Erratum to: Cancer in childhood, adolescence, and young adults: a population-based study of changes in risk of cancer death during four decades in Norway

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During the work on our project, a small programming error was discovered. A small population of children who were not born in Norway, especially during the first 2 years of the study period (1965–1966) was included in the original manuscript.

All analyses of the published paper were repeated. Fortunately, only small differences in numbers were observed, and all conclusions remained unchanged. The revised Tables 1, 2, 3 and Figs. 1, 2 are presented below.

The authors apologize for any inconvenience this may have caused.

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Table 1 Characteristics of the cancer patients born in Norway during 1965–1985

	No. of individuals (%)	Total no. of deaths ^a (%)	No. of cancer deaths (%)
Gender			
Male	3,268 (56.3)	889 (59.9)	846 (60.0)
Female	2,534 (43.7)	601 (40.1)	563 (40.0)
Year of birth			
1965–1969	1,504 (25.9)	524 (35.0)	465 (33.0)
1970–1974	1,456 (25.1)	413 (27.6)	403 (28.6)
1975–1979	1,306 (22.5)	276 (18.4)	264 (18.7)
1980–1985	1,536 (26.5)	286 (19.1)	277 (19.7)
Age at diagnosis			
0–14	2,481 (42.8)	1,007 (67.2)	938 (66.6)
15–19	1,289 (22.2)	257 (17.1)	249 (17.7)
20–24	2,032 (35.0)	235 (15.7)	222 (15.8)
Year of diagnosis			
1965–1974	534 (9.2)	349 (23.3)	297 (21.1)
1975–1984	1,230 (21.2)	474 (31.6)	462 (32.8)
1985–1994	2,128 (36.7)	441 (29.4)	423 (30.0)
1995–2004	1,639 (28.2)	219 (14.6)	211 (15.0)
2005–2009	271 (4.7)	16 (1.1)	16 (1.1)
Cancer site (ICD-7 codes)			
Kidney (180.0) ^b	154 (2.7)	43 (2.9)	36 (2.6)
Eye (192)	98 (1.7)	7 (0.5)	6 (0.4)
CNS tumor (193)	1,192 (20.5)	407 (27.2)	385 (27.3)
Thyroid gland and other endocrine glands (194-5) ^c	370 (6.4)	57 (3.8)	53 (3.8)
Bone and connective tissue (196-7)	393 (6.8)	156 (10.4)	154 (10.9)
Lymphatic system (206)	742 (12.8)	133 (9)	125 (8.9)
Hodgkin lymphoma	414 (55.8)	23 (17.3)	20 (16.0)
Non-Hodgkin lymphoma	270 (36.4)	92 (69.2)	88 (70.4)
Other	58 (7.8)	18 (13.5)	17 (13.6)
Hematopoietic system (207)	1,008 (17.4)	479 (32.0)	454 (32.2)
Acute lymphatic leukemia (ALL)	625 (61.9)	217 (45.3)	213 (46.9)
Acute myelogenic leukemia (AML)	191 (18.9)	127 (26.5)	121 (26.7)
Other	194 (19.2)	135 (28.2)	120 (26.4)
Cervix uteri (171)	68 (1.2)	10 (0.7)	10 (0.7)
Ovary (175)	100 (1.7)	12 (0.8)	12 (0.9)
Testis (178)	741 (12.8)	45 (3.0)	40 (2.8)
Melanoma (190)	471 (8.1)	20 (1.3)	18 (1.3)
Other	465 (8.0)	130 (8.7)	116 (8.2)
Year of death			
1969–1974 ^d		299 (19.9)	248 (17.6)
1975–1984		454 (30.3)	442 (31.4)
1985–1994		450 (30.0)	437 (31.0)
1995–2004		261 (17.4)	248 (17.6)
2005–2008		35 (2.3)	34 (2.4)
Total	5,802 (100.0)	1,499 (100.0)	1,409 (100.0)

^a Death cases within 5 years after diagnosis

^b 83.8 % were Wilms tumor cases

^c This site includes malignant neoplasm of the thyroid gland (44.6 %), suprarenal gland (16.8 %), pituitary gland (20.8 %), pineal gland (8.1 %), craniopharyngeal canal (9.2 %), and others (0.6 %)

^d Forty-eight patients who died before 1969 lack cause of death specification

Table 2 Hazard ratios (HRs) of death among the cancer patients diagnosed before age 25 relative to individuals without cancer by year of diagnosis, with 95 % confidence intervals (CI) estimated by a time-dependent Cox regression model^a

	5-year follow-up after diagnosis ^b (n ^c = 1,499/5,802)	Total follow-up (n = 1,793/5,802)
Year of diagnosis ^d		
1965–1974	361.5 (313.9, 416.2)	79.7 (69.8, 91.0)
1975–1984	245.2 (216.8, 277.4)	46.2 (41.3, 51.5)
1985–1994	94.1 (83.4, 106.1)	28.9 (26.1, 32.1)
1995–2004	41.3 (34.8, 49.1)	26.0 (22.1, 30.5)
2005–2009	19.3 (9.2, 40.7)	25.4 (12.1, 53.4)

^a The analysis was adjusted for gender and year of birth (1965–1969, 1970–1974, 1975–1979, and 1980–1985)

^b The follow-up time was from birth until 5 years after diagnosis

^c N represents the number of deaths/total number of cancer patients

^d The analyses were performed relative to the general population

Fig. 1 Early death rates (5 years after diagnosis) caused by cancer and other causes among cancer patients by age at diagnosis (<1, 1–14, 15–19, and 20–24 years) per 1,000 person-years. Note that patients diagnosed in the period 2005–2009 were at least 20 years of age at the time of diagnosis. The y-axes are presented in logarithmic scale**Table 3** Sub-hazard ratios (SHRs) with 95 % confidence intervals (CI) for early cancer death (5 years after diagnosis) estimated in a multi-variate competing risk model for cancer patients diagnosed before the age of 25

	CNS tumors (193 ^a) (n ^b = 383/1 192)	Bone and connective tissue (196-7) (n = 154/393)	Lymphatic system (206) (n = 125/742)	Hematopoietic system: all combined (207) (n = 453/1,008)	Acute lymphatic leukemia (ALL) (n = 212/625)	Acute myelogenic leukemia (AML) (n = 121/191)	All cancer sites (n = 1,409/5,802)
Gender							
Male	1	1	1	1	1	1	1
Female	0.82 (0.66, 1.01)	0.92 (0.67, 1.27)	0.81 (0.56, 1.18)	0.86 (0.71, 1.03)	0.91 (0.69, 1.22)	0.63 (0.43, 0.91)	0.83 (0.75, 0.93)
Year of diagnosis							
1965–1974	1	1	1	1	1	1	1
1975–1984	0.69 (0.53, 0.92)	0.65 (0.33, 1.28)	0.58 (0.27, 1.27)	0.43 (0.34, 0.54)	0.45 (0.32, 0.64)	0.58 (0.32, 1.07)	0.60 (0.52, 0.70)
1985–1994	0.41 (0.30, 0.55)	0.41 (0.20, 0.82)	0.28 (0.12, 0.65)	0.31 (0.23, 0.41)	0.32 (0.21, 0.48)	0.77 (0.38, 1.38)	0.38 (0.32, 0.45)
1995–2004	0.25 (0.16, 0.39)	0.33 (0.16, 0.71)	0.17 (0.07, 0.40)	0.29 (0.20, 0.43)	0.30 (0.17, 0.53)	0.48 (0.22, 1.06)	0.28 (0.23, 0.35)
2005–2009	0.05 (0.01, 0.23)	0.11 (0.01, 0.93)	^c	0.10 (0.02, 0.42)	0.18 (0.02, 1.66)	0.22 (0.03, 1.46)	0.15 (0.09, 0.26)
Age at diagnosis							
0–14	1	1	1	1	1	1	1
15–19	0.69 (0.49, 0.97)	0.93 (0.65, 1.34)	0.96 (0.59, 1.57)	2.16 (1.56, 2.89)	2.74 (1.75, 4.28)	1.36 (0.81, 2.26)	0.73 (0.62, 0.86)
20–24	0.88 (0.60, 1.30)	0.66 (0.37, 1.18)	0.52 (0.29, 0.93)	1.92 (1.29, 2.87)	2.21 (1.18, 4.13)	0.93 (0.53, 1.64)	0.46 (0.38, 0.56)

^a ICD-7 codes

^b N represents the number of cancer deaths/total number of cancer patients

^c There were no death cases

Fig. 2 Cause-specific early death rate (5 years after diagnosis) among cancer patients by age at diagnosis (0–14, 15–19, and 20–24 years) per 1,000 person-years for four major cancer sites (including ALL and AML). Note that patients diagnosed in the period 2005–2009 were at least 20 years of age at the time of diagnosis. *ALL* acute lymphatic leukemia, *AML* acute myelogenic leukemia