An EBU Manpower Survey – How European Urology is evolving

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Abstract

Objectives
During 2004 the Manpower Committee of the EBU conducted a survey on issues relating to manpower, training, and the clinical practice of urology in the EBU member countries.

Method
A detailed questionnaire was compiled and forwarded to the secretaries of the urology associations of the 30 EBU member countries.

Results
Results are available from all countries except Croatia and Italy. The mean urologist: population ratio has increased to 1:34,592 from 1:36,652 in 1998 but great variations remain. Most medical students are female but less than 10% of urologists are women, and office urologists are more common in countries with more female urologists. Training has become more structured and currently 23 of the 27 countries engaged in training have an "exit examination". There are variations between countries regarding the involvement of urologists in diagnostic imaging, while in only 12 countries does the role of urology nurse specialist exist. Urological cancer surgery is becoming more specialised, and whilst laparoscopic surgery is widespread, the activity volume in many units is less than 30 cases per year.

Conclusions
European urology is striving to respond to internal and external influences and it is vital that a mechanism remains in place to monitor and report on the specialty's responses to these influences. The EBU correctly considers this a vital part of its functions.

Table 1: Urologist population ratios for 2004 and 1998 (where available).

Country	Population (million)	Urologists n	2004	1998
France	59.63	996	1:59,896	1:58,500
Luxembourg	0.4483	20	1:22,465	1:22,222
Bulgaria	7.85	250	1:32,000	
Turkey	65	1700	1:38,235	
Spain	40.68	1696	1:23,988	1:29,500
Belgium	10.35	250	1:41,420	1:33,300
Switzerland	7.32	140	1:52,270	1:49,600
U.K.	59.33	608	1:97,580	1:130,200
Iceland	0.288	11	1:26,277	
Estonia	1.35	42	1:32,286	1:34,091
Sweden	8.94	360	1:24,835	1:29,300
Denmark	5.38	110	1:48,941	1:55,300
Portugal	10.4	330	1:31,538	1:41,600
Ireland	3.96	29	1:136,676	1:184,200
Malta	0.397	5	1:79,460	1:123,300
Latvia	2.33	60	1:38,858	
Austria	8.067	422	1:19,116	1:21,500
Netherlands	16.192	309	1:52,401	1:62,000
Greece	11.02	720	1:15,302	1:15,100
Slovac Rep.	5.38	260	1:20,688	
Rep.of Georgia	4.2	248	1:16,935	
Slovenia	2	44	1:45,455	
Germany	82.5	3000	1:27,500	1:24,600
Czech Rep.	10.2	550	1:18,545	1:30,300
Poland	38	1000	1:38,000	1:71,400
Hungary	10	446	1:22,421	1:30,000
Finland	5	100	1:50,000	1:57,300
Romania	10	350	1:28,571	
Total	486.222	14,056	1:34,592	1:36,652

Table 2: Percentage non-native and female medical students, and percentage female urological trainees and urologists.

	Medical students			Urological trainee	Urologist
	Number	% non-native	% Female	% Female	% Female
France	3500	5	75	2	2
Luxembourg	No	Med.	School	no trainees	20
Bulgaria	1200	20	50	2	7
Turkey	~35,000	4 to 5	40%	0	0
Spain	29723	?	66.5	6.3	6.3
Belgium*	?	?	?	?	5
Switzerland	3000	10	55	20	1
U.K.	?	<20	60	7	4
Iceland	48	3	50	0	0
Estonia	1198	10	75	0	14.3
Sweden	5300	10	60	20	11
Denmark	5500	28	62	25	10
Portugal	4000	10	80	6	2
Ireland	3995	53	54	16	7
Malta	150	1	51	0	0
Latvia	1200	25	50	~30	10
Austria	17200	?	60	20	11
Netherlands	?	?	?	30	4.5
Greece	11595	5	45	1	1.1
Slovac Rep.	2500	3	50	10	10
Rep.of Georgia	?	5	70	15	12
Slovenia	1700	1	70	0	7
Germany	10000	?	52	20	20
Czech Rep.	10525	40	57	5	9
Poland	?	?	?	10	15
Hungary	6000	20	70	1	3
Finland	2400	1	70	50	10
Romania	10000	20	70	5	5

Introduction:
The European Board of Urology (E.B.U.) is the working group of the urology section of the Union des Medicines Specialistes (U.E.M.S.). Its main goal is the improvement of the standard of urological care delivered by urologists to patients throughout Europe. This it hopes to achieve in part through the accreditation of training sites, the establishment and running of examinations, most notably its fellowship examination (F.E.B.U.), and through the provision of a system of accreditation and recording of CME.

Important in the promotion of optimal urological training and practice is the knowledge gained from monitoring the changing factors influencing urological services and the responses of the specialty to them. These factors are both external like changes in population demographics and medical practice outside the specialty, and internal influences like technological and pharmaceutical advances, and alterations in referral patterns and work practises.

Central to this role of the E.B.U. in this area are the regular surveys performed by it's manpower committee of the many issues involved, and the subsequent reporting to national and international bodies to facilitate more informed discussion and planning. The last such reported survey of urological manpower, training, and practice in the then 22 member countries of the E.B.U. was conducted in 1998(1). In 2004 a newly designed survey was conducted in the E.B.U. countries, now expanded to 30, and this paper reports the more relevant findings from this survey.

Again a central part of the survey was the estimation of urologist/population ratios and the prevalence of office-only urological practice; but many additional factors were also studied including trends in gender bias in the specialty, the role of the urologist in diagnostic studies, the role of specialist nurses, and the challenges and opportunities presented by laparoscopic surgery.

Methods:
A detailed questionnaire designed by the manpower committee of the E.B.U. was sent to the secretary of each national urology association of the 30 E.B.U. member countries. The questionnaire was in three sections; the first dealing with data, relating to medical students, urology trainees and urologists. The national population figures quoted are those from the European statistics organisation "Eurostat". The two remaining sections dealt with the clinical practise of diagnostic and therapeutic urology.

The Chairman of the manpower committee collated the data seeking clarification of a country's response where required from both the national association secretary and the relevant E.B.U. national delegates, prior to presentation of the data to the plenary session of the E.B.U.. Further amendments and clarifications were then invited before final compilation.

Results
A completed questionnaire was returned from 28 of the 30 countries; the exceptions being Croatia, and Italy.

Arguably the most crucial factor in all the data acquired is the urologist to population ratio (table 1). Compared to the previous survey in 1998 the mean ratio for Europe has increased to 1:34,592 from 1:36,652 (range 1:15,302 for Greece to 1:136,676 for Ireland). Countries which have shown the more notable ratio increases are Spain, the U.K., Portugal, Ireland, Malta, and the Czech Republic.

A striking feature of the responses in relation to medical students, urological trainees, and urologists is the on-going female majority amongst medical students, with nearly every country reporting 55% or more (Portugal 80%)

Continued on page 29

Table 3: Data relating to retirement age and office urology.

Country	Urologists Retirement age (yrs.)			% office only
	H	O	P	
France	65	65	65	0
Luxembourg	65	-	-	0
Bulgaria	65	65	?	5
Turkey	65	65	?	10
Spain	70	-	-	?
Belgium*	65	-	-	?
Switzerland	65	-	-	10
U.K.	65	-	70	0
Iceland	70	none	none	9
Estonia	65	none	none	36
Sweden	67	67	75	10
Denmark	70	-	-	1
Portugal	70	70	-	2
Ireland	65	-	none	0
Malta	61	-	-	0
Latvia	`	-	-	58
Austria	64	none	none	71
Netherlands	65	-	-	v. few
Greece	65	65	65	40
Slovac Rep.	65	65	-	30 - 40
Rep.of Georgia	none	none	none	15 - 20
Slovenia	none	none	none	4
Germany	~65	~65	~65	70
Czech Rep.	none	none	none	22
Poland	65	65	-	?
Hungary	62	62	62	15
Finland	63	-	-	5
Romania	65	65	-	20

H = Hospital; O = Office; P = Private

Table 4: Data on duration of urological training, organised structured training, surgical degree requirements, and exit examination (FEBU is the EBU Fellowship examination comprising written, MCQ, and written parts).

Country	Urological Training Duration (yrs.) Common Surg. trunk	Urology	Med. School + Post grad.	Organised structured training y/n	Basic surg. degree req.? y/n	Exit exam. y/n
France	5	2	12	y	n	y
Luxembourg	no trainees			n		
Bulgaria	2	3	12	y	n	n
Turkey	1	4	11	n	n	y
Spain	1	4	11	y	n	n
Belgium*	2	4	13	y	y	y
Switzerland	2	4	17	y	y	y (FEBU written)
U.K.	3	6	14	y	y	y
Iceland	2	3	14	n	n	n
Estonia	2	3	11	y	n	y
Sweden	2	4	13	y	n	y (FEBU MCQ)
Denmark	1	4	14	y	y	n
Portugal	1 to 2	4	14	y	n	y
Ireland	3	5	15	y	y	y
Malta	2	5	10 to 12	y	y	y
Latvia	2	3	11	y	y	y (FEBU planned)
Austria	1 to 2	4	14	y	n	y (FEBU written)
Netherlands	2	4	12 to 14	y	n	y (FEBU MCQ)
Greece	1	4	13 to 14	y	n	y
Slovac Rep.	1	4	11	y	n	y (FEBU planned)
Rep.of Georgia	1	4	12	y	n	y
Slovenia	2	4	12	y	n	y (FEBU planned)
Germany	1	4	11 to 12	n	n	y
Czech Rep.	9 months	5	12	y	n	y (FEBU planned)
Poland	6	4	13	y	n	y (FEBU)
Hungary	2	4	12	y	n	y (FEBU planned)
Finland	3	3	13	y	n	y
Romania	2	3	11 to 12	y	y	y (FEBU planned)

Continued from page 28

Table 5: Issues relating to urological trainees.

Urological Training			
Country	Numerous clausus applied to trainees y/n	Salary Trainee v. Urologist	% obtaining research-based higher degree
France	n	<50%	10
Luxembourg	no trainees		
Bulgaria	y	? 50-100%*	10
Turkey	n	50-100%	1 to 2
Spain	y	<50%	20 - 30
Belgium*	y	<50%	20 - 30
Switzerland	n	50-100%	5
U.K.	y	100%	50%
Iceland	n	50-100%	90
Estonia	y	50-100%	30
Sweden	n	50-100%	20 - 30
Denmark	y	50-100%	20
Portugal	y	50-100%	2
Ireland	n	50-100%	90-100
Malta	n	100%	?
Latvia	y	50%	2
Austria	n	50-100%	10
Netherlands	y	50-100%	?
Greece	n	50-100%	15 - 20
Slovac Rep.	n	50-100%	5 to 8
Rep.of Georgia	n	<50%*	2 to 5
Slovenia	y	50 -100%	25
Germany	n	50-100%	15
Czech Rep.	n	50-100%	4
Poland	y	50-100%	?
Hungary	n	100%	10
Finland	n	50-100%	30
Romania	y	50-100%	20%

* ?also pay a fee

being female. Dramatically fewer females are attracted to urology as shown by their reduced female percentages of urological trainees or urologists (table 2). Office-only urology is practised in 20 of the 28 countries, with great variation in the relative numbers between countries (table 3). There is a trend where countries with higher percentages of female urologists have more office urologists (e.g. Germany, Slovac Republic, and Republic of Georgia).

The duration of urological training is quite consistent in the various countries (table 4). A basic surgical degree is required prior to entry to urological training in only eight countries, and 23 of the 27 counties with training programmes have an (exit) examination for certification, with an increasing acceptance of at least part of the FEBU examination for this purpose.

In Ireland 90-100% of trainees obtain a research-based higher degree during training, but in most countries the percentage doing so is considerably less. The usual salary for a trainee is 50-100% that of an urologist. Job-sharing is available in only 6 countries for trainees and for urologists in thirteen (tables 5 and 6).

The second part of the survey related to diagnostic investigations in clinical practice, and the responses show variation in the involvement by urologists in the performance of radiological procedures, with the most widespread involvement in retrograde urography, cystography, interventional radiology, abdominal and trans-rectal ultrasound, in addition to urodynamics (table 7).

In only 12 countries does the role of urology nurse specialist exist, and in general their role is mainly confined to the areas of incontinence and the administration of intravesical chemotherapy. However, in a minority of countries their role extends more widely, particularly in the U.K., where it includes LUTS assessment, ED, haematuria, cystoscopy, and ESWL (table 8).

With regard to therapy, general or specialist urologists are widely involved in the areas of andrology, female incontinence, ESWL, and PCNL (table 9), but as table 10 demonstrates there is some variation between countries in the field of renal transplantation, vascular access surgery, and paediatric urology.

In the area of urological oncology brachytherapy is performed in 22 of the countries with involvement from a specialist urologist in 15 of these. In comparison with the 1998 survey an increased percentage of urological cancer surgery is performed by specialist urologists, and in the U.K. more than 90% of such surgery is now performed by such urologists (table 11).

One of the major changes in urological surgery in the last 5 to 10 years has been the spread of laparoscopic surgery. Specialist urologists are involved in this area in all countries except Malta (table 12). The volume of surgery performed in individual units however is quite low, with an average around 50% of the units performing more than 30 cases per year.

Discussion

Modern urology is subject to great external and internal influences. The external influences include demographic ones such as aging of the population, migration, and immigration, a reducing number of male doctors, and arguably an increased volume of patient referrals from other colleagues. Internal influences include the increased efficacy and popularity of medical and minimally invasive therapies in areas such as prostate diseases, erectile dysfunction, and urinary calculus disease, and the demands of managing the "PSA epidemic". This survey shows that while European urology must be struggling to cope with these demands it is responding to them.

The increase in the overall urologist-population ratio to 1:34,592 has been impressive, and while the U.K. and Ireland have increased their ratios by about 25% since 1998 they still remain a long way from the mean. Because of individual factors operating in every country it is impossible to be dogmatic in advising a specific ratio across all countries. The extent of primary care delivered to urology patients by general practitioners influences manpower demands, as does the extent of involvement of urologists into areas such as female incontinence, paediatric urology, and renal transplantation.

The modern trend toward more medical therapies and the "PSA epidemic" (with its heavy patient education and counselling workload) has meant the percentage of all patients seen by the average urologist that undergo an in-patient surgical procedure as a result of this consultation has fallen to between 5 and 10% (2). It is possible that more countries will follow the example of the U.K. (which at present does not have office-urologists) by gearing training and accreditation to the creation of two types of specialists, the consultant urologist and the genito-urinary surgeon.

What should not be underestimated however is the life-style attraction this type of practice holds for many urologists, especially females, and the data in relation to countries with the most female urologists appear to confirm this. While the academic performance by girls frequently surpasses that of boys, it is disappointing that urology only attracts a very small number of female applicants. However, the situation is likely to be similar to that in the United States where urology ranks near the bottom at number 23 of 27 specialities where only 14% of residents are female; and of the

Continued on page 30

Table 7: Urologists' involvement in diagnostic imaging and urodynamics.

	Imaging						Urodynamics
Country	IVU	Retrograde urography	Cystography	Interventional radiology	Abd. ultrasound	TRUS	
France	R	U	R	U	R	R+U	a
Luxembourg	R+U	U	U	U	R+U	R+U	a
Bulgaria	R	U	U	U	U	U	a
Turkey	R	R+U	R+U	U	R+U	R+U	a
Spain	R	U	R+U	R+U	R+U	R+U	b
Belgium*	R+U	U	R+U	R+U	R+U	R+U	a+b
Switzerland	R+U	U	R+U	R+U	R+U	U	a
U.K.	R	R+U	R	R+U	R+U	R+U	b
Iceland	R	R+U	R	R	R	U	b
Estonia	R	U	R+U	R+U	R	R	b
Sweden	R	R	R	R	R	R+U	b
Denmark	R	R+U	R	R+U	R+U	R+U	b
Portugal	R	U	U	U	R	R+U	a+b
Ireland	R	R+U	R+U	R+U	R+U	R+U	a
Malta	R	U	R+U	R	R+U	R	a
Latvia	R	U	U	R+U	R+U	R+U	a
Austria	R+U	U	U	U	U	U	a
Netherlands	R	U	R+U	R+U	R+U	R	a
Greece	R	U	R+U	U	R+U	R+U	a
Slovac Rep.	U	U	U	U	R+U	U	a
Rep.of Georgia	R	R+U	R+U	R+U	R+U	R+U	a
Slovenia	R+U	U	R+U	R	R+U	U	a
Germany	R+U	U	U	U	U	U	a
Czech Rep.	R	U	R+U	R+U	R+U	U	a
Poland	R+U	U	U	U	R+U	U	a
Hungary	R+U	U	U	U	R+U	U	b
Finland	R	R+U	R	R+U	R	U	b
Romania	R+U	U	R+U	U	R+U	U	a

R = Performed only by radiologists; U - Performed only by urologists; R+U - Performed by both.
a = Performed mainly by urologists with help; b = Performed mainly by nurse / technician

Table 6: Working conditions of trainees and urologists.

Working conditions					
	Trainees			Urologists	
Country	Job sharing y/n	Resident on-call y/n	Max. no. hours y/n	Job sharing y/n	Resident on-call y/n
France	n	?	no limit	n	n
Luxembourg	no trainees			n	?
Bulgaria	y	y	y (EU limit)	n	y
Turkey	n	y	no limit	n	n
Spain	n	y	no limit	n	some
Belgium*	n	n	no limit	n	n
Switzerland	n	y	y (44 hrs.)	y	n
U.K.	n*	n	y (EU limit)	y	n
Iceland	n	n	y (EU limit)	y	n
Estonia	n	n	y (48 hrs.)	n	n
Sweden	y	y	y (45 hrs.)	y	n
Denmark	n	n	y (37 hrs.)	n	n
Portugal	n	n	no limit	n	n /(a few)
Ireland	n	n	y (EU limit)	y	n
Malta	n	y	n **	n	n
Latvia	n	y	y (40 hrs.)	y	y
Austria	n	y	y (EU limit)	y	y
Netherlands	y	n	y (EU limit)	y	n
Greece	n	y	no limit	n	n
Slovac Rep.	n	y	y (EU limit)	y	y
Rep.of Georgia	y	y	no limit	y	y
Slovenia	n	y	y (EU limit)	n	y
Germany	y	y	y (EU limit)	y	n
Czech Rep.	y	y	y (EU limit)	y	y
Poland	?	y	y ?	?	y
Hungary	n	y	y (EU limit)	n	y
Finland	n	y	y (EU limit)	y	n
Romania	n	y	y (50 hrs.)	n	y

* flexible training is available; ** ? on EU entry

Table 8: Data re urology nurse specialists.

Clinical Services: Urology Nurse Specialists										
Country	Exist?	Provide nurse-led clinics in -				May perform -				
	y / n	LUTS	ED	Haematuria	Incontinence	DRE	Cystoscopy	TRUS	ESWL	Chemotherapy
France	y				X					
Luxembourg	n									
Bulgaria	n									
Turkey	n									
Spain	y*	X	X							X
Belgium*	n									
Switzerland	y				X				X	X
U.K.	y**	X	X	X	X	X	X		X	X
Iceland	y				X					X
Estonia	y	X	X	X	X					X
Sweden	y				X					X
Denmark	y	X			X					X
Portugal	n									
Ireland	y	X			X					X
Malta	n									
Latvia	n									
Austria	n									
Netherlands	y				X					X
Greece	n									
Slovac Rep.	n									
Rep.of Georgia	n									
Slovenia	n									
Germany	n									
Czech Rep.	n									
Poland	n									
Hungary	y				X					X
Finland	y				X				X	X
Romania	n									

* = not official; ** = also perform pre-op assessment; + = clinics on stones and oncology.

Continued from page 29

Table 9: Urologists' involvement in therapeutic areas.

Clinical Services: Treatments

Country	Andrology			Female incontinence		ESWL	PCNL
	ED	"Andropause"	Male infertility	Surgery	Neuro-modulation		
France	+	s	s	+	s	+	s
Luxembourg	+	+	+	+	–	+	+
Bulgaria	+	+	+	s	s	+	s
Turkey	–	s	?	+	s	s	s
Spain	?	?	s	+	s	s	s
Belgium*	s	+	+	+	+	+	+
Switzerland	+	+	+	+	s	+	s
U.K.	+	s	s	s	s	s	s
Iceland	+	+	+	s	NP	s	s
Estonia	s	s	s	+	NP	s	s
Sweden	+	s	s	s	s	s	s
Denmark	+	–	s	s	s	+	s
Portugal	s	s	s	+	s	s	s
Ireland	+	+	+	+	–	+	+
Malta	+	+	+	s	NP	+	+
Latvia	+	s	s	s	NP	+	s
Austria	+	+	+	s	s	+	+
Netherlands	+	s	s	+	s	+	+
Greece	s	s	s	+	s	s	s
Slovac Rep.	s	s	s	+	NP	s	s
Rep.of Georgia	+	+	s	s	NP	?	?
Slovenia	s	s	s	+	s	+	s
Germany	+	?	+	s	s	s	s
Czech Rep.	+	+	s	s	s	+	+
Poland	+	s	s	+	s	+	+
Hungary	+	+	+	+	NP	+	+
Finland	+	s	s	s	s	s	s
Romania	s	s	s	s	NP	s	s

– = not performed by urologists but is available; + = performed by all or most urologists; s = performed by specialist urologists;
NP = not performed in this country.

Table 11: Data relating to cancer treatment.

Urological Services: Cancer Treatment

Country	Radiotherapy				Surgery			% cases ref to spec. cancer urologists
	Ext. Beam	Brachy-therapy	Rad. Prostatectomy	Rad. Cystectomy	Rad. Nephrectomy	RPLND	Penile ca.	
France	–	s	+	+	+	+	+	5
Luxembourg	–	s	+	+	+	+	+	50
Bulgaria	–	–	+	+	+	+	+	5
Turkey	–	s	s	s	s	s	s	50
Spain	–	+	+	+	+	+	+	20
Belgium*	–	s	+	+	+	+	+	?
Switzerland	–	s	+	s	s	s	+	2
U.K.	–	s	s	s	s	s	s	>90
Iceland	–	NP	s	s	s	s	+	80
Estonia	–	s	s	s	s	s	s	90
Sweden	–	s	+	+	s	s	s	?
Denmark	–	–	s	s	s	s	s	98
Portugal	–	s	+	+	+	+	+	?
Ireland	–	–	s	+	+	+	+	10
Malta	–	NP	+	+	+	+	+	0
Latvia	–	NP	s	s	s	s	s	60
Austria	–	–	+	s	s	+	+	?
Netherlands	–	s	+	+	+	s	s	10
Greece	–	–	+	+	+	+	+	?
Slovac Rep.	–	NP	s	s	s	s	s	10–15
Rep.of Georgia	–	NP	s	s	s	s	s	50
Slovenia	–	–	+	s	s	s	s	?0
Germany	–	s	s	s	s	s	s	?
Czech Rep.	–	NP	s	s	s	s	s	80–90
Poland	–	s	+	+	s	s	s	5–10
Hungary	–	s	s	s	s	+	+	20
Finland	–	s	+	s	s	s	s	5
Romania	–	s	s	+	s	s	+	?

– = not performed by urologists but is available; + = performed by all or most urologists; s = performed by specialist urologists;
NP = not performed in this country.

surgical specialties only neurosurgery, orthopaedics and thoracic surgery rank lower (3). It may well be that the more widespread adoption of office urology and the concept of job-sharing (available in 13 countries at present) will help to enhance the standards of our speciality by recruiting from a broader spectrum of doctors.

A further influence in this area is the increased sub specialisation of what is already a reduced surgical workload. Maintenance of surgical expertise may be difficult, particularly in this era of reaccreditation and audit, without the "rationalisation" produced by the confinement of the surgical workload to a limited number of urologists.

It is interesting to note the consistency in the duration a urological training throughout the countries surveyed. This will assist in the achievement and maintenance of training excellence through pan-European assessment and accreditation of training programmes and trainees (a facility already provided by the E.B.U.). Compared with 1998 when 13 of 22 countries had an exit examination on urological training completion, the present survey shows that 23 of the 27 counties engaged in training now have such an examination.

The process of achieving uniform standards will be a challenge particularly when such great variation exists between the new and more established member countries in terms of economic development, but the increasing use of the F.E.B.U. examination is we feel a step in the right direction. It is perfectly understandable that those countries with proven methods of training, assessment and accreditation, and who now quite rightly see themselves as a benchmark, will be loath to consider any alteration to their current arrangements.

Basic urological practice differs relatively little between countries. Our previous survey demonstrated that urology services were essentially very well equipped and therefore it was decided not to concentrate on this element of clinical practice in the current survey. Among the areas investigated was the actual involvement of urologists in the common diagnostic procedures. Whilst generally urologists tend to have major roles in the performance of studies such as ultrasound, retrograde urography, and interventional radiology, in a minority of countries, most notably Germany and Austria which have a high ratio of urologists, the urologist also is closely involved in intravenous urography. Urodynamics with a few notable exceptions is performed mainly by urologists.

Changes in the allied professions have an impact on the practice of urology and none more so than those in nursing. The development of the role of clinical nurse specialist in many countries has occurred at a rapid rate. There appears little doubt that the greatest impetus to the development of these post is in the countries with the fewest urologists, where such nurses can, by working to carefully designed protocols, and in close cooperation with the urologist, make a valuable contribution to making good the shortfall. To assume however that this is their only role is too limited a view, as these nursing colleagues may also bring advantages in terms of improved patient communication, meticulous attention to detail, and are a more "permanent" team member that the constantly changing urological trainee. It will be interest to note if the nurse specialist role becomes more widespread amongst countries, and if their roles expand in the countries where they already exist.

The provision of therapy to urological patients throughout the member countries is strikingly similar, but obvious variations exist in certain areas such as renal transplantation, and paediatric urology in relation to the extent of involvement by urologists. The absence of such involvement is we contend to the detriment of patient care and urological training. Taking the example of paediatric urology; in a country where urological trainees have very limited access to such cases denies them the necessary experience for when these patients present

Continued on page 31

Table 10: Data relating to therapeutic areas.

Clinical Services: Treatments

Country	Renal transplantation			Vascular access surgery	Open adrenal surgery	Paediatric urology		
		% done totally by urologist	% ureteric implantation only				% major cases done by urologists	Co-operation with paed. surgeons common? Y/ny/n
France	s	90	1	s	s	s	<25	y
Luxembourg	?	0	100	s	+	?	>75	n
Bulgaria	?	50	50	s	s	?	25–50	y
Turkey	s	50	5–10	s	–	+	50	n
Spain	+	100	1	–	+	?	25–50	n
Belgium*	s	?	?	s	s	?	<25	y
Switzerland	s	20	0	–	s	s	<25	n
U.K.	s	10	0	s	s	s	<25	y
Iceland	s	50	75	–	s	s	<25	y
Estonia	s	100	0	s	s	s	<25	y
Sweden	–			–	–	s	<25	y
Denmark	s	80	0	s	s	s	>75	y
Portugal	?	20	80	–	–	s	<25	n
Ireland	s	100	0	s	s	s	50	n
Malta	?	0	0	–	s	?	<25	y
Latvia	–			–	s	s	50	y
Austria	–			–	s	s	>75	y
Netherlands	s	0	30	–	s	s	<25	n
Greece	–			–	+	s	50	n
Slovac Rep.	?	30	30	s	s	s	>75	y
Rep.of Georgia	s	100	0	–	s	s	>75	n
Slovenia	+	100	0	–	+	s	>75	n
Germany	?	?	?	s	s	+	<25	n
Czech Rep.	s	15	50	–	s	s	50–75	y
Poland	s	<5	<5	–	+	s	<25	y
Hungary	–			–	s	s	<25	y
Finland	–			–	s	s	>75	y
Romania	s	100	0	s	s	s	<25	y

– = not performed by urologists but is available; + = performed by all or most urologists; s= performed by specialist urologists;
NP = not performed in this country.

Table 12: National practice in urological laparoscopy.

Clinical Services: Laparoscopy

Country	Laparoscopic Surgery	Units (n)		Units (n) operating on:			Units (n) performing >30 cases/yr.
		with robotics	performing laparoscopy	a) benign conditions	b) cancers	c) reconstruction	
France	s	s	50	50	25	40	?
Luxembourg	s	s	4–7	4–7	4–7	4–7	?0
Bulgaria	s	s	10	10	10	–	0
Turkey	s	NP	10	8	2	?	5
Spain	s	NP	5–10	5–10	5–10	3–4	`2–3
Belgium*	s	–	?	?	?	?	?
Switzerland	s	s	6	6	3	3	2
U.K.	s	s	20	20	16	10	5
Iceland	s	NP	2	2	1	?	0
Estonia	s	NP	3	3	1	1	1
Sweden	s	s	7	7	6	6	5
Denmark	s	s	8	8	5	2	3
Portugal	s	s	4	4	2	2	4
Ireland	s	NP	2–3	2–3	0	0	0
Malta	–	NP	0				
Latvia	s	NP	2	2	1	0	0
Austria	s	s	30	30	18	12	20
Netherlands	s	s	20–30	20–30	2–3	2–3	10–15
Greece	s	NP	3	3	2	0	0
Slovac Rep.	s	NP	5	5	5	0	5
Rep.of Georgia	s	NP	1	1	0	0	0
Slovenia	s	NP	4	4	1	1	1
Germany	s	s	60	50	20	20	50
Czech Rep.	s	NP	15	15	5	1	15
Poland	s	NP	25	20	5	5	5
Hungary	s	NP	4	3	1	1	4
Finland	s	NP	5	5	5	1	2
Romania	s	NP	5	5	1	1	2

– = not performed by urologists but is available; + = performed by all or most urologists; s = performed by specialist urologists;
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Continued from page 30

with their "paediatric" urological problems in adulthood. Such a statement is not denying the very valuable contribution of paediatric surgeons is this area, but we contend that a "turf war" between specialties has no merit. The recent establishment of a Multidisciplinary Joint Committee of Paediatric Urology under the aegis of the U.E.M.S. will hopefully successfully address this issue. It is interesting and encouraging to note that a similar development is proposed for transplantation surgery.

A further general trend is the progression of sub specialisation in urology, particularly in urological oncology. It is hoped and expected that this process will result in improved clinical outcomes through rationalisation of expertise and refinement of surgical skills following from the increased volume of clinical activity and the enhanced research environment. It is likely that the trend seen internationally is governed as much by the demands made on surgical expertise by the complex techniques which have evolved. We think it likely that the progression of sub specialisation will continue apace across all areas of urology and will in many ways be "patient driven". The onus is on national urology planning to prepare for this.

The most dramatic recent development has been the rapid advancement of laparoscopic surgery. While such procedures are performed in almost all the countries the question of an individual's activity volume must be considered. The figure of 30 cases annually per unit was felt by the E.B.U. manpower committee to be a rather conservative arbitrary benchmark level of activity. The fact that in general only about 50% of units performing laparoscopy reach this level is of concern, but in view of the likely rate of increase in laparoscopic activity there is every reason to believe that this level of activity will be achieved and surpassed uniformly.

In the hundred years since urology evolved from general surgery huge changes have taken place and no doubt will continue to do so. It is vital that the specialty is well place to measure these changes, so that it can predict future developments, and be capable of responding appropriately. We propose that the information presented here will enable a more complete assessment of the issues involved, and facilitate informed discussion with each other and equally importantly with our administrators.

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