

**Supplementary table 1 –Risk of subsequent thyroid cancer according to type of drug among patients who received radiation dose to the thyroid gland less than equal to 20 Gy, Childhood Cancer Survivor Study**

<b>DRUGS</b>	<b>CASES</b>	<b>PYR</b>	<b>RR<sup>a</sup></b> <b>(95% CI)</b>	<b>RR<sup>b</sup></b> <b>(95% CI)</b>
<b>Alkylating agents</b>				
Procarbazine <sup>c</sup>				
No	51	128,191	1.0	1.0
Yes	7	5,107	3.5 (0.9-11.3)	3.5 (0.8-15.4)
<i>P-value</i>			0.12	0.14
Cyclophosphamide				
No	18	58,990	1.0	1.0
Yes	40	74,307	1.5 (0.8-2.7)	1.6 (0.9-3.0)
<i>P-value</i>			0.15	0.08
Mechlorethamine				
No	53	129,551	1.0	1.0
Yes	5	3,747	1.0 (0.1-6.3)	1.8 (0.5-6.7)
<i>P-value</i>			0.97	0.4
<b>Anthracyclines</b>				
Daunorubin				
No	49	111,620	1.0	1.0
Yes	9	21,678	1.1 (0.5-2.2)	1.1 (0.5-2.4)
<i>P-value</i>			0.87	0.81
Doxorubicin				
No	32	81,737	1.0	1.0
Yes	26	51,560	1.4 (0.8-2.7)	1.4 (0.8-2.4)
<i>P-value</i>			0.2	0.23
<b>Other drugs</b>				
Dactinomycin				
No	42	95,265	1.0	1.0
Yes	16	38,032	1.0 (0.5-2.2)	0.7 (0.3-1.6)
<i>P-value</i>			>0.5	>0.5
Cytosine arabinoside				
No	46	93,162	1.0	1.0
Yes	12	40,135	0.7 (0.4-1.5)	0.9 (0.4-1.9)
<i>P-value</i>			0.4	0.3
Methotrexate <sup>d</sup>				

No	30	51,694	1.0	1.0
Yes	28	81,604	<b>0.5 (0.3-0.9)</b>	<b>0.5 (0.3-1.0)</b>
<i>P-value</i>			<i>0.04</i>	<i>0.08</i>

Abbreviations: RR, relative risk; PYR, person years

<sup>a</sup>RR adjusted for sex, attained age, type of first cancer (Leukemia, Hodgkin lymphoma and others) and thyroid radiation dose (continuous)

<sup>b</sup>RR also adjusted for the other chemotherapy drugs (Alkylating agents adjusted for anthracyclines and vice-versa. For other drugs, RR adjusted for alkylating agents and anthracyclines)

<sup>c</sup>When Hodgkin lymphoma patients were excluded from the analysis, the RR for procarbazine was 3.3 (95% CI: 0.8-13.8)

<sup>d</sup>When leukemia patients were excluded from the analysis, the RR for methotrexate was 0.2 (95% CI: 0.06-1.0)

**Supplementary Table 2 – Percentage of patients who received treatments by classes of drugs and specific drugs according to type of first cancer in the Childhood Cancer Survivor Study**

Treatment	Type of first cancer							
	Bone cancer	Brain, CNS cancer	Hodgkin lymphoma (HL)	Wilms tumor	Leukemia	Non-Hodgkin lymphoma (NHL)	Neuroblastoma	Soft tissue sarcoma
<b>No chemotherapy (%)</b>	4.3	47.3	22.5	0.7	0.08	2.0	13.8	9.3
<b>Alkylating agents (%)</b>	10.9	6.1	15.7	1.6	35.5	12.0	7.2	11.0
Cyclophosphamide	12.6	2.1	6.7	1.6	41.6	14.0	8.4	12.8
Nitrogen mustard	1.3	6.1	82.5	0.1	0.9	2.7	4.6	1.9
Lomustine	0.8	55.8	33.3	0.0	3.2	6.4	0.2	0.2
Carmustine	4.3	8.2	9.9	0.0	38.2	36.3	0.4	2.7
Chlorambucil	10.5	10.5	0.0	64.5	0.0	1.3	6.6	1.3
Procarbazine	0.08	17.7	80.3	0.0	0.2	1.2	0.5	0.08
<b>Anthracyclines (%)</b>	16.5	0.3	8.3	8.7	42.3	10.1	4.4	9.3
Daunorubicin	0.1	0.06	0.0	0.0	83.9	15.5	0.3	0.2
Doxorubicin	21.1	0.3	10.5	11.1	32.4	7.3	5.5	11.8
Idarubicin	0.0	10.0	0.0	0.0	80.0	0.0	0.0	10.0
<b>Bleomycin (%)</b>	34.4	1.1	49.4	0.3	0.7	7.4	0.4	6.4
<b>Platinum (%)</b>	37.3	24.2	2.8	3.1	1.6	1.8	14.4	14.8
<b>Epipodophyllotoxins (%)</b>	4.9	5.9	4.8	3.1	59.7	6.7	7.9	6.9
<b>Other Drugs (%)</b>	1.0	2.7	0.4	27.4	63.0	1.5	0.2	3.8
Cytosine arabinoside (%)	0.4	3.2	1.3	0.03	79.7	13.2	0.5	1.7
Dactinomycin (%)	21.4	1.6	0.2	41.9	2.5	0.8	0.5	31.0
Methotrexate (%)	9.7	0.9	0.5	0.0	72.7	13.9	0.2	1.9

Note: Percentage of patients by type of first cancer among those who did not receive chemotherapy or among those receiving any class of chemotherapy drugs or any specific drug. Rows may not sum to 100% due to rounding.