

Appendix Table 1: Specificity, predictive value and likelihood ratio of gut feeling for the diagnosis of serious infection

	Specificity (%, 95%CI)	Positive Predictive Value (%, 95%CI)	Likelihood Ratio (LR+, 95% CI)
All children (n=3890)	97.2 (96.7-97.7)	10.8 (5.9-17.8)	22.4 (15.2-32.9)
By age			
Children ≤3 years (n=1616)	96.8 (95.8-97.6)	16.4 (8.15-28.1)	19.6 (12.3-31.2)
Children >3 years (n=2274)	97.5 (96.8-98.1)	5.08 (1.1-14.1)	24.3 (11.4-52.0)
By serious infection			
Pneumonia (n=3881)	97.2 (96.7-97.7)	7.76 (3.6-14.2)	27.1 (18.6-39.5)
All other serious infections (n=3878)	97.2 (96.7-97.7)	3.6 (0.99-9.0)	16.1 (7.6-34.2)
By body temperature			
Children with temperature ≥38.5°C (n=1939)	96.7 (95.8-97.4)	12.3 (5.8-22.1)	15.9 (9.6-26.4)
Children with temperature <38.5°C (n=1951)	97.8 (97.0-98.4)	8.51 (2.4-20.4)	45.3 (33.7-60.9)
By clinician experience			
<10 years (n=446)	96.4 (94.2-97.9)	11.1 (1.4-34.7)	18.5 (7.3-47.0)
≥10 years (n=3444)	97.3 (96.7-97.7)	10.8 (5.5-18.5)	23.0 (15.1-35.0)

Appendix Table 2: Clinical features included in the analyses

General features	Respiratory features	Gastrointestinal features	Classic textbook symptoms/red flags
Age	Signs of URTI	Vomiting	Urinary symptoms
Duration of illness	Cough	Decreased eating and drinking	Convulsions
Chronic condition	Changed breathing	Tummy ache	<i>Meningeal irritation</i>
Temperature	<i>Tachypnoea</i>	Weight loss	<i>Petechiae</i>
Irritability	<i>Dyspnoea</i>	Diarrhoea	<i>Rash</i>
Drowsiness	<i>Crackles</i>	<i>Signs of dehydration</i>	<i>Decreased peripheral circulation</i>
Inconsolable	<i>Decreased breathing sounds</i>		<i>Decreased consciousness</i>
Changed crying	<i>Cyanosis</i>		
Moaning			
Does not laugh			
Headache			
Parental concern because the illness is different			
Physician's experience			

Clinical features elicited from clinical examination and included only in the second model are shown in italics

Appendix Table 3: Univariate analyses of clinical feature and gut feeling in children for whom the clinical impression was that of a non-serious illness

	Gut feeling present N=120 % (except where stated)	Gut feeling absent N=3770 %(except where stated)	Chi2, p- value
General			
Mean age (years)	5.10	5.07	0.518
Mean duration of illness (hours)	38.42	44.41	0.077
Chronic condition	19.05	6.83	0.002
Mean temperature °C	38.22	37.95	0.049
Irritable	17.78	7.64	0.012
Drowsy	18.18	3.27	0.000
Inconsolable	4.55	2.12	0.270
Changed crying	20.45	1.94	0.000
Moaning	4.55	0.82	0.008
Does not laugh	34.09	6.31	0.000
Headache	17.39	18.22	0.885
Parental concern	32.61	1.56	0.000
Clinician experience (years)	17.25	20.13	0.121
Respiratory features			
Signs of URTI	54.35	69.06	0.032
Cough	39.13	48.08	0.227
Changed breathing	21.74	7.13	0.000
Tachypnoea	15.22	1.75	0.000
Dyspnoea	17.39	3.18	0.000
Crackles	17.39	4.05	0.000
Decreased breathing sounds	8.70	1.78	0.001
Cyanosis	2.17	0.03	0.000
Gastrointestinal features			

Vomiting	17.39	17.89	0.931
Diarrhoea	8.70	15.75	0.191
Decreased eating and drinking	30.43	20.45	0.096
Tummy ache	26.09	18.35	0.179
Weight loss	8.70	1.42	0.000
Signs of dehydration	2.17	0.24	0.012
Classic textbook signs			
Meningeal irritation	2.17	0.03	0.000
Petechiae	4.35	0.09	0.000
Rash	4.35	3.21	0.663
Decreased peripheral circulation	2.17	0.03	0.000
Seizures	4.35	0.09	0.000
Urinary symptoms	8.70	1.49	0.000
Decreased consciousness	2.27	0.12	0.000