

Table 2.25. Prospective nested case–control studies of *helicobacter pylori* infection and childhood leukemia

Reference, study location and period	Characteristics of cases	Characteristics of controls	Detection method	Exposure categories	No. of exposed cases	Relative risk* (95% CI)	Adjusted potential confounders	Comments	
Lehtinen <i>et al</i> (2005) Finland Iceland (1975–1997)	Offspring of 550 000 mothers in Finland and Iceland combined to form cohort followed for cancer up to age 15 years. 341 acute lymphoblastic leukemia (ALL) cases and 61 other leukemia cases identified through national cancer registries. 378 cases from Finland (203 girls, 175 boys) and 24 from Iceland (13 girls, 11 boys).	1212 controls; matched 3 or 4 to 1 cases matched according to age at serum sampling (± 2 yrs), date of specimen collection (± 2 months) sex of child. Matching performed by country; 3 control mothers in Finland, 4 in Iceland with totally cancer-free offspring at time of leukemia diagnosis in matched case.	First trimester maternal serum sample tested for antibodies to <i>H.pylori</i> (IgG, chronic infection; IgM acute infection) by ELISA.	<i>anti H.pylori</i> <i>IgG positive</i>	ALL cases			Adjusted for sibship size.	
					IgG positive	100	Finland		0.9 (0.7–1.3)
						8	Iceland		2.2 (0.8–6.1)
						108	Total		1.0 (0.8–1.3)
					IgM positive	6	Finland		0.8 (0.3–2.1)
						0	Iceland		NA
						6	Total		0.8 (0.3–1.9)
					Other leukemia cases				
					IgG positive	13	Finland		0.6 (0.2–1.2)
						6	Iceland		7.6 (0.8–74)
	19	Total	0.8 (0.4–1.6)						
IgM Positive	2	Finland	1.5 (0.1–17)						
	19	Iceland	8 (0.0– ∞)						
	21	Total	5.1 (0.8–30)						
Total leukemias combined									
IgG positive	113	Finland	0.9 (0.7–1.2)						
	14	Iceland	2.8 (1.1–6.9)						
	127	Total	1.0 (0.8–1.2)						
IgM positive	8	Finland	0.9 (0.4–2.1)						
	19	Iceland	4.0 (0.6–28.0)						
	27	Total	1.1 (0.5–2.4)						

ALL, acute lymphocytic leukaemia