

Supplemental Table S3. Hazard Ratios of Subsequent Primary Cancer Risk in Patients with Thyroid Cancer, Comparing the Lowest Quartile with the Higher Quartiles of Levothyroxine Use ($n=342,920$)

Variable	Total no.	Non-levothyroxine no.	Levothyroxine no.	Levothyroxine dosage							
				Q1 (<100 µg/day)		Q2 (100–123 µg/day)		Q3 (124–149 µg/day)		Q4 (≥150 µg/day)	
				No.	HR	No.	HR (95% CI) ^a	No.	HR (95% CI) ^a	No.	HR (95% CI) ^a
Total	17,410	849	16,561	2,738	1.00	4,121	1.20 (1.14–1.26)	4,636	1.32 (1.25–1.39)	5,066	1.50 (1.42–1.58)
Head and neck (C00–C14, C30–C32)	847	49	798	97	1.00	184	1.59 (1.22–2.07)	246	2.05 (1.57–2.66)	271	2.24 (1.72–2.91)
Digestive system (C15–C26)	5,536	230	5,306	782	1.00	1,279	1.28 (1.16–1.40)	1,487	1.53 (1.39–1.68)	1,758	1.80 (1.64–1.98)
GI tract (C15–C20)	3,454	150	3,304	523	1.00	793	1.17 (1.04–1.32)	932	1.36 (1.21–1.53)	1,056	1.46 (1.29–1.65)
Esophagus (C15)	104	10	94	15	1.00	17	1.06 (0.51–2.20)	22	1.05 (0.50–2.20)	40	1.59 (0.81–3.13)
Stomach (C16)	1,670	75	1,595	249	1.00	381	1.17 (0.99–1.39)	440	1.32 (1.11–1.57)	525	1.37 (1.15–1.64)
Colon and rectum (C18–C20)	1,623	63	1,560	253	1.00	384	1.17 (0.99–1.39)	450	1.37 (1.15–1.62)	473	1.47 (1.23–1.75)
Hepato-biliary-pancreatic (C22–C25)	1,533	58	1,475	205	1.00	347	1.26 (1.05–1.52)	397	1.60 (1.33–1.92)	526	2.09 (1.75–2.50)
Liver and biliary tract (C22–C24)	1,099	44	1,055	148	1.00	232	1.19 (0.96–1.49)	293	1.69 (1.36–2.10)	382	2.05 (1.66–2.54)
Pancreas (C25)	466	15	451	63	1.00	123	1.35 (0.98–1.86)	109	1.28 (0.91–1.80)	156	2.07 (1.50–2.86)
Lung (C34)	2,127	109	2,018	310	1.00	507	1.20 (1.03–1.39)	525	1.25 (1.07–1.46)	676	1.53 (1.31–1.78)
Skin (C43–C44)	463	32	431	80	1.00	115	1.08 (0.80–1.46)	111	0.92 (0.67–1.27)	125	1.17 (0.85–1.61)
Breast (C50)	4,351	211	4,140	819	1.00	1,155	1.17 (1.06–1.28)	1,229	1.18 (1.06–1.30)	937	1.20 (1.08–1.33)
Female genital system (C51–C58)	1,284	55	1,229	219	1.00	322	1.01 (0.84–1.22)	363	1.24 (1.03–1.49)	325	1.50 (1.24–1.82)
Cervix (C53)	428	19	409	69	1.00	110	1.14 (0.82–1.58)	127	1.44 (1.04–2.00)	103	1.54 (1.09–2.17)
Uterus (C54–C55)	449	16	433	75	1.00	114	1.10 (0.80–1.51)	124	1.18 (0.86–1.63)	120	1.45 (1.05–2.00)
Ovary (C56–C57)	459	22	437	83	1.00	113	0.90 (0.66–1.22)	128	1.17 (0.86–1.59)	113	1.47 (1.07–2.00)
Male genital system (C60–C63)	608	41	567	73	1.00	88	1.00 (0.71–1.40)	151	0.90 (0.65–1.25)	255	0.83 (0.61–1.13)
Prostate (C61)	597	40	557	70	1.00	87	1.02 (0.72–1.43)	149	0.93 (0.67–1.30)	251	0.84 (0.61–1.14)
Urinary system (C64–C68)	994	48	946	159	1.00	205	0.98 (0.78–1.22)	255	1.03 (0.82–1.29)	327	1.08 (0.86–1.35)
Kidney (C64)	652	25	627	105	1.00	141	1.07 (0.81–1.40)	168	1.02 (0.77–1.35)	213	1.18 (0.90–1.56)
Bladder (C67)	297	18	279	44	1.00	52	0.81 (0.53–1.25)	76	1.10 (0.73–1.67)	107	0.94 (0.62–1.44)
Brain, CNS (C70–C72)	321	13	308	40	1.00	56	1.19 (0.77–1.83)	83	1.35 (0.88–2.05)	129	2.03 (1.55–3.42)
Brain (C71)	263	12	251	30	1.00	46	1.38 (0.85–2.25)	69	1.51 (0.94–2.44)	106	2.67 (1.70–4.18)
Hematologic system (C81–C96)	1,138	69	1,069	169	1.00	255	1.29 (1.05–1.58)	291	1.28 (1.03–1.58)	354	1.38 (1.12–1.71)
Non-Hodgkin's lymphoma (C82–C86)	492	40	452	80	1.00	123	1.43 (1.06–1.92)	133	1.31 (0.96–1.79)	116	1.01 (0.72–1.42)
Multiple myeloma (C90)	153	6	147	22	1.00	36	1.46 (0.84–2.52)	38	1.23 (0.69–2.20)	51	1.76 (1.00–3.09)
Leukemia (C91–C95)	377	14	363	34	1.00	71	1.37 (0.88–2.12)	99	1.92 (1.25–2.95)	159	2.44 (1.61–3.70)

HR, hazard ratio; CI, confidence interval; 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, sex, and cumulative doses of radioactive iodine therapy.