

Appendix. Analysis of the three main cancer patient groups identified in Figure 3 on the basis of GP urgent referral characteristics. Stratified analyses by cancer type and sensitivity analyses with different durations of follow-up, inclusion criteria and regression model specifications.

A. Overall analysis (215,284 patients; 91,620 deaths)

Group*	Patients	%	Deaths	HR	95% CI
1	34,758	16	14,355	0.96	0.94 0.98
2	101,110	47	42,621	1.00	
3	79,416	37	34,644	1.07	1.05 1.08
<i>p-trend</i>				<0.001	

B. Restricted to colorectal cancer

Group	Patients	%	Deaths	HR	95% CI
1	3,865	16	1,670	0.97	0.92 1.02
2	11,611	47	5,175	1.00	
3	9,160	37	4,145	1.03	0.99 1.08
<i>p-trend</i>				0.017	

C. Restricted to lung cancer

Group	Patients	%	Deaths	HR	95% CI
1	3,596	16	3,107	0.96	0.93 1.00
2	10,411	46	9,086	1.00	
3	8,779	39	7,743	1.05	1.02 1.08
<i>p-trend</i>				<0.001	

D. Restricted to female breast cancer

Group	Patients	%	Deaths	HR	95% CI
1	5,108	15	997	1.05	0.98 1.13
2	15,964	48	2,872	1.00	
3	12,497	37	2,172	1.03	0.97 1.09
<i>p-trend</i>				0.842	

E. Restricted to prostate cancer

Group	Patients	%	Deaths	HR	95% CI
1	4,325	17	984	0.95	0.88 1.02
2	12,033	47	2,826	1.00	
3	9,297	36	2,239	1.07	1.01 1.13
<i>p-trend</i>				0.001	

F. Restricted to cancers other than colorectal, lung, breast, prostate.

Group	Patients	%	Deaths	HR	95% CI
1	17,827	16	7,581	0.94	0.92 0.97
2	50,976	47	22,632	1.00	
3	39,601	37	18,324	1.09	1.07 1.11
<i>p-trend</i>				<0.001	

G. All cancers excluding female breast cancer

Group	Patients	%	Deaths	HR	95% CI
1	29,650	16	13,358	0.95	0.93 0.97
2	85,146	47	39,749	1.00	
3	66,919	37	32,472	1.07	1.05 1.09
<i>p-trend</i>				<0.001	

H. Follow-up time limited to 0-1 year after diagnosis

Group	Patients	%	Deaths	HR	95% CI
1	34,758	16	7,842	0.94	0.92 0.97
2	101,110	47	23,764	1.00	
3	79,416	37	20,000	1.09	1.07 1.11
<i>p-trend</i>				<0.001	

I. Follow-up time limited to 0-2 year after diagnosis

Group	Patients	%	Deaths	HR	95% CI
1	34,758	16	11,020	0.96	0.94 0.98
2	101,110	47	32,867	1.00	
3	79,416	37	27,146	1.08	1.06 1.09
<i>p-trend</i>				<0.001	

J. Also adjusted for the patient's socioeconomic status\*\*

Group	Patients	%	Deaths	HR	95% CI
1	34,758	16	14,355	0.96	0.94 0.98
2	101,110	47	42,621	1.00	
3	79,416	37	34,644	1.06	1.05 1.08
<i>p-trend</i>				<0.001	

K. Diagnosis and length of follow-up consistent with cancer register

Group	Patients	%	Deaths	HR	95% CI
1	27,112	16	10,913	0.95	0.93 0.98
2	78,371	47	32,258	1.00	
3	60,664	37	25,795	1.06	1.05 1.08
<i>p-trend</i>				<0.001	

L. Not adjusted for type of cancer

Group	Patients	%	Deaths	HR	95% CI
1	34,758	16	14,355	0.97	0.95 0.99
2	101,110	47	42,621	1.00	
3	79,416	37	34,644	1.08	1.06 1.09
<i>p-trend</i>				<0.001	

M. Also adjusted for GP population age and sex distribution\*\*\*

Group	Patients	%	Deaths	HR	95% CI
1	34,758	16	14,355	0.97	0.95 0.99
2	101,110	47	42,621	1.00	
3	79,416	37	34,644	1.05	1.04 1.07
<i>p-trend</i>				<0.001	

N. Shared frailty model for prostate cancer (GP as random effect)

Group	Patients	%	Deaths	HR	95% CI
1	4,325	17	984	0.95	0.88 1.02
2	12,033	47	2,826	1.00	
3	9,297	36	2,239	1.07	1.01 1.13
<i>p-trend</i>				0.001	

\*Group 1: High referral ratio and high detection rate.  
 Group 2: All other combinations than group 1 and group 3.  
 Group 3: Low or low/intermediate referral ratio and detection rate  
 Hazard ratios adjusted for age, sex and cancer type.

\*\*From J: Most vs. least deprived quintile:  
 HR: 1.34 (1.32-1.37); p-trend over quintiles <0.001  
 141 records with missing value for SES included as a separate category

\*\*\*From M: Effects of GP population characteristics:  
 HR: 0.88 (0.86-0.90) for highest vs. lowest tertile of median age  
 HR: 1.13 (1.08-1.17) per 10 percentage point increase in male proportion