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**Tables**

**Table S1.** Analysis of factors associated with hospitalisation, by sex.

| Age group (years) | Females | Males |
|------------------|---------|-------|
|                  | Hosp. Non-hosp. OR (95%CI) | p-val | Hosp. Non-hosp. OR (95%CI) | p-val |
| <40              | 2955 17178 1.00 |       | 2983 8622 1.00 |       |
|                  | 1.30 |       | 1.69 |       |
| 40-59            | 9450 26926 (1.15-1.46) | <0.001 | 13382 14118 (1.48-1.93) | <0.001 |
|                  | 2.32 | <0.001 | 3.42 | <0.001 |
| 60-69            | 6743 6842 (2.02-2.68) | <0.001 | 10104 5083 (2.93-3.99) | <0.001 |
|                  | 4.01 | <0.001 | 5.33 | <0.001 |
| 70-79            | 8218 4286 (3.41-4.70) | <0.001 | 11899 3721 (4.49-6.32) | <0.001 |
|                  | 3.01 | <0.001 | 4.34 | <0.001 |
| ≥80              | 12458 15340 (2.59-3.50) | <0.001 | 11431 5575 (3.65-5.16) | <0.001 |
|                  |       | <0.001 |       | 0.079 |
| p-trend |          |       | |
| Pneumonia | No | 5636 25318 1.00 |       | 5376 12240 1.00 |       |
|           | 27.30 |       | 26.17 |       |
|           | Yes | 24001 3256 (25.10-29.68) | <0.001 | 32430 2732 (23.85-28.71) | <0.001 |
| Acute respiratory distress syndrome | No | 16517 23172 1.00 |       | 19658 11771 1.00 |       |
|           | 1.69 |       | 3.40 |       |
|           | Yes | 1928 269 (1.32-2.15) | <0.001 | 3436 165 (2.53-4.56) | <0.001 |
| Acute renal failure | No | 16752 23125 1.00 |       | 20044 11722 1.00 |       |
|           | 4.68 |       | 4.46 |       |
|           | Yes | 1556 121 (3.38-6.49) | <0.001 | 2683 97 (3.14-6.34) | <0.001 |
| Cardiovascular disease | No | 17459 31439 1.00 |       | 20370 15361 1.00 |       |
|           | 1.49 |       | 1.57 |       |
|           | Yes | 11354 6115 (1.36-1.65) | <0.001 | 16305 3949 (1.42-1.75) | <0.001 |
| Diabetes | No | 22760 34546 1.00 |       | 27632 17268 1.00 |       |
|           | 1.38 |       | 1.38 |       |
|           | Yes | 6053 3008 (1.23-1.54) | <0.001 | 9043 2042 (1.22-1.56) | <0.001 |
| Hypertension | No |       |       |       |       |
|                | Females                        | Males                        |
|----------------|-------------------------------|------------------------------|
| **Age group (years)** | ICU | Non-ICU (95%CI) | p-val | ICU | Non-ICU (95%CI) | p-val | p-int |
| <40            | 145  | 2618                   | 1.00 | 246  | 2566                   | 1.00 |       |
| 40-59          | 647  | 8151                   | 1.29 | 1611 | 10897                  | 1.34 | 0.037 |
| 50-69          | 720  | 5543                   | 1.77 | 1776 | 7690                   | 1.81 | <0.001 |
| 60-79          | 688  | 7013                   | 0.002 | 1509 | 9702                   | 1.17 | 0.280 |
| ≥80            | 167  | 11258                  | <0.001 | 196  | 10471                  | <0.001 | 0.153 |
| **p-trend**    | <0.001 | <0.001        |       |       |                       | <0.001 | <0.001 |
| **Pneumonia**  | No   | 210  | 4908 | 1.00 | 345  | 4561 | 1.00 |       |
|                | Yes  | 1735 | 20655 | 1.33 | 4025 | 26484 | 1.61 | <0.001 | 0.349 |
| **Acute respiratory distress syndrome** | No   | 690  | 15043 | 1.00 | 1396 | 17345 | 1.00 | 11.43 (9.98-13.08) | <0.001 | 0.060 |
|                | Yes  | 638  | 1178 | <0.001 | 1606 | 1710 | <0.001 | 0.060 |

OR and 95%CI adjusted for sex, age group, autonomous region, presence of pneumonia and acute respiratory distress syndrome, diabetes, hypertension, cardiovascular, lung and renal diseases, days between symptom onset until diagnosis and health care work. *Only among hospitalised cases.

Table S2. Analysis of factors associated with admission to ICU, by sex.
| No/Yes | Dead | Alive | OR (95%CI) | p-val | Dead | Alive | OR (95%CI) | p-val | p-int |
|--------|------|-------|-----------|-------|------|-------|-----------|-------|-------|
| No     | 988  | 14967 | 1.00      |       | 1984 | 17152 | 1.00      |       | 3.11  | <0.001 0.126 |
| Yes    | 204  | 1280  | 1.93 (1.47-2.55) | <0.001 | 700  | 1889  | 1.00      |       | 2.62  | <0.001 0.248 |
| Cardiovascular disease | | | | | | | | | |
| No     | 1034 | 15312 | 1.00      |       | 2174 | 16965 | 1.00      |       | 1.13  | 0.066 0.248 |
| Yes    | 703  | 9982  | 1.23 (1.02-1.47) | 0.029 | 1867 | 13565 | 0.066 (0.99-1.28) | 0.0066 0.248 |
| Diabetes | | | | | | | | | |
| No     | 1346 | 20028 | 1.00      |       | 2955 | 23102 | 1.00      |       | 1.57  | 0.042 0.993 |
| Yes    | 391  | 5266  | 1.07 (0.87-1.31) | 0.094 | 1086 | 7428  | 0.42 (0.68-0.97) | 0.042 0.993 |
| Hypertension | | | | | | | | | |
| No     | 1447 | 18836 | 1.00      |       | 3380 | 23640 | 1.00      |       | 1.61  | 0.022 0.313 |
| Yes    | 290  | 6458  | 0.81 (0.62-1.04) | 0.094 | 661  | 6890  | 0.81 (0.68-0.97) | 0.022 0.313 |
| Chronic lung disease | | | | | | | | | |
| No     | 1488 | 22277 | 1.00      |       | 3385 | 25104 | 1.00      |       | 0.82  | 0.016 0.127 |
| Yes    | 249  | 3017  | 0.95 (0.75-1.21) | 0.680 | 656  | 5426  | 0.70 (0.70-0.96) | 0.016 0.127 |
| Chronic renal disease | | | | | | | | | |
| No     | 1679 | 24451 | 1.00      |       | 3933 | 29427 | 1.00      |       | 0.65  | 0.006 0.051 |
| Yes    | 58   | 843   | 0.97 (0.64-1.48) | 0.895 | 108  | 1103  | 0.47 (0.47-0.88) | 0.006 0.051 |
| Symptom onset to diagnosis | | | | | | | | | |
| No     | 2367 | 34585 | 1.00      |       | 5338 | 41327 | 1.00      |       | 1.00  | 0.432 0.179 |
| Yes    | 108  | 2317  | 0.98 (0.98-1.01) | 0.852 | 152  | 1095  | 0.98 (0.98-1.01) | 0.432 0.179 |
| Health care worker | | | | | | | | | |
| No     | 1697 | 24518 | 1.00      |       | 3988 | 30747 | 1.00      |       | 0.82  | 0.190 0.196 |
| Yes    | 108  | 2317  | 0.51 (0.51-0.99) | 0.045 | 152  | 1095  | 0.60 (0.60-1.11) | 0.190 0.196 |

OR and 95%CI adjusted for sex, age group, autonomous region, presence of pneumonia and acute respiratory distress syndrome, diabetes, hypertension, cardiovascular, lung and renal diseases, days between symptom onset until diagnosis and health care work. *Only among hospitalised cases.

Table S3. Analysis of factors associated with death, by sex.
|                          | Adjusted OR | 95% CI          | P-trend | Adjusted OR | 95% CI          | P-trend |
|--------------------------|-------------|-----------------|---------|-------------|-----------------|---------|
| **Pneumonia**            |             |                 |         |             |                 |         |
| No                       | 1.00        | 1.00            |         | 1.00        | 1.00            |         |
| Yes                      | 1.23        | (1.08-1.40)     | <0.001  | 1.25        | (1.11-1.41)     | <0.001  |
| **Acute respiratory distress syndrome** |             |                 |         |             |                 |         |
| No                       | 1.00        | 1.00            |         | 1.00        | 1.00            |         |
| Yes                      | 4.95        | (4.20-5.84)     | <0.001  | 4.25        | (3.74-4.83)     | <0.001  |
| **Acute renal failure**  |             |                 |         |             |                 |         |
| No                       | 1.00        | 1.00            |         | 1.00        | 1.00            |         |
| Yes                      | 2.62        | (2.22-3.10)     | <0.001  | 3.15        | (2.76-3.59)     | <0.001  |
| **Cardiovascular disease** |             |                 |         |             |                 |         |
| No                       | 1.00        | 1.00            |         | 1.00        | 1.00            |         |
| Yes                      | 1.37        | (1.22-1.53)     | <0.001  | 1.28        | (1.16-1.41)     | <0.001  |
| **Diabetes**             |             |                 |         |             |                 |         |
| No                       | 1.00        | 1.00            |         | 1.00        | 1.00            |         |
| Yes                      | 1.24        | (1.10-1.39)     | <0.001  | 1.23        | (1.11-1.35)     | <0.001  |
| **Hypertension**         |             |                 |         |             |                 |         |
| No                       | 1.00        | 1.00            |         | 1.00        | 1.00            |         |
| Yes                      | 0.89        | (0.77-1.02)     | 0.094   | 0.91        | (0.81-1.03)     | 0.128   |
| **Chronic lung disease** |             |                 |         |             |                 |         |
| No                       | 1.00        | 1.00            |         | 1.00        | 1.00            |         |
| Yes                      | 1.13        | (0.97-1.30)     | 0.118   | 1.14        | (1.03-1.27)     | 0.013   |
| **Chronic renal disease**|             |                 |         |             |                 |         |
| No                       | 1.00        | 1.00            |         | 1.00        | 1.00            |         |
| Yes                      | 1.43        | (1.17-1.74)     | <0.001  | 1.51        | (1.27-1.80)     | <0.001  |
| **Symptom onset to diagnosis** |         |                 |         |             |                 |         |
| No                       | 1.00        | 1.00            |         | 1.00        | 1.00            |         |
| Yes                      | 0.94        | (0.93-0.95)     | <0.001  | 0.95        | (0.94-0.96)     | <0.001  |
| **Health care worker**   |             |                 |         |             |                 |         |
| No                       | 1.00        | 1.00            |         | 1.00        | 1.00            |         |
| Yes                      | 0.21        | (0.11-0.39)     | <0.001  | 0.42        | (0.27-0.66)     | <0.001  |

OR and 95%CI adjusted for sex, age group, autonomous region, presence of pneumonia and acute respiratory distress syndrome, diabetes, hypertension, cardiovascular, lung and renal diseases, days between symptom onset until diagnosis and health care work. *Only among hospitalised cases.
**Figure S1.** Epidemic curve of COVID-19 confirmed cases by severity group. Spain, January-April 2020. RENAVE. Spain, January-April 2020.

COVID-19 confirmed cases by date of onset of symptoms or date of diagnosis minus 6 days; hospitalised cases by hospitalisation date; ICU admitted cases by admission date; deaths by date of death.
Figure S2. Age-adjusted cumulative incidence (per 100 000 inhabitants) of COVID-19 cases, per province. RENAVE. Spain, January-April 2020