

## Right Ventricular Dysfunction in Early Sepsis and Septic Shock

*Michael J. Lanspa, MD, FCCP; Meghan M. Cirulis, MD; Brandon M. Wiley, MD; Troy D. Olsen, ACS, RDCS (AE, PE); Emily L. Wilson, MStat; Sarah J. Beesley, MD; Samuel M. Brown, MD; Eliotte L. Hirshberg, MD; and Colin K. Grissom, MD, FCCP*

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**e-Table 1: Outcomes by RV and LV Dysfunction Status.** p-value compares 'RV Dysfunction Only' to 'RV + LV Dysfunction'.

Variable	No RV or LV Dysfunction (n=60)	RV Dysfunction Only (n=35)	LV Dysfunction Only (n=130)	RV + LV Dysfunction (n=145)	p-value
<b>28-day Mortality; n (%)</b>	15 (25%)	11 (31%)	15 (12%)	46 (32%)	1.00
<b>Vent Free Days</b>	28 (2, 28)	24 (0, 28)	28 (24.25 - 28)	26 (0, 28)	0.85
<b>Delta SOFA</b>	-3.5 (-6, -0.75)	-5 (-6, -1.5)	-5 (-7, -3)	-3 (-7, -1)	0.91
<b>Cardio OFFD to day 14</b>	11 (3, 13)	11 (7, 12)	12 (11, 13)	11 (5, 13)	0.74
<b>Coag. OFFD to day 14</b>	14 (11.5, 14)	14 (10, 14)	14 (14, 14)	14 (10, 14)	0.49
<b>Hepatic OFFD to day 14</b>	14 (10, 14)	14 (12, 14)	14 (13, 14)	14 (11, 14)	0.73
<b>Renal OFFD to day 14</b>	13.5 (11, 14)	13 (6.5, 14)	14 (13, 14)	13 (6, 14)	0.86

**e-Table 2: Outcomes by RV and LV Dysfunction (Systolic Only) Status.** This p-value compares 'RV Dysfunction Only' to 'RV + LV Dysfunction'.

Variable	No RV or LV Dysfunction (n=84)	RV Dysfunction Only (n=55)	LV Dysfunction Only (n=104)	RV + LV Dysfunction (n=124)	p-value
<b>28-day Mortality; n (%)</b>	16 (19%)	18 (33%)	14 (13%)	38 (31%)	0.92
<b>Vent Free Days</b>	28 (18, 28)	26 (0, 28)	28 (22.75, 28)	26 (0, 28)	0.77
<b>Delta SOFA</b>	-3 (-6, -1)	-5 (-6, -2)	-5.5 (-8, -3)	-3 (-7, -0.75)	0.41
<b>Cardio OFFD to day 14</b>	12 (7.75, 13)	11 (7, 12.5)	12 (10, 13)	11 (5.75, 13)	0.80
<b>Coag. OFFD to day 14</b>	14 (13, 14)	14 (11, 14)	14 (13, 14)	14 (10, 14)	0.26
<b>Hepatic OFFD to day 14</b>	14 (11, 14)	14 (12, 14)	14 (13, 14)	14 (11, 14)	0.59

**e-Table 3:** A modest correlation between both RV strain and TAPSE/FAC

<b>Comparison</b>	<b>Correlation (95% Confidence Interval)</b>	<b>p-value</b>
<b>RV strain vs. TAPSE</b>	-0.40 (-0.51, -0.27)	<b>&lt;0.001</b>
<b>RV strain vs. FAC</b>	-0.24 (-0.37, -0.11)	<b>&lt;0.001</b>

**e-Table 4:** Logistic regression for 28-day mortality with RV strain and clinical covariates (N=220)

<b>Variable</b>	<b>Odds Ratio</b>	<b>95% Confidence Interval</b>	<b>p-value</b>
<b>RV Strain</b>	1.01	(0.96, 1.06)	0.67
<b>APACHE II</b>	1.13	(1.08, 1.18)	<b>&lt;0.001</b>
<b>Ventilated during echo</b>	0.24	(0.09, 0.62)	<b>0.005</b>
<b>NEE Dose (per 0.01 mcg/kg/min increase)</b>	1.00	(0.98, 1.02)	0.82
<b>Fluid 6 hours prior to echo</b>	1.00	(0.99, 1.00)	0.92

**e-Table 5:** Logistic regression for 28-day mortality with RV and LV dysfunction, using alternate definition of RV dysfunction as RV free wall strain > -20% and clinical covariates

<b>Variable</b>	<b>Odds Ratio</b>	<b>95% Confidence Interval</b>	<b>p-value</b>
<b>RV Dysfunction</b>	2.05	(0.85, 4.99)	0.11
<b>LV Systolic Dysfunction</b>	0.47	(0.19, 1.15)	0.10
<b>LV Diastolic Dysfunction</b>	1.48	(0.62, 3.55)	0.38
<b>APACHE II</b>	1.13	(1.07, 1.19)	<b>&lt;0.001</b>
<b>Ventilated during echo</b>	0.22	(0.06, 0.79)	0.02
<b>PaO2/FiO2 ratio</b>	1.00	(1.00, 1.00)	0.65
<b>NEE Dose (per 0.01 mcg/kg/min increase)</b>	3.34	(0.42, 26.6)	0.26
<b>Fluid 6 hours prior to echo, mL</b>	1.00	(1.00, 1.00)	0.84

**e-Figure 1.** Distribution of RV Free wall strain by RV dysfunction status. The overlapping distributions suggest that RV strain can be abnormal in patients with normal TAPSE and FAC, and vice versa. The bimodal distribution in the RV failure group is of interest as a proportion of patients with normal RV strain (and presumably normal contractility) had either abnormal TAPSE or FAC, measurements which are more susceptible to the effects of preload and afterload.

