

P50 implies adverse clinical outcomes in pediatric acute respiratory distress syndrome by reflecting extrapulmonary organ dysfunction

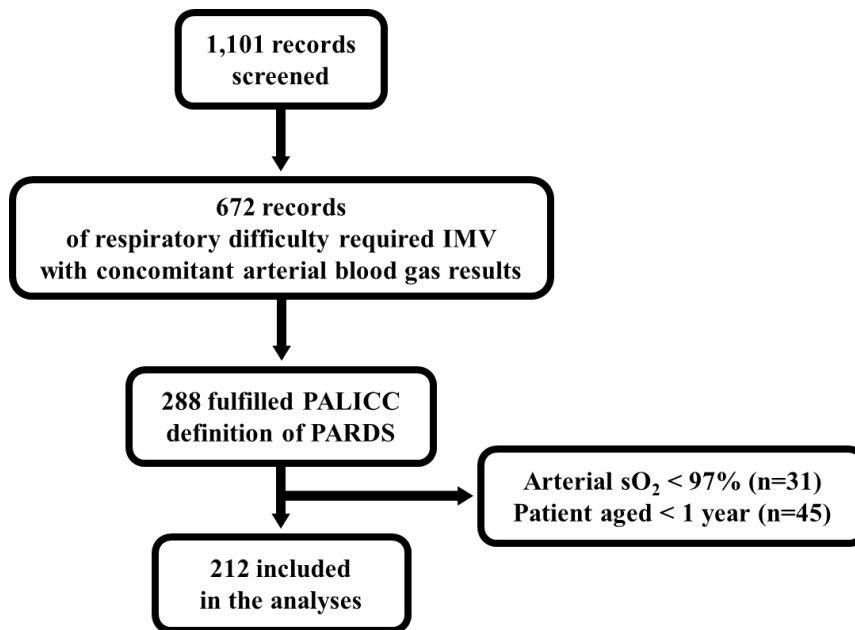
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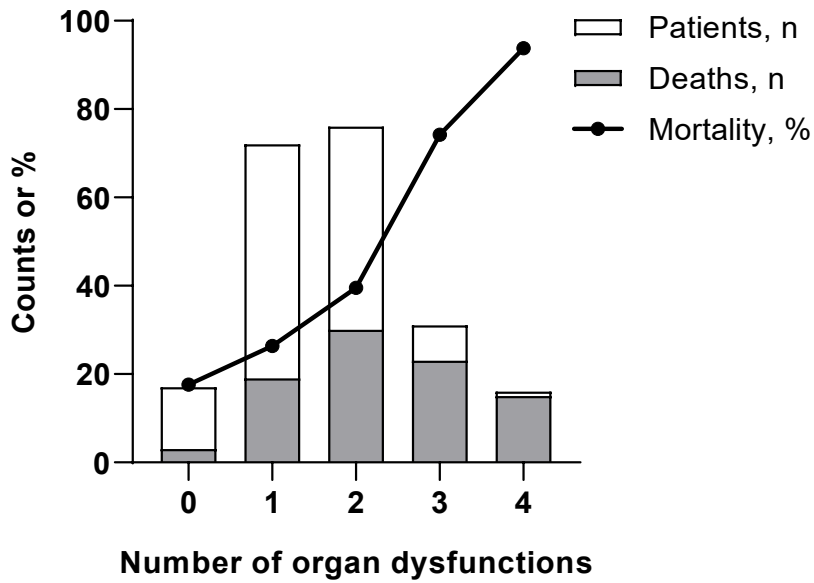
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Supplementary Figure 1. Patient selection flowchart.



IMV, invasive mechanical ventilation; PALICC, Pediatric Acute Lung Injury Consensus Conference; PARDS, pediatric acute respiratory distress syndrome, sO₂, hemoglobin oxygen saturation.

Supplementary Figure 2. Distribution of total subjects according to the number of dysfunctional extrapulmonary organs.



The white and gray bars represent the number of total patients and nonsurvivors, respectively. The black line denotes the percentage of mortality. Of note, mortality increases as the number of organs with dysfunction increase.

Supplementary Table 1. Multivariate regression analysis of the association between P50 and the type of organ dysfunction.

Type of organ dysfunction	Adjusted HR	95% CI	<i>p</i>-value
Non-pulmonary	1.186	1.129–1.245	< 0.001
Neurological	1.188	1.102–1.281	< 0.001
Cardiovascular	1.332	1.201–1.477	< 0.001
Renal	1.493	1.181–1.886	0.001
Hematologic	1.253	1.060–1.481	0.008

Analyses were adjusted for age, sex, weight, comorbidities, and initial PALICC grade.

HRs were depicted for each point change in PELOD-2 scores.

HR, hazard ratio, CI, confidence interval, PALICC: Pediatric Acute Lung Injury Consensus Conference.

Supplementary Table 2. Multivariate analysis of variables regarding the association of P50 with the type of organ dysfunction

Variable	PELOD-2 score													
	Total		Respiratory		Nonrespiratory		Neurologic		Cardiovascular		Renal		Hematologic	
	β	<i>P</i> -value	β	<i>P</i> -value	β	<i>P</i> -value	β	<i>P</i> -value	β	<i>P</i> -value	β	<i>P</i> -value	β	<i>P</i> -value
Age, yr	-0.022	0.828	0.033	0.042	-0.055	0.586	-0.067	0.299	0.061	0.160	-0.016	0.431	-0.033	0.258
Sex (female vs male)	-0.167	0.773	0.035	0.707	-0.203	0.729	-0.013	0.973	-0.050	0.842	-0.042	0.720	-0.097	0.567
Weight, kg	0.025	0.415	-0.005	0.299	0.031	0.329	0.014	0.474	-0.005	0.735	0.002	0.778	0.019	0.037
Comorbidity														
Airway/Pulmonology	-0.741	0.506	0.157	0.385	-0.898	0.424	-1.824	0.012	0.367	0.450	-0.178	0.435	0.736	0.025
Oncology	1.503	0.180	0.151	0.407	1.352	0.231	-1.561	0.031	0.492	0.314	0.175	0.444	2.246	<0.001
Neurology	-1.126	0.346	0.222	0.254	-1.347	0.263	-1.167	0.130	-0.293	0.573	-0.437	0.074	0.550	0.117
Genetic syndromes	-0.592	0.704	0.417	0.101	-1.009	0.521	-1.851	0.067	0.453	0.505	-0.350	0.272	0.738	0.107
Hepatic failure/transplant	0.365	0.840	0.126	0.668	0.239	0.896	-1.053	0.366	-0.052	0.947	0.299	0.418	1.045	0.050
PARDS severity (with mild PARDS as reference group)														
Moderate	-0.118	0.859	0.101	0.350	-0.219	0.743	-0.285	0.506	-0.023	0.938	0.092	0.501	-0.003	0.987
Severe	1.928	0.008	0.620	<0.001	1.308	0.073	0.196	0.673	0.477	0.131	0.282	0.057	0.353	0.096
P50, mmHg	0.182	0.001	0.024	0.007	0.158	0.004	0.066	0.056	0.075	0.001	0.022	0.046	-0.005	0.742

PELOD-2: Pediatric logistic organ dysfunction-2, PARDS: Pediatric acute respiratory distress syndrome