

**THE BRITISH ASSOCIATION OF
UROLOGICAL SURGEONS
SECTION of ONCOLOGY**

Analyses of Nephrectomy Dataset

January 1st – 31st December 2011

June 2012

MEMBERS OF THE EXECUTIVE COMMITTEE

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GENERAL INTRODUCTION

Once again Sarah Fowler has done an exceptional job in producing the complex operations datasets for 2011. This is the first full years analysis of the updated datasets. As you will see the format and presentation has been updated and centres have been offered their own charts if they want these. This has been facilitated by introduction of Tableau™ software making the cross referenced analysis much easier.

The improvements made to the datasets with the introduction of more pull down menus seems to have improved data quality overall which is most pleasing.

The nephrectomy and radical prostatectomy datasets are particularly impressive in terms of the data quality. Seeing more complete and meaningful outcome data for example on potency and continence rates after RP is a positive development. The more detailed recording of complications and introduction of the Clavien- Dindo classification of surgical complications is a further good example and is particularly useful to monitor trends over time. Unfortunately large robotic centres are still disappointingly underrepresented. Overall the follow up data remains disappointing.

As always we encourage section members to view the poster presentations on the datasets at BAUS and to feed back to committee members or via Sarah about their ideas for improvements. Hopefully with revalidation almost upon us, contributing surgeons will be able to use their personal or centre data to good effect.

Greg Boustead

June 2012

AUDIT RESULTS SUMMARY - Nephrectomy dataset (January 1st – December 31st 2011)

- 2382 Nephrectomies reported by 177 consultants from 80 centres (including 31 private patients from 16 consultants)
 - 80% of the data (1914/2312) was individually entered by hand as oppose to being bulk imported
 - 27% have 1 or more follow up
 - 90% (1914/2163) entered using the new dataset launched in April 2011
 - Median per consultant = 8, range 1 – 107
 - Median per centre = 20, range 1 – 154
 - 59% males (1368/2312 recorded); Median Age at operation = 64, range 16 - 91

How were the data analysed?

All the data presented here are a summary of the data extracted from the web-based database on 17th April 2012 and relate to operations performed during the whole of 2011. Once extracted the data was transferred to an AccessTM database for validation before being imported into TableauTM for generation of the analyses. The validation mainly comprised checks for duplicate and / or empty entries and invalid / inappropriate dates.

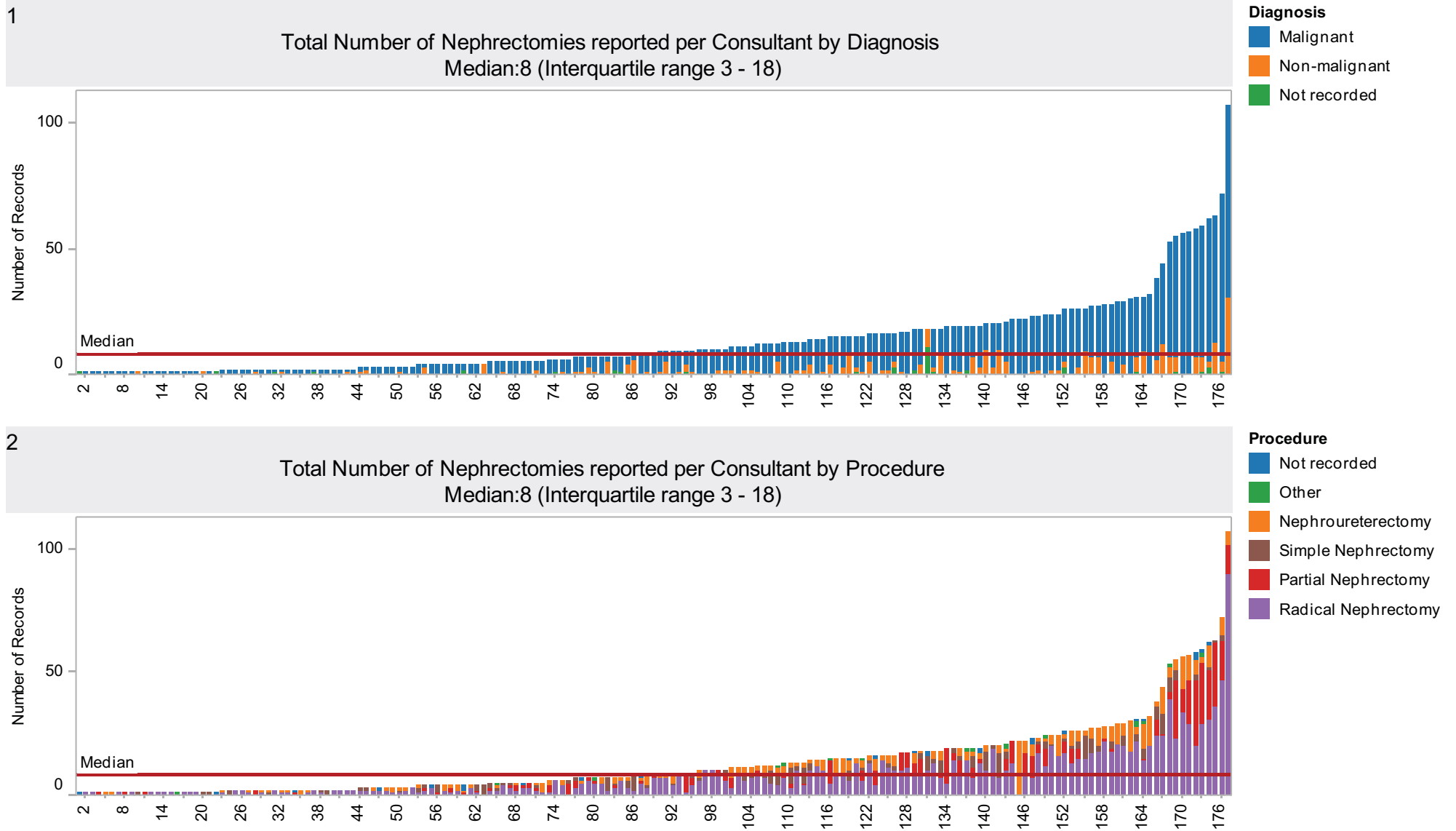
For each of the ranked charts the individual consultant or centre identification numbers were removed and replaced with rank numbers starting at 1. A unique, confidential "Ranking Sheet" has been prepared for each surgeon to enable them to identify their rank in every chart. For those charts where overall 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 comprise single bars and are ranked from left to right in the ascending order of the data item being measured. Where percentages are included figures have been rounded up to one decimal point.

A personal ranking sheet for each consultant registering three or more tumours is available individually to go with this document. Centres or cancer networks that have returned sufficient data may request a copy of these analyses filtered to contain only that data.

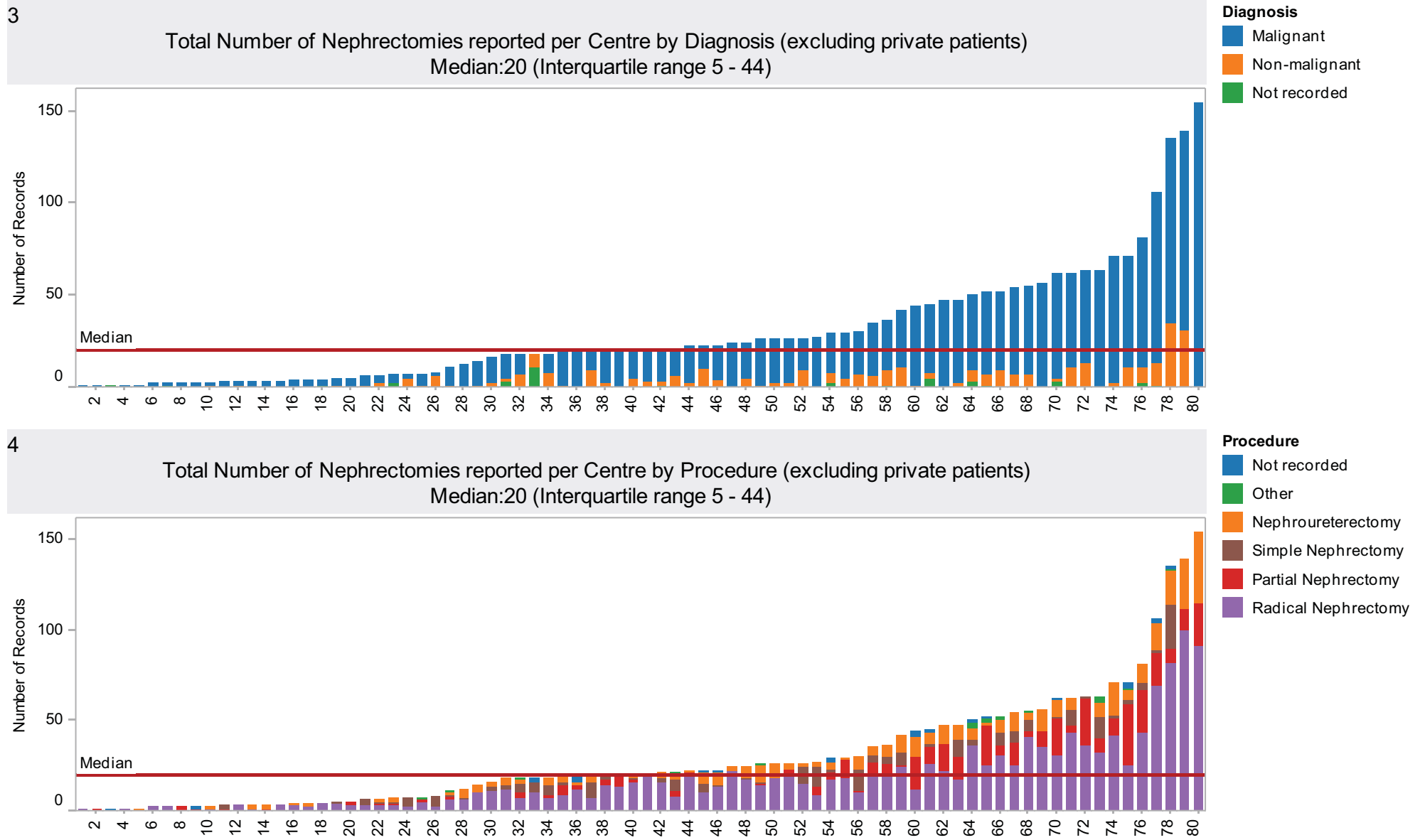
Sarah Fowler
BAUS Data & Audit Project Manager

June 2012

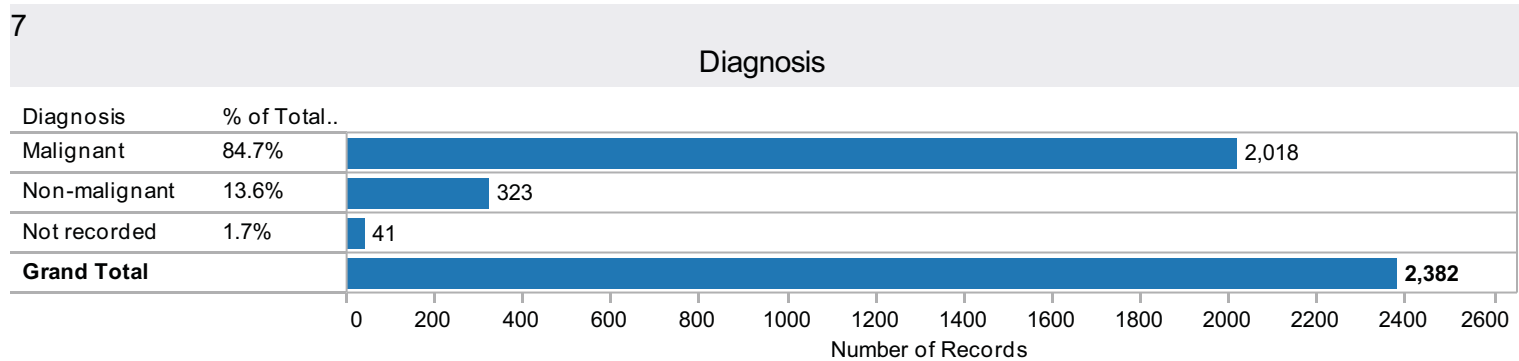
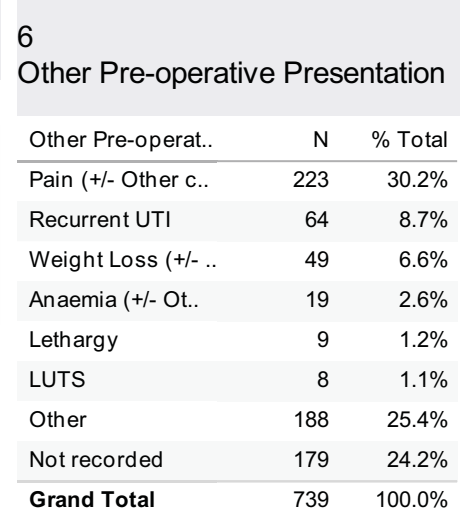
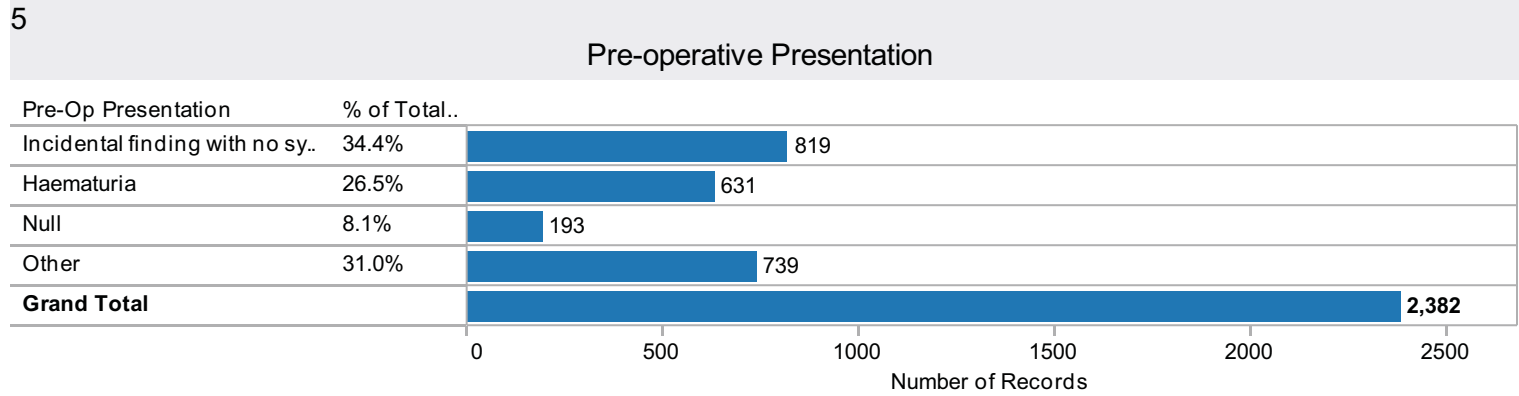
Total Procedures reported by Consultant



Total Procedures reported by Centre



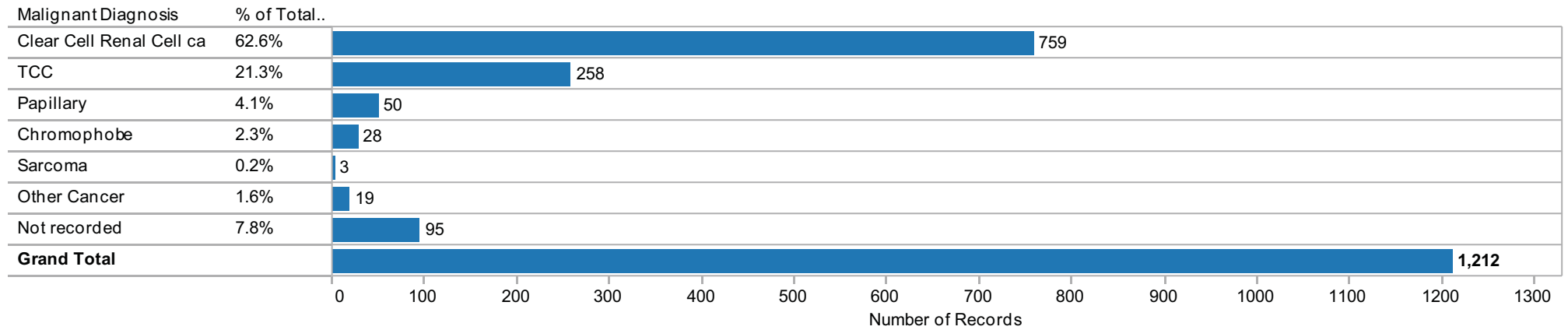
Pre-operative Presentation & Diagnosis



Specific Diagnoses

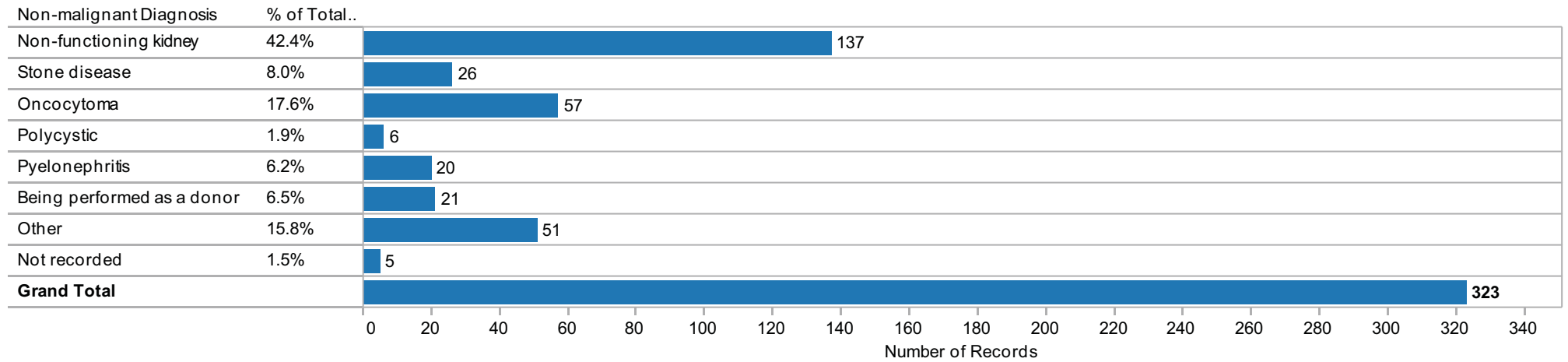
8

Malignant Diagnoses



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Non Malignant Diagnoses



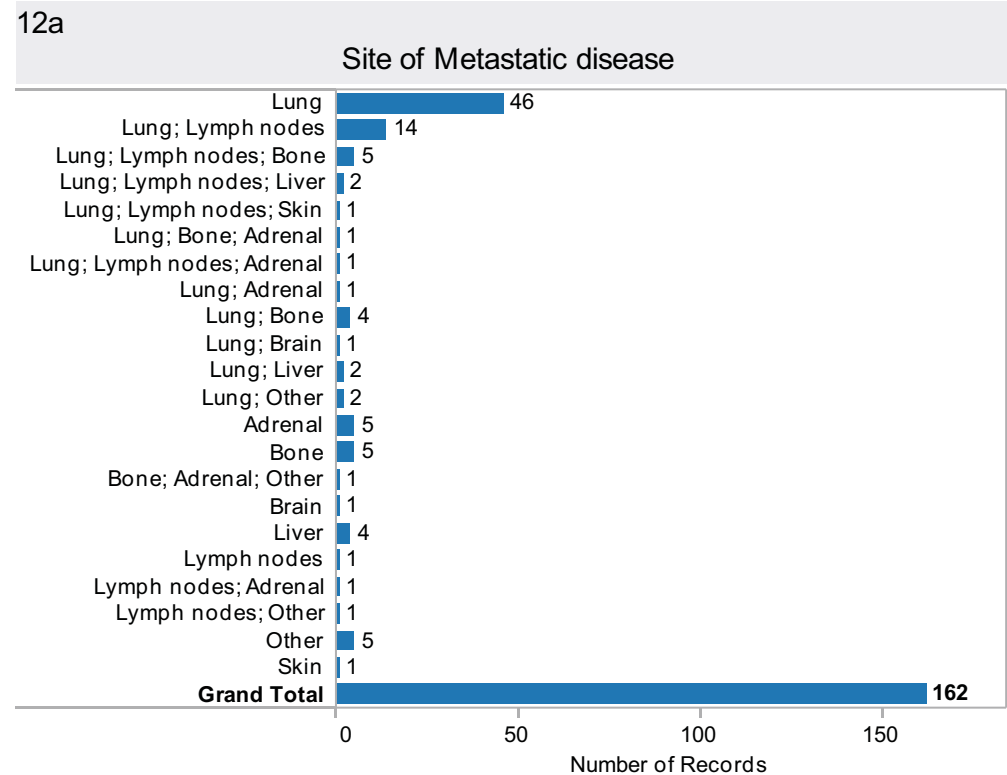
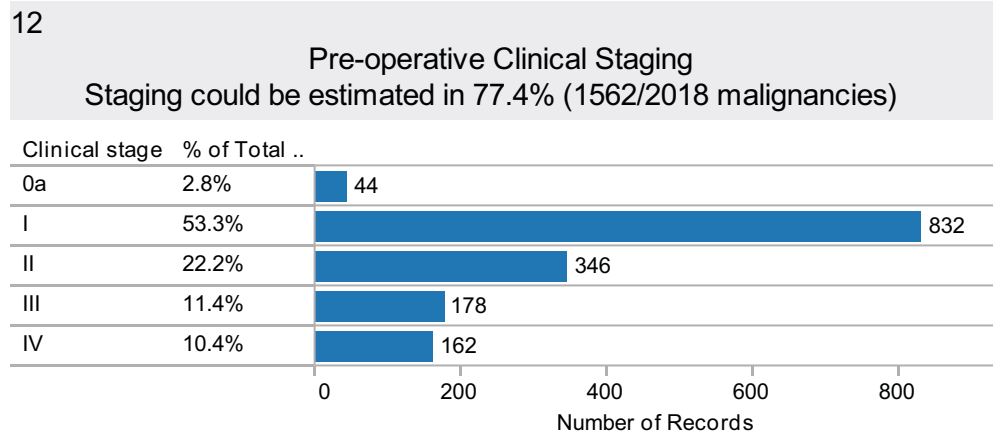
Pre-operative Findings

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Pre-operative Serum Creatinine

Serum Creat..	N	% Total
0 - 120	1,558	65.4%
121 - 200	260	10.9%
> 200	43	1.8%
Not recorded	521	21.9%
Grand Total	2,382	100.0%

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Pre-operative eGFR

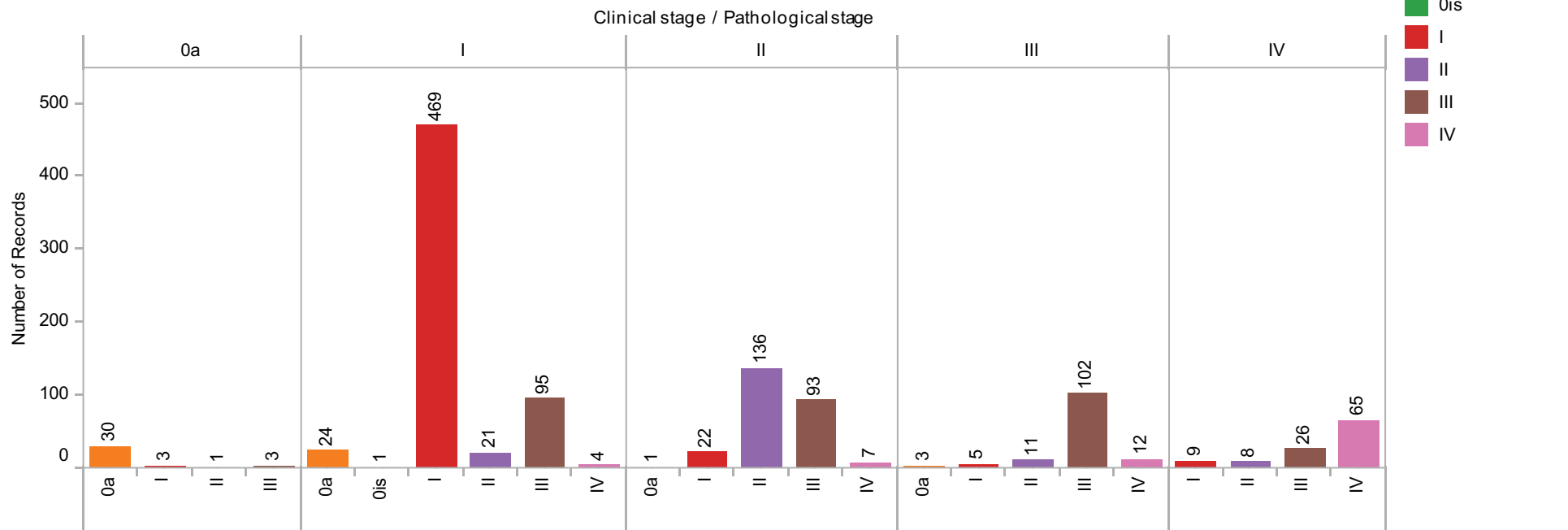
Pre-operative eGFR	N	% Total
<= 60	645	27.3%
61 - 90	679	28.7%
> 90	20	0.8%
Null	1,021	43.2%
Grand Total	2,365	100.0%



Staging Comparisons & Operator

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Comparison of Pre-operative clinical & Post-operative pathological staging



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Grade of main Operator

Grade of mai..	N	% Total
Consultant	2,046	85.9%
SpR	229	9.6%
Other	78	3.3%
Not recorded	29	1.2%
Grand Total	2,382	100.0%

Procedure by Technique and Staging

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Procedure by Technique

Procedure	Technique								Grand Total	
	Open		Laparoscopic		Hand Assisted		Not recorded			
	N	% Total	N	% Total	N	% Total	N	% Total	N	% Total
Radical Nephrectomy	389	53.2%	923	61.7%	18	41.9%	46	41.1%	1,376	57.8%
Partial Nephrectomy	243	33.2%	107	7.2%	12	27.9%	18	16.1%	380	16.0%
Simple Nephrectomy	29	4.0%	161	10.8%	5	11.6%	19	17.0%	214	9.0%
Nephroureterectomy	57	7.8%	286	19.1%	8	18.6%	16	14.3%	367	15.4%
Other	7	1.0%	8	0.5%			3	2.7%	18	0.8%
Not recorded	6	0.8%	11	0.7%			10	8.9%	27	1.1%
Grand Total	731	100.0%	1,496	100.0%	43	100.0%	112	100.0%	2,382	100.0%

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Technique by Pre-operative Clinical Staging Staging could be estimated in 77.4% (1562/2018 malignancies)

Clinical stage	Technique								Grand Total	
	Open		Laparoscopic		Hand Assisted		Not recorded			
	N	%	N	%	N	%	N	%	N	%
0a	6	13.6%	36	81.8%	2	4.5%			44	100.0%
I	235	28.2%	573	68.9%	19	2.3%	5	0.6%	832	100.0%
II	112	32.4%	220	63.6%	8	2.3%	6	1.7%	346	100.0%
III	100	56.2%	71	39.9%			7	3.9%	178	100.0%
IV	91	56.2%	65	40.1%	3	1.9%	3	1.9%	162	100.0%
Grand Total	544	34.8%	965	61.8%	32	2.0%	21	1.3%	1,562	100.0%

Partial Nephrectomies

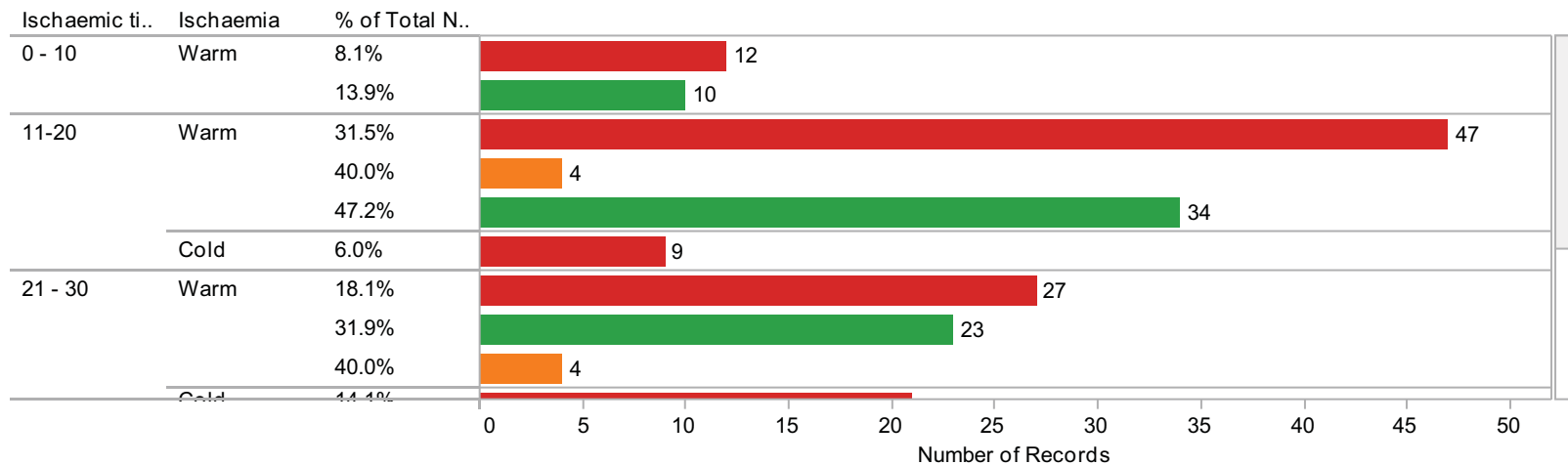
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Indication for Partial Nephrectomies and Technique employed

Indication for Partial	Technique									
	Open		Laparoscopic		Hand Assisted		Not recorded		Grand Total	
	N	% Total	N	% Total	N	% Total	N	% Total	N	% Total
Elective (<4.5cm, normal contralateral ..	87	35.8%	62	57.9%	10	83.3%			159	41.8%
Imperative (bilateral , single kidney, re..	28	11.5%	1	0.9%	2	16.7%			31	8.2%
Relative (small mass, normal renal fun..	10	4.1%	2	1.9%					12	3.2%
Elective (>4.5cm, normal contralateral ..	14	5.8%	4	3.7%					18	4.7%
VHL	2	0.8%							2	0.5%
Not recorded	102	42.0%	38	35.5%			18	100.0%	158	41.6%
Grand Total	243	100.0%	107	100.0%	12	100.0%	18	100.0%	380	100.0%

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Partial Nephrectomies - Ischaemia



Technique

- Open
- Laparoscopic
- Hand Assisted

Tumour size by Procedure and Technique employed

Maximum di..	Procedure	Technique						Grand Total	
		Open		Laparoscopic		Hand Assisted		N	% Total
		N	% Total	N	% Total	N	% Total		
0 - 4 cm	Radical Nephrectomy	42	8.0%	234	24.1%	1	2.9%	277	18.1%
	Partial Nephrectomy	149	28.4%	75	7.7%	10	28.6%	234	15.3%
	Simple Nephrectomy	2	0.4%	5	0.5%			7	0.5%
	Nephroureterectomy	15	2.9%	88	9.1%	8	22.9%	111	7.3%
	Other	2	0.4%	1	0.1%			3	0.2%
5 - 7 cm	Radical Nephrectomy	70	13.4%	344	35.5%	9	25.7%	423	27.7%
	Partial Nephrectomy	29	5.5%	5	0.5%			34	2.2%
	Simple Nephrectomy	1	0.2%	4	0.4%			5	0.3%
	Nephroureterectomy	3	0.6%	41	4.2%			44	2.9%
	Other			2	0.2%			2	0.1%
> 7 cm	Radical Nephrectomy	199	38.0%	159	16.4%	7	20.0%	365	23.9%
	Partial Nephrectomy	5	1.0%	1	0.1%			6	0.4%
	Nephroureterectomy	5	1.0%	10	1.0%			15	1.0%
	Other	2	0.4%					2	0.1%
Grand Total		524	100.0%	969	100.0%	35	100.0%	1,528	100.0%

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Operating time by Procedure and Technique

Operating ti..	Technique	Procedure									
		Radical Nephrectomy		Partial Nephrectomy		Simple Nephrectomy		Nephroureterectomy		Grand Total	
		N	%	N	%	N	%	N	%	N	%
< 60 mins	Open	6	35.3%	8	47.1%	3	17.6%			17	100.0%
	Laparoscopic	27	69.2%	5	12.8%	7	17.9%			39	100.0%
	Hand Assisted	1	50.0%					1	50.0%	2	100.0%
1 - 2 hours	Open	75	43.1%	84	48.3%	8	4.6%	7	4.0%	174	100.0%
	Laparoscopic	238	68.4%	32	9.2%	49	14.1%	29	8.3%	348	100.0%
	Hand Assisted	3	21.4%	6	42.9%	3	21.4%	2	14.3%	14	100.0%
2 - 3 hours	Open	123	54.7%	83	36.9%	8	3.6%	11	4.9%	225	100.0%
	Laparoscopic	336	67.7%	29	5.8%	45	9.1%	86	17.3%	496	100.0%
	Hand Assisted	4	33.3%	5	41.7%	1	8.3%	2	16.7%	12	100.0%
3 - 4 hours	Open	82	62.6%	29	22.1%	7	5.3%	13	9.9%	131	100.0%
	Laparoscopic	148	54.8%	19	7.0%	34	12.6%	69	25.6%	270	100.0%
	Hand Assisted	9	69.2%	1	7.7%			3	23.1%	13	100.0%
4 - 6 hours	Open	34	59.6%	12	21.1%			11	19.3%	57	100.0%
	Laparoscopic	72	51.1%	5	3.5%	11	7.8%	53	37.6%	141	100.0%
	Hand Assisted					1	100.0%			1	100.0%
> 6 hours	Open	11	78.6%	1	7.1%			2	14.3%	14	100.0%
	Laparoscopic	3	42.9%					4	57.1%	7	100.0%
Grand Total		1,172	59.8%	319	16.3%	177	9.0%	293	14.9%	1,961	100.0%

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Measured Blood loss by Procedure and Technique

Measured bl..	Technique	Procedure									
		Radical Nephrectomy		Partial Nephrectomy		Simple Nephrectomy		Nephroureterectomy		Grand Total	
		N	%	N	%	N	%	N	%	N	%
< 500	Open	142	42.8%	156	47.0%	14	4.2%	20	6.0%	332	100.0%
	Laparoscopic	644	64.2%	72	7.2%	110	11.0%	177	17.6%	1,003	100.0%
	Hand Assisted	13	34.2%	12	31.6%	5	13.2%	8	21.1%	38	100.0%
> 500 - 1000	Open	72	64.3%	27	24.1%	3	2.7%	10	8.9%	112	100.0%
	Laparoscopic	36	55.4%	10	15.4%	4	6.2%	15	23.1%	65	100.0%
	Hand Assisted	5	100.0%							5	100.0%
> 1000 - 2000	Open	36	66.7%	9	16.7%	6	11.1%	3	5.6%	54	100.0%
	Laparoscopic	15	62.5%	7	29.2%	1	4.2%	1	4.2%	24	100.0%
> 2000 - 5000	Open	34	85.0%	3	7.5%	1	2.5%	2	5.0%	40	100.0%
	Laparoscopic	5	71.4%			1	14.3%	1	14.3%	7	100.0%
> 5000	Open	11	91.7%					1	8.3%	12	100.0%
	Laparoscopic	3	100.0%							3	100.0%
Grand Total		1,016	59.9%	296	17.5%	145	8.6%	238	14.0%	1,695	100.0%

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Units of Blood Transfused by Procedure and Technique

Units of blood tran..	Technique	Procedure								Grand Total	
		Radical Nephrectomy		Partial Nephrectomy		Simple Nephrectomy		Nephroureterectomy		N	%
		N	%	N	%	N	%	N	%	N	%
Nil	Open	206	49.5%	170	40.9%	16	3.8%	24	5.8%	416	100.0%
	Laparoscopic	694	62.7%	81	7.3%	138	12.5%	193	17.5%	1,106	100.0%
	Hand Assisted	17	41.5%	11	26.8%	5	12.2%	8	19.5%	41	100.0%
Minor (<= 2)	Open	53	73.6%	9	12.5%	2	2.8%	8	11.1%	72	100.0%
	Laparoscopic	29	72.5%	3	7.5%	1	2.5%	7	17.5%	40	100.0%
	Hand Assisted	1	100.0%							1	100.0%
Moderate (>2 - 6)	Open	29	76.3%	2	5.3%	3	7.9%	4	10.5%	38	100.0%
	Laparoscopic	7	46.7%	2	13.3%	1	6.7%	5	33.3%	15	100.0%
Major (> 6)	Open	11	78.6%	1	7.1%	2	14.3%			14	100.0%
	Laparoscopic	2	50.0%					2	50.0%	4	100.0%
Grand Total		1,049	60.0%	279	16.0%	168	9.6%	251	14.4%	1,747	100.0%

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Conversions

Technique	Conversion Reason	Procedure								Grand Total			
		Radical Nephrectomy		Partial Nephrectomy		Simple Nephrectomy		Nephroureterectomy		Other		N	% Total
		N	% Total	N	% Total	N	% Total	N	% Total	N	% Total	N	% Total
Laparoscopic	Failure to progress	11	19.3%	1	20.0%			3	20.0%			15	17.0%
	Adhesions	1	1.8%			1	12.5%	1	6.7%			3	3.4%
	Difficult dissection	7	12.3%			3	37.5%	2	13.3%			12	13.6%
	Haemorrhage	20	35.1%	2	40.0%	4	50.0%	3	20.0%	2	66.7%	31	35.2%
	Size of tumour / mass	5	8.8%									5	5.7%
	Other	7	12.3%	2	40.0%			5	33.3%	1	33.3%	15	17.0%
	Not recorded	5	8.8%					1	6.7%			6	6.8%
Hand Assisted	Not recorded	1	1.8%									1	1.1%
Grand Total		57	100.0%	5	100.0%	8	100.0%	15	100.0%	3	100.0%	88	100.0%

Intraoperative Complications

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Intraoperative Complications by Procedure and Technique

Procedure	Technique	Intraoperative complications			Grand To..	
		Yes	No	Not recor..		
Radical Nephrectomy	Open	N	45	255	89	389
		%	11.6%	65.6%	22.9%	100.0%
	Laparoscopic	N	44	673	206	923
		%	4.8%	72.9%	22.3%	100.0%
Hand Assisted	N	1	16	1	18	
	%	5.6%	88.9%	5.6%	100.0%	
Partial Nephrectomy	Open	N	13	169	61	243
		%	5.3%	69.5%	25.1%	100.0%
	Laparoscopic	N	7	82	18	107
	%	6.5%	76.6%	16.8%	100.0%	
Hand Assisted	N		12		12	
	%		100.0%		100.0%	
Simple Nephrectomy	Open	N	1	21	7	29
		%	3.4%	72.4%	24.1%	100.0%
	Laparoscopic	N	5	130	26	161
	%	3.1%	80.7%	16.1%	100.0%	
Hand Assisted	N		5		5	
	%		100.0%		100.0%	
Nephrouretere..	Open	N	7	38	12	57
		%	12.3%	66.7%	21.1%	100.0%
	Laparoscopic	N	9	212	65	286
	%	3.1%	74.1%	22.7%	100.0%	
Hand Assisted	N	1	7		8	
	%	12.5%	87.5%		100.0%	
Grand Total	N	133	1,620	485	2,238	
	%	5.9%	72.4%	21.7%	100.0%	

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Specific Intraoperative Complications by Procedure and Technique

Technique	Specific Intraoperative complications (group)						Grand Total	
	Bleeding	Bowel injury	Liver injury	Pneumothorax	Splenectomy	Not recorded/Other		
Radical Nephrectomy	Open	N	21	1	3	10	10	45
		%	46.7%	2.2%	6.7%	22.2%	22.2%	100.0%
Laparoscopic	N	31	2	2	1		8	44
	%	70.5%	4.5%	4.5%	2.3%		18.2%	100.0%
Hand Assisted	N		1					1
	%		100.0%					100.0%
Partial Nephrectomy	Open	N	3		5		5	13
		%	23.1%		38.5%		38.5%	100.0%
Laparoscopic	N	7						7
	%	100.0%						100.0%
Simple Nephrectomy	Open	N	1					1
	%	100.0%						100.0%
Laparoscopic	N	3	2					5
	%	60.0%	40.0%					100.0%
Nephroureterectomy	Open	N	7					7
	%	100.0%						100.0%
Laparoscopic	N	5			1	1	2	9
	%	55.6%			11.1%	11.1%	22.2%	100.0%
Hand Assisted	N						1	1
	%						100.0%	100.0%
Grand Total	N	78	5	3	10	11	26	133
	%	58.6%	3.8%	2.3%	7.5%	8.3%	19.5%	100.0%

Postoperative Complications

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Postoperative Complications by Procedure and Technique

Procedure	Technique		Postoperative complications			
			Yes	No	Not rec..	Grand ..
Radical Nephrectomy	Open	N	50	207	132	389
		%	12.9%	53.2%	33.9%	100.0%
	Laparoscopic	N	96	584	243	923
		%	10.4%	63.3%	26.3%	100.0%
	Hand Assisted	N	3	14	1	18
		%	16.7%	77.8%	5.6%	100.0%
Partial Nephrectomy	Open	N	22	140	81	243
		%	9.1%	57.6%	33.3%	100.0%
	Laparoscopic	N	15	76	16	107
		%	14.0%	71.0%	15.0%	100.0%
	Hand Assisted	N	2	10		12
		%	16.7%	83.3%		100.0%
Simple Nephrectomy	Open	N	4	17	8	29
		%	13.8%	58.6%	27.6%	100.0%
	Laparoscopic	N	9	125	27	161
		%	5.6%	77.6%	16.8%	100.0%
	Hand Assisted	N		5		5
		%		100.0%		100.0%
Nephrouretere..	Open	N	5	39	13	57
		%	8.8%	68.4%	22.8%	100.0%
	Laparoscopic	N	38	171	77	286
		%	13.3%	59.8%	26.9%	100.0%
	Hand Assisted	N	1	7		8
		%	12.5%	87.5%		100.0%
Grand Total	N	245	1,395	598	2,238	
	%	10.9%	62.3%	26.7%	100.0%	

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Specific Postoperative Complications by Procedure and Technique

Technique		Specific Postoperative complications (group)								Grand Total
		Chest Infection (+/- Other combin..	Wound infection	Problematic pain control	Ileus	Bleeding	Renal failure	Other / NR		
Radical Nephrecto..	Open	N	11	6	3	6	6	1	17	50
		%	22.0%	12.0%	6.0%	12.0%	12.0%	2.0%	34.0%	100.0%
	Laparoscopic	N	18	16	1	7	10	6	38	96
		%	18.8%	16.7%	1.0%	7.3%	10.4%	6.3%	39.6%	100.0%
	Hand Assisted	N					1		2	3
		%					33.3%		66.7%	100.0%
Partial Nephrectomy	Open	N	4	4	2	1	2	2	7	22
		%	18.2%	18.2%	9.1%	4.5%	9.1%	9.1%	31.8%	100.0%
	Laparoscopic	N	3	1	2		3		6	15
		%	20.0%	6.7%	13.3%		20.0%		40.0%	100.0%
	Hand Assisted	N							2	2
		%							100.0%	100.0%
Simple Nep..	Open	N	1	2			1			4
		%	25.0%	50.0%			25.0%			100.0%
	Laparoscopic	N	3	1		2			3	9
		%	33.3%	11.1%		22.2%			33.3%	100.0%
	Hand Assisted	N								
		%								
Nephroureterectomy	Open	N	1	1	1				2	5
		%	20.0%	20.0%	20.0%				40.0%	100.0%
	Laparoscopic	N	5	4	2	9	5		13	38
		%	13.2%	10.5%	5.3%	23.7%	13.2%		34.2%	100.0%
	Hand Assisted	N							1	1
		%							100.0%	100.0%
Grand Total	N	46	35	11	25	28	9	91	245	
	%	18.8%	14.3%	4.5%	10.2%	11.4%	3.7%	37.1%	100.0%	

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Clavien-Dindo Grade of complication(s) by Technique and Procedure

Clavien-Dind..	Technique	Procedure											
		Radical Nephrectomy		Partial Nephrectomy		Simple Nephrectomy		Nephroureterectomy		Other		Grand Total	
		N	% Total	N	% Total	N	% Total	N	% Total	N	% Total	N	% Total
Grade I	Open	17	13.6%	2	6.1%			2	5.7%	1	33.3%	22	10.5%
	Laparoscopic	27	21.6%	5	15.2%	3	23.1%	13	37.1%			48	23.0%
Grade II	Open	13	10.4%	9	27.3%	1	7.7%			1	33.3%	24	11.5%
	Laparoscopic	34	27.2%	4	12.1%	4	30.8%	10	28.6%			52	24.9%
	Hand Assisted	1	0.8%	1	3.0%							2	1.0%
Grade IIIa	Open	3	2.4%	5	15.2%	2	15.4%	1	2.9%			11	5.3%
	Laparoscopic	4	3.2%	1	3.0%	1	7.7%	2	5.7%			8	3.8%
Grade IIIb	Open	6	4.8%			1	7.7%	1	2.9%			8	3.8%
	Laparoscopic	8	6.4%	2	6.1%	1	7.7%	1	2.9%			12	5.7%
Grade IVa	Open	2	1.6%	2	6.1%			1	2.9%			5	2.4%
	Laparoscopic	5	4.0%	1	3.0%			2	5.7%			8	3.8%
	Hand Assisted	1	0.8%									1	0.5%
Grade V (death)	Open	2	1.6%							1	33.3%	3	1.4%
	Laparoscopic	2	1.6%					2	5.7%			4	1.9%
	Hand Assisted			1	3.0%							1	0.5%
Grand Total		125	100.0%	33	100.0%	13	100.0%	35	100.0%	3	100.0%	209	100.0%

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Nuclear grade of parenchymal tumours and positive margins

Nuclear grade	Margins						Grand Total	
	Positive		Negative		Null		N	%
	N	%	N	%	N	%		
G1			61	87.1%	9	12.9%	70	100.0%
G2	8	1.8%	378	86.1%	53	12.1%	439	100.0%
G3	22	5.1%	370	85.5%	41	9.5%	433	100.0%
G4	25	20.2%	85	68.5%	14	11.3%	124	100.0%
Null	8	1.8%	149	33.4%	289	64.8%	446	100.0%
Grand Total	63	4.2%	1,043	69.0%	406	26.9%	1,512	100.0%

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Grade of urothelial tumours

Grade of tu..	N	% Total
G1	12	3.6%
G2	107	32.0%
G3	125	37.4%
Null	90	26.9%
Grand Total	334	100.0%

Current Status

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Current Status at most recent Follow-up

CurrentStatus	Time to FU in days								Grand Total	
	0 - 91		91 - 180		181 - 360		> 360			
	N	%	N	%	N	%	N	%	N	%
Alive with no evidence of renal cancer	312	59.5%	104	19.8%	102	19.5%	6	1.1%	524	100.0%
Alive with local recurrence of renal cancer	3	50.0%	2	33.3%	1	16.7%			6	100.0%
Alive with lymph node involvement by renal cancer	1	20.0%	1	20.0%	3	60.0%			5	100.0%
Alive with metastatic disease	15	42.9%	7	20.0%	12	34.3%	1	2.9%	35	100.0%
Dead	3	42.9%	3	42.9%	1	14.3%			7	100.0%
Null	14	77.8%	1	5.6%	1	5.6%	2	11.1%	18	100.0%
Grand Total	348	58.5%	118	19.8%	120	20.2%	9	1.5%	595	100.0%

Participating Hospital Centres 2011

We are grateful to consultants from the following Centres / trusts who returned data for these analyses:

Aberdeen Royal Infirmary	Heatherwood & Wexham Park NHS Trust	Royal Infirmary of Edinburgh
Arrowe Park Hospital	Hemel Hempstead General Hospital; Mount Vernon & Watford Hospitals	Royal Liverpool University Hospital
Ayr Hospital	James Paget University Hospital	Royal Preston Hospital
Barnet & Chase Farm Hospital	Kent & Canterbury Hospital	Royal Shrewsbury Hospital
Bedford Hospital	King George Hospital	Royal Surrey County Hospital
Belfast City Hospital	Kingston Hospital	Royal West Sussex NHS Trust, St Richard's Hospital
Broomfield Hospital	Leicester General Hospital	Salisbury District Hospital
Castle Hill Hospital	Leighton Hospital	Sandwell District General Hospital
Causeway Hospital	Lincoln & Louth NHS Trust	Southampton General Hospital
Cheltenham General Hospital	Lister Hospital; Queen Elizabeth II Hospital, Welwyn	Southend University Hospital NHS Foundation Trust
Churchill Hospital	Monklands District General Hospital	Southern General Hospital
City Hospital NHS Trust B'ham	Morrison Hospital	Southport & Ormskirk NHS Trust
City Hospitals Sunderland NHS Foundation Trust	New Cross Hospital, Wolverhampton	St James's University Hospital
Colchester Hospital University NHS Foundation Trust	Norfolk & Norwich Hospital	Stepping Hill Hospital
Cwm-Taf LHB (Royal Glamorgan/Prince Charles)	North Bristol NHSTrust (Southmead)	Stirling Royal Infirmary / Forth Valley Royal
Darent Valley Hospital	Northampton General Hospital	Taunton And Somerset Hospital
Derby Hospitals NHS Foundation Trust	Northwick Park Hospital; Central Middlesex Hospital	The Royal Oldham Hospital
Derriford Hospital	Pinderfields Hospital	Torbay Hospital
Doncaster & Bassetlaw Hospitals NHS Trust	Portsmouth Hospitals NHS Trust	University College Hospital London
Dorset County Hospital	Queen Elizabeth Hospital, B'ham	University Hospital of North Stafford
Dudley Group of Hospitals NHS Trust	Queen Margaret Hospital	University Hospital Of Wales
Freeman Hospital	Raigmore Hospital	Walsgrave Hospital
Frimley Park Hospital	Rotherham NHS Foundation Trust	Western General Hospital, Edinburgh
Gartnavel General Hospital	Royal Alexandra Hospital (Paisley)	Withington Hospital
George Eliot Hospital	Royal Devon And Exeter Hospital	Wrexham Maelor Hospital
Glan Clwyd Hospital	Royal Free Hampstead NHS Trust	
Great Western Hospital, Swindon	Royal Hallamshire Hospital	
Guy's & Thomas's Hospital		