

Table S1 Characteristics and treatment of SPTC patients according to the number of previous primary cancers

Characteristics	Levels	1 PC	2 PC	≥3 PC	Total
Sex	Female	8,794 (62.9)	832 (57.7)	104 (52.8)	9,730 (62.3)
	Male	5,186 (37.1)	611 (42.3)	93 (47.2)	5,890 (37.7)
Age	Mean ± SD, years	61.8±13.9	66.9±12.7	71.2±11.9	62.4±13.9
	<25 years	155 (1.1)	3 (0.2)	2 (1)	160 (1)
	<45 years	1,458 (10.4)	78 (5.4)	5 (2.5)	1,541 (9.9)
	<65 years	6,251 (44.7)	505 (35)	41 (20.8)	6,797 (43.5)
	<85 years	5,674 (40.6)	771 (53.4)	135 (68.5)	6,580 (42.1)
	85+ years	442 (3.2)	86 (6)	14 (7.1)	542 (3.5)
Race	White	11,746 (84)	1,241 (86)	170 (86.3)	13,157 (84.2)
	Black	918 (6.6)	90 (6.2)	11 (5.6)	1,422 (9.1)
	Other	1,297 (9.3)	109 (7.6)	16 (8.1)	22 (0.1)
Primary site surgery	No	1,491 (10.7)	210 (14.6)	45 (22.8)	1,746 (11.2)
	Yes	12,031 (86.1)	1,183 (82)	143 (72.6)	13,357 (85.5)
Radiotherapy	No	9,010 (64.4)	1,005 (69.6)	137 (69.5)	10,152 (65)
	Yes	4,882 (34.9)	433 (30)	59 (29.9)	5,374 (34.4)
Chemotherapy	No	13,667 (97.8)	1,420 (98.4)	193 (98)	15,280 (97.8)
	Yes	313 (2.2)	23 (1.6)	4 (2)	340 (2.2)

Data is represented as a number and percentage or mean ± SD. SPTC, second primary thyroid cancer; PC, primary cancer; SD, standard deviation.

Table S2 Standardized incidence ratios for SPTC in males versus females across various age groups

Tumor site	<25 years		<45 years		<65 years		<85 years		85+ years	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Overall analysis	6.62	3.47	3.69	2.05	2.21	1.83	1.64	1.70	1.36	1.15
Sex-specific										
Uterus				2.45		1.68		1.57		1.13
Ovary		3.47		1.96		1.84		1.54		
Prostate					1.42		1.20		1.12	
Hematological tumors										
Lymphoma	7.64	5.75	4.20	2.66	3.16	2.69	2.88	2.56	1.89	1.88
Leukemia	6.56	3.43	2.09	1.97	2.39	1.62	1.56	1.60	1.45	1.69
Head and neck										
Brain	13.21	4.22	2.83	2.00	1.95	1.28	3.82	0.81		16.6
Salivary	33.33	2.86	10.20	6.30	4.70	3.29	3.66	3.48		
Larynx			8.20	3.23	3.71	1.60	4.26	2.47		
Breast			7.14	1.60	1.97	1.61	2.49	1.52		0.75
Lung			3.05	2.32	2.68	1.99	2.54	2.10	4.53	2.44
Other GIT										
Colon			4.18	2.35	2.36	1.94	1.43	1.53	0.94	0.70
Liver					2.85	3.00	2.27	0.77		8.45
Pancreas			11.76	8.33	4.47	1.58	2.86	1.74		2.99
Other solid tumors										
Kidney			6.49	4.82	4.23	3.94	2.94	2.86		3.49
Bladder			2.54	1.12	1.56	1.55	1.26	0.98	0.84	0.49
Bone	6.67	4.00	5.26	2.60	6.48	2.92	2.27			
Skin			2.66	2.21	2.94	1.75	2.36	1.83	3.15	0.99
Soft tissue	9.52	5.61	9.52	3.77	6.31	3.57	4.08	2.31	5.83	4.22

Values represent the SIR. Most frequent cancer types are shown. No data is available for blank cells. SPTC, second primary thyroid cancer; GIT, gastrointestinal tract; SIR, standardized incidence ratio.