

Supplementary Materials**Supplementary table 1. Baseline Characteristics of Study Cohort stratified by sex**

	Male n = 3645	Female N = 6038	P value
Demographics			
Age, years	75 ± 12	77 ± 13	<0.0001
Anthropometrics			
BMI	26.51±5.03	26.12 ± 5.99	<0.0001
BSA	1.95±0.21	1.70 ± 0.21	<0.0001
Rhythm			
Atrial fibrillation / atrial arrhythmia	1506 (41.3)	2266 (37.5)	0.001
LV dimensions and function			
LVEF %	68.60±7.40	69.71±7.58	<0.0001
E:e' ratio	13.56±5.14	14.65±6.13	<0.0001
LVEDD	5.14±0.74	4.58±0.66	<0.0001
LVESD	3.10±0.65	2.71 ±0.55	<0.0001
Atrial dimensions			
LA volume index, mL/m ²	95.34±54.04	85.98±48.34	<0.0001
RA area, cm ²	31.72±9.64	25.63±8.81	<0.0001
Right heart dimensions and function			
eRVSP, mmHg	44.05±12.78	44.40±13.15	0.003
TR peak velocity, m/s	2.90±0.49	2.92±0.49	<0.0001
RV basal diameter	3.53±0.42	3.28±0.39	<0.0001
Dilated RV	1515 (41.6)	1334 (22.1)	<0.0001
Impaired RV function	109 (3.0)	128 (2.1)	<0.0001
Mitral valve dimensions and function			
MV mean gradient, mmHg	2.63 ± 1.24	2.93 ± 1.21	<0.0001
Concomitant valvular pathology			
≥ moderate aortic regurgitation	389 (10.7)	696 (11.5)	<0.0001
Severe AS < 1cm ²	107 (2.9)	288 (4.8)	0.05

Values are n (%) unless otherwise indicated. eRVSP = estimated right ventricular systolic pressure (mmHg); BMI = body mass index; BSA = body surface area; LVEF = left ventricular ejection fraction; LVEDD = left ventricular end diastolic diameter; LVESD = left ventricular end systolic diameter; LA = left atrial; RA = right atrial; TR = tricuspid regurgitant; RV = right ventricle; AV = aortic valve; VTI = velocity time integral.

Supplementary Table 2. Survival Profile and Adjusted Risk for Mortality According to Estimated Right Ventricular Systolic Pressure Levels

	1-Year Actuarial Mortality (n= 9439)	5-Year Actuarial Mortality (n= 6780)	All Fatal Events (n= 9638)	Cardiovascular mortality (n= 9638)
	OR (95% CI)	OR (95% CI)	HR (95% CI)	HR (95% CI)
All individuals n= 9638	1573 (16.7)	3603 (53.1)	4614 (47.9)	1777 (18.4)
Normal eRVSP (<30mmHg) n = 959	79/950 (8.5) Reference	192/581 (33.0) Reference	247 (25.8) Reference	83 (8.7) Reference
Borderline PHT (eRVSP 30.00-39.99) N = 2952	304/2869 (12.0) OR 1.14 (0.87-1.48)	791/1970 (40.2) OR 1.18 (0.95-1.46)	1098 (37.2) HR 1.20 (1.05-1.38)	383 (13.0) HR 0.77 (0.61-0.98)
Mild PHT (eRVSP 40.00-49.99) N = 3167	468/3088 (17.0) OR 1.52 (1.18-1.97)	1179/2280 (51.7) OR 1.60 (1.29-1.97)	1612 (50.9) HR 1.54 (1.35-1.76)	607 (19.2) HR 0.81 (0.65 -1.02)
Moderate PHT (eRSVP 50.00 - 59.99) N = 1588	342/1533 (25.8) OR 2.19 (1.67-2.86)	787/1129 (69.7) OR 2.90 (2.29-3.66)	922 (58.1) HR 1.99 (1.73-2.30)	383 (24.1) HR 1.20 (0.95-1.52)
Severe PHT (eRVSP >60) N = 1017	380/999 (39.7) OR 4.36 (3.32-5.72)	654/820 (79.8) OR 4.91 (3.77-6.40)	1068 (72.3) HR 2.75 (2.38-3.19)	321 (31.6) HR 1.62 (1.27-2.06)

Analyses adjusted for age, sex and indexed left atrial volume. Values are n (%) or n/M (%), unless otherwise indicated. CI = confidence interval; eRVSP = estimated right ventricular systolic pressure; HR = hazard ratio; OR = odds ratio; PHT = pulmonary hypertension.

Supplementary table 3. Survival Profile and Adjusted Risk for Mortality According to Estimated Right Ventricular Systolic Pressure Levels in patients with moderate mitral regurgitation (n=8214)

	1-Year Actuarial Mortality (n= 7999)	5-Year Actuarial Mortality (n= 5669)	All Fatal Events (n= 8214)	Cardiovascular mortality (n= 8214)
	OR (95% CI)	OR (95% CI)	HR (95% CI)	HR (95% CI)
All individuals n= 8214	1484 (14.8)	2863 (50.5)	3761 (45.8)	1379 (16.8)
Normal eRVSP (<30mmHg) n = 847	58/839 (6.9) Reference	160/519 (30.8) Reference	211 (24.9) Reference	72 (8.5) Reference
Borderline PHT (eRVSP 30.00-39.99)	245/2513 (9.7) OR 1.27 (0.94-1.71)	666/1713 (38.9) OR 1.22 (1.03-1.54)	944 (36.5) HR 1.23 (1.06-1.43)	315 (12.2) HR 0.71 (0.55-0.92)

N = 2589				
Mild PHT (eRVSP 40.00-49.99) N = 2747	372/2677 (13.9) OR 1.69 (1.28-2.26)	976/1957 (49.9) OR 1.62 (1.30-2.03)	1364 (49.7) HR 1.55 (1.34-1.79)	501 (18.2) HR 0.78 (0.60-0.99)
Moderate PHT (eRSVP 50.00 -59.99) N = 1299	252/1251 (20.1) OR 2.39 (1.76-3.25)	606/900 (67.3) OR 2.87 (2.23-3.69)	723 (55.7) HR 1.98 (1.69-2.31)	284 (21.9) HR 1.10 (0.85-1.42)
Severe PHT (eRVSP >60) N = 732	257/719 (35.7) OR 5.21 (3.80-7.13)	455/580 (78.4) OR 5.27 (3.94-7.07)	519 (70.9) HR 2.97 (2.53-3.49)	207 (28.3) HR 1.50 (1.14-1.96)

Analyses adjusted for age and sex. Values are n (%) or n/M (%), unless otherwise indicated.

CI = confidence interval; eRVSP = estimated right ventricular systolic pressure; HR = hazard ratio; OR = odds ratio; PHT = pulmonary hypertension.

Supplementary table 4. Survival Profile and Adjusted Risk for Mortality According to Estimated Right Ventricular Systolic Pressure Levels in patients with severe MR (n = 8293)

	1-Year Actuarial Mortality (n= 8094)	5-Year Actuarial Mortality (n= 5793)	All Fatal Events (n= 8293)	Cardiovascular mortality (n= 8293)
	OR (95% CI)	OR (95% CI)	HR (95% CI)	HR (95% CI)
All individuals n= 8293	1235 (15.3)	2917 (50.4)	3812 (46.0)	1419 (17.1)
Normal eRVSP (<30mmHg) n = 857	68/852 (8.0) Reference	164/523 (31.4) Reference	209 (24.4) Reference	70 (8.2) Reference
Borderline PHT (eRSVP 30.00-39.99) N = 2634	234/2566 (9.1) OR 1.09 (0.75-1.32)	648/1749 (37.0) OR 1.10 (0.88-1.38)	933 (35.4) HR 1.15 (1.03-1.34)	315 (12.0) HR 0.70 (0.54-0.91)
Mild PHT (eRVSP 40.00-49.99) N = 2704	376/2640 (14.2) OR 1.45 (1.10-1.92)	974/1949 (50.0) OR 1.58 (1.26-1.97)	1355 (50.1) HR 1.54 (1.33-1.78)	506 (18.7) HR 0.76 (0.59-0.98)
Moderate PHT (eRSVP 50.00 -59.99) N = 1294	268/1245 (21.5) OR 2.19 (1.64-2.93)	623/925 (67.4) OR 2.77 (2.16-3.56)	741 (57.3) HR 1.99 (1.71-2.32)	297 (23.0) HR 1.12 (0.86-1.45)
Severe PHT (eRVSP >60) N = 804	289/791 (36.5) OR 4.51 (3.36-6.06)	508/647 (78.5) OR 5.18 (3.90-6.88)	574 (71.4) HR 2.96 (2.52-3.47)	231 (28.7) HR 1.50 (1.14-1.96)

Analyses adjusted for age and sex. Values are n (%) or n/M (%), unless otherwise indicated.

CI = confidence interval; eRVSP = estimated right ventricular systolic pressure; HR = hazard ratio; OR = odds ratio; PHT = pulmonary hypertension.

Table 5. Survival Profile and Adjusted Risk for Mortality According to Estimated Right Ventricular Systolic Pressure Levels for females (n = 6038)

	1-Year Actuarial Mortality (n= 5887)	5-Year Actuarial Mortality (n= 4186)	All Fatal Events (n= 6038)	Cardiovascular mortality (n= 6038)
	OR (95% CI)	OR (95% CI)	HR (95% CI)	HR (95% CI)
All individuals n= 9638	928 (15.8)	2158 (51.6)	2822 (46.7)	1153 (19.1)
Normal eRVSP (<30mmHg) n = 611	46/606 (7.6) Reference	113/365 (31.0) Reference	144 (23.6) Reference	60 (9.8) Reference
Borderline PHT (eRVSP 30.00-39.99) N = 1773	167/1720 (9.7) OR 1.12 (0.79-1.58)	469/1169 (40.1) OR 1.26 (0.96-1.67)	653 (36.8) HR 1.32 (1.10-1.58)	248 (14.0) HR 0.67 (0.51-0.89)
Mild PHT (eRVSP 40.00-49.99) N = 1992	278/1950 (14.3) OR 1.51 (1.09-2.11)	698/1439 (48.5) OR 1.46 (1.12-1.91)	996 (50.0) HR 1.53 (1.29-1.83)	391 (19.6) HR 0.64 (0.49-0.84)
Moderate PHT (eRSVP 50.00 - 59.99) N = 1011	205/973 (21.1) OR 2.24 (1.59-3.16)	476/695 (68.5) OR 2.91 (2.20-3.98)	567 (56.1) HR 2.03 (1.69-2.44)	246 (24.3) HR 0.94 (0.71-1.25)
Severe PHT (eRVSP >60) N = 651	232/638 (36.4) OR 4.65 (3.28-5.59)	402/518 (77.6) OR 4.77 (3.43-6.62)	462 (71.0) HR 2.92 (2.42-3.53)	208 (32.0) HR 1.23 (0.92-1.64)

Analyses adjusted for age. Values are n (%) or n/M (%), unless otherwise indicated. CI = confidence interval; eRVSP = estimated right ventricular systolic pressure; HR = hazard ratio; OR = odds ratio; PHT = pulmonary hypertension.

Table 6. Survival Profile and Adjusted Risk for Mortality According to Estimated Right Ventricular Systolic Pressure Levels for males (n = 3645)

	1-Year Actuarial Mortality (n= 3552)	5-Year Actuarial Mortality (n= 2594)	All Fatal Events (n= 3645)	Cardiovascular mortality (n= 3645)
	OR (95% CI)	OR (95% CI)	HR (95% CI)	HR (95% CI)
All individuals n= 9638	645 (18.5)	1445 (55.7)	1792 (49.2)	624 (17.1)
Normal eRVSP (<30mmHg) n = 348	33/344 (9.6) Reference	79/216 (36.6) Reference	144 (23.6) Reference	60 (9.8) Reference
Borderline PHT (eRVSP 30.00-39.99) N = 1179	137/1149 (11.9) OR 1.16 (0.77-1.74)	322/801 (40.2) OR 1.06 (0.76-1.49)	653 (36.8) HR 1.06 (0.85-1.31)	248 (14.0) HR 1.00 (0.64-1.55)
Mild PHT	190/1138 (16.7) OR 1.52 (1.02-2.27)	481/841 (57.2) OR 1.82 (1.31-2.55)	996 (50.0) HR 1.54 (1.25-1.90)	391 (19.6) HR 1.23 (0.80-1.90)

(eRVSP 40.00-49.99) N = 1175				
Moderate PHT (eRSVP 50.00 - 59.99) N = 577	137/560 (24.5) OR 2.20 (1.45-3.33)	311/434 (71.7) OR 2.87 (1.97-4.17)	567 (56.1) HR 1.95 (1.56-2.43)	246 (24.3) HR 1.90 (1.22-2.96)
Severe PHT (eRVSP >60) N = 366	1488/361 (41.0) OR 4.63 (3.03-7.07)	252/302 (83.4) OR 6.06 (3.90-9.41)	462 (71.0) HR 2.79 (2.21-3.50)	208 (32.0) HR 2.72 (1.74-4.28)

Analyses adjusted for age. Values are n (%) or n/M (%), unless otherwise indicated. CI = confidence interval; eRVSP = estimated right ventricular systolic pressure; HR = hazard ratio; OR = odds ratio; PHT = pulmonary hypertension.

Supplementary Table 7. Adjusted Risk for Mortality according to decile distribution of Estimated Right Ventricular Systolic Pressure Levels

eRSVP decile distribution (mmHg)	All Fatal Events (n= 9638) HR (95% CI), p value
0.00-30.00	Reference
30.01-34.00	1.14 (0.97 – 1.34), p = 0.11
34.01-37.04	1.16 (1.00 – 1.36), p = 0.05
37.05-39.16	1.27 (1.08 – 1.48), p= 0.003
39.17-43.00	1.48 (1.29 – 1.72), p <0.0001
43.01-46.00	1.50 (1.30 – 1.72), p <0.0001
46.01-48.44	1.59 (1.36 – 1.85), p <0.0001
48.45-53.00	1.98 (1.71 – 2.29), p <0.0001
53.01-61.00	2.04 (1.76 – 2.35), p <0.0001
61.01-143.63	2.89 (2.51 – 3.32), p <0.0001

Analyses adjusted for age and sex. eRVSP = estimated right ventricular systolic pressure; HR = hazard ratio; CI = confidence interval.