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# VALIDATING A DECISION TREE FOR SERIOUS INFECTION: DIAGNOSTIC ACCURACY IN ACUTELY ILL CHILDREN IN AMBULATORY CARE.

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**KEYWORDS:** serious infection, child, validation studies, clinical prediction rule, diagnostic accuracy, ambulatory care

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## ABSTRACT

 **Objective**: acute infection is the most common presentation of children in primary care with only few having a serious infection (e.g. sepsis, meningitis, pneumonia). To avoid complications or death, early recognition and adequate referral are essential. Clinical prediction rules have the potential to improve diagnostic decision making for rare but serious conditions. In this study, we aimed to validate a recently developed decision tree in a new but similar population.

**Design:** diagnostic accuracy study validating a clinical prediction rule.

**Setting & Participants:** acutely ill children presenting to ambulatory care in Flanders, Belgium, consisting of general practice and paediatric assessment in outpatient clinics or the emergency department.

Intervention: physicians were asked to score the decision tree in every child

**Primary outcome measures:** the outcome of interest was hospital admission for at least 24 hours with a serious infection within 5 days after initial presentation. We report the diagnostic accuracy of the decision tree in sensitivity, specificity, likelihood ratios and predictive values.

**Results:** in total, 8962 acute illness episodes were included, of which 283 lead to admission to hospital with a serious infection. Sensitivity of the decision tree was 100% (95%CI 71.5-100%) at a specificity of 83.6% (95%CI 82.3-84.9%) in the GP setting with 17% of children testing positive. In the paediatric outpatient and ED setting, sensitivities were below 92.0%, with specificities below 44.8%.

**Conclusions**: This clinical prediction rule for identifying children at risk of hospital admission for a serious infection has shown to be extremely sensitive in general practice in an independent validation cohort, making it suitable for ruling out.

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# ARTICLE SUMMARY

# Strengths and limitations of this study:

- Prospective multi-centre validation study of the 4-step decision tree in almost 9000 illness episodes in children.
- Consecutive recruitment in three different settings covering the whole spectrum of acutely ill children seen at first contact.
- Measuring standardized clinical features could have lead to work-up bias.
- Identification of admissions for serious infection depended on quality of medical records or or or only and follow-up.

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#### INTRODUCTION

Acute infection is the most common reason for children to attend ambulatory care and represents an important proportion of a general practitioner's workload.[1]

However, in primary care, less than 1% of children will be diagnosed with a serious infection.[2] The incidence is assumed to be 5-10 times higher at the emergency department (ED).[3]

Serious infections in children are usually defined as sepsis (including bacteraemia), meningitis, pneumonia, complicated urinary tract infection, bacterial gastroenteritis with dehydration, osteomyelitis, and cellulitis.[4]

These serious infections need to be distinguished from the vast majority of self-limiting infections in children, because although rare in children in developed countries, they are associated with considerable morbidity (e.g. hearing loss, neurologic disability) and mortality.[5]

Furthermore, early recognition could improve prognosis of seriously ill children and prevent avoidable investigations and referrals in children without serious infection.[5]

Clinicians use signs and symptoms to initially assess the probability of a serious infection and decide on further management. Based on a prospective cohort of 4000 children, Van den Bruel and colleagues derived a symptom-based 4-step decision tree, consisting of: the clinician's gut feeling "something is wrong", "dyspnoea", "temperature > 39.95°C" and "diarrhoea in children aged 1 to 2.5 years".[6]

The tree is considered positive if yes to any of these four sequential items is positive, with a sensitivity and negative predictive value (NPV) of nearly 100% in the original derivation study.[6] Although the tree also demonstrated high sensitivity in a retrospective validation in another primary care dataset using approximations for gut feeling and dyspnoea, prospective validation had not been performed as yet.[7]

In this study, we aim to prospectively validate this decision tree in a new and independent population of acutely ill children in ambulatory care.

## **METHODS**

## Setting

This is a diagnostic accuracy study in ambulatory care (defined as general practice, paediatric outpatient clinics or emergency department).

## Patients

Children aged 1 month to 16 years, presenting to a general practitioner (GP) or paediatrician in Flanders, Belgium, with an acute illness for a maximum of 5 days were included consecutively from February 15<sup>th</sup> 2013 to February 28<sup>th</sup> 2014. Children were excluded if the acute illness was caused by purely traumatic or neurological conditions, intoxication, a psychiatric problem, or an exacerbation of a known chronic condition.

If a physician recruited less than five children over the one-year study period, the assumption of consecutive inclusion was assumed to have been violated, leading to the exclusion of his or her data from the analysis.

When the same child was recruited twice within five days, we considered the second registration a consequence of the same illness episode and discarded the second registration from the analyses.

### Index tests

We asked physicians to register diagnostic features based on previous research and consensus of an international team of clinicians and researchers,[7] including all items of the NICE traffic light system, and vital signs (heart and breathing rate, temperature and capillary refill time) and pulse oximetry.[7-9]

In total, 74 diagnostic features were scored: 28 features obtained by history taking, 36 by clinical examination and 10 items relating to clinical decision making (**Supplementary File 1**). In addition to the clinical prediction rule, clinicians were asked to rate whether the child appeared seriously ill and whether the parents considered their child's illness different from previous illnesses.[6] All features were scored as "yes" when present, "no" when absent, and "?" when they could not be evaluated.

## 4-step Decision Tree

 We asked physicians to score variables included in the 4-step decision tree, as developed by Van den Bruel et al.[6] (**Figure 1**)

"Something is wrong" was defined as a subjective gut feeling of the physician that something is out of the ordinary. "Dyspnoea" was defined as difficult or laboured breathing. "Body temperature" was defined as the highest body temperature measured by parents or the physician during the illness episode. Before analysis 0.5°C was added to temperatures measured under the axilla, or with a tympanic thermometer.[10 11]

"Diarrhoea" was defined as loose or watery stools, increased in frequency and volume.[12]

# Vital signs

Temperature, respiratory rate, heart rate, oxygen saturation and capillary refill time were measured, each according to their respective standardized method.[13]

All GPs were provided with a paediatric finger pulse oximeter (CMS50QA, Contec<sup>™</sup> Medical Systems, China) for use in children at least 3 years old (due to device limitations). Paediatricians were given the choice to use the provided finger pulse oximeter, or rather use their own large-size pulse oximeter appropriate for all ages.

## **Target condition**

The target condition was hospital admission (>24 hours) for a serious infection, which was one of the following:

- sepsis (including bacteraemia) with pathogenic bacteria isolated from haemoculture
- meningitis with a positive lumbar puncture (pleocytosis in cerebrospinal fluid or identification of bacteria or a virus)
- appendicitis with a positive histological diagnosis
- pneumonia with an infiltrate seen on chest X-ray
- osteomyelitis (pathogens from bone aspirate or a MRI or bone scan suggestive for osteomyelitis)

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-	cellullus (acute suppurative initiatituditori or	(ine subcularieous lissues)	

- bacterial gastro-enteritis with dehydration (pathogen isolated from stool culture)
- complicated urinary tract infection (>10<sup>5</sup>/ml pathogens of a single species isolated from urine culture and systemic effects such as fever)

The outcome was verified by three complementary methods:

(I) a search of the electronic medical records of all regional hospitals,

(II) an interview with each participating GP

(III) a diary completed by parents for children recruited in general practice, recording the date of recovery.

If methods (II) and (III) showed evidence of a hospital admission initially not captured by method (I), attempts were made to obtain information for this additional hospital admission. Children were considered as not having a serious infection if hospital records showed no evidence for a serious infection. In cases when no definitive adjudication could be made based on the above criteria, an adjudication committee consisting of clinicians with expertise in acute paediatric care assigned outcome by consensus, using all available information.

## Sample size

Sample size calculations were based on the assumption that prevalence and diagnostic value of the decision tree would be similar to those reported by Van den Bruel et al. Assuming a prevalence of 0.9%, recruiting 6500 children would result in 59 cases. This

would provide us with an error margin of 12% around an expected sensitivity of 97% (95% confidence interval 85-100%).[14]

## **Statistical Analysis**

## I. Accuracy of individual features

First, the accuracy of each diagnostic feature was analysed and reported using sensitivity, specificity, likelihood ratios and predictive values for both the GP and specialist setting (paediatric outpatient and ED). A correction of 0.5 was added to every cell in case of an empty cell in a  $2 \times 2$  table.

We constructed Receiver-Operating-Characteristic (ROC) curves for temperature, breathing rate, heart rate and oxygen saturation. In addition, these features were dichotomized based on NICE guidance.[13]

## II. Validation of the 4-step decision tree

The 4-step decision tree for any serious infection was validated in the entire group and in the three pre-defined settings separately being general practice, ambulatory paediatric care and emergency departments. In addition, we performed subgroup analyses for three infectious categories: pneumonia, complicated urinary tract infections and sepsis/meningitis. We applied the same missing value categorizations for every decision tree variable as in the derivation study, namely missing values in the same category as "no" or "unknown".[6]

## **Optimized thresholds**

We optimized the tree by recalibrating the thresholds of body temperature and age for the current data, using classification and regression tree (CART) analysis, maximizing sensitivity with a weighing factor of 75 for false negatives, while keeping the structure of the tree constant.

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# Pragmatic thresholds

To facilitate implementation in routine care, we created a decision tree with easy-toremember thresholds for temperature and age:

- temperature of 40°C in the GP setting or 39.5°C in the specialist setting (instead of 39.95°C or 39.2°C)
- age below 3 years of age (instead of 3.3)

Sensitivity analyses were performed, comparing the results of all illness episodes versus first illness episode only to explore the effect, if any, of clustering based on recurring admissions in the same children.

Analyses were performed with Stata software (version 11.2; Stata Corp., USA), and JMP Statistical Discovery (version Pro 11.1.1; SAS Institute Inc., USA).

# Ethics

Formal written informed consent was obtained for each child. We provided age-appropriate information leaflets and assent forms for minors below and above 12 years of age.

The protocol of this study was approved by the Ethical Review Board of the University Hospitals/KU Leuven under reference ML8601, as well as by all participating hospitals. The study authors obtained ethics approval from their regional research ethics committees before the study for the initial data collection of the included datasets.

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# RESULTS

# **Baseline characteristics**

Children were recruited across Flanders at 92 GP surgeries, 6 outpatient paediatric clinics and 6 emergency departments, involving 276 physicians (170 GPs and 106 paediatricians): 33% were male, with a median clinical practice experience of 13 years (range 0 – 40 years). We included 8664 new illness episodes in 7355 children between February 15<sup>th</sup> 2013 and February 28<sup>th</sup> 2014. (**Figure 2**) 1322 children were included with 2 separate illness episodes, 525 children with 3 and 379 with 4 or more.

The children's median age was 2 years (interquartile range 1-4.1) and 3897 were boys (53.0%).

# **Outcome verification**

We identified 1025 admissions to hospital for >24 hours, of which 283 were for a serious infection. (**Table 1**) No patient died during this study.

Baseline characteristics	serious infection (n=283)	no serious infection (n=8381)
		- // - />
median age in years (IQR)	1.8 (0.8-4.2)	2 (1-4.1)
sex, male (%)	150 (53.0)	4460 (53.3)
recruited in general practice (n=3147)	11	3136
recruited at paediatric outpatient clinic (n=2895)	75	2820
recruited at emergency department (n=2622)	197	2425
final outcome (admission >24h with)		
sepsis	10	0
meningitis	17	0
appendicitis	15	0
pneumonia	163	0
osteomyelitis	0	0
cellulitis	3	0
bacterial gastro-enteritis with dehydration	21	0
complicated urinary tract infection	54	0
non-serious infection	0	8381

Table 1: Baseline characteristics for children with or without a serious infection

IQR: interquartile range; h: hours

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The prevalence of serious infections was 3.3% (95%Cl 2.9 - 3.7%), increasing significantly from 0.3% (95%Cl 0.1-0.6) in general practice over 2.6% (95%Cl 2.0-3.2) in paediatric outpatients to 7.5% (95%Cl 6.5-8.5) in the ED setting.

There were only 11 cases of serious infection in the GP setting, of which eight pneumonia, two a complicated urinary tract infection and one appendicitis. All 27 cases of sepsis and meningitis were identified in the specialist setting of whom 16 children had a viral meningitis (mostly Enterovirus or Herpes simplex), 1 had a bacterial meningeal infection (Group B Streptococcus), 5 had Streptococcus pneumoniae sepsis, 1 had Haemophilus influenzae type B sepsis (despite evidence of prior immunization), 1 Neisseria meningitidis sepsis, and 3 had uropathogenic sepsis (e.g. Escherichia coli).

## I. Accuracy of individual features

In the GP setting, only gut feeling, fever >1 day, eating or drinking less, and being less active had sensitivities above 80% (**Supplementary File 2**). In ambulatory paediatrics and the ED, overall sensitivities were even lower, with only fever duration >1 day and fever not reducing to normal temperatures after antipyretics having sensitivities above 80%.

Red flags (specificity >99%) included reduced consciousness, bloody diarrhoea, inconsistent speech, abnormal skin turgor and fontanel tension, petechial rash, meningeal irritation, nasal flaring, cyanosis, reduced peripheral circulation and peritoneal irritation.

The areas under the ROC curves (AUC) for temperature, breathing and heart rate per setting were low (0.58-0.69), except for breathing rate in the GP setting (AUC 0.80; 95%CI 0.63-0.97), probably due to the high number of pneumonia cases in this setting (Supplementary File 3).

## II. Validation of the 4-step decision tree

**Figure 3** shows all diagnostic properties of the decision tree per setting. In general practice, sensitivity was 100% (95%Cl 71.5-100) and specificity 77.7% (95%Cl 76.2-79.1), and 23% of children seen by the GP tested positive on the tree. Sensitivity and specificity was lower in both specialist settings, although confidence intervals overlap.

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The diagnostic value of the tree for pneumonia, urinary tract infection and sepsis/meningitis is reported in **Table 2**. For pneumonia, the diagnostic characteristics were almost identical to those for the composite outcome of serious infections, which is unsurprising since pneumonia cases made up 58% of all serious infections. Specificity was higher for complicated urinary tract infection (88.5%, 95%CI 87.3-89.5%).

For sepsis and meningitis, sensitivity was 69.6% (95%CI 47.1-86.8%) in the ED, where the large majority of cases were seen.

setting		pneumonia	subgroups serious infections UTI	sepsis/meningitis
all	sens spec	<b>80.4</b> (73.4-86.2) <b>64.8</b> (63.8-65.8)	<b>66.7</b> (52.5-78.9) <b>64.1</b> (63.1-65.2)	<b>66.7</b> (52.5-78.9) <b>64.1</b> (63.1-65.2)
GP	sens spec	<b>100</b> (63.1-100) <b>79.2</b> (77.7-80.6)	<b>100</b> (15.8-100) <b>88.5</b> (87.3-89.5)	no cases
Paed	sens spec	<b>84.3</b> (71.4-93.0) <b>59.9</b> (58.1-61.7)	<b>73.3</b> (44.9-92.2) <b>59.3</b> (57.5-61.1)	<b>73.3</b> (44.9-92.2) <b>59.3</b> (57.5-61.1)
ED	sens spec	<b>76.9</b> (67.6-84.6) <b>54.9</b> (53.0-56.9)	<b>62.2</b> (44.8-77.5) <b>53.9</b> (51.9-55.8)	<b>62.2</b> (44.8-77.5) <b>53.9</b> (51.9-55.8)

Table 2: Results for pneumonia, urinary tract infection and sepsis/meningitis.

GP: general practice; Paed: paediatric outpatient clinic; ED: emergency department; sens: sensitivity; spec: specificity; all diagnostic characteristics are given with their respective 95% confidence intervals in brackets; UTI: complicated urinary tract infections; sepsis/meningitis: composite group of sepsis and meningitis cases

## **Optimized & pragmatic thresholds**

Figure 4 illustrates the threshold changes, when (I) optimizing the splits of the decision tree

variables using CART, and (II) applying the pragmatic approach.

In the GP setting, using the pragmatic "temperature" threshold of 40°C, sensitivity remained at 100% (95%CI 71.5-100%) and specificity was 83.6% (95%CI 82.3-84.9%), which is higher than the value obtained with the original tree (but lower than that with the optimal threshold

(40.7°C) of 85.4% (95%CI 84.1-86.6%)).

In the specialist settings, these strategies increased sensitivity up to 92.0% (95%CI 83.4-

97.0%), however at the expense of a lower specificity up to 44.8% (95%CI 43.0-46.7%).

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The sensitivity analyses revealed similar sensitivities and specificities with overlapping

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## DISCUSSION

## Summary

Validating the 4-step decision tree in a new and independent but similar population nine years after the derivation study, demonstrated a sensitivity and NPV of 100% in the GP setting, thus confirming its usefulness to rule out serious infections in general practice. This perfect sensitivity suggests that current practice could be improved by using the tree since four of the 11 children with a serious infection were initially not identified at first presentation. A clinical decision tree that is able to rule out serious infections is especially useful in low prevalence situations. There were only 11 hospital admissions for a serious infection in the GP setting (0.3%), most of which were pneumonia (8 cases) and there were no cases of sepsis or meningitis. This very low prevalence is comparable to that in the derivation study (0.4% in the GP setting).[6]

In the paediatric outpatient clinic and ED settings, the tree did not provide useful rule out value, although sensitivity rose considerably to 92% in the paediatric outpatient clinic setting if the thresholds were optimized.

Using pragmatic thresholds allowed us to enhance overall clarity and ease-of-use, without losing diagnostic accuracy in the GP and paediatric outpatient setting.

## Strengths and limitations

This was a prospective multi-centre validation study of the 4-step decision tree in a large and similar population of children. We included almost 9000 illness episodes, which makes this study one of the largest cohorts of children with acute illness.[15 16]

The Belgian healthcare system allows for unlimited access to paediatric outpatient clinics and emergency departments, alongside general practice. This provides us with a unique opportunity to examine acutely ill children in different urgent-access settings.

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To ensure identification of all admissions for serious infection, the outcome was measured through three complementary strategies. Nonetheless this verification depended on the quality of medical records and follow-up.

We asked the participating physicians to record a list of standardized clinical features, which could lead to additional testing and potentially facilitating a diagnosis of serious infection (work-up bias), inflating sensitivity and specificity.[17] For this reason, the outcome was defined as hospital admission for a serious infection, rather than hospital admission or serious infection.

## Comparison with existing literature

Very few studies have validated clinical prediction rules of vital signs and symptoms in acutely ill children in primary care.[5] Most research has been performed in secondary care, with varying results.[8 15 18 19]To our knowledge, there is only one prior study, which conducted a retrospective validation in a low prevalence setting, and found a sensitivity of 90% for the 4-step decision tree.[7]

# Implications for clinicians

Signs and symptoms are the first available tests to support clinical decision making in primary care.[20] Clinician's feeling that "something is wrong" (gut feeling) is confirmed to be an important predictor of serious infection.[6] Other red flags, such as cyanosis, poor peripheral circulation, meningeal irritation and petechial rash are useful as they raise the probability of serious infections, but are rarely present.[5]

Physicians often choose not to measure vital signs, assuming them to be normal, however most recent guidelines advice to measure vital signs,[13 21] as they might act as a red flag for serious infection, and this is confirmed by the results of our study.

The decision tree consisting of gut feeling, dyspnoea, temperature >40°C and diarrhoea is able to safely exclude serious infection that warrants hospital admission in children in general practice.

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However, 17% of acutely ill children will be labelled as potentially at risk of a serious infection of whom 98% will be false positive. Consequently, appropriate additional strategies such as rapid laboratory testing or watchful waiting with adequate safety netting need to be put in place to reduce unnecessary referrals.

#### Implications for research

Blood tests are currently rarely performed in acutely ill children in primary care, because the result becomes available too late to influence clinical decision-making. In adults, rapid laboratory tests such as C-reactive protein have shown to be useful in improving the management of lower respiratory tract infections.[22]

Future research might be able to establish the exact role of such tests in the management of acutely ill children presenting to ambulatory care. 

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JV, ML, ADS, AVDB, BA, FB conceived the study. JV, ML, TDB supervised data collection, performed data follow up and data cleaning. JV performed the analyses, which were discussed with AVDB, BS and FB. JV drafted this report and ML, TDB, ADS, DB, BA, BS, AVDB and FB co-drafted and commented on the final version. All authors have read and approved the final manuscript.

### **COMPETING INTERESTS**

All authors have completed the ICMJE uniform disclosure form at <u>www.icmje.org/coi\_disclosure.pdf</u> and declare: no support from any organisation for the submitted work; no financial relationships with any organisations that might have an interest in the submitted work in the previous three years; no other relationships or activities that could appear to have influenced the submitted work. DMAB is a recipient of a senior clinical investigator fellowship from the Research Foundation Flanders (FWO).

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## **DATA SHARING STATEMENT**

All data for these analyses are included in the manuscript or online appendices. No additional data available.

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# **FIGURES & SUPPLEMENTARY FILES**

Figure 1: 4-step decision tree developed by Van den Bruel et al.[6]

SI: serious infections: GP: general practitioner; yrs: years; red boxes: comprises children testing positive on the decision tree; green box: comprises children testing negative on the decision tree

Figure 2: Flowchart of inclusions in recruited children

Figure 3: validation results of 4-step decision tree for all serious infections

GP: general practice; Paed: paediatric outpatient clinic; ED: emergency department; prevalence: prevalence of serious infection within this setting; LR: likelihood ratio; PV: predictive value; 95%CI: 95% confidence intervals

Figure 4: validation results after applying optimized and pragmatic thresholds to 4-step decision tree

Yellow boxes: threshold changes after applying the optimization using classification and regression tree analysis (CART); orange boxes: additional threshold changes after applying the pragmatic approach; sensitivity and specificity are given for every tree with their respective 95% confidence intervals in brackets; y: years

## **BMJ Open**

Supplementary File 1: clinical features and number (%) of missing values n/N: number of children with a missing value for this predictor out of all children; sec: seconds; GP: general practice; Paed: paediatric outpatient clinic; ED: emergency department

Supplementary File 2a: bivariable analyses of clinical features to identify serious infections in the general practice setting

LR+: positive likelihood ratio; LR-: negative likelihood ratio; PPV: positive predictive value; NPV: negative predictive value; 95%CI: 95% confidence intervals

Supplementary File 2b: bivariable analyses of clinical features to identify serious infections in the specialist setting

LR+: positive likelihood ratio; LR-: negative likelihood ratio; PPV: positive predictive value; NPV: negative predictive value; 95%CI: 95% confidence intervals

**Supplementary File 3:** Receiver-Operating-Characteristic (ROC) curves for the vital signs measurements on a continuous scale per setting.

GP: general practice; specialist setting: paediatric outpatient clinic and emergency department setting combined; circles and triangles: scatter plots in GP and specialist setting respectively; regression plot: regression plot using fractional polynomials (smooth function using flexible parameterization for continuous variables). The Area Under the Curves (AUC) values are shown for both settings (black: GP setting; grey: specialist setting) in every graph. For oxygen saturation the inverse of the absolute value was used, as lower values tend to correspond with more severe cases.





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setting	prevalence	sensitivity (95% CI)	specificity (95% CI)	LR (95% C negative pos	) PV (9 tive negative	5% CI) positive						
all	3.3%	74.2 (68.7-79.2)	65.6 (64.6-66.6)	0.4 2.	2 98.7 2.3) (98.4-99.0	6.8 ) (5.9-7.7)						
GP	0.3%	100 (71.5-100)	77.7 (76.2-79.1)	0.1 4. (0.0-0.8) (3.8-	3 100 4.9) (99.8-100	1.6 ) (0.8-2.8)			•			
Paed	2.6%	82.7 (72.2-90.4)	60.5 (58.7-62.3)	0.3 2. (0.2-0.5) (1.9-	1 99.2 2.3) (98.7-99.6	5.3 ) (4.0-13.2)			_		+	
ED	7.5%	69.5 (62.6-75.9)	56.0 (54.0-58.0)	0.5 1. (0.4-0.7) (1.4-	6 95.8 1.8) (94.6-96.8	11.4 ) (9.7-13.3)					+	
							0% 20%	40% 60% 80% sensitivity (95%Cl)	100% 0%	20%	40% 60% 80% ecificity (95%Cl)	100%
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type	variable	values	n/N missing	% missing	n/N "could not be evaluated"	% "could not be evaluated"	n/N "not measured"	% "not measured"
informed concept	aattiaa	1/2/2 (CR/Read/ED)	0/0664	0.0%				
mormed consent	date of birth	date	8/8664	0.1%	-	-	-	-
	sex	0/1 (boy/girl)	3/8664	0.0%	-	-	-	-
age	age in years	# years	3/8664	0.0%	<u> </u>	~	100	-
history taking	presenting complaints	string variable	99/8664	1.1%	-	-	-	-
	chronic condition	string variable	2//0/8004	32.0%	106/9664	- 1.29/	-	-
	child is less active	0/1/2 (no/yes/couldnotevaluate)	228/8664	2.6%	18/8664	0.2%	-	-
	child is sleepy	0/1/2 (no/ves/couldnotevaluate)	260/8664	3.0%	22/8664	0.3%	-	-
	child is hard to wake up	0/1/2 (no/yes/couldnotevaluate)	291/8664	3.3%	16/8664	0.2%	-	-
	child cries a lot	0/1/2 (no/yes/couldnotevaluate)	253/8664	2.9%	14/8664	0.2%	-	-
	child has abnormal behaviour	0/1/2 (no/yes/couldnotevaluate)	275/8664	3.2%	39/8664	0.5%	-	-
	child's speech is inconsistent	0/1/2 (no/yes/couldnotevaluate)	303/8664	3.5%	285/8664	3.3%	-	-
	tever present?	0/1/2 (no/yes/couldnotevaluate)	537/8004 402/0664	6.2%	165/8664	1.9%	-	-
	duration of fever	# dave	403/0004 868/866/	10.0%	-	-	-	-
	fever improvement with antipyretics	n/1/2 (no/ves/couldnotevaluate)	995/8664	11.5%	541/8664	6.2%		
	diarrhoea	0/1/2 (no/yes/couldnotevaluate)	201/8664	2.3%	20/8664	0.2%	-	_
	bloody diarrhoea	0/1/2 (no/yes/couldnotevaluate)	393/8664	4.5%	11/8664	0.1%	-	-
	stomach ache	0/1/2 (no/yes/couldnotevaluate)	344/8664	4.0%	400/8664	4.6%	-	-
	vomiting	0/1/2 (no/yes/couldnotevaluate)	257/8664	3.0%	25/8664	0.3%	-	-
	persistent vomiting	0/1/2 (no/yes/couldnotevaluate)	444/8664	5.1%	18/8664	0.2%	-	-
	bile-stained vomiting	0/1/2 (no/yes/couldnotevaluate)	496/8664	5.7%	17/8664	0.2%	-	-
	does your child eat and drink less?	0/1/2 (no/yes/couldnotevaluate)	226/8664	2.6%	15/8664	0.2%	-	-
	does your child pee less?	0/1/2 (no/yes/couldnotevaluate)	286/8664	3.3%	159/8664	1.8%	-	-
	short of breath	0/1/2 (no/yes/couldnotevaluate)	340/8664	3.9%	49/8664	0.6%	-	-
	cougning	0/1/2 (no/yes/couldnotevaluate)	279/0664	2.0%	12/8004	0.1%	-	-
	neck nain	0/1/2 (no/yes/couldnotevaluate)	297/8664	3.4%	457/8664	5.3%		
observation	aut feeling something is wrong	0/1/2 (no/yes/couldnotevaluate)	334/8664	3.9%	72/8664	0.8%	-	-
	clinical impression child is seriously ill	0/1/2 (no/ves/couldnotevaluate)	282/8664	3.3%	62/8664	0.7%		-
	child is irritable	0/1/2 (no/ves/couldnotevaluate)	270/8664	3.1%	7/8664	0.1%	-	-
	child is drowsy	0/1/2 (no/yes/couldnotevaluate)	272/8664	3.1%	3/8664	0.0%	-	-
	child had reduced consciousness	0/1/2 (no/yes/couldnotevaluate)	265/8664	3.1%	2/8664	0.0%		
	child is inconsolable	0/1/2 (no/yes/couldnotevaluate)	271/8664	3.1%	6/8664	0.1%	-	-
	child is moaning	0/1/2 (no/yes/couldnotevaluate)	265/8664	3.1%	7/8664	0.1%		-
	child has nasal flaring	0/1/2 (no/yes/couldnotevaluate)	271/8664	3.1%	9/8664	0.1%	-	-
	chestwall retractions	0/1/2 (no/yes/couldnotevaluate)	276/8664	3.2%	8/8664	0.1%	-	
	child laughs less	0/1/2 (no/yes/couldnotevaluate)	2/3/8664	3.2%	33/8664	0.4%	-	-
cinical examination	signs of agute atitis modia	0/1/2 (no/yes/couldnotevaluate)	353/9664	4.1%	10/0004	0.2%	-	-
	bilateral otitis media	0/1/2 (no/yes/couldnotevaluate)	401/8664	4.170	21/8664	0.3%		
	discharging ears	0/1/2 (no/yes/couldnotevaluate)	496/8664	5.7%	11/8664	0.1%	-	
	extensive adenopathy	0/1/2 (no/ves/couldnotevaluate)	339/8664	3.9%	11/8664	0.1%	-	-
	redness and or swelling of face	0/1/2 (no/yes/couldnotevaluate)	342/8664	3.9%	4/8664	0.0%	-	-
	purulent conjunctivae	0/1/2 (no/yes/couldnotevaluate)	330/8664	3.8%	3/8664	0.0%	-	-
	bilateral purulent conjunctivae	0/1/2 (no/yes/couldnotevaluate)	353/8664	4.1%	2/8664	0.0%	-	-
	dyspnea	0/1/2 (no/yes/couldnotevaluate)	330/8664	3.8%	13/8664	0.1%	-	-
	crepitations (crackling)	0/1/2 (no/yes/couldnotevaluate)	334/8664	3.9%	11/8664	0.1%	-	-
	reduced breathing sounds	0/1/2 (no/yes/couldnotevaluate)	348/8664	4.0%	9/8664	0.1%	-	-
	monchi	0/1/2 (no/yes/couldnotevaluate)	292/8004	3.4%	8/8004	0.1%	-	-
	peritoneal irritation	0/1/2 (no/yes/couldnotevaluate)	507/8664	5.9%	20/8664	0.2%	-	
	petechial rash	0/1/2 (no/ves/couldnotevaluate)	332/8664	3.8%	3/8664	0.0%	-	
	meningeal irritation	0/1/2 (no/ves/couldnotevaluate)	344/8664	4.0%	10/8664	0.1%	-	
	reduced peripheral circulation	0/1/2 (no/ves/couldnotevaluate)	341/8664	3.9%	5/8664	0.1%	-	-
	pale	0/1/2 (no/yes/couldnotevaluate)	333/8664	3.8%	6/8664	0.1%	-	-
	skin turgor	0/1/2 (no/yes/couldnotevaluate)	342/8664	3.9%	17/8664	0.2%	-	-
		0/1/2/3/4 (normal/bulged/						
	200 A	couldnotevaluate/sunken/not						
	fontanel tension	applicable)	368/8664	4.2%	27/8664	0.3%	-	-
	swollen limb, non weight bearing extremity	0/1/2 (no/yes/couldnotevaluate)	2354/8664	27.2%	16/8664	0.2%	-	-
	measured temperature	(couldnotevaluate/notmeasured)	1484/8664	17.1%	31/8664	0.4%	555/8664	6.4%
	highest temperature (measured or reported)	(could actovaluate/potmoscured)	420/8664	4 99/	2/9664	0.0%	113/8664	1 30/
	breathing rate	#/min	2671/8664	30.8%	183/866/	2 1%	3/10/866/	30.5%
	heart rate	#/min	2466/8664	28.5%	180/8664	2.1%	2898/8664	33.4%
	oxygen saturation	%	2567/8664	29.6%	212/8664	2.4%	3195/8664	36.9%
	capillary refill	# sec	2373/8664	27.4%	25/8664	0.3%	2595/8664	30.0%
diagnosis	working diagnosis	string variable	202/8664	2.3%		-		-
		urzid/4/5						
treatment	antinvitics	naracetamol/ihuprofen/both)	781/8664	9.0%	S/BSSA	0.1%		
a solution.	antibiotics	0/1 (no/ves)	1162/8664	13 4%	0/0004	0.170		
	delayed antibiotic preacription	0/1 (no/yea)	2014/8664	23.2%	-	-		
	I believe the parents expect antibiotics	0/1/2 (no/yes/couldnotevaluate)	2426/8664	28.0%	519/8664	6.0%	-	-
and a seal that a to	extra tests?	0/1/2 (no/yes/couldnotevaluate)	1120/8664	12.9%	3/8664	0.0%	•	
reienal/lesis				0.0000000000000000000000000000000000000				
reienai/lesis	blood test?	0/1 (no/yes)	2554/8664	29.5%	-		-	-
reierrai/tests	blood test? X-ray?	0/1 (no/yes) 0/1 (no/yes)	2554/8664 2636/8664	29.5% 30.4%	-	-	-	
referraintests	blood test? X-ray? urine test?	0/1 (no/yes) 0/1 (no/yes) 0/1 (no/yes)	2554/8664 2636/8664 1795/8664	29.5% 30.4% 20.7%	-	-	-	-

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уре	variable	sensitivity	95% CI	specificity	95% CI	LR+	95% CI	LR-	95% CI	PPV	95% C	I NPV	95% (
iston taking	illness is different from provinus illnesses	20.0	25 55 6	86.1	848 873	14	04 50	0.0	07 13	0.5	01 1	7 00 7	00 / 0
ilotory taking	child is less active	81.8	48.2 97.3	60.4	58.6 62.1	2.1	1.6 2.7	0.3	0.1 1.1	0.7	0.3 1	4 99.9	99.6 10
	child is sleepy	72.7	39.0 94.0	72.4	70.8 74.0	2.6	1.8 3.8	0.4	0.1 1.0	0.9	0.4 1	8 99.9	99.6 10
	child is hard to wake up	18.2	2.3 51.8	97.1	96.4 97.6	6.2	1.7 22.0	0.8	0.6 1.1	2.2	0.3 7	6 99.7	99.4 9
	child cries a lot	63.6	30.8 89.1	69.2	67.5 70.8	2.1	1.3 3.2	0.5	0.2 1.2	0.7	0.3 1	5 99.8	99.5 9
	child has abnormal behaviour	20.0	2.5 55.6	91.7	90.6 92.6	2.4	0.7 8.4	0.9	0.6 1.2	0.8	0.1 2	8 99.7	99.4 9
	child's speech is inconsistent	9.1	0.2 41.3	99.2	98.8 99.5	11.6	1.7 78.5	0.9	0.8 1.1	4.2	0.1 2	.1 99.7	99.4 9
	highest fever measured ≥ 39.5°C	27.3	6.0 61.0	73.1	71.1 74.9	1.0	0.4 2.7	1.0	0.7 1.4	0.5	0.1 1	5 <b>99.5</b>	99.0 9
	highest fever measured ≥ 40.0°C	18.2	2.3 51.8	3 <b>90.0</b>	88.6 91.2	1.8	0.5 6.4	0.9	0.7 1.2	0.9	0.1 3	2 99.5	99.1 9
	fever duration ≥ 1 day	100.0	71.5 100.	0 <b>0.6</b>	0.3 1.1	1.0	0.9 1.1	6.3	0.4 99.8	0.5	0.3 1	.0 100.0	75.3 1
	fever duration ≥ 4 days	27.3	6.0 61.0	91.1	89.7 92.3	3.1	1.2 8.1	0.8	0.6 1.2	1.6	0.3 4	7 99.6	99.2 9
	fever improves with antipyretics	77.8	40.0 97.2	2 9.4	8.1 10.8	0.9	0.6 1.2	2.4	0.7 8.1	0.4	0.2 0	.9 <b>98.8</b>	95.8
	diarrhoea	20.0	2.5 55.6	85.5	84.2 86.8	1.4	0.4 4.8	0.9	0.7 1.3	0.4	0.1 1	.6 99.7	99.4
	bloody diarrhoea	0.0	0.0 33.6	6 <b>99.7</b>	99.4 99.9	15.9	1.0 256.0	1.0	0.8 1.1	0.0	0.0 33	1.6 <b>99.7</b>	99.4
	stomach ache	60.0	26.2 87.8	<b>78.6</b>	77.1 80.1	2.8	1.7 4.7	0.5	0.2 1.1	1.0	0.4 2	1 99.8	99.6 1
	vomiting	30.0	6.7 65.2	2 <b>83.6</b>	82.2 84.8	1.8	0.7 4.7	0.8	0.6 1.3	0.6	0.1 1	7 <b>99.7</b>	99.4
	persistent vomiting	0.0	0.0 33.6	<b>97.4</b>	96.8 97.9	1.9	0.1 28.6	1.0	0.8 1.1	0.0	0.0 4	.6 <b>99.7</b>	99.4
	bile-stained vomiting	0.0	0.0 33.6	98.8	98.4 99.2	4.2	0.3 64.4	1.0	0.8 1.1	0.0	0.0 10	0.0 <b>99.7</b>	99.4
	child eats and drinks less	90.0	55.5 99.7	57.9	56.2 59.7	2.1	1.7 2.6	0.2	0.0 1.1	0.7	0.3 1	.3 <b>99.9</b>	99.7
	child pees less	40.0	12.2 73.8	91.6	90.6 92.6	4.8	2.2 10.3	0.7	0.4 1.1	1.6	0.4 4	0 <b>99.8</b>	99.5
	short of breath	50.0	18.7 81.3	88.2	87.0 89.3	4.2	2.3 7.9	0.6	0.3 1.1	1.4	0.4 3	2 <b>99.8</b>	99.6
	coughing	72.7	39.0 94.0	40.3	38.5 42.0	1.2	0.8 1.8	0.7	0.3 1.8	0.4	0.2 0	8 99.8	99.3
	headache	10.0	0.3 44.5	5 86.2	84.8 87.4	0.7	0.1 4.7	1.0	0.8 1.3	0.2	0.0 1	4 99.6	99.3
	neck pain	0.0	0.0 30.8	3 <b>97.0</b>	96.3 97.6	1.5	0.1 22.7	1.0	0.9 1.1	0.0	0.0 4	.2 <b>99.6</b>	99.3
servation	gut feeling something is wrong	80.0	44.4 97.5	5 <b>89.0</b>	87.8 90.1	7.3	5.3 10.1	0.2	0.1 0.8	2.4	1.0 4	6 <b>99.9</b>	99.7
	clinical impression child is seriously ill	50.0	18.7 81.3	91.0	89.9 92.0	5.5	3.0 10.4	0.6	0.3 1.0	1.8	0.6 4	1 99.8	99.6
	child is irritable	40.0	12.2 73.8	<b>92.1</b>	91.1 93.3	5.1	2.4 10.9	0.7	0.4 1.1	1.6	0.4 4	1 99.8	99.5
	child is drowsy	20.0	2.5 55.6	96.6	95.9 97.2	5.8	1.7 20.4	0.8	0.6 1.1	1.9	0.2 6	6 99.7	99.5
	child had reduced consciousness	10.0	0.3 44.5	5 <b>99.7</b>	99.4 99.9	34.0	4.7 244.0	0.9	0.7 1.1	10.0	0.3 44	.5 99.7	99.4
	child is inconsolable	0.0	0.0 30.8	<b>97.6</b>	97.0 98.1	1.9	0.1 28.7	1.0	0.9 1.1	0.0	0.0 4	9 99.7	99.4
	child is moaning	10.0	0.3 44.5	98.4	97.9 98.8	6.4	1.0 41.8	0.9	0.7 1.1	2.0	0.1 10	99.7	99.4
	child has nasal flaring	10.0	0.3 44.5	5 <b>99.4</b>	99.1 99.7	17.0	2.5 115.0	0.9	0.7 1.1	5.3	0.1 26	.0 <b>99.7</b>	99.4
	chestwall retractions	20.0	2.5 55.6	5 <b>97.8</b>	97.2 98.3	9.1	2.6 32.2	0.8	0.6 1.1	2.9	0.4 10	0.1 <b>99.7</b>	99.5
	child laughs less	70.0	34.8 93.9	89.9	88.8 91.0	6.9	4.6 10.6	0.3	0.1 0.9	2.2	0.9 4	.5 <b>99.9</b>	99.7
ical examination	pus on tonsils	70.0	34.8 93.3	89.9	88.8 91.0	6.9	4.6 10.6	0.3	0.1 0.9	2.2	0.9 4	.5 99.9	99.7
	signs of acute otitis media	30.0	6.7 65.3	2 80.9	79.4 82.2	1.7	0.7 4.0	0.8	0.6 1.3	0.5	0.1 1	5 99.7	99.4
	bilateral otitis media	20.0	2.5 55.6	92.0	90.9 92.9	2.5	0.7 8.7	0.9	0.6 1.2	0.8	0.1 2	.9 99.7	99.4
	discharging ears	0.0	0.0 33.6	98.2	97.7 98.7	2.8	0.2 42.6	1.0	0.8 1.1	0.0	0.0 6	.9 99.7	99.4
	extensive adenopathy	22.2	2.8 60.0	89.4	88.2 90.5	2.1	0.6 7.2	0.9	0.6 1.2	0.6	0.1 2	2 99.7	99.5
	redness and or swelling of face	0.0	0.0 30.8	95.8	95.0 96.5	1.1	0.1 16.3	1.0	0.9 1.1	0.0	0.0 2	.9 99.7	99.4
	purulent conjunctivae	0.0	0.0 30.8	95.6	94.8 96.3	1.0	0.1 15.6	1.0	0.9 1.1	0.0	0.0 2	7 99.7	99.4
	bilateral purulent conjunctivae	0.0	0.0 30.8	97.5	96.8 98.0	1.8	0.1 26.9	1.0	0.9 1.1	0.0	0.0 4	7 99.7	99.4
	dyspnea	40.0	12.2 73.8	94.7	93.8 95.5	7.6	3.5 16.4	0.6	0.4 1.1	2.4	0.7 6	1 99.8	99.5
	crepitations (crackling)	10.0	0.3 44.5	5 95.3	94.5 96.0	2.1	0.3 13.8	0.9	0.8 1.2	0.7	0.0 3	.8 99.7	99.4
	reduced breathing sounds	0.0	0.0 30.8	3 <b>97.9</b>	97.3 98.3	2.1	0.1 31.9	1.0	0.9 1.1	0.0	0.0 5	.5 99.7	99.4
	rhonchi	50.0	18.7 81.3	83.6	82.2 84.9	3.1	1.6 5.7	0.6	0.3 1.1	1.0	0.3 2	.3 99.8	99.5
	cyanosis	0.0	0.0 30.8	99.9	99.7 100.0	30.6	1.8 535.0	1.0	0.8 1.1	0.0	0.0 6	.2 99.7	99.4
	peritoneal irritation	11.1	0.3 48.2	99.4	99.1 99.6	18.8	2.8 126.0	0.9	0.7 1.1	5.3	0.1 2	5.0 <b>99.7</b>	99.5
	petechial rash	0.0	0.0 30.8	99.7	99.4 99.9	14.6	0.9 235.0	1.0	0.8 1.1	0.0	0.0 3	B.6 99.7	99.4
	meningeal irritation	0.0	0.0 30.8	99.7	99.4 99.9	14.5	0.9 234.0	1.0	0.8 1.1	0.0	0.0 3	B.6 99.7	99.4
	reduced peripheral circulation	0.0	0.0 30.8	99.7	99.1 99.6	7.5	0.5 116.0	1.0	0.8 1.1	0.0	0.0 1	8.5 <b>99.7</b>	99.4
	pale	10.0	0.3 44.5	5 <b>95.0</b>	94.2 95.8	2.0	0.3 13.0	0.9	0.8 1.2	0.7	0.0 3	.6 99.7	99.4
	abnormal skin turgor	0.0	0.0 30.8	3 <b>99.8</b>	99.5 99.9	18.3	1.1 302.0	1.0	0.8 1.1	0.0	0.0 4	I.0 99.7	99.4
	abnormal fontanel tension	0.0	0.0 45.9	99.7	99.4 99.9	223.1	1.5 363.0	0.9	0.8 1.1	0.0	0.0 3	.9 <b>99.8</b>	99.5
	swollen limb or non weight bearing extremity	0.0	0.0 45.9	99.5	99.2 99.8	14.8	1.0 228.0	0.9	0.8 1.2	0.0	0.0 2	8.5 99.7	99.5
	measured temperature ≥ 39.5°C	0.0	0.0 33.6	3 96.1	95.3 96.9	1.3	0.1 19.3	1.0	0.9 1.1	0.0	0.0 4	.2 99.6	99.2
	measured temperature > 40.0°C	0.0	0.0 33.6	98.4	97.7 98.8	3.0	0.2 45.6	1.0	0.8 1.1	0.0	0.0 9	5 99.6	99.2
	highest temperature (measured or reported) ≥ 39.5°C	27.3	6.0 61.0	77.9	76.3 79.4	1.2	0.5 3.2	0.9	0.7 1.3	0.5	0.1 1	.4 99.6	99.3
	highest temperature (measured or reported) ≥ 40.0°C	18.2	2.3 51.8	91.6	90.5 92.6	2.2	0.6 7.6	0.9	0.7 1.2	0.8	0.1 3	.0 99.7	99.3
	breathing rate ≥ 50/min	33.3	4.3 77.3	93.4	91.7 94.8	5.0	1.6 16.0	0.7	0.4 1.3	2.9	0.4 10	0.1 <b>99.6</b>	98.9
	heart rate ≥ 150/min	12.5	0.3 52.7	96.3	95.3 97.2	3.4	0.5 21.6	0.9	0.7 1.2	1.6	0.0 8	7 99.6	99.1
	oxygen saturation ≤ 95%	0.0	0.0 52.2	88.8	87.0 90.5	0.7	0.1 10.6	1.0	0.8 1.3	0.0	0.0 2	.5 99.6	99.0
	canillary refill > 3 seconds	0.0	0.0 70.8	90.4	88.5 92.0	1.3	01 174	1.0	07 14	0.0	0.0 3	3 99 7	99.2

184x184mm (300 x 300 DPI)



type	variable	sensitivity	95% CI	specificity	95% CI	LR+	95% Cl	LR-	95% C	PPV	95% CI	NPV	95%
history taking	illness is different from previous illnesses	1.6	04 40	98.9	98.6 99.2	14	05 39	10	10 1	68	1.9 16	95.2	94.6
notory taning	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.	7.1	0.2 33.	95.1	94.5
	child is sleeny	0.4	0.0 21	99.7	99.6 99.9	1.5	0.2 11.4	10	10 1	7.1	0.2 33	95.1	94.5
	child is bard to wake up	0.4	0.0 2.1	00.8	00.6 00.0	2.0	0.2 15.2	1.0	10 1	0 0 1	0.2 41	05 1	04.5
	child cries a lot	0.0	0.0 1.4	99.8	99.6 99.9	0.0	0.1 15.6	1.0	10 1	0.0	0.0 30	051	94.4
	child has shoernal habeulaur	1.0	0.0 1.4	33.0	99.0 99.9	0.9	4.0 40.0	1.0	1.0 1.	10.0	0.0 30.	05 3	04.9
	child has abriornal benaviour	1.9	0.6 4.5	99.0	99.4 99.7	4.0	1.0 12.2	1.0	1.0 1.	0 19.2	0.0 39.	95.5	94.0
	child's speech is inconsistent	4./	2.5 8.1	97.1	90.0 97.5	1.6	0.9 2.9	1.0	1.0 1.	1.0	4.0 12.0	3 95.3	94.0
	nignest rever measured ≥ 39.5°C	63.7	57.5 69.6	52.3	50.9 53.8	1.3	1.2 1.5	0.7	0.6 0.	8 7.0	6.0 8.1	96.3	95.4
	highest fever measured ≥ 40.0°C	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.	95.9	95.2
	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
	fever duration ≥ 4 days	20.7	15.7 26.8	83.0	81.0 84.2	1.2	0.9 1.6	1.0	0.9 1.	<b>6.3</b>	4.7 8.3	95.0	94.2
	fever improves with antipyretics	81.0	75.2 85.9	10.3	9.3 11.3	0.9	0.8 1.0	1.9	1.4 2.	5 <b>5.0</b>	4.3 5.8	90.3	87.1
	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 <b>6.1</b>	4.8 7.7	95.5	94.8
	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.	95.3	94.7
	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.	95.8	95.1
	vomiting	28.4	23.0 34.2	78.1	76.9 79.2	1.3	1.1 1.6	0.9	0.8 1.	6.3	5.0 7.8	95.5	94.8
	persistent vomiting	8.9	5.7 13.3	96.1	95.5 96.6	2.3	1.5 3.5	0.9	0.9 1.	0 10.3	6.6 15.	95.5	94.8
	bile-stained vomiting	4.5	2.2 7.8	98.9	98.0 99.2	4.1	2.2 7.8	1.0	0.9 1.	0 17.2	8.9 28.	95.3	94.7
	child eats and drinks less	64.1	58.0 69.0	54.3	52.9 55.7	1.4	1.3 1.5	0.7	0.6 0.	6.8	5.8 7.8	96.7	96.0
	child pees less	22.4	17.4 28.1	86.9	86.0 87.8	17	14 22	0.9	0.8 1	7.9	6.0 10	95.7	95.1
	short of breath	24.7	10.6 30	84.8	837 858	16	13 20	0.0	0.8 1	78	61 00	95.6	04.0
	couching	61.5	55 4 67	42.5	41.1 43.0	1.0	10 12	0.0	0.0 1.	1 53	45 61	05.5	04.6
	baadaaba	01.5	50.40	42.5	41.1 43.8	1.1	1.0 1.2	0.5	0.0 1.		4.0 0.1	05.0	04.0
	neadache	8.1	5.0 12.4	93.3	92.5 94.0	1.2	0.8 1.9	1.0	0.9 1.	5./	3.4 8.7	95.3	94.7
	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.	U 11.U	5.4 19.	5 95.4	94.8
bservation	gut feeling something is wrong	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 <b>96.7</b>	96.2
	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.	B 18.7	15.1 22.	<b>96.3</b>	95.8
	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 <b>8.8</b>	6.5 11.	95.5	94.9
	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.	95.4	94.8
	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 <b>5.0</b>	0.1 24.	95.2	94.6
	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.	9.5	6.2 13.	95.4	94.8
	child is moaning	12.5	8.7 17.3	98.2	97.8 98.5	6.8	4.6 9.9	0.9	0.9 0.	9 25.6	18.2 34.	95.7	95.1
	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.	95.5	94.9
	chestwall retractions	11.7	8.0 16.0	95.0	94.4 95.6	2.4	1.7 3.4	0.9	0.9 1.	0 10.7	7.3 14.	95.5	94.9
	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.	96.1	95.5
				01.0								05.0	
linical examinat	on pus on tonsiis	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
	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
	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.	5.3	3.1 8.4	95.2	94.5
	discharging ears	2.8	1.1 5.7	98.2	978 986	16	0.7 3.4	1.0	1.0 1.	7.5	3.1 14.3	053	946 1
					07.0 00.0	1.0						95.5	04.0
	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.	4.0	1.5 8.5	95.1	94.5
	extensive cervical adenopathy redness and or swelling of face	2.3 5.1	0.9 5.0 2.7 8.5	97.1 97.1	96.6 97.6 96.6 97.6	0.8	0.4 1.8 1.0 3.1	1.0 1.0	1.0 1. 1.0 1.	4.0 8.2	1.5 8.5 4.5 13.1	95.3 95.1 95.2	94.5 94.6
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae	2.3 5.1 3.9	0.9 5.0 2.7 8.5 1.9 7.0	97.1 97.1 96.4	96.6 97.6 96.6 97.6 95.9 96.9	0.8 1.8 1.1	0.4 1.8 1.0 3.1 0.6 2.0	1.0 1.0 1.0	1.0 1. 1.0 1. 1.0 1.	4.0 8.2 5.3	1.5 8.5 4.5 13. 2.6 9.5	95.3 95.1 95.2 95.1	94.5 94.6 94.5 94.5
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae	2.3 5.1 3.9 0.8	0.9 5.0 2.7 8.5 1.9 7.0 0.1 2.8	97.1 97.1 96.4 97.8	96.6 97.6 96.6 97.6 95.9 96.9 97.4 98.2	0.8 1.8 1.1 0.4	0.4 1.8 1.0 3.1 0.6 2.0 0.1 1.4	1.0 1.0 1.0 1.0	1.0 1. 1.0 1. 1.0 1. 1.0 1.	4.0 8.2 5.3 1.8	1.5 8.5 4.5 13. 2.6 9.5 0.2 6.3	95.3 95.1 95.2 95.1 95.1	94.5 94.6 94.5 94.4
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea	2.3 5.1 3.9 0.8 20.9	0.9 5.0 2.7 8.5 1.9 7.0 0.1 2.8 16.1 26.4	97.1 97.1 96.4 97.8 91.8	96.6 97.6 96.6 97.6 95.9 96.9 97.4 98.2 91.0 92.5	0.8 1.8 1.1 0.4 2.6	0.4 1.8 1.0 3.1 0.6 2.0 0.1 1.4 2.0 3.3	1.0 1.0 1.0 1.0 0.9	1.0 1. 1.0 1. 1.0 1. 1.0 1. 0.8 0.	4.0 8.2 5.3 1.8 11.6	1.5 8.5 4.5 13.7 2.6 9.5 0.2 6.3 8.8 14.8	95.3 95.1 95.2 95.1 95.1 95.1 95.8	94.5 94.6 94.5 94.4 95.2
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea crepitations (crackling)	2.3 5.1 3.9 0.8 20.9 19.7	0.9 5.0 2.7 8.5 1.9 7.0 0.1 2.8 16.1 26.4 15.0 25.1	97.1 97.1 96.4 97.8 91.8 90.7	96.6 97.6 96.6 97.6 95.9 96.9 97.4 98.2 91.0 92.5 89.8 91.5	1.0 0.8 1.8 1.1 0.4 2.6 2.1	0.4 1.8 1.0 3.1 0.6 2.0 0.1 1.4 2.0 3.3 1.6 2.7	1.0 1.0 1.0 1.0 0.9 0.9	1.0 1. 1.0 1. 1.0 1. 1.0 1. 1.0 1. 0.8 0. 0.8 0.	4.0 8.2 5.3 1.8 11.6 9.8	1.5 8.5 4.5 13.7 2.6 9.5 0.2 6.3 8.8 14.8 7.4 12.7	95.3 95.1 95.2 95.1 95.1 95.1 95.8 95.8 95.6	94.5 94.6 94.5 94.4 95.2 95.0
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea creptations (crackling) reduced breathing sounds	2.3 5.1 3.9 0.8 20.9 19.7 12.1	0.9 5.0 2.7 8.5 1.9 7.0 0.1 2.8 16.1 26.4 15.0 25.1 8.3 16.7	97.1 97.1 96.4 97.8 91.8 90.7 97.1	96.6 97.6 96.6 97.6 95.9 96.9 97.4 98.2 91.0 92.5 89.8 91.5 96.6 97.6	1.0 0.8 1.8 1.1 0.4 2.6 2.1 4.2	0.4 1.8 1.0 3.1 0.6 2.0 0.1 1.4 2.0 3.3 1.6 2.7 2.9 6.1	1.0 1.0 1.0 0.9 0.9 0.9	1.0 1./ 1.0 1./ 1.0 1./ 1.0 1./ 0.8 0./ 0.8 0./ 0.9 0./	4.0 8.2 5.3 1.8 11.6 9.8 17.8	1.5 8.5 4.5 13.7 2.6 9.5 0.2 6.3 8.8 14.8 7.4 12.7 12.4 24.5	95.3 95.1 95.2 95.1 95.1 95.1 95.8 95.8 95.6 95.6	94.5 94.6 94.5 94.4 95.2 95.0 95.0
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea crepitations (crackling) reduced breathing sounds thorabi	2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0	0.9 5.0 2.7 8.5 1.9 7.0 0.1 2.8 16.1 26.4 15.0 25.1 8.3 16.7 25.5 37.0	97.1 97.1 96.4 97.8 91.8 90.7 97.1 73.8	96.6 97.6 96.6 97.6 95.9 96.9 97.4 98.2 91.0 92.5 89.8 91.5 96.6 97.6 72.5 75.0	1.0 0.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2	0.4 1.8 1.0 3.1 0.6 2.0 0.1 1.4 2.0 3.3 1.6 2.7 2.9 6.1 1.0 1.4	1.0 1.0 1.0 0.9 0.9 0.9	1.0 1.1 1.0 1.1 1.0 1.1 1.0 1.1 0.8 0.1 0.8 0.1 0.9 0.1	4.0 8.2 5.3 1.8 9.11.6 9.8 9.8 17.8 5.8	1.5     8.5       4.5     13.7       2.6     9.5       0.2     6.3       8.8     14.8       7.4     12.7       12.4     24.3       4.6     7.1	95.3 95.1 95.2 95.1 95.1 95.8 95.8 95.6 95.6 95.6	94.5 94.6 94.5 94.4 95.2 95.0 95.0 94.7
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea crepitations (crackling) reduced breathing sounds rhonchi	2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0	0.9 5.0 2.7 8.5 1.9 7.0 0.1 2.8 16.1 26.4 15.0 25.1 8.3 16.7 25.5 37.0	97.1 97.1 96.4 97.8 91.8 90.7 97.1 73.8 99.8	91.6     97.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       89.8     91.5       96.6     97.6       72.5     75.0       99.6     90.0	1.0 0.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5	0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4	1.0 1.0 1.0 0.9 0.9 0.9 0.9 0.9	1.0 1.1 1.0 1.1 1.0 1.1 1.0 1.1 0.8 0.1 0.8 0.1 0.9 0.1 0.9 1.1 1.0 1.1	4.0 8.2 5.3 1.8 9.11.6 9.8 17.8 5.8 5.8	1.5     8.5       4.5     13.7       2.6     9.5       0.2     6.3       8.8     14.8       7.4     12.7       12.4     24.3       4.6     7.1       7.3     5.2	95.3 95.1 95.2 95.1 95.1 95.8 95.6 95.6 95.6 95.4 95.4	94.5 94.6 94.5 94.4 95.2 95.0 95.0 94.7 94.6
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea crepitations (crackling) reduced breathing sounds rhonchi cyanosis cyanosis	2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1	0.9 5.0 2.7 8.5 1.9 7.0 0.1 2.8 16.1 26.4 15.0 25.1 8.3 16.7 25.5 37.0 0.4 3.9	97.1 97.1 96.4 97.8 91.8 90.7 97.1 73.8 99.8 99.8	96.6     97.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       89.8     91.5       96.6     97.6       97.7     75.0       99.9     9.0	1.0 0.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5	0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9       6.4     25.2	1.0 1.0 1.0 0.9 0.9 0.9 0.9 1.0	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.8 0.0 0.8 0.0 0.9 0.0 0.9 1.0 1.0 1.0	4.0 8.2 5.3 1.8 11.6 9.8 17.8 5.8 25.0 27.0	1.5     8.5       4.5     13.1       2.6     9.5       0.2     6.3       8.8     14.8       7.4     12.1       12.4     24.1       4.6     7.1       7.3     52.4       10.4     52.4	95.3 95.1 95.2 95.1 95.1 95.1 95.8 95.6 95.6 95.6 95.4 95.2 95.4	94.5 94.6 94.5 94.4 95.2 95.0 95.0 94.7 94.6 94.8
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea crepitations (crackling) reduced breathing sounds rhonchi cyanosis peritoneal irritation peritoneal irritation	2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1	0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.1       8.3     16.7       25.5     37.0       0.4     3.9       2.0     7.4	97.1 97.1 96.4 97.8 91.8 90.7 97.1 73.8 99.8 99.8 99.6	96.6     97.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       89.8     91.5       96.6     97.6       97.4     98.2       91.0     92.5       89.8     91.5       96.6     97.6       99.6     99.9       99.4     99.8	1.0 0.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7	0.4 1.8 1.0 3.1 0.6 2.0 0.1 1.4 2.0 3.3 1.6 2.7 2.9 6.1 1.0 1.4 2.1 19.9 5.4 25.2	1.0 1.0 1.0 0.9 0.9 0.9 0.9 0.9 1.0 1.0	1.0 1./ 1.0 1./ 1.0 1./ 1.0 1./ 0.8 0./ 0.9 0./ 0.9 1./ 1.0 1./ 0.9 1./	4.0 8.2 5.3 1.8 11.6 9.8 17.8 5.8 5.8 25.0 37.0	1.5     8.5       4.5     13.1       2.6     9.5       0.2     6.3       8.8     14.8       7.4     12.1       12.4     24.1       4.6     7.1       7.3     52.4       19.4     57.0	95.3 95.1 95.2 95.1 95.1 95.4 95.6 95.6 95.4 95.4 95.2 95.4 95.4	94.5 94.6 94.5 94.4 95.2 95.0 95.0 94.7 94.6 94.8 94.8
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea crepitations (crackling) reduced breathing sounds rhonchi cyanosis peritoneal irritation petechial rash	2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1 2.7	0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.1       8.3     16.7       25.5     37.0       0.4     3.9       2.0     7.4       1.1     5.5	97.1 97.1 96.4 97.8 90.7 97.1 73.8 99.8 99.6 98.5 98.5	96.6     97.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       89.8     91.5       96.6     97.6       97.4     98.2       99.0     99.9       99.4     99.8       98.2     98.9	0.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8	0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9       5.4     25.2       0.9     4.0	1.0 1.0 1.0 0.9 0.9 0.9 0.9 1.0 1.0	1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.2       0.9     0.2       0.9     1.0       1.0     1.0       0.1     1.0       0.9     0.2       0.9     1.0       1.0     1.0       1.0     1.0       1.0     1.0	4.0 8.2 5.3 1.8 9 11.6 9 9.8 9 17.8 5.8 25.0 37.0 8.8 3 4.0 5.8 5.8 25.0 37.0 5.8	1.5     8.5       4.5     13.1       2.6     9.5       0.2     6.3       8.8     14.4       7.4     12.1       12.4     24.3       4.6     7.1       7.3     52.4       19.4     57.6       3.6     17.2	95.3 95.1 95.2 95.1 95.1 95.4 95.4 95.4 95.4 95.4	94.5 94.6 94.5 94.4 95.2 95.0 95.0 94.7 94.6 94.8 94.5
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea crepitations (crackling) reduced breathing sounds rhonchi cyanosis peritoneal irritation petechial rash meningeal irritation	2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1 2.7 3.9	0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.1       8.3     16.7       25.5     37.0       0.4     3.9       2.0     7.4       1.1     5.5       1.9     7.0	97.1 97.1 96.4 97.8 91.8 90.7 97.1 73.8 99.8 99.6 98.5 99.7	96.6     97.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       89.8     91.5       96.6     97.6       97.74     98.2       91.0     92.5       89.8     91.5       96.6     97.6       99.6     99.9       99.4     99.8       98.2     98.9       99.5     99.8       99.5     99.8	0.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8	0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9       5.4     25.2       0.9     4.0       6.2     30.8	1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 1.0	1.0     1.0       1.0     1.0       1.0     1.1       1.0     1.1       0.8     0.2       0.9     0.2       0.9     1.1       1.0     1.1       0.2     1.1       0.9     0.2       0.9     1.1       1.0     1.1       0.9     1.1       0.9     1.2       0.9     1.2       0.9     1.2	4.0 8.2 5.3 1.8 9.11.6 9.8 9.8 17.8 5.8 25.0 37.0 8.8 41.7	1.5     8.5       4.5     13.1       2.6     9.5       0.2     6.3       8.8     14.4       7.4     12.1       12.4     24.3       4.6     7.1       7.3     52.4       19.4     57.6       3.6     17.2       22.1     63.4	95.3 95.1 95.2 95.1 95.1 95.4 95.6 95.4 95.4 95.4 95.4 95.4 95.4 95.4 95.2 95.4	94.5 94.6 94.5 94.4 95.2 95.0 95.0 94.7 94.6 94.8 94.5 94.6
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea crepitations (crackling) reduced breathing sounds rhonchi cyanosis peritoneal irritation petechiai rash meningeal irritation reduced peripheral dircutation	2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1 2.7 3.9 7.3	0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.1       8.3     16.7       25.5     37.0       0.4     3.9       2.0     7.4       1.1     5.5       1.9     7.0       4.5     11.2	97.1 97.1 96.4 91.8 90.7 97.1 73.8 99.8 99.6 98.5 99.7 98.4	96.6     97.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       96.6     97.6       97.7     98.2       91.0     92.5       99.5     99.8       98.2     98.9       99.5     99.8       98.0     98.7	0.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8 4.5	0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9       5.4     25.2       0.9     4.0       6.2     30.8       2.8     7.3	1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 1.0 1.0	1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.0       0.9     0.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0	4.0 8.2 5.3 1.8 11.6 9.8 17.8 5.8 5.8 5.8 5.8 25.0 37.0 8.8 41.7 19.0	1.5     8.5       4.5     13.1       2.6     9.5       0.2     6.3       8.8     14.8       7.4     12.1       12.4     24.3       4.6     7.1       7.3     52.4       19.4     57.6       3.6     17.2       22.1     63.4       11.8     28.5	95.3 95.1 95.2 95.1 95.1 95.6 95.6 95.6 95.4 95.4 95.4 95.2 95.4 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.5 95.5 95.5 95.5 95.5 95.5 95.5	94.5 94.6 94.5 94.4 95.2 95.0 95.0 94.7 94.6 94.8 94.5 94.6 94.7
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea crepitations (crackling) reduced breathing sounds rhonchi cyanosis peritoneal irritation petochial rash meningeal irritation reduced peripheral circulation pale skin	2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1 2.7 3.9 7.3 18.1	0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.1       25.5     37.0       0.4     3.9       2.0     7.4       1.1     5.5       1.9     7.0       4.5     11.2       13.6     23.3	97.1 97.1 96.4 97.8 91.8 90.7 97.1 73.8 99.8 99.6 99.7 99.7 99.7 98.4 95.0	96.6     97.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       89.8     91.5       96.6     97.6       97.7     98.2       91.0     92.5       99.5     99.8       98.0     98.7       94.3     95.5	0.8 1.8 1.1 0.4 2.6 2.1 4.2 6.5 11.7 1.8 13.8 4.5 3.6	0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9       5.4     25.2       0.9     4.0       6.2     30.8       2.8     7.3       2.7     4.8	1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 1.0 1.0 0.9 0.9	1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.0       0.9     0.1       1.0     1.0       1.0     1.0       0.9     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.8     0.2	4.0 8.2 5.3 1.8 9.16 9.8 17.8 5.0 5.8 25.0 37.0 8.8 41.7 19.0 9.15.7	1.5     8.5       4.5     13.1       2.6     9.5       0.2     6.3       8.8     14.4       7.4     12.1       12.4     24.3       4.6     7.1       7.3     52.4       19.4     57.4       3.6     17.2       22.1     63.4       11.8     28.2       11.8     20.2	95.3 95.1 95.2 95.1 95.6 95.6 95.6 95.6 95.4 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.5 95.5 95.5 95.5 95.5 95.5 95.5	94.5 94.6 94.5 94.4 95.2 95.0 95.0 94.7 94.6 94.8 94.5 94.6 94.7 95.1
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea crepitations (crackling) reduced breathing sounds rhonchi cyanosis peritoneal irritation petechiai rash meningeal irritation reduced peripheral dirculation pale skin abnormal skin turgor	2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1 2.7 3.9 7.3 18.1 1.5	0.9     5.0       2.7     8.5       1.9     7.0       0.1     28.       16.1     26.4       15.0     25.1       3.3     16.1       25.5     37.0       0.4     3.9       2.0     7.4       1.1     5.5       1.9     7.0       4.5     11.2       13.6     23.3       0.4     3.9	97.1 97.1 96.4 97.8 91.8 90.7 97.1 73.8 99.8 99.6 98.5 99.7 98.4 95.0 99.4	96.6     97.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       89.8     91.5       96.6     97.6       97.4     98.2       91.0     92.5       95.6     97.6       97.6     97.6       99.6     99.9       99.4     99.8       98.0     98.7       94.3     95.6       99.2     99.6	0.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8 4.5 3.6 2.8	0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9       5.4     25.2       0.9     4.0       6.2     30.8       2.8     7.3       2.7     4.8       1.0     7.8	1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 1.0 1.0 0.9 0.9 1.0 1.0 1.0 0.9 0.9	1.0     1.3       1.0     1.4       1.0     1.4       1.0     1.4       1.0     1.4       0.8     0.7       0.9     0.7       0.9     1.4       1.0     1.4       0.9     1.4       0.9     1.4       0.9     1.4       0.9     1.4       0.9     1.4       0.9     1.4       0.9     1.4       0.8     0.7       1.0     1.4	4.0 8.2 5.3 1.8 9.11.6 9.8 11.6 9.8 17.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5	1.5     8.5       4.5     13.3       2.6     9.5       0.2     6.3       8.8     14.4       7.4     12.2       12.4     24.3       4.6     7.1       7.3     52.4       19.4     57.4       3.6     17.2       11.8     28.4       11.8     28.2       3.5     29.0	95.3 95.1 95.1 95.1 95.1 95.4 95.6 95.4 95.4 95.4 95.4 95.2 95.4 95.2 95.4 95.2 95.3 95.4 95.2 95.3 95.4 95.2 95.3 95.2 95.1 95.2 95.3 95.4 95.2 95.2 95.3 95.4 95.4 95.5 95.5 95.5 95.5 95.5 95.5	94.5 94.6 94.5 94.4 95.2 95.0 95.0 94.7 94.6 94.8 94.5 94.6 94.7 95.1 95.1
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea crepitations (crackling) reduced breathing sounds rhonchi cyanosis peritoneal irritation petochial rash meningeal irritation reduced peripheral circulation pale skin abnormal skin turgor abnormal fontanel tension	2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1 2.7 3.9 7.3 18.1 1.5 0.9	0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.1       8.3     16.7       25.5     37.0       0.4     3.9       2.0     7.4       1.1     5.5       1.9     7.0       4.5     11.2       13.6     23.3       0.4     3.9       0.4     3.0       0.4     3.1	97.1 97.1 96.4 97.8 91.8 90.7 97.1 73.8 99.8 99.6 98.5 99.7 98.4 99.4 99.4 99.9	96.6     97.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       98.8     91.5       96.6     97.6       99.9     9.9       99.4     99.8       98.2     98.9       99.5     99.8       98.0     98.7       94.3     95.6       99.2     99.6       99.2     99.6       99.2     99.6       99.2     99.6       99.2     99.6       99.2     99.6       99.2     99.6       99.2     99.6       99.2     99.6       99.2     99.6       99.2     99.6       99.8     100.0	1.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8 4.5 3.6 2.8 13.7	0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9       5.4     25.2       0.9     4.0       6.2     30.8       2.8     7.3       2.7     4.8       1.0     7.8       2.3     81.7	1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 1.0 1.0 0.9 0.9 1.0 1.0	1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     0.8   0.0     0.9   0.1     1.0   1.0     1.0   1.0     0.9   1.0     1.0   1.0     0.9   1.0     0.9   1.0     0.9   1.0     0.9   1.0     0.9   1.0     1.0   1.0     1.0   1.0	4.0 8.2 5.3 1.8 9.11.6 9.8 17.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5	1.5     8.5       4.5     13.7       2.6     9.5       0.2     6.3       8.8     14.4       7.4     12.1       12.4     24.3       4.6     7.1       7.3     52.4       19.4     57.4       11.8     28.1       11.8     20.3       3.5     29.0       5.3     85.3	95.3 95.1 95.1 95.1 95.1 95.4 95.6 95.6 95.6 95.4 95.2 95.4 95.2 95.4 95.2 95.2 95.2 95.2 95.3 95.2 95.3 95.2 95.4 95.2 95.2 95.2 95.1 95.4 95.2 95.2 95.2 95.4 95.2 95.4 95.5 95.4 95.5 95.4 95.5 95.5 95.5	94.5 94.6 94.5 94.4 95.2 95.0 95.0 94.7 94.6 94.8 94.6 94.7 95.1 94.5 94.8
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspine crepitations (crackling) reduced breathing sounds rhonchi cyanosis peritoneal irritation petechial rash meningeal irritation reduced peripheral dirculation pale skin abnormal skin turgor abnormal skin turgor	2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1 2.7 3.9 7.3 18.1 1.5 0.9 0.5	0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.1       15.0     25.5       3.7     25.5       3.7     2.0       7.4     1.1       5.5     1.9       1.1     5.5       1.9     7.0       4.5     11.2       13.6     23.3       0.4     3.9       0.1     3.1       3.9     3.1       3.0     2.9	97.1 96.4 97.8 91.8 90.7 97.1 73.8 99.6 98.5 99.6 98.5 99.7 98.4 95.0 99.4 99.9 99.9 98.9	b1.6     90.6     90.6       96.6     97.6     96.9       97.4     98.2     91.0     92.5       80.8     91.5     96.6     97.6       96.9     97.4     98.2     91.5       96.6     97.6     97.9     99.4     99.6       99.5     98.8     98.7     98.7     98.0       99.5     99.8     99.7     99.4     99.5       99.4     99.5     99.8     99.7     99.3       99.4     99.5     99.8     99.8     99.7       99.4     99.8     99.8     99.8     99.8       99.8     99.8     99.8     99.8     99.8	1.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8 4.5 3.6 2.8 13.7 0.5	0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9       5.4     25.2       0.9     4.0       6.2     30.8       2.8     7.3       2.7     4.8       1.0     7.8       2.3     81.7       3.5     3.5	1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 1.0 1.0 0.9 0.9 1.0 1.0 1.0	1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.0       0.9     0.1       1.0     1.0       1.0     1.0       0.9     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0	4.0 4.0 8.2 5.3 1.8 11.6 9.8 17.8 5.8 5.8 25.0 37.0 37.0 41.7 12.5 40.0 2.4	1.5     8.5       4.5     13.       2.6     9.5       0.2     6.3       8.8     14.4       7.4     12.1       12.4     24.3       4.6     7.1       13.6     17.2       13.6     17.2       14.8     28.       11.8     20.3       3.5     29.0       5.3     85.5       0.1     12.4	95.3 95.1 95.1 95.1 95.1 95.1 95.6 95.6 95.6 95.4 95.4 95.4 95.4 95.4 95.4 95.4 95.4	94.5 94.6 94.5 94.4 95.2 95.0 95.0 94.7 94.6 94.8 94.5 94.6 94.7 95.1 94.5 94.8 94.5 94.8 94.3
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea crepitations (crackling) reduced breathing sounds rhonchi cyanosis perfoneal irritation pefochial rash meningeal irritation reduced peripheral circulation pale skin abnormal fontanel tension swollen limb or non weight bearing extremity measured temperature 2 sp.5°C	2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1 2.7 3.9 7.3 18.1 1.5 0.9 0.5 19.2	0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.1       8.3     16.7       25.5     37.0       0.4     3.9       2.0     7.4       1.1     5.5       1.9     7.0       4.5     11.2       13.6     23.3       0.4     3.9       0.1     3.1       0.0     2.9       14.5     24.6	97.1 96.4 97.8 90.7 97.1 97.1 97.8 99.8 99.6 98.5 99.7 98.4 99.0 99.4 99.9 99.9 99.9 99.2	91.6     90.6     90.6       96.6     97.6     90.9       97.4     98.2     91.0     92.5       91.0     92.5     99.6     97.6       97.2     77.5     75.0     99.8     98.2     98.2       98.2     98.2     98.2     98.2     98.4     98.7       99.4     99.5     99.8     98.0     98.7     99.2     99.6       99.4     99.5     99.8     90.9     99.4     99.5     99.8     90.2     99.6       99.4     99.5     99.8     90.9     99.4     99.5     99.8     99.2     99.1     99.4     99.5     99.4     99.5     99.4     99.5     99.2     99.5     99.8     99.2     99.1     99.4     99.5     99.4     99.5     99.4     99.5     99.4     99.5     99.4     99.5     99.4     99.4     99.5     99.4     99.4     99.4     99.4     99.4     99.4     99.4     99.2     99.2     99.2     9	1.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8 4.5 3.6 2.8 13.7 0.5 2.0	0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9       5.4     25.2       0.9     4.0       6.2     30.8       2.8     7.3       2.7     4.8       1.0     7.8       2.3     81.7       0.1     3.5       1.5     2.6	1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 1.0 1.0 0.9 0.9 1.0 1.0 1.0 0.9	1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.0       0.9     0.0       1.0     1.0       1.0     1.0       0.9     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     1.0	4.0 4.0 8.2 5.3 1.8 9.1.7 9.1.9	1.5     8.5       4.5     13.7       2.6     9.5       0.2     6.3       8.8     14.4       7.4     12.2       19.4     57.0       3.6     17.2       19.4     57.0       3.6     17.2       11.8     20.3       3.5     29.9       5.3     85.3       0.1     12.4	95.3 95.1 95.1 95.1 95.1 95.4 95.6 95.4 95.4 95.4 95.4 95.4 95.4 95.4 95.4	94.5 94.6 94.5 94.4 95.2 95.0 95.0 94.7 94.6 94.8 94.5 94.6 94.7 95.1 94.5 94.6 94.7 95.1 94.5 94.8 94.5 94.1
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae crepitations (crackling) reduced breathing sounds rhonchi cyanosis peritoneal initation petechial rash meningeal initation pates kin abnormal skin turgor abnormal ski	2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1 2.7 3.9 7.3 18.1 1.5 9.0.5 19.2 9.6	0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.5       2.55     37.0       0.4     3.9       2.0     7.4       1.1     5.5       1.3.6     23.3       0.4     3.9       0.1     2.4       13.6     23.3       0.4     3.9       1.1     0.2       1.36     2.3       0.4     3.9       1.1     0.2       2.9     1.1       0.4     3.9       1.1     0.1       3.4     3.7	97.1 97.4 97.8 91.8 99.6 98.5 99.6 98.5 99.6 98.5 99.7 98.4 95.0 99.9 98.9 98.9 98.9 98.9 98.9 90.2 96.0	31.6     90.6     90.6       96.6     97.6     97.4     98.2       91.0     92.5     98.8     91.5       96.6     97.6     99.2     99.8       99.2     99.8     99.2     99.4     99.8       99.4     99.4     99.8     99.2     99.6     99.7       94.1     36.6     97.6     99.4     99.8     100.0     99.3     99.4     99.8     99.2     99.8     99.2     99.6     99.2     99.6     99.2     99.6     99.2     99.6     99.2     99.8     100.0     98.3     100.0     98.3     100.0     98.3     192.2     89.2     99.4     99.4     104.3     95.6     97.6     11.4	1.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8 4.5 3.6 2.8 13.7 0.5 2.0 1.5	0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9       5.4     25.2       0.9     4.0       6.2     30.8       2.8     7.3       2.7     4.8       1.0     7.4       8.1.7     0.1       0.1     3.5       1.5     2.6       9.9     2.5	1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.2       0.9     0.2       0.9     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.8     0.2       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.2       1.0     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.8     1.0	4.0 4.0 8.2 5.3 1.8 9.1.6 9.8 9.17.8 9.8 9.17.8 0.5.8 0.25.0 0.37.0 0.37.0 0.8.8 0.41.7 0.19.0 0.15.7 0.12.5 0.40.0 0.2.4	1.5     8.5       4.5     13.7       2.6     9.5       0.2     6.3       8.8     14.4       7.4     12.1       12.4     24.6       7.1     7.2       19.4     57.4       3.6     17.7       22.1     63.4       11.8     28.       11.8     20.3       5.3     85.3       0.1     12.2       8.0     13.5       4.8     13.4	95.1 95.1 95.1 95.1 95.1 95.6 95.6 95.6 95.4 95.4 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.1 95.4 95.2 95.1 95.2 95.2 95.1 95.2 95.4 95.2 95.1 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.4 95.5 95.4 95.5 95.4 95.5 95.5	94.5 94.6 94.5 94.4 95.2 95.0 95.0 94.7 94.8 94.7 94.8 94.5 94.6 94.7 95.1 94.5 94.6 94.5 94.6 94.5 94.6 94.5 94.6 94.7 95.1 94.6 94.5 94.6 94.5 95.0 95.0 95.0 95.0 94.6 94.5 95.0 95.0 95.0 94.6 94.5 94.6 95.2 95.0 95.0 94.6 94.5 94.6 95.2 95.0 95.0 94.6 94.5 94.6 95.2 95.0 95.0 94.7 94.6 94.5 94.6 95.0 95.0 94.7 94.6 94.5 94.6 95.0 95.0 94.7 94.6 94.5 94.6 94.7 95.0 94.7 94.6 94.7 95.0 94.7 94.6 94.5 94.7 95.0 94.7 94.6 94.5 94.6 94.7 94.7 94.6 94.5 94.7 94.6 94.7 94.6 94.7 94.6 94.7 94.6 94.7 94.6 94.7 94.6 94.7 94.6 94.7 94.6 94.7 94.6 94.8 94.5 94.6 94.7 94.6 94.8 94.5 94.6 94.7 94.6 94.8 94.5 94.6 94.8 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea crepitations (crackling) reduced breathing sounds thonchi cyanosis perfoneal irritation petochial rash meningeal irritation reduced peripheral circulation pale skin abnormal fontanel tension swollen limb or non weight bearing extremity measured temperature ≥ 40.0°C biblest temperature ≥ 40.0°C	2.3 5.1 3.9 0.8 20.9 12.1 31.0 1.6 4.1 2.7 3.9 7.3 18.1 1.5 0.9 0.5 19.2 6.0 52.7	0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       15.0     25.1       25.5     3.7.2       25.5     3.7.2       1.1     5.5       1.9     7.0       1.4.5     11.2       1.3.6     23.3       0.4     3.9       0.1     3.1       0.0     2.9       1.4.5     24.6       3.4     9.7       5.6     7.6.4	97.1 97.1 96.4 97.8 91.8 97.1 73.8 99.6 98.7 99.7 98.4 99.7 98.4 99.9 99.9 99.9 99.9 99.9 99.9 99.0 2 96.0	31.5     0.66     97.6       96.6     97.6     97.4     98.2       91.0     92.5     89.8     91.5       96.6     97.6     92.5     89.8     91.5       99.4     99.8     99.2     99.8     98.2     98.9       99.5     99.8     99.2     99.6     97.6       99.4     99.8     99.2     99.6     97.8       99.4     99.8     99.8     99.2     99.6       99.4     99.8     99.2     99.6     99.8       99.8     99.2     99.8     99.2     99.6       99.8     99.2     99.6     99.8     99.2       99.8     99.2     99.6     99.8     99.2       99.8     100.0     98.3     99.2     91.1       95.4     96.6     57.4     57.0     96.6	1.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8 4.5 3.6 2.8 13.7 0.5 2.0 1.5 1.4	0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9       5.4     25.2       0.9     4.0       6.2     30.8       2.8     7.3       2.7     4.8       1.0     7.8       2.3     81.7       0.1     3.5       1.5     2.6       0.9     2.5       1.3     1.6	1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.0       0.9     0.1       1.0     1.0       1.0     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.1       1.0     1.0       1.0     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.9     1.0       0.8     1.0       0.9     1.0       0.8     1.0       0.9     1.0       0.8     1.0	4.0     8.2     5.3     1.8     11.6     9.8     17.8     5.8     25.0     37.0     8.8     41.7     15.7     12.50     40.0     2.4     10.7     8.5     7.1	1.5     8.5       4.5     13.7       2.6     9.5       0.2     6.3       8.8     14.4       7.4     12.1       12.4     24.3       4.6     7.1       7.3     52.4       19.4     57.4       3.6     17.2       22.4     63.3       11.8     20.3       3.5     29.0       5.3     85.3       0.1     12.4       8.0     13.4       4.8     13.4       6.1     8.12	95.3 95.1 95.1 95.4 95.6 95.6 95.6 95.6 95.4 95.4 95.4 95.4 95.4 95.4 95.4 95.4	94.5 94.6 94.6 94.6 95.2 95.0 95.0 94.7 94.6 94.7 94.6 94.5 94.6 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea cerpitations (crackling) reduced breathing sounds rhonchi cyanosis pertoneal initation petechial rash meningeal initation petechial rash meningeal initation pale skin abnormal skin turgor abnormal skin turgor bil tension swollen link or non weight bearing extremity measured temperature 2 39.5°C highest temperature (measured or reported) > 39.5°C	2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1 2.7 3.9 7.3 18.1 1.5 0.9 0.5 19.2 5 19.2 43.2	0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.1       15.0     25.5       3.1     16.7       2.0     7.4       1.1     5.5       1.9     7.0       4.5     11.2       13.6     23.3       0.4     3.9       0.1     3.4       9.7     7.0       4.5     11.2       5.6     7.6       3.4     9.7       56.7     68.5       3.7     2.6	97.1 97.1 96.4 97.8 91.8 90.7 97.1 73.8 99.6 98.5 99.7 98.9 99.7 98.9 99.7 98.9 95.0 99.4 99.9 99.9 99.9 90.2 96.9 90.2 95.6	N.6     93.6     93.6     93.6     93.6     93.6     93.6     93.6     93.6     93.6     93.6     93.7     98.2     91.0     92.5     89.8     91.5     99.6     93.6	1.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8 4.5 3.6 2.8 13.7 0.5 2.0 1.5 1.4 17	0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9       5.4     25.2       0.9     4.0       6.2     30.8       2.7     4.8       1.0     7.8       2.3     81.7       0.1     3.5       1.5     2.6       0.9     2.5       1.3     1.6       1.5     2.6	1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 1.0 1.0 0.9	1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.2       0.9     0.3       0.9     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.2       0.8     0.2       0.8     1.0       1.0     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.6     0.0       0.7     0.7	4.0     8.2     5.3     1.8     9.8     11.6     9.8     17.8     5.8     25.0     37.0     8.8     41.7     19.0     15.7     12.5     40.0     2.4     10.7     8.5     7.1     8.5	1.5     8.5       4.5     13.7       2.6     9.5       0.2     6.3       8.8     14.4       7.4     12.1       12.4     24.6       7.4     12.4       13.6     17.1       22.1     63.6       11.8     20.1       5.3     85.5       0.1     12.5       20.1     12.4       4.8     13.4       6.1     8.2       1.1.8     20.1       1.2.4     8.5       20.1     12.4       8.5     29.0       5.3     85.5       0.1     12.4       8.0     13.3       4.8     13.4       6.1     8.2	95.3 95.1 95.2 95.1 95.4 95.6 95.4 95.4 95.4 95.4 95.4 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.4 95.2 95.4 95.4 95.2 95.4 95.4 95.4 95.4 95.4 95.4 95.4 95.4	94.5 94.6 94.6 94.7 95.0 95.0 94.7 94.6 94.7 94.6 94.7 94.6 94.7 94.6 94.7 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea crepitations (crackling) reduced breathing sounds thonchi cyanosis perfoneal irritation petochial rash meningeal irritation reduced peripheral circulation reduced peripheral circulation pale skin abnormal fontanel tension swollen limb or non weight bearing extremity measured temperature ≥ 40.0°C highest temperature ≥ 40.0°C	2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1 2.7 3.9 0.5 19.2 6.0 62.7 43.2	0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.1       3.3     16.7       2.5     37.0       0.4     3.9       2.0     7.4       1.1     5.5       1.9     7.0       4.5     11.2       13.6     23.3       0.4     3.9       0.1     3.1       0.1     3.1       3.4     9.7       5.6.7     6.6.5       3.4     9.7       5.6.7     6.6.5       3.4     9.7	97.1 97.1 96.4 97.8 91.8 90.7 97.1 97.1 93.8 99.6 98.5 99.7 98.4 99.4 99.9 98.4 99.9 98.9 99.9 99.9	Bit     Sola       96.6     97.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       98.8     91.5       96.6     97.6       97.4     98.2       98.8     91.5       98.6     97.6       98.7     98.9       99.4     99.8       98.2     98.5       99.5     99.8       99.2     99.2       99.2     99.2       99.3     90.2       99.4     99.8       99.4     99.8       99.2     99.2       99.2     99.2       99.3     99.2       99.4     99.4       91.1     95.4       95.4     96.6       54.2     57.0       73.9     76.3	1.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8 13.8 13.7 0.5 2.0 1.5 1.4 1.7	0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9       5.4     25.2       0.9     4.0       6.2     30.8       2.8     7.3       2.7     4.8       1.0     1.4       2.3     81.7       0.1     3.5       1.5     2.6       0.9     2.5       1.3     1.6       1.5     2.0	1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     0.8   0.2     0.9   0.2     0.9   1.0     1.0   1.0     0.9   1.0     0.9   1.0     0.9   1.0     0.9   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     0.8   1.0     0.9   1.0     0.0   1.0     0.0   1.0     0.0   1.0     0.0   1.0     0.0   1.0     0.0   1.0     0.0   1.0     0.0   1.0     0.0   0.0	4.0     8.2     5.3     1.8     1.9     1.1     1	1.5     8.5       4.5     13.1       2.6     9.5       0.2     6.3       8.8     14.4       7.4     12.4       12.4     24.3       4.6     7.1       7.3     52.4       19.4     57.4       11.8     28.3       11.8     28.3       3.5     29.0       5.3     86.5       0.1     12.4       8.0     13.4       4.8     13.4       6.1     8.2       7.1     10.2	95.3 95.1 95.1 95.6 95.6 95.6 95.6 95.6 95.4 95.2 95.4 95.2 95.4 95.2 95.1 95.4 95.2 95.4 95.2 95.1 95.4 95.2 95.1 95.4 95.2 95.1 95.4 95.2 95.1 95.2 95.4 95.4 95.2 95.4 95.4 95.4 95.4 95.5 95.4 95.5 95.4 95.5 95.5	94.5 94.6 94.5 94.6 95.0 95.0 95.0 95.0 94.6 94.8 94.5 94.6 94.5 94.6 94.5 94.6 94.5 94.6 94.5 94.6 94.5 94.5 94.6 94.5 94.6 94.5 94.5 95.0 95.0 94.5 95.0 94.5 95.0 95.0 95.0 94.5 95.0 95.0 94.5 95.0 95.0 94.5 95.0 94.5 95.0 94.5 95.0 94.5 95.0 94.5 95.0 94.5 95.0 94.5 95.0 94.5 95.0 94.5 95.0 94.5 95.0 94.5 95.0 94.5 95.0 94.5 94.5 94.5 94.5 95.0 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea creptations (crackling) reduced breathing sounds rhonchi cyanosis pertoneal irritation petechial rash meningeal irritation reduced peripheral dirculation pale skin abnormal skin turgor abnormal skin turgor bights temperature 2,98,5°C highest temperature (measured or reported) ≥ 39,5°C highest temperature (measured or reported) ≥ 40,0°C	2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 31.0 31.0 31.0 3.9 7.3 18.1 1.5 9.0.5 19.2 6.0 62.7 9.2 6.0 62.7 23.3	0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.1       15.0     25.3       3.3     16.7       2.5.5     37.0       0.4     3.9       2.0     7.4       1.1     5.5       1.9     7.0       4.5     11.2       3.6     23.3       0.4     3.9       0.1     3.1       0.0     2.9       3.4     9.7       56.7     68.5       37.2     49.3       14.8     33.6	97.1 97.1 96.4 91.8 91.7 97.8 91.7 97.1 93.8 99.6 98.5 99.7 98.9 98.9 95.0 99.4 99.9 99.9 99.9 99.9 99.9 99.9 90.0 55.6 55.6	No.6     97.6       96.6     97.6       96.7     96.2       97.4     98.2       91.0     92.5       96.6     97.4       98.2     98.3       91.6     97.4       98.8     91.5       96.6     97.6       99.8     99.5       99.4     99.8       99.5     99.8       99.8     100.0       98.3     99.2       99.4     99.6       99.4     99.6       99.8     100.0       98.3     99.2       99.4     100.0       98.3     100.0       98.4     100.0       98.5     100.0       98.4     100.0       98.5     100.0       98.4     100.0       97.4     97.6       97.3     97.6       98.4     100.0       98.7     97.6       98.8     100.0       98.3     100.0	1.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8 4.5 3.6 2.8 13.7 0.5 2.0 1.5 1.4 1.7 1.5	0.4     1.8       1.0     3.1       0.6     2.0       1.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     9.6       1.0     1.4       2.1     9.6       1.0     1.4       2.1     9.8       2.0     9.1       1.0     1.4       2.1     9.4       0.2     30.8       2.7     4.8       1.0     7.8       2.3     81.7       0.1     3.5       1.3     1.6       1.5     2.6       0.9     2.5       1.3     1.6       1.5     2.5       1.5     3.5	1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 1.0 0.9 1.0 0.9	1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.2       0.9     0.2       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.2       0.8     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.7     0.2       0.7     0.2	4.0     8.2       5.3     1.8       9.11.6     9.8       9.8     17.8       9.8     25.0       37.0     37.0       12.5     40.0       2.4     10.7       8.5     7.1       8.6     13.5	1.5     8.5       4.5     13.7       2.6     9.5       0.2     6.3       8.8     14.4       7.4     12.2       12.4     24.4       4.6     7.1       12.4     24.4       14.6     7.1       12.4     24.6       13.4     7.7       3.6     17.2       22.1     63.3       11.8     20.3       3.5     29.9       5.3     85.5       0.1     12.2       8.0     13.4       4.8     13.4       6.1     8.2       7.1     10.2       8.5     20.0	95.3 95.1 95.2 95.4 95.6 95.4 95.6 95.4 95.4 95.4 95.4 95.4 95.4 95.4 95.4	94.5 94.6 94.5 94.6 94.5 95.0 95.0 94.7 94.7 94.6 94.7 94.8 94.5 94.6 94.7 94.8 94.5 94.5 94.6 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea crepitations (crackling) reduced breathing sounds thonchi cyanosis pertoneal irritation petochial rash meningeal irritation reduced peripheral circulation reduced peripheral circulation pale skin abnormal fontanel tension swollen limb or non weight bearing extremity measured temperature > 40.0°C highest temperature > 40.0°C highest temperature = 40.0°C highest temperature = 40.0°C highest temperature (measured or reported) > 39.5°C	2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1 2.7 7.3 18.1 1.5 0.9 0.5 19.2 6.0 62.7 43.2 23.3 35.4	0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.7       3.3     16.7       2.5.5     37.0       0.4     3.9       2.0     7.4       1.1     5.5       1.9     7.0       4.5     11.2       13.6     23.3       0.4     3.9       0.1     3.1       0.0     2.9       14.5     24.6       37.2     49.3       14.8     36.2       25.7     45.2	97.1 97.1 96.4 97.8 97.8 90.7 97.8 99.6 99.7 99.8 99.8 99.8 99.8 99.8 99.8 99.8	b1.6     97.6       96.6     97.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       98.8     91.5       96.6     97.6       99.9     99.4       99.6     99.9       99.4     98.6       98.2     98.7       99.4     99.6       99.4     99.6       99.8     90.8       99.8     90.8       99.8     90.8       99.4     90.6       99.4     90.6       99.4     90.6       91.4     90.6       92.4     90.6       92.4     91.1       95.4     96.6       92.4     97.3       93.3     91.4       95.4     96.8       92.4     95.3       93.3     91.6       93.4     93.8       93.8     91.6       93.8     91.6       93.8 <td>1.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8 4.5 3.6 2.8 13.7 0.5 2.0 1.5 1.4 1.7 2.3 1.8</td> <td>0.4     1.8       1.0     3.1       0.6     2.0       1.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9       5.4     25.2       0.8     2.3       8.7.7     4.8       1.0     3.5       1.5     2.6       0.9     2.5       1.3     1.6       1.5     2.0       1.5     3.2</td> <td>1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 1.0 1.0 0.9 1.0 1.0 1.0 0.9 1.0 1.0 0.9 0.9 1.0 1.0 0.9 0.9 1.0 1.0 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0</td> <td>10     1/1       10     1</td> <td>4.0     4.0       9     4.0       9     4.0       9     5.3       9     11.6       9     9.8       9     17.8       9     17.8       9     37.0       9     37.0       9     12.5       9     10.7       9     12.7       9     7.1       8     7.1       13.5     7.1       13.5     13.5</td> <td>1.5     8.5       4.5     13.1       2.6     9.5       0.2     6.3       8.8     14.4       7.4     12.4       12.4     24.3       14.4     7.3       7.3     52.2       11.8     20.3       3.5     29.0       5.3     85.5       0.1     12.8       8.0     13.4       6.1     8.2       7.1     10.2       8.6     13.4       6.1     8.2       7.1     10.7       8.5     20.0       7.8     15.7</td> <td>95.3 95.1 95.1 95.6 95.6 95.6 95.6 95.6 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.4 95.2 95.4 95.4 95.2 95.4 95.4 95.4 95.4 95.4 95.4 95.4 95.4</td> <td>94.5 94.6 94.5 95.2 95.0 95.2 95.0 94.7 94.6 94.8 94.5 94.6 94.8 94.5 94.6 94.8 94.5 94.6 94.5 94.6 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5</td>	1.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8 4.5 3.6 2.8 13.7 0.5 2.0 1.5 1.4 1.7 2.3 1.8	0.4     1.8       1.0     3.1       0.6     2.0       1.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9       5.4     25.2       0.8     2.3       8.7.7     4.8       1.0     3.5       1.5     2.6       0.9     2.5       1.3     1.6       1.5     2.0       1.5     3.2	1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 1.0 1.0 0.9 1.0 1.0 1.0 0.9 1.0 1.0 0.9 0.9 1.0 1.0 0.9 0.9 1.0 1.0 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0	10     1/1       10     1	4.0     4.0       9     4.0       9     4.0       9     5.3       9     11.6       9     9.8       9     17.8       9     17.8       9     37.0       9     37.0       9     12.5       9     10.7       9     12.7       9     7.1       8     7.1       13.5     7.1       13.5     13.5	1.5     8.5       4.5     13.1       2.6     9.5       0.2     6.3       8.8     14.4       7.4     12.4       12.4     24.3       14.4     7.3       7.3     52.2       11.8     20.3       3.5     29.0       5.3     85.5       0.1     12.8       8.0     13.4       6.1     8.2       7.1     10.2       8.6     13.4       6.1     8.2       7.1     10.7       8.5     20.0       7.8     15.7	95.3 95.1 95.1 95.6 95.6 95.6 95.6 95.6 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.4 95.2 95.4 95.4 95.2 95.4 95.4 95.4 95.4 95.4 95.4 95.4 95.4	94.5 94.6 94.5 95.2 95.0 95.2 95.0 94.7 94.6 94.8 94.5 94.6 94.8 94.5 94.6 94.8 94.5 94.6 94.5 94.6 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5
	extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea creptations (crackling) reduced breathing sounds rhonchi cyanosis pertoneal initation petechial rash meningeal initation reduced peripheral dirculation pates kin abnormal skin turgor abnormal skin turgor branding at a faboritin measured temperature ≥ 40.0°C breathing rate ≥ 50.0°m heart rate ≥ 150/min oxygen saturation ≤ 5%	2.3 5.1 3.9 0.8 20.9 19.7 12.1 13.0 1.6 4.1 2.7 7.3 18.1 1.5 0.5 19.2 23.3 35.4 23.3 35.4 22.2	0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.1       15.0     25.5       8.3     16.7       25.5     37.0       0.4     3.9       2.0     7.4       1.1     5.5       1.3.6     23.2       0.4     3.9       0.1     3.1       0.0     2.9       1.4.5     24.6       25.7     26.8       3.4     9.7       56.7     68.5       37.2     49.3       25.9     45.6       25.9     45.6	97.1 97.1 96.4 97.8 91.8 90.7 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97	N     O.C.       96.6     97.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       96.6     97.6       97.4     98.2       98.5     91.5       96.6     97.2       97.5     75.0       98.0     98.7       98.0     98.7       98.0     98.7       99.8     190.0       98.3     99.2       99.4     99.8       99.5     99.6       99.4     99.2       99.3     190.0       98.3     99.2       99.4     190.2       99.5     190.2       99.5     190.2       99.4     190.2       99.5     190.2       99.5     190.2       99.5     190.2       99.5     190.2       99.5     190.2       99.5     190.2       99.5     190.2	1.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8 4.5 2.0 1.5 1.5 1.5 1.5 1.4 1.7 2.3 1.8 2.0 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.0     3.3       1.0     1.4       2.1     19.9       5.4     25.2       0.9     4.0       6.2     30.8       2.7     4.8       1.0     7.8       1.0     7.8       1.0     7.8       1.3     1.6       1.5     2.6       0.9     2.5       1.3     1.6       1.5     2.6       1.3     1.6       1.5     3.5       1.3     2.4	1.0 1.0 1.0 0.9 0.9 0.9 0.9 1.0 1.0 1.0 1.0 1.0 1.0 0.9 1.0 0.9 1.0 0.9 0.9 0.8 0.8	10     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.0       0.9     0.0       0.9     1.0       1.0     1.0       0.9     1.0       1.0     1.0       0.9     1.0       1.0     1.0       0.8     1.0       1.0     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.6     0.0       0.7     0.0       0.7     0.0       0.7     0.0	0     4.0       0     8.2       0     8.2       0     5.3       0     1.8       0     1.16       0     9.8       0     1.8       0     1.7       0     1.7       0     2.5.0       0     3.7.0       0     1.5.7       0     1.5.7       0     1.5.7       0     1.5.7       0     1.5.7       0     1.5.7       0     1.5.7       0     1.5.7       0     1.5.7       0     1.5.7       0     1.5.7       0     1.5.7       0     1.5.7       0     1.5.7       0     1.5.7       1.5     8.5       1.5     1.10.0       1.5.7     1.10.0	1.5     8.5       4.5     13.       2.6     9.5       0.2     6.3       8.8     14.       7.4     12.       12.4     24.       14.4     7.4       13.5     22.1       13.6     17.3       22.1     63.3       11.8     20.3       3.6     17.3       22.1     63.4       5.2     20.1       5.3     85.5       0.1     12.4       8.8     13.4       6.1     8.2.       7.1     10.1       8.5     20.7       7.8     15.2       7.8     15.2	95.1 95.1 95.2 95.4 95.6 95.6 95.6 95.6 95.4 95.2 95.1 95.1 95.2 95.1 95.2 95.1 95.4 95.2 95.1 95.2 95.1 95.2 95.1 95.2 95.2 95.1 95.2 95.2 95.2 95.2 95.2 95.2 95.2 95.2	94.5 94.6 94.6 94.4 95.2 95.0 94.7 94.6 94.7 94.6 94.7 94.6 94.7 94.6 94.7 94.6 94.7 94.6 94.8 94.7 94.6 94.8 94.3 94.4 94.8 94.3 94.4 94.5 94.6 94.6 94.6 94.6 94.6 94.6 94.6 94.6

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# STARD checklist for reporting of studies of diagnostic accuracy 3)

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Section and Topic	Item #		On page #
TITLE/ABSTRACT/ KEYWORDS	1	Identify the article as a study of diagnostic accuracy (recommend MeSH heading 'sensitivity and specificity').	1
INTRODUCTION	2	State the research questions or study aims, such as estimating diagnostic accuracy or comparing accuracy between tests or across participant groups.	4
METHODS			
Participants	3	The study population: The inclusion and exclusion criteria, setting and locations where data were collected.	5
	4	Participant recruitment: Was recruitment based on presenting symptoms, results from previous tests, or the fact that the participants had received the index tests or the reference standard?	5
	5	Participant sampling: Was the study population a consecutive series of participants defined by the selection criteria in item 3 and 4? If not, specify how participants were further selected.	5
	6 🧹	Data collection: Was data collection planned before the index test and reference standard were performed (prospective study) or after (retrospective study)?	5
Test methods	7	The reference standard and its rationale.	
	8	Technical specifications of material and methods involved including how and when measurements were taken, and/or cite references for index tests and reference standard.	5-6
	9	Definition of and rationale for the units, cut-offs and/or categories of the results of the index tests and the reference standard.	4-6
	10	The number, training and expertise of the persons executing and reading the index tests and the reference standard.	5-6
	11	Whether or not the readers of the index tests and reference standard were blind (masked) to the results of the other test and describe any other clinical information available to the readers.	4-6
Statistical methods	12	Methods for calculating or comparing measures of diagnostic accuracy, and the statistical methods used to quantify uncertainty (e.g. 95% confidence intervals).	8-9
	13	Methods for calculating test reproducibility, if done.	8
RESULTS			
Participants	14	When study was performed, including beginning and end dates of recruitment.	10
	15	Clinical and demographic characteristics of the study population (at least information on age, gender, spectrum of presenting symptoms).	10
	16	The number of participants satisfying the criteria for inclusion who did or did not undergo the index tests and/or the reference standard; describe why participants failed to undergo either test (a flow diagram is strongly recommended).	10
Test results	17	Time-interval between the index tests and the reference standard, and any treatment administered in between.	10
	18	Distribution of severity of disease (define criteria) in those with the target condition; other diagnoses in participants without the target condition.	10
	19	A cross tabulation of the results of the index tests (including indeterminate and missing results) by the results of the reference standard; for continuous results, the distribution of the test results by the results of the reference standard	11-13 Figure 3-4 Table 2
	20	Any adverse events from performing the index tests or the reference standard.	10
Estimates	21	Estimates of diagnostic accuracy and measures of statistical uncertainty (e.g. 95% confidence intervals).	11-13
	22	How indeterminate results, missing data and outliers of the index tests were handled.	8, 13
	23	Estimates of variability of diagnostic accuracy between subgroups of participants, readers or centers, if done.	13
	24	Estimates of test reproducibility, if done.	13
DISCUSSION	25	Discuss the clinical applicability of the study findings.	15-16



# TRIPOD Checklist: Prediction Model Development and Validation

Section/lopic	Item			Page
			Identify the study as developing and/or validating a multivariable prediction model the	
Title	1	D;V	target population, and the outcome to be predicted.	1
Abstract	2	D;V	Provide a summary of objectives, study design, setting, participants, sample size, predictors, outcome, statistical analysis, results, and conclusions.	2
Introduction				
Background	3a	D;V	Explain the medical context (including whether diagnostic or prognostic) and rationale for developing or validating the multivariable prediction model, including references to existing models.	4
and objectives	3b	D;V	Specify the objectives, including whether the study describes the development or validation of the model or both	4
Methods		l		1
	4a	D·V	Describe the study design or source of data (e.g., randomized trial, cohort, or registry	5
Source of data	чα	D, V	data), separately for the development and validation data sets, if applicable.	5
	4b	D;V	end of follow-up.	5
Darticipanta	5a	D;V	Specify key elements of the study setting (e.g., primary care, secondary care, general population) including number and location of centres.	5
Participants	5b	D;V	Describe eligibility criteria for participants.	5
	5c	D;V	Give details of treatments received, if relevant.	5
Outcome	6a	D;V	Clearly define the outcome that is predicted by the prediction model, including how and when assessed.	6-7
outcomo	6b	D;V	Report any actions to blind assessment of the outcome to be predicted.	6-7
	79		Clearly define all predictors used in developing or validating the multivariable prediction	5.6
Predictors	<i>i</i> a	D,V	model, including how and when they were measured. Report any actions to blind assessment of predictors for the outcome and other	0-C
	7b	D;V	predictors	5-6
Sample size	8	D;V	Explain how the study size was arrived at.	7
Missing data	9	D;V	imputation, multiple imputation) with details of any imputation method.	8
	10a	D	Describe how predictors were handled in the analyses.	8-9
	10b	D	Specify type of model, all model-building procedures (including any predictor selection),	Not
Statistical	100		and method for internal validation.	applicable
analysis	100	V	For validation, describe now the predictions were calculated.	8-9
methous	10d	D;V	multiple models.	8-9
	10e	V	Describe any model updating (e.g., recalibration) arising from the validation, if done.	8-9
Risk groups	11	D;V	Provide details on how risk groups were created, if done.	/
Development	12	V	For validation, identify any differences from the development data in setting, eligibility criteria outcome, and predictors	8-9; 15
Results		1		<b>.</b>
	13a	D;V	Describe the flow of participants through the study, including the number of participants with and without the outcome and, if applicable, a summary of the follow-up time. A diagram may be helpful.	10; Figure
Participants	13b	D;V	Describe the characteristics of the participants (basic demographics, clinical features, available predictors), including the number of participants with missing data for predictors and outcome.	10
	13c	V	For validation, show a comparison with the development data of the distribution of important variables (demographics, predictors and outcome).	Not applicable
Model	14a	D	Specify the number of participants and outcome events in each analysis.	Not
development	14b	D	If done, report the unadjusted association between each candidate predictor and	Supplement
	15a	D	Present the full prediction model to allow predictions for individuals (i.e., all regression	Not
Model specification	154	D	coefficients, and model intercept or baseline survival at a given time point).	applicable Not
Model	100			applicable
performance	16	D;V	Report performance measures (with Cis) for the prediction model.	10-13
Model-updating	17	V	performance).	10-13
Discussion			Discuss any limitations of the study (such as nonrepresentative semple, few events per	
Limitations	18	D;V	predictor, missing data).	14-15
	19a	V	For validation, discuss the results with reference to performance in the development data, and any other validation data.	14-15
Interpretation	19b	D;V	Give an overall interpretation of the results, considering objectives, limitations, results from similar studies, and other relevant evidence	14-16
Implications	20	D;V	Discuss the potential clinical use of the model and implications for future research.	15-16
Other information				
Supplementary information	21	D;V	Provide information about the availability of supplementary resources, such as study protocol, Web calculator, and data sets.	Supplemen ary files 1 to 3
Funding	22	D;V	Give the source of funding and the role of the funders for the present study.	17

\*Items relevant only to the development of a prediction model are denoted by D, items relating solely to a validation of a prediction model are denoted by V, and items relating to the the transmission of tr

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# Validating a decision tree for serious infection: diagnostic accuracy in acutely ill children in ambulatory care.

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# VALIDATING A DECISION TREE FOR SERIOUS INFECTION: DIAGNOSTIC ACCURACY IN ACUTELY ILL CHILDREN IN AMBULATORY CARE.

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**KEYWORDS:** serious infection, child, validation studies, clinical prediction rule, diagnostic accuracy, ambulatory care

WORD COUNT: 2774

## ABSTRACT

 **Objective**: acute infection is the most common presentation of children in primary care with only few having a serious infection (e.g. sepsis, meningitis, pneumonia). To avoid complications or death, early recognition and adequate referral are essential. Clinical prediction rules have the potential to improve diagnostic decision making for rare but serious conditions. In this study, we aimed to validate a recently developed decision tree in a new but similar population.

**Design:** diagnostic accuracy study validating a clinical prediction rule.

**Setting & Participants:** acutely ill children presenting to ambulatory care in Flanders, Belgium, consisting of general practice and paediatric assessment in outpatient clinics or the emergency department.

Intervention: physicians were asked to score the decision tree in every child

**Primary outcome measures:** the outcome of interest was hospital admission for at least 24 hours with a serious infection within 5 days after initial presentation. We report the diagnostic accuracy of the decision tree in sensitivity, specificity, likelihood ratios and predictive values.

**Results:** in total, 8962 acute illness episodes were included, of which 283 lead to admission to hospital with a serious infection. Sensitivity of the decision tree was 100% (95%CI 71.5-100%) at a specificity of 83.6% (95%CI 82.3-84.9%) in the GP setting with 17% of children testing positive. In the paediatric outpatient and ED setting, sensitivities were below 92.0%, with specificities below 44.8%.

**Conclusions**: This clinical prediction rule for identifying children at risk of hospital admission for a serious infection has shown to be extremely sensitive in general practice in an independent validation cohort, making it suitable for ruling out.

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# ARTICLE SUMMARY

# Strengths and limitations of this study:

- Prospective multi-centre validation study in almost 9000 illness episodes in children
- Examining sensitivity and specificity, i.e. the proportion of true positives (sensitivity) and true negatives (specificity) that are correctly identified by the 4-step decision tree.
- Consecutive recruitment in three different settings covering the whole spectrum of acutely ill children seen at first contact.
- Measuring standardized clinical features could have lead to work-up bias.
- Identification of admissions for serious infection depended on quality of medical records and follow-up.

## INTRODUCTION

Acute infection is the most common reason for children to attend ambulatory care and represents an important proportion of a general practitioner's workload.[1]

However, in primary care, less than 1% of children will be diagnosed with a serious infection.[2] The incidence is assumed to be 5-10 times higher at the emergency department (ED).[3]

Serious infections in children are usually defined as sepsis (including bacteraemia), meningitis, pneumonia, complicated urinary tract infection, bacterial gastroenteritis with dehydration, osteomyelitis, and cellulitis.[4]

These serious infections need to be distinguished from the vast majority of self-limiting infections in children, because although rare in children in developed countries, they are associated with considerable morbidity (e.g. hearing loss, neurologic disability) and mortality.[5]

Furthermore, early recognition could improve prognosis of seriously ill children and prevent avoidable investigations and referrals in children without serious infection.[5]

Clinicians use signs and symptoms to initially assess the probability of a serious infection and decide on further management. Based on a prospective cohort of 4000 children, Van den Bruel and colleagues derived a symptom-based 4-step decision tree, consisting of: the clinician's gut feeling "something is wrong", "dyspnoea", "temperature > 39.95°C" and "diarrhoea in children aged 1 to 2.5 years".[6]

The tree is considered positive if yes to any of these four sequential items is positive, with a sensitivity and negative predictive value (NPV) of nearly 100% in the original derivation study.[6] Although the tree also demonstrated high sensitivity in a retrospective validation in another primary care dataset using approximations for gut feeling and dyspnoea, prospective validation had not been performed as yet.[7]

In this study, we aim to prospectively validate this decision tree in a new and independent population of acutely ill children in ambulatory care.

## METHODS

## Setting

This is a diagnostic accuracy study in ambulatory care (defined as general practice, paediatric outpatient clinics or emergency department).

## Patients

Children aged 1 month to 16 years, presenting to a general practitioner (GP) or paediatrician in Flanders, Belgium, with an acute illness for a maximum of 5 days were included consecutively from February 15<sup>th</sup> 2013 to February 28<sup>th</sup> 2014. Children were excluded if the acute illness was caused by purely traumatic or neurological conditions, intoxication, a psychiatric problem, or an exacerbation of a known chronic condition.

If a physician recruited less than five children over the one-year study period, the assumption of consecutive inclusion was assumed to have been violated, leading to the exclusion of his or her data from the analysis.

When the same child was recruited twice within five days, we considered the second registration a consequence of the same illness episode and discarded the second registration from the analyses.

## Index tests

We asked physicians to register diagnostic features based on previous research and consensus of an international team of clinicians and researchers,[7] including all items of the NICE traffic light system, and vital signs (heart and breathing rate, temperature and capillary refill time) and pulse oximetry.[7-9]

In total, 74 diagnostic features were scored: 28 features obtained by history taking, 36 by clinical examination and 10 items relating to clinical decision making (**Supplementary File 1**). In addition to the clinical prediction rule, clinicians were asked to rate whether the child appeared seriously ill and whether the parents considered their child's illness different from previous illnesses.[6] All features were scored as "yes" when present, "no" when absent, and "?" when they could not be evaluated.

# 4-step Decision Tree

 We asked physicians to score variables included in the 4-step decision tree, as developed by Van den Bruel et al.[6] (**Figure 1**)

"Something is wrong" was defined as a subjective gut feeling of the physician that something is out of the ordinary. "Dyspnoea" was defined as difficult or laboured breathing. "Body temperature" was defined as the highest body temperature measured by parents or the physician during the illness episode. Before analysis 0.5°C was added to temperatures measured under the axilla, or with a tympanic thermometer.[10, 11]

"Diarrhoea" was defined as loose or watery stools, increased in frequency and volume.[12]

## Vital signs

Temperature, respiratory rate, heart rate, oxygen saturation and capillary refill time were measured, each according to their respective standardized method.[13]

All GPs were provided with a paediatric finger pulse oximeter (CMS50QA, Contec<sup>™</sup> Medical Systems, China) for use in children at least 3 years old (due to device limitations). Paediatricians were given the choice to use the provided finger pulse oximeter, or rather use their own large-size pulse oximeter appropriate for all ages.

### Target condition

The target condition was hospital admission (>24 hours) for a serious infection, which was one of the following:

- sepsis (including bacteraemia) with pathogenic bacteria isolated from haemoculture
- meningitis with a positive lumbar puncture (pleocytosis in cerebrospinal fluid or identification of bacteria or a virus)
- appendicitis with a positive histological diagnosis
- pneumonia with an infiltrate seen on chest X-ray
- osteomyelitis (pathogens from bone aspirate or a MRI or bone scan suggestive for osteomyelitis)

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cellulitis (acute suppurative inflammation of the subcutaneous tissues)

- bacterial gastro-enteritis with dehydration (pathogen isolated from stool culture)
- complicated urinary tract infection (>10<sup>5</sup>/ml pathogens of a single species isolated from urine culture and systemic effects such as fever)

The outcome was verified by three complementary methods:

(I) a search of the electronic medical records of all regional hospitals,

(II) an interview with each participating GP

(III) a diary completed by parents for children recruited in general practice, recording the date of recovery.

If methods (II) and (III) showed evidence of a hospital admission initially not captured by method (I), attempts were made to obtain information for this additional hospital admission. Children were considered as not having a serious infection if hospital records showed no evidence for a serious infection. In cases when no definitive adjudication could be made based on the above criteria, an adjudication committee consisting of clinicians with expertise in acute paediatric care assigned outcome by consensus, using all available information.

## Sample size

Sample size calculations were based on the assumption that prevalence and diagnostic value of the decision tree would be similar to those reported by Van den Bruel et al. Assuming a prevalence of 0.9%, recruiting 6500 children would result in 59 cases. This

would provide us with an error margin of 12% around an expected sensitivity of 97% (95% confidence interval 85-100%).[14]

## **Statistical Analysis**

## I. Accuracy of individual features

First, the accuracy of each diagnostic feature was analysed and reported using sensitivity, specificity, likelihood ratios and predictive values for both the GP and specialist setting (paediatric outpatient and ED). A correction of 0.5 was added to every cell in case of an empty cell in a  $2 \times 2$  table.

We constructed Receiver-Operating-Characteristic (ROC) curves for temperature, breathing rate, heart rate and oxygen saturation. In addition, these features were dichotomized based on NICE guidance.[13]

## II. Validation of the 4-step decision tree

The 4-step decision tree for any serious infection was validated in the entire group and in the three pre-defined settings separately being general practice, ambulatory paediatric care and emergency departments. In addition, we performed subgroup analyses for three infectious categories: pneumonia, complicated urinary tract infections and sepsis/meningitis. We applied the same missing value categorizations for every decision tree variable as in the derivation study, namely missing values in the same category as "no" or "unknown".[6]

## **Optimized thresholds**

We optimized the tree by recalibrating the thresholds of body temperature and age for the current data, using classification and regression tree (CART) analysis, maximizing sensitivity with a weighing factor of 75 for false negatives, while keeping the structure of the tree constant.

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# Pragmatic thresholds

To facilitate implementation in routine care, we created a decision tree with easy-toremember thresholds for temperature and age:

- temperature of 40°C in the GP setting or 39.5°C in the specialist setting (instead of 39.95°C or 39.2°C)
- age below 3 years of age (instead of 3.3)

Sensitivity analyses were performed, comparing the results of all illness episodes versus first illness episode only to explore the effect, if any, of clustering based on recurring admissions in the same children.

Analyses were performed with Stata software (version 11.2; Stata Corp., USA), and JMP Statistical Discovery (version Pro 11.1.1; SAS Institute Inc., USA).

# Ethics

Formal written informed consent was obtained for each child. We provided age-appropriate information leaflets and assent forms for minors below and above 12 years of age.

The protocol of this study was approved by the Ethical Review Board of the University Hospitals/KU Leuven under reference ML8601, as well as by all participating hospitals. The study authors obtained ethics approval from their regional research ethics committees before the study for the initial data collection of the included datasets.

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# RESULTS

# **Baseline characteristics**

Children were recruited across Flanders at 92 GP surgeries, 6 outpatient paediatric clinics and 6 emergency departments, involving 276 physicians (170 GPs and 106 paediatricians): 33% were male, with a median clinical practice experience of 13 years (range 0 – 40 years). We included 8664 new illness episodes in 7355 children between February 15<sup>th</sup> 2013 and February 28<sup>th</sup> 2014. (**Figure 2**) 1322 children were included with 2 separate illness episodes, 525 children with 3 and 379 with 4 or more.

The children's median age was 2 years (interquartile range 1-4.1; total age range: 1 month to 16.9 years) and 3897 were boys (53.0%).

# **Outcome verification**

We identified 1025 admissions to hospital for >24 hours, of which 283 were for a serious infection. (**Table 1**) No patient died during this study.

Baseline characteristics	serious infection (n=283)	no serious infection (n=8381)
median age in years (IQR)	1.8 (0.8-4.2)	2 (1-4.1)
sex, male (%)	150 (53.0)	4460 (53.3)
recruited in general practice (n=3147)	11	3136
recruited at paediatric outpatient clinic (n=2895)	75	2820
recruited at emergency department (n=2622)	197	2425
final outcome (admission >24h with)		
sepsis	10	0
meningitis	17	0
appendicitis	15	0
pneumonia	163	0
osteomyelitis	0	0
cellulitis	3	0
bacterial gastro-enteritis with dehydration	21	0
complicated urinary tract infection	54	0
non-serious infection	0	8381

Table 1: Baseline characteristics for children with or without a serious infection

IQR: interquartile range; h: hours

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The prevalence of serious infections was 3.3% (95%Cl 2.9 - 3.7%), increasing significantly from 0.3% (95%Cl 0.1-0.6) in general practice over 2.6% (95%Cl 2.0-3.2) in paediatric outpatients to 7.5% (95%Cl 6.5-8.5) in the ED setting.

There were only 11 cases of serious infection in the GP setting, of which eight pneumonia, two a complicated urinary tract infection and one appendicitis. All 27 cases of sepsis and meningitis were identified in the specialist setting of whom 16 children had a viral meningitis (mostly Enterovirus or Herpes simplex), 1 had a bacterial meningeal infection (Group B Streptococcus), 5 had Streptococcus pneumoniae sepsis, 1 had Haemophilus influenzae type B sepsis (despite evidence of prior immunization), 1 Neisseria meningitidis sepsis, and 3 had uropathogenic sepsis (e.g. Escherichia coli).

## I. Accuracy of individual features

In the GP setting, only gut feeling, fever >1 day, eating or drinking less, and being less active had sensitivities above 80% (**Supplementary File 2**). In ambulatory paediatrics and the ED, overall sensitivities were even lower, with only fever duration >1 day and fever not reducing to normal temperatures after antipyretics having sensitivities above 80%.

Red flags (specificity >99%) included reduced consciousness, bloody diarrhoea, inconsistent speech, abnormal skin turgor and fontanel tension, petechial rash, meningeal irritation, nasal flaring, cyanosis, reduced peripheral circulation and peritoneal irritation.

The areas under the ROC curves (AUC) for temperature, breathing and heart rate per setting were low (0.58-0.69), except for breathing rate in the GP setting (AUC 0.80; 95%CI 0.63-0.97), probably due to the high number of pneumonia cases in this setting (Supplementary File 3).

## II. Validation of the 4-step decision tree

**Figure 3** shows all diagnostic properties of the decision tree per setting. In general practice, sensitivity was 100% (95%Cl 71.5-100) and specificity 77.7% (95%Cl 76.2-79.1), and 23% of children seen by the GP tested positive on the tree. Sensitivity and specificity was lower in both specialist settings, although confidence intervals overlap.

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The diagnostic value of the tree for pneumonia, urinary tract infection and sepsis/meningitis is reported in **Table 2**. For pneumonia, the diagnostic characteristics were almost identical to those for the composite outcome of serious infections, which is unsurprising since pneumonia cases made up 58% of all serious infections. Specificity was higher for complicated urinary tract infection (88.5%, 95%CI 87.3-89.5%).

For sepsis and meningitis, sensitivity was 69.6% (95%Cl 47.1-86.8%) in the ED, where the large majority of cases were seen.

setting		pneumonia	subgroups serious infections UTI	sepsis/meningitis
all	sens spec	<b>80.4</b> (73.4-86.2) <b>64.8</b> (63.8-65.8)	<b>66.7</b> (52.5-78.9) <b>64.1</b> (63.1-65.2)	<b>66.7</b> (52.5-78.9) <b>64.1</b> (63.1-65.2)
GP	sens spec	<b>100</b> (63.1-100) <b>79.2</b> (77.7-80.6)	<b>100</b> (15.8-100) <b>88.5</b> (87.3-89.5)	no cases
Paed	sens spec	<b>84.3</b> (71.4-93.0) <b>59.9</b> (58.1-61.7)	<b>73.3</b> (44.9-92.2) <b>59.3</b> (57.5-61.1)	<b>73.3</b> (44.9-92.2) <b>59.3</b> (57.5-61.1)
ED	sens spec	<b>76.9</b> (67.6-84.6) <b>54.9</b> (53.0-56.9)	<b>62.2</b> (44.8-77.5) <b>53.9</b> (51.9-55.8)	<b>62.2</b> (44.8-77.5) <b>53.9</b> (51.9-55.8)

Table 2: Results for pneumonia, urinary tract infection and sepsis/meningitis.

GP: general practice; Paed: paediatric outpatient clinic; ED: emergency department; sens: sensitivity; spec: specificity; all diagnostic characteristics are given with their respective 95% confidence intervals in brackets; UTI: complicated urinary tract infections; sepsis/meningitis: composite group of sepsis and meningitis cases

### **Optimized & pragmatic thresholds**

Figure 4 illustrates the threshold changes, when (I) optimizing the splits of the decision tree

variables using CART, and (II) applying the pragmatic approach.

In the GP setting, using the pragmatic "temperature" threshold of 40°C, sensitivity remained at 100% (95%CI 71.5-100%) and specificity was 83.6% (95%CI 82.3-84.9%), which is higher than the value obtained with the original tree (but lower than that with the optimal threshold

(40.7°C) of 85.4% (95%CI 84.1-86.6%)).

In the specialist settings, these strategies increased sensitivity up to 92.0% (95%CI 83.4-

97.0%), however at the expense of a lower specificity up to 44.8% (95%CI 43.0-46.7%).

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The sensitivity analyses revealed similar sensitivities and specificities with overlapping

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## DISCUSSION

## Summary

Validating the 4-step decision tree in a new and independent but similar population nine years after the derivation study, demonstrated a sensitivity and NPV of 100% in the GP setting, thus confirming its usefulness to rule out serious infections in general practice. This perfect sensitivity suggests that current practice could be improved by using the tree since four of the 11 children with a serious infection were initially not identified at first presentation. A clinical decision tree that is able to rule out serious infections is especially useful in low prevalence situations. There were only 11 hospital admissions for a serious infection in the GP setting (0.3%), most of which were pneumonia (8 cases) and there were no cases of sepsis or meningitis. This very low prevalence is comparable to that in the derivation study (0.4% in the GP setting).[6]

In the paediatric outpatient clinic and ED settings, the tree did not provide useful rule out value, although sensitivity rose considerably to 92% in the paediatric outpatient clinic setting if the thresholds were optimized.

Using pragmatic thresholds allowed us to enhance overall clarity and ease-of-use, without losing diagnostic accuracy in the GP and paediatric outpatient setting.

## Strengths and limitations

This was a prospective multi-centre validation study of the 4-step decision tree in a large and similar population of children. We included almost 9000 illness episodes, which makes this study one of the largest cohorts of children with acute illness.[15, 16]

The Belgian healthcare system allows for unlimited access to paediatric outpatient clinics and emergency departments, alongside general practice. This provides us with a unique opportunity to examine acutely ill children in different urgent-access settings.

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To ensure identification of all admissions for serious infection, the outcome was measured through three complementary strategies. Nonetheless this verification depended on the quality of medical records and follow-up.

We asked the participating physicians to record a list of standardized clinical features, which could lead to additional testing and potentially facilitating a diagnosis of serious infection (work-up bias), inflating sensitivity and specificity.[17] For this reason, the outcome was defined as hospital admission for a serious infection, rather than hospital admission or serious infection.

## Comparison with existing literature

Very few studies have validated clinical prediction rules of vital signs and symptoms in acutely ill children in primary care.[5] Most research has been performed in secondary care, with varying results.[8, 15, 18, 19]To our knowledge, there is only one prior study, which conducted a retrospective validation in a low prevalence setting, and found a sensitivity of 90% for the 4-step decision tree.[7]

## Implications for clinicians

Signs and symptoms are the first available tests to support clinical decision making in primary care.[20] Clinician's feeling that "something is wrong" (gut feeling) is confirmed to be an important predictor of serious infection.[6] Other red flags, such as cyanosis, poor peripheral circulation, meningeal irritation and petechial rash are useful as they raise the probability of serious infections, but are rarely present.[5]

Physicians often choose not to measure vital signs, assuming them to be normal, however most recent guidelines advice to measure vital signs, [13, 21] as they might act as a red flag for serious infection, and this is confirmed by the results of our study.

The decision tree consisting of gut feeling, dyspnoea, temperature >40°C and diarrhoea is able to safely exclude serious infection that warrants hospital admission in children in general practice.

## **BMJ Open**

However, 17% of acutely ill children will be labelled as potentially at risk of a serious infection of whom 98% will be false positive. Consequently, appropriate additional strategies such as rapid laboratory testing or watchful waiting with adequate safety netting need to be put in place to reduce unnecessary referrals.

#### Implications for research

Blood tests are currently rarely performed in acutely ill children in primary care, because the result becomes available too late to influence clinical decision-making. In adults, rapid laboratory tests such as C-reactive protein have shown to be useful in improving the management of lower respiratory tract infections.[22]

Future research might be able to establish the exact role of such tests in the management of acutely ill children presenting to ambulatory care. 

#### **BMJ Open**

JV, ML, ADS, AVDB, BA, FB conceived the study. JV, ML, TDB supervised data collection, performed data follow up and data cleaning. JV performed the analyses, which were discussed with AVDB, BS and FB. JV drafted this report and ML, TDB, ADS, DB, BA, BS, AVDB and FB co-drafted and commented on the final version. All authors have read and approved the final manuscript.

### **COMPETING INTERESTS**

All authors have completed the ICMJE uniform disclosure form at <u>www.icmje.org/coi\_disclosure.pdf</u> and declare: no support from any organisation for the submitted work; no financial relationships with any organisations that might have an interest in the submitted work in the previous three years; no other relationships or activities that could appear to have influenced the submitted work. DMAB is a recipient of a senior clinical investigator fellowship from the Research Foundation Flanders (FWO).

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## **DATA SHARING STATEMENT**

All data for these analyses are included in the manuscript or online appendices. No additional data available.

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# **FIGURES & SUPPLEMENTARY FILES**

Figure 1: 4-step decision tree developed by Van den Bruel et al.[6]

SI: serious infections: GP: general practitioner; yrs: years; red boxes: comprises children testing positive on the decision tree; green box: comprises children testing negative on the decision tree

Figure 2: Flowchart of inclusions in recruited children

Figure 3: validation results of 4-step decision tree for all serious infections

GP: general practice; Paed: paediatric outpatient clinic; ED: emergency department; prevalence: prevalence of serious infection within this setting; LR: likelihood ratio; PV: predictive value; 95%CI: 95% confidence intervals

Figure 4: validation results after applying optimized and pragmatic thresholds to 4-step decision tree

Yellow boxes: threshold changes after applying the optimization using classification and regression tree analysis (CART); orange boxes: additional threshold changes after applying the pragmatic approach; sensitivity and specificity are given for every tree with their respective 95% confidence intervals in brackets; y: years

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Supplementary File 1: clinical features and number (%) of missing values n/N: number of children with a missing value for this predictor out of all children; sec: seconds; GP: general practice; Paed: paediatric outpatient clinic; ED: emergency department

Supplementary File 2a: bivariable analyses of clinical features to identify serious infections in the general practice setting

LR+: positive likelihood ratio; LR-: negative likelihood ratio; PPV: positive predictive value; NPV: negative predictive value; 95%CI: 95% confidence intervals

Supplementary File 2b: bivariable analyses of clinical features to identify serious infections in the specialist setting

LR+: positive likelihood ratio; LR-: negative likelihood ratio; PPV: positive predictive value; NPV: negative predictive value; 95%CI: 95% confidence intervals

**Supplementary File 3:** Receiver-Operating-Characteristic (ROC) curves for the vital signs measurements on a continuous scale per setting.

GP: general practice; specialist setting: paediatric outpatient clinic and emergency department setting combined; circles and triangles: scatter plots in GP and specialist setting respectively; regression plot: regression plot using fractional polynomials (smooth function using flexible parameterization for continuous variables). The Area Under the Curves (AUC) values are shown for both settings (black: GP setting; grey: specialist setting) in every graph. For oxygen saturation the inverse of the absolute value was used, as lower values tend to correspond with more severe cases.





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setting	prevalence	sensitivity (95% CI)	specificity (95% CI)	LR (95% C negative pos	) PV (9 tive negative	5% CI) positive						
all	3.3%	74.2 (68.7-79.2)	65.6 (64.6-66.6)	0.4 2.	2 98.7 2.3) (98.4-99.0	6.8 ) (5.9-7.7)						
GP	0.3%	100 (71.5-100)	77.7 (76.2-79.1)	0.1 4. (0.0-0.8) (3.8-	3 100 4.9) (99.8-100	1.6 ) (0.8-2.8)			•			
Paed	2.6%	82.7 (72.2-90.4)	60.5 (58.7-62.3)	0.3 2. (0.2-0.5) (1.9-	1 99.2 2.3) (98.7-99.6	5.3 ) (4.0-13.2)			_		+	
ED	7.5%	69.5 (62.6-75.9)	56.0 (54.0-58.0)	0.5 1. (0.4-0.7) (1.4-	6 95.8 1.8) (94.6-96.8	11.4 ) (9.7-13.3)					+	
							0% 20%	40% 60% 80% sensitivity (95%Cl)	100% 0%	20%	40% 60% 80% ecificity (95%Cl)	100%
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informed concept	aattiaa	1/2/2 (CR/Read/ED)	0/0664	0.0%				
mormed consent	date of birth	date	8/8664	0.1%	-	-	-	-
	sex	0/1 (boy/girl)	3/8664	0.0%	-	-	-	-
age	age in years	# years	3/8664	0.0%	<u> </u>	~	100	-
history taking	presenting complaints	string variable	99/8664	1.1%	-	-	-	-
	chronic condition	string variable	2//0/8004	32.0%	106/9664	- 1.29/	-	-
	child is less active	0/1/2 (no/yes/couldnotevaluate)	228/8664	2.6%	18/8664	0.2%	-	-
	child is sleepy	0/1/2 (no/ves/couldnotevaluate)	260/8664	3.0%	22/8664	0.3%	-	-
	child is hard to wake up	0/1/2 (no/yes/couldnotevaluate)	291/8664	3.3%	16/8664	0.2%	-	-
	child cries a lot	0/1/2 (no/yes/couldnotevaluate)	253/8664	2.9%	14/8664	0.2%	-	-
	child has abnormal behaviour	0/1/2 (no/yes/couldnotevaluate)	275/8664	3.2%	39/8664	0.5%	-	-
	child's speech is inconsistent	0/1/2 (no/yes/couldnotevaluate)	303/8664	3.5%	285/8664	3.3%	-	-
	tever present?	0/1/2 (no/yes/couldnotevaluate)	537/8004 402/0664	6.2%	165/8664	1.9%	-	-
	duration of fever	# dave	403/0004 868/866/	10.0%	-	-	-	-
	fever improvement with antipyretics	n/1/2 (no/ves/couldnotevaluate)	995/8664	11.5%	541/8664	6.2%		
	diarrhoea	0/1/2 (no/yes/couldnotevaluate)	201/8664	2.3%	20/8664	0.2%	-	_
	bloody diarrhoea	0/1/2 (no/yes/couldnotevaluate)	393/8664	4.5%	11/8664	0.1%	-	-
	stomach ache	0/1/2 (no/yes/couldnotevaluate)	344/8664	4.0%	400/8664	4.6%	-	-
	vomiting	0/1/2 (no/yes/couldnotevaluate)	257/8664	3.0%	25/8664	0.3%	-	-
	persistent vomiting	0/1/2 (no/yes/couldnotevaluate)	444/8664	5.1%	18/8664	0.2%	-	-
	bile-stained vomiting	0/1/2 (no/yes/couldnotevaluate)	496/8664	5.7%	17/8664	0.2%	-	-
	does your child eat and drink less?	0/1/2 (no/yes/couldnotevaluate)	226/8664	2.6%	15/8664	0.2%	-	-
	does your child pee less?	0/1/2 (no/yes/couldnotevaluate)	286/8664	3.3%	159/8664	1.8%	-	-
	short of breath	0/1/2 (no/yes/couldnotevaluate)	340/8664	3.9%	49/8664	0.6%	-	-
	cougning	0/1/2 (no/yes/couldnotevaluate)	279/0664	2.0%	12/8004	0.1%	-	-
	neck nain	0/1/2 (no/yes/couldnotevaluate)	297/8664	3.4%	457/8664	5.3%		
observation	aut feeling something is wrong	0/1/2 (no/yes/couldnotevaluate)	334/8664	3.9%	72/8664	0.8%	-	-
	clinical impression child is seriously ill	0/1/2 (no/ves/couldnotevaluate)	282/8664	3.3%	62/8664	0.7%		-
	child is irritable	0/1/2 (no/ves/couldnotevaluate)	270/8664	3.1%	7/8664	0.1%	-	-
	child is drowsy	0/1/2 (no/yes/couldnotevaluate)	272/8664	3.1%	3/8664	0.0%	-	-
	child had reduced consciousness	0/1/2 (no/yes/couldnotevaluate)	265/8664	3.1%	2/8664	0.0%		
	child is inconsolable	0/1/2 (no/yes/couldnotevaluate)	271/8664	3.1%	6/8664	0.1%	-	-
	child is moaning	0/1/2 (no/yes/couldnotevaluate)	265/8664	3.1%	7/8664	0.1%		-
	child has nasal flaring	0/1/2 (no/yes/couldnotevaluate)	271/8664	3.1%	9/8664	0.1%	-	-
	chestwall retractions	0/1/2 (no/yes/couldnotevaluate)	276/8664	3.2%	8/8664	0.1%	-	
	child laughs less	0/1/2 (no/yes/couldnotevaluate)	2/3/8664	3.2%	33/8664	0.4%	-	-
cinical examination	signs of agute atitis modia	0/1/2 (no/yes/couldnotevaluate)	353/9664	4.1%	10/0004	0.2%	-	-
	bilateral otitis media	0/1/2 (no/yes/couldnotevaluate)	401/8664	4.170	21/8664	0.3%		
	discharging ears	0/1/2 (no/yes/couldnotevaluate)	496/8664	5.7%	11/8664	0.1%	-	
	extensive adenopathy	0/1/2 (no/ves/couldnotevaluate)	339/8664	3.9%	11/8664	0.1%	-	-
	redness and or swelling of face	0/1/2 (no/yes/couldnotevaluate)	342/8664	3.9%	4/8664	0.0%	-	-
	purulent conjunctivae	0/1/2 (no/yes/couldnotevaluate)	330/8664	3.8%	3/8664	0.0%	-	-
	bilateral purulent conjunctivae	0/1/2 (no/yes/couldnotevaluate)	353/8664	4.1%	2/8664	0.0%	-	-
	dyspnea	0/1/2 (no/yes/couldnotevaluate)	330/8664	3.8%	13/8664	0.1%	-	-
	crepitations (crackling)	0/1/2 (no/yes/couldnotevaluate)	334/8664	3.9%	11/8664	0.1%	-	-
	reduced breathing sounds	0/1/2 (no/yes/couldnotevaluate)	348/8664	4.0%	9/8664	0.1%	-	-
	monchi	0/1/2 (no/yes/couldnotevaluate)	292/8004	3.4%	8/8004	0.1%	-	-
	peritoneal irritation	0/1/2 (no/yes/couldnotevaluate)	507/8664	5.9%	20/8664	0.2%	-	
	petechial rash	0/1/2 (no/ves/couldnotevaluate)	332/8664	3.8%	3/8664	0.0%	-	
	meningeal irritation	0/1/2 (no/ves/couldnotevaluate)	344/8664	4.0%	10/8664	0.1%	-	
	reduced peripheral circulation	0/1/2 (no/ves/couldnotevaluate)	341/8664	3.9%	5/8664	0.1%	-	-
	pale	0/1/2 (no/yes/couldnotevaluate)	333/8664	3.8%	6/8664	0.1%	-	-
	skin turgor	0/1/2 (no/yes/couldnotevaluate)	342/8664	3.9%	17/8664	0.2%	-	-
		0/1/2/3/4 (normal/bulged/						
	200 A	couldnotevaluate/sunken/not						
	fontanel tension	applicable)	368/8664	4.2%	27/8664	0.3%	-	-
	swollen limb, non weight bearing extremity	0/1/2 (no/yes/couldnotevaluate)	2354/8664	27.2%	16/8664	0.2%	-	-
	measured temperature	(couldnotevaluate/notmeasured)	1484/8664	17.1%	31/8664	0.4%	555/8664	6.4%
	highest temperature (measured or reported)	(could actovaluate/potmoscured)	420/8664	4 99/	2/9664	0.0%	113/8664	1 30/
	breathing rate	#/min	2671/8664	30.8%	183/866/	2 1%	3/10/866/	30.5%
	heart rate	#/min	2466/8664	28.5%	180/8664	2.1%	2898/8664	33.4%
	oxygen saturation	%	2567/8664	29.6%	212/8664	2.4%	3195/8664	36.9%
	capillary refill	# sec	2373/8664	27.4%	25/8664	0.3%	2595/8664	30.0%
diagnosis	working diagnosis	string variable	202/8664	2.3%		-		-
		urzid/4/5						
treatment	antinvitics	naracetamol/ihuprofen/both)	781/8664	9.0%	S/BSSA	0.1%		
a solution.	antibiotics	0/1 (no/ves)	1162/8664	13 4%	0/0004	0.170		
	delayed antibiotic preacription	0/1 (no/yea)	2014/8664	23.2%	-	-		
	I believe the parents expect antibiotics	0/1/2 (no/yes/couldnotevaluate)	2426/8664	28.0%	519/8664	6.0%	-	-
and a seal that a to	extra tests?	0/1/2 (no/yes/couldnotevaluate)	1120/8664	12.9%	3/8664	0.0%	•	
reienal/lesis				0.0000000000000000000000000000000000000				
reienai/lesis	blood test?	0/1 (no/yes)	2554/8664	29.5%	-		-	-
reierrai/tests	blood test? X-ray?	0/1 (no/yes) 0/1 (no/yes)	2554/8664 2636/8664	29.5% 30.4%	-	-	-	
referraintests	blood test? X-ray? urine test?	0/1 (no/yes) 0/1 (no/yes) 0/1 (no/yes)	2554/8664 2636/8664 1795/8664	29.5% 30.4% 20.7%	-	-	-	-

175x234mm (300 x 300 DPI)

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уре	variable	sensitivity	95% CI	specificity	95% CI	LR+	95% CI	LR-	95% CI	PPV	95% C	I NPV	95% (
iston taking	illness is different from provinus illnesses	20.0	25 55 6	86.1	848 873	14	04 50	0.0	07 13	0.5	01 1	7 00 7	00 / 0
ilotory taking	child is less active	81.8	48.2 97.3	60.4	58.6 62.1	2.1	1.6 2.7	0.3	0.1 1.1	0.7	0.3 1	4 99.9	99.6 10
	child is sleepy	72.7	39.0 94.0	72.4	70.8 74.0	2.6	1.8 3.8	0.4	0.1 1.0	0.9	0.4 1	8 99.9	99.6 10
	child is hard to wake up	18.2	2.3 51.8	97.1	96.4 97.6	6.2	1.7 22.0	0.8	0.6 1.1	2.2	0.3 7	6 99.7	99.4 9
	child cries a lot	63.6	30.8 89.1	69.2	67.5 70.8	2.1	1.3 3.2	0.5	0.2 1.2	0.7	0.3 1	5 99.8	99.5 9
	child has abnormal behaviour	20.0	2.5 55.6	91.7	90.6 92.6	2.4	0.7 8.4	0.9	0.6 1.2	0.8	0.1 2	8 99.7	99.4 9
	child's speech is inconsistent	9.1	0.2 41.3	99.2	98.8 99.5	11.6	1.7 78.5	0.9	0.8 1.1	4.2	0.1 2	.1 99.7	99.4 9
	highest fever measured ≥ 39.5°C	27.3	6.0 61.0	73.1	71.1 74.9	1.0	0.4 2.7	1.0	0.7 1.4	0.5	0.1 1	5 <b>99.5</b>	99.0 9
	highest fever measured ≥ 40.0°C	18.2	2.3 51.8	3 <b>90.0</b>	88.6 91.2	1.8	0.5 6.4	0.9	0.7 1.2	0.9	0.1 3	2 99.5	99.1 9
	fever duration ≥ 1 day	100.0	71.5 100.	0 <b>0.6</b>	0.3 1.1	1.0	0.9 1.1	6.3	0.4 99.8	0.5	0.3 1	.0 100.0	75.3 1
	fever duration ≥ 4 days	27.3	6.0 61.0	91.1	89.7 92.3	3.1	1.2 8.1	0.8	0.6 1.2	1.6	0.3 4	7 99.6	99.2 9
	fever improves with antipyretics	77.8	40.0 97.2	2 9.4	8.1 10.8	0.9	0.6 1.2	2.4	0.7 8.1	0.4	0.2 0	.9 <b>98.8</b>	95.8
	diarrhoea	20.0	2.5 55.6	85.5	84.2 86.8	1.4	0.4 4.8	0.9	0.7 1.3	0.4	0.1 1	.6 99.7	99.4
	bloody diarrhoea	0.0	0.0 33.6	6 <b>99.7</b>	99.4 99.9	15.9	1.0 256.0	1.0	0.8 1.1	0.0	0.0 33	1.6 <b>99.7</b>	99.4
	stomach ache	60.0	26.2 87.8	<b>78.6</b>	77.1 80.1	2.8	1.7 4.7	0.5	0.2 1.1	1.0	0.4 2	1 99.8	99.6 1
	vomiting	30.0	6.7 65.2	2 <b>83.6</b>	82.2 84.8	1.8	0.7 4.7	0.8	0.6 1.3	0.6	0.1 1	7 <b>99.7</b>	99.4
	persistent vomiting	0.0	0.0 33.6	<b>97.4</b>	96.8 97.9	1.9	0.1 28.6	1.0	0.8 1.1	0.0	0.0 4	.6 <b>99.7</b>	99.4
	bile-stained vomiting	0.0	0.0 33.6	98.8	98.4 99.2	4.2	0.3 64.4	1.0	0.8 1.1	0.0	0.0 10	0.0 <b>99.7</b>	99.4
	child eats and drinks less	90.0	55.5 99.7	57.9	56.2 59.7	2.1	1.7 2.6	0.2	0.0 1.1	0.7	0.3 1	.3 <b>99.9</b>	99.7
	child pees less	40.0	12.2 73.8	91.6	90.6 92.6	4.8	2.2 10.3	0.7	0.4 1.1	1.6	0.4 4	0 <b>99.8</b>	99.5
	short of breath	50.0	18.7 81.3	88.2	87.0 89.3	4.2	2.3 7.9	0.6	0.3 1.1	1.4	0.4 3	2 <b>99.8</b>	99.6
	coughing	72.7	39.0 94.0	40.3	38.5 42.0	1.2	0.8 1.8	0.7	0.3 1.8	0.4	0.2 0	8 99.8	99.3
	headache	10.0	0.3 44.5	5 86.2	84.8 87.4	0.7	0.1 4.7	1.0	0.8 1.3	0.2	0.0 1	4 99.6	99.3
	neck pain	0.0	0.0 30.8	3 <b>97.0</b>	96.3 97.6	1.5	0.1 22.7	1.0	0.9 1.1	0.0	0.0 4	.2 <b>99.6</b>	99.3
servation	gut feeling something is wrong	80.0	44.4 97.5	5 <b>89.0</b>	87.8 90.1	7.3	5.3 10.1	0.2	0.1 0.8	2.4	1.0 4	6 <b>99.9</b>	99.7
	clinical impression child is seriously ill	50.0	18.7 81.3	91.0	89.9 92.0	5.5	3.0 10.4	0.6	0.3 1.0	1.8	0.6 4	1 99.8	99.6
	child is irritable	40.0	12.2 73.8	<b>92.1</b>	91.1 93.3	5.1	2.4 10.9	0.7	0.4 1.1	1.6	0.4 4	1 99.8	99.5
	child is drowsy	20.0	2.5 55.6	96.6	95.9 97.2	5.8	1.7 20.4	0.8	0.6 1.1	1.9	0.2 6	6 99.7	99.5
	child had reduced consciousness	10.0	0.3 44.5	5 <b>99.7</b>	99.4 99.9	34.0	4.7 244.0	0.9	0.7 1.1	10.0	0.3 44	.5 99.7	99.4
	child is inconsolable	0.0	0.0 30.8	<b>97.6</b>	97.0 98.1	1.9	0.1 28.7	1.0	0.9 1.1	0.0	0.0 4	9 99.7	99.4
	child is moaning	10.0	0.3 44.5	98.4	97.9 98.8	6.4	1.0 41.8	0.9	0.7 1.1	2.0	0.1 10	99.7	99.4
	child has nasal flaring	10.0	0.3 44.5	5 <b>99.4</b>	99.1 99.7	17.0	2.5 115.0	0.9	0.7 1.1	5.3	0.1 26	.0 <b>99.7</b>	99.4
	chestwall retractions	20.0	2.5 55.6	5 <b>97.8</b>	97.2 98.3	9.1	2.6 32.2	0.8	0.6 1.1	2.9	0.4 10	0.1 <b>99.7</b>	99.5
	child laughs less	70.0	34.8 93.9	89.9	88.8 91.0	6.9	4.6 10.6	0.3	0.1 0.9	2.2	0.9 4	.5 <b>99.9</b>	99.7
ical examination	pus on tonsils	70.0	34.8 93.3	89.9	88.8 91.0	6.9	4.6 10.6	0.3	0.1 0.9	2.2	0.9 4	.5 99.9	99.7
	signs of acute otitis media	30.0	6.7 65.3	2 80.9	79.4 82.2	1.7	0.7 4.0	0.8	0.6 1.3	0.5	0.1 1	5 99.7	99.4
	bilateral otitis media	20.0	2.5 55.6	92.0	90.9 92.9	2.5	0.7 8.7	0.9	0.6 1.2	0.8	0.1 2	.9 99.7	99.4
	discharging ears	0.0	0.0 33.6	98.2	97.7 98.7	2.8	0.2 42.6	1.0	0.8 1.1	0.0	0.0 6	.9 99.7	99.4
	extensive adenopathy	22.2	2.8 60.0	89.4	88.2 90.5	2.1	0.6 7.2	0.9	0.6 1.2	0.6	0.1 2	2 99.7	99.5
	redness and or swelling of face	0.0	0.0 30.8	95.8	95.0 96.5	1.1	0.1 16.3	1.0	0.9 1.1	0.0	0.0 2	.9 99.7	99.4
	purulent conjunctivae	0.0	0.0 30.8	95.6	94.8 96.3	1.0	0.1 15.6	1.0	0.9 1.1	0.0	0.0 2	7 99.7	99.4
	bilateral purulent conjunctivae	0.0	0.0 30.8	97.5	96.8 98.0	1.8	0.1 26.9	1.0	0.9 1.1	0.0	0.0 4	7 99.7	99.4
	dyspnea	40.0	12.2 73.8	94.7	93.8 95.5	7.6	3.5 16.4	0.6	0.4 1.1	2.4	0.7 6	1 99.8	99.5
	crepitations (crackling)	10.0	0.3 44.5	5 95.3	94.5 96.0	2.1	0.3 13.8	0.9	0.8 1.2	0.7	0.0 3	.8 99.7	99.4
	reduced breathing sounds	0.0	0.0 30.8	3 <b>97.9</b>	97.3 98.3	2.1	0.1 31.9	1.0	0.9 1.1	0.0	0.0 5	.5 99.7	99.4
	rhonchi	50.0	18.7 81.3	83.6	82.2 84.9	3.1	1.6 5.7	0.6	0.3 1.1	1.0	0.3 2	.3 99.8	99.5
	cyanosis	0.0	0.0 30.8	99.9	99.7 100.0	30.6	1.8 535.0	1.0	0.8 1.1	0.0	0.0 6	0.2 99.7	99.4
	peritoneal irritation	11.1	0.3 48.2	99.4	99.1 99.6	18.8	2.8 126.0	0.9	0.7 1.1	5.3	0.1 2	5.0 <b>99.7</b>	99.5
	petechial rash	0.0	0.0 30.8	99.7	99.4 99.9	14.6	0.9 235.0	1.0	0.8 1.1	0.0	0.0 3	B.6 99.7	99.4
	meningeal irritation	0.0	0.0 30.8	99.7	99.4 99.9	14.5	0.9 234.0	1.0	0.8 1.1	0.0	0.0 3	B.6 99.7	99.4
	reduced peripheral circulation	0.0	0.0 30.8	99.7	99.1 99.6	7.5	0.5 116.0	1.0	0.8 1.1	0.0	0.0 1	8.5 <b>99.7</b>	99.4
	pale	10.0	0.3 44.5	5 <b>95.0</b>	94.2 95.8	2.0	0.3 13.0	0.9	0.8 1.2	0.7	0.0 3	.6 99.7	99.4
	abnormal skin turgor	0.0	0.0 30.8	3 <b>99.8</b>	99.5 99.9	18.3	1.1 302.0	1.0	0.8 1.1	0.0	0.0 4	I.0 99.7	99.4
	abnormal fontanel tension	0.0	0.0 45.9	99.7	99.4 99.9	223.1	1.5 363.0	0.9	0.8 1.1	0.0	0.0 3	.9 <b>99.8</b>	99.5
	swollen limb or non weight bearing extremity	0.0	0.0 45.9	99.5	99.2 99.8	14.8	1.0 228.0	0.9	0.8 1.2	0.0	0.0 2	8.5 99.7	99.5
	measured temperature ≥ 39.5°C	0.0	0.0 33.6	3 96.1	95.3 96.9	1.3	0.1 19.3	1.0	0.9 1.1	0.0	0.0 4	.2 99.6	99.2
	measured temperature > 40.0°C	0.0	0.0 33.6	98.4	97.7 98.8	3.0	0.2 45.6	1.0	0.8 1.1	0.0	0.0 9	5 99.6	99.2
	highest temperature (measured or reported) ≥ 39.5°C	27.3	6.0 61.0	77.9	76.3 79.4	1.2	0.5 3.2	0.9	0.7 1.3	0.5	0.1 1	.4 99.6	99.3
	highest temperature (measured or reported) ≥ 40.0°C	18.2	2.3 51.8	91.6	90.5 92.6	2.2	0.6 7.6	0.9	0.7 1.2	0.8	0.1 3	.0 99.7	99.3
	breathing rate ≥ 50/min	33.3	4.3 77.3	93.4	91.7 94.8	5.0	1.6 16.0	0.7	0.4 1.3	2.9	0.4 10	0.1 <b>99.6</b>	98.9
	heart rate ≥ 150/min	12.5	0.3 52.7	96.3	95.3 97.2	3.4	0.5 21.6	0.9	0.7 1.2	1.6	0.0 8	7 99.6	99.1
	oxygen saturation ≤ 95%	0.0	0.0 52.2	88.8	87.0 90.5	0.7	0.1 10.6	1.0	0.8 1.3	0.0	0.0 2	.5 99.6	99.0
	canillary refill > 3 seconds	0.0	0.0 70.8	90.4	88.5 92.0	1.3	01 174	1.0	07 14	0.0	0.0 3	3 99 7	99.2

184x184mm (300 x 300 DPI)



	Variable	sensitivity	95% CI	specificity	95% CI	LR+	95% CI	LR-	95% CI	PPV	95% CI	NPV	95%														
istory 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 9														
	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 9														
	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 9														
	child is hard to wake up	0.4	0.0 2.1	99.8	00.6 00.0	2.0	0.3 15.2	1.0	1.0 1.0	9.1	0.2 41.3	95.1	04.5 6														
	child cries a lot	0.0	00 14	99.8	99.6 99.9	0.9	01 156	1.0	10 10	0.0	0.0 30.8	95.1	94.4														
	child has abnormal behaviour	19	06 45	99.6	99.4 99.7	4.6	18 122	10	10 10	19.2	66 394	95 3	94.6														
	child's speech is inconsistent	4.7	0.0 4.0	07.1	00 0 07 E	4.0	0.0 2.0	1.0	10 10	76	4.0 40.0	05.3	04.0														
	cinius speech is inconsistent	4.7	2.0 0.1	57.1	90.0 97.5	1.0	0.9 2.9	1.0	1.0 1.0	7.0	4.0 12.0	95.5	34.0														
	highest fever measured 2 39.5 C	63.7	57.5 69.6	52.3	50.9 53.8	1.3	1.2 1.5	0.7	0.6 0.8	7.0	0.0 8.1	90.3	95.4														
	highest rever measured ≥ 40.0°C	44.1	38.0 50.5	73.1	/1.8 /4.4	1.6	1.4 1.9	0.8	0.7 0.9	8.5	7.0 10.1	95.9	95.2														
	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														
	fever duration ≥ 4 days	20.7	15.7 26.5	83.0	81.0 84.2	1.2	0.9 1.6	1.0	0.9 1.0	6.3	4.7 8.3	95.0	94.2														
	fever improves with antipyretics	81.0	75.2 85.9	10.3	9.3 11.3	0.9	0.8 1.0	1.9	1.4 2.5	5.0	4.3 5.8	90.3	87.1														
	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														
	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														
	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														
	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														
	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														
	bile-stained vomiting	4.5	2.2 7.8	98.9	98.0 99.2	4.1	2.2 7.8	1.0	0.9 1.0	17.2	8.9 28.7	95.3	94.7														
	child eats and drinks less	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														
	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														
	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														
	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														
	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														
	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														
bservation	aut feeling something is wrong	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														
	clinical impression child is seriously ill	30.6	25.0 36.6	93.2	92.5 93.9	4.5	37 56	07	07 08	18.7	15.1 22.8	96.3	95.8														
	child is irritable	17.0	12.6 22.1	91.0	90.2 91.8	19	14 25	0.9	09 10	8.8	65 117	95.5	94.9														
	child is drowey	9.7	64 14.0	06.5	95.0 97.0	27	19 44	0.0	0.0 1.0	12.3	0.0 11.7	05.4	04.9														
	child had and used as a single second	5.1	0.4 14.0	00.0	30.3 97.0	2.1	1.0 4.1	0.5	0.0 1.0	12.5	0.1 17.0	05.0	04.0														
	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	94.0														
	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														
	child is moaning	12.5	8.7 17.1	98.2	97.8 98.5	0.8	4.0 9.9	0.9	0.9 0.9	25.0	18.2 34.2	95.7	95.1														
	child has hasal 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														
	child laughs less	11.7	8.0 16.2	95.0	94.4 95.6 88.8 90.5	2.4	1.7 3.4	0.9	0.9 1.0	10.7	7.3 14.9	95.5 96.1	94.9														
linical examination	on 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														
linical examination	on pus on tonsils signs of acute otitis media	2.0 12.3	0.6 4.5 8.5 16.9	94.2 85.0	93.5 94.9 84.0 86.0	0.3 0.8	0.1 0.8	1.0 1.0	1.0 1.1 1.0 1.1	1.7 4.0	0.6 3.9 2.7 5.6	95.0 95.0	94.3 94.4														
linical examination	on pus on tonsils signs of acute otitis media bilateral otitis media	2.0 12.3 6.7	0.6 4.5 8.5 16.9 4.0 10.5	94.2 85.0 93.9	93.5 94.9 84.0 86.0 93.2 94.6	0.3 0.8 1.1	0.1 0.8 0.6 1.2 0.7 1.8	1.0 1.0 1.0	1.0 1.1 1.0 1.1 1.0 1.0	1.7 4.0 5.3	0.6 3.9 2.7 5.6 3.1 8.4	95.0 95.0 95.2	94.3 94.4 94.5														
linical examination	on pus on tonsils signs of acute otitis media bilateral otitis media discharging ears	2.0 12.3 6.7 2.8	0.6 4.5 8.5 16.9 4.0 10.5 1.1 5.7	94.2 85.0 93.9 98.2	93.5     94.9       84.0     86.0       93.2     94.6       97.8     98.6	0.3 0.8 1.1 1.6	0.1 0.8 0.6 1.2 0.7 1.8 0.7 3.4	1.0 1.0 1.0 1.0	1.01.11.01.11.01.01.01.0	1.7 4.0 5.3 7.5	0.6 3.9 2.7 5.6 3.1 8.4 3.1 14.7	95.0 95.0 95.2 95.3	94.3 94.4 94.5 94.6														
linical examination	on pus on tonsils signs of acute olitis media bilateral olitis media discharging ears extensive cervical adenopathy	2.0 12.3 6.7 2.8 2.3	0.6 4.5 8.5 16.9 4.0 10.5 1.1 5.7 0.9 5.0	94.2 85.0 93.9 98.2 97.1	93.5     94.9       84.0     86.0       93.2     94.6       97.8     98.6       96.6     97.6	0.3 0.8 1.1 1.6 0.8	0.1 0.8 0.6 1.2 0.7 1.8 0.7 3.4 0.4 1.8	1.0 1.0 1.0 1.0 1.0	1.01.11.01.11.01.01.01.01.01.0	1.7 4.0 5.3 7.5 4.0	0.6 3.9 2.7 5.6 3.1 8.4 3.1 14.7 1.5 8.5	95.0 95.0 95.2 95.3 95.1	94.3 94.4 94.5 94.6 94.5														
linical examination	on pus on tonsils signs of acute otitis media bilateral otitis media discharging ears extensive cervical adenopathy redness and or swelling of face	2.0 12.3 6.7 2.8 2.3 5.1	0.6 4.5 8.5 16.9 4.0 10.5 1.1 5.7 0.9 5.0 2.7 8.5	94.2 85.0 93.9 98.2 97.1 97.1	93.5     94.9       84.0     86.0       93.2     94.6       97.8     98.6       96.6     97.6       96.6     97.6	0.3 0.8 1.1 1.6 0.8 1.8	0.1 0.8 0.6 1.2 0.7 1.8 0.7 3.4 0.4 1.8 1.0 3.1	1.0 1.0 1.0 1.0 1.0 1.0	1.0   1.1     1.0   1.1     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0	1.7 4.0 5.3 7.5 4.0 8.2	0.6 3.9 2.7 5.6 3.1 8.4 3.1 14.7 1.5 8.5 4.5 13.7	95.0 95.0 95.2 95.3 95.1 95.2	94.3 94.4 94.5 94.6 94.5 94.6														
linical examination	on pus on tonsils signs of acute otilis media bilateral ottis media discharging ears extensive cervical adenopathy redness and or swelling of face purulent conjunct/wae	2.0 12.3 6.7 2.8 2.3 5.1 3.9	0.6 4.5 8.5 16.9 4.0 10.5 1.1 5.7 0.9 5.0 2.7 8.5 1.9 7.0	94.2 85.0 93.9 98.2 97.1 97.1 96.4	93.5     94.9       84.0     86.0       93.2     94.6       97.8     98.6       96.6     97.6       95.9     96.9	0.3 0.8 1.1 1.6 0.8 1.8 1.1	0.1 0.8 0.6 1.2 0.7 1.8 0.7 3.4 0.4 1.8 1.0 3.1 0.6 2.0	1.0 1.0 1.0 1.0 1.0 1.0 1.0	1.0   1.1     1.0   1.1     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0	1.7 4.0 5.3 7.5 4.0 8.2 5.3	0.6 3.9 2.7 5.6 3.1 8.4 3.1 14.7 1.5 8.5 4.5 13.7 2.6 9.5	95.0 95.0 95.2 95.3 95.1 95.2 95.1	94.3 94.4 94.5 94.6 94.5 94.6 94.5														
linical examination	on pus on tonsils signs of acute ottiis media bilateral ottiis media discharging ears extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae	2.0 12.3 6.7 2.8 2.3 5.1 3.9 0.8	0.6 4.5 8.5 16.9 4.0 10.5 1.1 5.7 0.9 5.0 2.7 8.5 1.9 7.0 0.1 2.8	94.2 85.0 93.9 98.2 97.1 97.1 96.4 97.8	93.5     94.9       84.0     86.0       93.2     94.6       97.8     98.6       96.6     97.6       95.9     96.9       97.4     98.2	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4	0.1 0.8 0.6 1.2 0.7 1.8 0.7 3.4 0.4 1.8 1.0 3.1 0.6 2.0 0.1 1.4	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	1.0 1.1 1.0 1.1 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8	0.6 3.9 2.7 5.6 3.1 8.4 3.1 14.7 1.5 8.5 4.5 13.7 2.6 9.5 0.2 6.3	95.0 95.2 95.3 95.1 95.2 95.1 95.2 95.1	94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.5 94.4														
inical examinati	on pus on tonsils signs of acute othis media bilateral othis media discharging ears extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dvsonea	2.0 12.3 6.7 2.8 2.3 5.1 3.9 0.8 20.9	0.6     4.5       8.5     16.9       4.0     10.5       1.1     5.7       0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4	94.2 85.0 93.9 98.2 97.1 97.1 96.4 97.8 91.8	93.5     94.9       84.0     86.0       93.2     94.6       97.8     98.6       96.6     97.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6	0.1 0.8 0.6 1.2 0.7 1.8 0.7 3.4 0.4 1.8 1.0 3.1 0.6 2.0 0.1 1.4 2.0 3.3	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9	1.0 1.1 1.0 1.1 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.8 0.9	1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 11.6	0.6 3.9 2.7 5.6 3.1 8.4 3.1 14.7 1.5 8.5 4.5 13.7 2.6 9.5 0.2 6.3 8.8 14.8	95.0 95.2 95.3 95.1 95.2 95.1 95.2 95.1 95.1 95.1	94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.5 94.4 95.2														
linical examinati	on pus on tonsils signs of acute ottiis media bilateral ottiis media discharging ears extensive cenvical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea creatitions (crackling)	2.0 12.3 6.7 2.8 2.3 5.1 3.9 0.8 20.9 19.7	0.6 4.5 8.5 16.9 4.0 10.5 1.1 5.7 0.9 5.0 2.7 8.5 1.9 7.0 0.1 2.8 16.1 26.4 15.0 25.1	94.2 85.0 93.9 98.2 97.1 97.1 96.4 97.8 91.8 90.7	93.5     94.9       84.0     86.0       93.2     94.6       97.8     98.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       89.8     91.5	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 2.1	0.1 0.8 0.6 1.2 0.7 1.8 0.7 3.4 0.4 1.8 1.0 3.1 0.6 2.0 0.1 1.4 2.0 3.3 1.6 2.7	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9	1.0 1.1 1.0 1.1 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.8 0.9 0.8 0.9	1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 11.6 9.8	0.6 3.9 2.7 5.6 3.1 8.4 3.1 14.7 1.5 8.5 4.5 13.7 2.6 9.5 0.2 6.3 8.8 14.8 7.4 12.7	95.0 95.2 95.3 95.1 95.2 95.1 95.2 95.1 95.1 95.1 95.8 95.6	94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.5 94.4 95.2 95.0														
linical examinati	on pus on tonsils signs of acute othis media bilateral othis media discharging ears extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea creptations (crackling) reduced treathing sounds	2.0 12.3 6.7 2.8 2.3 5.1 3.9 0.8 20.9 19.7 12.1	0.6     4.5       8.5     16.9       4.0     10.5       1.1     5.7       0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.1       8.3     16.7	94.2 85.0 93.9 98.2 97.1 97.1 96.4 97.8 91.8 90.7 97.1	93.5     94.9       84.0     86.0       93.2     94.6       97.8     98.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       89.8     91.5       96.6     97.6	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 2.1 4.2	0.1     0.8       0.6     1.2       0.7     1.8       0.7     3.4       0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1	1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9	1.0 1.1 1.0 1.1 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.8 0.9 0.8 0.9 0.9 0.9	1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 11.6 9.8 17.8	0.6 3.9 2.7 5.6 3.1 8.4 3.1 14.7 1.5 8.5 4.5 13.7 2.6 9.5 0.2 6.3 8.8 14.8 7.4 12.7 12.4 24.3	95.0 95.2 95.3 95.1 95.2 95.1 95.1 95.1 95.8 95.6 95.6	94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.4 95.2 95.0 95.0														
linical examinati	on pus on tonsils signs of acute otilis media bilateral otilis media discharging ears extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea crepitations (crackling) reduced breathing sounds	2.0 12.3 6.7 2.8 2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0	0.6     4.5       8.5     16.9       4.0     10.5       1.1     5.7       0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.1       8.3     16.7	94.2 85.0 93.9 98.2 97.1 97.1 96.4 97.8 91.8 90.7 97.1 73.8	93.5     94.9       84.0     86.0       93.2     94.6       97.8     98.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       89.8     91.5       96.6     97.6       97.4     98.2       91.0     92.5       89.8     91.5       96.6     97.6       97.7     75.0	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 2.1 4.2	0.1     0.8       0.6     1.2       0.7     1.8       0.7     3.4       0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4	1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9	1.0   1.1     1.0   1.1     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     0.8   0.9     0.8   0.9     0.9   0.9	1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 11.6 9.8 17.8 5.8	0.6 3.9 2.7 5.6 3.1 8.4 3.1 14.7 1.5 8.5 4.5 13.7 2.6 9.5 0.2 6.3 8.8 14.8 7.4 12.7 12.4 24.3 4.6 7.1	95.0 95.2 95.3 95.1 95.2 95.1 95.1 95.1 95.6 95.6 95.6	94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.5 94.5 94.4 95.2 95.0 95.0 95.0														
inical examination	on pus on tonsils signs of acute othis media bilateral othis media discharging ears extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea creptations (crackling) reduced breathing sounds thorchi	2.0 12.3 6.7 2.8 2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0	0.6     4.5       8.5     16.9       4.0     10.5       1.1     5.7       0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.1       8.3     16.7       25.5     37.0	94.2 85.0 93.9 98.2 97.1 96.4 97.8 91.8 90.7 97.1 73.8	93.5     94.9       84.0     86.0       93.2     94.6       97.8     98.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       89.8     91.5       96.6     97.6       97.5     75.0       90.6     97.6	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2	0.1 0.8 0.6 1.2 0.7 1.8 0.7 3.4 0.4 1.8 1.0 3.1 0.6 2.0 0.1 1.4 2.0 3.3 1.6 2.7 2.9 6.1 1.0 1.4 2.1 10.9	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 0.9	1.0   1.1     1.0   1.1     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     1.0   1.0     0.8   0.9     0.9   0.9     0.9   1.0	1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 11.6 9.8 17.8 5.8	0.6 3.9 2.7 5.6 3.1 8.4 3.1 14.7 1.5 8.5 4.5 13.7 2.6 9.5 0.2 6.3 8.8 14.8 7.4 12.7 12.4 24.3 4.6 7.1 12.4 24.3	95.0 95.2 95.3 95.1 95.2 95.1 95.2 95.1 95.1 95.8 95.6 95.6 95.4 95.4	94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.5 94.4 95.2 95.0 95.0 94.7 94.6														
inical examination	on pus on tonsils signs of acute othis media bilateral othis media discharging ears extensive cervical adenopathy redness and or swelling of face purulent conjunctivee bilateral purulent conjunctivee dysprea creptations (crackling) reduced breathing sounds thorchi cyanosis undertoine	2.0 12.3 6.7 2.8 2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6	0.6     4.5       8.5     16.9       4.0     10.5       1.1     5.7       0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.1       8.3     16.7       25.5     37.0       0.4     3.9	94.2 85.0 93.9 98.2 97.1 97.1 96.4 97.8 90.7 97.1 73.8 99.8	93.5     94.9       84.0     86.0       93.2     94.6       97.8     98.6       96.6     97.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       98.8     91.5       96.6     97.6       99.6     97.9       99.6     97.9	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5	0.1     0.8       0.6     1.2       0.7     1.8       0.7     3.4       0.4     1.8       1.0     3.1       0.6     2.0       0.1     1.4       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 0.9 1.0	1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.9       0.9     0.9       0.9     1.0       1.0     1.0	1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 11.6 9.8 17.8 5.8 25.0	0.6 3.9 2.7 5.6 3.1 8.4 3.1 14.7 1.5 8.5 4.5 13.7 2.6 9.5 0.2 6.3 8.8 14.8 7.4 12.7 12.4 24.3 4.6 7.1 7.3 52.4	95.0 95.2 95.3 95.1 95.2 95.1 95.2 95.1 95.1 95.8 95.6 95.6 95.6 95.4	94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.4 95.2 95.0 95.0 95.0 94.7 94.6														
inical examination	on pus on tonsils signs of acute othis media bilateral othis media discharging ears extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea creptations (crackling) reduced breathing sounds thonchi cyanosis peritoneal imitation	2.0 12.3 6.7 2.8 2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1	0.6     4.5       8.5     16.9       4.0     10.5       1.1     5.7       0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.1       8.3     16.7       25.5     37.0       0.4     3.9       2.0     7.4	94.2 85.0 93.9 98.2 97.1 97.1 96.4 97.8 91.8 90.7 97.1 73.8 99.8 99.6	93.5     94.9       84.0     86.0       93.2     94.6       97.8     98.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       89.6     97.6       97.4     96.2       96.6     97.6       97.4     98.2       90.6     97.6       96.6     97.6       96.6     97.6       96.6     97.6       99.6     97.6       99.6     99.9       99.4     99.8	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7	0.1 0.8 0.6 1.2 0.7 1.8 0.7 3.4 0.4 1.8 1.0 3.1 0.6 2.0 0.1 1.4 2.0 3.3 1.6 2.7 2.9 6.1 1.0 1.4 2.1 19.9 5.4 25.2	1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 0.9 1.0 1.0	1.0     1.1       1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.9       0.8     0.9       0.9     1.0       1.0     1.0       0.10     1.0       0.2     1.0	1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 11.6 9.8 17.8 5.8 25.0 37.0	0.6     3.9       2.7     5.6       3.1     8.4       3.1     14.7       1.5     8.5       4.5     13.7       2.6     9.5       0.2     6.3       8.8     14.8       7.4     12.7       12.4     24.3       4.6     7.1       7.3     52.4       19.4     57.6	95.0 95.2 95.3 95.1 95.1 95.1 95.1 95.1 95.6 95.6 95.6 95.4 95.4	94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.4 95.2 95.0 95.0 95.0 94.7 94.8 94.8														
inical examination	on pus on tonsils signs of acute otilis media bilateral otilis media discharging ears extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea crepitations (crackling) reduced breathing sounds rhonchi cyanosis peritoneal irritation petechial rash	2.0 12.3 6.7 2.8 2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1 2.7	0.6     4.5       8.5     16.9       4.0     10.5       1.1     5.7       0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.5       2.55     37.0       0.4     3.9       2.0     7.4       1.1     5.5	94.2 85.0 93.9 98.2 97.1 96.4 97.8 91.8 90.7 97.1 73.8 99.8 99.6 98.5 98.5	93.5     94.9       84.0     86.0       93.2     94.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       89.8     91.5       96.6     97.6       97.4     98.2       91.0     92.5       89.8     91.5       96.6     97.6       97.4     98.2       91.0     92.5       89.8     91.5       99.6     99.9       99.4     99.8       98.2     98.9       98.2     98.9	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 2.1 4.2 6.5 11.7 1.8	0.1 0.8 0.6 1.2 0.7 1.8 1.0 3.1 0.6 2.0 0.1 1.4 2.0 3.3 1.6 2.7 1.6 2.7 2.9 6.1 1.0 1.4 2.1 19.9 5.4 25.2 0.9 4.0	1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 0.9 1.0 1.0 1.0	1.0     1.1       1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.9       0.8     0.9       0.9     1.0       1.0     1.0       0.9     1.0       1.0     1.0       1.0     1.0       0.9     0.9       0.9     1.0       1.0     1.0	1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 11.6 9.8 17.8 5.8 25.0 37.0 8.8	0.6 3.9 2.7 5.6 3.1 8.4 3.1 14.7 1.5 8.5 4.5 13.7 2.6 9.5 0.2 6.3 8.8 14.8 7.4 12.7 12.4 24.3 12.4 24.3 19.4 57.6 3.6 17.2	95.0 95.2 95.3 95.1 95.1 95.1 95.1 95.4 95.6 95.4 95.4 95.4 95.4 95.4	94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.4 95.2 95.0 95.0 94.7 94.6 94.8 94.5														
inical examination	on pus on tonsils signs of acute othis media bilateral othis media discharging ears extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea creptations (crackling) reduced breathing sounds rhonchi cyanosis peritoneal irritation petechial rash meningeal irritation	2.0 12.3 6.7 2.8 2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1 2.7 3.9	0.6     4.5       8.5     16.9       4.0     10.5       1.1     5.7       0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.5       3.7     0.4       3.9     2.0       2.0     7.4       1.1     5.5       1.9     7.0	94.2 85.0 93.9 98.2 97.1 96.4 97.8 91.8 90.7 97.1 73.8 99.8 99.6 98.5 99.7	93.5     94.9       84.0     86.0       93.2     94.6       97.8     98.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       96.6     97.6       97.4     98.2       98.8     91.5       96.6     97.6       99.6     99.9       99.4     99.8       99.4     99.8       99.5     99.8       99.5     99.8       99.5     99.8	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8	0.1 0.8 0.6 1.2 0.7 1.8 0.7 3.4 0.4 1.8 1.0 3.1 0.6 2.0 0.1 1.4 2.0 3.3 1.6 2.7 2.9 6.1 1.0 1.4 2.1 19.9 5.4 25.2 0.9 4.0 6.2 30.8 3.0	1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 0.9 0.9 1.0 1.0 1.0 1.0	1.0     1.1       1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.9     0.9       0.9     1.0       1.0     1.0       0.9     1.0       0.9     1.0       1.0     1.0	1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 11.6 9.8 17.8 5.8 25.0 37.0 8.8 41.7	0.6 3.9 2.7 5.6 3.1 8.4 14.7 1.5 8.5 4.5 13.7 2.6 9.5 0.2 6.3 8.8 14.8 7.4 12.7 12.4 24.3 4.6 7.1 7.3 52.4 19.4 57.6 3.6 17.2 2.21 63.4	95.0 95.0 95.2 95.3 95.1 95.2 95.1 95.1 95.4 95.6 95.4 95.4 95.2 95.4 95.2 95.4	94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.4 95.2 95.0 95.0 94.7 94.6 94.8 94.5 94.6														
inical examination	on pus on tonsils signs of acute othis media bilateral othis media discharging ears extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea creptations (crackling) reduced breathing sounds rhonchi cyanosis peritoneal initiation petechiai rash meningeal initiation	2.0 12.3 6.7 2.8 2.3 5.1 3.9 0.8 20.9 19.7 12.1 31.0 1.6 4.1 2.7 3.9 7.3	0.6     4.5       8.5     16.9       4.0     10.5       1.1     5.7       0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.5       3.7     0.4       1.1     5.5       3.9     2.0       7.4     1.1       1.9     7.0       4.5     11.2	94.2 85.0 93.9 98.2 97.1 96.4 97.8 91.8 90.7 97.1 73.8 99.6 99.8 99.6 98.5 99.7 98.4	93.5     94.9       84.0     86.0       93.2     94.6       97.8     98.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       89.8     91.5       96.6     97.6       99.4     99.8       99.2     99.9       99.4     99.8       98.2     99.5       99.5     99.8       98.0     98.7	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8 4.5	0.1 0.8 0.6 1.2 0.7 1.8 0.7 3.4 0.4 1.8 1.0 3.1 0.6 2.0 0.1 1.4 2.0 3.3 1.6 2.7 2.9 6.1 1.0 1.4 2.1 19.9 5.4 25.2 0.9 4.2 0.9 4.2 0	1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 0.9 0.9 1.0 1.0 1.0 1.0 1.0	1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.9       0.9     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0	1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 11.6 9.8 17.8 5.8 25.0 37.0 8.8 41.7 19.0	0.6 3.9 2.7 5.6 3.1 8.4 3.1 8.4 3.1 14.7 1.5 8.5 4.5 13.7 2.6 9.5 4.6 9.5 4.8 14.8 7.4 12.7 12.4 24.3 4.8 7.1 7.3 52.4 19.4 57.6 3.6 17.2 22.1 63.4 11.8 28.1	95.0 95.0 95.2 95.3 95.1 95.2 95.1 95.1 95.4 95.6 95.4 95.4 95.4 95.2 95.4 95.2 95.3	94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.4 95.2 95.0 95.0 95.0 95.0 95.0 94.7 94.6 94.8 94.5 94.6 94.5 94.6 94.7														
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94.6       97.8     96.6       97.6     97.6       96.6     97.6       95.9     96.9       97.4     98.2       98.6     97.6       97.4     98.2       98.6     97.6       99.6     97.6       99.4     99.8       99.4     99.8       98.0     98.7       99.4     99.8       99.4     99.4       99.4     99.4       99.4     99.4       99.4     99.4       99.4     99.4       99.4     99.4       99.4     99.4       99.4     99.4       99.4     99.4       99.4     99.4       99.4     99.4       99.4     99.4       99.4     99.4       99.4     99.8       90.8     99.8       99.8     99.8       99.8 <td>0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 2.1 4.2 6.5 11.7 1.8 13.8 4.5 3.6 2.8 13.7 0.5</td> <td>0.1     0.8       0.6     1.2       0.7     1.8       0.7     3.4       0.7     3.4       0.7     3.4       0.7     3.4       0.7     3.4       0.7     3.4       0.7     3.4       0.7     3.4       0.8     2.0       0.1     1.6       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9       2.1     19.9       2.4     7.3       2.7     4.8       1.0     7.8       2.3     81.7       0.1     3.5</td> <td>1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 0.9 0.9 1.0 1.0 1.0 0.9 0.9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0</td> <td>1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.9       0.9     1.0       1.0     1.0       0.9     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.8     0.9       1.0     1.0       1.0     1.0</td> <td>1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 17.8 5.8 25.0 37.0 8.8 41.7 19.0 7 12.5 40.0 2.4</td> <td>0.6     3.9       2.7     5.6       3.1     8.4       3.1     1.4       3.1     1.4       3.1     1.4       3.1     1.4       3.1     1.4       3.1     1.4       3.1     1.4       3.1     1.4       3.5     0.2       6.3     3.8       1.4     7.1       7.4     1.2.7       1.4     2.1.       1.4     1.1.       1.9.4     57.6       3.6     17.2       2.1     6.3.       1.1.8     2.0.3       3.5     2.9.0       5.3     85.3       0.5.3     85.3</td> <td>95.0 95.2 95.3 95.1 95.2 95.1 95.4 95.6 95.4 95.4 95.4 95.4 95.2 95.4 95.2 95.3 95.7 95.1</td> <td>94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.6 94.5 95.0 95.0 95.0 95.0 94.7 94.8 94.7 94.8 94.7 95.1 94.8 94.7 95.2 94.8 94.3</td>	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 2.1 4.2 6.5 11.7 1.8 13.8 4.5 3.6 2.8 13.7 0.5	0.1     0.8       0.6     1.2       0.7     1.8       0.7     3.4       0.7     3.4       0.7     3.4       0.7     3.4       0.7     3.4       0.7     3.4       0.7     3.4       0.7     3.4       0.8     2.0       0.1     1.6       2.0     3.3       1.6     2.7       2.9     6.1       1.0     1.4       2.1     19.9       2.1     19.9       2.4     7.3       2.7     4.8       1.0     7.8       2.3     81.7       0.1     3.5	1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 0.9 0.9 1.0 1.0 1.0 0.9 0.9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.9       0.9     1.0       1.0     1.0       0.9     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.8     0.9       1.0     1.0       1.0     1.0	1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 17.8 5.8 25.0 37.0 8.8 41.7 19.0 7 12.5 40.0 2.4	0.6     3.9       2.7     5.6       3.1     8.4       3.1     1.4       3.1     1.4       3.1     1.4       3.1     1.4       3.1     1.4       3.1     1.4       3.1     1.4       3.1     1.4       3.5     0.2       6.3     3.8       1.4     7.1       7.4     1.2.7       1.4     2.1.       1.4     1.1.       1.9.4     57.6       3.6     17.2       2.1     6.3.       1.1.8     2.0.3       3.5     2.9.0       5.3     85.3       0.5.3     85.3	95.0 95.2 95.3 95.1 95.2 95.1 95.4 95.6 95.4 95.4 95.4 95.4 95.2 95.4 95.2 95.3 95.7 95.1	94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.6 94.5 95.0 95.0 95.0 95.0 94.7 94.8 94.7 94.8 94.7 95.1 94.8 94.7 95.2 94.8 94.3														
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linical examinati	on pus on tonsils signs of acute othils media bilateral othis media discharging ears extensive cervical adenopathy redness and or swelling of face puralent conjunctivae bilateral purulent conjunctivae dyspnea creptations (crackling) reduced breathing sounds rhonchi cyanosis peritoneal irritation petechial rash meningael irritation pates kin abnormal skin turgor abnormal skin turgor ab	2.0 12.3 6.7 2.8 5.1 3.9 0.8 20.9 12.1 31.0 1.6 4.1 1.5 0.9 7.3 1.5 0.9 0.5 19.2	0.6     4.5       8.5     16.9       4.0     10.5       7     9.9       2.7     8.5       1.9     7.0       0.12.7     8.5       1.6     1.28       16.1     26.4       15.0     25.5       1.9     7.0       0.4     3.9       2.0     7.4       1.1     5.5       1.9     7.0       2.0     7.4       1.1     5.5       1.9     7.0       2.0     7.4       1.1     5.5       1.9     7.0       2.0     7.4       1.1     5.5       1.2     11.2       1.3     2.3       0.4     3.9       0.1     3.1       0.4     2.9       14.5     24.6       3.4     9.7	94.2 85.0 93.9 98.2 97.1 97.4 97.8 97.8 97.8 97.1 73.8 97.1 73.8 99.6 98.5 99.7 98.4 99.4 99.4 99.9 98.9 98.9 96.0	93.5     94.9       84.0     86.0       93.2     94.6       97.8     98.6       97.8     98.6       97.6     96.6       97.4     98.2       91.0     92.5       89.8     91.5       96.6     97.6       97.4     98.2       91.0     92.5       98.6     97.7       99.6     99.7       99.4     99.8       99.5     99.8       99.4     99.8       99.5     99.6       99.4     99.8       99.5     99.6       99.4     109.8       99.5     99.6       99.8     100.0       98.3     99.7       99.4     19.2       99.5     99.4	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 5 11.7 1.8 13.8 13.7 0.5 2.0 1.5	0.1     0.8     0.8       0.6     1.2     0.7     1.8       0.7     1.8     0.7     3.4       0.7     1.8     0.7     3.4       0.7     3.4     0.4     1.8       1.0     3.1     0.3     1.0       0.1     1.4     2.0     3.3       1.6     2.7     2.9     6.1       1.0     1.4     2.1     19.9       5.4     25.2     0.9     4.0       6.2     30.8     2.8     7.3       2.7     4.8     1.0     7.8       2.3     81.7     3.5     1.5       1.5     2.5     1.5     2.5	1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 0.9 1.0 1.0 1.0 0.9 0.9 1.0 1.0 0.9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.9       0.9     0.9       0.9     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.8     0.9       1.0     1.0       0.8     0.9       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     1.0       0.8     1.0       0.9     1.0	1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 11.6 9.8 17.8 5.8 25.0 37.0 8.8 41.7 12.5 40.0 2.4 10.7 2.5 40.0	0.6     3.9       2.7     5.6       3.1     8.4       3.1     14.7       1.5     8.5       4.5     13.7       2.6     9.5       0.2     6.3       8.8     14.8       7.4     12.7       12.4     24.3       4.6     7.1       7.3     52.4       12.4     24.3       4.6     7.1       7.3     52.4       19.4     57.6       3.6     17.2       22.1     63.4       11.8     20.3       3.5     29.0       5.3     85.3       0.1     12.9       8.0     13.9       4.8     13.6	95.0 95.2 95.3 95.1 95.2 95.1 95.4 95.6 95.4 95.4 95.4 95.2 95.3 95.4 95.2 95.3 95.4 95.3 95.4 95.1 95.4 95.1 95.4 95.1 95.4	94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.6 94.5 94.5 94.4 95.0 95.0 94.7 94.6 94.8 94.5 94.6 94.8 94.5 94.6 94.7 95.1 94.5 94.4 94.1 94.5 94.4 94.5 94.4 95.0 94.4 95.0 94.4 95.0 94.4 94.5 94.5 94.5 94.5 94.5 94.5 94.5														
linical examinati	on pus on tonsils signs of acute othis media biliteral othis media discharging ears extensive cervical adenopathy redness and or swelling of face purulent conjunctivae dyspnea creptations (crackling) reduced breathing sounds rhonchi cyanosis pertoneal irritation petchial rash meningeal irritation reduced perpheral circulation reduced perpheral orculation pale skin abnormal skin turgor abnormal skin turgor assumed temperature ≥ 40.0°C measured temperature ≥ 40.0°C	2.0 12.3 6.7 2.8 2.3 5.1 3.9 0.8 20.9 19.7 12.1 1.6 4.1 1.5 0.9 0.5 19.2 6.0 52.7	0.6     4.5       8.5     16.9       4.0     10.5       1.1     5.7       0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     26.4       15.0     25.1       2.55     37.0       0.4     3.9       2.0     7.4       1.1     5.5       1.9     7.0       0.4     3.9       0.1     3.6       1.3     2.4       3.0     4       3.1     0.0       2.9     14.5       2.6.7     68.6	94.2 85.0 93.9 98.2 97.1 97.4 97.8 97.8 97.8 91.8 99.8 99.7 99.8 99.8 99.8 99.5 99.7 99.4 99.9 98.5 99.7 99.9 99.9 99.9 99.9 99.9 90.2 96.0	93.5     94.9       84.0     86.0       93.2     94.6       97.8     96.6       96.6     97.6       95.9     96.9       97.4     98.2       91.0     92.5       98.8     91.5       96.6     97.6       97.4     98.2       99.4     99.8       99.5     99.8       98.5     98.7       99.5     99.8       99.2     99.6       99.3     99.2       98.4     100.0       98.3     99.2       98.4     99.2       99.4     99.2       98.3     99.2       98.4     99.2       98.3     99.2       98.4     99.4       98.3     99.2       98.4     99.4       98.3     99.2       98.4     99.4       98.5     98.8       99.4     99.4       99.5     99.8       99.4 </td <td>0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8 4.5 3.6 13.7 0.5 2.0 1.5 1.4</td> <td>0.1     0.8       0.6     1.2       0.7     1.8       0.7     3.4       0.4     1.8       1.0     3.1       0.6     2.0       0.7     3.3       1.0     3.1       0.6     2.0       0.1     1.4       2.1     1.9       5.4     25.2       0.9     4.0       6.2     30.8       2.7     4.8       1.0     7.8       2.3     81.7       0.1     3.5       1.5     2.6       0.9     2.5</td> <td>1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 0.9 1.0 1.0 1.0 1.0 0.9 0.9 1.0 1.0 1.0 1.0 0.9 0.9 0.9 0.9 1.0 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0</td> <td>1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.9       0.9     1.0       1.0     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     1.0       0.9     1.0       1.0     1.0       0.0     1.0       0.0     1.0</td> <td>1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 11.6 9.8 25.0 37.0 8.8 25.0 37.0 8.8 41.7 12.5 40.0 2.4 10.7 8.5 7.1</td> <td>0.6     3.9       2.7     5.6       3.1     8.4       3.1     14.7       1.5     8.5       0.2     6.3       1.5     8.5       0.2     6.3       8.8     14.8       7.4     12.7       12.4     24.3       4.6     7.1       7.3     52.4       19.4     57.6       3.6     17.2       2.1     63.4       11.8     20.3       3.5     29.0       5.3     85.3       0.1     12.9       8.0     13.9       4.8     13.6</td> <td>95.0 95.2 95.3 95.1 95.2 95.1 95.8 95.6 95.6 95.6 95.4 95.2 95.3 95.7 95.2 95.3 95.7 95.4 95.4 95.4 95.4 95.4 95.4 95.4 95.4</td> <td>94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.6 94.5 94.5 94.5 94.4 95.0 95.0 94.7 94.6 94.7 94.6 94.5 94.6 94.5 94.6 94.5 94.4 95.0 94.4 95.1 94.6 94.5 95.0 95.1 94.6 94.5 95.0 95.1 94.6 94.5 95.0 95.1 94.6 94.5 95.0 95.1 94.6 94.5 95.0 95.1 94.6 94.5 95.0 95.1 94.6 94.5 95.0 95.1 94.6 94.5 95.0 94.6 94.5 95.0 94.6 94.5 95.0 95.1 94.6 94.5 95.0 94.6 94.5 95.0 94.6 94.5 94.6 94.5 95.0 94.7 95.0 94.6 94.5 94.6 94.5 95.0 94.7 95.0 94.6 94.7 95.0 94.6 94.7 95.0 94.7 95.0 94.6 94.5 94.6 94.5 94.6 94.5 94.6 94.5 94.6 94.5 94.7 95.0 94.7 94.6 94.5 94.6 94.5 94.6 94.5 94.7 94.6 94.7 94.6 94.7 94.6 94.7 94.6 94.7 94.6 94.7 95.0 95.0 95.1 95.1 95.1 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5</td>	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 2.1 4.2 1.2 6.5 11.7 1.8 13.8 4.5 3.6 13.7 0.5 2.0 1.5 1.4	0.1     0.8       0.6     1.2       0.7     1.8       0.7     3.4       0.4     1.8       1.0     3.1       0.6     2.0       0.7     3.3       1.0     3.1       0.6     2.0       0.1     1.4       2.1     1.9       5.4     25.2       0.9     4.0       6.2     30.8       2.7     4.8       1.0     7.8       2.3     81.7       0.1     3.5       1.5     2.6       0.9     2.5	1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 0.9 1.0 1.0 1.0 1.0 0.9 0.9 1.0 1.0 1.0 1.0 0.9 0.9 0.9 0.9 1.0 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0	1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.9       0.9     1.0       1.0     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     1.0       0.9     1.0       1.0     1.0       0.0     1.0       0.0     1.0	1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 11.6 9.8 25.0 37.0 8.8 25.0 37.0 8.8 41.7 12.5 40.0 2.4 10.7 8.5 7.1	0.6     3.9       2.7     5.6       3.1     8.4       3.1     14.7       1.5     8.5       0.2     6.3       1.5     8.5       0.2     6.3       8.8     14.8       7.4     12.7       12.4     24.3       4.6     7.1       7.3     52.4       19.4     57.6       3.6     17.2       2.1     63.4       11.8     20.3       3.5     29.0       5.3     85.3       0.1     12.9       8.0     13.9       4.8     13.6	95.0 95.2 95.3 95.1 95.2 95.1 95.8 95.6 95.6 95.6 95.4 95.2 95.3 95.7 95.2 95.3 95.7 95.4 95.4 95.4 95.4 95.4 95.4 95.4 95.4	94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.6 94.5 94.5 94.5 94.4 95.0 95.0 94.7 94.6 94.7 94.6 94.5 94.6 94.5 94.6 94.5 94.4 95.0 94.4 95.1 94.6 94.5 95.0 95.1 94.6 94.5 95.0 95.1 94.6 94.5 95.0 95.1 94.6 94.5 95.0 95.1 94.6 94.5 95.0 95.1 94.6 94.5 95.0 95.1 94.6 94.5 95.0 95.1 94.6 94.5 95.0 94.6 94.5 95.0 94.6 94.5 95.0 95.1 94.6 94.5 95.0 94.6 94.5 95.0 94.6 94.5 94.6 94.5 95.0 94.7 95.0 94.6 94.5 94.6 94.5 95.0 94.7 95.0 94.6 94.7 95.0 94.6 94.7 95.0 94.7 95.0 94.6 94.5 94.6 94.5 94.6 94.5 94.6 94.5 94.6 94.5 94.7 95.0 94.7 94.6 94.5 94.6 94.5 94.6 94.5 94.7 94.6 94.7 94.6 94.7 94.6 94.7 94.6 94.7 94.6 94.7 95.0 95.0 95.1 95.1 95.1 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5														
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0.4     3.9       2.0     7.4       1.1     5.5       1.1     5.5       1.1     5.5       1.1     3.6       3.0.4     3.9       0.1     3.1       0.0     2.9       1.4.5     24.6       3.4     9.7       5.6.7     68.2       6.7     68.5       3.4     9.7       5.6.7     68.2       6.7     68.5	94.2 85.0 93.9 98.2 97.1 97.4 96.8 91.7 97.8 91.8 99.8 99.8 99.8 99.8 99.8 98.5 99.7 98.4 95.0 99.9 98.9 98.4 99.9 98.9 99.9 98.9 98.2 96.0 55.6 75.1 90.0	93.5     94.9       84.0     86.0       93.2     94.6       97.8     98.6       97.8     98.6       96.6     97.6       97.4     98.2       91.0     92.5       89.8     91.5       91.6     97.4       92.7     98.2       91.0     92.5       93.8     91.5       99.6     99.9       99.4     98.8       98.0     98.7       98.1     99.2       99.2     99.2       99.3     99.2       99.3     99.2       99.3     99.2       99.3     99.2       99.3     99.2       99.4     96.6       91.3     95.4       95.4     96.6       95.4     96.6       95.4     96.6       95.4     96.6       95.4     96.6       95.4     96.6       95.4     96.6       95.4 <td>0.3 0.8 1.1 1.6 0.8 1.8 1.1 4.2 1.2 1.2 1.2 1.5 11.7 1.8 13.8 13.7 0.5 2.0 1.5 1.4 1.7 2.2 2.0 2.0 2.1 2.2 2.1 2.2 2.1 2.2 2.1 2.2 2.1 2.2 2.2</td> <td>0.1 0.8 0.6 1.2 0.7 1.8 0.7 3.4 1.0 3.1 0.6 2.0 1.4 2.0 1.5 2.7 1.5 2.6 1.5 2.6 1.5 2.5 1.5 3.5 1.5 3.5 1.</td> <td>1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 0.9 0.9 0.9 1.0 1.0 1.0 1.0 0.9 0.9 1.0 1.0 1.0 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0</td> <td>1.0     1.1       1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.9     0.9       0.9     0.9       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.1     1.0       0.2     1.0       0.3     1.0       0.4     1.0       0.5     0.8       0.7</td> <td>1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 11.6 9.8 17.8 5.8 25.0 37.0 37.0 37.0 40.0 15.7 12.5 40.2 40.2 40.2 15.7 12.5 7.1 8.5 7.1 8.5 7.1 8.5 7.5 40.0 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8</td> <td>0.6     3.9       2.7     5.6       3.1     8.4       3.1     1.6       1.5     8.5       4.5     1.6       2.6     9.5       2.6     9.5       2.6     9.5       2.6     9.5       7.4     12.7       1.4     7.4       7.3     52.4       1.8     7.1       7.3     52.4       1.18     20.3       3.5     29.0       5.3     8.5.3       0.1     12.9       8.0     13.9       4.8     13.6       6.1     8.2       7.1     10.2</td> <td>95.0 95.2 95.3 95.1 95.1 95.4 95.6 95.6 95.4 95.4 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.4 95.5 95.4 95.5 95.5 95.5 95.5</td> <td>94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.6 95.0 95.0 95.0 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 0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.1     1.0       0.2     1.0       0.3     1.0       0.4     1.0       0.5     0.8       0.7	1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 11.6 9.8 17.8 5.8 25.0 37.0 37.0 37.0 40.0 15.7 12.5 40.2 40.2 40.2 15.7 12.5 7.1 8.5 7.1 8.5 7.1 8.5 7.5 40.0 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8	0.6     3.9       2.7     5.6       3.1     8.4       3.1     1.6       1.5     8.5       4.5     1.6       2.6     9.5       2.6     9.5       2.6     9.5       2.6     9.5       7.4     12.7       1.4     7.4       7.3     52.4       1.8     7.1       7.3     52.4       1.18     20.3       3.5     29.0       5.3     8.5.3       0.1     12.9       8.0     13.9       4.8     13.6       6.1     8.2       7.1     10.2	95.0 95.2 95.3 95.1 95.1 95.4 95.6 95.6 95.4 95.4 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.2 95.4 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3.7     25.9       4.5     3.6       2.5     4.6       3.7     2.9       3.6     3.7       3.7     2.9       3.6     3.6       3.7     4.9.3       3.8     3.6 <tr td="" tt<=""><td>94.2 85.0 93.9 98.2 97.1 97.1 97.4 97.4 97.4 97.4 97.4 97.4 97.4 97.4</td><td>83.5     94.9       84.0     86.0       97.8     98.6       97.8     98.6       96.6     97.6       95.9     96.9       95.9     96.9       97.4     98.2       91.0     92.5       96.6     97.6       97.4     98.2       91.0     92.5       96.6     97.6       99.4     99.9       99.5     99.8       99.2     98.0       98.7     99.3       99.8     190.0       98.3     99.2       99.4     190.0       98.3     99.2       99.4     190.0       98.3     99.2       99.4     100.0       98.3     192.2       99.4     100.0       98.3     192.2       99.4     100.0       98.3     192.2       98.4     100.0       98.4     100.0       98.4     100.0</td><td>0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 2.1 1.2 6.5 11.7 1.8 4.5 3.6 2.8 13.7 0.5 2.0 1.5 1.4 1.7 1.7 1.8 4.5 3.6 1.17 1.8 1.8 4.5 3.6 2.8 1.17 1.7 1.8 1.8 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1</td><td>0.1 0.8 0.6 1.2 0.7 1.8 0.7 3.4 1.8 1.0 3.1 0.6 2.0 0.1 1.4 2.0 3.3 1.6 2.7 2.9 6.1 1.0 1.4 2.1 19.9 5.4 25.2 0.9 4.0 9 4.0 9 4.0 9 4.0 9 4.0 1.0 1.4 2.1 19.9 5.4 25.2 0.9 4.0 1.0 1.4 2.1 19.9 5.4 25.2 0.9 4.0 1.0 5.2 8 1.7 1.5 2.6 1.5 2.5 1.5 2.5 1.</td><td>1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 0.9 1.0 1.0 1.0 1.0 1.0 0.9 1.0 1.0 1.0 0.9 0.9 1.0 1.0 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0</td><td>1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.9       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.8     0.9       1.0     1.0       0.8     0.9       1.0     1.0       0.8     0.7       0.8     0.7       0.8     1.0       0.8     1.0       0.8     1.0       0.6     0.8       0.7     0.8</td><td>1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 17.8 5.8 17.8 5.8 17.8 5.8 25.0 8.8 41.7 19.0 8.8 41.7 12.5 40.0 2.4 10.7 7.1 8.5 7.1 8.5 7.1 12.5 40.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.7 19.7 19.7 19.7 19.7 19.7 19.7 1</td><td>0.6 3.9 2.7 5.6 3.1 8.4 3.1 14.7 1.5 8.5 0.2 6.3 13.7 2.6 9.5 0.2 6.3 8.8 14.8 7.4 12.7 12.4 24.3 4.6 7.1 17.3 52.4 19.4 57.6 3.5 12.9 3.5 29.0 5.3 85.3 0.1 12.9 8.0 13.9 8.0 13.9 8.0 13.9 13.6 17.2 12.9 8.0 13.9 13.6 17.2 12.9 13.6 17.2 13.6 17.2 14.8 13.6 13.8 13.6 13.9 15.8 15.8 15.8 15.8 15.8 15.8 15.8 15.8</td><td>95.0 95.2 95.3 95.1 95.4 95.1 95.4 95.6 95.6 95.6 95.4 95.2 95.1 95.2 95.1 95.2 95.1 95.2 95.1 95.3 95.7 95.1 95.3 95.7 95.1 95.4 95.9 95.7 95.1 95.2 95.2 95.1 95.2 95.1 95.2 95.2 95.1 95.2 95.1 95.2 95.1 95.2 95.2 95.1 95.2 95.2 95.1 95.2 95.2 95.2 95.1 95.2 95.2 95.2 95.1 95.2 95.2 95.2 95.1 95.2 95.2 95.1 95.2 95.2 95.2 95.2 95.2 95.2 95.2 95.2</td><td>94.3   9 94.6   94.5   94.6   94.5   94.6   94.5   94.6   94.5   94.6   94.5   95.0   95.0   94.7   95.1   94.6   94.8   94.7   95.1   94.6   94.8   94.7   95.1   94.5   94.5   94.5   95.8   94.5   95.8  </td></tr> <tr><td>inical examinati</td><td>on pus on tonsils signs of acute othis media bilateral othis media discharging ears extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea creptations (crackling) reduced breathing sounds thonchi cyanosis peritoneal irritation petechial rash meningeal irritation reduced perpheral orculation reduced perpheral orculation reduced perpheral orculation shormal fontanel tension swollen limb or non weight bearing extremity measured temperature &gt; 40.0°C highest temperature &gt; 40.0°C highest temperature = 50/min heart rate &gt; 150/min pervene artifolion = 56/min</td><td>2.0 12.3 6.7 2.8 2.3 5.1 3.9 0.8 20.9 19.7 13.0 1.0 1.0 4.1 1.5 0.9 0.5 7.3 18.1 1.5 0.9 0.5 19.2 6.0 9 0.8 2.7 4.3 2.3 32.5 4.2 32.5 2.7 32.5 32.5 32.5 32.5 32.5 32.5 32.5 32.5</td><td>0.6     4.5       8.5     16.9       4.0     10.5       1.1     5.7       0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     2.6.3       15.0     25.1       15.0     25.1       1.3     16.7       0.4     3.9       0.4     3.9       0.4     3.9       0.1     2.8       1.1     5.5       1.3     1.6       0.4     3.9       0.4     3.9       0.1     2.8       2.0     7.4       1.1     5.5       1.3     1.3       0.0     2.9       1.4.5     2.4.6       3.4     9.7       3.7.2     49.3       1.4.8     3.6.6       2.5.9     45.8       2.0.8     2.9</td><td>94.2 85.0 93.9 98.2 97.1 97.1 96.4 97.8 91.8 91.8 91.8 91.8 91.8 91.8 93.6 98.6 98.5 98.5 99.7 98.6 99.9 99.9 99.9 99.9 99.9 99.9 90.2 96.0 55.6 75.1 90.2 98.6 98.6 98.6 98.6 99.5 98.6 99.5 98.6 99.5 99.5 99.5 99.5 99.5 99.5 99.5 99</td><td>03.5     94.9       84.0     86.0       97.8     98.6       97.8     98.6       97.8     98.6       95.9     96.9       97.4     98.6       97.4     98.6       97.4     98.2       91.0     92.5       96.0     97.6       99.4     99.8       99.4     99.8       99.5     98.0       99.5     99.4       99.4     99.8       99.2     99.6       99.3     99.6       99.4     99.8       99.2     99.6       99.3     99.6       99.4     99.8       99.2     99.6       99.2     91.0       95.4     96.6       95.4     95.4       95.4     96.6       95.4     95.4       95.4     95.4       95.4     95.4       95.4     95.4       95.4     95.4       95.4<td>0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 1.2 1.2 6.5 1.4 1.8 13.8 4.5 13.7 0.5 2.0 1.5 1.4 1.7 2.3 1.8</td><td>0.1     0.8     0.8       0.6     1.2     0.7     1.8       0.7     3.4     1.8     0.7     3.4       1.0     3.4     1.8     0.7     3.4       1.0     3.4     1.8     0.7     3.4       1.0     1.4     3.1     0.6     2.0       0.1     1.4     2.0     3.3     1.6       1.0     1.4     2.1     19.9     5.4     25.2       0.9     4.0     0.4     2.8     7.3     2.7     4.8       1.0     7.8     2.3     81.7     0.1     3.5     1.5     2.6     0.9     2.0     1.1     3.5     1.5     1.3     1.6     1.5     3.5     1.3     1.6     1.5     3.5     1.3     2.4     1.5     3.5     3.2     4.1     1.5     3.5     3.2     4.1     1.5     3.5     3.3     1.6     1.5     3.5     1.3     2.4     1.5     3.5     1.3     3.4     1</td><td>1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 0.9 0.9 1.0 1.0 0.9 0.9 1.0 0.9 0.9 1.0 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0</td><td>1.0     1.1       1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.9       0.9     0.9       0.9     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.8     0.9       1.0     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.9     1.0       0.6     0.8       0.7     0.8       0.7     0.9</td><td>1.7 4.0 8.2 5.3 1.8 11.6 9.8 25.0 37.0 8.8 25.0 37.0 8.8 41.7 19.0 15.7 12.5 7.1 8.5 7.1 8.6 13.5 11.0 13.5</td><td>0.6     3.9       2.7     5.6       3.1     8.4       3.1     1.6       1.5     8.5       4.5     1.6       2.6     9.5       4.6     7.1       7.4     12.7       7.4     12.7       7.3     52.4       11.8     28.1       11.8     20.3       3.5     29.0       5.3     85.3       0.1     12.9       8.0     13.9       4.8     13.6       2.7.1     10.2       8.5     20.1       12.8     13.9       4.8     13.6       3.5     29.0       1.7     1.9.2       8.0     1.1       8.0     1.1       9.0     1.2.2       8.1     1.6       8.2     2.1       7.1     10.2       8.5     2.1       7.4     1.2.7</td><td>95.0 95.2 95.3 95.3 95.1 95.4 95.4 95.4 95.6 95.6 95.4 95.4 95.4 95.4 95.1 95.3 95.7 95.1 95.3 95.7 95.4 95.3 95.7 95.4 95.4 95.4 95.3 95.4 95.4 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.4 95.4 95.4 95.4 95.5 95.4 95.5 95.4 95.5 95.5</td><td>94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.6 95.2 95.0 95.0 95.0 95.0 94.7 94.6 94.8 94.5 94.6 94.7 95.1 94.6 94.7 95.1 94.5 94.8 94.7 95.1 95.9 94.8 94.3</td></td></tr>	94.2 85.0 93.9 98.2 97.1 97.1 97.4 97.4 97.4 97.4 97.4 97.4 97.4 97.4	83.5     94.9       84.0     86.0       97.8     98.6       97.8     98.6       96.6     97.6       95.9     96.9       95.9     96.9       97.4     98.2       91.0     92.5       96.6     97.6       97.4     98.2       91.0     92.5       96.6     97.6       99.4     99.9       99.5     99.8       99.2     98.0       98.7     99.3       99.8     190.0       98.3     99.2       99.4     190.0       98.3     99.2       99.4     190.0       98.3     99.2       99.4     100.0       98.3     192.2       99.4     100.0       98.3     192.2       99.4     100.0       98.3     192.2       98.4     100.0       98.4     100.0       98.4     100.0	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 2.1 1.2 6.5 11.7 1.8 4.5 3.6 2.8 13.7 0.5 2.0 1.5 1.4 1.7 1.7 1.8 4.5 3.6 1.17 1.8 1.8 4.5 3.6 2.8 1.17 1.7 1.8 1.8 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1	0.1 0.8 0.6 1.2 0.7 1.8 0.7 3.4 1.8 1.0 3.1 0.6 2.0 0.1 1.4 2.0 3.3 1.6 2.7 2.9 6.1 1.0 1.4 2.1 19.9 5.4 25.2 0.9 4.0 9 4.0 9 4.0 9 4.0 9 4.0 1.0 1.4 2.1 19.9 5.4 25.2 0.9 4.0 1.0 1.4 2.1 19.9 5.4 25.2 0.9 4.0 1.0 5.2 8 1.7 1.5 2.6 1.5 2.5 1.5 2.5 1.	1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 0.9 1.0 1.0 1.0 1.0 1.0 0.9 1.0 1.0 1.0 0.9 0.9 1.0 1.0 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0	1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.9       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.8     0.9       1.0     1.0       0.8     0.9       1.0     1.0       0.8     0.7       0.8     0.7       0.8     1.0       0.8     1.0       0.8     1.0       0.6     0.8       0.7     0.8	1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 17.8 5.8 17.8 5.8 17.8 5.8 25.0 8.8 41.7 19.0 8.8 41.7 12.5 40.0 2.4 10.7 7.1 8.5 7.1 8.5 7.1 12.5 40.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.7 19.7 19.7 19.7 19.7 19.7 19.7 1	0.6 3.9 2.7 5.6 3.1 8.4 3.1 14.7 1.5 8.5 0.2 6.3 13.7 2.6 9.5 0.2 6.3 8.8 14.8 7.4 12.7 12.4 24.3 4.6 7.1 17.3 52.4 19.4 57.6 3.5 12.9 3.5 29.0 5.3 85.3 0.1 12.9 8.0 13.9 8.0 13.9 8.0 13.9 13.6 17.2 12.9 8.0 13.9 13.6 17.2 12.9 13.6 17.2 13.6 17.2 14.8 13.6 13.8 13.6 13.9 15.8 15.8 15.8 15.8 15.8 15.8 15.8 15.8	95.0 95.2 95.3 95.1 95.4 95.1 95.4 95.6 95.6 95.6 95.4 95.2 95.1 95.2 95.1 95.2 95.1 95.2 95.1 95.3 95.7 95.1 95.3 95.7 95.1 95.4 95.9 95.7 95.1 95.2 95.2 95.1 95.2 95.1 95.2 95.2 95.1 95.2 95.1 95.2 95.1 95.2 95.2 95.1 95.2 95.2 95.1 95.2 95.2 95.2 95.1 95.2 95.2 95.2 95.1 95.2 95.2 95.2 95.1 95.2 95.2 95.1 95.2 95.2 95.2 95.2 95.2 95.2 95.2 95.2	94.3   9 94.6   94.5   94.6   94.5   94.6   94.5   94.6   94.5   94.6   94.5   95.0   95.0   94.7   95.1   94.6   94.8   94.7   95.1   94.6   94.8   94.7   95.1   94.5   94.5   94.5   95.8   94.5   95.8	inical examinati	on pus on tonsils signs of acute othis media bilateral othis media discharging ears extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea creptations (crackling) reduced breathing sounds thonchi cyanosis peritoneal irritation petechial rash meningeal irritation reduced perpheral orculation reduced perpheral orculation reduced perpheral orculation shormal fontanel tension swollen limb or non weight bearing extremity measured temperature > 40.0°C highest temperature > 40.0°C highest temperature = 50/min heart rate > 150/min pervene artifolion = 56/min	2.0 12.3 6.7 2.8 2.3 5.1 3.9 0.8 20.9 19.7 13.0 1.0 1.0 4.1 1.5 0.9 0.5 7.3 18.1 1.5 0.9 0.5 19.2 6.0 9 0.8 2.7 4.3 2.3 32.5 4.2 32.5 2.7 32.5 32.5 32.5 32.5 32.5 32.5 32.5 32.5	0.6     4.5       8.5     16.9       4.0     10.5       1.1     5.7       0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     2.6.3       15.0     25.1       15.0     25.1       1.3     16.7       0.4     3.9       0.4     3.9       0.4     3.9       0.1     2.8       1.1     5.5       1.3     1.6       0.4     3.9       0.4     3.9       0.1     2.8       2.0     7.4       1.1     5.5       1.3     1.3       0.0     2.9       1.4.5     2.4.6       3.4     9.7       3.7.2     49.3       1.4.8     3.6.6       2.5.9     45.8       2.0.8     2.9	94.2 85.0 93.9 98.2 97.1 97.1 96.4 97.8 91.8 91.8 91.8 91.8 91.8 91.8 93.6 98.6 98.5 98.5 99.7 98.6 99.9 99.9 99.9 99.9 99.9 99.9 90.2 96.0 55.6 75.1 90.2 98.6 98.6 98.6 98.6 99.5 98.6 99.5 98.6 99.5 99.5 99.5 99.5 99.5 99.5 99.5 99	03.5     94.9       84.0     86.0       97.8     98.6       97.8     98.6       97.8     98.6       95.9     96.9       97.4     98.6       97.4     98.6       97.4     98.2       91.0     92.5       96.0     97.6       99.4     99.8       99.4     99.8       99.5     98.0       99.5     99.4       99.4     99.8       99.2     99.6       99.3     99.6       99.4     99.8       99.2     99.6       99.3     99.6       99.4     99.8       99.2     99.6       99.2     91.0       95.4     96.6       95.4     95.4       95.4     96.6       95.4     95.4       95.4     95.4       95.4     95.4       95.4     95.4       95.4     95.4       95.4 <td>0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 1.2 1.2 6.5 1.4 1.8 13.8 4.5 13.7 0.5 2.0 1.5 1.4 1.7 2.3 1.8</td> <td>0.1     0.8     0.8       0.6     1.2     0.7     1.8       0.7     3.4     1.8     0.7     3.4       1.0     3.4     1.8     0.7     3.4       1.0     3.4     1.8     0.7     3.4       1.0     1.4     3.1     0.6     2.0       0.1     1.4     2.0     3.3     1.6       1.0     1.4     2.1     19.9     5.4     25.2       0.9     4.0     0.4     2.8     7.3     2.7     4.8       1.0     7.8     2.3     81.7     0.1     3.5     1.5     2.6     0.9     2.0     1.1     3.5     1.5     1.3     1.6     1.5     3.5     1.3     1.6     1.5     3.5     1.3     2.4     1.5     3.5     3.2     4.1     1.5     3.5     3.2     4.1     1.5     3.5     3.3     1.6     1.5     3.5     1.3     2.4     1.5     3.5     1.3     3.4     1</td> <td>1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 0.9 0.9 1.0 1.0 0.9 0.9 1.0 0.9 0.9 1.0 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0</td> <td>1.0     1.1       1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.9       0.9     0.9       0.9     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.8     0.9       1.0     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.9     1.0       0.6     0.8       0.7     0.8       0.7     0.9</td> <td>1.7 4.0 8.2 5.3 1.8 11.6 9.8 25.0 37.0 8.8 25.0 37.0 8.8 41.7 19.0 15.7 12.5 7.1 8.5 7.1 8.6 13.5 11.0 13.5</td> <td>0.6     3.9       2.7     5.6       3.1     8.4       3.1     1.6       1.5     8.5       4.5     1.6       2.6     9.5       4.6     7.1       7.4     12.7       7.4     12.7       7.3     52.4       11.8     28.1       11.8     20.3       3.5     29.0       5.3     85.3       0.1     12.9       8.0     13.9       4.8     13.6       2.7.1     10.2       8.5     20.1       12.8     13.9       4.8     13.6       3.5     29.0       1.7     1.9.2       8.0     1.1       8.0     1.1       9.0     1.2.2       8.1     1.6       8.2     2.1       7.1     10.2       8.5     2.1       7.4     1.2.7</td> <td>95.0 95.2 95.3 95.3 95.1 95.4 95.4 95.4 95.6 95.6 95.4 95.4 95.4 95.4 95.1 95.3 95.7 95.1 95.3 95.7 95.4 95.3 95.7 95.4 95.4 95.4 95.3 95.4 95.4 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.4 95.4 95.4 95.4 95.5 95.4 95.5 95.4 95.5 95.5</td> <td>94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.6 95.2 95.0 95.0 95.0 95.0 94.7 94.6 94.8 94.5 94.6 94.7 95.1 94.6 94.7 95.1 94.5 94.8 94.7 95.1 95.9 94.8 94.3</td>	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 1.2 1.2 6.5 1.4 1.8 13.8 4.5 13.7 0.5 2.0 1.5 1.4 1.7 2.3 1.8	0.1     0.8     0.8       0.6     1.2     0.7     1.8       0.7     3.4     1.8     0.7     3.4       1.0     3.4     1.8     0.7     3.4       1.0     3.4     1.8     0.7     3.4       1.0     1.4     3.1     0.6     2.0       0.1     1.4     2.0     3.3     1.6       1.0     1.4     2.1     19.9     5.4     25.2       0.9     4.0     0.4     2.8     7.3     2.7     4.8       1.0     7.8     2.3     81.7     0.1     3.5     1.5     2.6     0.9     2.0     1.1     3.5     1.5     1.3     1.6     1.5     3.5     1.3     1.6     1.5     3.5     1.3     2.4     1.5     3.5     3.2     4.1     1.5     3.5     3.2     4.1     1.5     3.5     3.3     1.6     1.5     3.5     1.3     2.4     1.5     3.5     1.3     3.4     1	1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 0.9 0.9 1.0 1.0 0.9 0.9 1.0 0.9 0.9 1.0 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0	1.0     1.1       1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.9       0.9     0.9       0.9     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.8     0.9       1.0     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.9     1.0       0.6     0.8       0.7     0.8       0.7     0.9	1.7 4.0 8.2 5.3 1.8 11.6 9.8 25.0 37.0 8.8 25.0 37.0 8.8 41.7 19.0 15.7 12.5 7.1 8.5 7.1 8.6 13.5 11.0 13.5	0.6     3.9       2.7     5.6       3.1     8.4       3.1     1.6       1.5     8.5       4.5     1.6       2.6     9.5       4.6     7.1       7.4     12.7       7.4     12.7       7.3     52.4       11.8     28.1       11.8     20.3       3.5     29.0       5.3     85.3       0.1     12.9       8.0     13.9       4.8     13.6       2.7.1     10.2       8.5     20.1       12.8     13.9       4.8     13.6       3.5     29.0       1.7     1.9.2       8.0     1.1       8.0     1.1       9.0     1.2.2       8.1     1.6       8.2     2.1       7.1     10.2       8.5     2.1       7.4     1.2.7	95.0 95.2 95.3 95.3 95.1 95.4 95.4 95.4 95.6 95.6 95.4 95.4 95.4 95.4 95.1 95.3 95.7 95.1 95.3 95.7 95.4 95.3 95.7 95.4 95.4 95.4 95.3 95.4 95.4 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.4 95.4 95.4 95.4 95.5 95.4 95.5 95.4 95.5 95.5	94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.6 95.2 95.0 95.0 95.0 95.0 94.7 94.6 94.8 94.5 94.6 94.7 95.1 94.6 94.7 95.1 94.5 94.8 94.7 95.1 95.9 94.8 94.3
94.2 85.0 93.9 98.2 97.1 97.1 97.4 97.4 97.4 97.4 97.4 97.4 97.4 97.4	83.5     94.9       84.0     86.0       97.8     98.6       97.8     98.6       96.6     97.6       95.9     96.9       95.9     96.9       97.4     98.2       91.0     92.5       96.6     97.6       97.4     98.2       91.0     92.5       96.6     97.6       99.4     99.9       99.5     99.8       99.2     98.0       98.7     99.3       99.8     190.0       98.3     99.2       99.4     190.0       98.3     99.2       99.4     190.0       98.3     99.2       99.4     100.0       98.3     192.2       99.4     100.0       98.3     192.2       99.4     100.0       98.3     192.2       98.4     100.0       98.4     100.0       98.4     100.0	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 2.1 1.2 6.5 11.7 1.8 4.5 3.6 2.8 13.7 0.5 2.0 1.5 1.4 1.7 1.7 1.8 4.5 3.6 1.17 1.8 1.8 4.5 3.6 2.8 1.17 1.7 1.8 1.8 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1	0.1 0.8 0.6 1.2 0.7 1.8 0.7 3.4 1.8 1.0 3.1 0.6 2.0 0.1 1.4 2.0 3.3 1.6 2.7 2.9 6.1 1.0 1.4 2.1 19.9 5.4 25.2 0.9 4.0 9 4.0 9 4.0 9 4.0 9 4.0 1.0 1.4 2.1 19.9 5.4 25.2 0.9 4.0 1.0 1.4 2.1 19.9 5.4 25.2 0.9 4.0 1.0 5.2 8 1.7 1.5 2.6 1.5 2.5 1.5 2.5 1.	1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 0.9 1.0 1.0 1.0 1.0 1.0 0.9 1.0 1.0 1.0 0.9 0.9 1.0 1.0 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0	1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.9       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.8     0.9       1.0     1.0       0.8     0.9       1.0     1.0       0.8     0.7       0.8     0.7       0.8     1.0       0.8     1.0       0.8     1.0       0.6     0.8       0.7     0.8	1.7 4.0 5.3 7.5 4.0 8.2 5.3 1.8 17.8 5.8 17.8 5.8 17.8 5.8 25.0 8.8 41.7 19.0 8.8 41.7 12.5 40.0 2.4 10.7 7.1 8.5 7.1 8.5 7.1 12.5 40.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.0 8.8 41.7 19.7 19.7 19.7 19.7 19.7 19.7 19.7 1	0.6 3.9 2.7 5.6 3.1 8.4 3.1 14.7 1.5 8.5 0.2 6.3 13.7 2.6 9.5 0.2 6.3 8.8 14.8 7.4 12.7 12.4 24.3 4.6 7.1 17.3 52.4 19.4 57.6 3.5 12.9 3.5 29.0 5.3 85.3 0.1 12.9 8.0 13.9 8.0 13.9 8.0 13.9 13.6 17.2 12.9 8.0 13.9 13.6 17.2 12.9 13.6 17.2 13.6 17.2 14.8 13.6 13.8 13.6 13.9 15.8 15.8 15.8 15.8 15.8 15.8 15.8 15.8	95.0 95.2 95.3 95.1 95.4 95.1 95.4 95.6 95.6 95.6 95.4 95.2 95.1 95.2 95.1 95.2 95.1 95.2 95.1 95.3 95.7 95.1 95.3 95.7 95.1 95.4 95.9 95.7 95.1 95.2 95.2 95.1 95.2 95.1 95.2 95.2 95.1 95.2 95.1 95.2 95.1 95.2 95.2 95.1 95.2 95.2 95.1 95.2 95.2 95.2 95.1 95.2 95.2 95.2 95.1 95.2 95.2 95.2 95.1 95.2 95.2 95.1 95.2 95.2 95.2 95.2 95.2 95.2 95.2 95.2	94.3   9 94.6   94.5   94.6   94.5   94.6   94.5   94.6   94.5   94.6   94.5   95.0   95.0   94.7   95.1   94.6   94.8   94.7   95.1   94.6   94.8   94.7   95.1   94.5   94.5   94.5   95.8   94.5   95.8																		
inical examinati	on pus on tonsils signs of acute othis media bilateral othis media discharging ears extensive cervical adenopathy redness and or swelling of face purulent conjunctivae bilateral purulent conjunctivae dyspnea creptations (crackling) reduced breathing sounds thonchi cyanosis peritoneal irritation petechial rash meningeal irritation reduced perpheral orculation reduced perpheral orculation reduced perpheral orculation shormal fontanel tension swollen limb or non weight bearing extremity measured temperature > 40.0°C highest temperature > 40.0°C highest temperature = 50/min heart rate > 150/min pervene artifolion = 56/min	2.0 12.3 6.7 2.8 2.3 5.1 3.9 0.8 20.9 19.7 13.0 1.0 1.0 4.1 1.5 0.9 0.5 7.3 18.1 1.5 0.9 0.5 19.2 6.0 9 0.8 2.7 4.3 2.3 32.5 4.2 32.5 2.7 32.5 32.5 32.5 32.5 32.5 32.5 32.5 32.5	0.6     4.5       8.5     16.9       4.0     10.5       1.1     5.7       0.9     5.0       2.7     8.5       1.9     7.0       0.1     2.8       16.1     2.6.3       15.0     25.1       15.0     25.1       1.3     16.7       0.4     3.9       0.4     3.9       0.4     3.9       0.1     2.8       1.1     5.5       1.3     1.6       0.4     3.9       0.4     3.9       0.1     2.8       2.0     7.4       1.1     5.5       1.3     1.3       0.0     2.9       1.4.5     2.4.6       3.4     9.7       3.7.2     49.3       1.4.8     3.6.6       2.5.9     45.8       2.0.8     2.9	94.2 85.0 93.9 98.2 97.1 97.1 96.4 97.8 91.8 91.8 91.8 91.8 91.8 91.8 93.6 98.6 98.5 98.5 99.7 98.6 99.9 99.9 99.9 99.9 99.9 99.9 90.2 96.0 55.6 75.1 90.2 98.6 98.6 98.6 98.6 99.5 98.6 99.5 98.6 99.5 99.5 99.5 99.5 99.5 99.5 99.5 99	03.5     94.9       84.0     86.0       97.8     98.6       97.8     98.6       97.8     98.6       95.9     96.9       97.4     98.6       97.4     98.6       97.4     98.2       91.0     92.5       96.0     97.6       99.4     99.8       99.4     99.8       99.5     98.0       99.5     99.4       99.4     99.8       99.2     99.6       99.3     99.6       99.4     99.8       99.2     99.6       99.3     99.6       99.4     99.8       99.2     99.6       99.2     91.0       95.4     96.6       95.4     95.4       95.4     96.6       95.4     95.4       95.4     95.4       95.4     95.4       95.4     95.4       95.4     95.4       95.4 <td>0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 1.2 1.2 6.5 1.4 1.8 13.8 4.5 13.7 0.5 2.0 1.5 1.4 1.7 2.3 1.8</td> <td>0.1     0.8     0.8       0.6     1.2     0.7     1.8       0.7     3.4     1.8     0.7     3.4       1.0     3.4     1.8     0.7     3.4       1.0     3.4     1.8     0.7     3.4       1.0     1.4     3.1     0.6     2.0       0.1     1.4     2.0     3.3     1.6       1.0     1.4     2.1     19.9     5.4     25.2       0.9     4.0     0.4     2.8     7.3     2.7     4.8       1.0     7.8     2.3     81.7     0.1     3.5     1.5     2.6     0.9     2.0     1.1     3.5     1.5     1.3     1.6     1.5     3.5     1.3     1.6     1.5     3.5     1.3     2.4     1.5     3.5     3.2     4.1     1.5     3.5     3.2     4.1     1.5     3.5     3.3     1.6     1.5     3.5     1.3     2.4     1.5     3.5     1.3     3.4     1</td> <td>1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 0.9 0.9 1.0 1.0 0.9 0.9 1.0 0.9 0.9 1.0 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0</td> <td>1.0     1.1       1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.9       0.9     0.9       0.9     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.8     0.9       1.0     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.9     1.0       0.6     0.8       0.7     0.8       0.7     0.9</td> <td>1.7 4.0 8.2 5.3 1.8 11.6 9.8 25.0 37.0 8.8 25.0 37.0 8.8 41.7 19.0 15.7 12.5 7.1 8.5 7.1 8.6 13.5 11.0 13.5</td> <td>0.6     3.9       2.7     5.6       3.1     8.4       3.1     1.6       1.5     8.5       4.5     1.6       2.6     9.5       4.6     7.1       7.4     12.7       7.4     12.7       7.3     52.4       11.8     28.1       11.8     20.3       3.5     29.0       5.3     85.3       0.1     12.9       8.0     13.9       4.8     13.6       2.7.1     10.2       8.5     20.1       12.8     13.9       4.8     13.6       3.5     29.0       1.7     1.9.2       8.0     1.1       8.0     1.1       9.0     1.2.2       8.1     1.6       8.2     2.1       7.1     10.2       8.5     2.1       7.4     1.2.7</td> <td>95.0 95.2 95.3 95.3 95.1 95.4 95.4 95.4 95.6 95.6 95.4 95.4 95.4 95.4 95.1 95.3 95.7 95.1 95.3 95.7 95.4 95.3 95.7 95.4 95.4 95.4 95.3 95.4 95.4 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.4 95.4 95.4 95.4 95.5 95.4 95.5 95.4 95.5 95.5</td> <td>94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.6 95.2 95.0 95.0 95.0 95.0 94.7 94.6 94.8 94.5 94.6 94.7 95.1 94.6 94.7 95.1 94.5 94.8 94.7 95.1 95.9 94.8 94.3</td>	0.3 0.8 1.1 1.6 0.8 1.8 1.1 0.4 2.6 1.2 1.2 6.5 1.4 1.8 13.8 4.5 13.7 0.5 2.0 1.5 1.4 1.7 2.3 1.8	0.1     0.8     0.8       0.6     1.2     0.7     1.8       0.7     3.4     1.8     0.7     3.4       1.0     3.4     1.8     0.7     3.4       1.0     3.4     1.8     0.7     3.4       1.0     1.4     3.1     0.6     2.0       0.1     1.4     2.0     3.3     1.6       1.0     1.4     2.1     19.9     5.4     25.2       0.9     4.0     0.4     2.8     7.3     2.7     4.8       1.0     7.8     2.3     81.7     0.1     3.5     1.5     2.6     0.9     2.0     1.1     3.5     1.5     1.3     1.6     1.5     3.5     1.3     1.6     1.5     3.5     1.3     2.4     1.5     3.5     3.2     4.1     1.5     3.5     3.2     4.1     1.5     3.5     3.3     1.6     1.5     3.5     1.3     2.4     1.5     3.5     1.3     3.4     1	1.0 1.0 1.0 1.0 1.0 1.0 0.9 0.9 0.9 1.0 1.0 0.9 0.9 1.0 1.0 0.9 0.9 1.0 0.9 0.9 1.0 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0	1.0     1.1       1.0     1.1       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       1.0     1.0       0.8     0.9       0.9     0.9       0.9     1.0       1.0     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.9     1.0       0.8     0.9       1.0     1.0       0.8     1.0       0.8     1.0       0.8     1.0       0.9     1.0       0.6     0.8       0.7     0.8       0.7     0.9	1.7 4.0 8.2 5.3 1.8 11.6 9.8 25.0 37.0 8.8 25.0 37.0 8.8 41.7 19.0 15.7 12.5 7.1 8.5 7.1 8.6 13.5 11.0 13.5	0.6     3.9       2.7     5.6       3.1     8.4       3.1     1.6       1.5     8.5       4.5     1.6       2.6     9.5       4.6     7.1       7.4     12.7       7.4     12.7       7.3     52.4       11.8     28.1       11.8     20.3       3.5     29.0       5.3     85.3       0.1     12.9       8.0     13.9       4.8     13.6       2.7.1     10.2       8.5     20.1       12.8     13.9       4.8     13.6       3.5     29.0       1.7     1.9.2       8.0     1.1       8.0     1.1       9.0     1.2.2       8.1     1.6       8.2     2.1       7.1     10.2       8.5     2.1       7.4     1.2.7	95.0 95.2 95.3 95.3 95.1 95.4 95.4 95.4 95.6 95.6 95.4 95.4 95.4 95.4 95.1 95.3 95.7 95.1 95.3 95.7 95.4 95.3 95.7 95.4 95.4 95.4 95.3 95.4 95.4 95.4 95.2 95.4 95.2 95.4 95.2 95.4 95.4 95.4 95.4 95.4 95.5 95.4 95.5 95.4 95.5 95.5	94.3 94.4 94.5 94.6 94.5 94.6 94.5 94.6 95.2 95.0 95.0 95.0 95.0 94.7 94.6 94.8 94.5 94.6 94.7 95.1 94.6 94.7 95.1 94.5 94.8 94.7 95.1 95.9 94.8 94.3														

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# STARD checklist for reporting of studies of diagnostic accuracy 3)

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Section and Topic	Item #		On page #
TITLE/ABSTRACT/ KEYWORDS	1	Identify the article as a study of diagnostic accuracy (recommend MeSH heading 'sensitivity and specificity').	1
INTRODUCTION	2	State the research questions or study aims, such as estimating diagnostic accuracy or comparing accuracy between tests or across participant groups.	4
METHODS			
Participants	3	The study population: The inclusion and exclusion criteria, setting and locations where data were collected.	5
	4	Participant recruitment: Was recruitment based on presenting symptoms, results from previous tests, or the fact that the participants had received the index tests or the reference standard?	5
	5	Participant sampling: Was the study population a consecutive series of participants defined by the selection criteria in item 3 and 4? If not, specify how participants were further selected.	5
	6 🧹	Data collection: Was data collection planned before the index test and reference standard were performed (prospective study) or after (retrospective study)?	5
Test methods	7	The reference standard and its rationale.	
	8	Technical specifications of material and methods involved including how and when measurements were taken, and/or cite references for index tests and reference standard.	5-6
	9	Definition of and rationale for the units, cut-offs and/or categories of the results of the index tests and the reference standard.	4-6
	10	The number, training and expertise of the persons executing and reading the index tests and the reference standard.	5-6
	11	Whether or not the readers of the index tests and reference standard were blind (masked) to the results of the other test and describe any other clinical information available to the readers.	4-6
Statistical methods	12	Methods for calculating or comparing measures of diagnostic accuracy, and the statistical methods used to quantify uncertainty (e.g. 95% confidence intervals).	8-9
	13	Methods for calculating test reproducibility, if done.	8
RESULTS			
Participants	14	When study was performed, including beginning and end dates of recruitment.	10
	15	Clinical and demographic characteristics of the study population (at least information on age, gender, spectrum of presenting symptoms).	10
	16	The number of participants satisfying the criteria for inclusion who did or did not undergo the index tests and/or the reference standard; describe why participants failed to undergo either test (a flow diagram is strongly recommended).	10
Test results	17	Time-interval between the index tests and the reference standard, and any treatment administered in between.	10
	18	Distribution of severity of disease (define criteria) in those with the target condition; other diagnoses in participants without the target condition.	10
	19	A cross tabulation of the results of the index tests (including indeterminate and missing results) by the results of the reference standard; for continuous results, the distribution of the test results by the	11-13 Figure 3-4 Table 2
	20	Any adverse events from performing the index tests or the reference	10
Estimates	21	Estimates of diagnostic accuracy and measures of statistical uncertainty (e.g. 95% confidence intervals)	11-13
	22	How indeterminate results, missing data and outliers of the index tests were handled.	8, 13
	23	Estimates of variability of diagnostic accuracy between subgroups of participants, readers or centers, if done.	13
	24	Estimates of test reproducibility, if done.	13
DISCUSSION	25	Discuss the clinical applicability of the study findings.	15-16



# TRIPOD Checklist: Prediction Model Development and Validation

Section/Topic	Item			Page
			Identify the study as developing and/or validating a multivariable prediction model, the	
Title	1	D;V	target population, and the outcome to be predicted.	1
Abstract	2	D;V	Provide a summary of objectives, study design, setting, participants, sample size, predictors, outcome, statistical analysis, results, and conclusions.	2
Introduction		1		
Background	3a	D;V	Explain the medical context (including whether diagnostic or prognostic) and rationale for developing or validating the multivariable prediction model, including references to existing models.	4
and objectives	3b	D;V	Specify the objectives, including whether the study describes the development or validation of the model or both	4
Methods				
	42	٦٠٧	Describe the study design or source of data (e.g., randomized trial, cohort, or registry	5
Source of data	τa	D, V	data), separately for the development and validation data sets, if applicable.	5
	4b	D;V	end of follow-up.	5
Participante	5a	D;V	Specify key elements of the study setting (e.g., primary care, secondary care, general population) including number and location of centres.	5
Participants	5b	D;V	Describe eligibility criteria for participants.	5
	5c	D;V	Give details of treatments received, if relevant.	5
Outcome	6a	D;V	Clearly define the outcome that is predicted by the prediction model, including how and when assessed.	6-7
	6b	D;V	Report any actions to blind assessment of the outcome to be predicted.	6-7
	7a	D.V	Clearly define all predictors used in developing or validating the multivariable prediction	5-6
Predictors	76		model, including how and when they were measured. Report any actions to blind assessment of predictors for the outcome and other	50
Sample size	۵۱ و		predictors.	5-6 7
Sample Size	0	D,V	Describe how missing data were handled (e.g. complete-case analysis single	1
Missing data	9	D;V	imputation, multiple imputation) with details of any imputation method.	8
	10a	D	Describe how predictors were handled in the analyses.	8-9
	10b	D	Specify type of model, all model-building procedures (including any predictor selection),	Not
Statistical	100	V	and method for internal validation.	applicabl
methods	100	v	Specify all measures used to assess model performance and if relevant to compare	0-9
	10d	D;V	multiple models.	8-9
	10e	V	Describe any model updating (e.g., recalibration) arising from the validation, if done.	8-9
Risk groups	11	D;V	Provide details on how risk groups were created, if done.	/
vs validation	12	V	For validation, identity any differences from the development data in setting, eligibility criteria, outcome, and predictors	8-9; 15
Results		1		
	13a	D;V	Describe the flow of participants through the study, including the number of participants with and without the outcome and, if applicable, a summary of the follow-up time. A diagram may be helpful.	10; Figure
Participants	13b	D;V	Describe the characteristics of the participants (basic demographics, clinical features, available predictors), including the number of participants with missing data for predictors and outcome.	10
	13c	V	For validation, show a comparison with the development data of the distribution of important variables (demographics, predictors and outcome).	Not applicabl
Model	14a	D	Specify the number of participants and outcome events in each analysis.	Not
development	14b	D	If done, report the unadjusted association between each candidate predictor and	Suppleme
Madul	15a	D	Present the full prediction model to allow predictions for individuals (i.e., all regression	Not
specification	15b	D	Explain how to the use the prediction model.	Not
Model	16	D.V	Report performance measures (with CIs) for the prediction model	applicabl
performance Model undefine	17	_, v	If done, report the results from any model updating (i.e., model specification, model	10 10
Discussion	17		performance).	10-13
Limitations	10		Discuss any limitations of the study (such as nonrepresentative sample, few events per	14 45
LIMILATIONS	٦ð	D;V	predictor, missing data).	14-15
Interpretation	19a	V	data, and any other validation data.	14-15
	19b	D;V	from similar studies, and other relevant evidence.	14-16
Implications Other information	20	D;V	Discuss the potential clinical use of the model and implications for future research.	15-16
Supplementary			Provide information about the availability of augulamentary recourses such as -twelve	Suppleme
information	21	D;V	provide information about the availability of supplementary resources, such as study protocol, Web calculator, and data sets.	ary files 1
Funding	22	D:V	Give the source of funding and the role of the funders for the present study	17

\*Items relevant only to the development of a prediction model are denoted by D, items relating solely to a validation of a prediction model are denoted by V, and items relating to the the transformed to the transformed to