

Supplemental Table S8. Hazard Ratios of Subsequent Primary Cancer Risk in Thyroid Cancer Patients Receiving Radioactive Iodine according to Levothyroxine Dosage ($n=139,600$)

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
No.	139,600	0	139,600	34,900		34,897		34,902		34,901	
Total SPCs	7,770	-	7,770	1,708	1.00	1,933	1.18 (1.10–1.26)	2,016	1.31 (1.22–1.40)	2,113	1.56 (1.45–1.68)
Head and neck (C00–C14, C30–C32)	403	-	403	77	1.00	96	1.25 (0.92–1.70)	111	1.44 (1.06–1.96)	119	1.60 (1.14–2.24)
Digestive system (C15–C26)	2,462	-	2,462	519	1.00	607	1.25 (1.11–1.41)	622	1.33 (1.18–1.51)	714	1.69 (1.48–1.94)
GI tract (C15–C20)	1,553	-	1,553	327	1.00	377	1.22 (1.04–1.41)	397	1.31 (1.12–1.53)	452	1.60 (1.35–1.90)
Esophagus (C15)	40	-	40	5	1.00	7	1.62 (0.50–5.24)	8	1.63 (0.48–5.51)	20	4.45 (1.43–13.92)
Stomach (C16)	761	-	761	152	1.00	188	1.26 (1.01–1.57)	187	1.23 (0.97–1.55)	234	1.52 (1.18–1.94)
Colon and rectum (C18–C20)	729	-	729	168	1.00	173	1.11 (0.90–1.38)	197	1.35 (1.08–1.68)	191	1.53 (1.20–1.96)
Hepato-biliary-pancreatic (C22–C25)	660	-	660	136	1.00	157	1.28 (1.01–1.61)	170	1.37 (1.07–1.74)	197	1.68 (1.29–2.18)
Liver and biliary tract (C22–C24)	477	-	477	91	1.00	117	1.41 (1.06–1.86)	123	1.41 (1.05–1.89)	146	1.78 (1.30–2.44)
Pancreas (C25)	198	-	198	50	1.00	42	0.92 (0.61–1.40)	49	1.13 (0.74–1.73)	57	1.44 (0.91–2.28)
Lung (C34)	1,017	-	1,017	231	1.00	219	1.04 (0.86–1.25)	262	1.34 (1.11–1.62)	305	1.62 (1.32–1.99)
Skin (C43–C44)	189	-	189	39	1.00	58	1.63 (1.08–2.47)	48	1.44 (0.92–2.26)	44	1.44 (0.86–2.43)
Breast (C50)	1,791	-	1,791	461	1.00	528	1.18 (1.04–1.34)	472	1.23 (1.08–1.40)	330	1.25 (1.07–1.44)
Female genital system (C51–C58)	581	-	581	163	1.00	149	0.96 (0.76–1.20)	144	1.08 (0.86–1.36)	125	1.38 (1.08–1.77)
Cervix (C53)	187	-	187	54	1.00	50	0.98 (0.66–1.45)	46	1.03 (0.69–1.54)	37	1.24 (0.80–1.93)
Uterus (C54–C55)	207	-	207	56	1.00	55	1.04 (0.72–1.52)	46	1.00 (0.67–1.49)	50	1.54 (1.03–2.30)
Ovary (C56–C57)	208	-	208	60	1.00	47	0.79 (0.54–1.16)	60	1.21 (0.84–1.75)	41	1.20 (0.79–1.82)
Male genital system (C60–C63)	291	-	291	23	1.00	60	1.08 (0.66–1.76)	75	0.74 (0.46–1.20)	133	0.80 (0.50–1.27)
Prostate (C61)	288	-	288	23	1.00	58	1.05 (0.64–1.71)	75	0.74 (0.46–1.20)	132	0.79 (0.50–1.26)
Urinary system (C64–C68)	480	-	480	87	1.00	112	1.30 (0.97–1.73)	133	1.26 (0.94–1.70)	148	1.26 (0.90–1.77)
Kidney (C64)	321	-	321	60	1.00	79	1.28 (0.91–1.81)	83	1.20 (0.83–1.72)	99	1.14 (0.76–1.72)
Bladder (C67)	143	-	143	23	1.00	27	1.26 (0.71–2.23)	45	1.49 (0.85–2.61)	48	1.67 (0.89–3.14)
Brain, CNS (C70–C72)	161	-	161	18	1.00	33	2.17 (1.21–3.88)	46	3.18 (1.81–5.60)	64	4.64 (2.64–8.17)
Brain (C71)	127	-	127	13	1.00	27	2.41 (1.23–4.72)	38	3.77 (1.97–7.22)	49	4.66 (2.41–9.02)
Hematologic system (C81–C96)	506	-	506	89	1.00	101	1.14 (0.85–1.53)	144	1.76 (1.33–2.32)	172	2.39 (1.78–3.20)
Non-Hodgkin's lymphoma (C82–C86)	185	-	185	38	1.00	45	1.18 (0.76–1.84)	48	1.33 (0.85–2.10)	54	1.95 (1.21–3.14)
Multiple myeloma (C90)	63	-	63	10	1.00	16	1.61 (0.71–3.63)	16	2.03 (0.88–4.70)	21	2.61 (1.07–6.34)
Leukemia (C91–C95)	226	-	226	34	1.00	35	1.02 (0.63–1.65)	70	2.16 (1.41–3.32)	87	2.83 (1.82–4.41)

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, sex, and cumulative doses of radioactive iodine therapy.