

**Supplementary Table 1. Studies evaluating RV dysfunction in sepsis and septic shock**

Author/Year	N	Inclusion	Modality	Timing	RVD definition	RVD%	Outcome
Mokart 2007 <sup>1</sup>	45	Septic shock	TTE	Q1D	Septal dyskinesia + RV dilation (RVEDD > 30mm PSLAX) or RV size > LV size. RV dilation + PASP > 45 mm Hg all for > 48 hours	38.0%	RV dysfunction was associated with increased ICU mortality
Tongyoo 2011 <sup>2</sup>	118	Severe sepsis and septic shock	PAC	24 h	RAP > 12 mmHg, mPAP > 30 mm Hg, PVR > 250 dyne/sec/cm-5 and PAOP < 18 mm Hg	17.8%	RV dysfunction not associated with increased 28 day mortality
Furian 2012 <sup>3</sup>	45	Severe sepsis and septic shock	TTE	24 h	TASV $\leq$ 12cm/sec, LVEF < 55% and LV S' < 12cm/sec	30.0%	RV dysfunction not associated with increased in hospital day mortality
<b>Pulido 2012<sup>4*</sup></b>	106	Severe sepsis and septic shock	TTE	24 h	TASV < 15, RV-LV size, RV wall motion, expert opinion	31.0% Isolated RVD (9%)	RV dysfunction not associated with increased 30 day or 1 year mortality
Harmankaya 2013 <sup>5</sup>	55	Sepsis, severe sepsis and septic shock	TEE	4 h	TASV, RV- MPI	---	RV s' was lower and RV- MPI higher in non survivors compared to survivors and control
Papanikolaou 2014 <sup>6</sup>	42	Severe sepsis and septic shock	PAC	Days 1-3	RVEF < 40%	78.0%	Reduced RVEF associated with higher 28 day mortality
<b>Orde 2014<sup>7*</sup></b>	60	Severe sepsis and septic shock	TTE	24 h	TAPSE < 16, FAC < 35%, TASV < 10, RV dilation, RV reduced systolic function  Speckle tracking < -21%, -13 to -21 and > -13	32.0% Isolated RVD (15%)  72.0% Isolated RVD (25.77%)	RV dysfunction via routine echo parameters not associated with increased 30 day or 1 year mortality.  RV dysfunction via strain imaging associated with 6 month mortality

Landesberg 2014 <sup>8</sup>	106	Severe sepsis and septic shock	TTE	24 h	RVEDi, RVESVi, RVSVi/RVEF - 3D volumes, speckle tracking, Long and circumferential strain	---	Higher RVEDVi associated with increased in hospital mortality
Singh 2016 <sup>9</sup>	88	Septic shock	TTE	24 h	Any abnormality in chamber dimensions, TAPSE, PD MPI, MPI, FAC abnormality based on 2010 ASE RV guidelines	79.0%	Lower FAC associated with increased 28 day mortality
<b>Vallabhajosyula 2017<sup>10*</sup></b>	388	Severe sepsis and septic shock	TTE	72 h	TAPSE < 16, FAC < 35%, TASV <15, RV dilation, RV reduced systolic or diastolic function	55.0% Isolated RVD (25.77%)	1 year mortality higher in isolated RV dysfunction
Cirulis 2018 <sup>11</sup>	146	Severe sepsis and septic shock	TTE	48 h	RVEDD/LVEDD ≥ 0.9	66.0%	RV dysfunction not associated with increased 30 day mortality
Geri 2019 <sup>12</sup>	360	Septic shock	TEE	12 h	RVEDA/LVEDA > 0.6	22.5%	---
Main 2019 <sup>13</sup>	56	Sepsis	TTE	---	TAPSE < 16 cm	---	Increased RV basal and Mid dimension was associated with increased 90 day mortality
Winkelhorst 2019 <sup>14</sup>	98	Severe sepsis and septic shock	PAC	24 h	RVEF < 20%	21.4%	RVEF < 20% associated with increased 1 year mortality
Kim J 2020 <sup>15</sup>	778	Septic shock	TTE	72 h	TAPSE < 16, , TASV <15, RV dilation, RV reduced systolic function	14.4%	RV dysfunction was associated with increased 28 mortality

**Legend: \*are studies where proportions of patient with isolated RV dysfunction was stated.**

**Abbreviations:** FAC: Fractional area change; LV: Left ventricle; LVEF: Left ventricle ejection fraction; LVEDA: Left Ventricle end diastolic area; LVEDD: Left Ventricle end diastolic dimension; LV S': Left ventricle annular systolic velocity; mPAP: Mean pulmonary artery pressure; PAOP: Pulmonary artery occlusion pressure; PASP: Pulmonary artery systolic pressure; PVR: Pulmonary Vascular Resistance; RAP: Right atrial pressure; RV: Right Ventricle; RVEDA: Right Ventricle end diastolic area; RVEDi: Right Ventricle end diastolic index; RVESVi: Right

Ventricle end systolic index; RSVi: Right ventricle stroke volume index; RVEF: Right ventricle ejection fraction;  
RV- MPI: Right Ventricle Myocardial performance index; RVEDD: Right Ventricle end diastolic dimension;  
TAPSE: Tricuspid annular plane systolic excursion; TASV: Tricuspid annular systolic velocity.

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