

Supplementary material

Table S1. List of used medical codes for prostate cancer biopsies and diagnoses

Biopsies		Diagnoses	
Medcode	Readterm	Medcode	Readterm
1069	<i>Transrectal needle biopsy of prostate</i>	780	<i>Malignant neoplasm of prostate</i>
7908	<i>Open biopsy of prostate</i>	6328	<i>Carcinoma in situ of prostate</i>
7909	<i>Unspec diagnostic cystoscopic exam bladder & biopsy prostate</i>	10178	<i>Gleason grading of prostate</i>
12391	<i>Transurethral biopsy prostate</i>	18503	<i>Gleason prostate grade 2-4 (low)</i>
22297	<i>Trucut transperineal biopsy of prostate</i>	18612	<i>Gleason prostate grade 5-7 (medium)</i>
22473	<i>Transperineal needle biopsy of prostate</i>	26081	<i>Gleason prostate grade 8-10 (high)</i>
22719	<i>Endoscopic punch biopsy of prostate</i>	37306	<i>Personal history of malignant neoplasm of prostate</i>
		102314	<i>History of prostate cancer</i>

Table S2. The percentage of men diagnosed with prostate cancer in CPRD based on their first and second PSA test

% diagnosed (n/N)	Second test (within 1 year) PSA level [~]				
	No 2nd test	PSA<3	3≤PSA<6	6≤PSA<10	PSA≥10
First test PSA level [~]					
PSA<3	<1% (106/59883)	<1% (33/7315)	1% (4/413)	10% (7/70)	15% (7/46)
3≤PSA<6	3% (234/8133)	1% (6/748)	5% (162/3027)	14% (66/483)	15% (8/54)
6≤PSA<10	24% (452/1845)	1% (3/230)	4% (23/622)	17% (269/1556)	18% (45/249)
PSA≥10	61% (1232/2030)	6% (11/183)	3% (6/227)	9% (29/338)	43% (552/1281)

[~]Men with PSA tests without a level recorded are not included