



### **Supplementary material**

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**SUPPLEMENTARY TABLE. Invasive pneumococcal diseases and serotypes**

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Sex	M	M	F	F	F	F
Age	6 years	3 years	32 months	6 years	7 years	14 years
Site	Blood, sputum, pleural fluid, pericardial effusion	Pleural fluid	Peripheral blood, endotracheal aspirate	Blood, sputum culture	Peripheral blood, nasopharyngeal aspirate	Tracheal aspirate, sputum
Immunised (2+1 or 3+1 regimens)	PCV-13 (3+1)	PCV-13 (2+1)	PCV-13 (2+1)	PCV-13 (3+1)	PCV-13 (3+1)	PCV-13 (3+1)
Age at vaccination	1st dose: 2 months 2nd dose: 4 months 3rd dose: 6 months Booster: 12 months	1st dose: 2 months 2nd dose: 5 months Booster: 12 months	1st dose: 2 months 2nd dose: 4 months Booster: 12 months	1st dose: 2 months 2nd dose: 4 months 3rd dose: 6 months Booster: 12 months	1st dose: 2 months 2nd dose: 4 months 3rd dose: 6 months Booster: 12 months	1st dose: 2 months 2nd dose: 4 months 3rd dose: 6 months Booster: 12 months
Post-infection vaccination	N/A	23vPPV: 4 years (6 months post-infection)	N/A	N/A	23vPPV: 7 years (1 month post-infection)	23vPPV: 14 years (1 month post-infection)
Symptoms at onset	Fever, cough, coryza, shortness of breath, noisy breathing	Fever, cough, coryza, shortness of breath, chest pain, vomiting, decreased appetite	Fever, cough, shortness of breath, watery diarrhoea	Fever, cough, haemoptysis	Fever, cough, coryza, shortness of breath, decreased appetite	Fever, cough, shortness of breath, haemoptysis
Prior antibiotics and antivirals						
Antibiotics	Cefotaxime Ceftriaxone Clarithromycin Doxycycline	Ceftriaxone Doxycycline Meropenem Vancomycin	Ceftriaxone Meropenem Vancomycin	Azithromycin Cefepime Cefotaxime Ceftriaxone Clarithromycin Levofloxacin Penicillin G Piperacillin/tazobactam Vancomycin	Cefotaxime Ceftriaxone Doxycycline Meropenem Vancomycin	Amoxicillin Ceftriaxone Levofloxacin Meropenem Penicillin G Piperacillin/tazobactam Tigecycline Vancomycin
Antiviral(s)	Oseltamivir	Oseltamivir Remdesivir	Oseltamivir	Fluconazole Micafungin		
Pneumonia	Yes	Yes	Yes	Yes	Yes	Yes
Serotype	19A	3	3	3	3	3
Pleural effusion	Yes	Yes	Yes	Yes	Yes	Yes
Bacteria	<i>Moraxella catarrhalis</i> , <i>Klebsiella pneumoniae</i>	N/A	<i>Haemophilus influenzae</i>	<i>Elizabethkingia anopheles</i> , coagulase negative staphylococci	<i>Staphylococcus aureus</i> , <i>Klebsiella pneumoniae</i>	N/A
Viruses	Rhinovirus/enterovirus, parainfluenza, human metapneumovirus	Parainfluenza 3, parainfluenza 2, COVID-19 (resolved)	Adenovirus, parainfluenza 3, rhinovirus/enterovirus	None	Adenovirus, influenza B	Influenza A
Fungus	N/A	N/A	N/A	<i>Candida parapsilosis</i> complex	N/A	N/A
Complications	ARDS, respiratory failure, SIRS, septic shock, acute kidney injury	Left-sided parapneumonic effusion, left empyema, syndrome of inappropriate secretion of antidiuretic hormone	Haemolytic-uraemic syndrome, sepsis, acute kidney injury, respiratory failure	Type 1 respiratory failure, pulmonary haemorrhage, bilateral pneumothorax with persistent air leak	ARDS, left empyema, parapneumonic effusions, acute kidney injury	ARDS, type 1 respiratory failure, SIRS, septic shock, atelectasis, acute kidney injury, gastrointestinal bleeding
ECMO	No	No	No	Yes	No	Yes
Inotropic support	Yes	Yes	Yes	Yes	Yes	Yes
Invasive ventilation	Yes	Yes	Yes	Yes	Yes	Yes
Renal replacement (haemadsorption)	Yes	No	Yes	No	No	No

Abbreviations: ARDS = acute respiratory distress syndrome; COVID = coronavirus disease 2019; ECMO = extracorporeal membrane oxygenation; N/A = Not available; SIRS = systemic inflammatory response syndrome