

Supplemental Table S7. Hazard Ratios of Subsequent Primary Cancer Risk in Thyroid Cancer Patients Not Receiving Radioactive Iodine according to Levothyroxine Dosage ($n=203,320$)

Variable	Total no.	Non-levothyroxine		Levothyroxine		Levothyroxine dosage							
		No.	HR	No.	HR (95% CI) ^a	Q1 (<100 µg/day)		Q2 (100–123 µg/day)		Q3 (124–149 µg/day)		Q4 (≥ 150 µg/day)	
						No.	HR (95% CI) ^a	No.	HR (95% CI) ^a	No.	HR (95% CI) ^a	No.	HR (95% CI) ^a
No.	203,320	22,595		180,725		45,182		45,178		45,190		45,175	
Total SPCs	9,640	849	1.00	8,791	1.07 (1.00–1.15)	1,369	0.93 (0.85–1.02)	1,895	0.94 (0.87–1.02)	2,578	1.14 (1.06–1.24)	2,949	1.24 (1.15–1.34)
Head and neck (C00–C14, C30–C32)	444	49	1.00	395	0.91 (0.68–1.23)	42	0.51 (0.33–0.78)	82	0.80 (0.56–1.15)	120	1.02 (0.73–1.44)	151	1.18 (0.86–1.64)
Digestive system (C15–C26)	3,074	230	1.00	2,844	1.29 (1.13–1.47)	369	1.00 (0.84–1.18)	574	1.05 (0.90–1.22)	844	1.38 (1.19–1.61)	1,057	1.62 (1.40–1.87)
GI tract (C15–C20)	1,901	150	1.00	1,751	1.23 (1.04–1.46)	269	1.17 (0.95–1.43)	351	1.00 (0.82–1.22)	510	1.30 (1.08–1.57)	621	1.42 (1.19–1.70)
Esophagus (C15)	64	10	1.00	54	0.68 (0.34–1.34)	8	0.59 (0.23–1.55)	10	0.56 (0.23–1.38)	13	0.68 (0.29–1.59)	23	0.83 (0.39–1.75)
Stomach (C16)	909	75	1.00	834	1.19 (0.94–1.51)	135	1.23 (0.92–1.65)	157	0.92 (0.69–1.22)	243	1.26 (0.97–1.65)	299	1.34 (1.04–1.73)
Colon and rectum (C18–C20)	894	63	1.00	831	1.36 (1.05–1.75)	122	1.17 (0.86–1.60)	182	1.19 (0.89–1.59)	238	1.39 (1.04–1.84)	289	1.58 (1.20–2.08)
Hepato-biliary-pancreatic (C22–C25)	873	58	1.00	815	1.42 (1.09–1.86)	85	0.90 (0.64–1.27)	176	1.26 (0.93–1.71)	236	1.48 (1.11–1.99)	318	1.85 (1.40–2.45)
Liver and biliary tract (C22–C24)	622	44	1.00	578	1.36 (1.00–1.84)	55	0.77 (0.51–1.15)	133	1.30 (0.92–1.83)	162	1.44 (1.02–2.02)	228	1.79 (1.30–2.48)
Pancreas (C25)	268	15	1.00	253	1.61 (0.96–2.72)	33	1.38 (0.74–2.58)	44	1.10 (0.61–2.00)	80	1.66 (0.95–2.89)	96	2.03 (1.18–3.51)
Lung (C34)	1,110	109	1.00	1,001	0.94 (0.77–1.14)	151	0.83 (0.65–1.07)	215	0.84 (0.66–1.06)	295	0.97 (0.78–1.22)	340	1.02 (0.82–1.27)
Skin (C43–C44)	274	32	1.00	242	0.72 (0.50–1.04)	33	0.63 (0.38–1.03)	59	0.72 (0.47–1.12)	82	0.81 (0.53–1.22)	68	0.67 (0.44–1.03)
Breast (C50)	2,560	211	1.00	2,349	1.08 (0.94–1.24)	433	1.00 (0.85–1.18)	557	1.03 (0.88–1.20)	695	1.10 (0.94–1.29)	664	1.17 (1.00–1.37)
Female genital system (C51–C58)	703	55	1.00	648	1.09 (0.82–1.43)	103	1.00 (0.71–1.39)	137	0.93 (0.68–1.27)	190	1.09 (0.80–1.47)	218	1.39 (1.03–1.88)
Cervix (C53)	241	19	1.00	222	1.12 (0.70–1.79)	28	0.78 (0.43–1.42)	50	1.01 (0.59–1.71)	68	1.19 (0.71–1.98)	76	1.50 (0.90–2.48)
Uterus (C54–C55)	242	16	1.00	226	1.27 (0.77–2.11)	37	1.23 (0.68–2.23)	50	1.16 (0.66–2.03)	64	1.22 (0.71–2.12)	75	1.56 (0.91–2.69)
Ovary (C56–C57)	251	22	1.00	229	0.95 (0.61–1.47)	42	1.03 (0.61–1.74)	45	0.75 (0.45–1.26)	66	0.93 (0.57–1.51)	76	1.19 (0.74–1.92)
Male genital system (C60–C63)	317	41	1.00	276	0.95 (0.68–1.32)	42	1.12 (0.72–1.74)	51	0.95 (0.63–1.44)	63	0.97 (0.65–1.44)	120	0.89 (0.62–1.26)
Prostate (C61)	309	40	1.00	269	0.95 (0.68–1.32)	40	1.10 (0.70–1.72)	50	0.96 (0.63–1.45)	62	0.97 (0.65–1.46)	117	0.88 (0.62–1.27)
Urinary system (C64–C68)	514	48	1.00	466	1.08 (0.80–1.46)	83	1.25 (0.87–1.81)	96	0.97 (0.68–1.38)	123	1.08 (0.76–1.52)	164	1.14 (0.82–1.57)
Kidney (C64)	331	25	1.00	306	1.36 (0.90–2.05)	54	1.50 (0.92–2.44)	66	1.25 (0.78–1.99)	80	1.31 (0.83–2.08)	106	1.46 (0.94–2.26)
Bladder (C67)	154	18	1.00	136	0.87 (0.53–1.43)	25	1.17 (0.63–2.18)	24	0.72 (0.39–1.36)	36	0.88 (0.49–1.57)	51	0.89 (0.52–1.53)
Brain, CNS (C70–C72)	160	13	1.00	147	1.17 (0.67–2.07)	19	0.79 (0.39–1.63)	25	0.85 (0.43–1.68)	43	1.23 (0.65–2.31)	60	1.59 (0.87–2.91)
Brain (C71)	136	12	1.00	124	1.07 (0.59–1.93)	16	0.74 (0.35–1.59)	17	0.61 (0.29–1.30)	38	1.17 (0.60–2.26)	53	1.50 (0.80–2.82)
Hematologic system (C81–C96)	632	69	1.00	563	0.87 (0.68–1.12)	86	0.77 (0.56–1.07)	125	0.80 (0.59–1.08)	180	1.02 (0.77–1.36)	172	0.86 (0.65–1.14)
Non-Hodgkin's lymphoma (C82–C86)	307	40	1.00	267	0.76 (0.54–1.06)	39	0.58 (0.37–0.91)	66	0.77 (0.51–1.14)	89	0.97 (0.66–1.43)	73	0.67 (0.45–0.98)
Multiple myeloma (C90)	90	6	1.00	84	1.34 (0.58–3.07)	11	0.94 (0.34–2.58)	18	1.06 (0.41–2.71)	26	1.39 (0.56–3.43)	29	1.56 (0.64–3.77)
Leukemia (C91–C95)	151	14	1.00	137	0.96 (0.55–1.66)	21	1.01 (0.50–2.04)	17	0.48 (0.23–0.98)	49	1.16 (0.63–2.13)	50	1.10 (0.61–2.00)

HR, hazard ratio; CI, confidence interval; SPC, subsequent primary cancer; C, diagnostic code by International Classification of Diseases (ICD)-10; GI, gastrointestinal; CNS, central nervous system.

^aHR estimated by Cox proportional hazard models adjusted for age and sex.