

**Supplemental file 9. Standardized incidence ratio of second cancers and incidence rate ratio of second cancers in patients with acute promyelocytic leukaemia.**

	No. of APL	No. with 2 <sup>o</sup> cancers	Expected No. of APL	SIR of 2 <sup>o</sup> cancers (95% C.I.)	IRR (95% C.I.) <sup>A</sup>
<b>Total</b>	678	21	578.08	3.63 (2.32, 5.59)	
<b>Age (years)*</b>					
<18	60	0	97.94	0.00 (0.00, 4.70)	Reference
18–39	217	5	222.15	2.25 (0.83, 5.46)	undefined
40–59	262	12	217.07	5.53 (3.02, 9.69)	undefined
60–79	122	4	101.83	3.93 (1.27, 10.33)	undefined
≥80	17	0	10.62	0.00 (0.00, 32.99)	undefined
<b>Sex</b>					
Male	330	6	319.54	1.88 (0.77, 4.24)	Reference
Female	348	15	330.07	4.54 (2.66, 7.55)	2.42 (0.94, 6.24)
<b>Period</b>					
1991– 1999	146	8	134.64	5.94 (2.79, 11.75)	Reference
2000–2009	257	12	230.17	5.21 (2.85, 9.16)	0.88 (0.36, 2.15)
2010–2018 <sup>B</sup>	275	1	206.26	0.48 (0.03, 3.09)	0.08 (0.01, 0.65)
<b>Exposure to oral-ATO at any time</b>					
No	369	8	369.39	2.17 (1.01, 4.39)	Reference
Yes	309	13	280.22	4.64 (2.60, 7.99)	2.14 (0.89, 5.17)
<b>Time of exposure to oral-ATO</b>					
Never	369	8	369.39	2.17 (1.01, 4.39)	Reference
First-line	212	7	188.29	3.72 (1.64, 7.82)	1.72 (0.62, 4.73)
Second-line only	78	5	75.19	6.65 (2.47, 15.49)	3.07 (1.00, 9.39)

APL: acute promyelocytic leukaemia; ATO: arsenic trioxide; No.: number; 2<sup>o</sup>: second; C.I.: confidence intervals; SIR: standardized incidence ratio; IRR: incidence rate ratio; A: values labelled as undefined, owing to the fact that IRR cannot be defined in different subgroups of age due to the small sample size; B: The last year where a second primary cancer occurred was in 2018. Comparison against the standard population was therefore until 2018. 2019-2021 was not included for second cancer comparison as the follow-up time for patients was too short to conclude if the incidence of second cancers was increased or decreased

