

Online Supplementary File 3: Bivariable analyses of clinical features to identify serious infections

type	variable	sensitivity	95% CI	specificity	95% CI	LR+	95% CI	LR-	95% CI	PPV	95% CI	NPV	95% CI
history taking	illness is different from previous illnesses	1.6	0.4 4.0	98.9	98.6 99.2	1.4	0.5 3.9	1.0	1.0 1.0	6.8	1.9 16.5	95.2	94.6 95.8
	child is less active	0.4	0.0 2.1	99.7	99.6 99.9	1.5	0.2 11.3	1.0	1.0 1.0	7.1	0.2 33.9	95.1	94.5 95.6
	child is sleepy	0.4	0.0 2.1	99.7	99.6 99.9	1.5	0.2 11.4	1.0	1.0 1.0	7.1	0.2 33.9	95.1	94.5 95.7
	child is hard to wake up	0.4	0.0 2.1	99.8	99.6 99.9	2.0	0.3 15.2	1.0	1.0 1.0	9.1	0.2 41.3	95.1	94.5 95.7
	child cries a lot	0.0	0.0 1.4	99.8	99.6 99.9	0.9	0.1 15.6	1.0	1.0 1.0	0.0	0.0 30.8	95.1	94.4 95.6
	child has abnormal behaviour	1.9	0.6 4.5	99.6	99.4 99.7	4.6	1.8 12.2	1.0	1.0 1.0	19.2	6.6 39.4	95.3	94.6 95.8
	child's speech is inconsistent	4.7	2.5 8.1	97.1	96.6 97.5	1.6	0.9 2.9	1.0	1.0 1.0	7.6	4.0 12.8	95.3	94.6 95.8
	fever duration ≥ 1 day	98.7	96.3 99.7	0.6	0.4 0.9	1.0	1.0 1.0	2.3	0.8 6.9	5.2	4.6 5.9	90.0	73.5 97.9
	fever does not improve with antipyretics	19.0	14.1 24.8	89.7	88.7 90.7	1.9	1.4 2.5	0.9	0.9 1.0	9.7	7.1 12.9	95.0	94.2 95.7
	diarrhoea	26.8	21.5 32.6	79.0	77.9 80.1	1.3	1.0 1.6	0.9	0.9 1.0	6.1	4.8 7.7	95.5	94.8 96.1
	bloody diarrhoea	2.0	0.7 4.6	99.6	99.4 99.8	5.5	2.1 14.7	1.0	1.0 1.0	21.7	7.5 43.7	95.3	94.7 95.8
	stomach ache	22.5	17.3 28.3	86.9	85.9 87.8	1.7	1.3 2.2	0.9	0.8 1.0	7.8	5.9 10.1	95.8	95.1 96.3
	vomiting	28.4	23.0 34.2	78.1	76.9 79.2	1.3	1.1 1.6	0.9	0.8 1.0	6.3	5.0 7.8	95.5	94.8 96.1
	persistent vomiting	8.9	5.7 13.2	96.1	95.5 96.6	2.3	1.5 3.5	0.9	0.9 1.0	10.3	6.6 15.2	95.5	94.8 96.0
	bile-stained vomiting	4.5	2.2 7.8	98.9	98.6 99.2	4.1	2.2 7.8	1.0	0.9 1.0	17.2	8.9 28.7	95.3	94.7 95.9
	child has reduced intake	64.1	58.0 69.9	54.3	52.9 55.7	1.4	1.3 1.5	0.7	0.6 0.8	6.8	5.8 7.8	96.7	96.0 97.3
	child pees less	22.4	17.4 28.1	86.9	86.0 87.8	1.7	1.4 2.2	0.9	0.8 1.0	7.9	6.0 10.2	95.7	95.1 96.3
	short of breath	24.7	19.6 30.4	84.8	83.7 85.8	1.6	1.3 2.0	0.9	0.8 1.0	7.8	6.1 9.9	95.6	94.9 96.2
	coughing	61.5	55.4 67.4	42.5	41.1 43.9	1.1	1.0 1.2	0.9	0.8 1.1	5.3	4.5 6.1	95.5	94.6 96.3
	headache	8.1	5.0 12.4	93.3	92.5 94.0	1.2	0.8 1.9	1.0	0.9 1.0	5.7	3.4 8.7	95.3	94.7 95.9
	neck pain	4.2	2.0 7.6	98.3	97.9 98.6	2.5	1.3 4.7	1.0	0.9 1.0	11.0	5.4 19.3	95.4	94.8 96.0
observation	clinician concern	43.2	37.0 49.5	86.8	85.9 87.8	3.3	2.8 3.8	0.7	0.6 0.7	14.5	12.1 17.2	96.7	96.2 97.2
	clinical impression child is seriously ill	30.6	25.0 36.6	93.2	92.5 93.9	4.5	3.7 5.6	0.7	0.7 0.8	18.7	15.1 22.8	96.3	95.8 96.9
	child is irritable	17.0	12.6 22.1	91.0	90.2 91.8	1.9	1.4 2.5	0.9	0.9 1.0	8.8	6.5 11.7	95.5	94.9 96.1
	child is drowsy	9.7	6.4 14.0	96.5	95.9 97.0	2.7	1.8 4.1	0.9	0.9 1.0	12.3	8.1 17.6	95.4	94.8 96.0
	child had reduced consciousness	0.4	0.0 2.2	99.6	99.4 99.8	1.0	0.1 7.7	1.0	1.0 1.0	5.0	0.1 24.9	95.2	94.6 95.7
	child is inconsolable	9.7	6.4 14.0	95.3	94.7 95.8	2.1	1.4 3.0	0.9	0.9 1.0	9.5	6.2 13.7	95.4	94.8 95.9
	child is moaning	12.5	8.7 17.1	98.2	97.8 98.5	6.8	4.6 9.9	0.9	0.9 0.9	25.6	18.2 34.2	95.7	95.1 96.2
	child has nasal flaring	10.1	6.7 14.5	97.7	97.2 98.1	4.3	2.9 6.5	0.9	0.9 1.0	18.1	12.1 25.3	95.5	94.9 96.1
	chestwall retractions	11.7	8.0 16.2	95.0	94.4 95.6	2.4	1.7 3.4	0.9	0.9 1.0	10.7	7.3 14.9	95.5	94.9 96.0
	child laughs less	28.9	23.4 34.9	89.6	88.8 90.5	2.8	2.3 3.4	0.8	0.7 0.9	12.4	9.9 15.3	96.1	95.5 96.7
	clinical examination	temperature ≥ 40.0°C (measured or reported)	44.1	38.0 50.5	73.1	71.8 74.4	1.6	1.4 1.9	0.8	0.7 0.9	8.5	7.0 10.1	95.9
pus on tonsils		2.0	0.6 4.5	94.2	93.5 94.9	0.3	0.1 0.8	1.0	1.0 1.1	1.7	0.6 3.9	95.0	94.3 95.6
signs of acute otitis media		12.3	8.5 16.9	85.0	84.0 86.0	0.8	0.6 1.2	1.0	1.0 1.1	4.0	2.7 5.6	95.0	94.4 95.7
bilateral otitis media		6.7	4.0 10.5	93.9	93.2 94.6	1.1	0.7 1.8	1.0	1.0 1.0	5.3	3.1 8.4	95.2	94.5 95.8
discharging ears		2.8	1.1 5.7	98.2	97.8 98.6	1.6	0.7 3.4	1.0	1.0 1.0	7.5	3.1 14.7	95.3	94.6 95.8
extensive cervical adenopathy		2.3	0.9 5.0	97.1	96.6 97.6	0.8	0.4 1.8	1.0	1.0 1.0	4.0	1.5 8.5	95.1	94.5 95.7
redness and or swelling of face		5.1	2.7 8.5	97.1	96.6 97.6	1.8	1.0 3.1	1.0	1.0 1.0	8.2	4.5 13.7	95.2	94.6 95.8
purulent conjunctivae		3.9	1.9 7.0	96.4	95.9 96.9	1.1	0.6 2.0	1.0	1.0 1.0	5.3	2.6 9.5	95.1	94.5 95.7
bilateral purulent conjunctivae		0.8	0.1 2.8	97.8	97.4 98.2	0.4	0.1 1.4	1.0	1.0 1.0	1.8	0.2 6.3	95.1	94.4 95.6
dyspnea		20.9	16.1 26.4	91.8	91.0 92.5	2.6	2.0 3.3	0.9	0.8 0.9	11.6	8.8 14.8	95.8	95.2 96.3
crackling		19.7	15.0 25.1	90.7	89.8 91.5	2.1	1.6 2.7	0.9	0.8 0.9	9.8	7.4 12.7	95.6	95.0 96.2
reduced breathing sounds		12.1	8.3 16.7	97.1	96.6 97.6	4.2	2.9 6.1	0.9	0.9 0.9	17.8	12.4 24.3	95.6	95.0 96.1
rhonchi		31.0	25.5 37.0	73.8	72.5 75.0	1.2	1.0 1.4	0.9	0.9 1.0	5.8	4.6 7.1	95.4	94.7 96.0
cyanosis		1.6	0.4 3.9	99.8	99.6 99.9	6.5	2.1 19.9	1.0	1.0 1.0	25.0	7.3 52.4	95.2	94.6 95.7
peritoneal irritation		4.1	2.0 7.4	99.6	99.4 99.8	11.7	5.4 25.2	1.0	0.9 1.0	37.0	19.4 57.6	95.4	94.8 95.9
petechial rash		2.7	1.1 5.5	98.5	98.2 98.9	1.8	0.9 4.0	1.0	1.0 1.0	8.8	3.6 17.2	95.1	94.5 95.7
meningeal irritation		3.9	1.9 7.0	99.7	99.5 99.8	13.8	6.2 30.8	1.0	0.9 1.0	41.7	22.1 63.4	95.2	94.6 95.8
reduced peripheral circulation		7.3	4.5 11.2	98.4	98.0 98.7	4.5	2.8 7.3	0.9	0.9 1.0	19.0	11.8 28.1	95.3	94.7 95.9
pale skin		18.1	13.6 23.3	95.0	94.3 95.6	3.6	2.7 4.8	0.9	0.8 0.9	15.7	11.8 20.3	95.7	95.1 96.3
abnormal skin turgor		1.5	0.4 3.9	99.4	99.2 99.6	2.8	1.0 7.8	1.0	1.0 1.0	12.5	3.5 29.0	95.1	94.5 95.7
abnormal fontanel tension		0.9	0.1 3.1	99.9	99.8 100.0	13.7	2.3 81.7	1.0	1.0 1.0	40.0	5.3 85.3	95.4	94.8 96.0
swollen limb or non weight bearing extremity		0.5	0.0 2.9	98.9	98.3 99.2	0.5	0.1 3.5	1.0	1.0 1.0	2.4	0.1 12.9	95.1	94.3 95.7
breathing rate ≥ 50/min		23.3	14.8 33.6	90.0	88.3 91.6	2.3	1.5 3.5	0.9	0.8 1.0	13.5	8.5 20.1	94.6	93.2 95.8
heart rate ≥ 150/min	35.4	25.9 45.8	79.9	77.6 82.0	1.8	1.3 2.4	0.8	0.7 0.9	11.0	7.8 15.1	94.6	93.1 95.8	
oxygen saturation ≤ 95%	29.2	20.8 38.9	88.9	87.0 90.6	2.6	1.9 3.7	0.8	0.7 0.9	18.2	12.7 24.9	93.7	92.1 95.0	
capillary refill ≥ 3 seconds	20.1	14.1 27.3	91.6	90.4 92.7	2.4	1.7 3.4	0.9	0.8 0.9	13.6	9.4 18.7	94.6	93.6 95.5	