

Additional File 4: Demographic and microbiological characteristics of 80 children with sepsis and septic shock treated with veno-arterial Extracorporeal Membrane Oxygenation (ECMO) compared between children who survived and children that died.

Characteristic	Variable	Survived N=44 (55%)	Died N=36 (45%)	<i>p-value</i>^a
Age	age (days), median (IQR)	1241 (36.5, 2595.5)	308.50 (63.5, 1272)	0.19
	Infants (birth-364d)	20 (45%)	25 (69%)	0.068
	1-4 years	11 (25%)	3 (8%)	
	5-9 years	10 (23%)	4 (11%)	
	10-15 years	3 (7%)	4 (11%)	
Indigenous status	Indigenous or Torres Strait Islander	2 (6%)	2 (6%)	0.88
Demographics	% male	27 (61%)	22 (61%)	0.98
	Weight, median (IQR)	15.0 (3.55, 25.5)	8.3 (5.0, 18.0)	0.84
Comorbidities	Interhospital transfer	30 (68%)	23 (64%)	0.69
	Congenital heart disease	5 (11%)	3 (9%)	0.65
	Immunosuppression	2 (5%)	5 (14%)	0.14
	Oncology	2 (5%)	2 (6%)	0.84
ARDS	Acute Respiratory Distress Syndrome	8 (18%)	5 (14%)	0.61
Year of admission	2003	2 (5%)	1 (3%)	0.98
	2004	1 (2%)	1 (3%)	
	2005	1 (2%)	1 (3%)	
	2006	4 (9%)	2 (6%)	
	2007	4 (9%)	2 (6%)	
	2008	4 (9%)	1 (3%)	
	2009	2 (5%)	4 (11%)	

	2010	6 (14%)	4 (11%)	
	2011	4 (9%)	4 (11%)	
	2012	6 (14%)	4 (11%)	
	2013	3 (7%)	3 (8%)	
	2014	1 (2%)	2 (6%)	
	2015	2 (5%)	2 (6%)	
	2016	4 (9%)	5 (14%)	
Pathogen group	Pathogen			
Bacteria	<i>N. meningitidis</i>	7 (16%)	3 (8%)	0.31
	<i>Group B streptococcus</i>	3 (7%)	0 (0%)	0.11
	<i>Group A Streptococcus, viridans streptococcus</i>	10 (23%)	3 (8%)	0.083
	<i>S. pneumoniae</i>	0 (0%)	1 (3%)	0.27
	<i>S. aureus</i>	8 (18%)	4 (11%)	0.38
	<i>E. coli</i>	1 (2%)	1 (3%)	0.89
	<i>Pseudomonas aeruginosa</i>	1 (2%)	2 (6%)	0.44
	Klebsiellaspp.	1 (2%)	0 (0%)	0.36
	H.influenzae	0 (0%)	0 (0%)	NA
	Other bacteria	3 (7%)	4 (11%)	0.50
	Sum of patients with bacterial diagnosis	31 (70%)	18 (50%)	0.062
Virus	Influenza	1 (2%)	0 (0%)	0.36
	Parainfluenza	3 (7%)	0 (0%)	0.11
	Respiratory Syncytial virus	2 (5%)	0 (0%)	0.20
	Adenovirus	0 (0%)	1 (3%)	0.27
	Herpesviruses	1 (2%)	2 (6%)	0.44
	Human Metapneumovirus	0 (0%)	1 (3%)	0.27
	Enterovirus	0 (0%)	0 (0%)	NA

Other virus	0 (0%)	0 (0%)	NA
<i>Sum of patients with viral coinfection</i>	6 (14%)	4 (11%)	0.73
<i>No bacterial, fungal, or viral organism identified</i>	10 (23%)	15 (42%)	0.069

^ap-value based on Two-sample Wilcoxon rank-sum (Mann-Whitney) test

^b first observation, the measure must be obtained within the first 60minutes of PICU admission

ARDS, Acute Respiratory Distress Syndrome; ECMO, extracorporeal membrane oxygenation; PICU, paediatric intensive care unit; PIM2, paediatric index of mortality 2