

Prediction Rule			used for validation		% of predictors		variables used (original or proxy)						
Rotterdam fever model			Age	Sex	Duration of Fever	Height of Fever	Tachypnea	Tachycardia	Hypoxia	Capillary Refill Time	chest wall indrawing	ill-appearance	CRP
% n/N	YES	82%	YES	YES	YES	YES	YES	YES	NO	NO	YES	(YES)	YES
			100.0%	100.0%	98.0%	100.0%	99.7%	98.7%	0.0%	0.0%	100.0%	100.0%	100.0%
"drowsy", "lethargic", "very sick"													
Pneumonia Rule n°1			Illness is different (parent)	Dyspnea									
	NO	50%	NO	NO									
Pneumonia Rule n°2			Oxygen saturation	Temperature	Wheeze	Decreased breath sounds	Focal rales	Chest pain	History of fever				
	NO	57%	NO	YES	YES	NO	NO	YES	YES				
Pneumonia Rule n°3			Grunting	Cough	Focal rales	Decreased breath sounds	Vomiting						
	NO	60%	YES	YES	NO	NO	YES						
IMCI-criteria for antibiotic treatment			CNS	Hydration/ nutrition	Respiratory	Other							
% n/N	YES	100%	(YES)	(YES)	YES	(YES)							
			100.0%	100.0%	100.0%	100.0%							
			"drowsy", "lethargic", "very sick child"	"severe dehydration"	"swelling behind ear"								
			convulsion	"severe difficulty drinking"	ear pain								
			"meningismus"	"marasmus"	ear discharge <14								
			MUAC	bloody diarrhea									
			weight for age <-3z score										

Prediction Rule	used for validation	% of predictors	variables used (original or proxy)				
iCCM-criteria for antibiotic treatment			CNS	Hydration/ nutrition	Respiratory	Other	
% n/N	YES	100%	(YES)	(YES)	YES	(YES)	
			100.0%	100.0%	100.0%	100.0%	
			"drowsy", "lethargic", "very sick child"	"severe dehydration" "severe difficulty drinking" "marasmus"		HIV positive bloody diarrhea	
			convulsion	MUAC weight for age <-3z score			
ALMANACH-referral criteria or criteria for antibiotics present			CNS	Hydration/ nutrition	Respiratory	Other	
% n/N	YES	100%	(YES)	(YES)	(YES)	(YES)	
			100.0%	100.0%	100.0%	100.0%	
			"drowsy", "lethargic", "very sick child"	"severe dehydration" "severe difficulty drinking" "marasmus"	lower chest indrawing stridor RR >50/min	jaundice ear pain ear discharge <14 bloody diarrhea urine dipstick	
			convulsion "meningismus"				
NICE traffic light system-amber or red present			Colour	Activity	Respiratory	Circulation and	Other
% n/N	90%		(YES)	(YES)	YES	(YES)	(YES)
			100.0%	100.0%	100.0%	100.0%	100.0%
			"pallor"	"drowsy", "lethargic", "very sick child"		"severe difficulty drinking" heartrate	axillary temperature "convulsion" "meningismus" duration of fever "limb pain"

Prediction Rule	used for validation	% of predictors	variables used (original or proxy)			
American Academy of Emergency Physicians Guidelines			Ill appearing	Positive chest radiography (to be obtained if: T≥39°C (T>39 and WBC >20K/mm3)	Positive urine leuc + nitrite (to be obtained in male <1 year and female <2 year)	T≥39°C and WBC>15K/mm3
% n/N		100%	(YES)	(YES) **	YES	YES
			100.0%	21.0%	75.4%	99.8%
			"drowsy", "lethargic", "very sick child"			

*urine dipstick was only obtained in selected children per predefined algorithm, ** chest radiography was obtained for patients with cough and tachypnea, not based on temperature and WBC C-reactive protein (CRP), procalcitonin (PCT), serious bacterial infection (SBI), white blood cell count (WBC), oxygen saturation (SaO2)

Prediction rules shaded in green could be included into the validation exercise, those shaded red could not be included. As for predictors, those in green font matched between the derivation and validation sets, for those with yellow font proxies were used, those with red font were not recorded in the validation dataset.