Table 1: Characteristics of weighted populations in AURUM database, stratified by staggered cohort and exposure status. Exposure is any COVID-19 vaccine.

|  | **Cohort 1** | | | **Cohort 2** | | | **Cohort 3** | | | **Cohort 4** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **UV** | **V** | **ASMD** | **UV** | **V** | **ASMD** | **UV** | **V** | **ASMD** | **UV** | **V** | **ASMD** |
| **Number individuals, N** | 154,864 | 154,245 |  | 420,707 | 420,931 |  | 463,495 | 462,463 |  | 818,917 | 827,124 |  |
| **Age, median [Q25-Q75]** | 80 [76-84] | 80 [76-84] | 0.000 | 58 [44-67] | 58 [44-67] | 0.005 | 50 [41-58] | 52 [40-58] | 0.003 | 34 [26-42] | 34 [26-42] | 0.004 |
| **Age group** |  |  | 0.009 |  |  | 0.030 |  |  | 0.028 |  |  | 0.019 |
| **Sex, Female N(%)** | 88,349 (57%) | 87,639 (57%) | 0.005 | 248,156 (59%) | 249,561 (59%) | 0.006 | 245,248 (53%) | 245,600 (53%) | 0.004 | 351,435 (43%) | 358,688 (43%) | 0.009 |
| **Prior history, median [Q25-Q75]** | 8,750 [3,796-12,947] | 8,896 [3,803-13,055] | 0.006 | 6,426 [2,892-10,404] | 6,426 [2,876-10,416] | 0.003 | 5,088 [2,363-8,641] | 5,210 [2,386-8,743] | 0.008 | 2,882 [1,375-6,185] | 2,698 [1,167-6,450] | 0.001 |
| **Numebr visits, median [Q25-Q75]** | 10 [5-18] | 10 [6-17] | 0.004 | 8 [3-15] | 8 [5-14] | 0.003 | 4 [1-11] | 6 [3-11] | 0.020 | 2 [0-6] | 2 [0-6] | 0.009 |
| **Number pcrs, median [Q25-Q75]** | 0[0-0] | 0[0-0] | 0.001 | 0[0-0] | 0[0-0] | 0.003 | 0[0-0] | 0[0-0] | 0.005 | 0[0-0] | 0[0-0] | 0.010 |
| **Region** |  |  | 0.015 |  |  | 0.018 |  |  | 0.011 |  |  | 0.019 |
| **Comorbidities, N(%)** |  |  |  |  |  |  |  |  |  |  |  |  |
| Anxiety | 23,200 (15%) | 22,789 (15%) | 0.006 | 94,390 (22%) | 91,644 (22%) | 0.016 | 92,820 (20%) | 90,807 (20%) | 0.010 | 123,055 (15%) | 125,202 (15%) | 0.003 |
| Asthma | 16,978 (11%) | 16,663 (11%) | 0.005 | 95,770 (23%) | 94,550 (22%) | 0.007 | 79,642 (17%) | 78,266 (17%) | 0.007 | 63,687 (8%) | 61,472 (7%) | 0.013 |
| Chronic kidney disease | 36,149 (23%) | 36,046 (23%) | 0.001 | 28,181 (7%) | 29,756 (7%) | 0.015 | 10,283 (2%) | 10,577 (2%) | 0.005 | 3,840 (0%) | 3,572 (0%) | 0.006 |
| COPD | 13,385 (9%) | 13,181 (9%) | 0.003 | 17,447 (4%) | 17,999 (4%) | 0.006 | 6,062 (1%) | 5,754 (1%) | 0.006 | 1,901 (0%) | 1,918 (0%) | 0.000 |
| Dementia | 9,483 (6%) | 8,517 (6%) | 0.026 | 4,182 (1%) | 3,879 (1%) | 0.007 | 1,361 (0%) | 1,392 (0%) | 0.001 | 276 (0%) | 495 (0%) | 0.012 |
| Depressive disorder | 18,632 (12%) | 18,547 (12%) | 0.000 | 85,280 (20%) | 81,945 (19%) | 0.020 | 81,891 (18%) | 79,804 (17%) | 0.011 | 94,373 (12%) | 97,053 (12%) | 0.007 |
| Diabetes | 29,365 (19%) | 28,831 (19%) | 0.007 | 49,408 (12%) | 48,562 (12%) | 0.006 | 26,616 (6%) | 28,628 (6%) | 0.019 | 12,787 (2%) | 12,539 (2%) | 0.004 |
| GERD | 8,718 (6%) | 8,515 (6%) | 0.005 | 19,907 (5%) | 18,924 (4%) | 0.011 | 15,646 (3%) | 14,982 (3%) | 0.008 | 13,882 (2%) | 13,893 (2%) | 0.001 |
| Heart failure | 9,349 (6%) | 8,851 (6%) | 0.013 | 7,284 (2%) | 6,502 (2%) | 0.015 | 2,660 (1%) | 2,470 (1%) | 0.005 | 930 (0%) | 816 (0%) | 0.005 |
| Hypertension | 81,563 (53%) | 80,806 (52%) | 0.006 | 97,707 (23%) | 98,193 (23%) | 0.002 | 54,649 (12%) | 55,798 (12%) | 0.008 | 22,925 (3%) | 24,450 (3%) | 0.009 |
| Hypothyroidism | 15,125 (10%) | 15,098 (10%) | 0.001 | 25,579 (6%) | 25,962 (6%) | 0.004 | 17,162 (4%) | 17,580 (4%) | 0.005 | 12,427 (2%) | 12,641 (2%) | 0.001 |
| Malignant neoplastic disease | 33,467 (22%) | 33,024 (21%) | 0.005 | 30,194 (7%) | 35,085 (8%) | 0.043 | 14,815 (3%) | 14,140 (3%) | 0.008 | 6,447 (1%) | 5,766 (1%) | 0.011 |
| Myocardial infarction | 7,824 (5%) | 7,731 (5%) | 0.002 | 9,964 (2%) | 11,319 (3%) | 0.020 | 3,787 (1%) | 3,664 (1%) | 0.003 | 1,315 (0%) | 1,069 (0%) | 0.008 |
| Osteoporosis | 15,275 (10%) | 15,373 (10%) | 0.003 | 10,626 (3%) | 10,718 (3%) | 0.001 | 4,113 (1%) | 4,131 (1%) | 0.001 | 1,376 (0%) | 1,472 (0%) | 0.002 |
| Pneumonia | 8,573 (6%) | 7,621 (5%) | 0.027 | 11,355 (3%) | 10,691 (3%) | 0.010 | 6,651 (1%) | 6,545 (1%) | 0.002 | 5,144 (1%) | 5,151 (1%) | 0.001 |
| Rheumatoid arthritis | 3,066 (2%) | 3,092 (2%) | 0.002 | 6,198 (1%) | 6,570 (2%) | 0.007 | 2,355 (1%) | 3,111 (1%) | 0.021 | 1,201 (0%) | 859 (0%) | 0.012 |
| Stroke | 7,667 (5%) | 7,047 (5%) | 0.018 | 8,041 (2%) | 8,794 (2%) | 0.013 | 3,518 (1%) | 3,293 (1%) | 0.006 | 1,496 (0%) | 1,305 (0%) | 0.006 |
| Venous thromboembolism | 9,589 (6%) | 9,241 (6%) | 0.008 | 11,836 (3%) | 12,475 (3%) | 0.009 | 6,503 (1%) | 8,075 (2%) | 0.028 | 4,661 (1%) | 2,441 (0%) | 0.042 |

Table 2: Number of records for any long COVID symptoms between 90 and 365 days after SARS-CoV-2 across cohorts and databases, stratified by exposed status. Exposure is any COVID-19 vaccine.

| **Database name** | **Staggered cohort** | **Vaccinated** | | **Unvaccinated** | |
| --- | --- | --- | --- | --- | --- |
| **Individuals (N)** | **Outcomes (N)** | **Individuals (N)** | **Outcomes (N)** |
| **AURUM** |  |  |  |  |  |
|  | Cohort 1 | 552,602 | 1,630 (0.29%) | 346,674 | 1,276 (0.37%) |
|  | Cohort 2 | 1,563,569 | 4,280 (0.27%) | 1,975,726 | 9,676 (0.49%) |
|  | Cohort 3 | 1,528,031 | 3,955 (0.26%) | 1,510,401 | 5,660 (0.37%) |
|  | Cohort 4 | 2,085,598 | 5,052 (0.24%) | 2,027,763 | 4,846 (0.24%) |
| **CORIVA** |  |  |  |  |  |
|  | Cohort 1 | 26,736 | 901 (3.37%) | 23,982 | 1,214 (5.06%) |
|  | Cohort 2 | 4,572 | 195 (4.27%) | 34,317 | 1,813 (5.28%) |
|  | Cohort 3 | 24,050 | 1,507 (6.27%) | 96,423 | 5,361 (5.56%) |
|  | Cohort 4 | 22,245 | 1,510 (6.79%) | 147,545 | 7,831 (5.31%) |
| **GOLD** |  |  |  |  |  |
|  | Cohort 1 | 118,507 | 129 (0.11%) | 169,100 | 174 (0.10%) |
|  | Cohort 2 | 486,619 | 390 (0.08%) | 583,399 | 951 (0.16%) |
|  | Cohort 3 | 462,832 | 274 (0.06%) | 417,996 | 503 (0.12%) |
|  | Cohort 4 | 550,437 | 375 (0.07%) | 469,876 | 351 (0.07%) |
| **SIDIAP** |  |  |  |  |  |
|  | Cohort 1 | 89,941 | 2,325 (2.59%) | 223,962 | 5,014 (2.24%) |
|  | Cohort 2 | 819,590 | 15,846 (1.93%) | 433,151 | 9,054 (2.09%) |
|  | Cohort 3 | 954,232 | 19,180 (2.01%) | 869,497 | 19,895 (2.29%) |
|  | Cohort 4 | 880,950 | 23,505 (2.67%) | 1,061,634 | 26,716 (2.52%) |

Figure 1: Kaplan-Meier plots across databases and cohorts, startified by exposure status. Exposure is any COVID-19 vaccine.

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