

1 **Supplementary Table 1. Demographic and risk characteristics of study population**

<b>Characteristic</b>		<b>N (%)</b>
<b>Sex</b>	Male	174 (60)
<b>Vaccine Group</b>	11PCV	135 (47)
<b>Symptoms</b>	Unable to Drink	16 (5.5)
	Chest Indrawing	156 (53.8)
	Central Cyanosis	3 (1.0)
	Fever	32 (11)
	Hypoxemic (SpO <sub>2</sub> ≤89%)	33 (11.4)
	Wheezing	98 (33.8)
<b>WHO Severity Classification of Pneumonia</b>	None	4 (1.4)
	Non-Severe Pneumonia	128 (44.1)
	Severe Pneumonia	141 (48.6)
	Very Severe Pneumonia	17 (5.9)
<b>Hospitalization Status</b>	Hospitalized	228 (78.6)
<b>Outcome of Hospitalized Subjects</b>	Died	1 (0.3)
	Discharged Against Medical Advise	26 (9.0)
	Discharged	201 (69.3)

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3 **Supplementary Table 2: Coinfections and Single\* Infections Identified by the**  
 4 **PathChip**

	ADV	HMPV	INFA	INFB	INFC	RSVA	RSVB	PIV1	PIV2	PIV3	PIV4	EV	HRV	CV	CMV	RV	BV
ADV	2																
HMPV		17															
INFA			21														
INFB			1	7													
INFC					0												
RSVA		1				24											
RSVB		1	1	1		1	25										
PIV1								6									
PIV2			1	1					5								
PIV3							1			12							
PIV4											4						
EV		1			1	5						11					
HRV		1	1	1		1		3	1	2		16	29				
CV	1						2			1		1	4	6			
CMV							1	1								1	
Rotavirus																	1
Bocavirus		1	1										3	1			0
Total with positive detections	3	22	26	10	1	31	29	10	6	15	4	28	36	7	1	1	0
Total with double infections	1	5	5	3	1	7	4	4	1	3	0	17	7	1	0	0	0

5 \*Number with single infections for each virus are on the diagonal: ADV = Adenovirus;

6 HMPV = human Metapneumovirus; INF = Influenza; RSV = Respiratory Syncytial virus;

7 PIV = Parainfluenza virus ; EV = Enterovirus; HRV = human Rhinovirus; CV = Coronavirus;

8 CMV = Cytomegalovirus; RV = Rotavirus; BV = Bocavirus

9 **Supplementary Table 3. Specimens where more than two coinfections were detected by the PathChip**

ID	ADV	HMPV	RSVA	RSVB	PIV1	PIV3	HRV	CMV	HCoV	EV
701-0-0372							X	X		X
701-0-0741	X		X			X				
701-0-1336			X				X	X		
701-0-1338				X		X		X		
701-0-1655			X				X			X
701-0-1464			X	X						X
701-0-1686								X	X	X
702-0-1100					X				X	X
701-0-1859		X		X			X			
701-0-2006				X			X			X
702-0-1721			X				X			X

ADV = Adenovirus; HMPV=human Metapneumovirus; INF=Influenza; RSV=Respiratory Syncytial virus; PIV= Parainfluenza virus; EV= Enterovirus; HRV = human Rhinovirus; CMV= Cytomegalovirus HCoV = human Coronavirus;