

Supplementary tables:

Table S1. All-cause admissions among pupils with epilepsy with, and without, intellectual disabilities, including incidence rates, Cox proportional hazards models for risk of admission for pupils with epilepsy with, versus without, intellectual disabilities

All-cause admissions	Pupils with intellectual disabilities and epilepsy		Controls with epilepsy		p-value ^b
Total pupils, n	1,608		6,441		
Total admissions, n	6,235		7,678		
Pupils admitted, n %	985	61.3%	2,366	36.7%	p<0.001
Mean admissions per person, (sd)	6.33	(15.9)	3.25	(5.6)	p<0.001
Incident admissions / 1,000 (95% CI) – All pupils	316.06	(296.93, 336.43)	171.97	(165.18, 179.04)	
- Males	301.28	(277.50, 327.11)	155.32	(145.69, 165.58)	
- Females	338.70	(307.70, 372.82)	185.01	(175.65, 194.85)	
All emergency admissions					
Total admissions, n	2,723		3,855		
Total pupils admitted, n %	686	42.6%	1,538	23.9%	p<0.001
Mean admissions per person, (sd)	3.97	(5.6)	2.51	(3.7)	p<0.001
Incident admissions / 1,000 (95% CI) – All pupils	164.71	(152.83, 177.51)	96.42	(91.72, 101.36)	
- Males	160.56	(145.56, 177.12)	86.49	(79.87, 93.65)	
- Females	170.84	(152.18, 191.80)	104.20	(97.72, 111.11)	
All routine admissions					
Total admissions, n	3,512		3,823		
Total pupils admitted, n %	733	45.6%	1490	23.1%	
Mean admissions per person, (sd)	4.79	(17.0)	2.57	(4.5)	p<0.001
Incident admissions / 1,000 (95% CI) – All pupils	188.02	(174.89, 202.13)	93.52	(88.89, 98.39)	
- Males	178.24	(161.91, 196.22)	85.41	(78.80, 92.57)	
- Females	202.60	(181.48, 226.18)	99.76	(93.45, 106.50)	
PH Cox models All-cause admissions:	HR (95% CI)				
All admissions – Intellectual disabilities	1.82	(1.69, 1.96)			
Emergency admissions – Intellectual disabilities	1.74	(1.59, 1.91)			
Routine admissions – Intellectual disabilities	2.04	(1.86, 2.22)			
	aHR ^a (95%CI)				
All admissions – Intellectual disabilities	1.82	(1.69, 1.96)			
Emergency admissions – Intellectual disabilities	1.75	(1.60, 1.92)			
Routine admissions – Intellectual disabilities	2.01	(1.83, 2.20)			

a – adjusted for age, sex, age at entry, and SIMD b – X² test was used for comparing n pupils admitted; t-test was used for mean admissions per person

Table S2. All-cause admissions among pupils with asthma with, and without, intellectual disabilities, including incidence rates, Cox proportional hazards models for risk of admission for pupils with asthma with versus without intellectual disabilities

All-cause admissions:	Pupils with intellectual disabilities and asthma		Controls with asthma		p-value^b
Total pupils, n	1,621		53,363		
Total admissions, n	2067		27,910		
Total pupils admitted, n %	533	32.9%	13,737	25.7%	p<0.001
Mean admissions per person, (sd)	3.88	(11.0)	2.03	(3.5)	p<0.001
Incident admissions / 1,000 (95% CI)					
- All pupils	132.03	(121.28, 143.73)	78.87	(77.56, 80.20)	
- Males	121.38	(109.30, 134.78)	75.38	(73.69, 77.11)	
- Females	158.66	(137.26, 183.39)	83.50	(81.46, 85.60)	
All emergency admissions					
Total admissions, n	977		16,794		
Total pupils admitted, n %	348		9,290		p<0.001
Mean admissions per person, (sd)	2.81	(4.3)	1.81	(2.7)	p<0.001
Incident admissions / 1,000 (95% CI)					
- All pupils	77.03	(69.35, 85.56)	49.86	(48.86, 50.89)	
- Males	71.90	(63.20, 81.79)	48.04	(46.73, 49.37)	
- Females	89.66	(74.80, 107.47)	52.27	(50.71, 53.87)	
All routine admissions					
Total admissions, n	1,090		11,116		
Total pupils admitted, n %	331	20.4	6,742	12.6%	p<0.001
Mean admissions per person, (sd)	3.29	(12.4)	1.65	(2.3)	p<0.001
Incident admissions / 1,000 (95% CI)					
- All pupils	73.15	(65.68, 81.48)	34.88	(34.06, 35.73)	
- Males	65.82	(57.51, 75.32)	32.14	(31.10, 33.22)	
- Females	91.00	(76.09, 108.82)	38.50	(37.19, 39.86)	
PH Cox Models All-cause admissions:	HR (95% CI)				
All admissions – Intellectual disabilities	1.59	(1.45, 1.73)			
Emergency admissions – Intellectual disabilities	1.48	(1.33, 1.64)			

Routine admissions – Intellectual disabilities	2.01	(1.80, 2.24)	
	aHR^a (95% CI)		
All admissions – Intellectual disabilities	1.56	(1.43, 1.71)	
Emergency admissions – Intellectual disabilities	1.45	(1.30, 1.61)	
Routine admissions – Intellectual disabilities	2.00	(1.79, 2.23)	

a – adjusted for age, sex, age at entry, and SIMD b – χ^2 test was used for comparing n pupils admitted, n day cases; t-test was used for mean admissions per person, Mann-Whitney U test was used for length of stay

Table S3 . All-cause admissions among pupils with insulin-dependent diabetes with, and without, intellectual disabilities, including incidence rates, Cox proportional hazards models for risk of admission for pupils with diabetes, with versus without intellectual disabilities

All-cause admissions:	Intellectual Disabilities & diabetes		Controls with diabetes		p-value ^b
Total pupils, n	94		3,924		
Total admissions, n	245		6,729		
Total pupils admitted, n %	53	56.4%	2,022	51.5%	p=0.353
Mean admissions per person, (sd)	4.62	(9.5)	3.33	(5.8)	p=0.115
Incident admissions / 1,000 (95% CI)					
- All pupils	314.01	(239.89, 411.02)	197.16	(188.75, 205.94)	
- Males	342.04	(244.40, 478.69)	174.45	(163.68, 185.92)	
- Females	273.84	(174.67, 429.32)	222.70	(209.78, 236.42)	
All emergency admissions					
Total admissions, n	100		5,222		
Total pupils admitted, n %	34	36.2%	1,761	44.9%	p=0.093
Mean admissions per person, (sd)	2.94	(2.6)	2.97	(3.7)	p=0.364
Incident admissions / 1,000 (95% CI) – All pupils	151.71	(108.40, 212.32)	158.20	(150.98, 165.76)	
All routine admissions					
Total admissions, n	145		1,507		
Total pupils admitted, n %	34	36.2%	750	19.1%	p<0.001
Mean admissions per person, (sd)	4.26	(10.8)	2.01	(6.1)	p=0.045
Incident admissions / 1,000 (95% CI) – All pupils	22.85	(10.90, 47.94)	13.36	(11.67, 15.30)	
PH Cox Models All-cause admissions:	HR (95% CI)				
All admissions – Intellectual disabilities	1.46	(1.11, 1.92)			
Emergency admissions – Intellectual disabilities	0.91	(0.65, 1.28)			
Routine admissions – Intellectual disabilities	2.61	(1.85, 3.69)			
	aHR ^a (95% CI)				
All admissions – Intellectual disabilities	1.44	(1.10, 1.90)			
Emergency admissions – Intellectual disabilities	0.90	(0.64, 1.26)			
Routine admissions – Intellectual disabilities	2.61	(1.85, 3.69)			

a – adjusted for age, sex, age at entry, and SIMD b – χ^2 test was used for comparing n pupils admitted, n day cases; t-test was used for mean admissions per person