THE BRITISH ASSOCIATION OF

UROLOGICAL SURGEONS

SECTION of ONCOLOGY

Analyses of Minimum data set for Urological cancers
January 1st – 31st December 1999

May 2000

MEMBERS OF THE EXECUTIVE COMMITTEE

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PRODUCED FOR BAUS SECTION OF ONCOLOGY
by

Mrs Sarah Fowler

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BAUS ONCOLOGY SECTION

1999 MINIMUM DATASET FOR UROLOGICAL CANCERS

Introduction

This presentation of the analyses of the minimum dataset represents our first full year of activity and includes data on 19,009 newly presenting urological tumours. This is a great achievement for our section and our sincere thanks must go to the members who have taken the trouble to collect and submit their data and to Sarah Fowler for the work she has done in collating this information and getting it ready for presentation in this booklet.

More detailed analyses are being done and hopefully these will be published in due course.

Even just a cursory glance at these data reveals a great many points of interest. The availability of a large cohort of contemporary patients is a valuable resource. The database has been used, for example, to identify potential candidates for the Gene-environment Prostate Cancer Study and to identify the number of patients suitable for entry to clinical trials.

Delays between referral, consultation and diagnosis are clearly going to be an important topic for at least the next two years. The chart showing the time between GP referral and diagnosis, clearly shows the size of the problem in urology. These data should serve as a baseline to assess the success (or otherwise) of the Department of Health's drive to shorten the journey for patients suspected of having cancer.

Ownership of the data rests with the section. At present we cannot give out any of these data unless there is approval from the executive committee. We can, however, give back to individuals all their data if they want this for their own analyses or for their regional databases.

We must also be critical of the data. When we consider all the new cases that must be presenting to urologists in the UK, we are capturing only half of the cases. There may be many reasons for this, including our dependence on colleagues, in other specialties, to refer patients after initial diagnosis. Nonetheless, we have to scrutinize our own performance, including the facts that a quarter of consultants have returned 26 or less cases and some have not returned **any** cases although they are members of the section.

Clinical and pathological staging continues to cause problems despite the circulation of the data dictionary with the forms. Less than 30% of returns have complete TNM categories to enable staging. Please record a clinical (TNM) classification for <u>all tumours</u>. The pathological assessment of the primary tumour (pT) entails a "resection of the primary tumour or biopsy adequate to evaluate the highest pT category". Please

include **both** clinical and pathological classifications, if available.

Experience with the changes incorporated into the 2000 dataset will be presented at the annual meeting in Newport. Please continue to let us have all your suggestions and comments.

We are in discussion with cancer registration authorities to explore methods of obtaining outcome data. Central to this process will be the availability of the NHS number and you are exhorted to make every effort to collect this item of information.

Congratulations to those of you who have discovered e-mail as a convenient method of data submission. Sarah Fowler has produced and circulated the BAUS2000 PC database and we also now have Psion Series 5 and Psion Revo programs, which offer genuine portability. By the time of the next annual meeting we plan to test the hypothesis, that the electronic methods to support data collection, will reduce the number of records with incomplete data.

Alastair Ritchie
Mike Wallace

May 2000

AUDIT RESULTS SUMMARY January 1st - 31st December 1999

Who took part?

321 consultant urologists from 143 hospital centres in England, Wales, Scotland and Northern Ireland provided data for this study submitting individual patient data on 19,009 patients with newly presenting urological tumours from 1st January to 31st December 1999. Of the 321 consultants, 226 (70%) are members of the BAUS section of Oncology.

How were the data analysed?

Information obtained from Consultants was anonymous. Information was entered into the computer database using unique identifying numbers for individual consultants or, if they preferred, a centre number. Six centres returned data under a centre number only (19 consultants in total).

Data could be returned either by completion of a pro forma for each patient or in electronic format using an Access (Microsoft) database designed for the purpose. The pro formas were entered directly into an Access database, at which time validation of each form could be carried out. Approximately 500 duplicate sets of data had to be removed.

The data presented here are a summary of the data received up to 8th May 2000 and relating to diagnoses made during 1999. The following data was included:

a. Patients for who the date of diagnosis fell within the time period. (01/01/1999 to 31/12/1999)
b. Tertiary referrals referred during the study period even if the diagnosis was made prior to 1999.
c. Patients for whom no date of diagnosis was included, but the referral date fell within the study period. (01/01/1999 to 31/12/1999).

A number of recurrent bladder tumours were excluded since this database is concerned with new primary tumours only.

For the ranked charts (2,3,5 & 6) the individual consultant or centre identification numbers were removed and replaced with rank numbers starting at 1. A unique, confidential "Ranking Sheet" was prepared for each surgeon to enable them to identify their rank in every chart. For those charts where overall figures for the entire database are shown the ranking sheet displays the consultant's individual figures. No one else can identify the results of an individual consultant. The ranked charts are presented using similar conventions with totals, and the interquartile range. They comprise single bars, with in addition the 25, 50, and 75 percentiles shown near the top of each chart and are ranked from left to right in the ascending order of the data item being measured.

Your separate personal ranking sheet is enclosed with this chartbook.

Where appropriate, comments are added to the bottom of charts.

Sarah Fowler

May 2000

A. Who took part & Overall figures
Chart 1

BAUS - Register of Newly Presenting Urological Tumours
January 1st - December 31st 1999
Who took part

- 321 Consultants from 143 Centres provided data on 19,009 newly presenting urological tumours.

- 70% (226/321) Consultants are members of the Section of Oncology. These Consultants returned 81% of the data

- 2.9% (547/19009) were the private patients of 54 Consultants

- Range of Consultants per Centre = 1 - 10 (Median 2)

- Median number per Consultant =51, Mean 59.2; Range 1 - 307

- Median number per Centre = 109, Mean 133; Range 3 - 538

Chart 2

Total Patients with Newly Presenting Tumours Reported per Consultant
Mean: 59 (Interquartile Range 26 - 82); Median 51

Total Number of Patients Reported
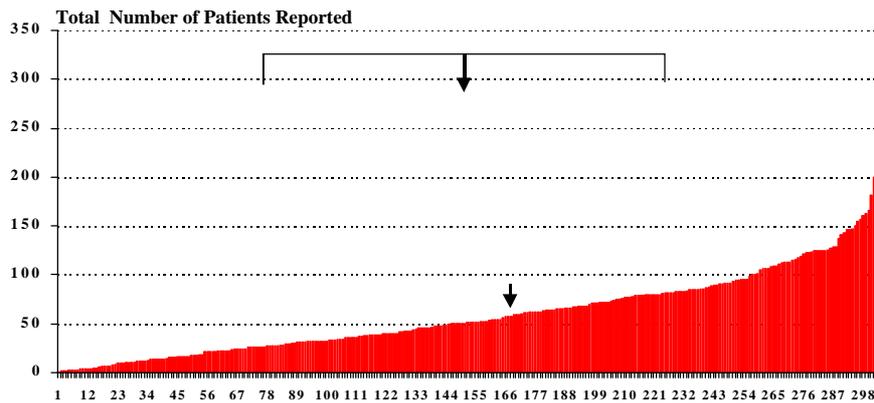
Total Patients

N.B. Excludes data returned by centres as a whole

Consultant Ranking

Chart 3

Total Patients with Newly Presenting Tumours Reported per Centre
Mean: 133 (Interquartile Range 60 - 173); Median 109

N.B. Excludes private patients

■ Total Patients per Centre

Centre Ranking
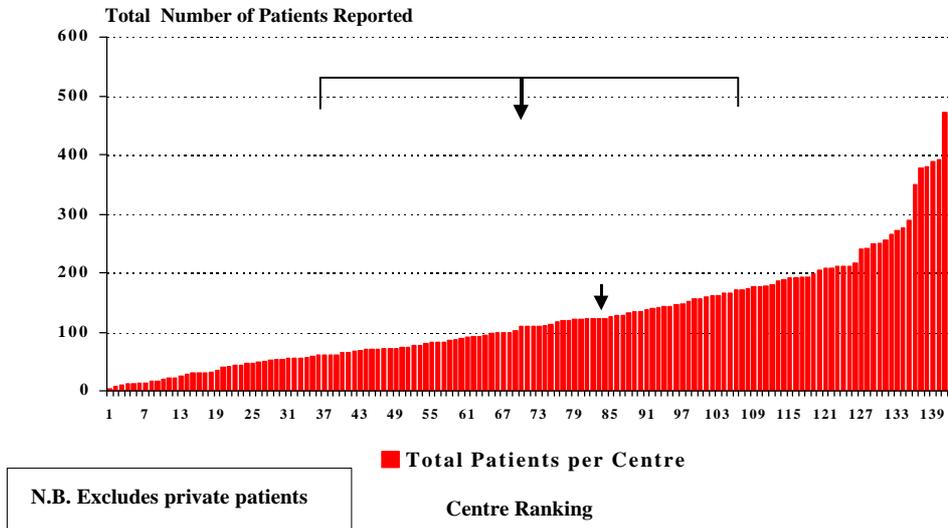
Chart 4

Number of Tumours by Organ per Consultant
321 Consultants reported on 19,009 Patients
Mean Total per Consultant = 59 (Median = 51)

Organ	Total Number Reported	Mean per Consultant	Range	Median per Consultant
Prostate	9277	29	0 – 167	23
Bladder	6584	22	0 – 77	17
Kidney	1661	5.2	0 – 48	4
Testis	838	2.6	0 – 65	2
Pelvis/Ureter	281	0.9	0 – 6	0
Penis	165	0.5	0 – 4	0

Chart 5

Total Patients with Newly Presenting Tumours Reported per Consultant by Organ where n >=40

N.B. Excludes data returned by centres as a whole
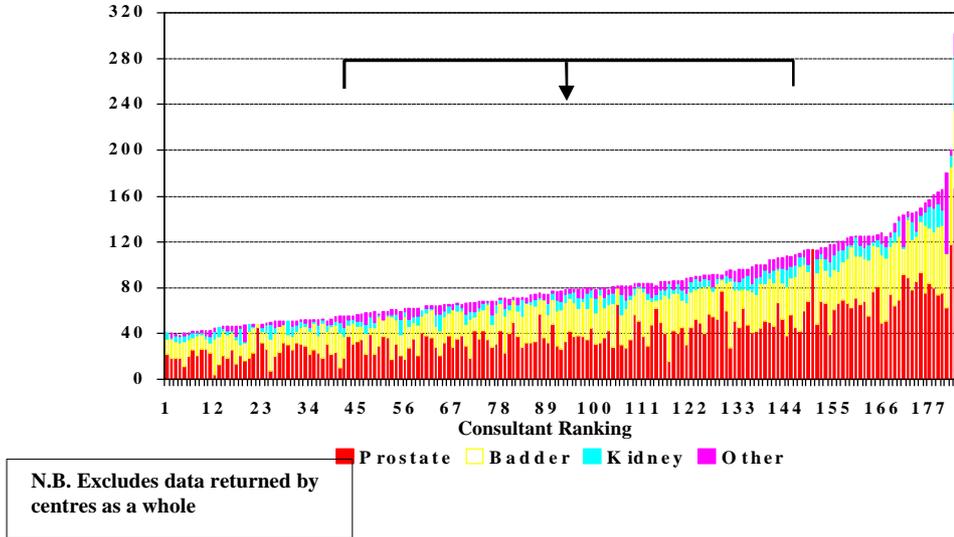
Chart 6

Total Patients with Newly Presenting Tumours Reported per Consultant by Organ where n >=40 - Ranked by Prostate proportion

N.B. Excludes data returned by centres as a whole
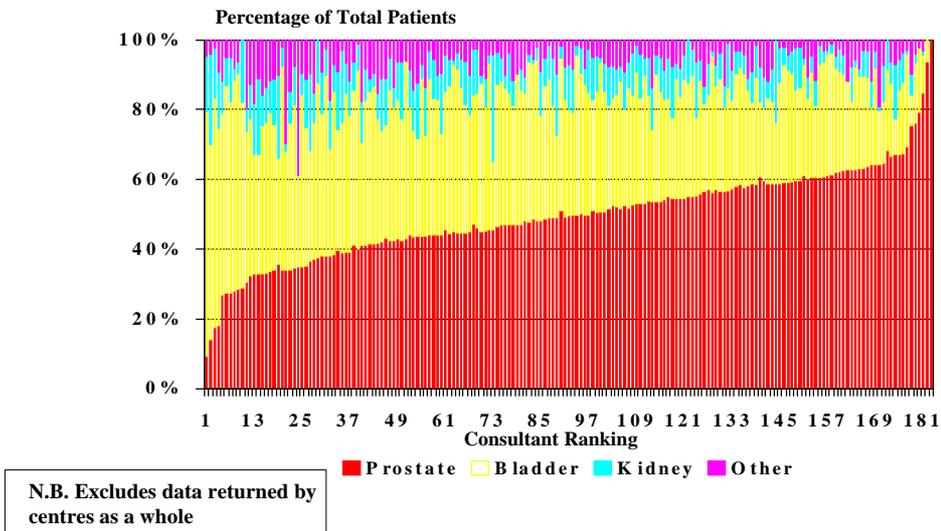
Chart 7

Number of Tumours by Organ
Numbers and Percentage of Total Patients

Organ	Number	Percentage of total (19009)
Prostate	9277	48.8%
Bladder	6584	34.6%
Kidney	1661	8.7%
Testis	838	4.4%
Pelvis/Ureter	281	1.5%
Penis	165	0.9%
Other	120	0.6%
Not recorded	85	0.4%

Chart 8

"Other" Organ Tumours

The 120 "Others" included:

15 Urethra
13 Retroperitoneum
12 Spermatic cord / Scrotum
7 Cervix
6 Metastases from bony primaries
6 Bone metastases from kidney primaries
4 Adrenal tumours
2 Colon
2 Ovarian
and combinations of Kidney & Pelvis/Ureter
                              or Bladder & Prostate

Chart 9

Overall Data by Organ

Organ	Number Recorded	Mean Age at Diagnosis & Range		Males	Females
Prostate	9277	72.9	21 - 100	9277	-
Bladder	6584	71.5	7 - 99	4822	1665
Kidney	1661	64.6	21 - 97	1035	611
Testes	838	37.9	3 - 99	838	-
Pelvis/Ureter	281	70.5	36 - 89	186	89
Penis	165	65.5	31 - 95	165	-
Other	120	66.2	25 - 92	77	43
Not recorded	85	70.1	22 - 89	69	12

Chart 10

Age Distribution - Prostate Tumours
Mean: 72.9 Years; Range 21-100

Total Patients in each Age Group
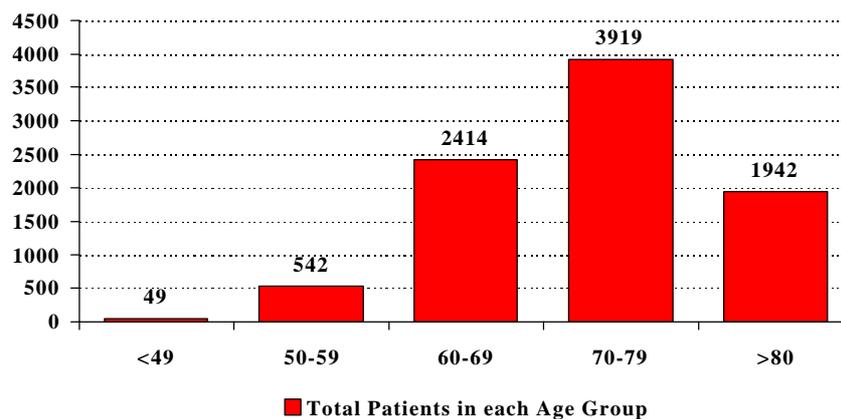
Chart 11

Age Distribution - Bladder Tumours
Mean: 71.5 Years; Range 7 - 99
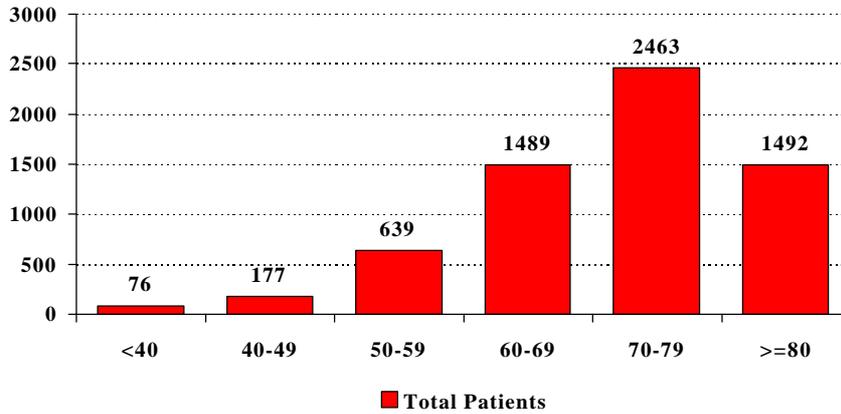
Chart 12

Age Distribution - Kidney Tumours
Mean: 64.6 Years; Range 21 - 97
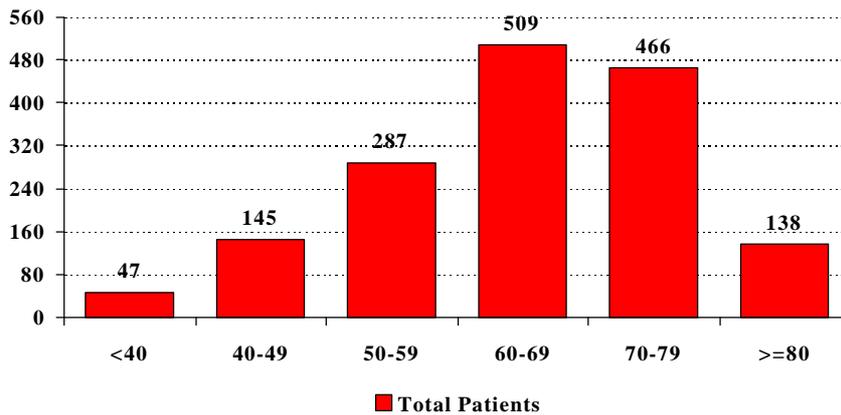
Chart 13

Age Distribution - Testicular Tumours
Mean: 37.9 Years; Range 3 - 99
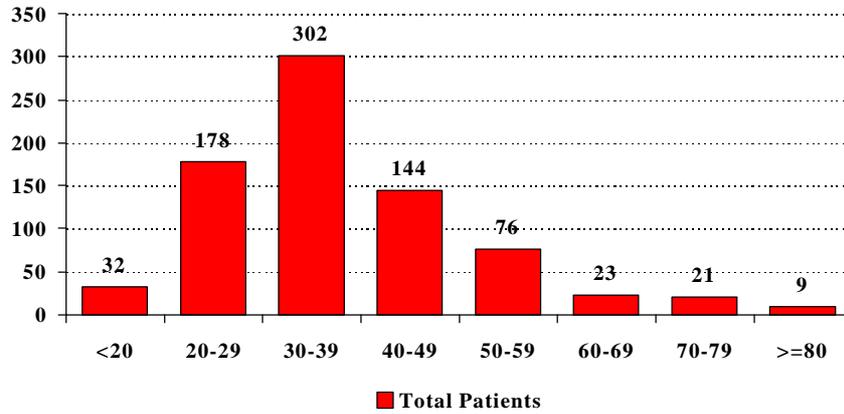
Chart 14

Age Distribution - Pelvis/Ureteric Tumours
Mean: 70.5 Years; Range 36 - 89
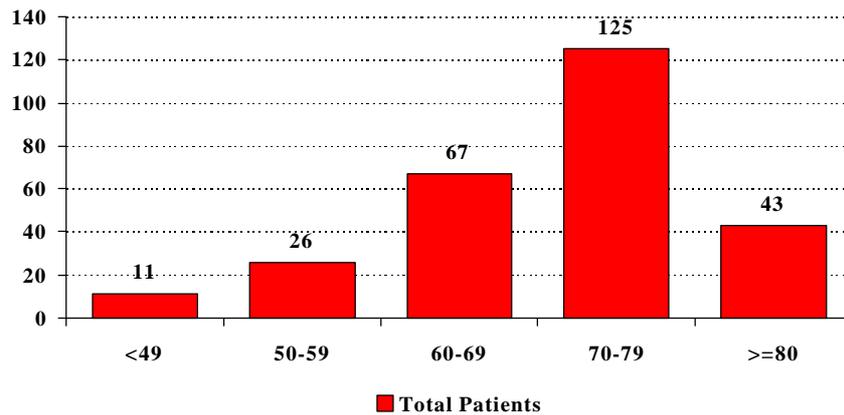
Chart 15

Age Distribution - Penile Tumours
Mean: 65.5 Years; Range 31 - 95

Legend: ■ Total Patients

Data values by age group:
- <40: 6
- 40-49: 17
- 50-59: 27
- 60-69: 46
- 70-79: 34
- >=80: 28
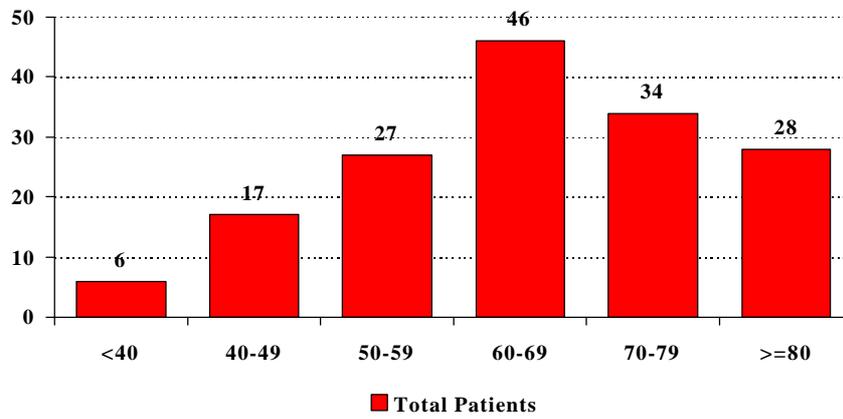
B. Referral Source & Time between Referral and Diagnosis
Chart 16

Source of Referral by Organ

Organ	GP	Urologist	Other	Not Recorded
Prostate	6796 – 73.3%	809 - 8.7%	1117 – 12.0%	555 – 6.0%
Bladder	4978 – 75.1%	422 – 6.4%	826 – 13%	358 – 5.5%
Kidney	908 – 54.7%	97 – 5.8%	557 – 33.5%	99 – 6.0%
Testis	576 – 68.4%	106 – 12.6%	108 – 12.8%	52 – 6.2%
Pelvis/Ureter	197 – 70.1%	25 – 8.9%	41 – 14.6%	18 – 6.4%
Penis	101 – 61.2%	20 – 12.1%	34 – 20.6%	10 – 6.1%
Totals	13556 – 71.9%	1479 – 7.8%	2710 – 14.4%	1106 – 5.9%

Chart 17

"Other" Sources of Referral

2710 "Other" sources included:

809- Consultant Physicians
561 - Consultant Surgeons
499 - A&E
154 - Care of Elderly
130 - Gynaecology
123 - Routine Follow-ups
86 - Oncologists
47 - Haematology
28 - Radiology
22 - Incidental Finding

Chart 18

Source of Referral by Region

Region	GP	Urologist	Other	Not Recorded
EA & Oxford	1011 – 82.6%	59 – 4.8%	114 – 9.3%	40 – 3.3%
Northern & Yorks	1913 – 74.8%	206 – 8.1%	410 – 16.0%	28 – 1.1%
Northern Ireland	141 – 65.3%	8 – 3.7%	56 - 25.9%	11 – 5.1%
North Thames	1421 – 76.6%	68 – 3.6%	326 – 17.6%	40 – 2.2%
North Western	949 – 80.6%	34 – 2.9%	183 – 15.5%	12 – 1.0%
Scotland	490 – 73.9%	45 – 6.8%	123 – 18.5%	5 - 0.8%
South Thames	1308 – 75.9%	65 – 3.8%	249 – 14.4%	101 – 5.9%
South Western	1776 – 81.3%	81 – 3.7%	274 – 12.5%	54 – 2.5%
Trent	1574 – 80.5%	38 – 1.9%	299 – 15.3%	44 – 2.3%
Wales	681 – 78.8%	54 – 6.3%	117 – 13.5%	12 – 1.4%
West Midlands	1309 – 66.1%	313 – 15.8%	333 – 16.8%	26 – 1.3%

Chart 19

Time between Referral Date and Date of Diagnosis in Weeks by Referral Source

Time to Diagnosis (Weeks)	GP	Urologist	Other
Diagnosis before Referral	208 – 1.6%	292 – 29.8%	174 – 6.9%
>0 up to 2 weeks	1496 – 11.8%	149 – 15.2%	824 – 32.9%
2 – 4 weeks	1632 – 12.8%	107 – 10.9%	400 – 16.0%
> 4 – 12 weeks	5193 – 40.8%	297 – 30.3%	689 – 27.5%
>12 – 24 weeks	2625 – 20.6%	84 – 8.6%	254 – 10.1%
More than 24 weeks	1577 – 12.4%	51 – 5.2%	165 – 6.6%
Total	12731	980	2506

Chart 20

Time to Diagnosis in Weeks by Region
for Patients referred by GP

Total Number of Patients

■ Diagnosis before referral ■ >0 up to 2 weeks ■ 2 - 4 weeks
■ >4 - 12 weeks ■ >12 - 24 weeks ■ More than 24 weeks
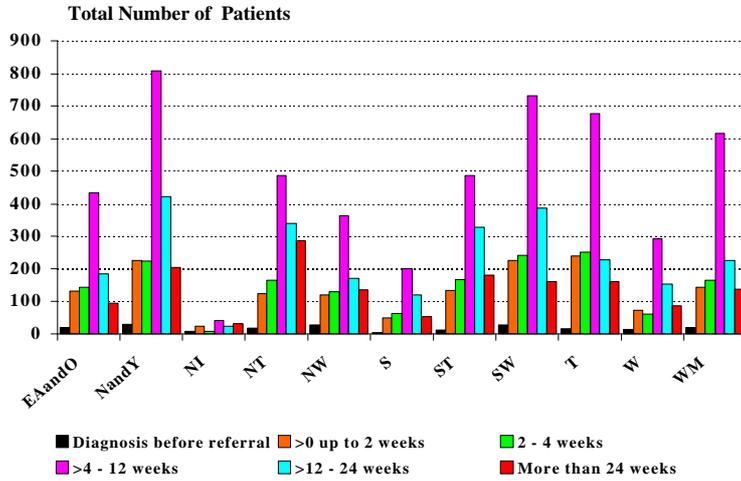
Chart 21

Time to Diagnosis in Weeks by Region
for Patients referred by another Urologist or Oncologist
(Tertiary referrals)

Total Number of Patients

■ Diagnosis before referral ■ >0 up to 2 weeks ■ 2 - 4 weeks
■ >4 - 12 weeks ■ >12 - 24 weeks ■ More than 24 weeks
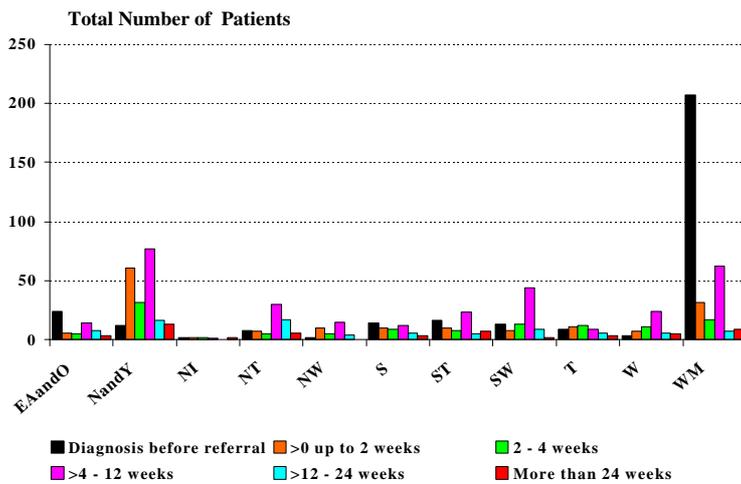
Chart 22

Time to Diagnosis in Weeks by Region
for Patients referred from an "Other" Source
(excluding Oncologists)

Total Number of Patients

■ Diagnosis before referral ■ >0 up to 2 weeks ■ 2 - 4 weeks
■ >4 - 12 weeks ■ >12 - 24 weeks ■ More than 24 weeks
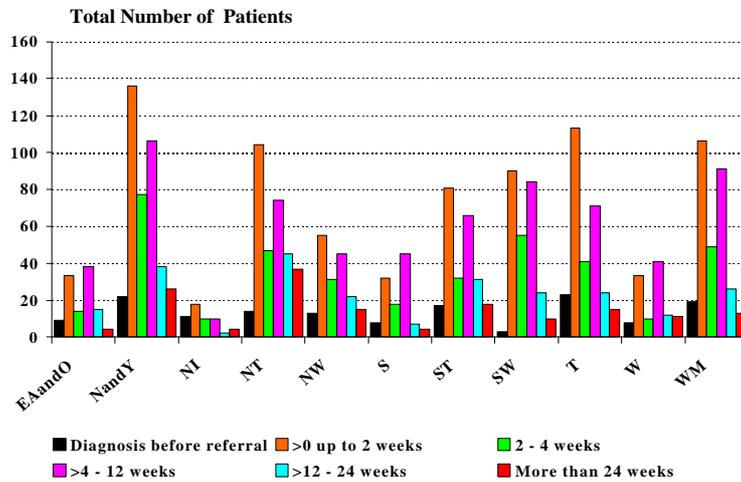
Chart 23

Time to Diagnosis by Organ
Excluding patients diagnosed before Referral

Organ	Mean time in days	Median time in days	Range	Number where Time > 1 year
Prostate	115	60	0 days – 12yrs 6months	421
Bladder	83.3	54	0 days – 11yrs 1month	112
Kidney	67.1	38	0 days – 6yrs 11months	22
Testis	27.3	13	0 days – 1yr 4months	3
Pelvis/Ureter	117	64	0 days – 5yrs 6months	9
Penis	52.6	33	0 days – 1yr 11months	0

C. Histology
Chart 24

Histological Confirmation of Diagnosis by Organ

Organ	Confirmation Obtained	Confirmation Not Obtained	Not Recorded
Prostate	8603 – 92.7%	515 – 5.6%	159 – 1.7%
Bladder	6339 – 96.3%	141 – 2.1%	104 – 1.6%
Kidney	1434 – 86.3%	196 – 11.8%	31 – 1.9%
Testis	816 – 97.4%	5 – 0.6%	17 – 2.0%
Pelvis/Ureter	272 – 96.8%	6 – 2.1%	3 – 1.1%
Penis	162 – 98.2%	2 – 1.2%	1 – 0.6%
Totals	17626 – 93.7%	865 – 4.6%	315 – 1.7%

Chart 25

Histology by Organ
Histology obtained in 94% (17626) of patients

	Prostate	Bladder	Kidney	Testis	Pelvis/Ureter	Penis
Adenocarcinoma	8553	134	1248*	6	8	1
TCC	79	5944	135		251	2
SCC	7	127	6		3	144
Mixed TCC / SCC	1	52	6	7	3	
Seminoma				444		
Teratoma				194		
Mixed Seminoma / Teratoma				81		
Other	75	123	54	82	7	14

* N.B. Includes 359 renal cell carcinomas

Chart 26

"Other" Histology

355 "Other" histology included:

- 28 Carcinoma in situ
- 20 Sarcomas / Liposarcomas
- 16 Leydig cell tumour
- 13 Leiomyosarcoma
- 13 Non-Hodgkins lymphoma
- 11 TCC & in situ
- 10 Lymphomas
- 9 Metastatic carcinomas
- 8 Adenocarcinoma & TCC combined
- 7 PIN
- 7 B cell lymphomas
- 6 Oncocytoma
- 4 Hypernephroma
- 2 Bowens disease
- 2 Verrucous carcinoma
- 1 Phaechromocytoma
- 1 von Brunn's

Chart 27

Basis of Diagnosis when Histological Confirmation Not Obtained
(865 patients - 4.6% of total)

Organ	Radiology	Cytology	Tumour Marker	Clinical	Other
Prostate (515 patients)	108	-	381	309	46
Bladder (141 patients)	44	15	2	79	29
Kidney (196 patients)	168	4	1	54	12
Pelvis/Ureter (6 patients)	6	2	-	1	-
Testis (5 patients)	2	-	-	3	-
Penis (2 patients)	-	-	-	2	-

N.B. More than one method might be used for each patient

Chart 28

Known Differentiation by Organ
Percentage & Total of Known Differentiation

Organ	Well	Moderate	Poor
Prostate	1567 (19.6%)	4215 (52.7%)	2219 (27.7%)
Bladder	1665 (28.6%)	2097 (36.1%)	2050 (35.3%)
Kidney	335 (31.1%)	509 (47.3%)	233 (21.6%)
Testis	210 (46.6%)	114 (25.3%)	127 (28.1%)
Pelvis/Ureter	54 (21.9%)	101 (40.9%)	92 (37.2%)
Penis	63 (47%)	47 (35.1%)	24 (17.9%)

D. Staging

Participants were asked to return both clinical and pathological TNM categories using the 1997 version of the TNM classification for Urological tumours which were included in the data dictionary sent to all participants.

In order to make interpretation of the resultant information easier each patient was staged, wherever possible, using the classifications as shown in the following charts. If the pathological TNM categories were given then these were used for the staging, failing this the clinical TNM categories were used.

Unfortunately less than 30% of the returns had either the full pathological TNM or clinical TNM categories and an estimate had to be made from what information was provided. (Many forms did not include any N and M categories.)

The data on the following charts should therefore be regarded with caution.

Chart 29

Staging of Kidney Tumours
A total of 1661 Kidney Tumours were reported
Staging could be estimated in 1530 (92%)

Known Staging	Number & Percentage of Total Known
Stage I (T1 N0 M0)	422 – 27.6%
Stage II (T2 N0 M0)	409 – 26.7%
Stage III (T1, T2, T3 N0,N1 M0)	382 – 25.0%
Stage IV (T4 N0,N1 M0 Any T N2 M0 Any T any N M1)	317 – 20.7%

Chart 30

Staging of Kidney Tumours
A total of 1661 Kidney Tumours were reported
Comparison of clinical & pathological staging

Total Number of Patients in each Stage

| | Pathological Stage I | | Pathological Stage II |
| | Pathological tage III | | Pathological Stage IV |
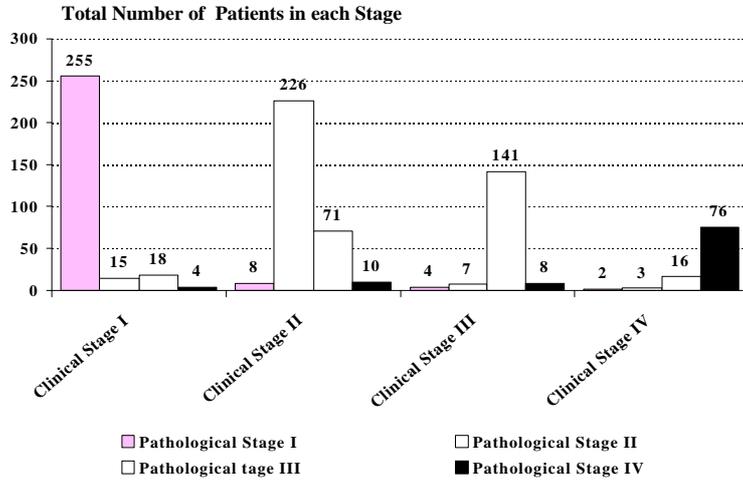
Chart 31

Staging of Pelvis / Ureteric Tumours
A total of 281 Tumours were reported
Staging could be estimated in 246 (87.5%)

Known Staging	Number & Percentage of Total Known
Stage 0a (Ta N0 M0)	62 - 25.2%
Stage 0is (Tis N0 M0)	3 – 1.2%
Stage I (T1 N0 M0)	71 – 28.9%
Stage II (T2 N0 M0)	34 – 13.8%
Stage III (T3 N0 M0)	39 – 15.8%
Stage IV (T4 N0, M0 Any T N1, N2, N3 M0 Any T any N M1)	37 – 15.1%

Chart 32

Staging of Pelvis / Ureteric Tumours
A total of 281Tumours were reported
Comparison of clinical & pathological staging

Total Number of Patients in each Stage

■ Pathological Stage 0a   ■ Pathological Stage I   □ Pathological Stage II
□ Pathological tage III   ■ Pathological Stage IV
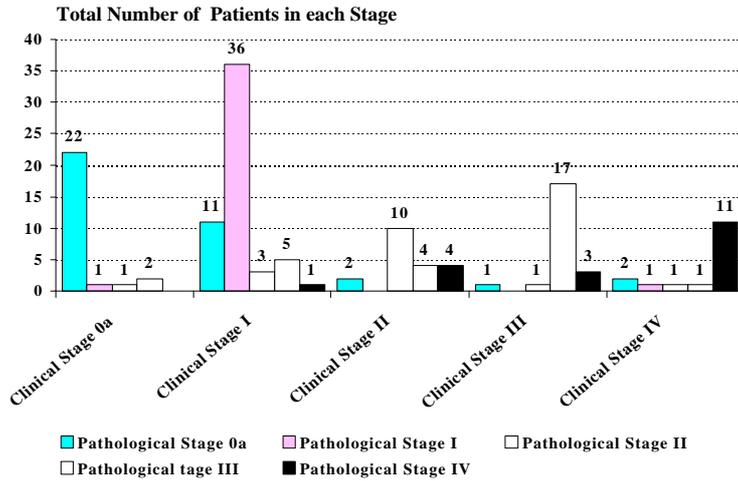
Chart 33

Staging of Bladder Tumours
A total of 6584 BladderTumours were reported
Staging could be estimated in 6205 (94.2%)

Known Staging	Number & Percentage of Total Known
Stage 0a (Ta N0 M0)	2445 – 39.4%
Stage 0is (Tis N0 M0)	115 – 1.9%
Stage I (T1 N0 M0)	1748 – 28.2%
Stage II (T2a, 2b N0 M0)	1059 – 17.1%
Stage III (T3a, 3b, 4a, N0 M0)	566 – 9.1%
Stage IV (T4b N0 M0 Any T N1, N2, N3 M0 Any T any N M1)	272 – 4.3%

Chart 34

Staging of Bladder Tumours
A total of 6584 Tumours were reported
Comparison of clinical & pathological staging

Total Number of Patients in each Stage

Legend:
- ■ Pathological Stage 0a
- ■ Pathological Stage 0is
- ■ Pathological Stage I
- □ Pathological Stage II
- □ Pathological tage III
- ■ Pathological Stage IV
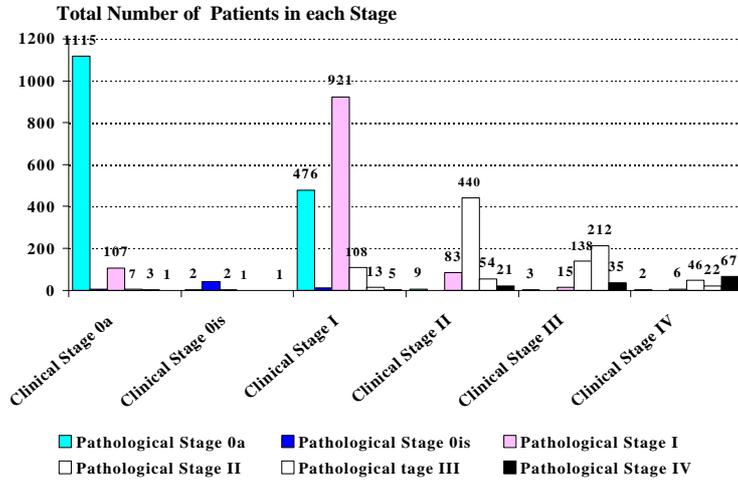
Chart 35

Staging of Prostate Tumours
A total of 9277 Prostate Tumours were reported
Staging could be estimated in 7564 (81.5%)

Known Staging	Number & Percentage of Total Known
Stage I (T1a N0 M0 Well Differentiated)	214 – 2.8%
Stage II (T1a N0 M0 Mod or Poor differentiation T1b, 1c, 1, 2, N0 M0 Any differentiation)	3709 – 49.0%
Stage III (T3 N0 M0 Any differentiation)	1972 – 26.1%
Stage IV (T4 N0 M0 Any differentiation Any T N1 M0 Any differentiation Any T Any N M1 Any differentiation)	1669 – 22.1%

N.B. A pathological staging for prostate tumours was only included
for patients who had radical surgery (n =511)

Chart 36

Staging of Prostate Tumours
A total of 9277 Prostate Tumours were reported
Comparison of clinical & pathological staging

Total Number of Patients in each Stage

| ☐ **Pathological Stage I** | ☐ **Pathological Stage II** |
| ☐ **Pathological tage III** | ■ **Pathological Stage IV** |
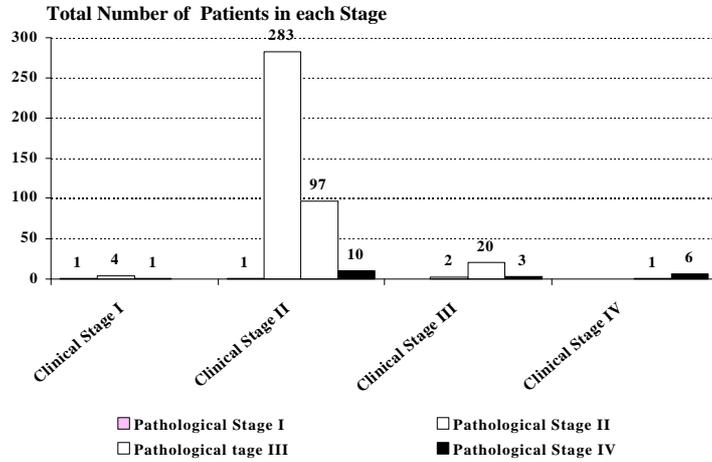
N.B. A pathological staging for prostate tumours was only included
for patients who had radical surgery (n = 511)

Chart 37

Staging of Prostate Tumours by Age Group
Numbers falling in each category

Known Clinical Staging	<=49	50-59	60-69	70-79	>80
Stage I (T1a N0 M0 Well Differentiated)	-	12	51	99	55
Stage II (T1a N0 M0 Mod or Poor differentiation T1b, 1c, 1, 2, N0 M0 Any differentiation)	17	282	1169	1536	585
Stage III (T3 N0 M0 Any differentiation)	7	78	387	820	507
Stage IV (T4 N0 M0 Any differentiation Any T N1 M0 Any differentiation Any T Any N M1 Any differentiation)	19 44.2% (19/43)	67 15.3% (67/439)	316 16.4% (316/1923)	693 22.0% (693/3148)	454 28.3% (454/1601)
Significantly different from overall Stage IV figure (22.1% at 95% CI)	Yes	Yes	Yes	No	Yes

Chart 38

Staging of Prostate Tumours by PSA
Numbers falling in each category
PSA was recorded in 88.5% patients (8206/9277)

Known Clinical Staging	Total Patients	PSA 0-4	PSA 5-10	PSA 11-20	PSA 21-50	PSA > 50
Stage I (T1a N0 M0 Well Differentiated)	154	54 35.1%	37 24.0%	31 20.1%	23 14.9%	9 5.9%
Stage II (T1a N0 M0 Mod or Poor differentiation T1b, 1c, 1, 2, N0 M0 Any differentiation)	3405	308 9.0%	941 27.6%	886 26.0%	793 23.3%	478 14.1%
Stage III (T3 N0 M0 Any differentiation)	1761	56 3.2%	144 8.2%	278 15.8%	536 30.4%	747 42.4%
Stage IV (T4 N0 M0 Any differentiation Any T N1 M0 Any differentiation Any T Any N M1 Any differentiation)	1505	43 2.8%	43 2.8%	79 5.2%	207 13.8%	1135 75.4%

Chart 39

Staging of TesticularTumours
A total of 838 Testicular Tumours were reported
Staging could be estimated in 722 (86.2%)

Known Staging	Number & Percentage of Total Known
Stage 0 (Tis N0 M0 S0,SX)	6 – 0.8%
Stage I (T1,2,3,4 N0 M0 SX)	187 – 25.9%
Stage IA (T1, N0 M0 S0)	203 – 28.1%
Stage IB (T2, 3, 4, N0 M0 S0)	54 – 7.5%
Stage IS (Any T N0 M0 S1, 2, 3)	211 – 29.2%
Stage II (Any T, N1, 2, 3, M0, SX, 0, 1)	36 – 5.0%
Stage III (Any T, Any N, M1, 1a, SX, 0, 1,2, 3 Any T, N1, 2, 3, M0, S2, 3 Any T, Any N, M1b, Any S)	25 – 3.5%

Chart 40

Staging of TesticularTumours
A total of 838 Testicular Tumours were reported
Comparison of clinical & pathological staging

Total Number of Patients in each Stage

Legend:
- ■ Pathological Stage I
- ■ Pathological Stage IA
- □ Pathological Stage IB
- □ Pathological Stage IS
- ■ Pathological Stage II
- ■ Pathological Stage III
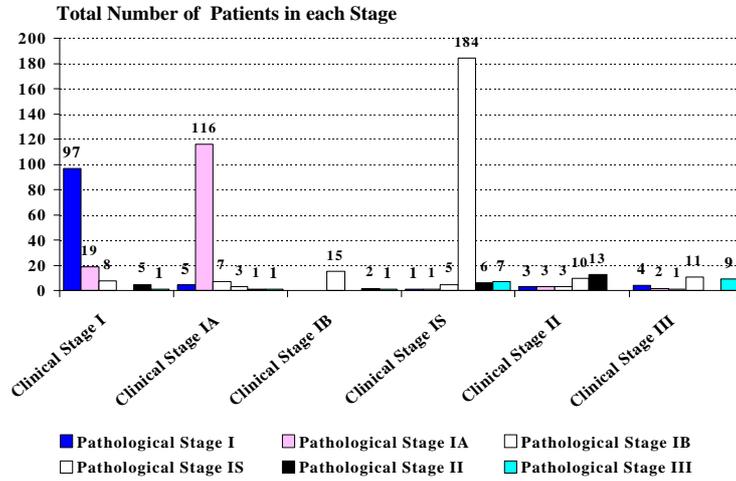
Chart 41

Staging of Penile Tumours
A total of 162 Penile Tumours were reported
Staging could be estimated in 146 (90.1%)

Known Staging	Number & Percentage of Total Known
Stage 0 **(Tis, a, N0 M0)**	**24 – 16.4%**
Stage I **(T1 N0 M0)**	**54 – 37.0%**
Stage II **(T2 N0, N1 M0)**	**44 – 30.1%**
Stage III **(T1, 2, N2 M0** **T3, N0, N1, N2, M0)**	**17 – 11.7%**
Stage IV **(T4 Any N M0** **Any T N3 M0** **Any T Any N M1)**	**7 – 4.8%**

Chart 42

Staging of Penile Tumours
A total of 162 Penile Tumours were reported
Comparison of clinical & pathological staging

Total Number of Patients in each Stage

Clinical Stage 0 — Clinical Stage I — Clinical Stage II — Clinical Stage III — Clinical Stage IV

■ Pathological Stage 0   ■ Pathological Stage I   □ Pathological Stage II
□ Pathological tage III   ■ Pathological Stage IV
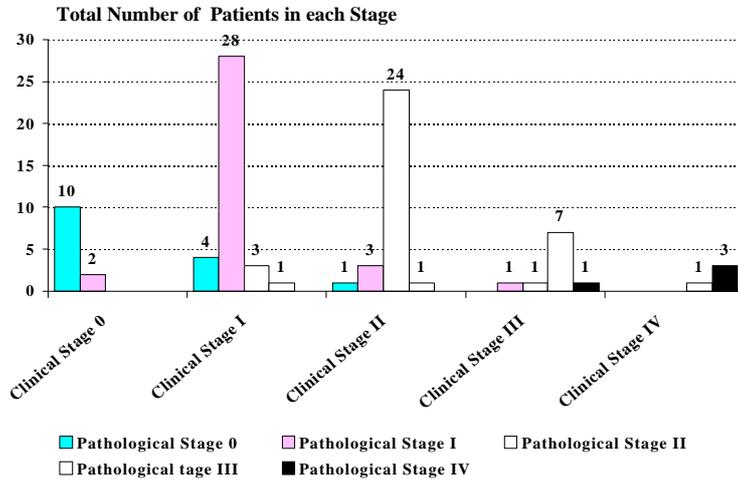
E. Initial Treatment Intention and Type
Chart 43

Initial Treatment Intention by Organ
Percentage & Total of Known Intent

Organ	Curative	Surveillance	Palliative
Prostate (8291)	2465 - 29.7%	1343 - 16.2%	4483 - 54.1%
Bladder (6105)	5096 - 83.5%	189 - 3.1%	820 - 13.4%
Kidney (1579)	1191 - 75.4%	81 - 5.1%	307 - 19.5%
Testis (789)	764 - 96.8%	17 - 2.2%	8 - 1.0%
Pelvis/Ureter (268)	230 - 85.8%	8 - 3.0%	30 - 11.2%
Penis (153)	136 - 88.9%	2 - 1.3%	15 - 9.8%

Chart 44

Initial Treatment Intention of Prostatic Tumours by PSA
Percentage & Total of Known Intent

Intention	PSA 0-4	PSA 5-10	PSA 11-20	PSA 21-50	PSA > 50
Curative (2250)	250 11.1%	801 35.6%	653 29.0%	435 19.3%	111 4.9%
Surveillance (1179)	180 15.2%	306 26.0%	331 28.1%	207 17.6%	155 13.1%
Palliative (4048)	89 2.2%	237 5.8%	452 11.1%	1032 25.5%	2241 55.4%

30

Chart 45

Known Treatment Intention and Type - Kidney Tumours
Total Numbers Reported with those as only Treatment in ( )
(N.B. Excluding TCC's)

Treatment	Curative	Surveillance	Palliative
Surgery: Endoscopic Resection	5 (4)	1	1
Radical Ablative Surgery	992 (964)		95 (55)
Organ Conserving Surgery	36 (35)		3 (3)
Other Surgery	7 (5)	3 (1)	11 (5)
Radiation Therapy	10		15
Systemic Chemotherapy	3	1	7
Hormone Therapy	3		9
Immunotherapy	1	1	22
Other Treatment	9	1	6

Chart 46

Known Treatment Intention and Type - Pelvis/Ureteric Tumours
Total Numbers Reported with those as only Treatment in ( )

Treatment	Curative	Surveillance	Palliative
Surgery: Endoscopic Resection	12 (7)	1 (1)	9 (4)
Endoscopic Resection + 1 shot intravesical chemotherapy	2 (2)		
Radical Ablative Surgery	213 (187)		7 (3)
Organ Conserving Surgery	9 (6)		1 (1)
Other Surgery	7 (6)	2 (2)	4 (2)
Radiation Therapy	10 (2)		7 (1)
Systemic Chemotherapy			3
Intra-vesical Chemotherapy (course)	2		
Hormone Therapy			1
Other Treatment	3	1 (1)	5 (4)

Chart 47

Known Treatment Intention and Type - Bladder Tumours
Total Numbers Reported with those as only Treatment in ( )

Treatment	Curative	Surveillance	Palliative
Surgery: **Endoscopic Resection**	2939 (2206)	95 (83)	507 (233)
Endoscopic Resection + 1 shot intravesical chemotherapy	1529 (1313)	24 (24)	45 (21)
Radical Ablative Surgery	408 (290)		34 (20)
Organ Conserving Surgery	27 (18)	10 (9)	7 (3)
Other Surgery	84 (22)	7 (3)	34 (12)
Radiation Therapy	538 (221)	11 (5)	346 (114)
Systemic Chemotherapy	45 (7)	1	52 (8)
Intra-vesical Chemotherapy (course)	313 (26)	6	21 (8)
Hormone Therapy	5	1	14 (1)
Immunotherapy	98 (19)	2 (2)	4
Other Treatment	86 (9)	9 (5)	65 (22)

Chart 48

Known Treatment by Stage - Bladder Tumours
Total Numbers Reported with those as only Treatment in ( )

Treatment	0a	0is	I	II	III	IV
Surgery: **Endoscopic Resection**	1448 (1306)	58 (23)	1103 (840)	610 (263)	268 (69)	109 (42)
Endoscopic Resection + 1 shot intravesical chemotherapy	892 (839)	10 (6)	531 437)	121 (63)	16 (6)	12 (5)
Radical Ablative Surgery	18 (12)	8 (7)	52 (34)	157 (109)	146 (112)	66 (38)
Organ Conserving Surgery	18 (16)		4 (2)	7 (4)	5 (2)	4 (1)
Other Surgery	32 (13)	5	31 (5)	25 (3)	14 (4)	23 (8)
Radiation Therapy	5 (3)	1	92 (42)	446 (138)	277 (111)	84 (33)
Systemic Chemotherapy	3 (1)		8 (1)	19 (5)	20 (3)	49 (3)
Intra-vesical Chemotherapy (course)	102 (3)	49 (15)	169 (11)	18	3 (1)	4 (3)
Hormone Therapy	3		2 (1)	1	8 (3)	3 (1)
Immunotherapy	18 (1)	24 (14)	60 (3)	2		
Other Treatment	36 (4)	5 (4)	37 (1)	33 (5)	26 (10)	21 (10)

Chart 49

Treatment Intention of Bladder Tumours by Staging

Known Staging	Curative	Surveillance	Palliative
Stage 0a (Ta N0 M0)	2247	65	31
Stage 0is (Tis N0 M0)	102	5	4
Stage I (T1 N0 M0)	1569	34	84
Stage II (T2a, 2b N0 M0)	695	32	252
Stage III (T3a, 3b, 4a N0 M0)	290	20	221
Stage IV (T4b N0 M0 Any T N1, N2, N3 M0 Any T any N M1)	67	11	176

Chart 50

Known Differentiation and Treatment Type - Bladder Tumours
Total Numbers Reported with those as only Treatment in ( )

Treatment	Well	Moderate	Poor
Surgery: Endoscopic Resection	1071 (985)	1240 (965)	1153 (516)
Endoscopic Resection + 1 shot intravesical chemotherapy	542 (520)	687 (614)	278 (167)
Radical Ablative Surgery	15 (9)	75 (52)	336 (232)
Organ Conserving Surgery	3 (2)	4 (3)	15 (6)
Other Surgery	24 (12)	32 (5)	62 (14)
Radiation Therapy	12 (1)	165 (47)	617 (184)
Systemic Chemotherapy	2 (1)	12 (1)	78 (8)
Intra-vesical Chemotherapy (course)	44 (2)	117 (2)	129 (15)
Hormone Therapy	5 (1)	5 (2)	7 (2)
Immunotherapy	7 (2)	17 (1)	69 (9)
Other Treatment	13 (3)	38 (1)	79 (14)

Chart 51

Treatment Intention of Bladder Tumours by Differentiation

Known Differentiation	Curative	Surveillance	Palliative
Well	1554	40	19
Moderate	1807	44	143
Poor	1306	57	545

Chart 52

Known Treatment Intention and Type - Prostate Tumours
Total Numbers Reported with those as only Treatment in ( )

Treatment	Curative	Surveillance	Palliative
Surgery: Endoscopic Resection	344 (174)	312 (285)	1064 (340)
Endoscopic Resection + 1 shot intravesical chemotherapy	8 (4)	2	7 (2)
Radical Ablative Surgery	761 (706)	7 (4)	51 (23)
Organ Conserving Surgery	2 (1)	3 (1)	41 (24)
Other Surgery	65 (26)	141 (43)	168 (23)
Radiation Therapy	1240 (765)	40 (2)	359 (113)
Systemic Chemotherapy	10 (3)		8 (5)
Intra-vesical Chemotherapy (course)	4 (2)		26 (19)
Hormone Therapy	528 (77)	182 (82)	3722 (2716)
Immunotherapy		1 (1)	
Other Treatment	79 (26)	54 (44)	93 (33)

Chart 53

Known Treatment by PSA - Prostate Tumours
Total Numbers Reported with those as only Treatment in ( )

Treatment	PSA 0-4	PSA 5-10	PSA 11-20	PSA 21-50	PSA >50
Surgery: **Endoscopic Resection**	198 (152)	176 (115)	239 (103)	320 (120)	496 (89)
Endoscopic Resection + 1 shot intravesical chemotherapy	1 (1)		4 (2)	3	4
Radical Ablative Surgery	107 (99)	368 (353)	196 (173)	59 (42)	41 (21)
Organ Conserving Surgery		3 (2)	7 (5)	10 (3)	22 (14)
Other Surgery	26 (12)	61 (22)	76 (17)	102 (25)	137 (23)
Radiation Therapy	99 (60)	415 (266)	476 (279)	430 (185)	182 (55)
Systemic Chemotherapy	3 (2)	4 (3)	4 (1)	1	2 (1)
Intra-vesical Chemotherapy (course)	3 (3)	5 (3)	5 (3)	10 (8)	6 (4)
Hormone Therapy	116 (68)	299 (138)	573 (293)	1148 (723)	2248 (1644)
Immunotherapy	2 (1)				1 (1)
Other Treatment	34 (15)	51 (32)	61 (32)	49 (22)	49 (14)

Chart 54

Known Treatment Intention and Type - Testicular Tumours
Total Numbers Reported with those as only Treatment in ( )

Treatment	Curative	Surveillance	Palliative
Radical Ablative Surgery	662 (250)	2 (1)	5 (2)
Organ Conserving Surgery	4 (3)		
Other Surgery	15 (9)	1 (1)	1 (1)
Radiation Therapy	234 (34)		1
Systemic Chemotherapy	201 (32)		3 (2)
Other Treatment	80 (5)	1	1

Chart 55

Known Treatment Intention and Type - Penile Tumours
Total Numbers Reported with those as only Treatment in ( )

Treatment	Curative	Surveillance	Palliative
Surgery: Radical Ablative Surgery	55 (45)		3 (2)
Organ Conserving Surgery	54 (46)		5 (3)
Other Surgery	19 (6)		4 (1)
Radiation Therapy	21 (8)		5 (3)
Systemic Chemotherapy	2		
Other Treatment	9 (2)		1

F. Tertiary Referrals
Chart 56

Tertiary Referrals - Overall Data by Organ
8.3% (1579/19009) of all patients were tertiary referrals
(referred by a Urologist or Oncologist)

Organ	Number Recorded	Mean Age at Diagnosis & Range		Males	Females
Prostate	828	68.1	42-92	828	-
Bladder	438	71.3	35-95	309	123
Kidney	114	62.5	34-85	66	48
Testes	126	37.1	18-70	126	-
Pelvis/Ureter	25	72.2	62-82	16	6
Penis	23	61.4	31-88	23	-
Other	20	59.7	25-76	11	9
Not recorded	5	71.4	49-82	5	0

Chart 57

Tertiary Referrals -Known Differentiation by Organ
Percentage & Total of Known Differentiation

Organ	Well	Moderate	Poor
Prostate	98 (17.9%)	341 (62.5%)	107 (19.6%)
Bladder	40 (14.1%)	94 (33.2%)	149 (52.7%)
Kidney	22 (31.4%)	33 (47.1%)	15 (21.4%)
Testis	50 (64.9%)	13 (16.9%)	14 (18.2%)
Pelvis/Ureter	3 (14.3%)	8 (38.1%)	10 (47.6%)
Penis	8 (53.3%)	5 (33.3%)	2 (13.3%)

Chart 58

Tertiary Referrals -Staging of Kidney Tumours
A total of 114 Kidney Tumours were reported
Staging could be estimated in 105 (92.1%)

Known Staging	Number & Percentage of Total Known
Stage I (T1 N0 M0)	31 – 29.5%
Stage II (T2 N0 M0)	15 – 14.3%
Stage III (T1, T2, T3 N0,N1 M0)	29 – 27.6%
Stage IV (T4 N0,N1 M0 Any T N2 M0 Any T any N M1)	30 – 28.6%

Chart 59

Tertiary Referrals - Staging of Pelvis / Ureteric Tumours
A total of 25 Tumours were reported
Staging could be estimated in 21 (84.0%)

Known Staging	Number & Percentage of Total Known
Stage 0a (Ta N0 M0)	6 – 28.6%
Stage 0is (Tis N0 M0)	0
Stage I (T1 N0 M0)	5 – 23.8%
Stage II (T2 N0 M0)	5 – 23.8%
Stage III (T3 N0 M0)	3 – 14.3%
Stage IV (T4 N0, M0 Any T N1, N2, N3 M0 Any T any N M1)	2 – 9.5%

Chart 60

Tertiary Referrals - Staging of Bladder Tumours
A total of 438 Bladder Tumours were reported
Staging could be estimated in 402 (91.8%)

Known Staging	Number & Percentage of Total Known
Stage 0a (Ta N0 M0)	85 – 21.1%
Stage 0is (Tis N0 M0)	12 – 3.0%
Stage I (T1 N0 M0)	79 – 19.7%
Stage II (T2a, 2b N0 M0)	93 – 23.1%
Stage III (T3a, 3b, 4a, N0 M0)	86 – 21.4%
Stage IV (T4b N0 M0 Any T N1, N2, N3 M0 Any T any N M1)	47 – 11.7%

Chart 61

Tertiary Referrals -Staging of Prostate Tumours
A total of 528 Prostate Tumours were reported
Staging could be estimated in 675 (81.5%)

Known Clinical Staging	Number & Percentage of Total Known
Stage I (T1a N0 M0 Well Differentiated)	5 – 0.7%
Stage II (T1a N0 M0 Mod or Poor differentiation T1b, 1c, 1, 2, N0 M0 Any differentiation)	399 – 59.1%
Stage III (T3 N0 M0 Any differentiation)	132 – 19.6%
Stage IV (T4 N0 M0 Any differentiation Any T N1 M0 Any differentiation Any T Any N M1 Any differentiation)	139 – 20.6%

Chart 62

Tertiary Referrals - Staging of TesticularTumours
A total of 126 Testicular Tumours were reported
Staging could be estimated in 107 (84.9%)

Known Staging	Number & Percentage of Total Known
Stage 0 (Tis N0 M0 S0,SX)	0
Stage I (T1,2,3,4 N0 M0 SX)	21 – 19.6%
Stage IA (T1, N0 M0 S0)	44 – 41.1%
Stage IB (T2, 3, 4, N0 M0 S0)	6 – 5.6%
Stage IS (Any T N0 M0 S1, 2, 3)	23 – 21.5%
Stage II (Any T, N1, 2, 3, M0, SX, 0, 1)	11 – 10.3%
Stage III (Any T, Any N, M1, 1a, SX, 0, 1,2, 3 Any T, N1, 2, 3, M0, S2, 3 Any T, Any N, M1b, Any S)	2 – 1.9%

Chart 63

Tertiary Referrals - Staging of Penile Tumours
A total of 23 Penile Tumours were reported
Staging could be estimated in 18 (78.3%)

Known Staging	Number & Percentage of Total Known
Stage 0 (Tis, a, N0 M0)	1 – 5.6%
Stage I (T1 N0 M0)	7 – 38.9%
Stage II (T2 N0, N1 M0)	5 – 27.8%
Stage III (T1, 2, N2 M0 T3, N0, N1, N2, M0)	2 – 11.1%
Stage IV (T4 Any N M0 Any T N3 M0 Any T Any N M1)	3 – 16.6%

Chart 64

Tertiary Referrals Initial Treatment Intention by Organ
Percentage & Total of Known Intent

Organ	Curative	Surveillance	Palliative
Prostate (759)	456 - 60.1%	90 - 11.9%	213 - 28.0%
Bladder (414)	311 - 75.1%	19 - 4.6%	84 - 20.3%
Kidney (108)	70 - 64.8%	5 - 4.6%	33 - 30.6%
Testis (124)	113 - 91.1%	11 - 8.9%	0
Pelvis / Ureter (24)	20 - 83.4%	2 - 8.3%	2 - 8.3%
Penis (20)	17 - 85%	1 - 5%	2 - 10%

G. Completeness of Data
Chart 65

Completeness of Data -1
Percentage and numbers of Total Returns unknown

Data Item	1999 Number Unknown	Percentage of Total Returns 19009	1998 Number Unknown	Percentage of Total Returns 6406
Centre no or Consultant no	9	0.04%	2	0.03%
Patient Hospital Number	257*	1.4%	22	0.3%
Patient NHS Number	6946	36.5%	-	
Postcode	1319	6.9%	-	
Sex	118	0.6%	47	0.7%
Date of Birth	217	1.1%	155	2.4%
Organ	83	0.4%	27	0.4%
Date of Diagnosis	604	3.2%	-	
Referral Source	1096	5.8%	-	
Date of Referral	1820	9.6%	-	
Histological confirmation	321	1.7%	-	
Basis of diagnosis if no Histology	71/875	8.1%	-	

* includes 198 who were private patients

Chart 66

Completeness of Data -2
Percentage and numbers of Total Returns unknown

Data Item	1999 Number Unknown	Percentage of Total Returns 19009	1998 Number Unknown	Percentage of Total Returns 6406
Histology	258/17813	1.4%	116	1.8%
Differentiation	2200/17813	12.4%	608	9.5%
Clinical T Category	3357	17.7%	542	8.5%
Clinical N Category	6555	34.5%	1686	26.3%
Clinical M Category	6467	34.0%	1658	25.9%
Pathological T Category	6223/17813	34.9%	-	
Pathological N Category	9061/17813	50.9%	-	
Pathological M Category	9055/17813	50.8%	-	
PSA at time of Diagnosis	1071/9277	11.5%	-	
S Category	307/838	36.6%	-	
Treatment Intention	1646	8.7%	626	9.8%
Treatment Type	331/15714	2.1%	351 / 4832	7.3%