

Table S1. Community acquired pneumonia -Clinical information records

Name:	Physical examination <input type="checkbox"/> RR(max:) <input type="checkbox"/> hypoxia(SpO2<95%) <input type="checkbox"/> rale or crackle <input type="checkbox"/> wheezing <input type="checkbox"/> retraction <input type="checkbox"/> decreased aeration
Birth date:	Chest X-ray (infiltration) <input type="checkbox"/> peribronchial <input type="checkbox"/> interstitial <input type="checkbox"/> lobar(RUL, RML, RLL, LUL, LLL) <input type="checkbox"/> pleural effusion(Rt/Lt)
Sex: M/F	Antibiotics prescription: N/Y <input type="checkbox"/> penicillin series <input type="checkbox"/> cephalosporin <input type="checkbox"/> macrolide <input type="checkbox"/> tetracycline <input type="checkbox"/> quinolone <input type="checkbox"/> aminoglycoside <input type="checkbox"/> carbapenem <input type="checkbox"/> glycopeptide <input type="checkbox"/> etc.
Hospital name:	Underlying disease: N/Y <input type="checkbox"/> allergic disease: <input type="checkbox"/> cardiac disease: <input type="checkbox"/> kidney disease: <input type="checkbox"/> endocrine disease: <input type="checkbox"/> etc.
Date of Sampling:	Attendance of day care center or school: N/Y
Species of Sample: NPA/Sputum/Throat swab/Transtracheal aspirate, BAL, etc	Sibling: N/Y
Admission: N/Y (date of admission:) (date of discharge:)	Special consideration:
Vaccination: N/Y- DTaP, Td, Tdap, pneumococcus/UK	
Chief Complaint: Onset: days ago	
Minor Sytoms: <input type="checkbox"/> fever (duration: days, up to) <input type="checkbox"/> chills <input type="checkbox"/> sore throat <input type="checkbox"/> myalgia <input type="checkbox"/> cough <input type="checkbox"/> sputum <input type="checkbox"/> nasal obstruction <input type="checkbox"/> rhinorrhea <input type="checkbox"/> hoarseness <input type="checkbox"/> dyspnea <input type="checkbox"/> chest pain <input type="checkbox"/> hemotypsis <input type="checkbox"/> abdominal pain <input type="checkbox"/> vomiting <input type="checkbox"/> diarrhea <input type="checkbox"/> poor oral intake <input type="checkbox"/> rash	
AOM: N/Y Pertussis suspicion: N/Y <input type="checkbox"/> whooping cough <input type="checkbox"/> paroxysmal cough Mycoplasma pneumonia suspicion : N/Y	

Abbreviations: NPA, nasopharyngeal aspirates; BAL, bronchoalveolar lavage; N, no; Y, yes; DTaP, Diphtheria-tetanus-acellular pertussis vaccine; Td, adult type diphtheria and tetanus toxoid vaccine; Tdap, booster tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine; UK, unknown; AOM, acute otitis media

Table S2. The PCR results of identified viral pathogen in the sputum

Pathogens	N
HRV	44
ADV	21
RSV	19
RSV A	10
RSV B	9
IFV A	9
Flu A (H1)	0
Flu A (pdm09)	4
Flu A (H3)	5
IFV B	0
PIV	4
PIV 1	2
PIV 2	0
PIV 3	0
PIV 4	2
HMPV	5
CoV	9
CoV 229E	3
CoV NL63	3
CoV OC43	3
HEV	3
BoV	1
Total	124

Abbreviations: N, number; HRV, human rhinovirus; ADV, adenovirus; RSV, respiratory syncytial virus; IFV, influenza virus; PIV, parainfluenza virus; HMPV, human metapneumovirus; CoV, coronavirus; HEV, human enterovirus; BoV, bocavirus

Table S3. The PCR results of identified bacterial pathogen in the sputum

Pathogens	N
<i>S. pneumoniae</i>	148
<i>M. pneumoniae</i>	136
<i>H. influenzae</i>	123
<i>C. pneumoniae</i>	3
<i>B. pertussis</i>	1
<i>L. pneumophila</i>	0
Total	411

Abbreviations: N, number

Table S4. The culture results of identified bacterial pathogen in the sputum

Pathogens	N
<i>Streptococcus spp.</i>	16
<i>Staphylococcus aureus</i>	8
<i>Streptococcus parasanguinis</i>	5
<i>Candida albicans</i>	5
<i>Streptococcus oralis</i>	5
<i>Streptococcus mitis</i>	4
<i>Neisseria spp.</i>	4
<i>Streptococcus salivarius</i>	3
<i>Rothia mucilaginosa</i>	3
<i>Serratia marcescens</i>	2
<i>Haemophilus influenzae</i>	2
<i>Pseudomonas aeruginosa</i>	2
<i>Pseudomonas spp.</i>	1
<i>Staphylococcus epidermidis</i>	1
<i>Streptococcus pneumoniae</i>	1
<i>Streptococcus vestibularis</i>	1
<i>Saccharomyces cerevisiae</i>	1
<i>Staphylococcus carprae</i>	1
<i>Candida spp.</i>	1
<i>Staphylococcus lugdunensis</i>	1
Total	72

Abbreviations: N, number

Table S5. The number of bacterial pathogens identified by culture in NPA, sputum, nasopharyngeal swab, etc.

	<i>S. aureus</i>	<i>H. influenzae</i>	<i>S. pneumoniae</i>	<i>K. pneumoniae</i>	<i>P. aeruginosa</i>
	N	N	N	N	N
NPA	87	15	86	5	10
Sputum	25	3	4	3	3
Nasopharyngeal swab	17	2			
Throat swab	1				
BAL			1		
Unknown	1		1		
Total	131	20	92	8	13

Abbreviations: NPA, nasopharyngeal aspirates; BAL, bronchoalveolar lavage; N, number