

Appendix Table 1 - Results of the univariate and multivariate analysis for patients aged 75 and under, assessing the impact of patient characteristics and the relative proximity of radiotherapy and surgical services to a patient's residence on the choice of treatment modality.

	Proportion of men treated with radiotherapy	Proportion of men treated with radical prostatectomy	Unadjusted odd ratios for receipt of radiotherapy		Adjusted odds ratio for receipt of radiotherapy	
			95% CI	P values		
Treatment options available at nearest centre				<0.001		<0.001
Both RT and RP	57.3%	42.7%	reference		reference	1
Only RT available and nearest centre offering RP >15 mins extra travel time away	62.8%	37.2%	1.28 (1.14-1.44)		1.24 (1.09-1.41)	
Only RT available and nearest centre offering RP <15 mins extra travel time away	55.3%	44.7%	0.89 (0.82-0.97)		0.89 (0.81-0.97)	
Only RP available and nearest centre offering RT < 15 mins extra travel time away	54%	46%	0.90 (0.82-0.98)		0.94 (0.85-1.03)	
Only RP available and nearest centre offering RT >15 mins extra travel time away	52%	48%	0.78 (0.65-0.92)		0.70 (0.58-0.85)	
Age (Years)				<0.001		<0.001
<60	26.1%	73.9%	reference		reference	1
60-64	41.1%	58.9%	1.98 (1.78-2.21)		1.98 (1.78-2.20)	
65-69	52.1	47.9%	3.08 (2.79-3.40)		3.02 (2.74-3.34)	
70-74	74.1	25.9%	9.48 (8.54-10.50)		9.35 (8.41-10.40)	
Comorbidities (using RCS Charlson Score)				<0.001		<0.001
0	53.5%	46.5%	1		1	
1	66.9%	33.1%	1.76 (1.61-1.94)		1.59 (1.44-1.77)	
2+	81.1%	18.9%	3.75 (3.10-4.53)		3.15 (2.56-3.88)	
Deprivation status (national Quintiles)				0.4931		<0.001
1 (least deprived)	57.4%	42.6%	1		1	
2	57.0%	43.0%	1.01 (0.92-1.10)		1.03 (0.94-1.14)	
3	56.6%	43.4%	1.00 (0.91-1.10)		1.05 (0.95-1.17)	
4	54.6%	45.4%	0.94 (0.85-1.04)		1.05 (0.94-1.18)	
5 (most deprived)	56.5%	43.5%	1.04 (0.93-1.16)		1.19 (1.20-1.52)	
Ethnicity				<0.001		0.001
White	58.0%	42%	1		1	
Ethnic minority group	43.5%	56.5%	0.56 (0.50-0.62)		0.75 (0.66-0.86)	
Missing	54.5%	45.5%	0.88 (0.77-1.01)		1.08 (0.94-1.24)	

Notes:

- RT – Radiotherapy; RP -Radical prostatectomy
- Travel time – represents the difference in travel time between the patients nearest RP and RT centre.
- An Odds Ratio (OR) > 1 means that the chance of receiving RT is higher than when RT and RP are both offered in the nearest hospital.
- Statistically significant results in bold font

Appendix Table 2. Table of the odds ratios for the interactions between age; comorbidity; ethnicity; and socioeconomic status on the association between the relative proximity of radiotherapy and surgical services to a patients residence on the choice of treatment modality.

	Odds Ratio		Odds Ratio		LR Test
	n=16424		95% CI		P values
Treatment options available at nearest centre	Older men		Younger men		<0.001
Both RT and RP	1		1		
Only RT available and nearest centre offering RP >15 mins extra travel time away	1.54	1.17-2.00	1.13	0.98-1.31	
Only RT available and nearest centre offering RP <15 mins extra travel time away	1.05	0.89-1.25	0.83	0.75-0.92	
Only RP available and nearest centre offering RT < 15 mins extra travel time away	0.89	0.74-1.07	0.91	0.81-1.00	
Only RP available and nearest centre offering RT >15 mins extra travel time away	0.98	0.69-1.39	0.62	0.49-0.78	
Treatment options available at nearest centre	With comorbidity		No Comorbidity		0.167
Both RT and RP	1		1		
Only RT available and nearest centre offering RP >15 mins extra travel time away	1.49	1.09-2.05	1.18	1.02-1.36	
Only RT available and nearest centre offering RP <15 mins extra travel time away	1.06	0.84-1.33	0.88	0.80-0.98	
Only RP available and nearest centre offering RT < 15 mins extra travel time away	0.91	0.72-1.15	0.95	0.85-1.06	
Only RP available and nearest centre offering RT >15 mins extra travel time away	0.79	0.51-1.22	0.71	0.58-0.88	
Treatment options available at nearest centre	Most socioeconomically deprived	95% CI	Least socioeconomically deprived	95% CI	0.01
Both RT and RP	1		1		
Only RT available and nearest centre offering RP >15 mins extra travel time away	1.26	0.98-1.62	1.22	1.04-1.41	
Only RT available and nearest centre offering RP	0.72	0.61-0.85	0.99	0.90-1.11	

<15 mins extra travel time away					
Only RP available and nearest centre offering RT < 15 mins extra travel time away	0.96	0.81-1.14	0.92	0.82-1.04	
Only RP available and nearest centre offering RT >15 mins extra travel time away	0.86	0.59-1.25	0.68	0.55-0.85	
Treatment options available at nearest centre	Ethnic minority group		White		<0.001
Both RT and RP	1		1		
Only RT available and nearest centre offering RP >15 mins extra travel time away	1.43	0.99-2.08	1.21	1.05-1.39	
Only RT available and nearest centre offering RP <15 mins extra travel time away	0.61	0.49-0.77	0.98	0.89-1.06	
Only RP available and nearest centre offering RT < 15 mins extra travel time away	0.77	0.59-1.01	0.97	0.88-1.08	
Only RP available and nearest centre offering RT >15 mins extra travel time away	0.92	0.52-1.63	0.71	0.58-0.87	

Notes:

RT – Radiotherapy; RP - Radical prostatectomy

Younger men defined as age ≤70. Older Men age >70.

Most deprived – men living in areas of highest social deprivation (IMD score 3-5). Least deprived – men living in areas of lowest social deprivation (IMD 1-2).

Travel time – represents the difference in travel time between the patients nearest RP and RT centre.

An Odds Ratio (OR) > 1 means that the chance of receiving RT is higher than when RT and RP are both offered at the nearest hospital.