

Supplementary table A Multivariable model of comorbidities, historical symptoms and physical examination candidate predictor variables identified for reduction in final multivariable model

Predictor	Random controls (n=265)*	Age matched controls (n=265)*
Comorbidities		
Asthma	0.6 (0.2 to 1.7)	1.2 (0.4 to 3.7)
Chronic lung disease	14.3 (1.4 to 150)	4.8 (0.9 to 25.4)
Heart disease	†	8.9 (0.5 to 146.8)
Cerebral palsy/developmental delay	10.0 (1.5 to 66.1)	37.6 (4.8 to 296)
Current illness		
Dyspnoea	3.0 (0.9 to 10.4)	1.5 (0.4 to 5.6)
Increased/purulent sputum	10.3 (0.8 to 127)	0.9 (0.1 to 8.4)
Generalised weakness	3.6 (0.6 to 21.5)	†
Irritable/drowsy	4.2 (1.0 to 17.8)	4.1 (1.0 to 17.3)
Rhinorrhoea	1.7 (0.6 to 4.9)	0.6 (0.2 to 1.7)
Physical examination		
Heart rate* (linear)**	1.00 (0.17 to 1.83)	-0.081 (-0.18 to 0.014)
Heart rate* (quadratic)**	-0.0073 (-0.013 to -0.0013)	0.00041 (0.00003 to 0.0008)
Heart rate* (cubic)**	0.000017 (0.000005 to 0.000031)	-
On oxygen or saturation <93%	7.1 (2.0 to 24.8)	10.3 (2.8 to 38.2)
Chest retractions	7.4 (1.9 to 29.1)	7.7 (1.3 to 45.7)
Accessory muscle use	†	1.7 (0.3 to 9.7)
Signs of dehydration	8.1 (1.3 to 51.2)	7.4 (1.3 to 44.0)

Data are odds ratio (95% CI). C statistic for model using random controls 0.933; c statistic for model using age matched controls 0.921.

*Random control results adjusted for site, age matched control results adjusted for site and age, using conditional logistic regression; for non-linear continuous predictor variables, effect reported as parameter estimates (95% CI) for linear, quadratic, and cubic terms.

†Not identified as significant in initial multivariable models.

**Heart rate term for final multivariable model includes adjustment for age (random control model odds ratio 0.7 (95% CI 0.6 to 0.9); age matched control model odds ratio 1.4 (95% CI 1.0 to 2.0)).

Supplementary table B Final multivariable models generated in sensitivity analysis

Predictor	Random controls (n=265)*	Age matched controls (n=265)*
Chronic lung disease	8.7 (1.3 to 57.6)	‡
Cerebral palsy/developmental delay	7.2 (1.2 to 42.8)	22.1 (3.5 to 140)
Dyspnoea	4.5 (1.3 to 15.4)	‡
Irritable/drowsy	4.5 (1.1 to 17.8)	‡
Heart rate >90th centile for age	3.7 (1.1 to 12.0)	‡
On oxygen or saturation <93%	4.3 (1.3 to 14.1)	38.0 (4.4 to 330)
Chest retractions	6.3 (1.7 to 23.1)	10.4 (3.4 to 31.8)

*Random control results adjusted for site, age matched control results adjusted for site and age, using conditional logistic regression; data are odds ratio (95% CI); data are generated from non-imputed datasets with heart rate and respiratory rate dichotomised in order to generate more clinically-meaningful odds ratios rather than odds ratios per change in unit from modelling; c statistic for model using random controls 0.92; c statistic for model using age matched controls 0.886.

‡Not identified as significant in final model.