

SUPPLEMENTAL TABLE 2. Risk of severe COVID-19 infection (hospitalization or death due to COVID-19) by chronic condition categories within 3 age groups. Chronic condition categories are listed in alphabetic order. The reference population for each analysis is all persons without the chronic condition within the age group. Ten conditions with interaction p values<0.05 are highlighted in bold type, indicating that the strength of the association differs significantly across the age groups. Hazard ratios are not presented when <50 persons are at risk.

| Chronic condition category | 0-44 years | | | 45-64 years | | | 65+ years | | |
|--|-------------------|---------------------|---|-------------------|---------------------|---|-------------------|---------------------|---|
| | N at risk (%) | N severe infections | Adjusted Hazard Ratio (95% CI) ^a | N at risk (%) | N severe infections | Adjusted Hazard Ratio (95% CI) ^a | N at risk (%) | N severe infections | Adjusted Hazard Ratio (95% CI) ^a |
| Affective disorders, schizophrenia, other psychoses | 28 (0.4) | 4 | - | 17 (0.8) | 6 | - | 19 (2.0) | 9 | - |
| Anxiety, depression, bipolar disorders | 1,416 (20.7) | 35 | 1.68 (1.06, 2.64)^b | 618 (28.5) | 57 | 1.30 (0.94, 1.81) | 303 (32.5) | 91 | 1.55 (1.17, 2.05)^b |
| Arrhythmias | 735 (10.8) | 32 | 2.90 (1.86, 4.51)^b | 470 (21.7) | 60 | 1.66 (1.20, 2.30)^b | 468 (50.2) | 147 | 1.48 (1.09, 2.01)^b |
| Asthma | 478 (7.0) | 8 | 1.02 (0.49, 2.13) | 189 (8.7) | 27 | 1.93 (1.27, 2.93)^b | 110 (11.8) | 30 | 1.23 (0.83, 1.83) |
| Attention-deficit, conduct, and disruptive behavior disorder | 393 (5.8) | 6 | 1.34 (0.57, 3.15) | 36 (1.7) | 4 | - | 14 (1.5) | 3 | - |
| Back problems | 1,208 (17.7) | 38 | 1.72 (1.11, 2.67)^b | 778 (35.9) | 79 | 1.36 (1.00, 1.87) | 480 (51.5) | 144 | 1.56 (1.18, 2.07)^b |
| Biliary and liver disorders | 276 (4.0) | 19 | 2.66 (1.57, 4.52)^b | 285 (13.1) | 39 | 1.59 (1.10, 2.30)^b | 206 (22.1) | 85 | 2.14 (1.63, 2.82)^b |
| Bowel disorders | 143 (2.1) | 10 | 2.94 (1.50, 5.77)^b | 299 (13.8) | 32 | 1.30 (0.87, 1.92) | 288 (30.9) | 74 | 1.12 (0.84, 1.49) |
| Cancer | 178 (2.6) | 11 | 3.21 (1.66, 6.21)^b | 219 (10.1) | 16 | 0.91 (0.54, 1.54) | 291 (31.2) | 78 | 1.12 (0.84, 1.50) |
| Central nervous system vascular ischemia | 4 (0.1) | 1 | - | 19 (0.9) | 3 | - | 79 (8.5) | 24 | 1.08 (0.70, 1.67)^b |
| Chronic kidney disease | 24 (0.4) | 6 | - | 80 (3.7) | 16 | 1.93 (1.14, 3.27)^b | 240 (25.7) | 97 | 1.90 (1.42, 2.55)^b |
| Chronic neurologic disorders | 903 (13.2) | 41 | 3.16 (2.06, 4.84)^b | 679 (31.3) | 70 | 1.33 (0.97, 1.82) | 508 (54.5) | 157 | 1.74 (1.28, 2.36)^b |
| Conditions associated with dizziness or vertigo | 548 (8.0) | 15 | 1.30 (0.74, 2.30) | 284 (13.1) | 34 | 1.37 (0.93, 2.01) | 228 (24.4) | 68 | 1.26 (0.94, 1.68) |
| Deficiency and other anemia | 333 (4.9) | 18 | 2.89 (1.65, 5.06)^b | 263 (12.1) | 37 | 1.70 (1.16, 2.50)^b | 274 (29.4) | 99 | 1.62 (1.22, 2.14)^b |
| Developmental Disorders | 105 (1.5) | 3 | 3.79 (1.17, 12.31)^b | 17 (0.8) | 2 | - | 10 (1.1) | 6 | - |
| Diabetes | 333 (4.9) | 27 | 2.67 (1.62, 4.39)^b | 629 (29) | 78 | 1.42 (1.04, 1.96) | 498 (53.4) | 131 | 1.13 (0.85, 1.49) |
| Disorders of lipid metabolism | 255 (3.7) | 20 | 2.27 (1.32, 3.90)^b | 749 (34.5) | 83 | 1.32 (0.96, 1.82) | 658 (70.5) | 178 | 1.46 (1.03, 2.06)^b |
| Epilepsy, convulsions | 90 (1.3) | 8 | 7.49 (3.59, 15.62)^b | 45 (2.1) | 2 | - | 29 (3.1) | 14 | - |
| Esophageal Disorders | 520 (7.6) | 20 | 1.72 (1.02, 2.90) | 471 (21.7) | 45 | 1.09 (0.77, 1.55) | 343 (36.8) | 104 | 1.47 (1.13, 1.93)^b |
| Gastric and duodenal ulcer | 103 (1.5) | 3 | 1.14 (0.36, 3.65) | 110 (5.1) | 12 | 1.22 (0.67, 2.21) | 81 (8.7) | 30 | 1.81 (1.23, 2.67)^b |
| Gout and other crystal arthropathies | 17 (0.3) | 1 | - | 60(2.8) | 10 | 1.90 (1.00, 3.62) | 111 (11.9) | 32 | 1.05 (0.72, 1.53) |
| Headache | 1,153 (16.9) | 38 | 2.16 (1.39, 3.35)^b | 465 (21.4) | 48 | 1.39 (0.98, 1.98) | 199 (21.3) | 61 | 1.50 (1.11, 2.04)^b |
| Heart failure | 29 (0.4) | 4 | - | 90 (4.2) | 21 | 2.73 (1.71, 4.36)^b | 189 (20.3) | 89 | 2.49 (1.87, 3.31)^b |
| Heart valve disorders | 116 (1.7) | 5 | 2.98 (1.20, 7.41)^b | 111 (5.1) | 17 | 1.61 (0.97, 2.68) | 202 (21.7) | 67 | 1.28 (0.95, 1.73) |

^aAll models are adjusted for age (continuous variable within each age stratum), sex, race, ethnicity, BMI category, and smoking status.

^bHazard ratio is statistically significant after adjusting for multiple comparisons

SUPPLEMENTAL TABLE 2 (continued). Risk of severe COVID-19 infection (hospitalization or death due to COVID-19) by chronic condition categories within 3 age groups. Chronic condition categories are listed in alphabetic order. The reference population for each analysis is all persons without the chronic condition within the age group. Ten conditions with interaction p values<0.05 are highlighted in bold type, indicating that the strength of the association differs significantly across the age groups. Hazard ratios are not presented when <50 persons are at risk.

| Chronic condition category | 0-44 years | | | 45-64 years | | | 65+ years | | |
|--|---------------------|---------------------|---|-------------------|---------------------|---|-------------------|---------------------|---|
| | N at risk (%) | N severe infections | Adjusted Hazard Ratio (95% CI) ^a | N at risk (%) | N severe infections | Adjusted Hazard Ratio (95% CI) ^a | N at risk (%) | N severe infections | Adjusted Hazard Ratio (95% CI) ^a |
| Hematologic disorders | 279 (4.1) | 23 | 5.24 (3.20, 8.56)^b | 184 (8.5) | 34 | 2.28 (1.55, 3.34)^b | 211 (22.6) | 83 | 1.81 (1.37, 2.40)^b |
| Hepatitis | 45 (0.7) | 3 | - | 47 (2.2) | 8 | - | 29 (3.1) | 10 | - |
| Hypertension | 234 (3.4) | 17 | 2.18 (1.23, 3.85)^b | 667 (30.8) | 74 | 1.19 (0.87, 1.64) | 643 (68.9) | 185 | 1.81 (1.23, 2.65)^b |
| Ischemic heart disease | 85 (1.3) | 8 | 4.50 (2.16, 9.36)^b | 187 (8.6) | 29 | 1.69 (1.12, 2.55)^b | 312 (33.4) | 114 | 1.83 (1.39, 2.41)^b |
| Obstructive pulmonary disorders | 247 (3.6) | 10 | 2.44 (1.24, 4.78) ^b | 194 (8.9) | 28 | 1.92 (1.27, 2.90) ^b | 227 (24.3) | 79 | 1.65 (1.25, 2.19) ^b |
| Osteoarthritis, joint disorders | 1,487 (21.8) | 30 | 1.14 (0.73, 1.78) | 972 (44.8) | 86 | 1.04 (0.76, 1.42) | 625 (67.0) | 158 | 1.09 (0.80, 1.48) |
| Osteoporosis | 9 (0.1) | 1 | - | 40 (1.8) | 8 | - | 137 (14.7) | 47 | 1.50 (1.06, 2.13) ^b |
| Other Diseases of Bladder and Urethra | 40 (0.6) | 2 | - | 56 (2.6) | 11 | 2.38 (1.28, 4.42) ^b | 76 (8.2) | 26 | 1.13 (0.73, 1.73) |
| Other endocrine disorders | 1,237 (18.1) | 53 | 3.17 (1.97, 5.08)^b | 842 (38.8) | 86 | 1.34 (0.96, 1.87) | 495 (53.1) | 143 | 1.54 (1.14, 2.07)^b |
| Other upper respiratory tract disease | 1,175 (17.2) | 26 | 1.44 (0.91, 2.28) | 479 (22.1) | 39 | 0.94 (0.65, 1.35) | 295 (31.6) | 89 | 1.49 (1.13, 1.96) ^b |
| Paralysis | 17 (0.3) | 3 | - | 21 (1.0) | 4 | - | 26 (2.8) | 10 | - |
| Peripheral and central vascular disorders | 28 (0.4) | 4 | - | 94 (4.3) | 12 | 1.14 (0.63, 2.07) | 237 (25.4) | 90 | 1.63 (1.23, 2.17) ^b |
| Peripheral venous disorders | 185 (2.7) | 10 | 2.42 (1.24, 4.73) ^b | 279 (12.9) | 30 | 1.21 (0.81, 1.81) | 219 (23.5) | 65 | 1.27 (0.95, 1.71) |
| Personality disorders | 56 (0.8) | 4 | 3.72 (1.32, 10.46) ^b | 20 (0.9) | 4 | - | 6 (0.6) | 3 | - |
| Rheumatoid Arthritis and Related Disease | 20 (0.3) | 0 | - | 58 (2.7) | 8 | 1.63 (0.79, 3.35) | 53 (5.7) | 13 | 0.99 (0.57, 1.74) |
| Skin disorders | 2,015 (29.5) | 41 | 1.38 (0.90, 2.11) | 896 (41.3) | 69 | 0.92 (0.67, 1.26) | 562 (60.2) | 144 | 1.21 (0.90, 1.62) |
| Substance use disorders | 663 (9.7) | 18 | 1.55 (0.85, 2.83) | 236 (10.9) | 25 | 1.54 (0.97, 2.44) | 123 (13.2) | 35 | 1.34 (0.91, 1.98) |
| Systemic lupus erythematosus and Connective Tissue Disorders | 15 (0.2) | 1 | - | 22 (1.0) | 0 | - | 18 (1.9) | 8 | - |
| Thyroid disorders | 244 (3.6) | 14 | 2.45 (1.34, 4.49) ^b | 265 (12.2) | 31 | 1.69 (1.13, 2.53) ^b | 252 (27.0) | 76 | 1.52 (1.13, 2.04) ^b |
| Tuberculosis | 48 (0.7) | 2 | - | 14 (0.7) | 4 | - | 4 (0.4) | 1 | - |

^a All models are adjusted for age (continuous variable within each age stratum), sex, race, ethnicity, BMI category, and smoking status.

^b Hazard ratio is statistically significant after adjusting for multiple comparisons