

Supplementary Table 1. International classification of disease (ICD) codes used to define infections and anatomical therapeutic chemical (ATC) classification codes used to define treatment for infections in infants.

ICD-10 (1997-2021)		
Upper respiratory	Ear	H60.1-H60.3, H65-H67, H70
	Sinusitis	J01
	Pharyngitis	J02, J39.1, J39.2
	Tonsillitis	J03
	Laryngitis	J04, J05
	Upper respiratory infection, unspecified sites	J06
	Influenza	J09-J11
	Peritonsillar abscess	J36
Lower respiratory	Viral pneumonia	J12
	Pneumonia	J13-J18
	Other, including whooping cough	A37, J20-J22, J85, J86
Gastrointestinal	Intestinal infectious diseases	A00-A09
		K04.0, K04.4, K04.7, K05.0, K05.2, K11.3, K12.2, K35-K37, K61
Other	Erysipelas, lymphadenitis, infections of the skin and subcutaneous tissue	A46, H60.0, L00-L08
	Bacterial infections	A20-A28, A30-A36, A38-A39, A43-A44, A48-A54, A65-A79, B95-B97
	Bacterial sepsis, meningitis and other infections of perinatal period	A40-A41, G00-G01, G03-G04, G06-G09, P36-P39
	Tuberculosis	A15-A19
	Mycoses	A42, B35-B49
	Urinary tract	N13.6, N30.0, N39.0
	Circulatory system	I00, I01, I30.1, I33, I40.0, I41.0, I43.0, I52.0

	Musculoskeletal	M00, M01, M46.2-M46.5M72.6, M86
	Tropical	B50-B83, B85-B94
	Encephalitis, rabies, poliomyelitis, meningitis	A80-A89, G02, G05
	Other viral	A60, A63, A90-A96, A98, A99, B00-B02, B04-B06, B08, B09, B15-B19, B25-B27, B30, B33, B34, B97
	Congenital viral diseases	P35
ATC codes		
Treatment for infection	Anti-infective for systemic use	J01, J02, J04, J05

Supplementary Table 2. Number and type of infections and dispensed prescriptions of antibiotics in the first three months of life in 1,248 infants born to women with systemic lupus erythematosus and 34,886 infants born to general population comparators

	Infants born to mothers with SLE, no. cases/total (%)	Infants born to general population comparators, no. cases/total (%)
Primary and Secondary Outpatient infections, National Patient Register		
Number of infections in the first three days		
0	1,248 (100.0)	34,881 (100.0)
≥1	0 (0.0)	5 (0.0)
Number of infections in the first month		
0	1,228 (98.4)	34,057 (97.6)
≥1	20 (1.6)	829 (2.4)
Number of infections in the first year of life		
0	900 (72.1)	25,926 (74.3)
≥1	348 (27.9)	8,960 (25.7)
Type of first infection in the first year of life		
Upper respiratory	174 (13.9)	4,509 (12.9)
Lower respiratory	45 (3.6)	834 (2.4)
Gastrointestinal	25 (2.0)	786 (2.3)
Other	104 (8.3)	2831 (8.1)
Primary and Secondary Hospitalized infections, National Patient Register		
Number of infections in the first three days		
0	1,225 (98.2)	34,550 (99.0)
≥1	23 (1.8)	336 (1.0)
Number of infections in the first month		
0	1,203 (96.4)	34,190 (98.0)
≥1	45 (3.6)	696 (2.0)
Number of infections in the first year of life		
0	1,145 (91.7)	32,651 (93.6)
≥1	103 (8.3)	2,235 (6.4)
Type of first infection in the first year of life		
Upper respiratory	15 (1.2)	403 (1.0)
Lower respiratory	31 (2.5)	693 (2.0)
Gastrointestinal	7 (0.6)	286 (0.8)
Other	50 (4.0)	853 (1.7)
Only Primary Hospitalized Infections, National Patient Register		

Number of infections in the first three days		
0	1,242 (99.5)	34,724 (99.5)
≥1	6 (0.5)	162 (0.5)
Number of infections in the first month		
0	1,226 (98.2)	34,401 (98.6)
≥1	22 (1.8)	485 (1.4)
Number of infections in the first year of life		
0	1,176 (94.2)	32,998 (94.6)
≥1	72 (5.8)	1,888 (5.4)
Type of first infection in the first year of life		
Upper respiratory	12 (1.0)	342 (1.0)
Lower respiratory	31 (2.5)	686 (2.0)
Gastrointestinal	6 (0.5)	267 (0.8)
Other	23 (1.8)	593 (1.7)
Dispensed prescriptions of anti-infectives, Prescribed Drug Register		
Number of dispensations in the first three days		
0	1,245 (99.8)	34,803 (99.8)
≥1	3 (0.2)	83 (0.2)
Number of dispensations in the first month		
0	1,232 (98.7)	34,447 (98.7)
≥1	16 (1.3)	439 (1.3)
Number of dispensations in the first year of life		
0	1,015 (81.3)	27,868 (79.9)
≥1	233 (18.7)	7,018 (20.1)

Supplementary Table 3. Sensitivity analysis restricted to first births only. Risk ratios for any infection in the first three days and in the first year of life comparing 559 infants born to mothers with SLE to 14,283 infants born to mothers from the general population, overall and by preterm birth

	Infants born to mothers with SLE, no. cases/total (%)	Infants born to general population comparators, no. cases/total (%)	Unadjusted Risk Ratio (95% CI)	Adjusted Risk Ratio (95% CI)*
Any infection in the first three days				
Overall	18/559 (3.2)	211/14,283 (1.5)	2.18 (1.36-3.50)	2.04 (1.26-3.30)
Term birth	8/475 (1.7)	161/13,474 (1.2)	1.41 (0.70-2.85)	1.27 (0.62-2.60)
Preterm birth (32 to 37 weeks)	0/61 (0.0)	16/683 (2.3)	NE	NE
Very preterm birth (<32 weeks)	10/23 (43.5)	34/126 (27.0)	1.61 (0.93-2.79)	1.68 (0.97-2.93)
Any infection in the first month of life				
Overall	26/559 (4.6)	541/14,283 (3.8)	1.23 (0.84-1.80)	1.17 (0.80-1.73)
Term birth	15/475 (3.2)	475/13,474 (3.5)	0.90 (0.54-1.49)	0.85 (0.51-1.42)
Preterm birth (32 to 37 weeks)	1/61 (1.6)	30/683 (4.4)	0.37 (0.05-2.69)	0.36 (0.05-2.57)
Very preterm birth (<32 weeks)	10/23 (43.5)	36/126 (28.6)	1.52 (0.89-2.62)	1.58 (0.91-2.73)
Any infection in the first year of life				

Overall	173/559 (31.0)	4,460/12,283 (31.2)	0.99 (0.87-1.12)	1.06 (0.93-1.20)
Term birth	138/475 (29.1)	4,165/13,474 (30.9)	0.93 (0.81-1.08)	1.01 (0.88-1.17)
Preterm birth (32 to 37 weeks)	19/61 (31.2)	226/683 (33.1)	0.94 (0.64-1.39)	0.96 (0.65-1.41)
Very preterm birth (<32 weeks)	16/23 (69.6)	69/126 (54.8)	1.27 (0.93-1.74)	1.31 (0.95-1.80)
Hospitalized infection in the first three days				
Overall	5/559 (0.9)	89/14,283 (0.6)	1.44 (0.59-3.52)	1.36 (0.55-3.37)
Term birth	5/475 (1.1)	87/13,474 (0.7)	1.63 (0.67-4.00)	1.54 (0.62-3.84)
Preterm birth (32 to 37 weeks)	0/61 (0.0)	2/683 (0.3)	NE	NE
Very preterm birth (<32 weeks)	0/23 (0.0)	0/126 (0.0)	NE	NE
Hospitalized infection in the first month of life				
Overall	8/559 (1.4)	150/14,283 (1.1)	1.36 (0.67-2.76)	1.28 (0.62-2.62)
Term birth	8/475 (1.7)	146/13,474 (1.1)	1.55 (0.77-3.15)	1.44 (0.70-2.96)
Preterm birth (32 to 37 weeks)	0/61 (0.0)	4/683 (0.6)	NE	NE
Very preterm birth (<32 weeks)	0/23 (0.0)	0/126 (0.0)	NE	NE
Hospitalized infection in first year of life				
Overall	25/559 (4.5)	560/14,283 (3.9)	1.14 (0.77-1.69)	1.22 (0.82-1.81)

Term birth	21/475 (4.4)	509/13,474 (3.8)	1.17 (0.76, 1.79)	1.27 (0.83, 1.96)
Preterm birth (32 to 37 weeks)	2/61 (3.3)	38/683 (5.6)	0.59 (0.15-2.38)	0.60 (0.15-2.45)
Very preterm birth (<32 weeks)	2/23 (8.7)	13/126 (10.3)	0.84 (0.20-3.49)	0.98 (0.22-4.44)

Abbreviation: NE = not possible due to low number of events. Any infection is based on primary and secondary ICD-coded visits in the in- and outpatient databases of the National Patient Register and prescribed anti-infectives in the Prescribed Drug Register.
*Models are adjusted for maternal age at delivery (continuous), maternal first-trimester smoking (yes/no/missing), and calendar year (continuous).

Supplementary Table 4. Sensitivity analyses restricted to A) first births only and B) mothers without an infection during pregnancy. Estimates of direct effects and effects mediated through preterm birth (<37 weeks gestation) of the association between maternal SLE and infections in infants in the first three days and in the first year of life*

Mediator: Preterm birth (<37 weeks) vs. full term	Direct effect	Indirect effect through preterm birth	Total effect	Mediated through preterm birth, % (95% CI)
A) First births only				
Any infection in the first 3 days of life	1.48 (0.68-2.28)	1.47 (1.06-1.87)	2.17 (1.05-3.29)	59 (19-98)
Any infection in the first year of life	1.02 (0.83-1.22)	1.06 (0.99-1.13)	1.08 (0.88-1.29)	77 (117 – 272)
B) Mothers without infection during pregnancy				
Any infection in the first 3 days of life	1.16 (0.62, 1.70)	1.61 (1.20, 2.02)	1.87 (1.07, 2.67)	82 (33-130)
Any infection in the first year of life	1.07 (0.94, 1.21)	1.05 (1.00, 1.10)	1.13 (0.99, 1.27)	45 (8-98)

* Values are odd ratios (95% confidence interval) which estimates risk ratios unless indicated otherwise. Models are adjusted for maternal age at delivery (continuous), maternal first-trimester smoking (yes/no/missing), and calendar year (continuous).