affairs: the routine work could not be done if the senior registrar were to be removed.

Obviously some compromise between the pair of hands and the purely teaching post would be the ideal solution and the Council of the British Association of Urological Surgeons have expressed their views in a memorandum[1] on 'The Training of Urological Surgeons'. Certain basic conditions are laid down and in future it should be necessary for a man to have conformed to these conditions before he is allowed to apply for a consultant appointment in urology. BAUS Council have stipulated three years as a minimum period of training for a senior urological registrar. A most important condition is that a post as a senior urological registrar should be established only in a department devoted entirely to urology and

[1]Summarized as an Addendum to this paper

staffed by at least two consultant urologists. This department would be responsible for his three years' training programme, which would be designed to rotate through as many other departments or hospitals as were necessary to ensure that the whole curriculum was covered. No one hospital can train a senior urological registrar properly, and this must be admitted at the outset. The more flexibility and, indeed, variation of this common theme, the better: the better schemes will attract the better men and the poorer schemes will be left behind; this is largely the way it works in America; the department which offers a comprehensive training programme is rarely short of manpower and, let us face it, this is how it works in this country too.

Official Recognition of Urology

If we really believe that urology should be established as a separate specialty which should be recognized as such by the Ministry and the hospital service, this can be achieved if we are prepared to put our house in order. Many times we have been assured by senior officials in the Ministry – and we know we have Sir George Godber's sympathies – that the Ministry will do all they can to encourage any project for urological development submitted to them from Regional Boards or Boards of Governors. The Ministry will not direct Boards – but they will encourage those who wish to establish urology as a specialty. It was made equally clear to us that, in return for this support at the highest level, the proposed department must be efficient and that only those which were efficient would be encouraged.

We were also warned that requests for any increase in the total numbers of hospital beds would not be sympathetically received – but, based upon our arguments that 25% of all patients in general surgical beds have urological pathology, it was agreed that a redistribution of the total numbers of surgical beds to ensure that this 25% were concentrated in designated urological beds was both fair and acceptable.

As for staffing, the Ministry accept and endorse the Platt recommendations that an efficient surgical unit or firm should consist of two consultants. The Ministry consider that this is also applicable to urology when the hospital group is large enough. In groups catering for less than 200,000 people one urologist may be enough, but even here he should be part of a firm of two surgeons in order to ensure continuity and provide cover for periods of off-duty, leave and sickness. So far we have estimated that some 30 urologists will be required in the next four to five years. Personally I think many more would be required, but the Ministry have received these provisional estimates and are now engaged upon the very difficult and thankless task of sharing out the all too few senior registrars. We feel that we have made out a case and look forward to our fair share of senior registrars, but it has also been made clear to us that a revitalized training programme is expected from us and that only those units which can train them fully will be allowed to have senior registrars.

It is obvious therefore that if we really wish to see urology established as a specialty in Britain today the effort and drive must come from ourselves – from the periphery. If you can persuade your medical committee colleagues to agree to your concentrating solely on urological patients you should then ask your Regional Board to recognize you as a urologist, rather than a general surgeon. Then half the battle will have been won.

ADDENDUM

Abstract from BAUS Memorandum on 'The Training of Urological Surgeons' (1964)

A three-year training programme should be organized by a department devoted entirely to urology and staffed by at least two consultant urologists. The programme should be so arranged that, quite apart from a solid groundwork of routine clinical urology including supervised operative surgery, special theoretical and practical experience should be provided in: (1) Medical urology, including renal failure; hypertension; hæmodialysis; metabolic studies; and renal homotransplantation, &c. (2) Pædiatric urology. (3) Genito-urinary cancer. (4) Genito-urinary tuberculosis. (5) Urological problems in gynæcology and midwifery. (6) Urological problems in nervous diseases and spinal injuries. (7) Basic principles of plastic surgery and vascular surgery as applied to urology.

It is obvious that no single hospital can provide such a comprehensive training scheme and that linked appointments will be necessary, but the overall programme must be designed and supervised by the urological department responsible for the training.

Any urological department in a teaching hospital or urological departments combining together in a large centre, which could provide the above-mentioned facilities for the training of senior urological registrars, should be eligible for enrolling additional senior urological registrars as trainees under the scheme, but it would be necessary to keep under review the correlation between the number of urological appointments and the number of senior registrars in training.