

Supplemental Digital Content 7, Table. Integrated etiology results

	All Cases	CXR+ Cases
Aetiology	Etiologic Fraction (95% CI)	Etiologic Fraction (95% CI)
Bacteria		
<i>B. pertussis</i>	0.1 (0.0, 0.6)	0.1 (0.0, 0.9)
<i>C. pneumoniae</i>	0.1 (0.0, 0.6)	0.1 (0.0, 0.9)
Enterobacteriaceae	1.0 (0.0, 3.7)	3.0 (0.5, 10.0)
<i>H. influenzae</i>	0.5 (0.0, 2.2)	1.0 (0.0, 5.0)
Type b	0.2 (0.0, 1)	0.1 (0.0, 0.9)
Non-b	0.3 (0.0, 1.9)	0.9 (0.0, 4.6)
Legionella species	0.1 (0.0, 0.4)	0.8 (0.0, 5.9)
<i>M. catarrhalis</i>	0.3 (0.0, 2.4)	1.2 (0.0, 6.8)
<i>M. pneumoniae</i>	0.1 (0.0, 0.7)	0.4 (0.0, 1.8)
<i>M. tuberculosis</i>	2.1 (0.3, 5.7)	3.6 (0.5, 11.0)
<i>N. meningitidis</i>	0.2 (0.0, 1.3)	0.6 (0.0, 3.7)
Non-fermenting gram-negative rods	0.4 (0.0, 2.8)	1.4 (0.0, 7.8)
Other streptococci and enterococci	0.3 (0.0, 2.3)	1.3 (0.0, 6.8)
<i>S. aureus</i>	0.2 (0.0, 1.2)	0.4 (0.0, 2.3)
<i>S. pneumoniae</i>	0.4 (0.0, 2.0)	1.8 (0.0, 5.9)
PCV13 VT	0.1 (0.0, 1.0)	0.5 (0.0, 2.7)
PCV13 NVT	0.3 (0.0, 1.7)	1.3 (0.0, 5.0)
Salmonella species	1.2 (0.1, 3.4)	1.7 (0.5, 5.9)
Fungi		
<i>Candida</i> species	0.3 (0.0, 2.5)	1.4 (0.0, 7.8)
<i>P. jirovecii</i>	0.2 (0.0, 0.9)	0.5 (0.0, 1.8)
Viruses		
Adenovirus	0.4 (0.0, 2.4)	0.5 (0.0, 2.7)
Bocavirus	2.0 (0.0, 6.2)	2.1 (0.0, 7.8)
CMV	1.8 (0.0, 5.9)	3.0 (0.0, 8.7)
Coronavirus	0.1 (0.0, 1.0)	0.3 (0.0, 1.8)
HMPV A/B	7.3 (3.8, 11.5)	7.7 (3.7, 12.8)
Influenza	0.3 (0.0, 1.4)	0.6 (0.0, 2.3)
A	0.1 (0.0, 0.9)	0.2 (0.0, 1.4)
B	0.2 (0.0, 0.9)	0.3 (0.0, 1.4)
C	0.1 (0.0, 0.4)	0.1 (0.0, 0.9)
Parainfluenza	5.8 (2.6, 9.7)	5.7 (1.8, 10.5)
1	3.5 (1.4, 6.2)	2.3 (0.0, 5.0)
2	0.7 (0.0, 2.3)	0.3 (0.0, 1.4)
3	0.8 (0.0, 3.2)	2.1 (0.0, 5.5)
4	0.8 (0.0, 2.9)	1.1 (0.0, 3.7)
PV/EV	10.1 (5.6, 15.4)	4.1 (0.0, 8.2)
Rhinovirus	30.4 (23.4, 38.1)	22.6 (12.8, 33.3)
RSV A/B	33.5 (27.2, 40.9)	31.2 (24.7, 39.3)
Not otherwise specified	0.9 (0.0, 5.8)	3.1 (0.0, 14.6)
Summary Estimates		
Bacteria**	4.7 (1.6, 9.4)	13.7 (5.5, 25.1)
Viruses	91.7 (84.9, 96.4)	77.7 (65.3, 88.6)

Abbreviation: CI, credible interval, PCV13 VT, pneumococcal conjugate vaccine-type, PV/EV, parechovirus/enterovirus; CMV, cytomegalovirus; RSV, respiratory syncytial virus.

**The bacteria summary estimate excludes *M. tuberculosis*.

CXR+ defined as consolidation and/or other infiltrate on chest radiograph.

For pathogens presented grouped in Figure 3 (e.g., Parainfluenza virus types 1, 2, 3 and 4), both grouped and subspecies level results are presented here, with subspecies level results in gray.

Not Otherwise Specified represents pathogens not tested for. Other Strep includes *Streptococcus pyogenes* and *Enterococcus faecium*. Nonfermentative gram-negative rods includes Acinetobacter species and Pseudomonas species. Enterobacteriaceae includes *E. coli*, Enterobacter species, and Klebsiella species, excluding mixed gram-negative rods.