

**Supplementary Table 1: Baseline characteristics of the ESCAPE trial population stratified by relative agreement between fluid and weight loss**

	<b>Fluid and weight loss within <math>\pm</math> 50% (N=129)</b>	<b>Fluid <math>\geq</math>50% more than weight loss (N=152)</b>	<b>Weight <math>\geq</math> 50% more than fluid loss (N=67)</b>	<b>p-value</b>
<b>Demographics</b>				
Age (y)	56.6 $\pm$ 13.9	53.5 $\pm$ 13.4	58.4 $\pm$ 13.9	0.028*
White race	59.7%	59.9%	53.7%	0.664
Male	77.5%	72.4%	68.7%	0.372
<b>Medical History</b>				
Hypertension	40.3%	46.1%	58.2%	0.058
Diabetes	31.8%	30.3%	43.3%	0.152
Ischemic etiology	56.6%	43.4%	52.2%	0.082
<b>Admission Physical Exam</b>				
Heart rate (beats/min)	82.1 $\pm$ 15.1	81.6 $\pm$ 14.8	81.3 $\pm$ 15.9	0.859
Systolic blood pressure (mmHg)	105.7 $\pm$ 15.8	104.6 $\pm$ 14.8	107.9 $\pm$ 19.3	0.920
Jugular venous distention	61.4%	53.3%	41.8%	0.032*
Edema > 1+	44.2%	25.7%	34.3%	0.005*
Hepatojugular reflux	84.0%	77.4%	81.5%	0.383
<b>Cardiac Function</b>				
Ejection fraction (%)	20 (15-23)	20 (15-25)	20 (15-26)	0.217
<b>Laboratory Values</b>				
Serum sodium (mEq/L)	135.9 $\pm$ 4.7	136.8 $\pm$ 4.5	137.4 $\pm$ 4.2	0.035*
B-type natriuretic peptide (pg/mL)	770 (268-1482)	518 (170-1048)	511 (266-1004)	0.081
eGFR (mL/min/1.73m <sup>2</sup> )	57.7 $\pm$ 23.2	60.5 $\pm$ 26.9	54.2 $\pm$ 27.6	0.189
Blood urea nitrogen (mg/dL)	33.2 $\pm$ 17.9	33.1 $\pm$ 20.4	38.2 $\pm$ 29.2	0.764
Hemoglobin (g/dL)	12.7 $\pm$ 1.6	12.6 $\pm$ 2.0	12.1 $\pm$ 1.7	0.127
Right atrial pressure (mmHg)	16.4 $\pm$ 11.9	12.4 $\pm$ 6.0	10.0 $\pm$ 6.8	0.001*
Pulmonary capillary wedge pressure (mmHg)	27.9 $\pm$ 10.0	26.0 $\pm$ 9.2	19.9 $\pm$ 6.7	0.002*
Cardiac index (L/min/m <sup>2</sup> )	1.9 $\pm$ 0.6	2.0 $\pm$ 0.6	2.1 $\pm$ 0.6	0.359
Systemic vascular resistance	1571.5 $\pm$ 942.4	1397.5 $\pm$ 802.2	1444.8 $\pm$ 690.7	0.552

Fluid vs. Weight Loss -2

(dyn·s/cm<sup>5</sup>)

Medications (Admission)

Beta blocker	59.7%	63.2%	64.2%	0.774
ACE inhibitor or ARB	89.9%	92.8%	85.1%	0.208
Digoxin	76.0%	73.7%	71.6%	0.795
Aldosterone antagonist	38.4%	31.8%	31.3%	0.446
Loop diuretic dose (mg)	200 (100-320)	200 (120-360)	160 (85-240)	0.152
Thiazide diuretic	12.1%	12.4%	10.8%	0.943

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eGFR: Estimated glomerular filtration rate. ACE: Angiotensin converting enzyme, ARB: Angiotensin receptor blocker. \* Significant p value.

**Supplementary Table 2: Baseline characteristics of the Penn cohort stratified by relative agreement between fluid and weight loss**

	<b>Fluid and weight loss within <math>\pm</math> 50% (N=198)</b>	<b>Fluid <math>\geq</math>50% more than weight loss (N=182)</b>	<b>Weight <math>\geq</math> 50% more than fluid loss (N=106)</b>	<b>p-value</b>
<b>Demographics</b>				
Age (Years)	62.2 $\pm$ 15.4	61.4 $\pm$ 15.4	62.9 $\pm$ 15.4	0.660
Black race	56.1%	54.4%	72.6%	0.005*
Male	63.1%	59.9%	51.9%	0.162
<b>Medical History</b>				
Hypertension	74.7%	66.3%	71.7%	0.191
Diabetes	39.8%	41.8%	45.3%	0.653
Ischemic etiology	30.8%	29.1%	27.4%	0.815
Coronary Artery Disease	47.5%	47.8%	43.4%	0.740
<b>Admission Physical Exam</b>				
Heart rate (beats/min)	89.2 $\pm$ 20.0	87.7 $\pm$ 18.7	90.3 $\pm$ 19.1	0.361
Systolic blood pressure (mmHg)	129.4 $\pm$ 30.2	127.5 $\pm$ 31.2	142.1 $\pm$ 38.3	0.007*
Jugular venous distention	62.7%	48.6%	52.5%	0.023*
Edema > 1+	50.5%	43.0%	44.7%	0.320
Hepatojugular reflux	26.0%	30.5%	26.0%	0.676
<b>Cardiac Function</b>				
Ejection fraction (%)	25 (15-45)	23 (15-35)	28 (15-43)	0.126
<b>Laboratory Values</b>				
Serum sodium (mEq/L)	137.8 $\pm$ 4.8	137.9 $\pm$ 4.3	138.7 $\pm$ 4.8	0.250
B-type natriuretic peptide (pg/mL)	1359 (771-2516)	1456 (813-2464)	1581 (723-2966)	0.681
eGFR (mL/min/1.73m <sup>2</sup> )	55.6 $\pm$ 26.1	55.4 $\pm$ 25.1	63.8 $\pm$ 31.6	0.077
BUN (mg/dL)	32.2 $\pm$ 21.9	33.9 $\pm$ 27.4	27.1 $\pm$ 19.6	0.016*
Hemoglobin (g/dL)	12.1 $\pm$ 2.0	12.4 $\pm$ 2.1	12.3 $\pm$ 2.0	0.661
<b>Medications (Admission)</b>				
Beta blocker	78.3%	78.0%	68.9%	0.139

Fluid vs. Weight Loss -4

ACE inhibitor or ARB	69.2%	63.7%	65.1%	0.511
Digoxin	24.7%	40.1%	21.9%	0.001*
Aldosterone antagonist	19.2%	25.8%	15.2%	0.079
Loop diuretic dose (mg)	40 (20-130)	80 (40-160)	40 (0-80)	<0.001*
Thiazide diuretic	12.1%	13.2%	11.4%	0.901

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**Supplementary Table 3: In-hospital and discharge characteristics of the ESCAPE trial population stratified by relative agreement between fluid and weight loss**

	<b>Fluid and weight loss within <math>\pm</math> 50% (N=129)</b>	<b>Fluid <math>\geq</math>50% more than weight loss (N=152)</b>	<b>Weight <math>\geq</math> 50% more than fluid loss (N=67)</b>	<b>p-value</b>
<b>Diuresis Related Parameters</b>				
Peak IV loop diuretic dose in 24 hours (mg)	240 (120-400)	240 (120-400)	160 (80-320)	0.078
Adjuvant thiazide diuretic	33.3%	24.5%	27.7%	0.269
Net fluid loss (L)	6.6 $\pm$ 5.3	6.7 $\pm$ 4.9	1.7 $\pm$ 2.4	<0.001*
Weight loss (Kg)	6.1 $\pm$ 4.6	1.7 $\pm$ 2.5	3.3 $\pm$ 6.4	<0.001*
<b>Non-diuresis related parameters</b>				
Inotrope use (%)	36.8%	41.2%	36.5%	0.700
Length of stay (days)	6 (4-10)	7 (5-10)	6 (4-12)	0.708
Treated with pulmonary artery catheter	49.6%	48.7%	58.2%	0.403
<b>Admission to Discharge Change in Laboratory Parameters</b>				
eGFR (%)	-4.8 $\pm$ 17.6	-0.6 $\pm$ 15.1	-2.2 $\pm$ 14.0	0.110
Creatinine (%)	0.2 $\pm$ 0.9	0.0 $\pm$ 0.5	0.0 $\pm$ 0.5	0.068
Worsening renal function	26.2%	17.9%	21.9%	0.259
Blood urea nitrogen (%)	31.1 $\pm$ 62.6	16.7 $\pm$ 49.1	13.6 $\pm$ 61.6	0.106
Sodium (%)	-1.1 $\pm$ 3.0	-1.1 $\pm$ 2.8	-1.1 $\pm$ 3.4	0.961
Hemoglobin (%)	1.6 $\pm$ 11.8	0.2 $\pm$ 14.1	0.2 $\pm$ 13.4	0.555
Hematocrit (%)	2.4 $\pm$ 12.7	0.1 $\pm$ 11.6	0.4 $\pm$ 13.3	0.315
Albumin (%)	3.4 $\pm$ 13.2	-2.7 $\pm$ 10.8	-2.0 $\pm$ 13.5	0.045*
Total Protein (%)	6.9 $\pm$ 22.1	-0.8 $\pm$ 10.1	-3.0 $\pm$ 20.4	0.005*
<b>Discharge Physical Examination</b>				
Rales	7.0%	9.2%	10.8%	0.654
Ascites	4.0%	2.0%	4.7%	0.502
Hepatomegaly	21.0%	17.1%	22.2%	0.609
Jugular venous distention	33.9%	33.6%	35.5%	0.964

## Fluid vs. Weight Loss -6

Edema > 1+	22.7%	15.1%	20.0%	0.267
Invasive hemodynamics (Final)				
Right atrial pressure (mmHg)	9.6 ± 5.7	9.1 ± 5.0	8.2 ± 6.0	0.367
Pulmonary capillary wedge pressure (mmHg)	18.4 ± 8.7	17.2 ± 7.0	14.5 ± 7.2	0.313
Cardiac index (L/min/m <sup>2</sup> )	2.4 ± 0.6	2.3 ± 0.6	2.4 ± 0.8	0.822
Systemic vascular resistance (dyn·s/cm <sup>5</sup> )	1061.8 ± 432.4	1108.2 ± 454.1	1150.4 ± 499.9	0.662
Invasive hemodynamics (Change)				
Right atrial pressure (mmHg)	-6.6 ± 13.2	-2.9 ± 5.5	-3.1 ± 5.7	0.185
Pulmonary capillary wedge pressure (mmHg)	-8.1 ± 9.6	-8.1 ± 9.5	-6.9 ± 6.8	0.937
Cardiac index (L/min/m <sup>2</sup> )	0.5 ± 0.7	0.3 ± 0.6	0.4 ± 0.7	0.468
Systemic vascular resistance (dyn·s/cm <sup>5</sup> )	-484.5 ± 905.4	-293.3 ± 787.4	-299.8 ± 509.2	0.236
Discharge Medications				
Thiazide diuretic	15.5%	9.9%	11.9%	0.357
ACE inhibitor or ARB	87.6%	91.4%	85.1%	0.334
Digoxin	82.9%	79.6%	71.6%	0.178
Beta blocker	56.6%	57.9%	59.7%	0.915
Discharge loop diuretic dose (mg)	120 (80-160)	120 (80-240)	80 (40-160)	0.012*

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**Supplementary Table 4: In-hospital and discharge characteristics of the Penn cohort stratified by relative agreement between fluid and weight loss**

	<b>Fluid and weight loss within <math>\pm</math> 50% (N=198)</b>	<b>Fluid <math>\geq</math>50% more than weight loss (N=182)</b>	<b>Weight <math>\geq</math> 50% more than fluid loss (N=106)</b>	<b>p-value</b>
<b>Diuresis Related Parameters</b>				
Cumulative IV loop diuretic dose (mg)	400 (180-800)	320 (120-745)	210 (120-353)	<0.001*
Peak IV loop diuretic dose in 24 hours (mg)	160 (80-240)	120 (50-220)	80 (40-160)	<0.001*
Continuous diuretic infusion	9.1%	5.5%	0.9%	0.016*
Adjuvant thiazide diuretic	22.8%	14.8%	8.5%	0.004*
Net fluid loss (L)	7.2 $\pm$ 5.5	6.3 $\pm$ 8.2	1.5 $\pm$ 2.3	<0.001*
Fluid intake (L)	8.9 $\pm$ 5.4	10.0 $\pm$ 6.6	7.2 $\pm$ 4.2	0.001*
Fluid output (L)	16.1 $\pm$ 9.1	16.3 $\pm$ 10.7	8.7 $\pm$ 4.5	<0.001*
Ratio of intake to output	0.57 $\pm$ 0.12	0.70 $\pm$ .067	0.87 $\pm$ 0.35	<0.001*
Change in Weight (Kg)	6.5 $\pm$ 4.9	1.9 $\pm$ 3.4	3.1 $\pm$ 9.6	<0.001*
<b>Non-diuresis related parameters</b>				
Treated on a cardiology service	72.2%	74.6%	54.7%	0.001*
Length of stay (days)	6 (4-9)	7 (4-10)	5 (3-7)	0.002*
Inotrope use (%)	19.6	23.3	13.3	0.122
<b>Admission to Discharge Change in Laboratory Parameters</b>				
eGFR (%)	-2.2 $\pm$ 13.7	1.5 $\pm$ 14.0	3.2 $\pm$ 16.4	0.035*
Creatinine (%)	0.1 $\pm$ 0.4	0.0 $\pm$ 0.4	0.0 $\pm$ 0.3	0.150
Worsening renal function	21.2%	13.8%	15.1%	0.133
Blood urea nitrogen (%)	4.2 $\pm$ 15.5	2.3 $\pm$ 16.3	2.2 $\pm$ 12.7	0.749
Sodium (%)	-0.6 $\pm$ 3.2	-0.6 $\pm$ 2.7	-1.8 $\pm$ 7.5	0.131
Hemoglobin (%)	-1.1 $\pm$ 10.3	-3.1 $\pm$ 9.2	-1.3 $\pm$ 13.1	0.194
Hematocrit (%)	-0.7 $\pm$ 13.3	-3.0 $\pm$ 9.6	-1.6 $\pm$ 12.8	0.375
<b>Discharge Physical Examination</b>				
Systolic blood pressure (mmHg)	115.1 $\pm$ 25.8	111.9 $\pm$ 23.6	121.3 $\pm$ 26.4	0.010*

Fluid vs. Weight Loss -8

Heart rate (beats/min)	77.5 ± 16.5	79.4 ± 13.4	77.8 ± 14.3	0.254
Jugular venous distention (≥ 8 cm water)	23.5%	23.4%	15.5%	0.291
Edema > 1+	14.4%	16.9%	16.3%	0.801
Hepatojugular reflux	6.6%	5.2%	1.5%	0.289
Discharge Medications				
Thiazide diuretic	9.3%	9.5%	10.6%	0.933
ACE inhibitor or ARB	77.3%	79.8%	77.9%	0.840
Aldosterone Antagonist	28.9%	30.2%	21.2%	0.234
Beta blocker	90.2%	89.4%	85.6%	0.463
Loop Diuretic (mg)	80 (40-160)	80 (40-160)	70 (20-160)	0.012*

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