Supplementary Materials

Supplement A. Modelling of secondary malignancy with adjustment to confounding factors

		Adjusted IRR[a)] (95% CI)	p-value
Modelling any second malignancy	Surgery	1.0 (ref)	
	BEAM	1.35 (1.30, 1.40)	<0.0001
	SEED	1.20 (1.13, 1.27)	<0.0001
	combined	1.22 (1.14, 1.30)	<0.0001
	White	1.0 (ref)	
	Black	1.07 (1.02, 1.11)	0.005
	Other/unknown	0.75 (0.69, 0.82)	<0.0001
	Age at diagnosis of primary prostate cancer (per decade)	1.64 (1.59, 1.70)	<0.0001
	Year of primary prostate cancer diagnosis (per decade)	0.93 (0.92, 0.95)	<0.0001
Modelling lung second malignancy	Surgery	1.0 (ref)	
	BEAM	1.60 (1.48, 1.74)	<0.0001
	SEED	1.11 (0.95, 1.30)	0.17
	combined	1.22 (1.03, 1.43)	0.02
	White	1.0 (ref)	
	Black	1.44 (1.31, 1.58)	<0.0001
	Other/unknown	0.70 (0.57, 0.87)	<0.0001
	Age at diagnosis of primary prostate cancer (per decade)	1.86 (1.71, 2.02)	<0.0001
	Year of primary prostate cancer diagnosis (per decade)	0.83 (0.79, 0.86)	<0.0001
Modelling bladder second malignancy	Surgery	1.0 (ref)	
	BEAM	2.09 (1.88, 2.32)	<0.0001
	SEED	1.91 (1.61, 2.26)	<0.0001
	combined	2.04 (1.70, 2.45)	<0.0001
	White	1.0 (ref)	
	Black	0.69 (0.59, 0.81)	<0.0001
	Other/unknown	0.68 (0.52, 0.88)	0.004
	Age at diagnosis of primary prostate cancer (per decade)	1.89 (1.69, 2.11)	<0.0001
	Year of primary prostate cancer diagnosis (per decade)	0.90 (0.85, 0.95)	0.0001
Modelling rectum second malignancy	Surgery	1.0 (ref)	
	BEAM	1.58 (1.33, 1.87)	<0.0001
	SEED	1.30 (0.96, 1.76)	0.09
	combined	1.98 (1.50, 2.61)	<0.0001
	White	1.0 (ref)	
	Black	0.96 (0.76, 1.20)	0.70
	Other/unknown	0.98 (0.68, 1.42)	0.93
	Age at diagnosis of primary prostate cancer (per decade)	1.86 (1.56, 2.21)	<0.0001
	Year of primary prostate cancer diagnosis (per decade)	0.82 (0.76, 0.90)	<0.0001

IRR, incidence rate ratio; BEAM, external beam radiation; SEED, brachytherapy; CI, confidence interval.

[a)]Adjusted for race (unknown/other groups combined), age at primary prostate diagnosis (linear), and year of primary prostate diagnosis (continuous linear). Poisson model with offset for follow-up time used to calculate IRRs.