

Table S1. Hemodynamic parameters in different PH-Groups.

| | Group 1 | Group 3 | Group 4 | P-value |
|----------------------------|----------------|----------------|----------------|----------------|
| CO (L/min) | 5.7 (2.4) | 5.4 (1.7) | 4.4 (1.9) | 0.163 |
| CI (L/min/m ²) | 3.1 (1.1) | 2.8 (1.2) | 2.5 (0.9) | 0.311 |
| mPAP (mmHg) | 37.5 (16.0) | 37.0 (18.0) | 36.0 (12.3) | 0.730 |
| PVR (WU) | 4.2 (4.2) | 3.9 (3.3) | 4.8 (4.8) | 0.685 |
| SVO ₂ (%) | 71.4 (8.2) | 69.0 (12.5) | 71.5 (8.6) | 0.185 |

Data are presented as median (interquartile range) along with p-values.

Abbreviations: PH, pulmonary hypertension; CO, cardiac output; CI, cardiac index; mPAP, mean pulmonary artery pressure; PVR, pulmonary vascular resistance; SVO₂, mixed venous blood saturation; WU, Wood units.

Table S2. HRQOL according to PH-specific therapies.

| MLHF-PH | Monotherapy | Double combination | Triple combination | P-value |
|----------------------|-------------|--------------------|--------------------|------------------|
| MLHF-PH Total | 41.5 (32.8) | 20.0 (33.8) | 68.0 (27.0) | <0.001 |
| MLHF-PH Phys | 19.5 (16.5) | 10.0 (16.2) | 27.0 (9.0) | 0.002 |
| MLHF-PH Emot | 8.0 (10.7) | 4.5 (8.4) | 15.0 (5.5) | 0.01 |
| SF-36 | Monotherapy | Double combination | Triple combination | P-value |
| Physical functioning | 45.0 (48.8) | 52.5 (40.0) | 15.0 (22.5) | 0.01 |
| Role physical | 25.0 (100) | 100 (75.0) | 0 | 0.02 |
| Bodily pain | 85.0 (32.0) | 80.0 (32.0) | 70.0 (51.0) | 0.110 |
| General health | 25.0 (25.0) | 45.0 (22.5) | 20.0 (12.5) | 0.001 |
| Vitality | 55.0 (23.8) | 62.5 (21.2) | 35.0 (25.0) | 0.002 |
| Social functioning | 50.0 (37.0) | 50.0 (6.2) | 25.0 (19.0) | 0.02 |
| Role emotional | 67.0 (67.0) | 100 (16.8) | 33.0 (66.5) | 0.01 |
| Mental Health | 60.0 (28.0) | 80.0 (29.0) | 60.0 (20.0) | 0.04 |

Data are presented as median (interquartile range) along with p-values.

Bold values denote statistical significance.

Abbreviations: HRQOL, health-related quality of life; PH, pulmonary hypertension; MLHF-PH, Minnesota living with pulmonary hypertension questionnaire; MLHF-PH Phys, Minnesota living with pulmonary hypertension physical component; MLHF-PH Emot, Minnesota living with pulmonary hypertension emotional component; SF-36, Short form 36-item health survey.

Table S3. Correlations between HRQOL and hemodynamic parameters.

| | CO (L/min) | | CI (L/min/m ²) | | mPAP (mmHg) | | PCWP (mmHg) | | PVR (WU) | | SVO ₂ (%) | |
|----------------------|------------|---------|----------------------------|---------|-------------|--------------|-------------|---------|----------|--------------|----------------------|--------------|
| | r-coeff | p-value | r-coeff | p-value | r-coeff | p-value | r-coeff | p-value | r-coeff | p-value | r-coeff | p-value |
| MLHF-PH | | | | | | | | | | | | |
| MLHF-PH Total | -0.07 | 0.539 | -0.14 | 0.252 | 0.33 | 0.004 | 0.09 | 0.431 | 0.26 | 0.02 | -0.33 | 0.004 |
| MLHF-PH Phys | -0.08 | 0.472 | -0.14 | 0.237 | 0.31 | 0.007 | 0.11 | 0.372 | 0.26 | 0.02 | -0.26 | 0.03 |
| MLHF-PH Emot | -0.11 | 0.360 | -0.18 | 0.124 | 0.34 | 0.003 | 0.07 | 0.558 | 0.24 | 0.045 | -0.31 | 0.007 |
| SF-36 | | | | | | | | | | | | |
| Physical functioning | 0.09 | 0.453 | 0.13 | 0.289 | -0.28 | 0.01 | -0.17 | 0.159 | -0.24 | 0.04 | 0.31 | 0.008 |
| Role physical | 0.03 | 0.791 | 0.06 | 0.595 | -0.21 | 0.07* | -0.15 | 0.192 | -0.17 | 0.147 | 0.13 | 0.272 |
| Bodily pain | 0.11 | 0.360 | 0.10 | 0.384 | -0.07 | 0.549 | 0.09 | 0.417 | -0.16 | 0.180 | -0.18 | 0.130 |
| General health | 0.12 | 0.305 | 0.13 | 0.262 | -0.24 | 0.04 | -0.005 | 0.961 | -0.2 | 0.08 | 0.19 | 0.107 |
| Vitality | 0.21 | 0.07* | 0.18 | 0.126 | -0.24 | 0.04 | -0.17 | 0.145 | -0.26 | 0.02 | 0.18 | 0.126 |
| Social functioning | 0.05 | 0.661 | 0.03 | 0.784 | 0.12 | 0.308 | -0.007 | 0.953 | 0.07 | 0.517 | 0.17 | 0.158 |
| Role emotional | 0.02 | 0.851 | -0.02 | 0.856 | -0.14 | 0.234 | -0.05 | 0.670 | -0.08 | 0.483 | -0.02 | 0.807 |
| Mental Health | 0.130 | 0.271 | 0.11 | 0.348 | -0.07 | 0.506 | -0.16 | 0.188 | -0.08 | 0.496 | 0.07 | 0.539 |

r-correlation coefficients and p-values were produced using the Pearson's or Spearman's correlation test as appropriate.

Bold values denote statistical significance.

* Trend towards statistical significance.

Abbreviations: HRQOL, health-related quality of life; CO, cardiac output; CI, cardiac index; mPAP, mean pulmonary artery pressure; PCWP, pulmonary capillary wedge pressure; PVR, pulmonary vascular resistance; SVO₂, mixed venous blood saturation; WU, Wood units; MLHF-PH, Minnesota living with pulmonary hypertension questionnaire; MLHF-PH Phys, Minnesota living with pulmonary hypertension physical component; MLHF-PH Emot, Minnesota living with pulmonary hypertension emotional component; SF-36, Short form 36-item health survey.

Table S4. Univariable regression analyses of HRQOL physical domains.

| Variables | MLHF-PH Phys | | | SF-36 'Physical functioning' | | | SF-36 'Role physical' | | |
|--------------------|--------------|--------------|------------------|------------------------------|----------------|------------------|-----------------------|----------------|------------------|
| | β | 95% CIs | P-value | β | 95% CIs | P-value | β | 95% CIs | P-value |
| Age (years) | -0.02 | -0.2 to 0.2 | 0.9 | -0.4 | -0.9 to 0.2 | 0.2 | -0.2 | -1.1 to 0.8 | 0.7 |
| Gender | | | | | | | | | |
| female | -5.0 | -10.5 to 0.4 | 0.07 | 14.4 | 1.5 to 27.3 | 0.03 | 12.5 | -9.7 to 34.6 | 0.3 |
| PH-Group | | | | | | | | | |
| 3 | 9.6 | 3.1 to 16.0 | <0.001 | -25.3 | -40.8 to -9.8 | <0.001 | -51.3 | -75.8 to -26.8 | <0.001 |
| 4 | -3.1 | -9.4 to 3.2 | 0.3 | 2.9 | -12.2 to 18.0 | 0.7 | 12.8 | -11.0 to 36.6 | 0.3 |
| PH-therapy | | | | | | | | | |
| monotherapy | 5.7 | 0.2 to 11.3 | 0.04 | -11.3 | -24.9 to 2.3 | 0.1 | -23.4 | -46.5 to -0.3 | 0.05 |
| triple combination | 14.2 | 6.5 to 21.8 | <0.001 | -29.1 | -47.9 to -10.3 | <0.001 | -41.2 | -73.1 to -9.4 | 0.01 |
| mPAP (mmHg) | 0.3 | 0.1 to 0.5 | 0.01 | -0.7 | -1.3 to -0.1 | 0.02 | -0.7 | -1.7 to 0.3 | 0.2 |
| PVR (WU) | 0.9 | 0.2 to 1.6 | 0.01 | -1.9 | -3.6 to -0.2 | 0.03 | -2.2 | -5.1 to 0.7 | 0.1 |
| Oxygen treatment | | | | | | | | | |

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|--------|------|--------------|------------------|-------|----------------|------------------|-------|-----------------|------------------|
| yes | 14.4 | 10.5 to 18.3 | <0.001 | -35.1 | -44.4 to -25.8 | <0.001 | -46.3 | -64.0 to -28.5 | <0.001 |
| WHO FC | | | | | | | | | |
| II | 1.9 | -7.0 to 10.8 | 0.7 | -23.0 | -44.8 to -1.2 | 0.04 | -11.2 | -52.2 to 29.8 | 0.6 |
| III | 13.8 | 4.7 to 22.9 | <0.001 | -46.8 | -69.1 to -24.5 | <0.001 | -50.0 | -92.0 to -8.0 | 0.02 |
| IV | 22.2 | 11.3 to 33.2 | <0.001 | -68.3 | -95.1 to -41.5 | <0.001 | -66.7 | -117.0 to -16.3 | 0.01 |

Bold values denote statistical significance.

Abbreviations: HRQOL, health-related quality of life; MLHF-PH Phys, Minnesota living with pulmonary hypertension physical component; SF-36, Short form 36-item health survey; PH, pulmonary hypertension; mPAP, mean pulmonary artery pressure; PVR, pulmonary vascular resistance; WU, Wood units; WHO FC, world health organization functional class.

Table S5. Univariable regression analyses of HRQOL mental domains.

| Variables | MLHF-PH Emot | | | SF-36 'Role emotional' | | | SF-36 'Mental health' | | |
|--------------------|--------------|--------------|------------------|------------------------|----------------|-------------|-----------------------|---------------|-------------|
| | β | 95% CIs | P-value | β | 95% CIs | P-value | β | 95% CIs | P-value |
| Age (years) | -0.1 | -0.2 to 0.04 | 0.2 | 0.7 | -0.1 to 1.6 | 0.1 | -0.1 | -0.5 to 0.4 | 0.8 |
| Gender | | | | | | | | | |
| female | -0.9 | -4.1 to 2.3 | 0.6 | -3.2 | -24.2 to 17.7 | 0.8 | 6.4 | -4.1 to 16.8 | 0.2 |
| PH-Group | | | | | | | | | |
| 3 | 1.6 | -2.1 to 5.3 | 0.4 | -4.4 | -30.4 to 21.6 | 0.7 | -8.6 | -21.4 to 4.3 | 0.2 |
| 4 | -5.2 | -8.8 to -1.6 | 0.01 | 15.4 | -9.9 to 40.7 | 0.2 | 8.5 | -3.9 to 21.0 | 0.2 |
| PH-therapy | | | | | | | | | |
| monotherapy | 2.9 | -0.4 to 6.1 | 0.08 | -21.3 | -42.8 to 0.2 | 0.05 | -13.1 | -24.1 to -2.2 | 0.02 |
| triple combination | 6.8 | 2.3 to 11.3 | <0.001 | -42.3 | -72.1 to -12.6 | 0.01 | -15.0 | -30.2 to 0.1 | 0.05 |
| mPAP (mmHg) | 0.2 | 0.1 to 0.3 | <0.001 | -0.4 | -1.4 to 0.5 | 0.4 | -0.2 | -0.6 to 0.3 | 0.5 |
| PVR (WU) | 0.4 | 0.03 to 0.8 | 0.04 | -1.8 | -4.5 to 1.0 | 0.2 | -1.1 | -2.5 to 0.2 | 0.1 |
| Oxygen treatment | | | | | | | | | |

| | | | | | | | | | |
|--------|------|--------------|------------------|-------|---------------|-------------|-------|----------------|------------------|
| yes | 5.7 | 3.0 to 8.3 | <0.001 | -21.0 | -40.0 to -2.1 | 0.03 | -16.6 | -25.6 to -7.6 | <0.001 |
| WHO FC | | | | | | | | | |
| II | 0.1 | -5.7 to 5.9 | 1 | 14.5 | -28.0 to 57.1 | 0.5 | -12.9 | -33.0 to 7.2 | 0.2 |
| III | 4.5 | -1.4 to 10.4 | 0.1 | -2.3 | -45.9 to 41.3 | 0.9 | -24.8 | -45.4 to -4.2 | 0.02 |
| IV | 10.6 | 3.5 to 17.7 | <0.001 | -25.1 | -77.3 to 27.1 | 0.3 | -38.7 | -63.3 to -14.0 | <0.001 |

Bold values denote statistical significance.

Abbreviations: HRQOL, health-related quality of life; MLHF-PH Emot, Minnesota living with pulmonary hypertension emotional component; SF-36, Short form 36-item health survey; PH, pulmonary hypertension; mPAP, mean pulmonary artery pressure; PVR, pulmonary vascular resistance; WU, Wood units; WHO FC, world health organization functional class.