**Table 2-A.** **Mild vs severity of COVID-19 according to Age.**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | | Severe | Mild | Total | SMD | SE | 95% CI | t | P | Weight (%) | |
| Fixed | Random |
| Abbas et al 2020 | | 36 | 32 | 68 | 1.056 | 0.257 | 0.544 to 1.569 |  |  | 1.69 | 2.88 |
| AbdelFattah et al 2023 | | 18 | 39 | 57 | 1.070 | 0.298 | 0.472 to 1.668 |  |  | 1.25 | 2.73 |
| Abdelhakam et al 2021 | | 66 | 58 | 124 | 2.053 | 0.221 | 1.615 to 2.491 |  |  | 2.27 | 3.00 |
| Aksakal et al 2023 | | 30 | 30 | 60 | 0.400 | 0.257 | -0.116 to 0.915 |  |  | 1.68 | 2.88 |
| Almasud et al 2023 | | 40 | 42 | 82 | 2.417 | 0.289 | 1.842 to 2.993 |  |  | 1.33 | 2.76 |
| Apriningsih et al 2022 | | 4 | 22 | 26 | 0.0311 | 0.526 | -1.055 to 1.117 |  |  | 0.40 | 1.92 |
| Chiu et al 2023 | | 95 | 59 | 154 | 0.406 | 0.167 | 0.0766 to 0.735 |  |  | 4.01 | 3.16 |
| Datta et al 2023 | | 50 | 50 | 100 | -0.0590 | 0.199 | -0.453 to 0.335 |  |  | 2.82 | 3.07 |
| Falih et al 2022 | | 24 | 17 | 41 | 0.441 | 0.315 | -0.196 to 1.077 |  |  | 1.12 | 2.67 |
| Fu et al 2020 | | 13 | 22 | 35 | 1.596 | 0.391 | 0.800 to 2.393 |  |  | 0.73 | 2.39 |
| Gopalakrishnan et al 2022 | | 56 | 378 | 434 | 0.615 | 0.144 | 0.331 to 0.899 |  |  | 5.33 | 3.22 |
| Hassan et al 2021 | | 100 | 250 | 350 | 1.698 | 0.134 | 1.434 to 1.963 |  |  | 6.16 | 3.24 |
| Haydar et al 2022 | | 70 | 61 | 131 | 0.118 | 0.174 | -0.226 to 0.463 |  |  | 3.66 | 3.14 |
| Islam et al 2023 | | 20 | 20 | 40 | 1.075 | 0.332 | 0.402 to 1.748 |  |  | 1.01 | 2.60 |
| Javed et al 2020 | | 8 | 10 | 18 | 0.643 | 0.464 | -0.341 to 1.627 |  |  | 0.52 | 2.13 |
| Kocyigit et al 2021 | | 19 | 15 | 34 | 0.452 | 0.342 | -0.244 to 1.148 |  |  | 0.95 | 2.57 |
| Kwon et al 2020 | | 8 | 6 | 14 | 3.153 | 0.781 | 1.451 to 4.856 |  |  | 0.18 | 1.26 |
| Marcoz-Jiménez et al 2021 | | 41 | 146 | 187 | 0.200 | 0.176 | -0.147 to 0.548 |  |  | 3.58 | 3.14 |
| Moreira-Rosário et al 2021 | | 59 | 19 | 78 | 0.357 | 0.263 | -0.167 to 0.880 |  |  | 1.61 | 2.86 |
| Mortaz et al 2022 | | 18 | 14 | 32 | 2.152 | 0.439 | 1.255 to 3.049 |  |  | 0.58 | 2.21 |
| Paranga et al 2023 | | 68 | 14 | 82 | 0.793 | 0.297 | 0.202 to 1.385 |  |  | 1.26 | 2.73 |
| Sai et al 2021 | | 78 | 384 | 462 | 1.129 | 0.129 | 0.874 to 1.383 |  |  | 6.64 | 3.26 |
| Satış et al 2021 | | 11 | 27 | 38 | 8.817 | 1.070 | 6.646 to 10.987 |  |  | 0.097 | 0.81 |
| Shalaby et al 2023 | | 21 | 19 | 40 | 2.142 | 0.392 | 1.349 to 2.936 |  |  | 0.72 | 2.39 |
| Shokri-Afra et al2022 | | 21 | 30 | 51 | 0.748 | 0.290 | 0.166 to 1.330 |  |  | 1.33 | 2.76 |
| Shrivastava et al 2021 | | 31 | 32 | 63 | 0.409 | 0.252 | -0.0941 to 0.912 |  |  | 1.76 | 2.90 |
| Smail et al 2023 | | 40 | 54 | 94 | 0.632 | 0.212 | 0.211 to 1.053 |  |  | 2.48 | 3.03 |
| Smail et al 2023 | | 60 | 81 | 141 | 1.038 | 0.180 | 0.681 to 1.394 |  |  | 3.42 | 3.12 |
| Soltani‑Zangbar et al 2022 | | 50 | 50 | 100 | 0.190 | 0.199 | -0.205 to 0.584 |  |  | 2.81 | 3.07 |
| Tamayo-Velasco et al 2021 | | 16 | 34 | 50 | 0.553 | 0.303 | -0.0575 to 1.163 |  |  | 1.21 | 2.71 |
| Tamim et al 2022 | | 20 | 14 | 34 | 0.666 | 0.350 | -0.0464 to 1.378 |  |  | 0.91 | 2.54 |
| Tang et al 2021 | | 15 | 30 | 45 | 0.0787 | 0.311 | -0.548 to 0.706 |  |  | 1.15 | 2.68 |
| Yağcı et al 2021 | | 19 | 18 | 37 | 0.272 | 0.323 | -0.384 to 0.929 |  |  | 1.06 | 2.64 |
| Yu et al 2020 | | 365 | 1196 | 1561 | 0.524 | 0.0605 | 0.405 to 0.643 |  |  | 30.40 | 3.37 |
| Zhang et al 2022 | | 40 | 39 | 79 | 1.449 | 0.251 | 0.949 to 1.948 |  |  | 1.77 | 2.90 |
| Zhao et al 2020 | | 18 | 19 | 37 | 0.232 | 0.323 | -0.424 to 0.888 |  |  | 1.07 | 2.64 |
| Zhou et al 2020 | | 12 | 38 | 50 | 0.360 | 0.328 | -0.299 to 1.019 |  |  | 1.03 | 2.62 |
| Total (fixed effects) | | 1660 | 3369 | 5029 | 0.730 | 0.0334 | 0.664 to 0.795 | 21.871 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | | 1660 | 3369 | 5029 | 0.884 | 0.111 | 0.667 to 1.101 | 8.000 | <0.001 | 100.00 | 100.00 |
|  | |  | | | | | | | | | |
| **Test for heterogeneity** | | **Publication bias** | | | | |  |  |  |  |  |
| Q | 321.2073 | Egger's test | | | Begg's test | |  |  |  |  |  |
| DF | 36 | Intercept | 1.5990 | | Kendall's Tau | 0.2012 | |  |  |  |  |
| Significance level | P < 0.0001 | 95% CI | -0.2545 to 3.4525 | | Significance level | P = 0.0797 | |  |  |  |  |
| I2 (inconsistency) | 88.79% | Significance level | P = 0.0886 | |  |  |  |  |  |  |  |
| 95% CI for I2 | 85.56 to 91.30 |  |  |  |  |  |  |  |  |  |  |

**Table2-B. Moderate vs severity of COVID-19 according to Age**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | | Severe | Moderate | Total | SMD | SE | 95% CI | t | P | Weight (%) | |
| Fixed | Random |
| Abbas et al 2020 | | 36 | 59 | 95 | 0.205 | 0.210 | -0.213 to 0.622 |  |  | 1.17 | 1.64 |
| AbdelFattah et al 2023 | | 18 | 21 | 39 | 0.252 | 0.316 | -0.389 to 0.892 |  |  | 0.52 | 1.42 |
| Adil et al 2020 | | 14 | 47 | 61 | 1.346 | 0.324 | 0.697 to 1.995 |  |  | 0.49 | 1.40 |
| Ahmed et al 2021 | | 86 | 71 | 157 | 0.385 | 0.161 | 0.0673 to 0.704 |  |  | 2.00 | 1.74 |
| Ahnach et al 2020 | | 44 | 101 | 145 | 1.032 | 0.190 | 0.658 to 1.407 |  |  | 1.44 | 1.68 |
| Aksakal et al 2023 | | 30 | 30 | 60 | -0.0837 | 0.255 | -0.594 to 0.427 |  |  | 0.80 | 1.55 |
| Aksit et al 2023 | | 62 | 62 | 124 | 0.000 | 0.178 | -0.353 to 0.353 |  |  | 1.63 | 1.70 |
| Almasud et al 2023 | | 40 | 41 | 81 | 0.196 | 0.221 | -0.243 to 0.635 |  |  | 1.07 | 1.62 |
| Apriningsih et al 2022 | | 4 | 9 | 13 | -0.867 | 0.584 | -2.153 to 0.418 |  |  | 0.15 | 0.88 |
| Asif et al 2022 | | 63 | 37 | 100 | 0.469 | 0.208 | 0.0555 to 0.882 |  |  | 1.20 | 1.65 |
| Ayalew et al 2022 | | 26 | 7 | 33 | -0.0168 | 0.415 | -0.864 to 0.830 |  |  | 0.30 | 1.20 |
| Bal et al 2020 | | 25 | 24 | 49 | 0.644 | 0.289 | 0.0631 to 1.224 |  |  | 0.62 | 1.48 |
| Belaid et al 2021 | | 26 | 31 | 57 | 0.961 | 0.277 | 0.405 to 1.516 |  |  | 0.67 | 1.50 |
| Bergantini et al 2023 | | 14 | 94 | 108 | 0.282 | 0.285 | -0.284 to 0.847 |  |  | 0.64 | 1.48 |
| Chen et al 2023 | | 39 | 88 | 127 | 0.444 | 0.193 | 0.0619 to 0.827 |  |  | 1.39 | 1.68 |
| Çınar et al 2023 | | 30 | 30 | 60 | 0.00295 | 0.255 | -0.507 to 0.513 |  |  | 0.80 | 1.55 |
| Datta et al 2023 | | 50 | 50 | 100 | -0.133 | 0.199 | -0.528 to 0.261 |  |  | 1.31 | 1.67 |
| de Oliveira et al 2023 | | 35 | 41 | 76 | 0.408 | 0.230 | -0.0506 to 0.867 |  |  | 0.98 | 1.60 |
| Deng et al 2021 | | 40 | 17 | 57 | 1.308 | 0.311 | 0.685 to 1.931 |  |  | 0.54 | 1.43 |
| Ergenc et al 2023 | | 46 | 65 | 111 | 0.364 | 0.193 | -0.0181 to 0.747 |  |  | 1.39 | 1.68 |
| Falih et al 2022 | | 24 | 24 | 48 | 0.0455 | 0.284 | -0.526 to 0.617 |  |  | 0.64 | 1.49 |
| Gatselis et al 2022 | | 132 | 65 | 197 | 0.556 | 0.154 | 0.253 to 0.859 |  |  | 2.20 | 1.75 |
| Gjuzelova et al 2023 | | 14 | 55 | 69 | 0.457 | 0.299 | -0.139 to 1.053 |  |  | 0.58 | 1.45 |
| Gopalakrishnan et al 2022 | | 56 | 66 | 122 | 0.675 | 0.186 | 0.307 to 1.042 |  |  | 1.51 | 1.69 |
| Hammad et al 2021 | | 34 | 30 | 64 | 3.623 | 0.405 | 2.814 to 4.432 |  |  | 0.32 | 1.22 |
| Haroun et al 2021 | | 52 | 98 | 150 | 0.223 | 0.171 | -0.116 to 0.561 |  |  | 1.77 | 1.72 |
| Hasegawa et al 2022 | | 30 | 33 | 63 | 1.277 | 0.274 | 0.729 to 1.825 |  |  | 0.69 | 1.51 |
| Hernández-Solis et al 2022 | | 27 | 25 | 52 | 0.267 | 0.275 | -0.285 to 0.818 |  |  | 0.69 | 1.51 |
| Islam et al 2023 | | 20 | 21 | 41 | 0.367 | 0.309 | -0.258 to 0.992 |  |  | 0.54 | 1.43 |
| Javed et al 2020 | | 8 | 8 | 16 | 0.162 | 0.474 | -0.853 to 1.178 |  |  | 0.23 | 1.08 |
| Kocyigit et al 2021 | | 19 | 18 | 37 | 0.371 | 0.325 | -0.288 to 1.030 |  |  | 0.49 | 1.40 |
| Kwon et al 2020 | | 8 | 17 | 25 | 1.591 | 0.472 | 0.615 to 2.567 |  |  | 0.23 | 1.08 |
| Lashin et al 2023 | | 25 | 25 | 50 | 0.562 | 0.284 | -0.00862 to 1.134 |  |  | 0.64 | 1.49 |
| Le Borgne et al 2021 | | 246 | 789 | 1035 | -0.290 | 0.0732 | -0.434 to -0.146 |  |  | 9.67 | 1.85 |
| Li et al 2020 | | 30 | 45 | 75 | 1.468 | 0.262 | 0.945 to 1.990 |  |  | 0.75 | 1.53 |
| Liu et al 2020 | | 92 | 202 | 294 | 0.666 | 0.128 | 0.413 to 0.919 |  |  | 3.15 | 1.79 |
| Marcoz-Jiménez et al 2021 | | 41 | 89 | 130 | 0.136 | 0.188 | -0.235 to 0.508 |  |  | 1.47 | 1.69 |
| Mesa et al 2021 | | 31 | 29 | 60 | -0.181 | 0.256 | -0.692 to 0.331 |  |  | 0.79 | 1.55 |
| Moreira-Rosário et al 2021 | | 59 | 37 | 96 | -0.113 | 0.208 | -0.527 to 0.300 |  |  | 1.20 | 1.65 |
| Mortaz et al 2022 | | 18 | 12 | 30 | 1.675 | 0.422 | 0.810 to 2.539 |  |  | 0.29 | 1.18 |
| Nazri et al 2023 | | 118 | 35 | 153 | 0.580 | 0.194 | 0.196 to 0.964 |  |  | 1.37 | 1.67 |
| Ozdin et al 2022 | | 42 | 339 | 381 | 1.012 | 0.167 | 0.683 to 1.341 |  |  | 1.85 | 1.72 |
| Paranga et al 2023 | | 68 | 71 | 139 | 0.225 | 0.169 | -0.110 to 0.560 |  |  | 1.81 | 1.72 |
| Pirsalehi et al 2020 | | 243 | 1077 | 1320 | 0.976 | 0.0735 | 0.831 to 1.120 |  |  | 9.61 | 1.85 |
| Pramana et al 2022 | | 33 | 33 | 66 | 0.722 | 0.251 | 0.220 to 1.224 |  |  | 0.82 | 1.56 |
| Prebensen et al 2023 | | 17 | 15 | 32 | -0.570 | 0.353 | -1.290 to 0.150 |  |  | 0.42 | 1.33 |
| Quan Liu et al 2020 | | 133 | 91 | 224 | 0.662 | 0.139 | 0.388 to 0.936 |  |  | 2.68 | 1.77 |
| Rehman et al 2023 | | 100 | 100 | 200 | -0.333 | 0.142 | -0.612 to -0.0529 |  |  | 2.58 | 1.77 |
| Sai et al 2021 | | 78 | 46 | 124 | 0.513 | 0.188 | 0.142 to 0.885 |  |  | 1.47 | 1.69 |
| Shalaby et al 2023 | | 21 | 20 | 41 | 1.105 | 0.330 | 0.438 to 1.772 |  |  | 0.48 | 1.39 |
| Shamseldeen et al 2022 | | 36 | 20 | 56 | 0.795 | 0.285 | 0.223 to 1.366 |  |  | 0.64 | 1.48 |
| Sharif-Askari et al 2022 | | 53 | 81 | 134 | 0.687 | 0.181 | 0.330 to 1.045 |  |  | 1.59 | 1.70 |
| Shokri-Afra et al2022 | | 21 | 25 | 46 | 0.302 | 0.293 | -0.288 to 0.891 |  |  | 0.61 | 1.47 |
| Singh et al 2021 | | 93 | 108 | 201 | 0.171 | 0.141 | -0.108 to 0.449 |  |  | 2.60 | 1.77 |
| Suastika et al 2021 | | 98 | 313 | 411 | 1.832 | 0.132 | 1.572 to 2.091 |  |  | 2.98 | 1.78 |
| Suhartono et al 2021 | | 40 | 55 | 95 | 0.718 | 0.213 | 0.295 to 1.140 |  |  | 1.15 | 1.64 |
| Tamayo-Velasco et al 2021 | | 16 | 26 | 42 | 0.830 | 0.325 | 0.174 to 1.486 |  |  | 0.49 | 1.40 |
| Tamim et al 2022 | | 20 | 12 | 32 | -0.0330 | 0.356 | -0.760 to 0.694 |  |  | 0.41 | 1.33 |
| Tanriverdi et al 2023 | | 31 | 30 | 61 | 0.454 | 0.256 | -0.0590 to 0.966 |  |  | 0.79 | 1.55 |
| Torun et al 2021 | | 70 | 112 | 182 | 0.217 | 0.152 | -0.0833 to 0.517 |  |  | 2.24 | 1.75 |
| Uzum et al 2023 | | 114 | 158 | 272 | 0.421 | 0.124 | 0.178 to 0.665 |  |  | 3.38 | 1.79 |
| Vuillaume et al 2021 | | 246 | 789 | 1035 | -0.290 | 0.0732 | -0.434 to -0.146 |  |  | 9.67 | 1.85 |
| Zhang et al 2022 | | 40 | 105 | 145 | 0.599 | 0.188 | 0.227 to 0.971 |  |  | 1.47 | 1.69 |
| Zope et al 2022 | | 64 | 86 | 150 | 0.269 | 0.165 | -0.0570 to 0.595 |  |  | 1.91 | 1.73 |
| Total (fixed effects) | | 3489 | 6360 | 9849 | 0.390 | 0.0228 | 0.345 to 0.435 | 17.127 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | | 3489 | 6360 | 9849 | 0.497 | 0.0754 | 0.349 to 0.645 | 6.594 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | | |
| **Test for heterogeneity** | | **Publication bias** | | | | | |  |  |  |  |
| Q | 621.1416 | **Egger's test** | | | Begg's test | | |  |  |  |  |
| DF | 63 | Intercept | | 1.6592 | Kendall's Tau | | 0.05409 |  |  |  |  |
| Significance level | P < 0.0001 | 95% CI | | -0.06383 to 3.3822 | Significance level | | P = 0.5275 |  |  |  |  |
| I2 (inconsistency) | 89.86% | Significance level | | P = 0.0588 |  |  |  |  |  |  |  |
| 95% CI for I2 | 87.78 to 91.58 | Intercept | | 1.6592 |  |  |  |  |  |  |  |

**Table2-C. ICU admission in COVID-19 according to Age**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | ICU | Non-ICU | Total | SMD | SE | 95% CI | t | P | Weight (%) | |
| Fixed | Random |
| Abbas et al 2022 | 26 | 24 | 50 | 0.126 | 0.279 | -0.435 to 0.687 |  |  | 0.65 | 3.99 |
| Bahadirli et al 2021 | 53 | 220 | 273 | 1.779 | 0.171 | 1.444 to 2.115 |  |  | 1.75 | 4.17 |
| Bayram et al 2021 | 68 | 680 | 748 | 0.665 | 0.128 | 0.413 to 0.917 |  |  | 3.10 | 4.22 |
| Bendaraf et al 2022 | 66 | 40 | 106 | 0.466 | 0.201 | 0.0663 to 0.865 |  |  | 1.25 | 4.13 |
| Bozan et al 2021 | 101 | 671 | 772 | 0.565 | 0.108 | 0.354 to 0.777 |  |  | 4.40 | 4.24 |
| Çakirca et al 2023 | 151 | 426 | 577 | 4.928 | 0.173 | 4.588 to 5.268 |  |  | 1.70 | 4.17 |
| Chen et al 2023 | 18 | 105 | 123 | 3.143 | 0.323 | 2.503 to 3.783 |  |  | 0.49 | 3.90 |
| Deniz et al 2022 | 57 | 1020 | 1077 | 1.162 | 0.138 | 0.891 to 1.433 |  |  | 2.66 | 4.21 |
| Făgărăsan et al 2023 | 90 | 276 | 366 | 0.0503 | 0.121 | -0.188 to 0.289 |  |  | 3.47 | 4.23 |
| Feng et al 2021 | 156 | 115 | 271 | -2.562 | 0.165 | -2.886 to -2.237 |  |  | 1.88 | 4.18 |
| Gohda et al 2022 | 40 | 40 | 80 | 0.184 | 0.222 | -0.258 to 0.626 |  |  | 1.03 | 4.09 |
| Gormez et al 2020 | 48 | 199 | 247 | 0.480 | 0.162 | 0.161 to 0.799 |  |  | 1.95 | 4.18 |
| Kaya et al 2022 | 38 | 42 | 80 | 0.538 | 0.226 | 0.0888 to 0.988 |  |  | 1.00 | 4.09 |
| Kumari et al 2023 | 449 | 6946 | 7395 | 0.479 | 0.0488 | 0.383 to 0.575 |  |  | 21.34 | 4.28 |
| Le Borgne et al 2021 | 246 | 789 | 1035 | -0.290 | 0.0732 | -0.434 to -0.146 |  |  | 9.49 | 4.27 |
| Naznin et al 2021 | 337 | 2081 | 2418 | 1.586 | 0.0630 | 1.463 to 1.710 |  |  | 12.84 | 4.27 |
| Norouzian et al 2022 | 40 | 40 | 80 | 1.981 | 0.271 | 1.441 to 2.521 |  |  | 0.69 | 4.00 |
| Phan et al 2021 | 40 | 41 | 81 | 0.0149 | 0.220 | -0.423 to 0.453 |  |  | 1.05 | 4.10 |
| Rasyid et al 2021 | 45 | 250 | 295 | 0.781 | 0.165 | 0.457 to 1.105 |  |  | 1.88 | 4.18 |
| Salehi et al 2023 | 109 | 140 | 249 | -0.790 | 0.132 | -1.050 to -0.530 |  |  | 2.91 | 4.22 |
| Senol 2022 | 480 | 108 | 588 | 0.514 | 0.107 | 0.303 to 0.725 |  |  | 4.41 | 4.24 |
| Solimando et al 2021 | 25 | 70 | 95 | 0.378 | 0.233 | -0.0845 to 0.840 |  |  | 0.94 | 4.08 |
| Vuillaume et al 2021 | 246 | 789 | 1035 | -0.290 | 0.0732 | -0.434 to -0.146 |  |  | 9.49 | 4.27 |
| Yilmaz et al 2021 | 253 | 922 | 1175 | 0.771 | 0.0727 | 0.628 to 0.914 |  |  | 9.64 | 4.27 |
| Total (fixed effects) | 3182 | 16034 | 19216 | 0.540 | 0.0226 | 0.496 to 0.584 | 23.943 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 3182 | 16034 | 19216 | 0.685 | 0.210 | 0.274 to 1.096 | 3.263 | 0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | |
| **Test for heterogeneity** | | | **Publication bias** | | | | | | | |
| Q | 1839.3328 | | Egger's test | | | | Begg's test | |  | |
| DF | 23 | | Intercept | | 1.5749 | | Kendall's Tau | | 0.1127 | |
| Significance level | P < 0.0001 | | 95% CI | | -6.3843 to 9.5342 | | Significance level | | P = 0.4403 | |
| I2 (inconsistency) | 98.75% | | Significance level | | P = 0.6855 | |  | | | |
| 95% CI for I2 | 98.53 to 98.93 | | | | | | | | | |

**Table2-D. Mortality in COVID-19 According to Age**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Dead | Survived | Total | SMD | SE | 95% CI | t | P | Weight (%) | |
| Fixed | Random |
| Abbas et al 2022 | 12 | 38 | 50 | 0.775 | 0.335 | 0.101 to 1.448 |  |  | 0.16 | 0.74 |
| Abrishami et al 2021 | 13 | 67 | 80 | 0.174 | 0.300 | -0.424 to 0.773 |  |  | 0.20 | 0.77 |
| Acar et al 2021 | 19 | 129 | 148 | 0.576 | 0.247 | 0.0886 to 1.064 |  |  | 0.30 | 0.83 |
| Acehan et al 2021 | 53 | 560 | 613 | 0.730 | 0.145 | 0.445 to 1.015 |  |  | 0.86 | 0.91 |
| Aditianingsih et al 2023 | 106 | 153 | 259 | 0.601 | 0.129 | 0.348 to 0.855 |  |  | 1.10 | 0.92 |
| Ahmed et al 2021 | 28 | 129 | 157 | 0.684 | 0.211 | 0.267 to 1.101 |  |  | 0.41 | 0.86 |
| Ahmed et al 2021 | 21 | 115 | 136 | 0.706 | 0.240 | 0.231 to 1.180 |  |  | 0.32 | 0.83 |
| Ahmed et al 2022 | 40 | 60 | 100 | 0.423 | 0.205 | 0.0169 to 0.830 |  |  | 0.43 | 0.86 |
| Alaaluah et al 2022 | 28 | 47 | 75 | 0.613 | 0.242 | 0.131 to 1.094 |  |  | 0.31 | 0.83 |
| Alici et al 2021 | 53 | 168 | 221 | 0.791 | 0.161 | 0.472 to 1.109 |  |  | 0.70 | 0.90 |
| Allahverdiyev et al 2020 | 92 | 363 | 455 | 0.639 | 0.118 | 0.406 to 0.871 |  |  | 1.30 | 0.93 |
| Almasud et al 2023 | 26 | 55 | 81 | 0.724 | 0.242 | 0.241 to 1.207 |  |  | 0.31 | 0.83 |
| Aminy et al 2023 | 59 | 165 | 224 | 0.210 | 0.152 | -0.0885 to 0.509 |  |  | 0.79 | 0.91 |
| Antariska et al 2021 | 64 | 46 | 110 | 0.411 | 0.194 | 0.0266 to 0.795 |  |  | 0.48 | 0.87 |
| Arbănasi et al 2022 | 114 | 396 | 510 | 0.342 | 0.107 | 0.132 to 0.551 |  |  | 1.60 | 0.94 |
| Arsentieva et al 2022 | 16 | 13 | 29 | 0.597 | 0.371 | -0.165 to 1.359 |  |  | 0.13 | 0.70 |
| Atlas et al 2021 | 78 | 24 | 102 | 1.177 | 0.246 | 0.690 to 1.665 |  |  | 0.30 | 0.83 |
| Avila-Nava et al 2021 | 14 | 24 | 38 | 1.279 | 0.360 | 0.548 to 2.010 |  |  | 0.14 | 0.71 |
| Bayram et al 2021 | 47 | 701 | 748 | 0.868 | 0.152 | 0.569 to 1.167 |  |  | 0.79 | 0.91 |
| Bellan et al 2021 | 211 | 453 | 664 | 1.087 | 0.0884 | 0.913 to 1.260 |  |  | 2.33 | 0.94 |
| Birben et al 2020 | 124 | 264 | 388 | 0.200 | 0.109 | -0.0145 to 0.414 |  |  | 1.53 | 0.93 |
| Bombaci et al 2023 | 81 | 26 | 107 | 0.496 | 0.226 | 0.0471 to 0.945 |  |  | 0.35 | 0.85 |
| Bozan et al 2021 | 92 | 680 | 772 | 0.772 | 0.113 | 0.551 to 0.993 |  |  | 1.43 | 0.93 |
| Cardiero et al 2022 | 10 | 185 | 195 | 0.997 | 0.327 | 0.352 to 1.643 |  |  | 0.17 | 0.74 |
| Çelikkol et al 2022 | 224 | 900 | 1124 | 1.119 | 0.0783 | 0.965 to 1.272 |  |  | 2.97 | 0.95 |
| Cheng et al 2020 | 85 | 220 | 305 | 0.745 | 0.131 | 0.487 to 1.002 |  |  | 1.06 | 0.92 |
| Çölkesen et al 2022 | 17 | 191 | 208 | 1.021 | 0.257 | 0.514 to 1.528 |  |  | 0.28 | 0.82 |
| Deng et al 2021 | 50 | 50 | 100 | 0.422 | 0.201 | 0.0240 to 0.821 |  |  | 0.45 | 0.87 |
| Devang et al 2022 | 48 | 142 | 190 | 0.484 | 0.168 | 0.152 to 0.815 |  |  | 0.64 | 0.90 |
| El-Desoky et al 2022 | 57 | 75 | 132 | 0.754 | 0.181 | 0.396 to 1.111 |  |  | 0.56 | 0.89 |
| Ergenç et al 2021 | 51 | 584 | 635 | 0.988 | 0.148 | 0.697 to 1.280 |  |  | 0.83 | 0.91 |
| Ertekin et al 2023 | 269 | 350 | 619 | 1.488 | 0.0914 | 1.309 to 1.668 |  |  | 2.18 | 0.94 |
| Evlice et al 2022 | 29 | 318 | 347 | 0.992 | 0.197 | 0.605 to 1.380 |  |  | 0.47 | 0.87 |
| Feng et al 2021 | 182 | 89 | 271 | 6.639 | 0.313 | 6.023 to 7.255 |  |  | 0.19 | 0.76 |
| Gadotti et al 2020 | 18 | 38 | 56 | 0.441 | 0.285 | -0.130 to 1.013 |  |  | 0.22 | 0.79 |
| Geraili et al 2022 | 75 | 649 | 724 | 0.797 | 0.124 | 0.555 to 1.040 |  |  | 1.19 | 0.93 |
| Gjuzelova et al 2023 | 32 | 72 | 104 | -0.976 | 0.221 | -1.416 to -0.537 |  |  | 0.37 | 0.85 |
| Hafeez et al 2022 | 44 | 92 | 136 | 0.703 | 0.187 | 0.333 to 1.073 |  |  | 0.52 | 0.88 |
| Halmaciu et al 2022 | 82 | 185 | 267 | 0.379 | 0.133 | 0.116 to 0.641 |  |  | 1.02 | 0.92 |
| Harsini et al 2023 | 23 | 51 | 74 | 0.205 | 0.249 | -0.291 to 0.702 |  |  | 0.29 | 0.82 |
| Hassan et al 2023 | 102 | 148 | 250 | 0.317 | 0.129 | 0.0627 to 0.571 |  |  | 1.09 | 0.92 |
| Haydar et al 2022 | 70 | 61 | 131 | 0.118 | 0.174 | -0.226 to 0.463 |  |  | 0.60 | 0.89 |
| Hilda et al 2022 | 52 | 235 | 287 | 0.790 | 0.156 | 0.482 to 1.098 |  |  | 0.74 | 0.90 |
| Huang et al 2020 | 140 | 536 | 676 | 0.819 | 0.0974 | 0.628 to 1.010 |  |  | 1.92 | 0.94 |
| Huyut et al 2023 | 232 | 2336 | 2568 | 0.981 | 0.0702 | 0.843 to 1.118 |  |  | 3.69 | 0.95 |
| Isbaniah et al 2021 | 60 | 154 | 214 | 0.399 | 0.153 | 0.0975 to 0.700 |  |  | 0.78 | 0.91 |
| Jang et al 2021 | 10 | 39 | 49 | 0.620 | 0.354 | -0.0932 to 1.332 |  |  | 0.14 | 0.72 |
| Katkat et al 2022 | 49 | 393 | 442 | 1.597 | 0.161 | 1.282 to 1.913 |  |  | 0.71 | 0.90 |
| Kaylon et al 2021 | 58 | 117 | 175 | 0.170 | 0.160 | -0.146 to 0.486 |  |  | 0.71 | 0.90 |
| Kilic et al 2022 | 197 | 320 | 517 | 0.515 | 0.0918 | 0.335 to 0.696 |  |  | 2.16 | 0.94 |
| Kılıç et al 2023 | 183 | 275 | 458 | 0.573 | 0.0971 | 0.383 to 0.764 |  |  | 1.93 | 0.94 |
| Kim et al 2022 | 19 | 123 | 142 | -0.190 | 0.245 | -0.675 to 0.295 |  |  | 0.30 | 0.83 |
| Küçük et al 2022 | 181 | 135 | 316 | 0.915 | 0.119 | 0.681 to 1.150 |  |  | 1.28 | 0.93 |
| Küçükceran et al 2021 | 126 | 591 | 717 | 0.942 | 0.101 | 0.743 to 1.140 |  |  | 1.78 | 0.94 |
| Kuizon et al 2023 | 55 | 107 | 162 | 0.0798 | 0.165 | -0.246 to 0.406 |  |  | 0.67 | 0.90 |
| Le Borgne et al 2021 | 139 | 884 | 1023 | 0.749 | 0.0927 | 0.567 to 0.930 |  |  | 2.12 | 0.94 |
| Lee et al 2022 | 18 | 265 | 283 | 1.097 | 0.247 | 0.610 to 1.584 |  |  | 0.30 | 0.83 |
| Lino et al 2021 | 44 | 53 | 97 | 0.812 | 0.211 | 0.394 to 1.230 |  |  | 0.41 | 0.86 |
| Luo et al 2020 | 201 | 817 | 1018 | 0.933 | 0.0813 | 0.773 to 1.092 |  |  | 2.75 | 0.95 |
| Milenkovic et al 2022 | 195 | 123 | 318 | 0.687 | 0.118 | 0.455 to 0.920 |  |  | 1.30 | 0.93 |
| Mizrak et al 2021 | 83 | 90 | 173 | 0.428 | 0.153 | 0.126 to 0.731 |  |  | 0.77 | 0.91 |
| Mohamad et al 2023 | 27 | 40 | 67 | 0.372 | 0.248 | -0.124 to 0.867 |  |  | 0.30 | 0.82 |
| Mohammadshahi et al 2023 | 26 | 274 | 300 | 1.170 | 0.210 | 0.757 to 1.584 |  |  | 0.41 | 0.86 |
| Moisa et al 2021 | 142 | 130 | 272 | 0.770 | 0.125 | 0.523 to 1.017 |  |  | 1.16 | 0.92 |
| Monserrat et al 2022 | 37 | 249 | 286 | 0.596 | 0.177 | 0.247 to 0.946 |  |  | 0.58 | 0.89 |
| Mureşan et al 2022 | 143 | 746 | 889 | 0.155 | 0.0913 | -0.0237 to 0.335 |  |  | 2.18 | 0.94 |
| Nurhayatun et al 2020 | 8 | 41 | 49 | 0.436 | 0.383 | -0.335 to 1.206 |  |  | 0.12 | 0.69 |
| Oguz et al 2022 | 28 | 95 | 123 | 0.840 | 0.220 | 0.404 to 1.276 |  |  | 0.37 | 0.85 |
| Olivieri et al 2022 | 220 | 421 | 641 | 0.435 | 0.0840 | 0.270 to 0.599 |  |  | 2.58 | 0.95 |
| Onuk et al 2023 | 27 | 36 | 63 | 0.418 | 0.254 | -0.0903 to 0.926 |  |  | 0.28 | 0.82 |
| Onur et al 2020 | 56 | 245 | 301 | 0.497 | 0.149 | 0.203 to 0.790 |  |  | 0.82 | 0.91 |
| Ortega-Rojas et al 2022 | 180 | 82 | 262 | 0.535 | 0.135 | 0.270 to 0.801 |  |  | 1.00 | 0.92 |
| Özdemir et al 2021 | 5 | 98 | 103 | 0.0356 | 0.455 | -0.867 to 0.938 |  |  | 0.088 | 0.61 |
| Özdemir et al 2023 | 112 | 358 | 470 | 0.254 | 0.108 | 0.0409 to 0.467 |  |  | 1.55 | 0.93 |
| Ozger et al 2021 | 8 | 29 | 37 | 0.705 | 0.399 | -0.105 to 1.516 |  |  | 0.11 | 0.67 |
| Pál et al 2022 | 89 | 28 | 117 | 0.636 | 0.219 | 0.202 to 1.070 |  |  | 0.38 | 0.85 |
| Pandilov et al 2021 | 21 | 74 | 95 | 0.458 | 0.247 | -0.0337 to 0.949 |  |  | 0.30 | 0.83 |
| Parimoo et al 2021 | 55 | 87 | 142 | 0.379 | 0.173 | 0.0376 to 0.721 |  |  | 0.61 | 0.89 |
| Peng et al 2022 | 74 | 537 | 611 | 0.815 | 0.126 | 0.568 to 1.063 |  |  | 1.14 | 0.92 |
| Phan et al 2021 | 20 | 61 | 81 | 0.678 | 0.261 | 0.159 to 1.197 |  |  | 0.27 | 0.81 |
| Putra et al 2022 | 146 | 411 | 557 | 0.644 | 0.0981 | 0.451 to 0.836 |  |  | 1.89 | 0.94 |
| Quan Liu et al 2020 | 138 | 170 | 308 | 0.902 | 0.120 | 0.666 to 1.138 |  |  | 1.26 | 0.93 |
| Rahayu et al 2022 | 23 | 57 | 80 | 0.368 | 0.246 | -0.123 to 0.858 |  |  | 0.30 | 0.83 |
| Raman et al 2021 | 20 | 190 | 210 | 1.258 | 0.242 | 0.781 to 1.736 |  |  | 0.31 | 0.83 |
| Rasyid et al 2021 | 31 | 264 | 295 | 0.688 | 0.191 | 0.311 to 1.065 |  |  | 0.50 | 0.88 |
| Rizo-Tellez 2021 | 20 | 34 | 54 | 0.665 | 0.285 | 0.0933 to 1.237 |  |  | 0.22 | 0.79 |
| Rizo-Tellez et al 2021 | 123 | 255 | 378 | 0.560 | 0.111 | 0.341 to 0.779 |  |  | 1.46 | 0.93 |
| Sai et al 2021 | 28 | 480 | 508 | 1.395 | 0.199 | 1.004 to 1.786 |  |  | 0.46 | 0.87 |
| Sakthivadivel et al 2021 | 28 | 244 | 272 | 0.550 | 0.200 | 0.155 to 0.944 |  |  | 0.45 | 0.87 |
| Sanchez-de Prada et al 2022 | 20 | 88 | 108 | 0.528 | 0.249 | 0.0353 to 1.021 |  |  | 0.29 | 0.82 |
| Saputra et al 2023 | 95 | 100 | 195 | 0.304 | 0.144 | 0.0205 to 0.587 |  |  | 0.88 | 0.91 |
| Sari et al 2022 | 52 | 1545 | 1597 | 5.991 | 0.176 | 5.645 to 6.337 |  |  | 0.58 | 0.89 |
| Satilmis et al 2023 | 23 | 772 | 795 | 1.993 | 0.217 | 1.566 to 2.419 |  |  | 0.39 | 0.85 |
| Saylik et al 2021 | 51 | 125 | 176 | -0.232 | 0.166 | -0.560 to 0.0951 |  |  | 0.66 | 0.90 |
| Senol 2022 | 279 | 309 | 588 | 0.770 | 0.0855 | 0.602 to 0.937 |  |  | 2.49 | 0.95 |
| Serin et al 2020 | 68 | 2149 | 2217 | 1.169 | 0.124 | 0.925 to 1.413 |  |  | 1.18 | 0.93 |
| Shetty et al 2021 | 138 | 1839 | 1977 | 1.091 | 0.0899 | 0.915 to 1.267 |  |  | 2.25 | 0.94 |
| Szabo et al 2022 | 11 | 13 | 24 | -0.790 | 0.412 | -1.643 to 0.0639 |  |  | 0.11 | 0.66 |
| Taşkin et al 2023 | 447 | 164 | 611 | 0.486 | 0.0922 | 0.305 to 0.667 |  |  | 2.14 | 0.94 |
| Tawfik et al 2022 | 57 | 57 | 114 | 0.285 | 0.187 | -0.0853 to 0.656 |  |  | 0.52 | 0.88 |
| Terra et al 2022 | 39 | 80 | 119 | 0.868 | 0.202 | 0.467 to 1.268 |  |  | 0.45 | 0.87 |
| Thungthienthong et al 2023 | 63 | 152 | 215 | 0.544 | 0.152 | 0.245 to 0.843 |  |  | 0.79 | 0.91 |
| Tilch et al 2021 | 18 | 32 | 50 | -0.380 | 0.292 | -0.968 to 0.208 |  |  | 0.21 | 0.78 |
| Topcu et al 2022 | 24 | 221 | 245 | 0.229 | 0.215 | -0.193 to 0.652 |  |  | 0.40 | 0.86 |
| Turda et al 2023 | 58 | 25 | 83 | 1.157 | 0.253 | 0.653 to 1.661 |  |  | 0.28 | 0.82 |
| Vadi et al 2023 | 118 | 38 | 156 | 2.905 | 0.248 | 2.415 to 3.395 |  |  | 0.30 | 0.82 |
| Vaseie et al 2022 | 75 | 138 | 213 | 0.858 | 0.149 | 0.565 to 1.151 |  |  | 0.82 | 0.91 |
| Vastani et al 2022 | 26 | 24 | 50 | -0.786 | 0.289 | -1.368 to -0.204 |  |  | 0.22 | 0.78 |
| Vidal-Cevallos et al 2021 | 79 | 298 | 377 | 0.210 | 0.127 | -0.0386 to 0.459 |  |  | 1.14 | 0.92 |
| Visuddho et al 2021 | 148 | 193 | 341 | 0.419 | 0.110 | 0.202 to 0.635 |  |  | 1.50 | 0.93 |
| Wang et al 2020 | 12 | 119 | 131 | 1.525 | 0.316 | 0.900 to 2.149 |  |  | 0.18 | 0.76 |
| Yilmaz et al 2021 | 286 | 889 | 1175 | 0.954 | 0.0707 | 0.815 to 1.092 |  |  | 3.64 | 0.95 |
| Yurt et al 2023 | 38 | 271 | 309 | 0.790 | 0.176 | 0.444 to 1.135 |  |  | 0.59 | 0.89 |
| Zakeri et al 2022 | 73 | 77 | 150 | 0.712 | 0.168 | 0.380 to 1.043 |  |  | 0.65 | 0.90 |
| Zhu et al 2021 | 33 | 130 | 163 | 1.078 | 0.203 | 0.677 to 1.479 |  |  | 0.44 | 0.87 |
| Total (fixed effects) | 9067 | 32253 | 41320 | 0.740 | 0.0135 | 0.714 to 0.767 | 54.883 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 9067 | 32253 | 41320 | 0.741 | 0.0590 | 0.626 to 0.857 | 12.555 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | |
| Test for heterogeneity | | | Publication bias | | | | | | | |
| Q | 2069.7772 | | Egger's test | | | | Begg’s test | | | |
| DF | 114 | | Intercept | | -0.1374 | | Kendall's Tau | | -0.009611 | |
| Significance level | P < 0.0001 | | 95% CI | | -2.1102 to 1.8354 | | Significance level | | P = 0.8790 | |
| I2 (inconsistency) | 94.49% | | Significance level | | P = 0.8905 | |  | | | |
| 95% CI for I2 | 93.82 to 95.09 | |  | |  | |  | | | |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Mild | Total | SMD | SE | 95% CI | t | P | Weight (%) | |
| Fixed | Random |
| Soltani‑Zangbar et al 2022 | 50 | 50 | 100 | -0.199 | 0.199 | -0.594 to 0.195 |  |  | 24.62 | 18.57 |
| Haydar et al 2022 | 70 | 61 | 131 | -0.635 | 0.178 | -0.988 to -0.281 |  |  | 30.59 | 19.12 |
| Sarraf et al 2023 | 85 | 11 | 96 | -1.268 | 0.331 | -1.924 to -0.611 |  |  | 8.91 | 14.75 |
| Shalaby et al 2023 | 21 | 19 | 40 | -1.436 | 0.349 | -2.143 to -0.728 |  |  | 7.98 | 14.22 |
| Taghiloo et al 2020 | 22 | 39 | 61 | -0.914 | 0.276 | -1.467 to -0.362 |  |  | 12.80 | 16.35 |
| Zhang et al 2022 | 40 | 39 | 79 | -1.531 | 0.254 | -2.036 to -1.025 |  |  | 15.11 | 17.00 |
| Total (fixed effects) | 288 | 219 | 507 | -0.819 | 0.0987 | -1.013 to -0.625 | -8.297 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 288 | 219 | 507 | -0.959 | 0.224 | -1.399 to -0.520 | -4.288 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | |
| Test for heterogeneity | | | Publication bias | | | | | | | |
| Q | 23.6917 | | Egger's test | | | | Begg's test | | | |
| DF | 5 | | Intercept | | -6.0351 | | Kendall's Tau | | -0.4667 | |
| Significance level | P = 0.0002 | | 95% CI | | -13.7596 to 1.6894 | | Significance level | | P = 0.1885 | |
| I2 (inconsistency) | 78.90% | | Significance level | | P = 0.0959 | |  | | | |
| 95% CI for I2 | 53.72 to 90.38 | |  | |  | |  | | | |

**Table2-E. Mild vs severity of COVID-19 according to Albumin.**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Moderate | Total | SMD | SE | 95% CI | t | P | Weight (%) | |
| Fixed | Random |
| Aksit et al 2023 | 62 | 62 | 124 | -0.871 | 0.187 | -1.241 to -0.502 |  |  | 10.08 | 9.22 |
| Can et al 2021 | 30 | 30 | 60 | -1.557 | 0.292 | -2.141 to -0.973 |  |  | 4.14 | 6.97 |
| Deng et al 2021 | 40 | 17 | 57 | -0.399 | 0.288 | -0.977 to 0.178 |  |  | 4.25 | 7.04 |
| Jin et al 2021 | 25 | 110 | 135 | -1.388 | 0.236 | -1.855 to -0.921 |  |  | 6.33 | 8.13 |
| Lashin et al 2023 | 25 | 25 | 50 | -0.713 | 0.287 | -1.291 to -0.135 |  |  | 4.26 | 7.06 |
| Li et al 2020 | 30 | 45 | 75 | -0.486 | 0.237 | -0.958 to -0.0147 |  |  | 6.29 | 8.12 |
| Nazri et al 2023 | 118 | 35 | 153 | -0.242 | 0.192 | -0.622 to 0.137 |  |  | 9.55 | 9.10 |
| Sarraf et al 2023 | 85 | 29 | 114 | -0.182 | 0.214 | -0.606 to 0.242 |  |  | 7.69 | 8.62 |
| Shalaby et al 2023 | 21 | 20 | 41 | -0.698 | 0.316 | -1.337 to -0.0590 |  |  | 3.53 | 6.51 |
| Torun et al 2021 | 70 | 112 | 182 | -1.238 | 0.165 | -1.564 to -0.913 |  |  | 12.93 | 9.69 |
| Uzum et al 2023 | 114 | 158 | 272 | -0.866 | 0.128 | -1.118 to -0.614 |  |  | 21.48 | 10.46 |
| Zhang et al 2022 | 40 | 105 | 145 | -0.933 | 0.193 | -1.314 to -0.552 |  |  | 9.48 | 9.09 |
| Total (fixed effects) | 660 | 748 | 1408 | -0.814 | 0.0593 | -0.931 to -0.698 | -13.721 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 660 | 748 | 1408 | -0.798 | 0.120 | -1.033 to -0.563 | -6.662 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | |
| Test for heterogeneity | | | Publication bias | | | | | | | |
| Q | 41.4831 | | Egger's test | | | | Begg's test | | | |
| DF | 11 | | Intercept | | 0.7264 | | Kendall's Tau | | 0.09091 | |
| Significance level | P < 0.0001 | | 95% CI | | -4.2022 to 5.6549 | | Significance level | | P = 0.6808 | |
| I2 (inconsistency) | 73.48% | | Significance level | | P = 0.7494 | |  | |  | |
| 95% CI for I2 | 52.88 to 85.08 | |  | |  | |  | |  | |

**Table2-F. Moderate vs severity of COVID-19 according to Albumin.**

**Table2-G. Mild vs severity of COVID-19 according to CRP.**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Mild | Total | SMD | SE | 95% CI | | t | P | Weight (%) | |
| Fixed | Random |
| Abbas et al 2020 | 36 | 32 | 68 | 1.186 | 0.261 | 0.666 to 1.707 | |  |  | 1.72 | 2.95 |
| Abdelhakam et al 2021 | 66 | 58 | 124 | 2.151 | 0.225 | 1.706 to 2.597 | |  |  | 2.32 | 3.09 |
| Aksakal et al 2023 | 30 | 30 | 60 | 0.823 | 0.266 | 0.292 to 1.355 | |  |  | 1.66 | 2.93 |
| Almasud et al 2023 | 40 | 42 | 82 | 1.526 | 0.249 | 1.030 to 2.022 | |  |  | 1.89 | 2.99 |
| Andriani et al 2021 | 25 | 6 | 31 | 0.971 | 0.460 | 0.0306 to 1.910 | |  |  | 0.56 | 2.13 |
| Arshad et al 2020 | 45 | 157 | 202 | 1.947 | 0.194 | 1.564 to 2.330 | |  |  | 3.11 | 3.21 |
| Astagimath et al 2022 | 106 | 3613 | 3719 | 0.237 | 0.0986 | 0.0435 to 0.430 | |  |  | 12.08 | 3.50 |
| Awasthi et al 2022 | 55 | 50 | 105 | 0.261 | 0.195 | -0.125 to 0.647 | |  |  | 3.09 | 3.21 |
| Batool et al 2021 | 197 | 530 | 727 | 1.632 | 0.0937 | 1.448 to 1.816 | |  |  | 13.37 | 3.51 |
| Chiu et al 2023 | 95 | 59 | 154 | 0.416 | 0.167 | 0.0864 to 0.745 | |  |  | 4.23 | 3.31 |
| Ergenç et al 2022 | 109 | 171 | 280 | 1.139 | 0.131 | 0.880 to 1.397 | |  |  | 6.80 | 3.41 |
| Falih et al 2022 | 24 | 17 | 41 | 1.114 | 0.334 | 0.438 to 1.791 | |  |  | 1.05 | 2.64 |
| Fu et al 2020 | 13 | 22 | 35 | 0.990 | 0.362 | 0.254 to 1.726 | |  |  | 0.90 | 2.52 |
| Gohda et al 2022 | 40 | 18 | 58 | 1.204 | 0.301 | 0.600 to 1.808 | |  |  | 1.29 | 2.78 |
| Haydar et al 2022 | 70 | 61 | 131 | 1.353 | 0.193 | 0.971 to 1.735 | |  |  | 3.15 | 3.21 |
| Islam et al 2023 | 20 | 20 | 40 | 2.354 | 0.407 | 1.531 to 3.177 | |  |  | 0.71 | 2.33 |
| Javed et al 2020 | 8 | 10 | 18 | 0.643 | 0.464 | -0.341 to 1.627 | |  |  | 0.54 | 2.11 |
| Khurshid et al 2022 | 30 | 163 | 193 | 0.597 | 0.200 | 0.203 to 0.992 | |  |  | 2.93 | 3.19 |
| Kwon et al 2020 | 8 | 6 | 14 | 0.778 | 0.526 | -0.369 to 1.925 | |  |  | 0.42 | 1.88 |
| Marcoz-Jiménez et al 2021 | 41 | 146 | 187 | 0.885 | 0.182 | 0.526 to 1.244 | |  |  | 3.55 | 3.25 |
| Moreira-Rosário et al 2021 | 59 | 19 | 78 | 0.700 | 0.267 | 0.168 to 1.232 | |  |  | 1.64 | 2.92 |
| Naqvi et al 2021 | 47 | 163 | 210 | 1.953 | 0.191 | 1.578 to 2.329 | |  |  | 3.23 | 3.22 |
| Paranga et al 2023 | 68 | 14 | 82 | 1.143 | 0.304 | 0.537 to 1.748 | |  |  | 1.27 | 2.76 |
| Rai et al 2022 | 236 | 473 | 709 | 1.421 | 0.0881 | 1.248 to 1.594 | |  |  | 15.12 | 3.52 |
| Sarraf et al 2023 | 85 | 11 | 96 | 0.512 | 0.320 | -0.123 to 1.147 | |  |  | 1.15 | 2.70 |
| Satış et al 2021 | 11 | 27 | 38 | 1.656 | 0.398 | 0.848 to 2.464 | |  |  | 0.74 | 2.37 |
| Shalaby et al 2023 | 21 | 19 | 40 | 1.088 | 0.333 | 0.413 to 1.763 | |  |  | 1.06 | 2.64 |
| Shokri-Afra et al2022 | 21 | 30 | 51 | 0.463 | 0.284 | -0.107 to 1.033 | |  |  | 1.46 | 2.85 |
| Smail et al 2023 | 40 | 54 | 94 | 1.654 | 0.240 | 1.179 to 2.130 | |  |  | 2.05 | 3.03 |
| Sukrisman et al 2021 | 6 | 39 | 45 | 0.400 | 0.433 | -0.473 to 1.273 | |  |  | 0.63 | 2.23 |
| Taghiloo et al 2020 | 22 | 39 | 61 | 1.802 | 0.310 | 1.182 to 2.421 | |  |  | 1.22 | 2.74 |
| Tamayo-Velasco et al 2021 | 16 | 34 | 50 | 0.580 | 0.304 | -0.0317 to 1.191 | |  |  | 1.27 | 2.76 |
| Tamim et al 2022 | 20 | 14 | 34 | 0.763 | 0.353 | 0.0448 to 1.481 | |  |  | 0.94 | 2.56 |
| Zhang et al 2022 | 40 | 39 | 79 | 1.379 | 0.248 | 0.884 to 1.873 | |  |  | 1.90 | 3.00 |
| Zhao et al 2020 | 18 | 19 | 37 | 1.154 | 0.349 | 0.446 to 1.861 | |  |  | 0.97 | 2.57 |
| Total (fixed effects) | 1768 | 6205 | 7973 | 1.130 | 0.0343 | 1.063 to 1.197 | | 32.992 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 1768 | 6205 | 7973 | 1.118 | 0.104 | 0.913 to 1.323 | | 10.698 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | | |
| Test for heterogeneity | | Publication bias | | | | |
| Q | 273.2841 | Egger's test | | | | |
| DF | 34 | Intercept | | -0.1661 | | |
| Significance level | P < 0.0001 | 95% CI | | -2.2849 to 1.9528 | | |
| I2 (inconsistency) | 87.56% | Significance level | | P = 0.8743 | | |
| 95% CI for I2 | 83.72 to 90.49 | Begg's test | | | | |
|  | | Kendall's Tau | | -0.1126 | | |
| Significance level | | P = 0.3414 | | |

**Table2-H. Moderate vs severity of COVID-19 according to CRP.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Moderate | Total | | SMD | SE | | 95% CI | t | P | Weight (%) | |
| Fixed | Random |
| Abbas et al 2020 | 36 | 59 | 95 | | 0.656 | 0.215 | | 0.229 to 1.083 |  |  | 1.25 | 1.90 |
| Ahmad et al 2022 | 15 | 16 | 31 | | 0.141 | 0.350 | | -0.576 to 0.858 |  |  | 0.47 | 1.30 |
| Ahnach et al 2020 | 44 | 101 | 145 | | 1.448 | 0.199 | | 1.055 to 1.841 |  |  | 1.47 | 1.98 |
| Aksakal et al 2023 | 30 | 30 | 60 | | -0.0311 | 0.255 | | -0.541 to 0.479 |  |  | 0.89 | 1.71 |
| Aksit et al 2023 | 62 | 62 | 124 | | 1.695 | 0.208 | | 1.282 to 2.107 |  |  | 1.33 | 1.93 |
| Almasud et al 2023 | 40 | 41 | 81 | | 0.412 | 0.222 | | -0.0309 to 0.855 |  |  | 1.17 | 1.86 |
| Andriani et al 2021 | 25 | 6 | 31 | | 0.648 | 0.450 | | -0.273 to 1.569 |  |  | 0.29 | 0.98 |
| Arshad et al 2020 | 45 | 36 | 81 | | 0.824 | 0.231 | | 0.364 to 1.283 |  |  | 1.09 | 1.82 |
| Asif et al 2022 | 63 | 37 | 100 | | 0.477 | 0.208 | | 0.0633 to 0.890 |  |  | 1.34 | 1.93 |
| Awasthi et al 2022 | 55 | 45 | 100 | | 0.121 | 0.200 | | -0.275 to 0.517 |  |  | 1.45 | 1.98 |
| Bal et al 2020 | 25 | 24 | 49 | | 0.391 | 0.284 | | -0.180 to 0.962 |  |  | 0.72 | 1.57 |
| Batool et al 2021 | 197 | 565 | 762 | | 0.688 | 0.0845 | | 0.522 to 0.854 |  |  | 8.11 | 2.48 |
| Bergantini et al 2023 | 14 | 94 | 108 | | 1.856 | 0.311 | | 1.239 to 2.473 |  |  | 0.60 | 1.46 |
| Çınar et al 2023 | 30 | 30 | 60 | | -0.143 | 0.255 | | -0.654 to 0.368 |  |  | 0.89 | 1.71 |
| Deng et al 2021 | 40 | 17 | 57 | | 0.489 | 0.289 | | -0.0907 to 1.068 |  |  | 0.69 | 1.55 |
| Falih et al 2022 | 24 | 24 | 48 | | 0.742 | 0.294 | | 0.151 to 1.334 |  |  | 0.67 | 1.53 |
| Gatselis et al 2022 | 132 | 65 | 197 | | -0.289 | 0.152 | | -0.588 to 0.0103 |  |  | 2.52 | 2.21 |
| Gjuzelova et al 2023 | 14 | 55 | 69 | | -0.193 | 0.296 | | -0.785 to 0.399 |  |  | 0.66 | 1.52 |
| Hachim et al 2021 | 203 | 189 | 392 | | 0.906 | 0.106 | | 0.697 to 1.114 |  |  | 5.16 | 2.41 |
| Hammad et al 2021 | 34 | 30 | 64 | | 1.133 | 0.267 | | 0.600 to 1.667 |  |  | 0.81 | 1.65 |
| Haroun et al 2021 | 52 | 98 | 150 | | 0.112 | 0.171 | | -0.225 to 0.450 |  |  | 1.99 | 2.12 |
| Hasegawa et al 2022 | 30 | 33 | 63 | | 1.054 | 0.266 | | 0.521 to 1.586 |  |  | 0.82 | 1.65 |
| Hernández-Solis et al 2022 | 27 | 25 | 52 | | 0.358 | 0.276 | | -0.195 to 0.912 |  |  | 0.76 | 1.61 |
| Islam et al 2023 | 20 | 21 | 41 | | 1.172 | 0.333 | | 0.499 to 1.844 |  |  | 0.52 | 1.37 |
| Javed et al 2020 | 8 | 8 | 16 | | 0.162 | 0.474 | | -0.853 to 1.178 |  |  | 0.26 | 0.92 |
| Jin et al 2021 | 25 | 110 | 135 | | 1.647 | 0.242 | | 1.168 to 2.126 |  |  | 0.99 | 1.77 |
| Khurshid et al 2022 | 30 | 115 | 145 | | 0.240 | 0.204 | | -0.164 to 0.644 |  |  | 1.39 | 1.95 |
| Kwon et al 2020 | 8 | 17 | 25 | | 1.114 | 0.444 | | 0.197 to 2.032 |  |  | 0.29 | 1.00 |
| Lashin et al 2023 | 25 | 25 | 50 | | 0.621 | 0.285 | | 0.0470 to 1.194 |  |  | 0.71 | 1.57 |
| Le Borgne et al 2021 | 246 | 789 | 1035 | | 0.760 | 0.0749 | | 0.613 to 0.907 |  |  | 10.34 | 2.51 |
| Lee et al 2023 | 39 | 16 | 55 | | 0.971 | 0.307 | | 0.356 to 1.587 |  |  | 0.61 | 1.47 |
| Li et al 2020 | 30 | 45 | 75 | | 0.375 | 0.235 | | -0.0940 to 0.844 |  |  | 1.05 | 1.80 |
| Liu et al 2020 | 92 | 202 | 294 | | 1.261 | 0.136 | | 0.994 to 1.529 |  |  | 3.14 | 2.28 |
| Marcoz-Jiménez et al 2021 | 41 | 89 | 130 | | 0.343 | 0.189 | | -0.0305 to 0.717 |  |  | 1.62 | 2.03 |
| Mesa et al 2021 | 31 | 29 | 60 | | 0.441 | 0.258 | | -0.0756 to 0.958 |  |  | 0.87 | 1.69 |
| Moreira-Rosário et al 2021 | 59 | 37 | 96 | | 0.396 | 0.210 | | -0.0210 to 0.813 |  |  | 1.31 | 1.92 |
| Naqvi et al 2021 | 47 | 38 | 85 | | 0.842 | 0.226 | | 0.394 to 1.291 |  |  | 1.14 | 1.85 |
| Nazri et al 2023 | 118 | 35 | 153 | | 0.667 | 0.195 | | 0.281 to 1.053 |  |  | 1.52 | 2.00 |
| Paranga et al 2023 | 68 | 71 | 139 | | 0.577 | 0.172 | | 0.237 to 0.918 |  |  | 1.95 | 2.11 |
| Prebensen et al 2023 | 17 | 15 | 32 | | 0.641 | 0.354 | | -0.0831 to 1.365 |  |  | 0.46 | 1.29 |
| Quan Liu et al 2020 | 133 | 91 | 224 | | 0.776 | 0.140 | | 0.499 to 1.053 |  |  | 2.94 | 2.26 |
| Rai et al 2022 | 236 | 275 | 511 | | 0.485 | 0.0899 | | 0.308 to 0.661 |  |  | 7.17 | 2.46 |
| Sarraf et al 2023 | 85 | 29 | 114 | | 0.473 | 0.216 | | 0.0453 to 0.901 |  |  | 1.24 | 1.90 |
| Shalaby et al 2023 | 21 | 20 | 41 | | 0.930 | 0.323 | | 0.277 to 1.584 |  |  | 0.55 | 1.41 |
| Sharif-Askari et al 2022 | 53 | 81 | 134 | | 0.511 | 0.178 | | 0.158 to 0.864 |  |  | 1.82 | 2.08 |
| Shokri-Afra et al2022 | 21 | 25 | 46 | | 0.779 | 0.302 | | 0.170 to 1.388 |  |  | 0.63 | 1.50 |
| Suhartono et al 2021 | 40 | 55 | 95 | | 0.309 | 0.207 | | -0.103 to 0.721 |  |  | 1.35 | 1.94 |
| Sukrisman et al 2021 | 6 | 64 | 70 | | -0.371 | 0.423 | | -1.216 to 0.474 |  |  | 0.32 | 1.06 |
| Tamayo-Velasco et al 2021 | 16 | 26 | 42 | | 0.652 | 0.320 | | 0.00587 to 1.298 |  |  | 0.57 | 1.42 |
| Tamim et al 2022 | 20 | 12 | 32 | | 0.0193 | 0.356 | | -0.708 to 0.746 |  |  | 0.46 | 1.28 |
| Tanriverdi et al 2023 | 31 | 30 | 61 | | 1.771 | 0.299 | | 1.172 to 2.370 |  |  | 0.65 | 1.51 |
| Tjahyadi et al 2020 | 43 | 26 | 69 | | 0.353 | 0.247 | | -0.141 to 0.847 |  |  | 0.95 | 1.74 |
| Torun et al 2021 | 70 | 112 | 182 | | 0.301 | 0.153 | | 0.000163 to 0.602 |  |  | 2.49 | 2.20 |
| Uzum et al 2023 | 114 | 158 | 272 | | 0.842 | 0.128 | | 0.591 to 1.094 |  |  | 3.55 | 2.32 |
| Vuillaume et al 2021 | 246 | 789 | 1035 | | 0.726 | 0.0747 | | 0.580 to 0.873 |  |  | 10.38 | 2.51 |
| Zhang et al 2022 | 40 | 105 | 145 | | 0.757 | 0.190 | | 0.381 to 1.132 |  |  | 1.60 | 2.02 |
| Total (fixed effects) | 3316 | 5242 | 8558 | | 0.654 | 0.0241 | | 0.607 to 0.701 | 27.162 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 3316 | 5242 | 8558 | | 0.630 | 0.0563 | | 0.520 to 0.740 | 11.195 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | | | |
| Test for heterogeneity | | Publication bias | | | | |
| Q | 253.3689 | Egger's test | | | | |
| DF | 55 | Intercept | | -0.4091 | | |
| Significance level | P < 0.0001 | 95% CI | | -1.6735 to 0.8554 | | |
| I2 (inconsistency) | 78.29% | Significance level | | P = 0.5193 | | |
| 95% CI for I2 | 72.18 to 83.06 | Begg's test | | | | |
|  |  | Kendall's Tau | | 0.006494 | | |
|  |  | Significance level | | P = 0.9437 | | |

**Table2-I. Mild vs severity of COVID-19 according to D-Dimer.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Mild | Total | | SMD | SE | | 95% CI | t | P | Weight (%) | |
| Fixed | Random |
| AbdelFattah et al 2023 | 18 | 39 | 57 | | 1.950 | 0.335 | | 1.278 to 2.621 |  |  | 1.04 | 4.15 |
| Aksakal et al 2023 | 30 | 30 | 60 | | 3.004 | 0.374 | | 2.254 to 3.753 |  |  | 0.84 | 4.00 |
| Awasthi et al 2022 | 55 | 50 | 105 | | 0.346 | 0.195 | | -0.0419 to 0.733 |  |  | 3.07 | 4.60 |
| Batool et al 2021 | 197 | 530 | 727 | | 0.665 | 0.0852 | | 0.497 to 0.832 |  |  | 16.16 | 4.82 |
| Ergenç et al 2022 | 109 | 171 | 280 | | -0.418 | 0.124 | | -0.662 to -0.175 |  |  | 7.68 | 4.76 |
| Gopalakrishnan et al 2022 | 56 | 378 | 434 | | 3.485 | 0.186 | | 3.120 to 3.850 |  |  | 3.40 | 4.62 |
| Haydar et al 2022 | 70 | 61 | 131 | | 0.706 | 0.180 | | 0.351 to 1.061 |  |  | 3.64 | 4.64 |
| Hosseinzadeh et al 2022 | 68 | 18 | 86 | | 0.473 | 0.265 | | -0.0543 to 1.000 |  |  | 1.67 | 4.39 |
| Islam et al 2023 | 20 | 20 | 40 | | 0.893 | 0.326 | | 0.234 to 1.552 |  |  | 1.11 | 4.18 |
| Marcoz-Jiménez et al 2021 | 41 | 146 | 187 | | 1.164 | 0.186 | | 0.797 to 1.531 |  |  | 3.39 | 4.62 |
| Rai et al 2022 | 236 | 473 | 709 | | 1.176 | 0.0855 | | 1.008 to 1.343 |  |  | 16.03 | 4.82 |
| Sarraf et al 2023 | 85 | 11 | 96 | | 0.711 | 0.322 | | 0.0718 to 1.350 |  |  | 1.13 | 4.19 |
| Satış et al 2021 | 11 | 27 | 38 | | 0.145 | 0.351 | | -0.566 to 0.856 |  |  | 0.95 | 4.09 |
| Shalaby et al 2023 | 21 | 19 | 40 | | 0.894 | 0.326 | | 0.234 to 1.554 |  |  | 1.10 | 4.18 |
| Shrivastava et al 2021 | 31 | 32 | 63 | | 4.243 | 0.453 | | 3.338 to 5.148 |  |  | 0.57 | 3.69 |
| Smail et al 2023 | 40 | 54 | 94 | | 0.902 | 0.217 | | 0.471 to 1.333 |  |  | 2.49 | 4.54 |
| Sukrisman et al 2021 | 6 | 39 | 45 | | 1.053 | 0.445 | | 0.156 to 1.950 |  |  | 0.59 | 3.72 |
| Tamayo-Velasco et al 2021 | 16 | 34 | 50 | | 0.859 | 0.311 | | 0.235 to 1.483 |  |  | 1.22 | 4.23 |
| Tamim et al 2022 | 20 | 14 | 34 | | 0.805 | 0.354 | | 0.0842 to 1.526 |  |  | 0.94 | 4.07 |
| Tang et al 2021 | 15 | 30 | 45 | | -0.501 | 0.315 | | -1.137 to 0.134 |  |  | 1.18 | 4.22 |
| Yu et al 2020 | 365 | 1196 | 1561 | | 1.276 | 0.0640 | | 1.150 to 1.401 |  |  | 28.63 | 4.84 |
| Zhang et al 2022 | 40 | 39 | 79 | | 0.815 | 0.232 | | 0.353 to 1.277 |  |  | 2.18 | 4.49 |
| Zhao et al 2020 | 18 | 19 | 37 | | 0.935 | 0.340 | | 0.245 to 1.625 |  |  | 1.02 | 4.13 |
| Total (fixed effects) | 1568 | 3430 | 4998 | | 0.998 | 0.0342 | | 0.931 to 1.065 | 29.151 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 1568 | 3430 | 4998 | | 1.086 | 0.176 | | 0.740 to 1.432 | 6.155 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | | | |
| Test for heterogeneity | | Publication bias | | | | |
| Q | 487.3176 | Egger's test | | | | |
| DF | 22 | Intercept | | 0.3764 | | |
| Significance level | P < 0.0001 | 95% CI | | -3.3225 to 4.0753 | | |
| I2 (inconsistency) | 95.49% | Significance level | | P = 0.8344 | | |
| 95% CI for I2 | 94.23 to 96.47 | Begg's test | | | | |
|  | | Kendall's Tau | | 0.2016 | | |
| Significance level | | P = 0.1780 | | |

**Table2-J. Moderate vs severity of COVID-19 according to D-Dimer.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Moderate | Total | SMD | | SE | 95% CI | | t | P | Weight (%) | |
| Fixed | Random |
| AbdelFattah et al 2023 | 18 | 21 | 39 | 0.0801 | | 0.315 | -0.558 to 0.718 | |  |  | 0.97 | 2.42 |
| Aksakal et al 2023 | 30 | 30 | 60 | 0.933 | | 0.269 | 0.395 to 1.471 | |  |  | 1.33 | 2.69 |
| Asif et al 2022 | 63 | 37 | 100 | 1.352 | | 0.227 | 0.903 to 1.802 | |  |  | 1.86 | 2.94 |
| Awasthi et al 2022 | 55 | 45 | 100 | 0.0593 | | 0.200 | -0.337 to 0.455 | |  |  | 2.40 | 3.10 |
| Batool et al 2021 | 197 | 565 | 762 | 0.205 | | 0.0828 | 0.0419 to 0.367 | |  |  | 13.95 | 3.67 |
| Can et al 2021 | 30 | 30 | 60 | 0.568 | | 0.260 | 0.0477 to 1.089 | |  |  | 1.41 | 2.74 |
| Çınar et al 2023 | 30 | 30 | 60 | 0.585 | | 0.260 | 0.0643 to 1.107 | |  |  | 1.41 | 2.74 |
| Deng et al 2021 | 40 | 17 | 57 | 0.682 | | 0.293 | 0.0952 to 1.268 | |  |  | 1.12 | 2.55 |
| Gopalakrishnan et al 2022 | 56 | 66 | 122 | 0.925 | | 0.190 | 0.549 to 1.301 | |  |  | 2.65 | 3.15 |
| Hachim et al 2021 | 203 | 189 | 392 | 0.157 | | 0.101 | -0.0419 to 0.355 | |  |  | 9.37 | 3.60 |
| Hammad et al 2021 | 34 | 30 | 64 | 1.630 | | 0.286 | 1.057 to 2.202 | |  |  | 1.17 | 2.59 |
| Haroun et al 2021 | 52 | 98 | 150 | -0.335 | | 0.172 | -0.674 to 0.00490 | |  |  | 3.24 | 3.26 |
| Hernández-Solis et al 2022 | 27 | 25 | 52 | 0.354 | | 0.276 | -0.200 to 0.907 | |  |  | 1.26 | 2.65 |
| Hosseinzadeh et al 2022 | 68 | 114 | 182 | 0.835 | | 0.159 | 0.522 to 1.149 | |  |  | 3.80 | 3.33 |
| Islam et al 2023 | 20 | 21 | 41 | 0.343 | | 0.309 | -0.281 to 0.968 | |  |  | 1.00 | 2.46 |
| Lashin et al 2023 | 25 | 25 | 50 | 0.712 | | 0.287 | 0.134 to 1.290 | |  |  | 1.16 | 2.58 |
| Lee et al 2023 | 39 | 16 | 55 | 0.0595 | | 0.293 | -0.528 to 0.647 | |  |  | 1.12 | 2.55 |
| Li et al 2020 | 30 | 45 | 75 | 0.356 | | 0.235 | -0.112 to 0.825 | |  |  | 1.73 | 2.89 |
| Liu et al 2020 | 92 | 202 | 294 | 1.031 | | 0.132 | 0.771 to 1.292 | |  |  | 5.45 | 3.46 |
| Marcoz-Jiménez et al 2021 | 41 | 89 | 130 | 0.859 | | 0.195 | 0.473 to 1.245 | |  |  | 2.52 | 3.12 |
| Mesa et al 2021 | 31 | 29 | 60 | 2.147 | | 0.322 | 1.503 to 2.791 | |  |  | 0.93 | 2.38 |
| Prebensen et al 2023 | 17 | 15 | 32 | 0.514 | | 0.351 | -0.204 to 1.231 | |  |  | 0.78 | 2.22 |
| Quan Liu et al 2020 | 133 | 91 | 224 | 0.711 | | 0.140 | 0.436 to 0.986 | |  |  | 4.90 | 3.43 |
| Rai et al 2022 | 236 | 275 | 511 | 0.703 | | 0.0913 | 0.524 to 0.883 | |  |  | 11.48 | 3.64 |
| Sarraf et al 2023 | 85 | 29 | 114 | 0.278 | | 0.214 | -0.147 to 0.703 | |  |  | 2.08 | 3.01 |
| Shalaby et al 2023 | 21 | 20 | 41 | 0.0700 | | 0.306 | -0.550 to 0.690 | |  |  | 1.02 | 2.47 |
| Shamseldeen et al 2022 | 36 | 20 | 56 | 2.845 | | 0.385 | 2.074 to 3.616 | |  |  | 0.65 | 2.05 |
| Sharif-Askari et al 2022 | 53 | 81 | 134 | 0.788 | | 0.182 | 0.428 to 1.149 | |  |  | 2.88 | 3.20 |
| Sukrisman et al 2021 | 6 | 64 | 70 | 1.183 | | 0.434 | 0.317 to 2.048 | |  |  | 0.51 | 1.82 |
| Tamayo-Velasco et al 2021 | 16 | 26 | 42 | 0.506 | | 0.317 | -0.134 to 1.146 | |  |  | 0.95 | 2.41 |
| Tamim et al 2022 | 20 | 12 | 32 | 0.271 | | 0.358 | -0.460 to 1.001 | |  |  | 0.75 | 2.19 |
| Tanriverdi et al 2023 | 31 | 30 | 61 | 0.920 | | 0.266 | 0.387 to 1.453 | |  |  | 1.35 | 2.70 |
| Torun et al 2021 | 70 | 112 | 182 | 0.642 | | 0.155 | 0.336 to 0.949 | |  |  | 3.96 | 3.35 |
| Uzum et al 2023 | 114 | 158 | 272 | 0.431 | | 0.124 | 0.187 to 0.675 | |  |  | 6.23 | 3.50 |
| Zhang et al 2022 | 40 | 105 | 145 | 0.888 | | 0.192 | 0.508 to 1.267 | |  |  | 2.60 | 3.14 |
| Total (fixed effects) | 2059 | 2762 | 4821 | 0.560 | | 0.0309 | 0.499 to 0.621 | | 18.100 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 2059 | 2762 | 4821 | 0.665 | | 0.0811 | 0.506 to 0.824 | | 8.197 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | | | |
| Test for heterogeneity | | Publication bias | | | | | |
| Q | 203.0945 | Egger's test | | | | | |
| DF | 34 | Intercept | | | 1.8094 | | |
| Significance level | P < 0.0001 | 95% CI | | | -0.07506 to 3.6939 | | |
| I2 (inconsistency) | 83.26% | Significance level | | | P = 0.0593 | | |
| 95% CI for I2 | 77.57 to 87.51 | Begg's test | | | | | |
|  | | Kendall's Tau | | | 0.05210 | | |
| Significance level | | | P = 0.6598 | | |

**Table2-K. Mild vs severity of COVID-19 according to ESR.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Mild | | Total | SMD | | SE | 95% CI | | t | P | Weight (%) | |
| Fixed | Random |
| Falih et al 2022 | 24 | 17 | | 41 | 1.114 | | 0.334 | 0.438 to 1.791 | |  |  | 19.24 | 19.24 |
| Paranga et al 2023 | 68 | 14 | | 82 | 0.874 | | 0.299 | 0.279 to 1.468 | |  |  | 24.12 | 24.12 |
| Shokri-Afra et al2022 | 21 | 30 | | 51 | 0.427 | | 0.283 | -0.143 to 0.996 | |  |  | 26.79 | 26.79 |
| Taghiloo et al 2020 | 22 | 39 | | 61 | 0.580 | | 0.268 | 0.0429 to 1.117 | |  |  | 29.85 | 29.85 |
| Total (fixed effects) | 135 | 100 | | 235 | 0.713 | | 0.147 | 0.424 to 1.001 | | 4.859 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 135 | 100 | | 235 | 0.713 | | 0.147 | 0.424 to 1.001 | | 4.859 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | | | | |
| Test for heterogeneity | | | Publication bias | | | | | |
| Q | 2.9970 | | Egger's test | | | | | |
| DF | 3 | | Intercept | | | 9.4716 | | |
| Significance level | P = 0.3921 | | 95% CI | | | -7.0052 to 25.9484 | | |
| I2 (inconsistency) | 0.00% | | Significance level | | | P = 0.1319 | | |
| 95% CI for I2 | 0.00 to 87.08 | | Begg's test | | | | | |
|  | | | Kendall's Tau | | | 0.6667 | | |
| Significance level | | | P = 0.1742 | | |

**Table2-L. Moderate vs severity of COVID-19 according to ESR.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Moderate | | Total | SMD | | SE | 95% CI | | t | P | Weight (%) | |
| Fixed | Random |
| Falih et al 2022 | 24 | 24 | | 48 | 0.742 | | 0.294 | 0.151 to 1.334 | |  |  | 10.58 | 13.84 |
| Islam et al 2023 | 20 | 21 | | 41 | 1.386 | | 0.342 | 0.693 to 2.079 | |  |  | 7.79 | 12.36 |
| Li et al 2020 | 30 | 45 | | 75 | 0.343 | | 0.235 | -0.125 to 0.811 | |  |  | 16.56 | 15.73 |
| Mortaz et al 2022 | 18 | 12 | | 30 | 1.411 | | 0.406 | 0.580 to 2.242 | |  |  | 5.55 | 10.62 |
| Paranga et al 2023 | 68 | 71 | | 139 | 0.299 | | 0.170 | -0.0366 to 0.634 | |  |  | 31.74 | 17.79 |
| Sarraf et al 2023 | 85 | 29 | | 114 | 1.263 | | 0.229 | 0.809 to 1.718 | |  |  | 17.37 | 15.91 |
| Shokri-Afra et al2022 | 21 | 25 | | 46 | 0.537 | | 0.296 | -0.0605 to 1.134 | |  |  | 10.41 | 13.76 |
| Total (fixed effects) | 266 | 227 | | 493 | 0.692 | | 0.0956 | 0.504 to 0.880 | | 7.236 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 266 | 227 | | 493 | 0.806 | | 0.189 | 0.434 to 1.178 | | 4.256 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | | | | |
| Test for heterogeneity | | | Publication bias | | | | | |
| Q | 21.3197 | | Egger's test | | | | | |
| DF | 6 | | Intercept | | | 4.2879 | | |
| Significance level | P = 0.0016 | | 95% CI | | | -1.3853 to 9.9611 | | |
| I2 (inconsistency) | 71.86% | | Significance level | | | P = 0.1097 | | |
| 95% CI for I2 | 39.01 to 87.01 | | Begg's test | | | | | |
|  | | | Kendall's Tau | | | 0.3333 | | |
| Significance level | | | P = 0.2931 | | |

**Table2-M. Mild vs severity of COVID-19 according to Ferritin.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Mild | Total | | SMD | SE | | 95% CI | t | P | Weight (%) | |
| Fixed | Random |
| Abbas et al 2020 | 36 | 32 | 68 | | 1.445 | 0.270 | | 0.905 to 1.984 |  |  | 2.43 | 4.42 |
| AbdelFattah et al 2023 | 90 | 39 | 129 | | 0.772 | 0.197 | | 0.383 to 1.161 |  |  | 4.59 | 4.84 |
| Aksakal et al 2023 | 30 | 30 | 60 | | 2.094 | 0.319 | | 1.456 to 2.732 |  |  | 1.75 | 4.13 |
| Almasud et al 2023 | 40 | 42 | 82 | | 0.830 | 0.228 | | 0.376 to 1.285 |  |  | 3.40 | 4.67 |
| Arshad et al 2020 | 45 | 157 | 202 | | 2.235 | 0.202 | | 1.837 to 2.633 |  |  | 4.35 | 4.81 |
| Awasthi et al 2022 | 55 | 50 | 105 | | 1.273 | 0.213 | | 0.851 to 1.695 |  |  | 3.91 | 4.75 |
| Batool et al 2021 | 197 | 530 | 727 | | 0.574 | 0.0847 | | 0.408 to 0.741 |  |  | 24.69 | 5.30 |
| Falih et al 2022 | 24 | 17 | 41 | | 1.421 | 0.348 | | 0.717 to 2.125 |  |  | 1.46 | 3.94 |
| Islam et al 2023 | 20 | 20 | 40 | | 1.247 | 0.340 | | 0.559 to 1.935 |  |  | 1.53 | 4.00 |
| Marcoz-Jiménez et al 2021 | 41 | 146 | 187 | | 0.854 | 0.181 | | 0.496 to 1.212 |  |  | 5.38 | 4.92 |
| Naqvi et al 2021 | 47 | 163 | 210 | | 2.247 | 0.198 | | 1.857 to 2.638 |  |  | 4.52 | 4.83 |
| Paranga et al 2023 | 68 | 14 | 82 | | 0.726 | 0.296 | | 0.137 to 1.316 |  |  | 2.02 | 4.26 |
| Rai et al 2022 | 236 | 473 | 709 | | 1.227 | 0.0860 | | 1.058 to 1.396 |  |  | 23.95 | 5.29 |
| Sarraf et al 2023 | 85 | 11 | 96 | | 0.975 | 0.326 | | 0.328 to 1.621 |  |  | 1.67 | 4.08 |
| Satış et al 2021 | 11 | 27 | 38 | | -0.345 | 0.352 | | -1.060 to 0.370 |  |  | 1.43 | 3.92 |
| Shalaby et al 2023 | 21 | 19 | 40 | | 1.082 | 0.333 | | 0.407 to 1.756 |  |  | 1.60 | 4.04 |
| Smail et al 2023 | 40 | 54 | 94 | | 2.291 | 0.266 | | 1.763 to 2.819 |  |  | 2.50 | 4.45 |
| Sukrisman et al 2021 | 6 | 39 | 45 | | 0.490 | 0.434 | | -0.385 to 1.365 |  |  | 0.94 | 3.43 |
| Taghiloo et al 2020 | 22 | 39 | 61 | | 1.427 | 0.293 | | 0.841 to 2.014 |  |  | 2.06 | 4.28 |
| Tamayo-Velasco et al 2021 | 16 | 34 | 50 | | 0.805 | 0.309 | | 0.184 to 1.427 |  |  | 1.85 | 4.19 |
| Tamim et al 2022 | 20 | 14 | 34 | | 1.106 | 0.366 | | 0.361 to 1.850 |  |  | 1.32 | 3.84 |
| Yağcı et al 2021 | 19 | 18 | 37 | | 0.697 | 0.332 | | 0.0229 to 1.370 |  |  | 1.61 | 4.05 |
| Zhou et al 2020 | 12 | 38 | 50 | | 2.515 | 0.412 | | 1.687 to 3.343 |  |  | 1.05 | 3.56 |
| Total (fixed effects) | 1181 | 2006 | 3187 | | 1.107 | 0.0421 | | 1.024 to 1.189 | 26.297 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 1181 | 2006 | 3187 | | 1.221 | 0.133 | | 0.961 to 1.481 | 9.200 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | | | |
| Test for heterogeneity | | Publication bias | | | | |
| Q | 180.9170 | Egger's test | |  | | |
| DF | 22 | Intercept | | 1.4189 | | |
| Significance level | P < 0.0001 | 95% CI | | -1.0656 to 3.9033 | | |
| I2 (inconsistency) | 87.84% | Significance level | | P = 0.2482 | | |
| 95% CI for I2 | 83.06 to 91.27 | Begg's test | |  | | |
|  | | Kendall's Tau | | -0.03557 | | |
| Significance level | | P = 0.8121 | | |

**Table2-N. Moderate vs severity of COVID-19 according to Ferritin.**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Moderate | Total | SMD | SE | 95% CI | t | P | Weight (%) | |
| Fixed | Random |
| Abbas et al 2020 | 36 | 59 | 95 | 0.502 | 0.213 | 0.0791 to 0.925 |  |  | 2.10 | 2.77 |
| AbdelFattah et al 2023 | 90 | 21 | 111 | -0.153 | 0.241 | -0.630 to 0.325 |  |  | 1.64 | 2.63 |
| Ahmed et al 2021 | 86 | 71 | 157 | 0.455 | 0.162 | 0.135 to 0.774 |  |  | 3.65 | 3.02 |
| Aksakal et al 2023 | 30 | 30 | 60 | 0.402 | 0.257 | -0.113 to 0.917 |  |  | 1.44 | 2.55 |
| Almasud et al 2023 | 40 | 41 | 81 | 0.269 | 0.221 | -0.171 to 0.709 |  |  | 1.95 | 2.73 |
| Arshad et al 2020 | 45 | 36 | 81 | 0.914 | 0.233 | 0.451 to 1.378 |  |  | 1.76 | 2.67 |
| Asif et al 2022 | 63 | 37 | 100 | 0.374 | 0.207 | -0.0370 to 0.785 |  |  | 2.22 | 2.80 |
| Awasthi et al 2022 | 55 | 45 | 100 | 0.0228 | 0.199 | -0.373 to 0.419 |  |  | 2.40 | 2.84 |
| Batool et al 2021 | 197 | 565 | 762 | 0.0947 | 0.0827 | -0.0676 to 0.257 |  |  | 13.94 | 3.31 |
| Çınar et al 2023 | 30 | 30 | 60 | 0.401 | 0.257 | -0.114 to 0.916 |  |  | 1.44 | 2.55 |
| Deng et al 2021 | 40 | 17 | 57 | 0.679 | 0.293 | 0.0924 to 1.265 |  |  | 1.11 | 2.37 |
| Ergenc et al 2023 | 46 | 65 | 111 | 0.321 | 0.193 | -0.0609 to 0.702 |  |  | 2.57 | 2.87 |
| Falih et al 2022 | 24 | 24 | 48 | 0.314 | 0.286 | -0.261 to 0.889 |  |  | 1.17 | 2.40 |
| Gatselis et al 2022 | 132 | 65 | 197 | 0.512 | 0.153 | 0.210 to 0.814 |  |  | 4.06 | 3.05 |
| Gjuzelova et al 2023 | 14 | 55 | 69 | 0.00157 | 0.296 | -0.589 to 0.592 |  |  | 1.09 | 2.35 |
| Gopalakrishnan et al 2022 | 56 | 66 | 122 | 2.038 | 0.223 | 1.597 to 2.479 |  |  | 1.92 | 2.72 |
| Hachim et al 2021 | 203 | 189 | 392 | 0.938 | 0.106 | 0.729 to 1.147 |  |  | 8.43 | 3.24 |
| Hammad et al 2021 | 34 | 30 | 64 | 1.812 | 0.295 | 1.223 to 2.402 |  |  | 1.10 | 2.36 |
| Haroun et al 2021 | 52 | 98 | 150 | -0.513 | 0.173 | -0.856 to -0.171 |  |  | 3.18 | 2.96 |
| Hernández-Solis et al 2022 | 27 | 25 | 52 | 0.684 | 0.281 | 0.118 to 1.249 |  |  | 1.20 | 2.42 |
| Islam et al 2023 | 20 | 21 | 41 | 0.433 | 0.310 | -0.194 to 1.060 |  |  | 0.99 | 2.28 |
| Lashin et al 2023 | 25 | 25 | 50 | 0.731 | 0.288 | 0.153 to 1.310 |  |  | 1.15 | 2.39 |
| Li et al 2020 | 30 | 45 | 75 | 0.643 | 0.239 | 0.167 to 1.120 |  |  | 1.67 | 2.64 |
| Marcoz-Jiménez et al 2021 | 41 | 89 | 130 | 0.495 | 0.190 | 0.118 to 0.871 |  |  | 2.64 | 2.88 |
| Mesa et al 2021 | 31 | 29 | 60 | 1.259 | 0.280 | 0.699 to 1.818 |  |  | 1.22 | 2.43 |
| Naqvi et al 2021 | 47 | 38 | 85 | 0.927 | 0.228 | 0.475 to 1.380 |  |  | 1.84 | 2.70 |
| Paranga et al 2023 | 68 | 71 | 139 | 0.361 | 0.170 | 0.0251 to 0.698 |  |  | 3.29 | 2.98 |
| Prebensen et al 2023 | 17 | 15 | 32 | -0.0751 | 0.345 | -0.781 to 0.630 |  |  | 0.80 | 2.11 |
| Rai et al 2022 | 236 | 275 | 511 | 0.576 | 0.0904 | 0.399 to 0.754 |  |  | 11.66 | 3.29 |
| Sarraf et al 2023 | 85 | 29 | 114 | 0.369 | 0.215 | -0.0568 to 0.795 |  |  | 2.06 | 2.76 |
| Shalaby et al 2023 | 21 | 20 | 41 | 0.801 | 0.319 | 0.156 to 1.446 |  |  | 0.94 | 2.24 |
| Shamseldeen et al 2022 | 36 | 20 | 56 | 2.123 | 0.340 | 1.440 to 2.805 |  |  | 0.82 | 2.13 |
| Sharif-Askari et al 2022 | 53 | 81 | 134 | 0.419 | 0.178 | 0.0679 to 0.770 |  |  | 3.02 | 2.94 |
| Sukrisman et al 2021 | 6 | 64 | 70 | 0.189 | 0.423 | -0.654 to 1.032 |  |  | 0.53 | 1.77 |
| Tamayo-Velasco et al 2021 | 16 | 26 | 42 | 0.506 | 0.317 | -0.134 to 1.146 |  |  | 0.95 | 2.25 |
| Tamim et al 2022 | 20 | 12 | 32 | -0.0747 | 0.356 | -0.802 to 0.652 |  |  | 0.75 | 2.06 |
| Tanriverdi et al 2023 | 31 | 30 | 61 | 1.695 | 0.296 | 1.104 to 2.287 |  |  | 1.09 | 2.35 |
| Uzum et al 2023 | 114 | 158 | 272 | 0.410 | 0.124 | 0.167 to 0.654 |  |  | 6.22 | 3.17 |
| Total (fixed effects) | 2197 | 2617 | 4814 | 0.492 | 0.0309 | 0.431 to 0.552 | 15.930 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 2197 | 2617 | 4814 | 0.563 | 0.0809 | 0.404 to 0.721 | 6.954 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | |
| Test for heterogeneity | | Publication bias | | |
| Q | 225.9066 | Egger's test | | |
| DF | 37 | Intercept | 1.2698 | |
| Significance level | P < 0.0001 | 95% CI | -0.7025 to 3.2421 | |
| I2 (inconsistency) | 83.62% | Significance level | P = 0.1999 | |
| 95% CI for I2 | 78.35 to 87.61 | Begg's test | | |
|  | | Kendall's Tau | 0.1067 | |
| Significance level | P = 0.3457 | |

**Table2-O. Mild vs severity of COVID-19 according to Fibrinogen.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Mild | Total | SMD | SE | | 95% CI | | t | P | Weight (%) | |
| Fixed | Random |
| Aksakal et al 2023 | 30 | 30 | 60 | 0.00616 | 0.255 | | -0.504 to 0.516 | |  |  | 4.90 | 20.77 |
| Paranga et al 2023 | 68 | 14 | 82 | 1.309 | 0.308 | | 0.696 to 1.923 | |  |  | 3.35 | 18.25 |
| Satış et al 2021 | 11 | 27 | 38 | 1.349 | 0.383 | | 0.572 to 2.125 | |  |  | 2.17 | 15.10 |
| Yu et al 2020 | 365 | 1196 | 1561 | 0.553 | 0.0606 | | 0.434 to 0.672 | |  |  | 86.77 | 28.92 |
| Zhao et al 2020 | 18 | 19 | 37 | 0.862 | 0.337 | | 0.177 to 1.546 | |  |  | 2.80 | 16.97 |
| Total (fixed effects) | 492 | 1286 | 1778 | 0.577 | 0.0564 | | 0.467 to 0.688 | | 10.228 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 492 | 1286 | 1778 | 0.750 | 0.212 | | 0.333 to 1.167 | | 3.529 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | | | |
| Test for heterogeneity | | | Publication bias | | | | |
| Q | 15.6002 | | Egger's test | | | | |
| DF | 4 | | Intercept | | | 1.1381 | |
| Significance level | P = 0.0036 | | 95% CI | | | -3.1956 to 5.4718 | |
| I2 (inconsistency) | 74.36% | | Significance level | | | P = 0.4646 | |
| 95% CI for I2 | 36.47 to 89.65 | | Begg's test | | | | |
|  | | | Kendall's Tau | | | 0.4000 | |
| Significance level | | | P = 0.3272 | |

**Table2-P. Moderate vs severity of COVID-19 according to Fibrinogen.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Moderate | | Total | SMD | | SE | 95% CI | | t | P | Weight (%) | |
| Fixed | Random |
| Aksakal et al 2023 | 30 | 30 | | 60 | -0.572 | | 0.260 | -1.093 to -0.0512 | |  |  | 10.97 | 16.01 |
| Deng et al 2021 | 40 | 17 | | 57 | 0.654 | | 0.292 | 0.0683 to 1.239 | |  |  | 8.71 | 15.17 |
| Li et al 2020 | 30 | 45 | | 75 | 0.417 | | 0.236 | -0.0524 to 0.887 | |  |  | 13.36 | 16.64 |
| Paranga et al 2023 | 68 | 71 | | 139 | 0.414 | | 0.171 | 0.0771 to 0.752 | |  |  | 25.53 | 18.21 |
| Tanriverdi et al 2023 | 31 | 30 | | 61 | 1.437 | | 0.284 | 0.868 to 2.006 | |  |  | 9.19 | 15.37 |
| Torun et al 2021 | 70 | 112 | | 182 | 0.0736 | | 0.152 | -0.226 to 0.373 | |  |  | 32.24 | 18.61 |
| Total (fixed effects) | 269 | 305 | | 574 | 0.311 | | 0.0862 | 0.142 to 0.481 | | 3.614 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 269 | 305 | | 574 | 0.387 | | 0.226 | -0.0569 to 0.831 | | 1.712 | 0.087 | 100.00 | 100.00 |
|  | | | | | | | | | | | | | |
| Test for heterogeneity | | | Publication bias | | | | | |
| Q | 31.5904 | | Egger's test | | |  | | |
| DF | 5 | | Intercept | | | 3.1107 | | |
| Significance level | P < 0.0001 | | 95% CI | | | -8.5754 to 14.7968 | | |
| I2 (inconsistency) | 84.17% | | Significance level | | | P = 0.5009 | | |
| 95% CI for I2 | 67.15 to 92.37 | | Begg's test | | |  | | |
|  |  | | Kendall's Tau | | | 0.3333 | | |
|  |  | | Significance level | | | P = 0.3476 | | |

**Table2-Q. Mild vs severity of COVID-19 according to IL-6.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Mild | Total | SMD | | SE | 95% CI | | t | P | Weight (%) | |
| Fixed | Random |
| Andriani et al 2021 | 25 | 6 | 31 | 0.0979 | | 0.443 | -0.808 to 1.004 | |  |  | 1.82 | 5.33 |
| Apriningsih et al 2022 | 4 | 22 | 26 | -0.0167 | | 0.526 | -1.103 to 1.070 | |  |  | 1.29 | 4.85 |
| Batool et al 2021 | 197 | 530 | 727 | 1.954 | | 0.0979 | 1.762 to 2.146 | |  |  | 37.38 | 6.90 |
| Datta et al 2023 | 50 | 50 | 100 | 2.923 | | 0.287 | 2.354 to 3.491 | |  |  | 4.36 | 6.19 |
| Esa et al 2023 | 34 | 57 | 91 | 0.405 | | 0.217 | -0.0263 to 0.836 | |  |  | 7.61 | 6.51 |
| Falih et al 2022 | 24 | 17 | 41 | 1.152 | | 0.336 | 0.473 to 1.832 | |  |  | 3.17 | 5.93 |
| Gohda et al 2022 | 40 | 18 | 58 | 0.935 | | 0.293 | 0.348 to 1.523 | |  |  | 4.16 | 6.16 |
| h Soltani‑Zangbar et al 2022 | 50 | 50 | 100 | 0.711 | | 0.205 | 0.305 to 1.118 | |  |  | 8.54 | 6.56 |
| Islam et al 2023 | 20 | 20 | 40 | 0.733 | | 0.321 | 0.0837 to 1.382 | |  |  | 3.48 | 6.01 |
| Kocyigit et al 2021 | 19 | 15 | 34 | 1.222 | | 0.368 | 0.472 to 1.973 | |  |  | 2.64 | 5.75 |
| Kwon et al 2020 | 8 | 6 | 14 | 0.678 | | 0.521 | -0.458 to 1.815 | |  |  | 1.32 | 4.88 |
| Marcoz-Jiménez et al 2021 | 41 | 146 | 187 | 1.463 | | 0.192 | 1.085 to 1.841 | |  |  | 9.75 | 6.61 |
| Mezher et al 2023 | 53 | 45 | 98 | 2.829 | | 0.285 | 2.263 to 3.395 | |  |  | 4.40 | 6.20 |
| Ozsurekci et al 2021 | 11 | 4 | 15 | 0.511 | | 0.557 | -0.693 to 1.715 | |  |  | 1.15 | 4.68 |
| Paranga et al 2023 | 68 | 14 | 82 | 0.633 | | 0.295 | 0.0460 to 1.220 | |  |  | 4.12 | 6.15 |
| Satış et al 2021 | 11 | 27 | 38 | 0.840 | | 0.363 | 0.104 to 1.577 | |  |  | 2.71 | 5.78 |
| Shalaby et al 2023 | 21 | 19 | 40 | 2.455 | | 0.414 | 1.617 to 3.294 | |  |  | 2.09 | 5.49 |
| Total (fixed effects) | 676 | 1046 | 1722 | 1.466 | | 0.0598 | 1.349 to 1.584 | | 24.510 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 676 | 1046 | 1722 | 1.185 | | 0.209 | 0.774 to 1.595 | | 5.662 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | | | |
| Test for heterogeneity | | Publication bias | | | | | |
| Q | 160.2602 | Egger's test | | |  | | |
| DF | 16 | Intercept | | | -2.7819 | | |
| Significance level | P < 0.0001 | 95% CI | | | -5.9786 to 0.4147 | | |
| I2 (inconsistency) | 90.02% | Significance level | | | P = 0.0834 | | |
| 95% CI for I2 | 85.60 to 93.08 | Begg's test | | |  | | |
|  | | Kendall's Tau | | | -0.1029 | | |
| Significance level | | | P = 0.5641 | | |

**Table2-R. Moderate vs severity of COVID-19 according to IL-6.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Moderate | Total | SMD | | SE | 95% CI | | t | P | Weight (%) | |
| Fixed | Random |
| Andriani et al 2021 | 25 | 6 | 31 | -0.753 | | 0.453 | -1.679 to 0.173 | |  |  | 0.84 | 2.60 |
| Apriningsih et al 2022 | 4 | 9 | 13 | -0.446 | | 0.566 | -1.691 to 0.799 | |  |  | 0.54 | 2.18 |
| Aripova et al 2022 | 28 | 80 | 108 | 1.177 | | 0.232 | 0.717 to 1.638 | |  |  | 3.20 | 3.48 |
| Batool et al 2021 | 197 | 565 | 762 | 1.573 | | 0.0920 | 1.392 to 1.753 | |  |  | 20.44 | 3.88 |
| Belaid et al 2021 | 26 | 31 | 57 | 1.518 | | 0.298 | 0.920 to 2.116 | |  |  | 1.94 | 3.23 |
| Can et al 2021 | 30 | 30 | 60 | 0.873 | | 0.267 | 0.339 to 1.408 | |  |  | 2.42 | 3.35 |
| Chen et al 2023 | 39 | 88 | 127 | 0.414 | | 0.193 | 0.0323 to 0.796 | |  |  | 4.64 | 3.62 |
| Çınar et al 2023 | 30 | 30 | 60 | 0.374 | | 0.257 | -0.141 to 0.889 | |  |  | 2.61 | 3.39 |
| Datta et al 2023 | 50 | 50 | 100 | 1.818 | | 0.236 | 1.349 to 2.288 | |  |  | 3.09 | 3.47 |
| Deng et al 2021 | 40 | 17 | 57 | 0.660 | | 0.292 | 0.0744 to 1.245 | |  |  | 2.02 | 3.25 |
| Falih et al 2022 | 24 | 24 | 48 | 0.430 | | 0.287 | -0.148 to 1.009 | |  |  | 2.09 | 3.27 |
| Gjuzelova et al 2023 | 14 | 55 | 69 | 0.624 | | 0.301 | 0.0241 to 1.225 | |  |  | 1.91 | 3.22 |
| Hasegawa et al 2022 | 30 | 33 | 63 | 0.997 | | 0.264 | 0.468 to 1.526 | |  |  | 2.47 | 3.36 |
| Islam et al 2023 | 20 | 21 | 41 | 0.506 | | 0.311 | -0.124 to 1.136 | |  |  | 1.78 | 3.18 |
| Kocyigit et al 2021 | 19 | 18 | 37 | 0.916 | | 0.339 | 0.227 to 1.604 | |  |  | 1.50 | 3.06 |
| Kwon et al 2020 | 8 | 17 | 25 | 0.893 | | 0.433 | -0.00323 to 1.790 | |  |  | 0.92 | 2.68 |
| Lashin et al 2023 | 25 | 25 | 50 | 0.668 | | 0.286 | 0.0923 to 1.244 | |  |  | 2.11 | 3.28 |
| Li et al 2020 | 30 | 45 | 75 | 0.781 | | 0.242 | 0.299 to 1.263 | |  |  | 2.95 | 3.45 |
| Marcoz-Jiménez et al 2021 | 41 | 89 | 130 | 1.122 | | 0.200 | 0.726 to 1.518 | |  |  | 4.31 | 3.60 |
| Merza et al 2021 | 15 | 41 | 56 | 1.292 | | 0.322 | 0.648 to 1.937 | |  |  | 1.67 | 3.14 |
| Mesa et al 2021 | 31 | 29 | 60 | 2.738 | | 0.357 | 2.023 to 3.452 | |  |  | 1.36 | 2.99 |
| Mezher et al 2023 | 53 | 34 | 87 | -0.130 | | 0.218 | -0.564 to 0.303 | |  |  | 3.64 | 3.54 |
| Morfi et al 2023 | 91 | 132 | 223 | 0.0750 | | 0.136 | -0.193 to 0.343 | |  |  | 9.36 | 3.79 |
| Ozsurekci et al 2021 | 11 | 15 | 26 | 0.884 | | 0.403 | 0.0514 to 1.717 | |  |  | 1.06 | 2.80 |
| Paranga et al 2023 | 68 | 71 | 139 | 0.557 | | 0.172 | 0.216 to 0.897 | |  |  | 5.84 | 3.69 |
| Prebensen et al 2023 | 17 | 15 | 32 | 1.254 | | 0.379 | 0.480 to 2.029 | |  |  | 1.20 | 2.90 |
| Quan Liu et al 2020 | 133 | 91 | 224 | 0.717 | | 0.140 | 0.441 to 0.992 | |  |  | 8.85 | 3.78 |
| Shalaby et al 2023 | 21 | 20 | 41 | 1.659 | | 0.357 | 0.937 to 2.381 | |  |  | 1.36 | 2.99 |
| Shamseldeen et al 2022 | 36 | 20 | 56 | 2.854 | | 0.385 | 2.082 to 3.626 | |  |  | 1.16 | 2.87 |
| Tamim et al 2022 | 20 | 12 | 32 | 0.623 | | 0.364 | -0.121 to 1.368 | |  |  | 1.30 | 2.96 |
| Ahmad et al 2022 | 15 | 16 | 31 | 0.325 | | 0.352 | -0.396 to 1.046 | |  |  | 1.39 | 3.01 |
| Total (fixed effects) | 1191 | 1729 | 2920 | 0.911 | | 0.0416 | 0.830 to 0.993 | | 21.924 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 1191 | 1729 | 2920 | 0.877 | | 0.124 | 0.633 to 1.122 | | 7.047 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | | | |
| Test for heterogeneity | | Publication bias | | | | | |
| Q | 239.0529 | Egger's test | | |  | | |
| DF | 30 | Intercept | | | -0.7473 | | |
| Significance level | P < 0.0001 | 95% CI | | | -3.2444 to 1.7499 | | |
| I2 (inconsistency) | 87.45% | Significance level | | | P = 0.5453 | | |
| 95% CI for I2 | 83.28 to 90.58 | Begg's test | | |  | | |
|  |  | Kendall's Tau | | | 0.1054 | | |
|  |  | Significance level | | | P = 0.4049 | | |

**Table2-S. Mild vs severity of COVID-19 according to LDH.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Mild | Total | SMD | | SE | 95% CI | | t | P | Weight (%) | |
| Fixed | Random |
| Aksakal et al 2023 | 30 | 30 | 60 | 1.768 | | 0.302 | 1.164 to 2.372 | |  |  | 1.90 | 5.00 |
| Almasud et al 2023 | 40 | 42 | 82 | 1.032 | | 0.233 | 0.568 to 1.497 | |  |  | 3.18 | 5.45 |
| Arshad et al 2020 | 45 | 157 | 202 | 1.527 | | 0.185 | 1.162 to 1.891 | |  |  | 5.06 | 5.73 |
| Astagimath et al 2022 | 139 | 3717 | 3856 | 0.459 | | 0.0865 | 0.290 to 0.629 | |  |  | 23.07 | 6.15 |
| Chiu et al 2023 | 95 | 59 | 154 | 0.793 | | 0.171 | 0.456 to 1.131 | |  |  | 5.91 | 5.81 |
| Ergenç et al 2022 | 109 | 171 | 280 | 0.345 | | 0.123 | 0.103 to 0.587 | |  |  | 11.40 | 6.03 |
| Hasanah et al 2022 | 23 | 24 | 47 | 2.469 | | 0.384 | 1.696 to 3.241 | |  |  | 1.17 | 4.44 |
| Haydar et al 2022 | 70 | 61 | 131 | 1.154 | | 0.188 | 0.781 to 1.526 | |  |  | 4.88 | 5.71 |
| Marcoz-Jiménez et al 2021 | 41 | 146 | 187 | 1.272 | | 0.188 | 0.902 to 1.643 | |  |  | 4.89 | 5.71 |
| Naqvi et al 2021 | 47 | 163 | 210 | 1.523 | | 0.181 | 1.166 to 1.879 | |  |  | 5.28 | 5.75 |
| Paranga et al 2023 | 68 | 14 | 82 | 1.106 | | 0.303 | 0.502 to 1.709 | |  |  | 1.88 | 4.99 |
| Rai et al 2022 | 236 | 473 | 709 | 1.743 | | 0.0921 | 1.562 to 1.924 | |  |  | 20.37 | 6.14 |
| Sarraf et al 2023 | 85 | 11 | 96 | 0.508 | | 0.320 | -0.127 to 1.143 | |  |  | 1.69 | 4.87 |
| Satış et al 2021 | 11 | 27 | 38 | 1.213 | | 0.377 | 0.449 to 1.977 | |  |  | 1.22 | 4.48 |
| Shokri-Afra et al2022 | 21 | 30 | 51 | 1.041 | | 0.298 | 0.441 to 1.641 | |  |  | 1.94 | 5.02 |
| Taghiloo et al 2020 | 22 | 39 | 61 | 0.814 | | 0.273 | 0.267 to 1.361 | |  |  | 2.31 | 5.19 |
| Tamim et al 2022 | 20 | 14 | 34 | 0.605 | | 0.348 | -0.104 to 1.314 | |  |  | 1.43 | 4.68 |
| Tang et al 2021 | 15 | 30 | 45 | 2.925 | | 0.438 | 2.042 to 3.807 | |  |  | 0.90 | 4.08 |
| Zhao et al 2020 | 18 | 19 | 37 | 0.826 | | 0.336 | 0.145 to 1.508 | |  |  | 1.53 | 4.77 |
| Total (fixed effects) | 1135 | 5227 | 6362 | 1.050 | | 0.0416 | 0.968 to 1.131 | | 25.251 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 1135 | 5227 | 6362 | 1.186 | | 0.149 | 0.894 to 1.478 | | 7.954 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | | | |
| Test for heterogeneity | | Publication bias | | | | | |
| Q | 197.0572 | Egger's test | | | | | |
| DF | 18 | Intercept | | | 1.6020 | | |
| Significance level | P < 0.0001 | 95% CI | | | -1.7832 to 4.9872 | | |
| I2 (inconsistency) | 90.87% | Significance level | | | P = 0.3321 | | |
| 95% CI for I2 | 87.21 to 93.48 | Begg's test | | | | | |
|  | | Kendall's Tau | | | 0.1111 | | |
| Significance level | | | P = 0.5062 | | |

**Table2-T. Moderate vs severity of COVID-19 according to LDH**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Moderate | Total | SMD | | SE | 95% CI | | t | P | Weight (%) | |
| Fixed | Random |
| Aksakal et al 2023 | 30 | 30 | 60 | 0.727 | | 0.263 | 0.200 to 1.254 | |  |  | 2.23 | 3.97 |
| Almasud et al 2023 | 40 | 41 | 81 | 0.472 | | 0.223 | 0.0276 to 0.916 | |  |  | 3.10 | 4.40 |
| Arshad et al 2020 | 45 | 36 | 81 | 0.346 | | 0.223 | -0.0977 to 0.791 | |  |  | 3.11 | 4.40 |
| Asif et al 2022 | 63 | 37 | 100 | 0.683 | | 0.211 | 0.264 to 1.102 | |  |  | 3.47 | 4.53 |
| Ergenc et al 2023 | 46 | 65 | 111 | 0.361 | | 0.193 | -0.0212 to 0.743 | |  |  | 4.16 | 4.73 |
| Gjuzelova et al 2023 | 14 | 55 | 69 | 0.852 | | 0.305 | 0.244 to 1.460 | |  |  | 1.67 | 3.55 |
| Hachim et al 2021 | 203 | 189 | 392 | 0.619 | | 0.103 | 0.416 to 0.822 | |  |  | 14.50 | 5.62 |
| Hasanah et al 2022 | 23 | 23 | 46 | 1.840 | | 0.348 | 1.140 to 2.540 | |  |  | 1.28 | 3.16 |
| Hernández-Solis et al 2022 | 27 | 25 | 52 | 0.618 | | 0.280 | 0.0551 to 1.180 | |  |  | 1.97 | 3.80 |
| Jin et al 2021 | 25 | 110 | 135 | 1.498 | | 0.238 | 1.027 to 1.970 | |  |  | 2.72 | 4.24 |
| Li et al 2020 | 30 | 45 | 75 | 0.364 | | 0.235 | -0.105 to 0.832 | |  |  | 2.80 | 4.27 |
| Liu et al 2020 | 92 | 202 | 294 | 1.473 | | 0.139 | 1.199 to 1.747 | |  |  | 7.96 | 5.30 |
| Marcoz-Jiménez et al 2021 | 41 | 89 | 130 | 0.468 | | 0.190 | 0.0920 to 0.843 | |  |  | 4.29 | 4.77 |
| Mesa et al 2021 | 31 | 29 | 60 | 0.818 | | 0.266 | 0.287 to 1.350 | |  |  | 2.19 | 3.95 |
| Naqvi et al 2021 | 47 | 38 | 85 | -0.0211 | | 0.216 | -0.451 to 0.409 | |  |  | 3.31 | 4.48 |
| Paranga et al 2023 | 68 | 71 | 139 | 0.393 | | 0.170 | 0.0560 to 0.730 | |  |  | 5.33 | 4.98 |
| Quan Liu et al 2020 | 133 | 91 | 224 | 0.673 | | 0.139 | 0.399 to 0.948 | |  |  | 7.97 | 5.30 |
| Rai et al 2022 | 236 | 275 | 511 | 0.990 | | 0.0939 | 0.806 to 1.174 | |  |  | 17.56 | 5.70 |
| Sarraf et al 2023 | 85 | 29 | 114 | 0.372 | | 0.215 | -0.0543 to 0.798 | |  |  | 3.35 | 4.49 |
| Shokri-Afra et al2022 | 21 | 25 | 46 | 0.798 | | 0.303 | 0.188 to 1.408 | |  |  | 1.69 | 3.58 |
| Tamim et al 2022 | 20 | 12 | 32 | 0.415 | | 0.360 | -0.320 to 1.149 | |  |  | 1.20 | 3.06 |
| Tanriverdi et al 2023 | 31 | 30 | 61 | 1.619 | | 0.292 | 1.034 to 2.204 | |  |  | 1.81 | 3.68 |
| Tjahyadi et al 2020 | 43 | 26 | 69 | 0.881 | | 0.257 | 0.369 to 1.394 | |  |  | 2.34 | 4.04 |
| Total (fixed effects) | 1394 | 1573 | 2967 | 0.755 | | 0.0393 | 0.678 to 0.832 | | 19.195 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 1394 | 1573 | 2967 | 0.735 | | 0.0891 | 0.560 to 0.910 | | 8.250 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | | | |
| Test for heterogeneity | | Publication bias | | | | | |
| Q | 99.5447 | Egger's test | | |  | | |
| DF | 22 | Intercept | | | -0.4812 | | |
| Significance level | P < 0.0001 | 95% CI | | | -3.0000 to 2.0376 | | |
| I2 (inconsistency) | 77.90% | Significance level | | | P = 0.6951 | | |
| 95% CI for I2 | 67.30 to 85.06 | Begg's test | | |  | | |
|  | | Kendall's Tau | | | 0.2332 | | |
| Significance level | | | P = 0.1192 | | |

**Table2-U. Mild vs severity of COVID-19 according to NLR**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Mild | Total | | SMD | SE | | 95% CI | t | P | Weight (%) | |
| Fixed | Random |
| Apriningsih et al 2022 | 4 | 22 | 26 | | -0.481 | 0.531 | | -1.576 to 0.614 |  |  | 0.94 | 5.89 |
| Awasthi et al 2022 | 55 | 50 | 105 | | 0.756 | 0.201 | | 0.358 to 1.154 |  |  | 6.59 | 6.34 |
| Datta et al 2023 | 50 | 50 | 100 | | 1.943 | 0.241 | | 1.464 to 2.422 |  |  | 4.56 | 6.30 |
| Esa et al 2023 | 34 | 57 | 91 | | -1.176 | 0.232 | | -1.637 to -0.716 |  |  | 4.95 | 6.31 |
| Gopalakrishnan et al 2022 | 56 | 378 | 434 | | 0.907 | 0.146 | | 0.620 to 1.194 |  |  | 12.44 | 6.37 |
| Hassan et al 2021 | 100 | 250 | 350 | | 6.754 | 0.281 | | 6.200 to 7.307 |  |  | 3.36 | 6.26 |
| Haydar et al 2022 | 70 | 61 | 131 | | 1.215 | 0.190 | | 0.840 to 1.590 |  |  | 7.40 | 6.35 |
| Mahmood et al 2022 | 26 | 8 | 34 | | 0.313 | 0.397 | | -0.495 to 1.121 |  |  | 1.69 | 6.11 |
| Paranga et al 2023 | 68 | 14 | 82 | | 0.796 | 0.297 | | 0.204 to 1.388 |  |  | 3.01 | 6.24 |
| Rai et al 2022 | 236 | 473 | 709 | | 1.951 | 0.0950 | | 1.764 to 2.137 |  |  | 29.47 | 6.40 |
| Sai et al 2021 | 78 | 384 | 462 | | 2.677 | 0.152 | | 2.378 to 2.976 |  |  | 11.50 | 6.37 |
| Sarraf et al 2023 | 85 | 11 | 96 | | 0.729 | 0.322 | | 0.0888 to 1.368 |  |  | 2.56 | 6.21 |
| Shokri-Afra et al2022 | 21 | 30 | 51 | | 0.570 | 0.286 | | -0.00420 to 1.144 |  |  | 3.26 | 6.26 |
| Shrivastava et al 2021 | 31 | 32 | 63 | | 4.002 | 0.435 | | 3.132 to 4.871 |  |  | 1.41 | 6.06 |
| Smail et al 2023 | 40 | 54 | 94 | | 2.156 | 0.260 | | 1.639 to 2.672 |  |  | 3.94 | 6.28 |
| Smail et al 2023 | 60 | 81 | 141 | | -4.178 | 0.301 | | -4.773 to -3.583 |  |  | 2.93 | 6.24 |
| Total (fixed effects) | 1014 | 1955 | 2969 | | 1.473 | 0.0516 | | 1.372 to 1.574 | 28.567 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 1014 | 1955 | 2969 | | 1.188 | 0.450 | | 0.305 to 2.070 | 2.639 | 0.008 | 100.00 | 100.00 |
|  | | | | | | | | | | | | |
| Test for heterogeneity | | Publication bias | | | | |
| Q | 1040.1976 | Egger's test | |  | | |
| DF | 15 | Intercept | | -3.8106 | | |
| Significance level | P < 0.0001 | 95% CI | | -14.3450 to 6.7239 | | |
| I2 (inconsistency) | 98.56% | Significance level | | P = 0.4508 | | |
| 95% CI for I2 | 98.23 to 98.83 | Begg's test | |  | | |
|  |  | Kendall's Tau | | -0.1333 | | |
|  |  | Significance level | | P = 0.4713 | | |

**Table2-V. Moderate vs severity of COVID-19 according to NLR**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Moderate | Total | SMD | | SE | 95% CI | | t | P | Weight (%) | |
| Fixed | Random |
| Adil et al 2020 | 14 | 47 | 61 | 1.846 | | 0.344 | 1.158 to 2.534 | |  |  | 0.72 | 2.41 |
| Aksit et al 2023 | 62 | 62 | 124 | 3.191 | | 0.270 | 2.657 to 3.726 | |  |  | 1.16 | 2.78 |
| Apriningsih et al 2022 | 4 | 9 | 13 | -0.903 | | 0.586 | -2.193 to 0.388 | |  |  | 0.25 | 1.46 |
| Asif et al 2022 | 63 | 37 | 100 | 1.027 | | 0.218 | 0.594 to 1.459 | |  |  | 1.78 | 3.03 |
| Awasthi et al 2022 | 55 | 45 | 100 | 0.694 | | 0.205 | 0.287 to 1.102 | |  |  | 2.01 | 3.09 |
| Ayalew et al 2022 | 26 | 7 | 33 | 0.259 | | 0.417 | -0.591 to 1.109 | |  |  | 0.49 | 2.08 |
| Bal et al 2020 | 25 | 24 | 49 | 0.0786 | | 0.281 | -0.487 to 0.645 | |  |  | 1.07 | 2.72 |
| Can et al 2021 | 30 | 30 | 60 | 1.073 | | 0.273 | 0.527 to 1.620 | |  |  | 1.14 | 2.76 |
| Datta et al 2023 | 50 | 50 | 100 | 1.034 | | 0.211 | 0.614 to 1.453 | |  |  | 1.89 | 3.06 |
| de Oliveira et al 2023 | 35 | 41 | 76 | 1.144 | | 0.246 | 0.654 to 1.634 | |  |  | 1.40 | 2.90 |
| Gopalakrishnan et al 2022 | 56 | 66 | 122 | 0.194 | | 0.181 | -0.164 to 0.553 | |  |  | 2.59 | 3.20 |
| Hammad et al 2021 | 34 | 30 | 64 | 1.670 | | 0.288 | 1.094 to 2.246 | |  |  | 1.02 | 2.69 |
| Hernández-Solis et al 2022 | 27 | 25 | 52 | 0.333 | | 0.275 | -0.220 to 0.886 | |  |  | 1.12 | 2.75 |
| Liu et al 2020 | 92 | 202 | 294 | 1.642 | | 0.143 | 1.361 to 1.923 | |  |  | 4.17 | 3.37 |
| Mahmood et al 2022 | 26 | 16 | 42 | 0.262 | | 0.313 | -0.371 to 0.895 | |  |  | 0.86 | 2.56 |
| Ozdin et al 2022 | 42 | 339 | 381 | 1.392 | | 0.171 | 1.056 to 1.728 | |  |  | 2.90 | 3.25 |
| Paranga et al 2023 | 68 | 71 | 139 | 0.603 | | 0.173 | 0.262 to 0.944 | |  |  | 2.84 | 3.24 |
| Pirsalehi et al 2020 | 243 | 1077 | 1320 | 0.825 | | 0.0728 | 0.682 to 0.968 | |  |  | 15.99 | 3.58 |
| Pramana et al 2022 | 33 | 33 | 66 | 1.830 | | 0.291 | 1.249 to 2.411 | |  |  | 1.00 | 2.67 |
| Prebensen et al 2023 | 17 | 15 | 32 | 0.695 | | 0.356 | -0.0321 to 1.422 | |  |  | 0.67 | 2.35 |
| Rai et al 2022 | 236 | 275 | 511 | 0.917 | | 0.0931 | 0.734 to 1.100 | |  |  | 9.76 | 3.53 |
| Sai et al 2021 | 78 | 46 | 124 | 0.873 | | 0.193 | 0.491 to 1.255 | |  |  | 2.28 | 3.15 |
| Sarraf et al 2023 | 85 | 29 | 114 | 0.282 | | 0.214 | -0.143 to 0.706 | |  |  | 1.84 | 3.05 |
| Selanno et al 2021 | 49 | 327 | 376 | 1.052 | | 0.158 | 0.742 to 1.362 | |  |  | 3.41 | 3.31 |
| Shokri-Afra et al2022 | 21 | 25 | 46 | 0.312 | | 0.293 | -0.278 to 0.902 | |  |  | 0.99 | 2.66 |
| Singh et al 2021 | 93 | 108 | 201 | 0.211 | | 0.141 | -0.0678 to 0.490 | |  |  | 4.24 | 3.37 |
| Suastika et al 2021 | 98 | 313 | 411 | 1.154 | | 0.122 | 0.913 to 1.394 | |  |  | 5.66 | 3.44 |
| Suhartono et al 2021 | 40 | 55 | 95 | 0.578 | | 0.210 | 0.160 to 0.996 | |  |  | 1.91 | 3.07 |
| Suliman et al 2022 | 22 | 48 | 70 | -0.440 | | 0.257 | -0.953 to 0.0739 | |  |  | 1.28 | 2.84 |
| Tanriverdi et al 2023 | 31 | 30 | 61 | 1.985 | | 0.310 | 1.364 to 2.605 | |  |  | 0.88 | 2.58 |
| Torun et al 2021 | 70 | 112 | 182 | 0.371 | | 0.153 | 0.0692 to 0.673 | |  |  | 3.62 | 3.32 |
| Vuillaume et al 2021 | 246 | 789 | 1035 | 0.888 | | 0.0755 | 0.740 to 1.037 | |  |  | 14.84 | 3.58 |
| Wang et al 2020 | 20 | 111 | 131 | 0.410 | | 0.243 | -0.0707 to 0.890 | |  |  | 1.44 | 2.91 |
| Zope et al 2022 | 64 | 86 | 150 | 0.956 | | 0.173 | 0.614 to 1.298 | |  |  | 2.82 | 3.24 |
| Total (fixed effects) | 2155 | 4580 | 6735 | 0.868 | | 0.0291 | 0.811 to 0.925 | | 29.818 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 2155 | 4580 | 6735 | 0.858 | | 0.0913 | 0.679 to 1.037 | | 9.399 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | | | |
| Test for heterogeneity | | Publication bias | | | | | |
| Q | 281.7547 | Egger's test | | |  | | |
| DF | 33 | Intercept | | | -0.1798 | | |
| Significance level | P < 0.0001 | 95% CI | | | -2.4250 to 2.0654 | | |
| I2 (inconsistency) | 88.29% | Significance level | | | P = 0.8715 | | |
| 95% CI for I2 | 84.69 to 91.04 | Begg's test | | |  | | |
|  |  | Kendall's Tau | | | -0.01961 | | |
|  |  | Significance level | | | P = 0.8705 | | |

**Table2-W. Mild vs severity of COVID-19 according to Procalcitonin**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Mild | | Total | SMD | | SE | 95% CI | | t | P | Weight (%) | |
| Fixed | Random |
| Abbas et al 2020 | 36 | 32 | | 68 | 1.147 | | 0.260 | 0.629 to 1.666 | |  |  | 6.88 | 16.02 |
| Almasud et al 2023 | 40 | 42 | | 82 | 0.575 | | 0.223 | 0.130 to 1.019 | |  |  | 9.28 | 18.71 |
| Batool et al 2021 | 197 | 530 | | 727 | 0.373 | | 0.0839 | 0.208 to 0.538 | |  |  | 65.75 | 31.82 |
| Haydar et al 2022 | 70 | 61 | | 131 | 0.711 | | 0.180 | 0.356 to 1.066 | |  |  | 14.36 | 22.53 |
| Satış et al 2021 | 11 | 27 | | 38 | 0.330 | | 0.352 | -0.384 to 1.044 | |  |  | 3.73 | 10.92 |
| Total (fixed effects) | 354 | 692 | | 1046 | 0.492 | | 0.0681 | 0.358 to 0.625 | | 7.228 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 354 | 692 | | 1046 | 0.606 | | 0.139 | 0.333 to 0.880 | | 4.346 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | | | | |
| Test for heterogeneity | | | Publication bias | | | | | |
| Q | 10.2195 | | Egger's test | | |  | | |
| DF | 4 | | Intercept | | | 1.8697 | | |
| Significance level | P = 0.0369 | | 95% CI | | | -2.2530 to 5.9925 | | |
| I2 (inconsistency) | 60.86% | | Significance level | | | P = 0.2446 | | |
| 95% CI for I2 | 0.00 to 85.32 | | Begg's test | | |  | | |
|  | | | Kendall's Tau | | | 0.2000 | | |
| Significance level | | | P = 0.6242 | | |

**Table2-X. Moderate vs severity of COVID-19 according to Procalcitonin**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Moderate | Total | SMD | | SE | 95% CI | t | P | Weight (%) | |
| Fixed | Random |
| Abbas et al 2020 | 36 | 59 | 95 | 0.939 | | 0.221 | 0.501 to 1.377 |  |  | 3.27 | 5.88 |
| Aksit et al 2023 | 62 | 62 | 124 | 0.975 | | 0.189 | 0.601 to 1.349 |  |  | 4.46 | 6.27 |
| Almasud et al 2023 | 40 | 41 | 81 | 0.263 | | 0.221 | -0.177 to 0.703 |  |  | 3.26 | 5.87 |
| Batool et al 2021 | 197 | 565 | 762 | 0.123 | | 0.0827 | -0.0392 to 0.286 |  |  | 23.28 | 7.37 |
| Çınar et al 2023 | 30 | 30 | 60 | 0.625 | | 0.261 | 0.102 to 1.148 |  |  | 2.34 | 5.37 |
| Deng et al 2021 | 40 | 17 | 57 | 0.827 | | 0.296 | 0.234 to 1.420 |  |  | 1.82 | 4.95 |
| Gjuzelova et al 2023 | 14 | 55 | 69 | -0.0930 | | 0.296 | -0.684 to 0.498 |  |  | 1.82 | 4.94 |
| Hachim et al 2021 | 203 | 189 | 392 | 0.101 | | 0.101 | -0.0971 to 0.300 |  |  | 15.63 | 7.22 |
| Hernández-Solis et al 2022 | 27 | 25 | 52 | 0.354 | | 0.276 | -0.200 to 0.907 |  |  | 2.10 | 5.19 |
| Li et al 2020 | 30 | 45 | 75 | 0.0692 | | 0.233 | -0.396 to 0.534 |  |  | 2.93 | 5.72 |
| Liu et al 2020 | 92 | 202 | 294 | 1.106 | | 0.133 | 0.843 to 1.369 |  |  | 8.94 | 6.91 |
| Prebensen et al 2023 | 17 | 15 | 32 | 0.598 | | 0.353 | -0.123 to 1.320 |  |  | 1.28 | 4.29 |
| Quan Liu et al 2020 | 133 | 91 | 224 | 0.570 | | 0.138 | 0.298 to 0.843 |  |  | 8.34 | 6.86 |
| Tamim et al 2022 | 20 | 12 | 32 | -0.752 | | 0.368 | -1.504 to -0.000476 |  |  | 1.18 | 4.14 |
| Tanriverdi et al 2023 | 31 | 30 | 61 | 0.833 | | 0.264 | 0.305 to 1.361 |  |  | 2.29 | 5.34 |
| Torun et al 2021 | 70 | 112 | 182 | 0.747 | | 0.157 | 0.438 to 1.056 |  |  | 6.49 | 6.65 |
| Uzum et al 2023 | 114 | 158 | 272 | -0.0532 | | 0.123 | -0.295 to 0.188 |  |  | 10.60 | 7.02 |
| Total (fixed effects) | 1156 | 1708 | 2864 | 0.372 | | 0.0399 | 0.294 to 0.450 | 9.317 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 1156 | 1708 | 2864 | 0.441 | | 0.110 | 0.225 to 0.657 | 4.002 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | | |
| Test for heterogeneity | | Publication bias | | | | |
| Q | 103.5931 | Egger's test | | |  | |
| DF | 16 | Intercept | | | 1.4116 | |
| Significance level | P < 0.0001 | 95% CI | | | -1.6783 to 4.5016 | |
| I2 (inconsistency) | 84.55% | Significance level | | | P = 0.3456 | |
| 95% CI for I2 | 76.62 to 89.80 | Begg's test | | |  | |
|  | | Kendall's Tau | | | -0.05882 | |
| Significance level | | | P = 0.7417 | |

**Table2-Y. Mild vs severity of COVID-19 according to WBC**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Mild | Total | SMD | | SE | 95% CI | | t | P | | Weight (%) | |
| Fixed | Random |
| Abdelhakam et al 2021 | 66 | 58 | 124 | 1.545 | | 0.204 | 1.141 to 1.949 | |  |  | | 5.63 | 5.09 |
| Almasud et al 2023 | 40 | 42 | 82 | 1.198 | | 0.238 | 0.724 to 1.671 | |  |  | | 4.14 | 4.92 |
| Awasthi et al 2022 | 55 | 50 | 105 | 1.136 | | 0.209 | 0.721 to 1.551 | |  |  | | 5.35 | 5.07 |
| Chiu et al 2023 | 95 | 59 | 154 | 0.576 | | 0.168 | 0.243 to 0.908 | |  |  | | 8.28 | 5.25 |
| Ergenç et al 2022 | 109 | 171 | 280 | 0.481 | | 0.124 | 0.237 to 0.725 | |  |  | | 15.26 | 5.42 |
| Falih et al 2022 | 24 | 17 | 41 | 1.098 | | 0.334 | 0.423 to 1.773 | |  |  | | 2.10 | 4.39 |
| Fu et al 2020 | 13 | 22 | 35 | -0.443 | | 0.346 | -1.146 to 0.261 | |  |  | | 1.96 | 4.32 |
| Soltani‑Zangbar et al 2022 | 50 | 50 | 100 | 0.0622 | | 0.199 | -0.332 to 0.456 | |  |  | | 5.94 | 5.12 |
| Hassan et al 2021 | 100 | 250 | 350 | 1.698 | | 0.134 | 1.434 to 1.963 | |  |  | | 12.97 | 5.38 |
| Haydar et al 2022 | 70 | 61 | 131 | 0.998 | | 0.185 | 0.632 to 1.363 | |  |  | | 6.87 | 5.18 |
| Hosseinzadeh et al 2022 | 68 | 18 | 86 | 0.398 | | 0.264 | -0.127 to 0.924 | |  |  | | 3.35 | 4.78 |
| Islam et al 2023 | 20 | 20 | 40 | 1.792 | | 0.369 | 1.045 to 2.539 | |  |  | | 1.72 | 4.19 |
| Marcoz-Jiménez et al 2021 | 41 | 146 | 187 | 1.410 | | 0.191 | 1.034 to 1.786 | |  |  | | 6.45 | 5.16 |
| Mahmood et al 2022 | 26 | 8 | 34 | 0.000 | | 0.395 | -0.804 to 0.804 | |  |  | | 1.50 | 4.04 |
| Satış et al 2021 | 11 | 27 | 38 | -0.193 | | 0.351 | -0.905 to 0.519 | |  |  | | 1.90 | 4.29 |
| Taghiloo et al 2020 | 22 | 39 | 61 | 0.273 | | 0.264 | -0.256 to 0.802 | |  |  | | 3.35 | 4.78 |
| Tamayo-Velasco et al 2021 | 16 | 34 | 50 | 0.865 | | 0.311 | 0.240 to 1.490 | |  |  | | 2.43 | 4.53 |
| Tamim et al 2022 | 20 | 14 | 34 | 1.117 | | 0.366 | 0.371 to 1.863 | |  |  | | 1.75 | 4.20 |
| Tang et al 2021 | 15 | 30 | 45 | 0.847 | | 0.323 | 0.195 to 1.499 | |  |  | | 2.24 | 4.45 |
| Zhang et al 2022 | 40 | 39 | 79 | -0.445 | | 0.226 | -0.895 to 0.00396 | |  |  | | 4.60 | 4.99 |
| Zhou et al 2020 | 12 | 38 | 50 | -0.168 | | 0.326 | -0.824 to 0.488 | |  |  | | 2.20 | 4.44 |
| Total (fixed effects) | 913 | 1193 | 2106 | 0.801 | | 0.0484 | 0.706 to 0.896 | | 16.555 | <0.001 | | 100.00 | 100.00 |
| Total (random effects) | 913 | 1193 | 2106 | 0.693 | | 0.149 | 0.400 to 0.985 | | 4.639 | <0.001 | | 100.00 | 100.00 |
|  | | | | | | | | | | | | | |
| Test for heterogeneity | | Publication bias | | | | | | | | |
| Q | 176.3683 | Egger's test | | |  | | |  | | |
| DF | 20 | Intercept | | | -2.2996 | | |  | | |
| Significance level | P < 0.0001 | 95% CI | | | -6.2724 to 1.6732 | | |  | | |
| I2 (inconsistency) | 88.66% | Significance level | | | P = 0.2406 | | |  | | |
| 95% CI for I2 | 84.06 to 91.93 | Begg's test | | |  | | |  | | |
|  | | Kendall's Tau | | | -0.1333 | | |  | | |
| Significance level | | | P = 0.3978 | | |  | | |

**Table2-Z. Moderate vs severity of COVID-19 according to WBC**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Severe | Moderate | Total | SMD | | SE | 95% CI | | t | P | Weight (%) | |
| Fixed | Random |
| Adil et al 2020 | 14 | 47 | 61 | 1.033 | | 0.315 | 0.403 to 1.663 | |  |  | 0.93 | 2.14 |
| Ahnach et al 2020 | 44 | 101 | 145 | 0.402 | | 0.181 | 0.0438 to 0.760 | |  |  | 2.82 | 3.36 |
| Almasud et al 2023 | 40 | 41 | 81 | 0.952 | | 0.232 | 0.489 to 1.414 | |  |  | 1.71 | 2.84 |
| Awasthi et al 2022 | 55 | 45 | 100 | 0.238 | | 0.200 | -0.160 to 0.635 | |  |  | 2.31 | 3.17 |
| Ayalew et al 2022 | 26 | 7 | 33 | -0.513 | | 0.420 | -1.370 to 0.344 | |  |  | 0.52 | 1.50 |
| Bergantini et al 2023 | 14 | 94 | 108 | 1.209 | | 0.296 | 0.622 to 1.796 | |  |  | 1.06 | 2.28 |
| de Oliveira et al 2023 | 35 | 41 | 76 | 1.160 | | 0.246 | 0.669 to 1.651 | |  |  | 1.52 | 2.71 |
| Deng et al 2021 | 40 | 17 | 57 | 0.167 | | 0.286 | -0.406 to 0.741 | |  |  | 1.13 | 2.36 |
| Falih et al 2022 | 24 | 24 | 48 | 0.779 | | 0.295 | 0.186 to 1.373 | |  |  | 1.06 | 2.29 |
| Hachim et al 2021 | 203 | 189 | 392 | 0.188 | | 0.101 | -0.0110 to 0.387 | |  |  | 9.06 | 4.19 |
| Hammad et al 2021 | 34 | 30 | 64 | 0.796 | | 0.257 | 0.282 to 1.311 | |  |  | 1.40 | 2.61 |
| Haroun et al 2021 | 52 | 98 | 150 | -0.346 | | 0.172 | -0.686 to -0.00629 | |  |  | 3.13 | 3.46 |
| Hernández-Solis et al 2022 | 27 | 25 | 52 | 0.521 | | 0.278 | -0.0374 to 1.080 | |  |  | 1.20 | 2.43 |
| Hosseinzadeh et al 2022 | 68 | 114 | 182 | 0.556 | | 0.155 | 0.250 to 0.863 | |  |  | 3.84 | 3.64 |
| Islam et al 2023 | 20 | 21 | 41 | 1.612 | | 0.354 | 0.895 to 2.329 | |  |  | 0.74 | 1.86 |
| Lee et al 2023 | 39 | 16 | 55 | 0.276 | | 0.294 | -0.314 to 0.865 | |  |  | 1.07 | 2.30 |
| Li et al 2020 | 30 | 45 | 75 | 0.118 | | 0.233 | -0.348 to 0.583 | |  |  | 1.70 | 2.83 |
| Marcoz-Jiménez et al 2021 | 41 | 89 | 130 | 0.651 | | 0.192 | 0.272 to 1.031 | |  |  | 2.51 | 3.25 |
| Mahmood et al 2022 | 26 | 16 | 42 | 0.273 | | 0.313 | -0.360 to 0.906 | |  |  | 0.94 | 2.15 |
| Ozdin et al 2022 | 42 | 339 | 381 | 0.304 | | 0.164 | -0.0179 to 0.626 | |  |  | 3.46 | 3.55 |
| Pirsalehi et al 2020 | 243 | 1077 | 1320 | 0.366 | | 0.0713 | 0.226 to 0.506 | |  |  | 18.19 | 4.43 |
| Rehman et al 2023 | 100 | 100 | 200 | 0.0293 | | 0.141 | -0.249 to 0.307 | |  |  | 4.66 | 3.79 |
| Shamseldeen et al 2022 | 36 | 20 | 56 | 0.504 | | 0.279 | -0.0554 to 1.064 | |  |  | 1.19 | 2.42 |
| Singh et al 2021 | 93 | 108 | 201 | 0.522 | | 0.143 | 0.239 to 0.804 | |  |  | 4.51 | 3.77 |
| Suastika et al 2021 | 98 | 313 | 411 | 0.569 | | 0.117 | 0.339 to 0.800 | |  |  | 6.74 | 4.03 |
| Suhartono et al 2021 | 40 | 55 | 95 | 0.246 | | 0.207 | -0.165 to 0.657 | |  |  | 2.16 | 3.10 |
| Tamayo-Velasco et al 2021 | 16 | 26 | 42 | -0.150 | | 0.312 | -0.781 to 0.481 | |  |  | 0.95 | 2.16 |
| Tamim et al 2022 | 20 | 12 | 32 | 0.465 | | 0.361 | -0.271 to 1.202 | |  |  | 0.71 | 1.82 |
| Tanriverdi et al 2023 | 31 | 30 | 61 | 1.342 | | 0.281 | 0.781 to 1.904 | |  |  | 1.18 | 2.41 |
| Tjahyadi et al 2020 | 43 | 26 | 69 | 0.391 | | 0.248 | -0.104 to 0.885 | |  |  | 1.51 | 2.70 |
| Torun et al 2021 | 70 | 112 | 182 | 0.338 | | 0.153 | 0.0370 to 0.640 | |  |  | 3.97 | 3.67 |
| Uzum et al 2023 | 114 | 158 | 272 | 0.0619 | | 0.123 | -0.179 to 0.303 | |  |  | 6.16 | 3.98 |
| Zhang et al 2022 | 40 | 105 | 145 | 0.0323 | | 0.185 | -0.333 to 0.398 | |  |  | 2.71 | 3.33 |
| Zope et al 2022 | 64 | 86 | 150 | 0.696 | | 0.169 | 0.362 to 1.030 | |  |  | 3.24 | 3.49 |
| Total (fixed effects) | 1882 | 3627 | 5509 | 0.377 | | 0.0304 | 0.318 to 0.437 | | 12.397 | <0.001 | 100.00 | 100.00 |
| Total (random effects) | 1882 | 3627 | 5509 | 0.438 | | 0.0622 | 0.316 to 0.560 | | 7.044 | <0.001 | 100.00 | 100.00 |
|  | | | | | | | | | | | | |
| Test for heterogeneity | | Publication bias | | | | | |
| Q | 116.0559 | Egger's test | | |  | | |
| DF | 33 | Intercept | | | 1.2501 | | |
| Significance level | P < 0.0001 | 95% CI | | | -0.2720 to 2.7722 | | |
| I2 (inconsistency) | 71.57% | Significance level | | | P = 0.1041 | | |
| 95% CI for I2 | 59.91 to 79.83 | Begg's test | | |  | | |
|  | | Kendall's Tau | | | 0.1765 | | |
| Significance level | | | P = 0.1422 | | |