

Impact of angiotensin-converting enzyme inhibitors and angiotensin receptor blockers on COVID-19 in a western population. CARDIOVID registry

SUPPLEMENTARY DATA

Table 1 of the supplementary data

Mortality and heart failure predictors

| | OR | 95%CI | P |
|-------------------------|-------|------------|--------|
| Days of symptoms, per d | 0.53 | 0.93-1.04 | .982 |
| Fever | 2.45 | 1.36-4.42 | .003 |
| SaO ₂ < 95% | 15.51 | 8.52-28.24 | < .001 |
| Age, per decade | 1.58 | 1.40-1.75 | < .001 |
| Female sex | 0.33 | 0.18-0.53 | < .001 |
| Obesity | 2.38 | 1.12-5.05 | .024 |
| Health care worker | 0.09 | 0.01-0.68 | .019 |
| Retirement home | 1.78 | 0.92-3.44 | .086 |
| Dementia | 2.09 | 0.99-4.42 | .053 |

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|------------------------------|-------|------------|--------|
| Dependency | 2.43 | 1.37-4.31 | .002 |
| Current smoker | 0.60 | 0.08-4.55 | .624 |
| Hypertension | 2.17 | 1.32-3.58 | .002 |
| Diabetes mellitus | 7.45 | 4.40-12.61 | < .001 |
| Dyslipidemia | 3.,05 | 1.85-5.04 | < .001 |
| Peripheral artery disease | 16.39 | 7.24-37.08 | < .001 |
| Coronary artery disease | 5.04 | 2.77-9.18 | < .001 |
| Depressed LVEF | 17.26 | 6.05-49.22 | < .001 |
| Significant valvular disease | 10.36 | 3.81-28.18 | < .001 |
| Atrial fibrillation | 4.82 | 2.17-10.69 | < .001 |
| Pulmonary disease | 2.53 | 1.39-4.61 | .002 |
| COPD/Asthma | 2.16 | 1.08-4.29 | .029 |
| OSAHS | 3.73 | 1.35-10.33 | .011 |
| GFR < 30 mL/min | 6.81 | 2.97-15.63 | < .001 |
| Stroke/TIA | 2.82 | 1.04-7.61 | .041 |

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|--|-------|------------|--------|
| Neoplasia | 1.96 | 0.57-6.74 | .287 |
| Hypothyroidism | 0.91 | 0.28-3.09 | .932 |
| Autoimmune disease | 3.07 | 1.13-8.35 | .028 |
| pO ₂ < 60 mmHg | 10.76 | 5.68-20.36 | < .001 |
| pCO ₂ > 45 mmHg | 23.08 | 7.60-70.04 | < .001 |
| Hemoglobin per 1 unit (g/dL) | 0.82 | 0.70-0.96 | .011 |
| Leukocytes per 1000 units (cells/ μ L) | 1.21 | 1.11-1.32 | .001 |
| Lymphocytes per 100 units (cells/ μ L) | 0.43 | 0.22-0.83 | .012 |
| Platelets per 100 000 (cells/ μ L) | 1.21 | 0.92-1.60 | .178 |
| Creatinine per 1 unit (mg/dL) | 3.18 | 1.85-5.49 | < .001 |
| Troponin I per 1 unit (ng/mL) | 9.11 | 1.77-47.00 | .008 |
| Elevated troponin I | 8.95 | 4.38-18.28 | < .001 |
| D-dimer per 100 units (ng/dL) | 1.01 | 1.00-1.02 | .033 |
| Ferritin per 100 unit (mg/dL) | 1.05 | 1.02-1.08 | .003 |

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|-------------------------------------|------|-----------|--------|
| C-reactive protein per unit (mg/dL) | 1.06 | 1.03-1.09 | < .001 |
| Interleukin-6 per 1 unit (pg/mL) | 1.00 | 1.00-1.01 | .009 |

COPD, chronic obstructive pulmonary disease; GFR, glomerular filter rate; LVEF, left ventricular ejection fraction, OSAHS, obstructive sleep apnea-hypopnea syndrome; TIA, transient ischemic attack.

Table 2 of the supplementary data

Hospital admission and ICU admission predictors

| | Hospital admission | | | ICU admission | | |
|-------------------------|--------------------|------------|----------|---------------|------------|----------|
| | OR | 95%CI | <i>P</i> | OR | 95%CI | <i>P</i> |
| Days of symptoms, per d | 1.03 | 1.00-1.07 | .036 | 1.03 | 0.96-1.11 | .417 |
| Fever | 3.35 | 2.36-4.75 | < .001 | 1.19 | 0.46-3.07 | .721 |
| SaO ₂ < 95% | 8.31 | 5.92-11.66 | < .001 | 4.64 | 1.84-11.71 | .001 |
| Age, per decade | 1.28 | 1.20-1.36 | < .001 | 0.99 | 0.97-1.02 | .654 |
| Female sex | 0.46 | 0.34-0.62 | < .001 | 0.57 | 0.26-1.26 | .164 |
| Obesity | 0.68 | 0.42-1.13 | .136 | 2.01 | 0.74-5.46 | .170 |
| Health care worker | 0.10 | 0.05-0.18 | < .001 | 0.60 | 0.07-4.82 | .628 |
| Retirement home | 0.05 | 0.02-0.12 | < .001 | - | - | - |
| Dementia | 0.13 | 0.06-0.26 | < .001 | - | - | - |
| Dependency | 0.22 | 0.14-0.35 | < .001 | - | - | - |

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|------------------------------|------|------------|--------|------|------------|------|
| Current smoker | 0.44 | 0.18-1.06 | .068 | 1.02 | 0.12-8.72 | .989 |
| Hypertension | 0.58 | 0.46-0.73 | < .001 | 1.26 | 0.60-2.63 | .540 |
| Diabetes mellitus | 0.85 | 0.60-1.21 | .370 | 2.32 | 1.07-5.03 | .033 |
| Dyslipidemia | 0.63 | 0.49-0.80 | < .001 | 1.81 | 0.86-3.82 | .117 |
| Peripheral artery disease | 1.60 | 0.73-3.53 | .244 | 0.86 | 0.19-3.98 | .849 |
| Coronary artery disease | 1.21 | 0.66-2.22 | .538 | 0.55 | 0.12-2.48 | .439 |
| Depressed LVEF | 4.00 | 1.13-14.17 | .032 | 0.54 | 0.07-4.32 | .561 |
| Significant valvular disease | 2.40 | 0.85-6.81 | .100 | 1.23 | 0.26-5.89 | .794 |
| Atrial fibrillation | 0.61 | 0.31-1.18 | .143 | 1.02 | 0.22-4.76 | .984 |
| Pulmonary disease | 0.60 | 0.41-0.87 | .007 | 0.57 | 0.19-1.72 | .322 |
| COPD/asthma | 0.48 | 0.31-0.76 | .002 | 0.20 | 0.03-1.54 | .122 |
| OSAHS | 0.71 | 0.32-1.61 | .416 | 2.77 | 0.68-11.31 | .155 |
| GFR < 30 mL/min | 1.07 | 0.52-2.22 | .853 | - | - | - |
| Stroke/TIA | 0.50 | 0.23-1.07 | .074 | - | - | - |
| Neoplasia | 0.20 | 0.07-0.58 | .003 | 2.06 | 0.21-20.44 | .536 |

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|---|------|-----------|--------|------|------------|--------|
| Hypothyroidism | 0.21 | 0.10-0.45 | < .001 | 0.87 | 0.10-7.28 | .895 |
| Autoimmune disease | 1.33 | 0.63-2.82 | .451 | 2.17 | 0.66-7.19 | .204 |
| pO ₂ < 60 mmHg | - | - | - | 5.71 | 1.68-19.34 | .005 |
| pCO ₂ > 45 mmHg | - | - | - | 1.76 | 4.42-56.14 | < .001 |
| Hemoglobin, per unit (g/dL) | - | - | - | 0.95 | 0.78-1.16 | .622 |
| Leukocytes, per 10 ³ /μL | - | - | - | 1.07 | 0.97-1.18 | .182 |
| Lymphocytes, per 10 ² /μL | - | - | - | 0.11 | 0.03-0.36 | < .001 |
| Platelets, per 10 ⁵ /μL | - | - | - | 1.00 | 0.69-1.45 | .978 |
| Creatinine, per 1 unit (mg/dL) | - | - | - | 1.37 | 1.00-1.86 | .047 |
| Troponin I, per 1 unit (ng/mL) | - | - | - | 1.27 | 0.64-2.50 | .498 |
| Elevated troponin I levels | - | - | - | 1.27 | 0.64-2.50 | .498 |
| D-dimer, per 10 ² units (ng/mL) | - | - | - | 3.22 | 1.41-7.39 | .006 |
| Ferritin, per 10 ² units (ng/mL) | - | - | - | 1.00 | 0.99-1.00 | .176 |
| C-reactive protein, per 1 unit (mg/dL) | - | - | - | 1.09 | 1.05-1.13 | < .001 |

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|----------------------------------|------|-----------|------|------|-----------|--------|
| Interlukin-6, per 1 unit (pg/mL) | - | - | - | 1.07 | 1.03-1.11 | < .001 |
| Antiplatelet therapy | - | - | - | 1.01 | 1.00-1.01 | .001 |
| Anticoagulation | 0.50 | 0.33-0.76 | .001 | 0.37 | 0.08-1.62 | .186 |
| Beta-blockers | 0.90 | 0.53-1.52 | .897 | 0.77 | 0.22-2.74 | .691 |
| Corticoids | 0.80 | 0.52-1.21 | .287 | 0.65 | 0.22-1.98 | .452 |

COPD, chronic obstructive pulmonary disease; GFR, glomerular filter rate; LVEF, left ventricular ejection fraction; OSAHS, obstructive sleep apnea-hypopnea syndrome; pO₂, partial pressure of oxygen; pCO₂, partial pressure of carbon dioxide; TIA, transient ischemic attack.