|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Category** | **N** | **Subcategory** | **Pooled Prevalence** | **LCL** | **HCL** | **Q** | **I2** |
| General | 13 811 | Type 1 – classical (RSPV, RIPV, LSPV and LIPV) | 70.25% | 66.05% | 74.28% | 2122.37 | 96.28 |
| Other than classical types | 29.50% | 25.20% | 33.99% | 2445.54 | 96.77 |
| 8503 | Type 2 – RSPV, RIPV and LCPV | 17.37% | 14.67% | 20.25% | 590.31 | 90.34 |
| Type 3 – LSPV, LIPV and RCPV | 8.78% | 6.03% | 11.98% | 1257.18 | 95.47 |
| Type 4 – RSPV, RIPV, LSPV, LIPC and RMPV | 8.38% | 6.27% | 10.76% | 724.04 | 92.13 |
| Type 5 – RSPV, RIPV, LSPV, LIPC, RMPV and LMPV | 5.11% | 3.87% | 6.51% | 377.62 | 84.91 |
| Type 6 – LSPV, LIPV, LMPV and RCPV | 1.24% | 0.72% | 1.89% | 278.69 | 79.55 |
| Type 7 – RSPV, RIPV, LSPV, LIPV and LMPV | 1.19% | 0.73% | 1.75% | 217.89 | 73.84 |
| Type 8 – RSPV, RIPV, RMPV and LCPV | 1.09% | 0.64% | 1.66% | 234.96 | 75.74 |
| Type 9 – LCPV and RCPV | 0.20% | 0.12% | 0.31% | 31.24 | 0.00 |
| Type 10 – Other arrangements | 5.29% | 4.08% | 6.65% | 339.34 | 83.20 |
| AF | 11 103 | Type 1 – classical (RSPV, RIPV, LSPV and LIPV) | 70.61% | 65.55% | 75.42% | 1815.66 | 96.81 |
| Other than classical types | 29.05% | 23.92% | 34.46% | 2096.74 | 97.23 |
| Types 4-8 Combined | 5,91% | 3,78% | 8,47% | 1488,91 | 96,10 |
| 7103 | Type 2 – RSPV, RIPV and LCPV | 18.16% | 15.30% | 21.21% | 410.05 | 89.27 |
| Type 3 – LSPV, LIPV and RCPV | 6.97% | 4.78% | 9.52% | 617.62 | 92.88 |
| Type 4 – RSPV, RIPV, LSPV, LIPC and RMPV | 7.87% | 5.59% | 10.50% | 592.34 | 92.57 |
| Type 5 – RSPV, RIPV, LSPV, LIPC, RMPV and LMPV | 9.47% | 6.66% | 12.71% | 769.28 | 94.28 |
| Type 6 – LSPV, LIPV, LMPV and RCPV | 10.27% | 7.46% | 13.46% | 701.92 | 93.73 |
| Type 7 – RSPV, RIPV, LSPV, LIPV and LMPV | 6.09% | 4.03% | 8.54% | 632.63 | 93.04 |
| Type 8 – RSPV, RIPV, RMPV and LCPV | 4.67% | 3.15% | 6.47% | 428.25 | 89.73 |
| Type 9 – LCPV and RCPV | 5.66% | 3.72% | 7.96% | 595.39 | 92.61 |
| Type 10 – Other arrangements | 10.75% | 7.88% | 14.01% | 704.47 | 93.75 |
| Non-AF | 2557 | Type 1 – classical (RSPV, RIPV, LSPV and LIPV) | 68.34% | 62.07% | 74.30% | 174.15 | 89.09 |
| Other than classical types | 31.66% | 25.70% | 37.93% | 174.15 | 89.09 |
| Types 4-8 Combined | 5,90% | 2,06% | 11,35% | 390,62 | 95,14 |
| 1400 | Type 2 – RSPV, RIPV and LCPV | 14.25% | 8.74% | 20.79% | 97.98 | 87.75 |
| Type 3 – LSPV, LIPV and RCPV | 6.38% | 3.34% | 10.28% | 63.07 | 80.97 |
| Type 4 – RSPV, RIPV, LSPV, LIPC and RMPV | 10.07% | 5.91% | 15.15% | 75.89 | 84.19 |
| Type 5 – RSPV, RIPV, LSPV, LIPC, RMPV and LMPV | 4.37% | 1.80% | 7.91% | 69.12 | 82.64 |
| Type 6 – LSPV, LIPV, LMPV and RCPV | 5.72% | 1.62% | 11.81% | 154.87 | 92.25 |
| Type 7 – RSPV, RIPV, LSPV, LIPV and LMPV | 0.98% | 0.14% | 2.42% | 37.02 | 67.58 |
| Type 8 – RSPV, RIPV, RMPV and LCPV | 6.37% | 2.41% | 11.87% | 120.95 | 90.08 |
| Type 9 – LCPV and RCPV | 0.20% | 0.02% | 0.51% | 4.87 | 0.00 |
| Type 10 – Other arrangements | 5.13% | 2.71% | 8.21% | 47.55 | 74.76 |
| *Comparison of results obtained using different imagining methods* | | | | | | | |
| CT | 8333 | Type 1 – classical (RSPV, RIPV, LSPV and LIPV) | 69.82% | 65.83% | 73.66% | 511.16 | 92.96 |
| Other than classical types | 29.78% | 24.85% | 34.95% | 880.10 | 95.91 |
| 5320 | Type 2 – RSPV, RIPV and LCPV | 15.77% | 11.70% | 20.31% | 413.19 | 94.19 |
| Type 3 – LSPV, LIPV and RCPV | 2.70% | 1.64% | 4.00% | 145.69 | 83.53 |
| Type 4 – RSPV, RIPV, LSPV, LIPC and RMPV | 8.04% | 4.68% | 12.18% | 561.74 | 95.73 |
| Type 5 – RSPV, RIPV, LSPV, LIPC, RMPV and LMPV | 1.87% | 1.00% | 2.98% | 145.40 | 83.49 |
| Type 6 – LSPV, LIPV, LMPV and RCPV | 2.48% | 1.36% | 3.92% | 186.41 | 87.13 |
| Type 7 – RSPV, RIPV, LSPV, LIPV and LMPV | 2.13% | 1.19% | 3.31% | 146.61 | 83.63 |
| Type 8 – RSPV, RIPV, RMPV and LCPV | 6.97% | 3.60% | 11.30% | 673.34 | 96.44 |
| Type 9 – LCPV and RCPV | 2.14% | 1.20% | 3.32% | 145.24 | 83.48 |
| Type 10 – Other arrangements | 3.68% | 2.47% | 5.11% | 135.07 | 82.23 |
| Echo | 328 | Type 1 – classical (RSPV, RIPV, LSPV and LIPV) | 69.70% | 64.62% | 74.56% | 0.10 | 0.00 |
| Other than classical types | 30.30% | 25.44% | 35.38% | 0.10 | 0.00 |
| Type 2 – RSPV, RIPV and LCPV | 11.65% | 4.19% | 21.86% | 9.53 | 79.02 |
| Type 3 – LSPV, LIPV and RCPV | 7.05% | 3.42% | 11.78% | 3.60 | 44.43 |
| Type 4 – RSPV, RIPV, LSPV, LIPC and RMPV | 7.41% | 1.57% | 16.39% | 9.71 | 79.41 |
| Type 5 – RSPV, RIPV, LSPV, LIPC, RMPV and LMPV | 0.20% | 0.00% | 0.83% | 0.35 | 0.00 |
| Type 6 – LSPV, LIPV, LMPV and RCPV | 0.20% | 0.00% | 0.83% | 0.35 | 0.00 |
| Type 7 – RSPV, RIPV, LSPV, LIPV and LMPV | 0.20% | 0.00% | 0.83% | 0.35 | 0.00 |
| Type 8 – RSPV, RIPV, RMPV and LCPV | 0.48% | 0.00% | 1.96% | 3.82 | 47.66 |
| Type 9 – LCPV and RCPV | 0.20% | 0.00% | 0.83% | 0.35 | 0.00 |
| Type 10 – Other arrangements | 0.20% | 0.00% | 0.83% | 0.35 | 0.00 |
| MRI/MRA | 2319 | Type 1 – classical (RSPV, RIPV, LSPV and LIPV) | 69.03% | 59.72% | 77.63% | 422.28 | 95.03 |
| Other than classical types | 30.97% | 22.37% | 40.28% | 422.28 | 95.03 |
| 2048 | Type 2 – RSPV, RIPV and LCPV | 18.75% | 13.45% | 24.69% | 154.71 | 89.01 |
| Type 3 – LSPV, LIPV and RCPV | 11.27% | 5.79% | 18.19% | 292.94 | 94.20 |
| Type 4 – RSPV, RIPV, LSPV, LIPC and RMPV | 11.03% | 8.12% | 14.32% | 68.18 | 75.07 |
| Type 5 – RSPV, RIPV, LSPV, LIPC, RMPV and LMPV | 7.91% | 5.18% | 11.15% | 86.27 | 80.29 |
| Type 6 – LSPV, LIPV, LMPV and RCPV | 8.51% | 5.36% | 12.29% | 111.16 | 84.71 |
| Type 7 – RSPV, RIPV, LSPV, LIPV and LMPV | 8.84% | 5.71% | 12.55% | 103.99 | 83.65 |
| Type 8 – RSPV, RIPV, RMPV and LCPV | 8.02% | 5.02% | 11.62% | 105.75 | 83.92 |
| Type 9 – LCPV and RCPV | 5.85% | 3.42% | 8.85% | 94.06 | 81.93 |
| Type 10 – Other arrangements | 4.33% | 2.36% | 6.82% | 82.95 | 79.51 |
| Surgery | 242 | Type 1 – classical (RSPV, RIPV, LSPV and LIPV) | 78.01% | 63.94% | 89.52% | 5.69 | 82.41 |
| Other than classical types | 21.99% | 10.48% | 36.06% | 5.69 | 82.41 |
| Cadavers | 391 | Type 1 – classical (RSPV, RIPV, LSPV and LIPV) | 69.66% | 65.02% | 74.11% | 3.68 | 0.00 |
| Other than classical types | 30.34% | 25.89% | 34.98% | 3.68 | 0.00 |
| 262 | Type 2 – RSPV, RIPV and LCPV | 3.48% | 0.80% | 7.64% | 5.67 | 47.12 |
| Type 3 – LSPV, LIPV and RCPV | 3.75% | 0.00% | 11.96% | 22.01 | 86.37 |
| Type 4 – RSPV, RIPV, LSPV, LIPC and RMPV | 9.67% | 3.17% | 18.84% | 11.64 | 74.23 |
| Type 5 – RSPV, RIPV, LSPV, LIPC, RMPV and LMPV | 0.35% | 0.00% | 1.24% | 0.31 | 0.00 |
| Type 6 – LSPV, LIPV, LMPV and RCPV | 0.35% | 0.00% | 1.24% | 0.31 | 0.00 |
| Type 7 – RSPV, RIPV, LSPV, LIPV and LMPV | 4.00% | 0.00% | 11.72% | 13.61 | 77.96 |
| Type 8 – RSPV, RIPV, RMPV and LCPV | 4.53% | 0.48% | 11.48% | 10.95 | 72.60 |
| Type 9 – LCPV and RCPV | 0.35% | 0.00% | 1.24% | 0.31 | 0.00 |
| Type 10 – Other arrangements | 2.57% | 0.14% | 7.04% | 7.33 | 59.08 |
| *Comparison of results obtained in different continents* | | | | | | | |
| Asia | 6514 | Type 1 – classical (RSPV, RIPV, LSPV and LIPV) | 75.23% | 65.58% | 83.77% | 1159.99 | 98.53 |
| Other than classical types | 23.71% | 14.77% | 33.97% | 1330.67 | 98.72 |
| 2450 | Type 2 – RSPV, RIPV and LCPV | 9.86% | 3.10% | 19.45% | 186.21 | 97.31 |
| Type 3 – LSPV, LIPV and RCPV | 0.78% | 0.07% | 2.05% | 26.40 | 81.06 |
| Type 4 – RSPV, RIPV, LSPV, LIPC and RMPV | 6.01% | 0.00% | 15.85% | 333.00 | 98.50 |
| Type 5 – RSPV, RIPV, LSPV, LIPC, RMPV and LMPV | 0.05% | 0.00% | 0.16% | 1.14 | 0.00 |
| Type 6 – LSPV, LIPV, LMPV and RCPV | 0.05% | 0.00% | 0.16% | 1.14 | 0.00 |
| Type 7 – RSPV, RIPV, LSPV, LIPV and LMPV | 1.10% | 0.05% | 3.08% | 45.01 | 88.89 |
| Type 8 – RSPV, RIPV, RMPV and LCPV | 0.18% | 0.00% | 0.51% | 10.33 | 51.59 |
| Type 9 – LCPV and RCPV | 7.79% | 0.78% | 19.56% | 293.62 | 98.30 |
| Type 10 – Other arrangements | 2.05% | 0.94% | 3.55% | 19.29 | 74.09 |
| Europe | 5469 | Type 1 – classical (RSPV, RIPV, LSPV and LIPV) | 67.97% | 63.56% | 72.22% | 488.91 | 91.20 |
| Other than classical types | 32.03% | 27.78% | 36.44% | 488.91 | 91.20 |
| 4286 | Type 2 – RSPV, RIPV and LCPV | 19.71% | 16.29% | 23.37% | 270.19 | 87.42 |
| Type 3 – LSPV, LIPV and RCPV | 5.79% | 4.06% | 7.80% | 213.30 | 84.06 |
| Type 4 – RSPV, RIPV, LSPV, LIPC and RMPV | 11.01% | 8.88% | 13.34% | 168.20 | 79.79 |
| Type 5 – RSPV, RIPV, LSPV, LIPC, RMPV and LMPV | 6.85% | 4.60% | 9.50% | 319.80 | 89.37 |
| Type 6 – LSPV, LIPV, LMPV and RCPV | 5.58% | 3.75% | 7.75% | 253.99 | 86.61 |
| Type 7 – RSPV, RIPV, LSPV, LIPV and LMPV | 13.51% | 8.72% | 19.11% | 817.77 | 95.84 |
| Type 8 – RSPV, RIPV, RMPV and LCPV | 7.71% | 5.57% | 10.17% | 250.58 | 86.43 |
| Type 9 – LCPV and RCPV | 9.14% | 6.79% | 11.78% | 253.09 | 86.57 |
| Type 10 – Other arrangements | 5.42% | 3.66% | 7.49% | 240.32 | 85.85 |
| North America | 1808 | Type 1 – classical (RSPV, RIPV, LSPV and LIPV) | 70.65% | 63.35% | 77.47% | 151.64 | 88.79 |
| Other than classical types | 29.35% | 22.53% | 36.65% | 151.64 | 88.79 |
| 1767 | Type 2 – RSPV, RIPV and LCPV | 12.38% | 9.28% | 15.85% | 51.91 | 69.18 |
| Type 3 – LSPV, LIPV and RCPV | 6.18% | 2.90% | 10.50% | 137.50 | 88.36 |
| Type 4 – RSPV, RIPV, LSPV, LIPC and RMPV | 11.80% | 7.77% | 16.52% | 101.26 | 84.20 |
| Type 5 – RSPV, RIPV, LSPV, LIPC, RMPV and LMPV | 0.23% | 0.05% | 0.52% | 3.43 | 0.00 |
| Type 6 – LSPV, LIPV, LMPV and RCPV | 0.44% | 0.18% | 0.81% | 6.27 | 0.00 |
| Type 7 – RSPV, RIPV, LSPV, LIPV and LMPV | 0.37% | 0.13% | 0.71% | 6.69 | 0.00 |
| Type 8 – RSPV, RIPV, RMPV and LCPV | 4.62% | 2.38% | 7.50% | 78.36 | 79.58 |
| Type 9 – LCPV and RCPV | 0.23% | 0.05% | 0.52% | 3.43 | 0.00 |
| Type 10 – Other arrangements | 6.90% | 3.82% | 10.76% | 101.86 | 84.29 |

Table 2 | Statistical results in variations part of this meta-analysis. AF – patients with atrial fibrillation. Non-AF – patients without atrial fibrillation. CT – computed tomography. Echo – echocardiography. MRI - magnetic resonance imaging. MRA - magnetic resonance angiography. Surgery – data established intraoperatively. Cadavers – data established during cadaver dissection. LCL – lower confidence interval. HCL – higher confidence interval. Q – Cochrain’s Q. RSPV – right superior pulmonary vein. RIPV – right inferior pulmonary vein. LSPV – left superior pulmonary vein. LIPV – left inferior pulmonary vein. RMPV – right middle pulmonary vein. LMPV – left middle pulmonary vein. LCPV – left common pulmonary vein. RCPV – right common pulmonary vein.