

THE BRITISH ASSOCIATION OF

UROLOGICAL SURGEONS Section of Oncology

Analyses of Radical Prostatectomies performed between

January 1st and December 31st 2018

Copyright

It is important to remind you that, under the Copyright Designs and Patents Act 1988 (CDPA) copyright of this Report, including the charts produced in it, is owned by The British Association of Urological Surgeons Limited (BAUS). Copying or reproducing any part of this material in any other publication without seeking the prior permission of BAUS is a breach of copyright.

Please contact Mrs Sarah Fowler (E-mail: sarahfowler99@gmail.com)

AUDIT RESULTS SUMMARY – Radical Prostatectomy dataset

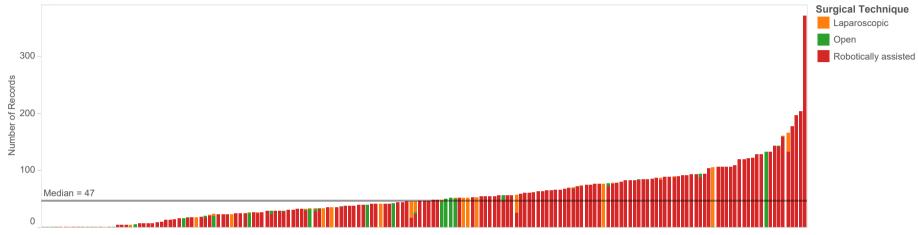
All the data presented here are a summary of the data extracted from the web-based database on 15th July 2019 and relate to operations performed during the whole of 2018. Once extracted the data was transferred to an AccessTM database for validation before being imported into TableauTM for generation of the analyses. The validation mainly comprised checks for duplicate and / or empty entries and invalid / inappropriate dates.

The data collection period was from 1 January 2018 to 31 December 2018.

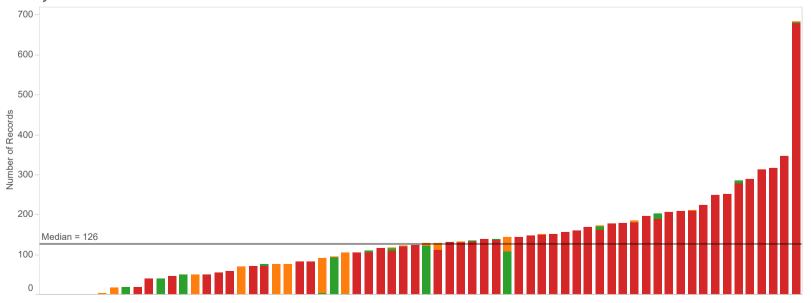
- 9,747 cases were submitted in total, of which 9,044 were from England; these 9,747 cases came from 175 consultants at 73 sites, and include 909 private patients from 65consultants.
- Median number of cases per consultant: 47 (range 1 371)
- Median number of cases per centre: 126 (range 1 685)
- The overall transfusion rate was 0.15% By technique, the transfusion rates were: open 0.78%, laparoscopic 0.49% and robotic 0.08%.
- 8,865 of the entries recorded whether there had been adverse post operative events. The total post-operative complication rate was **6.9**% (611/8254). Of these 611 cases, 606 recorded the **Clavien Dindo grade** (i.e. 5 or 0.8% did not). Complications classified as Clavien Dindo Grade III or above were seen in **1.5**% of cases.
- Hospital Episode Statistics (HES) for 2018 indicate that there were 9,339 radical prostatectomies undertaken in England so we collected data on 97% of the NHS funded radical prostatectomies undertaken in England during 2018.

2018 Radical Prostatectomies -9,747 cases reported by 175 consultants at 73 NHS sites (including 909 private cases from 65 consultants)





TotalbyCentre



Reason for Prostatectomy

Reason For Prostatectomy	of	% of Total Number of Recor
Primary treatment of cancer	7,854	80.58%
Previous active surveillance	944	9.69%
Salvage therapy	98	1.01%
Null	851	8.73%
Grand Total	9,747	100.00%

Reason if Previous Active surveillance

If Previous Active Surveillan	Number	% of Tot
Clinical progression	102	10.8%
Clinical progression + Other	65	6.9%
Gleason progression	276	29.2%
Gleason progression + Other	92	9.7%
PSA progression	218	23.1%
PSA progression +/- other	15	1.6%
Patient decision	123	13.0%
Not recorded	53	5.6%
Grand Total	944	100.0%

Previous Management

Previous Management	of	% of Total Number of Recor
None	8,331	85.47%
Brachytherapy	20	0.21%
HIFU	34	0.35%
Radiotherapy	39	0.40%
TURP	92	0.94%
Cryotherapy	3	0.03%
Hormonal suppression ther	146	1.50%
Not recorded	1,082	11.10%
Grand Total	9,747	100.00%

Age

Age Group	% of Total							
<60	27.8%							2,694
60 - 64	22.4%					2	,170	
65 - 69	28.5%							2,768
70 - 74	19.1%					1,855		
75 - 79	2.1%		205					
>=80	0.1%	14						
		0	500	1000	1500	2000	2500	3000
				- 1	Number of Re	cords		

SurgicalTechnique

Surgical Technique	of	% of Total Number of Recor
Open	572	5.87%
Laparoscopic	627	6.43%
Robotically assisted	8,548	87.70%
Grand Total	9,747	100.00%

BMI

Median Age

Surgical Technique	Number of Records	Median Age	Min. Age	Max. Age
Open	551	65	41	75
Laparoscopic	610	64	44	75
Robotically assisted	8,438	64	40	75
Grand Total	9,599	64	40	75

BMI

	Underweight		Normal		Overweight		Obese		Not Recorded		Grand Total	
	% of	Number	% of	Number	% of	Number	% of	Number	% of	Number	% of	Number
	Total	of	Total	of	Total	of	Total	of	Total	of	Total	of
Surgical Technique	Numbe	Records	Numbe	Records	Numbe	Records	Numbe	Records	Numbe	Records	Numbe	Records
Open	0.52%	3	12.94%	74	30.42%	174	16.26%	93	39.86%	228	100.00%	572
Laparoscopic	0.32%	2	13.24%	83	33.17%	208	20.73%	130	32.54%	204	100.00%	627
Robotically assisted	0.12%	10	16.52%	1,412	42.65%	3,646	22.57%	1,929	18.14%	1,551	100.00%	8,548
Grand Total	0.15%	15	16.10%	1,569	41.33%	4,028	22.08%	2,152	20.34%	1,983	100.00%	9,747

ASA Grade

Asa Grade	of	% of Total Number of Recor
ASA 1	1,631	16.73%
ASA 2	6,749	69.24%
ASA 3	376	3.86%
ASA 4	1	0.01%
Not recorded	990	10.16%
Grand Total	9 747	100.00%

Clinical T stage

Clinical T Stage (group) 1	of	% of Total Number of Recor
0	20	0.21%
1	1,127	11.56%
2	5,863	60.15%
3	1,835	18.83%
4	12	0.12%
Not recorded/Known	890	9.13%
Grand Total	9,747	100.00%

Comparison of Clinical and Pathological T stage

		Pathological T Stage (group) 1												
	0)	1		2	2	3	3	4	1	Not reco	ded/ Kn	Grand	l Total
Clinical T	% of	Number	% of	Number	% of	Number	% of	Number	% of	Number	% of	Number	% of	Number
Stage (group)	Total	of	Total	of	Total	of	Total	of	Total	of	Total	of	Total	of
1	Numbe	Records	Numbe	Records	Numbe	Records	Numbe	Records	Numbe	Records	Numbe	Records	Numbe	Records
0	10.00%	2			60.00%	12	25.00%	5			5.00%	1	100.00%	20
1	0.27%	3			62.56%	705	26.97%	304	0.09%	1	10.12%	114	100.00%	1,127
2	0.05%	3	0.05%	3	54.65%	3,204	37.42%	2,194	0.03%	2	7.79%	457	100.00%	5,863
3					23.98%	440	67.25%	1,234	0.11%	2	8.66%	159	100.00%	1,835
4					8.33%	1	66.67%	8	16.67%	2	8.33%	1	100.00%	12
Not recorded					30.90%	275	22.25%	198			46.85%	417	100.00%	890
Grand Total	0.08%	8	0.03%	3	47.57%	4.637	40.45%	3.943	0.07%	7	11.79%	1.149	100.00%	9.747

Clinical Stage by Pre-op PSA

	Pre-operative PSA											
	0-	5	6-10		11-20		21-50		>50		Grand Total	
Clinical T Stage (group) 1	Number of Reco	% of Total N	Number of Recor	% of Total N	Number of Reco	% of Total N	Number of Reco	% of Total N	Number of Recor	% of Total N	Number of Reco	% of Total N
0	2	10.5%	10	52.6%	7	36.8%					19	100.0%
1	234	21.1%	594	53.5%	239	21.5%	43	3.9%	1	0.1%	1,111	100.0%
2	1,148	19.8%	2,997	51.7%	1,374	23.7%	261	4.5%	17	0.3%	5,797	100.0%
3	243	13.4%	824	45.3%	507	27.9%	211	11.6%	32	1.8%	1,817	100.0%
4	3	25.0%	3	25.0%	2	16.7%	4	33.3%			12	100.0%
Not recorded/Known	80	22.0%	174	47.9%	80	22.0%	26	7.2%	3	0.8%	363	100.0%
Grand Total	1,710	18.8%	4,602	50.5%	2,209	24.2%	545	6.0%	53	0.6%	9,119	100.0%

Median pre-operative PSA

Surgical Technique	of	% of Total Number of Recor	Avg. Pre Operative Psa	Median Pr e Operati ve
Open	452	5.1%	9	8
Laparoscopic	610	6.9%	9	8
Robotically assisted	7,820	88.0%	9	8
Grand Total	8,882	100.0%	9	8

Pathological Staging by Pre-op PSA

Pre-operative PSA

	0-	5	6-1	10	11-	20	21-	-50	>5	50	Grand	Total
Pathological T Stage (gro	Number of Records	% of Total Number	Number of Records	% of Total Number	Number of Records	% of Total Number	Number of Records		Number of Records	% of Total Number	Number of Records	% of Total Number
0	3	37.50%	1	12.50%	4	50.00%					8	100.00%
1	2	66.67%	1	33.33%							3	100.00%
2	1,040	23.02%	2,409	53.32%	942	20.85%	117	2.59%	10	0.22%	4,518	100.00%
3	509	13.24%	1,808	47.05%	1,111	28.91%	378	9.84%	37	0.96%	3,843	100.00%
4	2	28.57%	2	28.57%	3	42.86%					7	100.00%
Not recorded	154	20.81%	381	51.49%	149	20.14%	50	6.76%	6	0.81%	740	100.00%
Grand Total	1,710	18.75%	4,602	50.47%	2,209	24.22%	545	5.98%	53	0.58%	9,119	100.00%

Age at Operation by Biopsy Gleason Sum

Biopsy Gleason Sum Score

	5	5 - 6		7		10	Grand Total	
Age Group	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records
<60	344	13.60%	1,933	76.40%	253	10.00%	2,530	100.00%
60 - 64	258	12.57%	1,516	73.84%	279	13.59%	2,053	100.00%
65 - 69	267	10.16%	1,974	75.11%	387	14.73%	2,628	100.00%
70 - 74	155	8.86%	1,281	73.24%	313	17.90%	1,749	100.00%
75 - 79	18	9.57%	143	76.06%	27	14.36%	188	100.00%
>=80	1	8.33%	10	83.33%	1	8.33%	12	100.00%
Grand Total	1,043	11.39%	6,857	74.86%	1,260	13.76%	9,160	100.00%

Age at Operation by Surgical Gleason Sum Score

Surgical Gleason Sum Score

	5 - 6		7		8 - 10		Grand Total	
Age Group	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records
<60	153	6.46%	1,979	83.57%	236	9.97%	2,368	100.00%
60 - 64	101	5.29%	1,560	81.72%	248	12.99%	1,909	100.00%
65 - 69	121	5.00%	1,977	81.76%	320	13.23%	2,418	100.00%
70 - 74	65	4.02%	1,271	78.60%	281	17.38%	1,617	100.00%
75 - 79	4	2.25%	146	82.02%	28	15.73%	178	100.00%
>=80			12	100.00%			12	100.00%
Grand Total	444	5.22%	6,945	81.69%	1,113	13.09%	8,502	100.00%

Operating Surgeon

Supervised Training Operation

	N	No		Yes		corded	Grand Total	
Grade Of Main Operating Surgeon	Number of Records	% of Total Number	Number of Records	% of Total Number	Number of Records	% of Total Number	Number of Records	% of Total Number
Consultant	828	9.63%	124	1.44%	7,648	88.93%	8,600	100.00%
SpR	26	4.40%	555	93.91%	10	1.69%	591	100.00%
Other					39	100.00%	39	100.00%
Not recorded					517	100.00%	517	100.00%
Grand Total	854	8.76%	679	6.97%	8,214	84.27%	9,747	100.00%

Conversions

Converted

		Conventor							
	Yes		No		Null		Grand Total		
Surgical Technique	Numbe	% of T	Numbe	% of To	Numbe	% of To	Numbe	% of To	
Open			1	0.17%	571	99.83%	572	100.00%	
Laparoscopic	1	0.16%	609	97.13%	17	2.71%	627	100.00%	
Robotically assisted	16	0.19%	7,788	91.11%	744	8.70%	8,548	100.00%	
Grand Total	17	0.17%	8,398	86.16%	1,332	13.67%	9,747	100.00%	

Duration of Operation by Technique

Surgical Technique

		outgloat rectifique									
	Ор	Open		Laparoscopic		Robotically assisted		Total			
Duration Of	Number of	% of Total Number of	Number of	% of Total Number of	Number of	% of Total Number of	Number of	% of Total Number of			
Operation	Records	Records	Records	Records	Records	Records	Records	Records			
<2.0 hours	96	4.40%	138	6.33%	1,947	89.27%	2,181	100.00%			
2.0-3.9 hours	301	4.92%	424	6.94%	5,387	88.14%	6,112	100.00%			
4.0-5.9 hours	20	4.20%	46	9.66%	410	86.13%	476	100.00%			
>= 6.0 hours					6	100.00%	6	100.00%			
Not recorded	155	15.95%	19	1.95%	798	82.10%	972	100.00%			
Grand Total	572	5.87%	627	6.43%	8,548	87.70%	9,747	100.00%			

Lymph Node Dissection

of	% of Total Number of Recor
5,482	56.24%
1,871	19.20%
1,065	10.93%
1,329	13.63%
9,747	100.00%
	of Records 5,482 1,871 1,065 1,329

Nerve Sparing

Nerve Sparing	of	% of Total Number of Recor
None	2,802	28.75%
Bilateral	3,212	32.95%
Unilateral	2,721	27.92%
Not recorded	1,012	10.38%
Grand Total	9,747	100.00%

KnownTransfusionRate

Transfused	of	% of Total Number of Recor
Not transfused	9,457	99.85%
Transfused	14	0.15%
Grand Total	9,471	100.00%

TransfusionRatebyAge

Transfused

	Trans	fused	Not tran	nsfused	Grand Total		
Age Group	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records	
<60	2	0.08%	2,620	99.92%	2,622	100.00%	
60 - 64	1	0.05%	2,117	99.95%	2,118	100.00%	
65 - 69	5	0.19%	2,681	99.81%	2,686	100.00%	
70 - 74	6	0.33%	1,791	99.67%	1,797	100.00%	
75 - 79			195	100.00%	195	100.00%	
>=80			13	100.00%	13	100.00%	
Grand Total	14	0.15%	9,417	99.85%	9,431	100.00%	

TransfusionRatebyASA

Transfused

	Trans	fused	Not tran	nsfused	Grand Total		
Asa Grade	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records	
ASA 1	4	0.25%	1,626	99.75%	1,630	100.00%	
ASA 2	7	0.10%	6,724	99.90%	6,731	100.00%	
ASA 3	3	0.80%	370	99.20%	373	100.00%	
ASA 4			1	100.00%	1	100.00%	
Not recorded			736	100.00%	736	100.00%	
Grand Total	14	0.15%	9,457	99.85%	9,471	100.00%	

Tranfusions by Surgical Technique

Surgical Technique

	Op	en	Laparo	scopic	Roboticall	y assisted	Grand Total	
Blood Units Transfused	Number of Records	% of Total Number of Records		% of Total Number of Records	Number of Records	% of Total Number of Records	Number of Records	
Nil	511	5.40%	612	6.47%	8,334	88.13%	9,457	100.00%
Minor (<3 units)	4	36.36%	2	18.18%	5	45.45%	11	100.00%
Moderate (3-6 units)			1	33.33%	2	66.67%	3	100.00%
Not recorded	57	20.65%	12	4.35%	207	75.00%	276	100.00%
Grand Total	572	5.87%	627	6.43%	8,548	87.70%	9,747	100.00%

TransfusionRatebyTechnique

Transfused

	Transfused		Not tran	nsfused	Grand Total		
Surgical Technique	% of Total Number of Records	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records	Number of Records	
Open	0.78%	4	99.22%	511	100.00%	515	
Laparoscopic	0.49%	3	99.51%	612	100.00%	615	
Robotically assisted	0.08%	7	99.92%	8,334	100.00%	8,341	
Grand Total	0.15%	14	99.85%	9,457	100.00%	9,471	

KnownIntraopCompRate

Intra Operative Complications (group) (copy)	of	% of Total Number of Recor
Complication recorded	383	4.29%
None	8,542	95.71%
Grand Total	8,925	100.00%

Known Post-operative Complication rate

PostOperative Complication Wit	of	% of Total Number of Recor
Complication	611	6.89%
None	8,254	93.11%
Grand Total	8,865	100.00%

Clavien Dindo Grade of Post-Operative Complications by Technique

Surgical Technique

	Lanara	scopic	0.5	en	Poboticall	y assisted	Grand Total		
	Laparo		Op	en	Robotican	•	Grand		
Clavien Dindo Grade		% of Total							
Of Complications (group)	Number of Records	Number of Records							
Grade I	24	3.94%	24	4.64%	238	3.08%	286	3.23%	
Grade II	8	1.31%	14	2.71%	167	2.16%	189	2.13%	
Grade III plus	7	1.15%	19	3.68%	105	1.36%	131	1.48%	
Not recorded / NA	570	93.60%	460	88.97%	7,229	93.41%	8,259	93.16%	
Grand Total	609	100.00%	517	100.00%	7,739	100.00%	8,865	100.00%	

Specific Intraoperative Complications

	Number of	Number
Intra Operative Complications	Records	of Recor
Difficult dissection	212	55.35%
Problematic bleeding	60	15.67%
Problematic bleeding, Difficult dissection	60	15.67%
Rectal injury	13	3.39%
Ureteric injury	6	1.57%
Vascular injury	4	1.04%
Robotic device failure	4	1.04%
Port complications	1	0.26%
Difficult dissection,Rectal injury	1	0.26%
Difficult dissection,Small bowel injury	1	0.26%
Nerve injury	2	0.52%
Difficult dissection,Port complications	1	0.26%
Adhesions	6	1.57%
Difficult dissection,Robotic device failure	1	0.26%
Difficult dissection,Ureteric injury	2	0.52%
Problematic bleeding,Robotic device failure	1	0.26%
Small bowel injury	8	2.09%
Grand Total	383	100.00%

Specific Post operative complications

PostOperativeComplicationW it	Number of Records	% of Total Number of Records along
Anastomotic Leak + others	44	7.20%
Chest infection + others	16	2.62%
Haematuria + others	39	6.38%
Haemorrhage + Others	34	5.56%
Ileus	34	5.56%
Ileus,Lymphocoele, Ileus,Ot	3	0.49%
Pelvic haematoma, Pelvic h	29	4.75%
Sepsis	32	5.24%
Urine leak	46	7.53%
Wound infection	20	3.27%
PE / DVT, PE / DVT, Ileus, PE	11	1.80%
Return to theatre, Return to	14	2.29%
Sepsis, Anastomotic leak, S	8	1.31%
Urine leak,Anastomotic leak	12	1.96%
Wound infection, Anastomot	1	0.16%
Others	252	41.24%
Anastomotic leak, Haemorrh	1	0.16%
Chest infection, Urine leak	2	0.33%
Haematuria, Haemorrhage /	1	0.16%
Haematuria,PE / DVT	1	0.16%
Haematuria, Urine leak, Haem	1	0.16%
Other,	1	0.16%
Other, Other	1	0.16%
Other,PE / DVT	1	0.16%
PE / DVT, lleus, Lymphocoele	1	0.16%
PE / DVT,Return to theatre,L	1	0.16%
Sepsis, Anastomotic leak, Ile	1	0.16%
Sepsis,Haematuria,Pelvic h	1	0.16%
Sepsis, Ileus, Return to theat	1	0.16%
Sepsis,PE / DVT	1	0.16%
Urine leak,lleus,Return to th	1	0.16%
Grand Total	611	100.00%

LOSbyTechnique

Surgical Technique	Number of Records	Median Length Of Stay	Avg. Length Of Stay	Min. Length Of Stay	Max. Length Of Stay
Open	553	3.0	4	0	61
Laparoscopic	610	2.0	2	0	43
Robotically a	7,789	1.0	2	0	88
Grand Total	8,952	1.0	2	0	88

pT2 Positive Surgical Margin Rate

Margins (group) 1	of	% of Total Number of Recor
Positive	824	18.05%
Negative	3,742	81.95%
Grand Total	4,566	100.00%

pT2 Margins by Technique

Margins (group) 1

	Pos	itive	Nega	ative	Grand Total				
Surgical Technique	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records			
Open	35	14.29%	210	85.71%	245	100.00%			
Laparoscopic	69	19.33%	288	80.67%	357	100.00%			
Robotically assisted	720	18.16%	3,244	81.84%	3,964	100.00%			
Grand Total	824	18.05%	3,742	81.95%	4,566	100.00%			

Positive Lymph Nodes

Number Of Positive Lymph Nodes (group)

()	1 -	- 5	6 -	10	11	- 20	>	20	Not re	corded	Grand	l Total
Number of Records						Number of	Number of	Number of	Number of	Number of			
719	89.76%	58	7.24%	2	0.25%	2	0.25%	1	0.12%	19	2.37%	801	100.00%
725	89.73%	69	8.54%	1	0.12%					13	1.61%	808	100.00%
733	83.77%	126	14.40%	5	0.57%	2	0.23%			9	1.03%	875	100.00%
264	76.97%	66	19.24%	8	2.33%	2	0.58%	1	0.29%	2	0.58%	343	100.00%
2,441	86.35%	319	11.28%	16	0.57%	6	0.21%	2	0.07%	43	1.52%	2,827	100.00%
	Number of Records 719 725 733 264	Number of Records Number of Records 719 89.76% 725 89.73% 733 83.77% 264 76.97%	Number of Records % of Total Number of Records. Number of Records. 719 89.76% 58 725 89.73% 69 733 83.77% 126 264 76.97% 66	Number of Records % of Total Number of Records Number of Records % of Total Number of Records % of Total Number of Records 719 89.76% 58 7.24% 725 89.73% 69 8.54% 733 83.77% 126 14.40% 264 76.97% 66 19.24%	Number of Records % of Total Number of Records % of Total Number of Records Number	Number of Records % of Total Number of Records. Number of Records. % of Total Number of Records. 719 89.76% 58 7.24% 2 0.25% 725 89.73% 69 8.54% 1 0.12% 733 83.77% 126 14.40% 5 0.57% 264 76.97% 66 19.24% 8 2.33%	Number of Records % of Total Number of Records Number of Records % of Total Number of Records	Number of Records % of Total Number of Records	Number of Records % of Total Number of Records Number of Records % of Total Number of Records Number	Number of Records % of Total Number of Records. Number of Records. % of Total Number of Reco	Number of Records % of Total Number of Records Number of Records % of Total Number of Records Number o	Number of Records % of Total Number of Records Number of Records % of Total Number of Records Number of Records % of Total Number of Records	Number of Records % of Total Number of Records % of Total Number of Records Number

Patients followed up

Follow up	of	% of Total Number of Recor
Followed up	2,784	28.56%
Not followed up	6,963	71.44%
Grand Total	9,747	100.00%

Current Status

Tim		

	0 - 3		4 - 6		7 - 12		> 12		Grand Total	
Current Status	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records
Alive with no evidence of prostate cancer	1,269	71.86%	453	83.89%	321	83.59%	79	86.81%	2,122	76.30%
Alive with local recurrence of prostate cancer	12	0.68%	13	2.41%	10	2.60%	1	1.10%	36	1.29%
Alive with lymph node involvement by prostate cancer	15	0.85%	2	0.37%	4	1.04%	1	1.10%	22	0.79%
Alive with metastatic disease	10	0.57%	3	0.56%	1	0.26%	1	1.10%	15	0.54%
Discharged to GP / Other consultant	290	16.42%	8	1.48%	2	0.52%			300	10.79%
Not recorded	170	9.63%	61	11.30%	46	11.98%	9	9.89%	286	10.28%
Grand Total	1,766	100.00%	540	100.00%	384	100.00%	91	100.00%	2,781	100.00%

Participating Hospital Centres 2018

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

Aberdeen Royal Infirmary

Addenbrooke's Hospital, Cambridge

Alexandra Hospital, Redditch Arrowe Park Hospital, Wirral Blackpool Victoria Hospital

Broomfield Hospital, Chelmsford

Castle Hill Hospital, Hull

Charing Cross Hospital, London Cheltenham General Hospital

Christie Hospital

Churchill Hospital, Oxford Colchester General Hospital

Darent Valley Hospital, Kent Derriford Hospital, Plymouth

Eastbourne District General Hospital

Freeman Hospital, Newcastle

Gloucestershire Royal Hospital, Gloucester

Guy's & Thomas's Hospital

Heartlands Hospital, Birmingham

James Cook University Hospital, Middlesbrough

Kent & Canterbury Hospital

Leicester General Hospital

Lister Hospital, Stevenage

Maidstone Hospital

Manchester Royal Infirmary

Medway Maritime Hospital, Gillingham

Morriston Hospital, Swansea

New Cross Hospital, Wolverhampton

Ninewells Hospital, Dundee

Norfolk & Norwich University Hospital

Nottingham City Hospital

Pinderfields General Hospital, Wakefield Queen Alexandra Hospital, Portsmouth Queen Elizabeth Hospital, Birmingham

Queen Elizabeth University Hospital

Royal Blackburn Hospital

Royal Berkshire Hospital, Reading

Royal Bournemouth General Hospital

Royal Derby Hospital

Royal Devon & Exeter Hospital

Royal Hallamshire Hospital, Sheffield

Royal Liverpool University Hospital

Royal Marsden Hospital, London

Royal Preston Hospital

Royal Shrewsbury Hospital

Royal Stoke University Hospital

Royal Surrey County Hospital, Guildford

Royal United Hospital, Bath

Southampton General Hospital

Southend Hospital

Southmead Hospital, Bristol

St George's Hospital, London

St James's University Hospital, Leeds

St Mary's Hospital, London

Stepping Hill Hospital, Stockport

Sunderland Royal Hospital

University College Hospital, London

University Hospital of Wales, Cardiff

Walsgrave Hospital, Coventry

Western General Hospital, Edinburgh

Wycombe Hospital, High Wycombe