APPENDIX 1

Table 1. Registry data used in the analysis.

Registry	Code
The Danish Cancer Registry	
ICD-10 diagnosis and morphologic codes	
Prostate cancer	DC61.9
Tumor stage	TNM
The Danish National Registry of Patients	
Imaging modality	
Danish Health Care Classification System, sks-codes	
Bone scintigraphy	WKBxx
^{18}F-NaF PET	WDTPSFCXX
The Danish National Registry of Patients	
Primary prostate cancer treatment	
NCSP codes	
Radical prostatectomy	KKECxx
The Danish National Registry of Patients	
Skeletal-related events	
NCSP codes	
Radiation to bone	BWGxx
Surgery to bone	KNAGxx
ICD-10 codes	
Bone metastases	DC79.5
Spinal cord compression	DG952
Pathological fractures	
Osteoporotic fractures	
The Danish Register of Laboratory Results	
NPU codes	
PSA	NPU0866
The Danish National Pathology Registry	
SNOMED codes	
Gleason score	ÆF0xx

NCSP: Nomesco Classification of Surgical Procedures; NPU: Nomenclature for Properties and Units; SNOMED: Systematized Nomenclature of Medicine

Table 2. Comorbidity codes from The Danish National Patient Registry used to calculate the Charlson Comorbidity Index. All codes are ICD-10 codes.

Comorbidity	Code
Myocardial infarction	DI21, DI22
Heart failure	DI099, DI110, DI130, DI132, DI255, DI425, DI426, DI427, DI429, DI428A, DP290, DI43, DI50, DE105, DE115, DE125, DE135, DE145
Peripheral vascular disease	DI70, DI71, DI72, DI731, DI738, DI739, DI77, DI790, DI792, DK551, DK558, DK559, DZ958, DZ959
Cerebrovascular disease	DI60, DI61, DI62, DI63, DI64, DI65, DI66, DI67, DI68, DI69, DG45, DG46, DH340
Dementia	DF00, DF01, DF02, DF03, DG30, DF051, DG311
Chronic pulmonary disease	DJ40, DJ41, DJ42, DJ43, DJ44, DJ45, DJ46, DJ47, DJ60, DJ61, DJ62, DJ63, DJ64, DJ65, DJ66, DJ67, DJ684, DI278, DI279, DJ84, DJ701, DJ703, DJ920, DJ953, DJ961, DJ982, DJ983
Rheumatic disease	DM05, DM06, DM08, DM09, DM30, DM31, DM32, DM33, DM34, DM35, DM35, DM36, D86
Peptic ulcer disease	DK25, DK26, DK27, DK28, DK221
Mild liver disease	DB18, DK700, DK701, DK702, DK709, DK703, DK713, DK714, DK715, DK717, DK73, DK74, DK760, DK762, DK763, DK764, DK769, DZ944
Severe liver disease	DB150, DB160, DB162, DB190, DI850, DI859, DI864, DI982, DK704, DK711, DK721, DK729, DK765, DK766, DK767
Diabetes without complications	DE100, DE101, DE108, DE109, DE110, DE111, DE119, DE120, DE121, DE129, DE130, DE131, DE139, DE140, DE141, DE149
Diabetes with complications	DE102, DE103, DE104, DE105, DE106, DE107, DE112, DE113, DE114, DE115, DE116, DE117, DE118, DE122, DE123, DE124, DE125, DE126, DE127, DE128, DE132, DE133, DE134, DE135, DE136, DE137, DE138, DE142, DE143, DE144, DE145, DE146, DE147, DE148
Hemiplegia paraplegia	DG830, DG831, DG832, DG833, DG834, DG81, DG82, DG041, DG114, DG801, DG802, DG839
Renal disease	DN032, DN033, DN034, DN035, DN036, DN037, DN052, DN053, DN054, DN055, DN056, DN057, DZ490, DZ491, DZ492, DN18, DN19, DI120, DI131, DI132, DN250, DZ940, DZ992, DN26
Any malignancy	DC0, DC1, DC2, DC3, DC40, DC41, DC42, DC43, DC44, DC45, DC46, DC47, DC48, DC49, DC5, DC6, DC70, DC71, DC72, DC73, DC74, DC75, DC76, DC86, DC97
Metastatic solidtumor	DC77, DC78, DC79, DC80
AIDS/HIV	DB20, DB21, DB22, DB23, DB24
Leukemia	DC91, DC92, DC93, DC94, DC95
Lymphoma	DC81, DC82, DC83, DC84, DC85, DC88, DC90, DC96

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance
placed on this supplemental material which has been supplied by the author(s)

BMJ Open

Figure 1. Unadjusted cumulative incidence with 95% confidence interval of skeletal-related events (SRE) in men after undergoing radical prostatectomy, restricted to men from the Capitol region of Denmark. Death was treated as a competing event. Red curve represents ^{18}F-NaF PET, black curve bone scintigraphy.
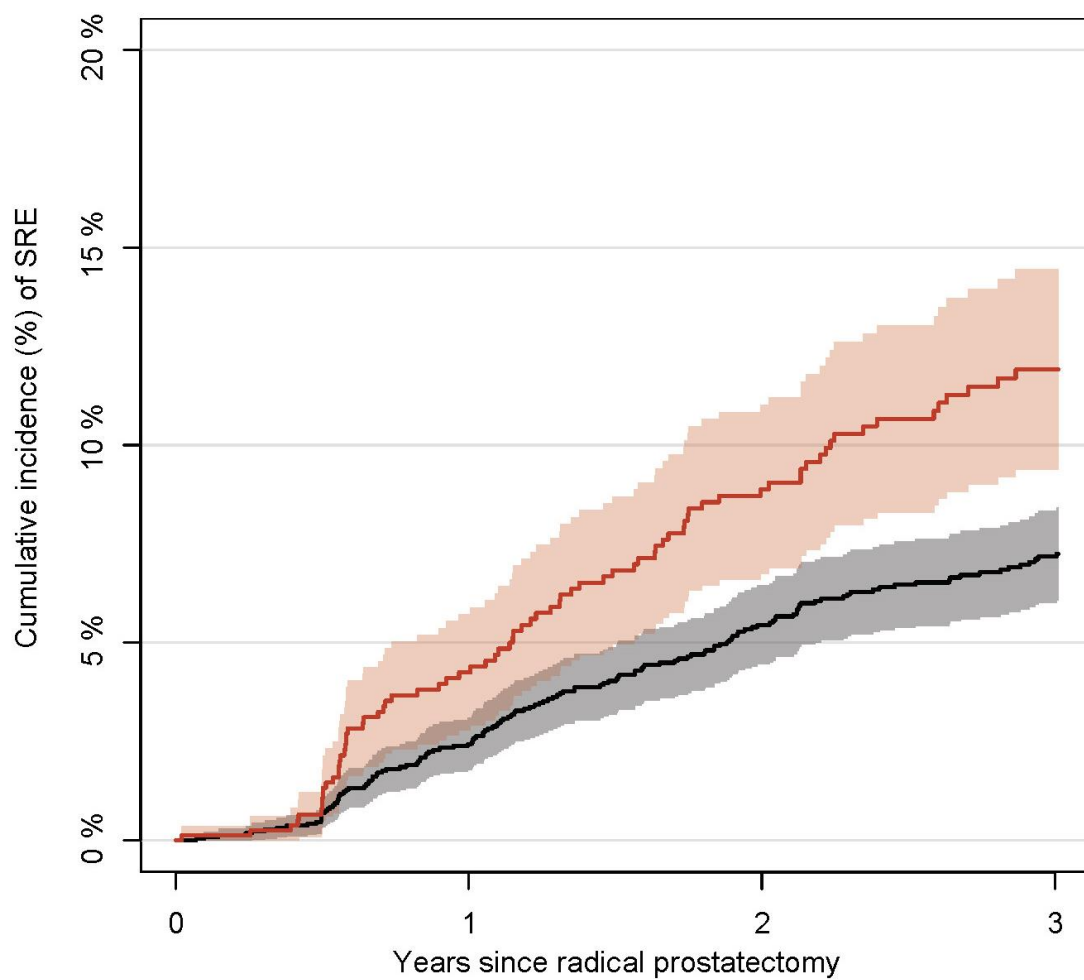
Figure 2. Hazard ratios for skeletal-related events following radical prostatectomy among patients receiving a ^{18}F-NaF PET before surgery compared with patients receiving a bone scintigraphy. Restricted to the Capitol region of Denmark.

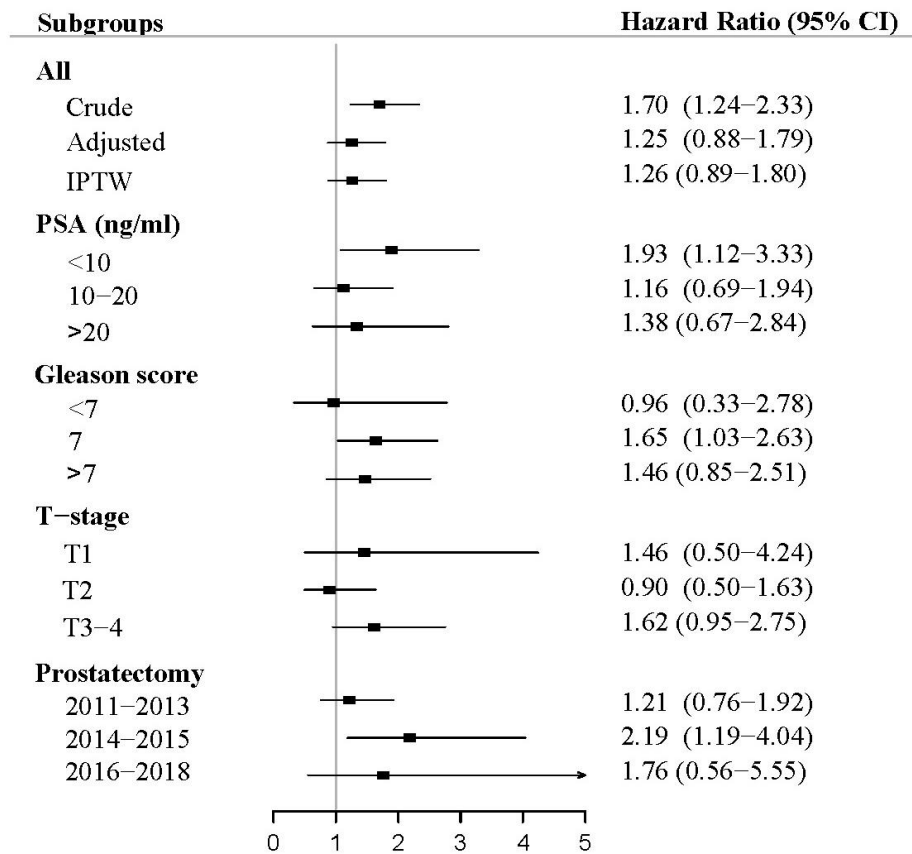| Subgroups	Hazard Ratio (95% CI)
All	
Crude	1.70 (1.24−2.33)
Adjusted	1.25 (0.88−1.79)
IPTW	1.26 (0.89−1.80)
PSA (ng/ml)	
<10	1.93 (1.12−3.33)
10−20	1.16 (0.69−1.94)
>20	1.38 (0.67−2.84)
Gleason score	
<7	0.96 (0.33−2.78)
7	1.65 (1.03−2.63)
>7	1.46 (0.85−2.51)
T−stage	
T1	1.46 (0.50−4.24)
T2	0.90 (0.50−1.63)
T3−4	1.62 (0.95−2.75)
Prostatectomy	
2011−2013	1.21 (0.76−1.92)
2014−2015	2.19 (1.19−4.04)
2016−2018	1.76 (0.56−5.55)

Table 3. Demographics for the Capitol region of Denmark. Baseline characteristics on the day of surgery for men with high-risk prostate cancer from 2011-2018* Stratified by pre-surgery imaging.

	Bone scintigraphy (n=690)	^{18}F-NaF PET (n=740)	All (n=1,430)
Age (year, median (IQR))	66.2 (60.8, 69.3)	67.9 (62.9, 71.1)	66.9 (61.9, 70.1)
Year of surgery			
2011-2013	331 (48.0)	212 (28.6)	543 (38.0)
2014-2015	185 (26.8)	231 (31.2)	416 (29.1)
2016-2018	174 (25.2)	297 (40.1)	471 (32.9)
PSA (ng/mL)			
<10	300 (44.1)	250 (34.4)	550 (39.1)
10-20	229 (33.6)	271 (37.3)	500 (35.5)
>20	152 (22.3)	206 (28.3)	358 (25.4)
Gleason score			
<7	81 (12.0)	61 (8.3)	142 (10.1)
7	401 (59.6)	432 (58.9)	833 (59.2)
>7	191 (28.4)	240 (32.7)	431 (30.7)
Clinical T-stage			
T1	58 (9.0)	39 (6.3)	97 (7.7)
T2	435 (67.3)	220 (35.8)	655 (51.9)
T3-T4	153 (23.7)	356 (57.9)	509 (40.4)
Comorbidity			
Cardiovascular diseases	35 (5.1)	46 (6.2)	81 (5.7)
Other malignancies	29 (4.2)	59 (8.0)	88 (6.2)
Diabetes	21 (3.0)	44 (6.0)	65 (4.6)
Charlson comorbidity index			
1	84 (12.2)	103 (13.9)	187 (13.1)
>1	59 (8.6)	97 (13.1)	156 (10.9)

*Percentages may not sum to 100 due to rounding or missing data

IQR: Interquartile range; PSA: Prostate specific antigen; T-stage: Tumor stage.