

Supplemental Table 4. Number of events, total risk time, incidence rate (IR) per 10,000 person-years and hazard ratios (HR) with 95% confidence intervals (CI) of the examined outcomes in younger siblings of children with atopic dermatitis (AD) compared with younger siblings of non-AD children.

	Risk time	Events	IR	95% CI	Crude model			Model 1			Model 2		
					HR	95% CI	p	aHR	95% CI	p	faHR	95% CI	p
Depression													
Anxiety													
Adjustment disorder													
Younger sibling of non-AD child	593,230	207	3.49	(3.04-4.00)	ref								
Younger sibling of AD child	59,413	37	6.23	(4.51-8.60)	1.94	(1.36-2.77)	0.000	1.70	(1.17-2.46)	0.005	1.41	(0.95-2.09)	0.088
Substance abuse													
Younger sibling of non-AD child	594,225	42	0.71	(0.52-0.96)	ref								
Younger sibling of AD child	59,562	5	0.84	(0.35-2.02)	1.09	(0.43-2.77)	0.848	1.07	(0.40-2.83)	0.893	1.05	(0.39-2.86)	0.918
Self-harming behavior													
Suicide													
Antidepressants													
Younger sibling of non-AD child	593,600	262	4.41	(3.91-4.98)	ref								
Younger sibling of AD child	59,538	23	3.86	(2.57-5.81)	0.88	(0.58-1.35)	0.566	0.89	(0.57-1.38)	0.603	0.78	(0.49-1.22)	0.275
Antidepressants for depression													
Younger sibling of non-AD child	594,037	109	1.83	(1.52-2.21)	ref								
Younger sibling of AD child	59,570	8	1.34	(0.67-2.69)	0.73	(0.35-1.49)	0.385	0.65	(0.30-1.40)	0.273	0.51	(0.23-1.11)	0.090
Antidepressants for anxiety													
Younger sibling of non-AD child	594,138	79	1.33	(1.07-1.66)	ref								
Younger sibling of AD child	59,565	6	1.01	(0.45-2.24)	0.78	(0.34-1.78)	0.550	0.92	(0.40-2.16)	0.856	0.87	(0.36-2.10)	0.751
Anxiolytics													
Younger sibling of non-AD child	579,568	1443	24.90	(23.65-26.22)	ref								
Younger sibling of AD child	58,233	136	23.35	(19.74-27.63)	0.95	(0.80-1.14)	0.584	0.90	(0.76-1.08)	0.273	0.86	(0.71-1.04)	0.111
Anxiolytics for anxiety/calming													
Younger sibling of non-AD child	593,706	101	1.70	(1.40-2.07)	ref								
Younger sibling of AD child	59,517	8	1.34	(0.67-2.69)	0.87	(0.42-1.79)	0.704	0.74	(0.35-1.57)	0.431	0.59	(0.27-1.30)	0.191
Psychiatrist consultation													
Psychologist consultation													
Younger sibling of non-AD child	592,778	435	7.34	(6.68-8.06)	ref								
Younger sibling of AD child	59,434	43	7.23	(5.37-9.76)	0.98	(0.71-1.34)	0.894	0.97	(0.70-1.33)	0.834	0.87	(0.62-1.21)	0.399
Migraine													

Younger sibling of non-AD child	593,309	291	4.90	(4.37-5.50)	ref						
Younger sibling of AD child	59,455	41	6.90	(5.08-9.37)	1.41	(1.01-1.95)	0.042	1.39	(1.00-1.95)	0.053	1.23 (0.87-1.76) 0.241
Other headache syndromes											
Younger sibling of non-AD child	593,600	212	3.57	(3.12-4.09)	ref						
Younger sibling of AD child	59,491	26	4.37	(2.98-6.42)	1.21	(0.80-1.82)	0.900	1.15	(0.76-1.75)	0.515	0.93 (0.60-1.45) 0.753
Fibromyalgia											
							N/A				
Migraine medication											
Younger sibling of non-AD child	593,552	262	4.41	(3.91-4.98)	ref						
Younger sibling of AD child	59,518	28	4.70	(3.25-6.81)	1.07	(0.71-1.56)	0.782	1.05	(0.70-1.56)	0.811	0.94 (0.62-1.42) 0.777
Pain medication											
Younger sibling of non-AD child	574,978	3046	52.98	(51.13-54.89)	ref						
Younger sibling of AD child	57,409	348	60.62	(54.57-67.33)	1.15	(1.03-1.28)	0.016	1.08	(0.98-1.22)	0.164	0.98 (0.87-1.10) 0.738
Opioids only											
Younger sibling of non-AD child	593,650	337	5.68	(5.10-6.32)	ref						
Younger sibling of AD child	59,513	30	5.04	(3.52-7.21)	0.87	(0.60-1.26)	0.453	0.84	(0.57-1.24)	0.379	0.78 (0.53-1.17) 0.232
Sleep medication											
Younger sibling of non-AD child	592,069	733	12.38	(11.52-13.31)	ref						
Younger sibling of AD child	59,297	89	15.01	(12.19-18.48)	1.24	(0.99-1.55)	0.057	1.11	(0.88-1.40)	0.380	0.96 (0.76-1.22) 0.756

AD = atopic dermatitis, IR = incidence rate, HR = hazard ratio, CI = confidence interval, p = p value, ref = reference group. Model 1 was adjusted for sex, age, sibling's atopic disease, index child's psychiatric disease, socioeconomic status, having a later AD sibling and history of outcome. Model 2 was further adjusted for index child's atopic comorbidity. Bold marking indicates statistical significance after Bonferroni correction.