

Title: Febrile children with comorbidities at the ED – A multicentre observational study.

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On behalf of PERFORM consortium: Personalised Risk assessment in febrile children to optimise Real-life Management across the European Union.

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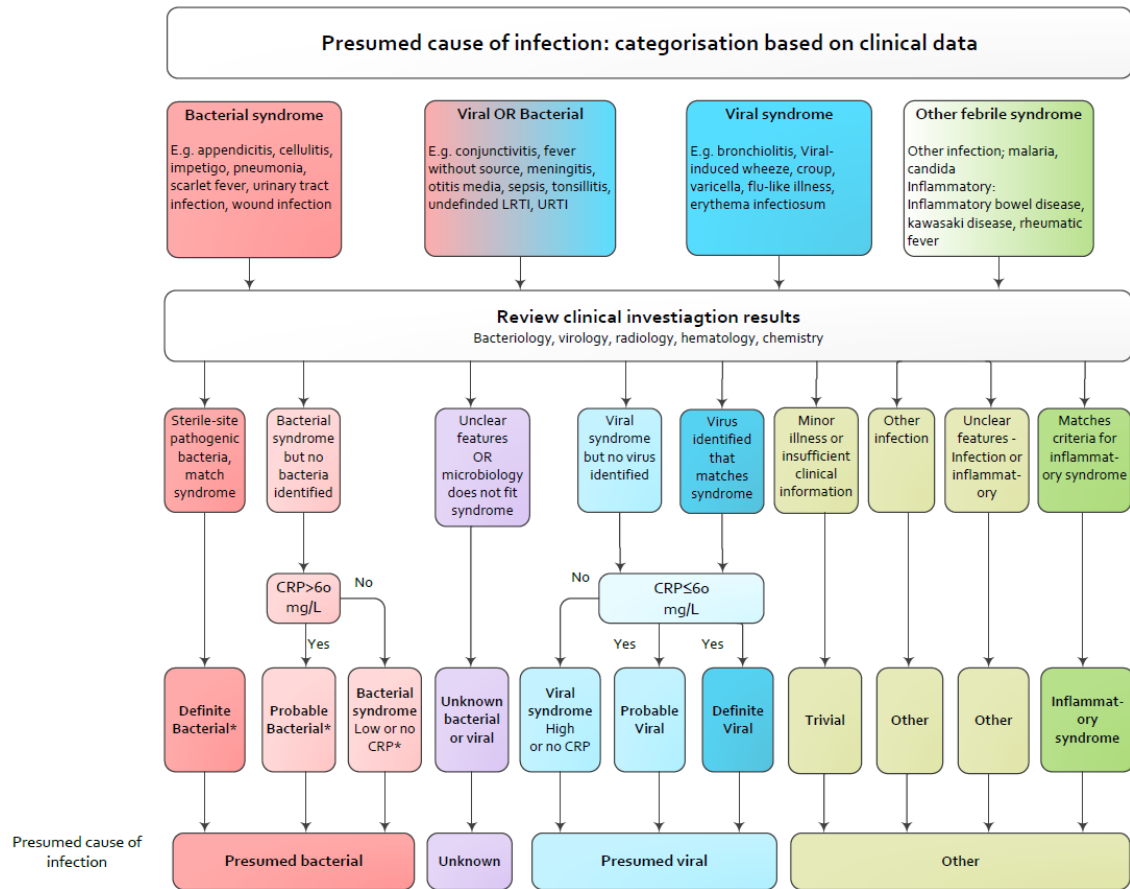
Appendix 1: Participating EDs

Hospital	Country, city	Hospital type	Total annual paediatric ED visits	Total period of inclusion	Period of inclusion per month	Number of patients included
Medizinische Universität Graz	Austria, Graz	University	10,000-30,000	1-1-2017 – 31-12-2018	10 days	2243
Dr. von Hauner Children's Hospital	Germany, Munich	Teaching	10,000-30,000	1-1-2017 – 31-12-2018	1 week	1175
P. and A. Kyriakou Children's Hospital	Greece, Athens	University	>30,000	1-1-2017 – 1-5-2018	1-2 weeks	4549
Children clinical university hospital	Latvia, Riga	Teaching	>30,000	1-1-2017 – 31-12-2018	All	9000
Univerzitetni Klinični Center	Slovenia, Ljubljana	University	<10,000	1-1-2017 – 31-12-2018	All	3659
Hospital Clínico Universitario	Spain, Santiago de Compostela	University	>30,000	1-1-2017 – 1-5-2018	1-2 weeks	3877
Erasmus MC-Sophia Children's Hospital	The Netherlands, Rotterdam	University	<10,000	1-1-2017 – 1-4-2018	All	1681
RadboudUMC	The Netherlands, Nijmegen	University	<10,000	1-1-2017 – 1-4-2018	All	676
Canisius Wilhelmina Ziekenhuis	The Netherlands, Nijmegen	Teaching	<10,000	1-1-2017 – 31-12-2018	2 weeks	415
Alder Hey Children's Hospital	United Kingdom, Liverpool	Teaching	>30,000	1-1-2017 – 31-12-2018	1 week	1624
St. Mary's Hospital	United Kingdom, London	University	10,000-30,000	1-1-2017 – 31-12-2018	All	5714
Great North Children's Hospital	United Kingdom, Newcastle upon Tyne	University	>30,000	1-4-2017 – 1-4-2018	2 weeks	3870

Appendix 2. Immediate life-saving interventions

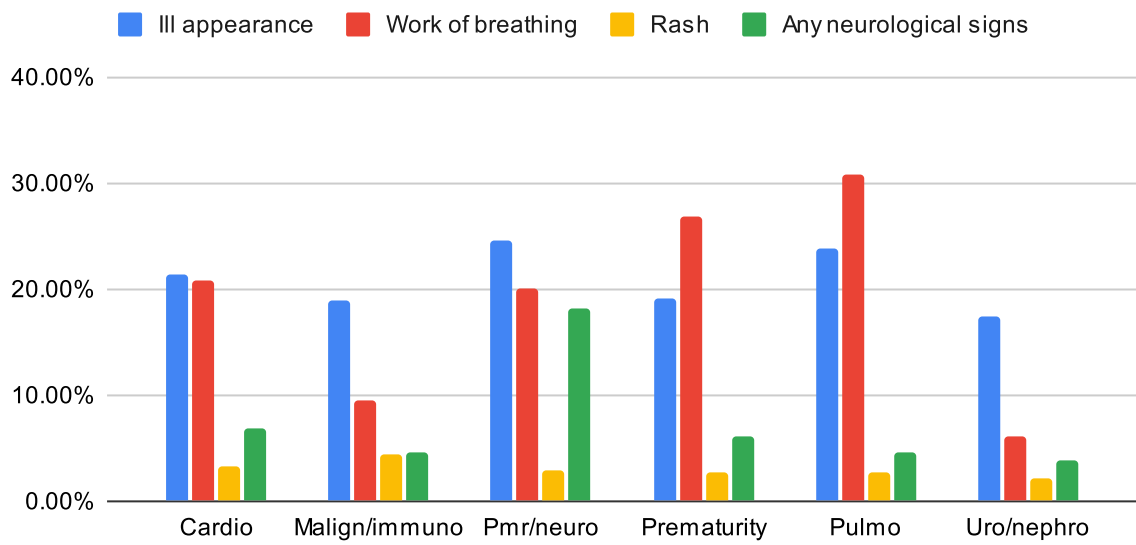
1. Airway and breathing support, including intubation or emergent noninvasive positive pressure ventilation.
 2. Electrical therapy, including defibrillation, emergent cardioversion, or external pacing.
 3. Procedures, including chest needle decompression, pericardiocentesis, or open thoracotomy.
 4. Hemodynamic support, including significant intravenous fluid resuscitation in the setting of hypotension, blood administration, or control of major bleeding.
 5. Emergency medications, including naloxone, dextrose, atropine, adenosine, epinephrine, or vasopressors
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Appendix 3 - Categorization of presumed cause of infection



Appendix 4: NICE alarming signs for children with different types of comorbidities.

NICE alarming signs



Appendix 5: Adjusted odds ratios for children with specific types of comorbidities for diagnostic tests, therapy, disposition and final diagnosis compared to children without comorbidities. #

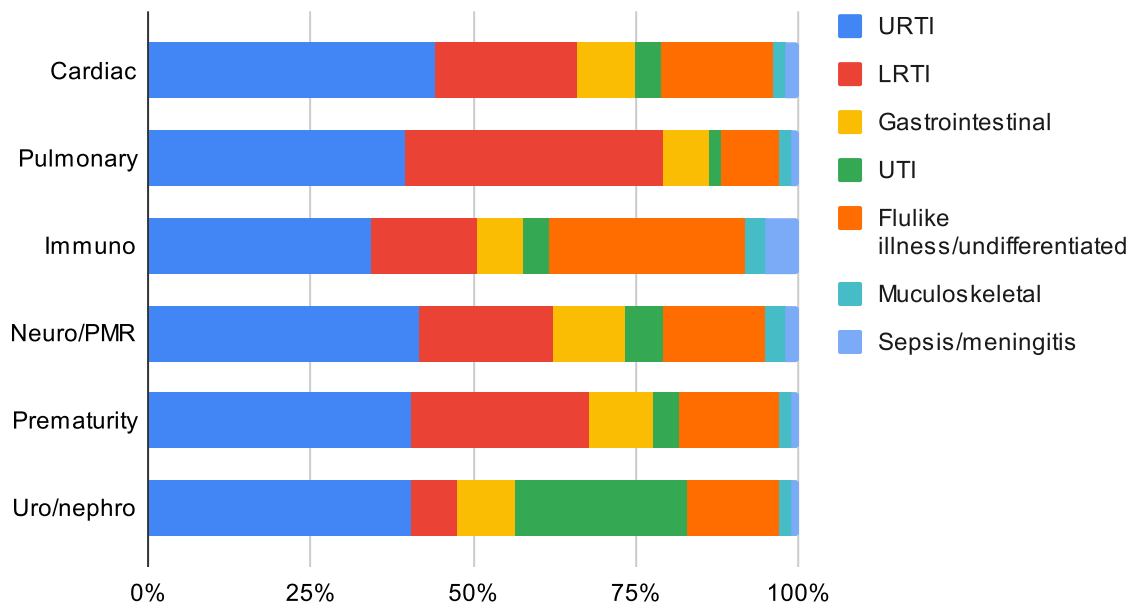
	Cardiac	Malignancy-immunodeficiency	Psychomotor delay-neurological	Prematurity	Pulmonary	Urology/nephrology
CRP > 60	1.5 (1.1-2.1)	2.5 (2.0-3.2)	1.6 (1.3-1.9)	1.1 (0.8-1.5)	0.9 (0.7-1.1)	2.1 (1.6-2.8)
Positive blood cultures	1.5 (0.6-4.0)	3.4 (2.0-5.6)	1.8 (1.0-3.3)	1.4 (0.6-3.3)	2.6 (1.2-5.6)	2.0 (0.8-5.0)
ILSI	2.7 (1.7-4.5)	2.3 (1.4-3.8)	5.3 (4.1-6.9)	2.2 (1.4-3.3)	3.0 (2.1-4.3)	1.3 (0.7-2.5)
IV antibiotics	1.9 (1.4-2.5)	9.3 (7.7-11.2)	2.6 (2.2-3.0)	1.6 (1.2-2.0)	1.4 (1.1-1.7)	2.4 (1.9-3.0)
Any admission	2.1 (1.7-2.6)	5.8 (4.8-7.0)	2.9 (2.5-3.3)	2.1 (1.8-2.5)	2.1 (1.9-2.5)	1.8 (1.5-2.2)
PICU admission	6.9 (3.2-14.7)	6.2 (2.8-13.6)	9.7 (6.1-15.5)	8.1 (4.4-14.7)	8.8 (5.2-14.8)	0.0 (0.0-0.0)
Sepsis/meningitis	3.0 (1.1-8.4)	14.5 (8.5-24.8)	4.6 (2.6-8.1)	4.5 (2.2-9.2)	2.2 (1.0-5.0)	2.6 (0.9-7.3)

Children without comorbidity used as reference.

Adjusted for ED, age, sex, duration of fever, previous medical care, time of arrival.

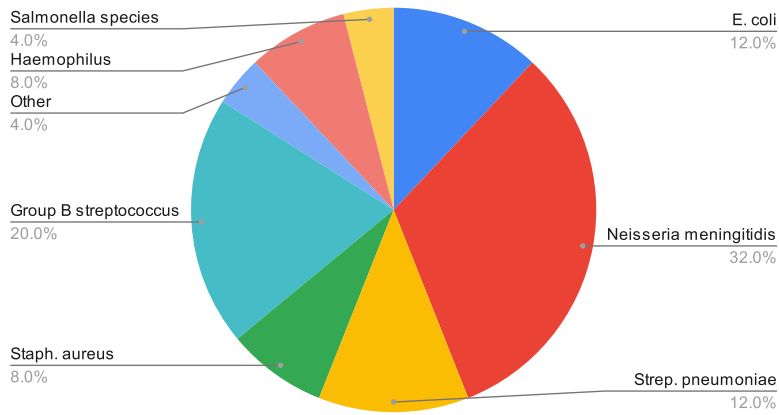
Appendix 6: focus of infection for children with different types of comorbidities.

Focus of infection for different types of comorbidities

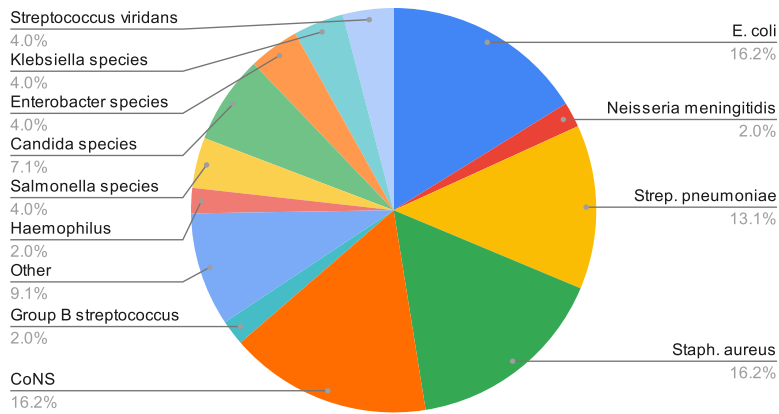


Appendix 7: Pathogens found in children with sepsis/meningitis with (N=45) and without comorbidity (N=25).

No comorbidity



Comorbidity



CoNS = Coagulase-negative staphylococci. CoNS were considered contaminants in children with comorbidity.