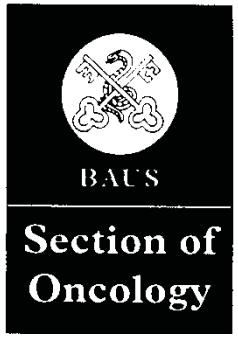


THE BRITISH ASSOCIATION OF

UROLOGICAL SURGEONS

SECTION of ONCOLOGY

Analyses of Prostatectomy Dataset

January 1st – 31st December 2012

June 2013

MEMBERS OF THE EXECUTIVE COMMITTEE

S Brewster	D Cahill	J Cresswell	S Khan
A McNeill	H Mostafid	T O'Brien	V Srinivasin

PRODUCED FOR BAUS SECTION OF ONCOLOGY

by

Sarah Fowler

Manager BAUS data & audit project

CONTENTS

GENERAL INTRODUCTION

As in previous years we are extremely grateful for Sarah Fowler's hard work to produce the 2012 complex operation datasets. This year the introduction of compulsory publication of individual surgeon's outcome data and the start of revalidation has underlined the importance of contributing to these national datasets.

Urologists performing nephrectomy will be the first to have their results published and this is reflected in the significant increase (240%) in returns for the nephrectomy dataset (from 2,382 in 2011 to 5,829 in 2012). We estimate this represents 75% of all nephrectomies carried out in England and emphasizes the need for all of us carrying out complex operations to record our results.

As a section our task now is to decide for each operation what constitutes a good outcome and what we use to measure this (ideally using no more than 1-2 outcome measures!) We can then make each dataset fit for this purpose whilst hopefully being easier to use by removing some unnecessary fields.

The datasets have evolved over time to incorporate new information (e.g. the Clavien-Dindo classification for complications) so that each now represents the most comprehensive and up to date national snapshot of that operation. However we can all help to improve them still further by recording all cases and collecting follow up data.

It is also worth reminding members that centre and individual results are available on request and would form a valuable tool for departmental audit and individual revalidation.

As always your feedback as section members is invaluable – please feel free to contact Sarah or myself with your suggestions.

Hugh Mostafid

June 2013

AUDIT RESULTS SUMMARY - Radical Prostatectomy dataset (January 1st – December 31st 2012)

- 2093 Prostatectomies reported by 110 consultants from 57 centres (including 12 private patients from 6 consultants)
  - 65% of the data (1370/2093)was individually entered by hand as oppose to being bulk imported
  - Median per consultant = 9, range 1 – 143
  - Median per centre = 19, range 1 – 210
  - Median Age at operation = 64, range 36 – 100
  - 34% have 1 or more follow up

How were the data analysed?

All the data presented here are a summary of the data extracted from the web-based database on 24th April 2013 and relate to operations performed during the whole of 2012. Once extracted the data was transferred to an Access™ database for validation before being imported into Tableau™ for generation of the analyses. The validation mainly comprised checks for duplicate and / or empty entries and invalid / inappropriate dates.

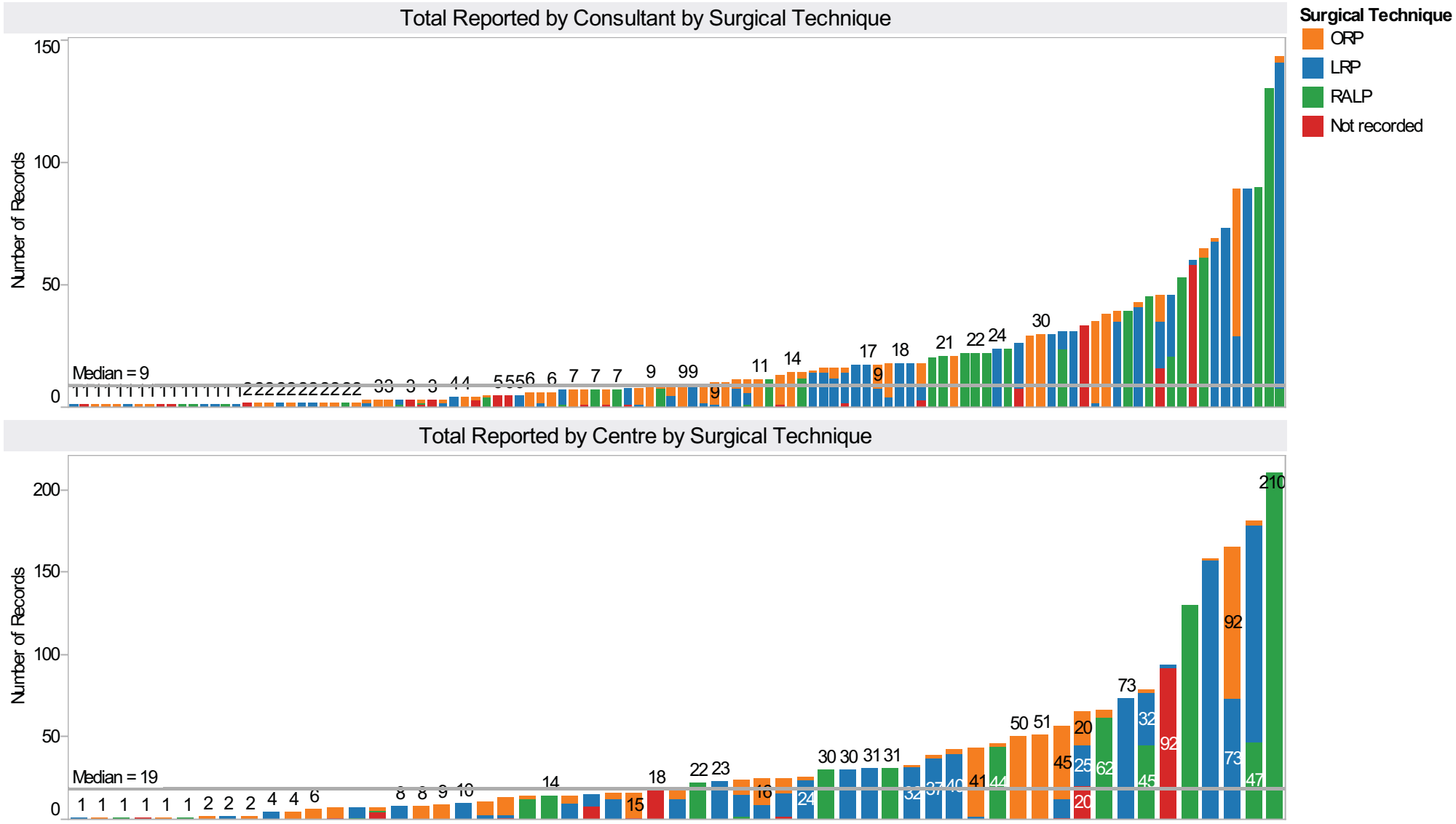
For each of the ranked charts the individual consultant or centre identification numbers were removed and replaced with rank numbers starting at 1. A unique, confidential "Ranking Sheet" has been prepared for each surgeon to enable them to identify their rank in every chart. For those charts where overall 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.

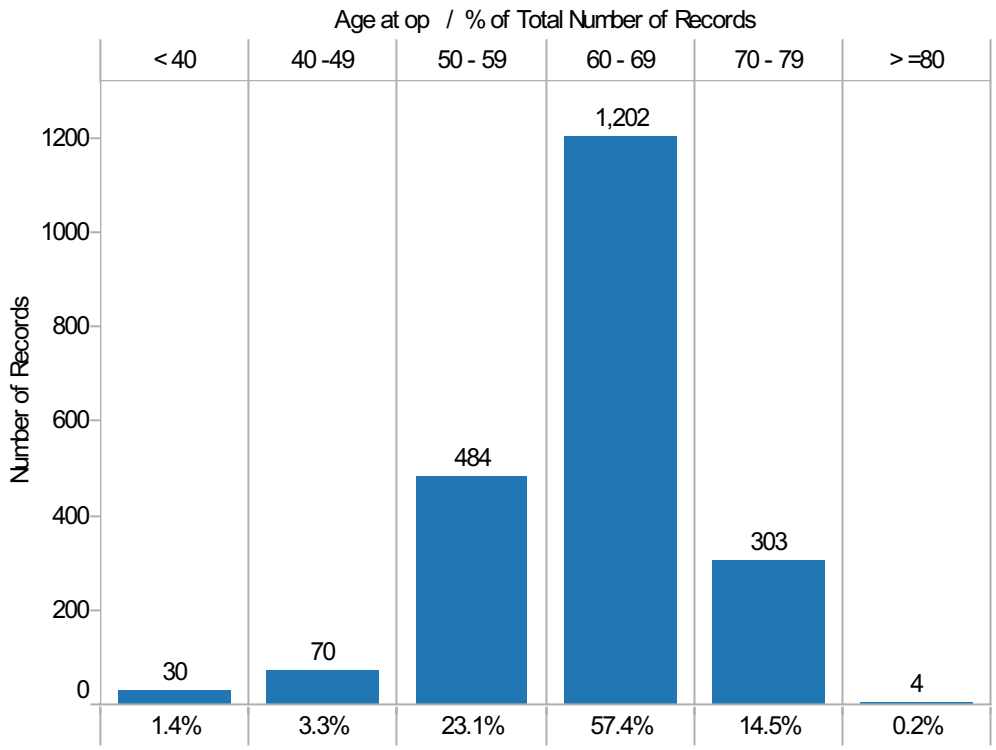
Sarah Fowler
BAUS Data & Audit Project Manager

June 2013

Total returns for procedures reported between 01/01/2012 and 31/12/2012



Percentage Age Distribution



Reason for Prostatectomy

4: Reason for prostatecto..	N	% Total
Primary treatment of cancer	1,695	81.0%
Previous active surveillan..	297	14.2%
Salvage therapy	22	1.1%
Not recorded	79	3.8%
Grand Total	2,093	100.0%

Reason If Previous Active Surveillance

5: If previous active surveillance, reason f..	N	% Total
PSA progression	113	38.0%
Gleason progression	61	20.5%
Clinical progression	28	9.4%
Patient decision	72	24.2%
Not recorded	23	7.7%
Grand Total	297	100.0%

Previous Management

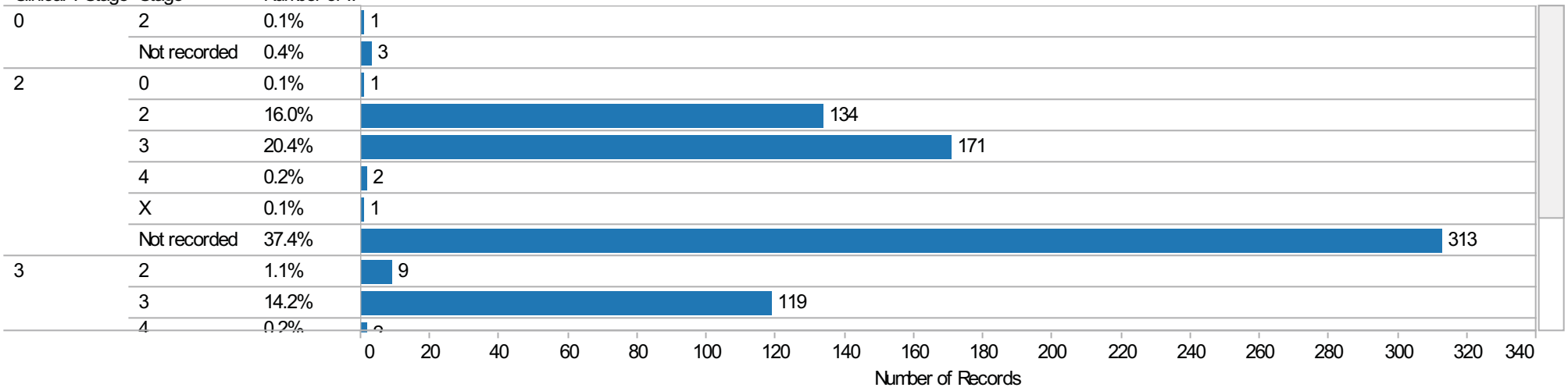
6: Previous management	N	% Total
None	1,515	72.4%
Radiotherapy	17	0.8%
Brachytherapy	6	0.3%
TURP	24	1.1%
Not recorded	531	25.4%
Grand Total	2,093	100.0%

Clinical T stage

Clinical T Stage	N	% Total
0	4	0.2%
2	622	29.7%
3	208	9.9%
4	1	0.0%
X	2	0.1%
Not recorded	1,256	60.0%
Grand Total	2,093	100.0%

Comparison Clinical and Pathological T stage

Clinical T Stage	Pathological T Stage	% of Total Number of ..
0	2	0.1%
	Not recorded	0.4%
2	0	0.1%
	2	16.0%
	3	20.4%
	4	0.2%
	X	0.1%
	Not recorded	37.4%
3	2	1.1%
	3	14.2%
	4	0.2%



Clinical Staging by Pre-operative PSA

	Pre-operative PSA													
	0-5		6 - 10		11 - 20		21 - 50		>50		Not recorded		**Grand Total**	
Clinical T Stage	N	% Total	N	% Total	N	% Total	N	% Total	N	% Total	N	% Total	N	% Total
0	2	0.8%			1	0.5%					1	3.7%	4	0.5%
2	181	75.4%	257	76.9%	139	73.5%	25	56.8%	2	66.7%	18	66.7%	622	74.3%
3	57	23.8%	75	22.5%	48	25.4%	19	43.2%	1	33.3%	8	29.6%	208	24.9%
4					1	0.5%							1	0.1%
X			2	0.6%									2	0.2%
Grand Total	240	100.0%	334	100.0%	189	100.0%	44	100.0%	3	100.0%	27	100.0%	837	100.0%

Pathological Staging by Pre-operative PSA

	Pre-operative PSA											
	0-5		6 - 10		11 - 20		21 - 50		>50		**Grand Total**	
Pathological T Stage	N	% Total	N	% Total	N	% Total	N	% Total	N	% Total	N	% Total
0	2	1.0%	2	0.6%							4	0.5%
1	4	2.0%	1	0.3%							5	0.6%
2	87	42.4%	128	35.7%	60	27.4%	7	14.6%			282	33.8%
3	111	54.1%	224	62.4%	157	71.7%	38	79.2%	3	100.0%	533	63.9%
4			2	0.6%	1	0.5%	3	6.3%			6	0.7%
X	1	0.5%	2	0.6%	1	0.5%					4	0.5%
Grand Total	205	100.0%	359	100.0%	219	100.0%	48	100.0%	3	100.0%	834	100.0%

Age at Operation by Biopsy Gleason Sum

	Biopsy Gleason Score							
	5 - 6		7		8 - 10		**Grand Total**	
Age at op 1	N	% Total	N	% Total	N	% Total	N	% Total
< 60	207	33.0%	304	26.6%	43	22.9%	554	28.3%
60 -64	169	27.0%	292	25.6%	46	24.5%	507	25.9%
65 - 69	189	30.1%	368	32.3%	56	29.8%	613	31.3%
70 - 74	53	8.5%	164	14.4%	42	22.3%	259	13.2%
75 - 79	7	1.1%	11	1.0%	1	0.5%	19	1.0%
> =80	2	0.3%	2	0.2%			4	0.2%
Grand Total	627	100.0%	1,141	100.0%	188	100.0%	1,956	100.0%

Age at Operation by Surgical Specimen Gleason Sum

	Surgical Gleason Score							
	5 - 6		7		8 - 10		**Grand Total**	
Age at op 1	N	% Total	N	% Total	N	% Total	N	% Total
60 -64	91	28.3%	318	26.5%	30	22.1%	439	26.5%
65 - 69	84	26.2%	394	32.8%	43	31.6%	521	31.4%
70 - 74	20	6.2%	167	13.9%	26	19.1%	213	12.9%
75 - 79	2	0.6%	11	0.9%			13	0.8%
< 60	123	38.3%	308	25.7%	37	27.2%	468	28.2%
> =80	1	0.3%	2	0.2%			3	0.2%
Grand Total	321	100.0%	1,200	100.0%	136	100.0%	1,657	100.0%

Operating Surgeon

23: Grade of main operating Surgeon	24: Supervised training operation	N	% Total
Consultant	Yes	482	23.0%
	No	1,305	62.4%
	Not recorded	231	11.0%
SpR	Yes	22	1.1%
	No	3	0.1%
Other	Yes	1	0.0%
	No	38	1.8%
Not recorded	Yes	1	0.0%
	No	3	0.1%
	Not recorded	7	0.3%
Grand Total		2,093	100.0%

Surgical Technique Including number of conversions & reason if applicable

Surgical Technique	34: Conversion reason	N	% Total
ORP	Null	446	21.3%
LRP	Failure to progress	9	0.4%
	Null	826	39.5%
	Other	3	0.1%
RALP	Null	659	31.5%
	Adhesions	1	0.0%
Not recorded	Null	149	7.1%
Grand Total		2,093	100.0%

ASA Grade

27: ASA Grade	N	% Total
1	588	28.1%
2	695	33.2%
3	38	1.8%
Not recorded	771	36.8%
4	1	0.0%
Grand Total	2,093	100.0%

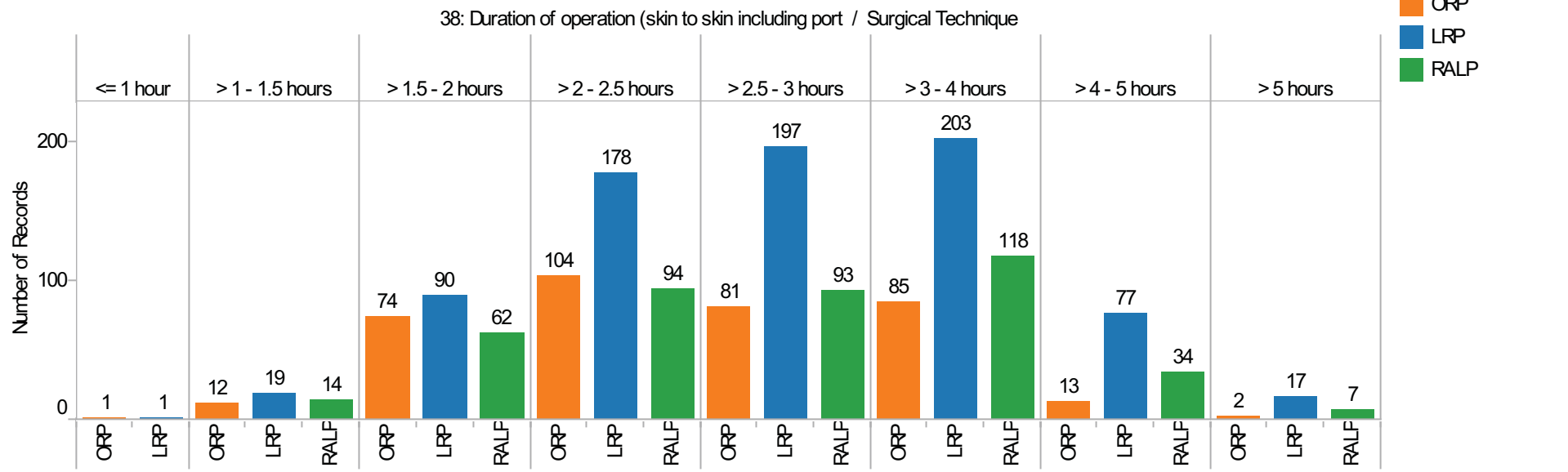
Nerve sparing

28: Procedure - Nerve sparing	N	% Total
Bilateral	700	33.4%
Unilateral	289	13.8%
None	403	19.3%
Not recorded	701	33.5%
Grand Total	2,093	100.0%

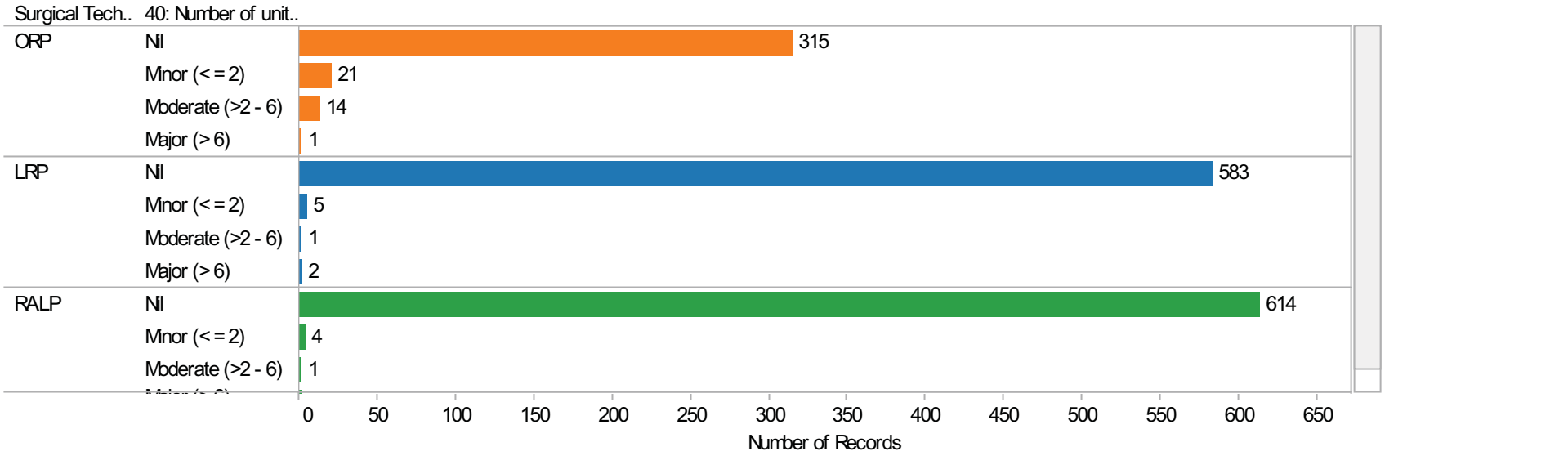
Lymph Node Dissection

36: Lymph node dissection	N	% Total
None	986	47.1%
Obturator fossae	553	26.4%
Extended	397	19.0%
Not recorded	157	7.5%
Grand Total	2,093	100.0%

Duration of Operation by Technique



Known Units of Blood Transfused by Technique



Intraoperative Complications

	Surgical Technique							
	ORP		LRP		RALP		**Grand Total**	
44: Intraoperative complications (group)	N	% Total	N	% Total	N	% Total	N	% Total
None	374	83.9%	706	84.2%	551	83.5%	1,631	83.9%
Haemorrhage / Bleeding	24	5.4%	8	1.0%	12	1.8%	44	2.3%
Difficult dissection	7	1.6%	29	3.5%	22	3.3%	58	3.0%
Rectal injury	4	0.9%	2	0.2%	1	0.2%	7	0.4%
Adhesions			2	0.2%	58	8.8%	60	3.1%
Robotic device failure					1	0.2%	1	0.1%
Ureteric injury	1	0.2%			1	0.2%	2	0.1%
Vascular injury					1	0.2%	1	0.1%
Not recorded	36	8.1%	91	10.9%	9	1.4%	136	7.0%
Adhesions; Robotic device fail..					1	0.2%	1	0.1%
Nerve injury					1	0.2%	1	0.1%
None; Rectal injury					1	0.2%	1	0.1%
Small bowel injury					1	0.2%	1	0.1%
Grand Total	446	100.0%	838	100.0%	660	100.0%	1,944	100.0%

Postoperative Complications

	Surgical Technique							
	ORP		LRP		RALP		**Grand Total**	
45: Postoperative complications (group)	N	% Total	N	% Total	N	% Total	N	% Total
None	317	71.1%	621	74.4%	576	87.3%	1,514	78.0%
Anastomotic leak	2	0.4%	3	0.4%	2	0.3%	7	0.4%
Haematuria	1	0.2%	2	0.2%	3	0.5%	6	0.3%
Haemorrhage / Bleeding			1	0.1%	2	0.3%	3	0.2%
Ileus			4	0.5%	2	0.3%	6	0.3%
Other	17	3.8%	24	2.9%	21	3.2%	62	3.2%
PE / DVT	1	0.2%			1	0.2%	2	0.1%
Sepsis	1	0.2%	2	0.2%	4	0.6%	7	0.4%
Urine Leak	1	0.2%	7	0.8%	3	0.5%	11	0.6%
Wound infection	2	0.4%	3	0.4%	4	0.6%	9	0.5%
Not recorded	104	23.3%	166	19.9%	36	5.5%	306	15.8%
Anastomotic leak; Pelvic haem.					1	0.2%	1	0.1%
Chest infection			2	0.2%			2	0.1%
Pelvic haematoma					5	0.8%	5	0.3%
Grand Total	446	100.0%	835	100.0%	660	100.0%	1,941	100.0%

Recorded Clavien Dindo grade of Complication(s)

	Surgical Technique							
	ORP		LRP		RALP		**Grand Total**	
46: Clavien Dindo grade of complica..	N	% Total	N	% Total	N	% Total	N	% Total
Grade I	94	77.7%	77	81.9%	21	65.6%	192	77.7%
Grade II	21	17.4%	13	13.8%	4	12.5%	38	15.4%
Grade IIIa	2	1.7%	2	2.1%	2	6.3%	6	2.4%
Grade IIIb	3	2.5%	1	1.1%	5	15.6%	9	3.6%
Grade IVa	1	0.8%					1	0.4%
Grade V (death)			1	1.1%			1	0.4%
Grand Total	121	100.0%	94	100.0%	32	100.0%	247	100.0%

Positive Lymph Nodes

	Number of positive lymph nodes					
	0		1 -5		**Grand Total**	
Number of Lymph nodes sampled	N	% Total	N	% Total	N	% Total
1 -5	203	44.6%	10	20.8%	213	42.3%
6 - 10	145	31.9%	14	29.2%	159	31.6%
11 - 20	87	19.1%	14	29.2%	101	20.1%
>20	20	4.4%	10	20.8%	30	6.0%
Grand Total	455	100.0%	48	100.0%	503	100.0%

Stage and Technique Related Positive Surgical Margin Rates

		59: Positive margins			
		Yes		**Grand Total**	
Pathological T Stage	Surgical Technique	N	% Total	N	% Total
1	LRP			1	0.1%
2	LRP	8	2.8%	75	9.5%
	ORP	21	7.4%	103	13.0%
	RALP	8	2.8%	87	11.0%
3	LRP	88	31.2%	174	22.0%
	ORP	62	22.0%	121	15.3%
	RALP	90	31.9%	224	28.4%
4	LRP	1	0.4%	1	0.1%
	ORP	2	0.7%	2	0.3%
	RALP	2	0.7%	2	0.3%
Grand Total		282	100.0%	790	100.0%

Status at most recent Follow-up

Current Status at Most recent Follow-up

	Time to most recent Follow up							
	0 - 90		91 - 180		181 - 360		> 360	
currentstatus	N	% Total	N	% Total	N	% Total	N	% Total
Alive with no evidence of prostate cancer	338	94.9%	179	94.7%	131	96.3%	23	95.8%
Alive with local recurrence of prostate cancer	3	0.8%	3	1.6%	2	1.5%	1	4.2%
Alive with lymph node involvement by prostate..	4	1.1%	2	1.1%	1	0.7%		
Alive with metastatic disease	1	0.3%	2	1.1%	1	0.7%		
Not recorded	10	2.8%	3	1.6%	1	0.7%		
Grand Total	356	100.0%	189	100.0%	136	100.0%	24	100.0%

Participating Hospital Centres 2012

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

Aberdeen Royal Infirmary
Arrowe Park Hospital
Belfast City Hospital
Buckinghamshire Hospitals NHS Trust
Castle Hill Hospital
Churchill Hospital
City Hospitals Sunderland NHS Foundation Trust
Colchester Hospital University NHS Foundation Trust
Darent Valley Hospital
Derby Hospitals NHS Foundation Trust
Dorset County Hospital
East Sussex Hospitals NHS Trust
Freeman Hospital
Glan Clwyd Hospital
Guy's & Thomas's Hospital
Heatherwood & Wexham Park NHS Trust
Hereford Hospitals NHS Trust
Imperial College Healthcare NHS Trust
Kent & Canterbury Hospital
King George Hospital
Medway Maritime Hospital
Monklands District General Hospital
New Cross Hospital, Wolverhampton
Norfolk & Norwich Hospital
North Bristol NHSTrust (Southmead)
Northampton General Hospital
Northwick Park Hospital; Central Middlesex Hospital
Nottingham City Hospital
Pinderfields Hospital
Portsmouth Hospitals NHS Trust
Princess Elizabeth Hospital, Guernsey
Private Patients General Centre
Queen Elizabeth Hospital, B'ham
Raigmore Hospital
Royal Berkshire NHS Foundation Trust
Royal Bournemouth Hospital
Royal Hallamshire Hospital
Royal Liverpool University Hospital
Royal Preston Hospital
Royal Surrey County Hospital
Royal West Sussex NHS Trust, St Richard's Hospital
Salisbury District Hospital
Southampton General Hospital
Southend University Hospital NHS Foundation Trust
St George's Hospital
St James's University Hospital
St Mary's Hospital, London
Stepping Hill Hospital
Stirling Royal Infirmary / Forth Valley Royal
Taunton And Somerset Hospital
Torbay Hospital
University Hospital of North Stafford
University Hospital Of Wales
Victoria Hospital, Kirkcaldy
Walsgrave Hospital (UNIVERSITY HOSPITALS COVENTRY AND WARWICKSHIRE NHS TRUST)
Western General Hospital, Edinburgh
Withington Hospital
Ysbyty Gwynedd Hospital