

Supplementary Material*

Garg S, Patel K, Pham H, et al. Clinical trends among U.S. adults hospitalized with COVID-19, March to December 2020. *Ann Intern Med.* 2021. [Epub ahead of print]. doi:10.7326/M21-1991

Supplement Table 1: Demographic Characteristics of Sampled versus All Adult Cases with Laboratory-Confirmed COVID-19-Associated Hospitalization by Month, COVID-NET, March–December 2020

Supplement Table 2A. COVID-19 Associated Hospitalization* Rates (and 95% Confidence Intervals) per 100,000 Population by Age Group and Month, COVID-NET, March–December 2020 (n=116,743)

Supplement Table 2B. COVID-19 Associated Hospitalization* Rates (and 95% Confidence Intervals) per 100,000 Population by Sex and Month, COVID-NET, March–December 2020 (n=116,743)

Supplement Table 2C. COVID-19 Associated Hospitalization* Rates (and 95% Confidence Intervals) per 100,000 Population by Surveillance Site and Month, COVID-NET, March–December 2020 (n=116,743)†

Supplement Table 3A. COVID-19-Associated Intensive Care Unit Admission* and In-Hospital Death* Rates (and 95% Confidence Intervals) per 100,000 Population by Age Group and Month, COVID-NET, March–December 2020 (n=18,508)

Supplement Table 3B. COVID-19-Associated Intensive Care Unit Admission* and In-Hospital Death* Rates (and 95% Confidence Intervals) per 100,000 Population by Sex and Month, COVID-NET, March–December 2020 (n=18,508)

Supplement Table 4A. COVID-19 Associated Hospitalization* Rates (and 95% Confidence Intervals) per 100,000 Population by Age and Race/Ethnicity, COVID-NET, March–May, June–September, October–December 2020 (n=101,021)*

Supplement Table 4B. COVID-19-Associated Intensive Care Unit Admission* and In-Hospital Death* Rates (and 95% Confidence Intervals) per 100,000 Population by Age and Race/Ethnicity, March–May, June–September, October–December 2020 (n=16,035)

Supplement Table 5. Percentage Receiving COVID-19-Associated Treatments Among a Sample of Hospitalized Adults with COVID-19 by Month, COVID-NET, March–December 2020 (n=18,508)

Supplement Table 6. Percentage with Select Clinical Interventions and Outcomes among a Sample of Hospitalized Adults with COVID-19 by Month, COVID-NET, March–December 2020* (n=18,508)

Supplement Figure. COVID-19-Associated Hospitalization Surveillance Case Report Form

* This supplementary material was provided by the authors to give readers further details on their article. The material was reviewed but not copyedited.

Supplement Table 1: Demographic Characteristics of Sampled versus All Adult Cases with Laboratory-Confirmed COVID-19-Associated Hospitalization by Month, COVID-NET, March–December 2020

| Variable | March | | April | | May | | June | | July | |
|---------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|
| | Sampled Cases Weighted % | All Cases Unweighted % | Sampled Cases Weighted % | All Cases Unweighted % | Sampled Cases Weighted % | All Cases Unweighted % | Sampled Cases Weighted % | All Cases Unweighted % | Sampled Cases Weighted % | All Cases Unweighted % |
| Median Age (years) | 61 | 61 | 63 | 63 | 60 | 60 | 55 | 56 | 58 | 57 |
| Sex | | | | | | | | | | |
| Male | 59 | 55 | 53 | 53 | 49 | 50 | 51 | 49 | 47 | 50 |
| Female | 42 | 45 | 47 | 47 | 51 | 50 | 49 | 51 | 53 | 51 |
| Race/Ethnicity | | | | | | | | | | |
| NH White | 35 | 37 | 39 | 36 | 31 | 32 | 26 | 27 | 29 | 29 |
| NH Black | 43 | 40 | 32 | 34 | 30 | 29 | 30 | 30 | 38 | 37 |
| NH AI/AN | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 |
| NH Asian | 5 | 5 | 4 | 5 | 5 | 5 | 7 | 6 | 5 | 5 |
| NH Multiracial | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| Hispanic or Latino | 13 | 14 | 21 | 21 | 29 | 27 | 32 | 30 | 24 | 24 |
| Unknown | 3 | 4 | 2 | 3 | 2 | 4 | 3 | 5 | 3 | 4 |
| Surveillance Site | | | | | | | | | | |
| California | 6 | 6 | 4 | 4 | 3 | 4 | 12 | 9 | 11 | 11 |
| Colorado | 17 | 17 | 14 | 13 | 6 | 8 | 6 | 5 | 4 | 5 |
| Connecticut | 7 | 8 | 12 | 12 | 7 | 7 | 2 | 2 | 1 | 1 |
| Georgia | 24 | 24 | 9 | 10 | 9 | 9 | 18 | 22 | 35 | 33 |
| Iowa | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 |
| Maryland | 18 | 18 | 34 | 34 | 38 | 38 | 24 | 25 | 15 | 16 |
| Michigan | 7 | 7 | 5 | 5 | 1 | 1 | 0 | 1 | 1 | 1 |
| Minnesota | 3 | 3 | 6 | 6 | 15 | 14 | 11 | 10 | 7 | 7 |
| New Mexico | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 |
| New York | 6 | 6 | 5 | 5 | 5 | 5 | 3 | 3 | 1 | 1 |
| Ohio | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 |
| Oregon | 3 | 3 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 |
| Tennessee | 6 | 6 | 3 | 3 | 4 | 4 | 10 | 8 | 9 | 9 |
| Utah | 1 | 1 | 1 | 1 | 2 | 2 | 5 | 5 | 4 | 4 |

Supplement Table 1 Continued...

| Variable | August | | September | | October | | November | | December | |
|---------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|
| | Sampled Cases Weighted % | All Cases Unweighted % | Sampled Cases Weighted % | All Cases Unweighted % | Sampled Cases Weighted % | All Cases Unweighted % | Sampled Cases Weighted % | All Cases Unweighted % | Sampled Cases Weighted % | All Cases Unweighted % |
| Median Age (years) | 60 | 58 | 60 | 60 | 62 | 62 | 64 | 64 | 65 | 65 |
| Sex | | | | | | | | | | |
| Male | 49 | 49 | 49 | 49 | 53 | 51 | 50 | 51 | 53 | 50 |
| Female | 51 | 51 | 51 | 52 | 47 | 49 | 50 | 49 | 48 | 50 |
| Race/Ethnicity | | | | | | | | | | |
| NH White | 35 | 33 | 41 | 41 | 45 | 46 | 51 | 50 | 51 | 48 |
| NH Black | 33 | 32 | 26 | 25 | 22 | 21 | 19 | 19 | 23 | 23 |
| NH AI/AN | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 2 | 2 | 2 |
| NH Asian | 7 | 7 | 8 | 7 | 7 | 5 | 6 | 5 | 4 | 5 |
| NH Multiracial | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 |
| Hispanic or Latino | 21 | 22 | 21 | 22 | 21 | 22 | 17 | 18 | 17 | 15 |
| Unknown | 3 | 5 | 4 | 5 | 4 | 5 | 4 | 8 | 3 | 7 |
| Surveillance Site | | | | | | | | | | |
| California | 13 | 14 | 8 | 12 | 5 | 5 | 4 | 5 | 11 | 11 |
| Colorado | 5 | 4 | 5 | 6 | 13 | 13 | 15 | 14 | 8 | 7 |
| Connecticut | 2 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 5 | 5 |
| Georgia | 25 | 25 | 18 | 17 | 12 | 12 | 8 | 8 | 13 | 13 |
| Iowa | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| Maryland | 19 | 19 | 23 | 21 | 17 | 17 | 18 | 18 | 18 | 19 |
| Michigan | 1 | 1 | 2 | 2 | 4 | 4 | 5 | 5 | 4 | 4 |
| Minnesota | 12 | 12 | 13 | 13 | 14 | 14 | 14 | 15 | 9 | 9 |
| New Mexico | 2 | 3 | 3 | 3 | 7 | 7 | 7 | 7 | 5 | 5 |
| New York | 2 | 2 | 3 | 2 | 3 | 3 | 5 | 5 | 12 | 11 |
| Ohio | 4 | 4 | 5 | 5 | 4 | 4 | 3 | 3 | 2 | 2 |
| Oregon | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 2 |
| Tennessee | 8 | 8 | 8 | 8 | 9 | 9 | 7 | 7 | 8 | 8 |
| Utah | 3 | 3 | 6 | 6 | 6 | 6 | 4 | 4 | 3 | 3 |

COVID-NET= COVID-19-Associated Hospitalization Surveillance Network; NH= Non-Hispanic; AI/AN = American Indian/Alaska Native; Asian/PI = Asian/Pacific Islander

Supplement Table 2A. COVID-19 Associated Hospitalization* Rates (and 95% Confidence Intervals) per 100,000 Population by Age Group and Month, COVID-NET, March–December 2020 (n=116,743)

| Month | Overall | 18-49 years | 50-64 years | ≥65 years |
|------------------|---|------------------|---------------------|---------------------|
| | Hospitalization rate per 100,000 population (95% Confidence Interval) | | | |
| March | 20.2 (19.6-20.8) | 8.7 (8.2-9.2) | 27.3 (26.0-28.6) | 45.4 (43.5-47.3) |
| April | 52.0 (51.1-52.9) | 21.2 (20.4-22.0) | 61.9 (59.9-63.9) | 131.4 (128.1-134.6) |
| May | 40.9 (40.2-41.7) | 21.5 (20.7-22.2) | 47.8 (46.0-49.5) | 90.4 (87.7-93.1) |
| June | 24.2 (23.6-24.8) | 15.7 (15.1-16.4) | 28.1 (26.8-29.4) | 44.3 (42.4-46.2) |
| July | 41.6 (40.8-42.4) | 25.6 (24.8-26.4) | 49.1 (47.4-50.8) | 79.6 (77.1-82.1) |
| August | 29.6 (28.9-30.2) | 17.7 (17.0-18.4) | 34.1 (32.7-35.6) | 59.2 (57.0-61.4) |
| September | 21.2 (20.7-21.8) | 11.5 (11.0-12.1) | 24.3 (23.0-25.5) | 46.4 (44.5-48.4) |
| October | 37.1 (36.3-37.8) | 17.4 (16.7-18.1) | 42.7 (41.0-44.3) | 88.8 (86.1-91.4) |
| November | 87.2 (86.1-88.4) | 34.7 (33.7-35.6) | 95.3 (92.9-97.7) | 234.0 (229.7-238.4) |
| December | 105.3 (104.1-106.6) | 39.5 (38.5-40.5) | 111.9 (109.2-114.5) | 293.8 (289.0-298.7) |

COVID-NET= COVID-19-Associated Hospitalization Surveillance

* All hospitalized COVID-NET cases were used for calculation of hospitalization rates. Unadjusted hospitalization rates per 100,000 population were calculated by taking the total number of hospitalized cases each month, divided by the National Center for Health Statistics' vintage 2019 bridge-race postcensal population estimates for the counties included in surveillance

Supplement Table 2B. COVID-19 Associated Hospitalization* Rates (and 95% Confidence Intervals) per 100,000 Population by Sex and Month, COVID-NET, March–December 2020 (n=116,743)

| Month | Males | Females |
|------------------|---|---------------------|
| | Hospitalization rate per 100,000 population (95% Confidence Interval) | |
| Overall | 61.0 (59.6-62.4) | 41.2 (40.1-42.3) |
| March | 23.0 (22.1-23.8) | 17.6 (16.9-18.3) |
| April | 57.1 (55.7-58.4) | 47.2 (46.0-48.4) |
| May | 42.3 (41.2-43.5) | 39.7 (38.6-40.7) |
| June | 24.4 (23.6-25.3) | 23.9 (23.1-24.7) |
| July | 42.5 (41.3-43.6) | 40.7 (39.6-41.8) |
| August | 29.8 (28.8-30.7) | 29.3 (28.4-30.3) |
| September | 21.2 (20.4-22.1) | 21.2 (20.4-22.0) |
| October | 39.1 (38.0-40.2) | 35.2 (34.1-36.2) |
| November | 92.1 (90.4-93.8) | 82.7 (81.1-84.2) |
| December | 108.6 (106.8-110.4) | 102.2 (100.5-104.0) |

COVID-NET= COVID-19-Associated Hospitalization Surveillance Network

*All hospitalized COVID-NET cases were used for calculation of hospitalization rates. Unadjusted hospitalization rates per 100,000 population were calculated by taking the total number of hospitalized cases each month, divided by the National Center for Health Statistics' vintage 2019 bridge-race postcensal population estimates for the counties included in surveillance

Supplement Table 2C. COVID-19 Associated Hospitalization* Rates (and 95% Confidence Intervals) per 100,000 Population by Surveillance Site and Month, COVID-NET, March–December 2020 (n=116,743)†

| Month | CA | CO | CT | GA | IA | MD | MI | MN | NM | NY | OH | OR | TN | UT |
|---|----------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|----------------------------|----------------------------|-------------------------------|------------------------------|
| Hospitalization rate per 100,000 population (95% Confidence Interval) | | | | | | | | | | | | | | |
| Mar | 10.8 (9.6-12.0) | 38.5 (35.9-41.1) | 47.4 (42.7-52.2) | 38.2 (36.1-40.4) | 1.0 (0.0-2.9) | 19.4 (18.1-20.6) | 36.5 (32.8-40.3) | 5.3 (4.4-6.3) | 3.8 (2.6-5.0) | 16.7 (14.7-18.6) | 8.3 (6.9-9.7) | 9.7 (8.1-11.3) | 22.1 (19.6-24.6) | 6.2 (4.5-7.9) |
| Apr | 16.5 (15.0-17.9) | 79.2 (75.5-83.0) | 191.0 (181.5-200.4) | 42.1 (39.8-44.3) | 92.5 (73.9-111.1) | 95.3 (92.5-98.1) | 63.5 (58.6-68.5) | 33.9 (31.6-36.3) | 22.1 (19.1-25.0) | 35.0 (32.2-37.7) | 26.6 (24.1-29.1) | 15.0 (13.0-17.0) | 28.6 (25.7-31.4) | 21.4 (18.3-24.5) |
| May | 12.7 (11.4-14.0) | 38.2 (35.7-40.8) | 88.4 (82.0-94.8) | 28.1 (26.3-30.0) | 53.5 (39.4-67.7) | 84.0 (81.4-86.6) | 13.6 (11.3-15.9) | 62.2 (59.1-65.4) | 30.5 (27.1-34.0) | 30.3 (27.7-32.9) | 27.0 (24.5-29.5) | 6.2 (4.9-7.4) | 26.7 (23.9-29.4) | 24.9 (21.6-28.3) |
| Jun | 17.7 (16.2-19.2) | 13.1 (11.6-14.7) | 16.3 (13.5-19.0) | 43.1 (40.8-45.4) | 24.3 (14.8-33.9) | 32.3 (30.7-33.9) | 3.2 (2.1-4.3) | 26.7 (24.7-28.8) | 18.6 (15.9-21.2) | 10.3 (8.8-11.8) | 17.7 (15.7-19.8) | 10.1 (8.4-11.7) | 36.7 (33.5-39.9) | 36.2 (32.1-40.2) |
| Jul | 39.7 (37.5-42.0) | 22.5 (20.5-24.5) | 12.1 (9.7-14.5) | 111.2 (107.5-114.9) | 40.9 (28.5-53.3) | 35.8 (34.1-37.5) | 10.7 (8.7-12.7) | 32.6 (30.3-34.9) | 38.9 (35.1-42.8) | 9.3 (7.9-10.8) | 31.7 (28.9-34.4) | 15.8 (13.8-17.9) | 70.9 (66.4-75.3) | 44.8 (40.3-49.2) |
| Aug | 36.3 (34.1-38.4) | 13.6 (12.1-15.1) | 12.2 (9.8-14.6) | 58.6 (55.9-61.3) | 51.6 (37.7-65.5) | 30.1 (28.5-31.7) | 7.0 (5.4-8.6) | 37.8 (35.4-40.3) | 18.5 (15.8-21.1) | 8.1 (6.8-9.5) | 18.1 (16.0-20.1) | 15.9 (13.9-17.9) | 46.5 (42.9-50.2) | 28.5 (25.0-32.1) |
| Sept | 20.9 (19.2-22.5) | 14.7 (13.1-16.3) | 10.6 (8.4-12.9) | 29.4 (27.5-31.3) | 46.7 (33.5-60.0) | 23.4 (22.1-24.8) | 9.5 (7.6-11.4) | 29.2 (27.0-31.4) | 18.2 (15.5-20.8) | 7.2 (5.9-8.4) | 15.1 (13.2-17.0) | 13.3 (11.4-15.2) | 32.7 (29.7-35.8) | 34.7 (30.7-38.6) |
| Oct | 15.8 (14.4-17.2) | 54.3 (51.2-57.4) | 32.9 (29.0-36.8) | 36.2 (34.1-38.3) | 77.9 (60.8-95.0) | 33.9 (32.2-35.5) | 34.3 (30.7-37.9) | 56.5 (53.5-59.5) | 63.7 (58.7-68.6) | 18.3 (16.3-20.3) | 23.9 (21.5-26.2) | 17.1 (14.9-19.2) | 61.1 (56.9-65.2) | 64.0 (58.6-69.4) |
| Nov | 34.4 (32.3-36.5) | 144.1 (139.1-149.1) | 134.4 (126.4-142.3) | 55.8 (53.2-58.4) | 209.3 (181.3-237.3) | 85.5 (82.8-88.1) | 102.3 (96.1-108.6) | 136.0 (131.4-140.7) | 151.9 (144.2-159.5) | 69.2 (65.2-73.1) | 44.7 (41.5-48.0) | 48.7 (45.2-52.3) | 112.9 (107.3-118.6) | 103.5 (96.7-110.3) |
| Dec | 93.8 (90.4-97.3) | 89.4 (85.5-93.3) | 152.6 (144.1-161.0) | 109.8 (106.1-113.4) | 84.7 (66.9-102.5) | 110.4 (107.4-113.4) | 107.4 (101.0-113.9) | 100.7 (96.7-104.7) | 143.6 (136.2-151.0) | 174.9 (168.7-181.2) | 35.5 (32.7-38.4) | 44.3 (40.9-47.7) | 152.5 (145.9-159.1) | 86.0 (79.8-92.2) |

COVID-NET= COVID-19-Associated Hospitalization Surveillance Network

* All hospitalized COVID-NET cases were used for calculation of hospitalization rates. Unadjusted hospitalization rates per 100,000 population were calculated by taking the total number of hospitalized cases each month, divided by the National Center for Health Statistics' vintage 2019 bridge-race postcensal population estimates for the counties included in surveillance

† Rates bolded and highlighted in red represent the highest monthly hospitalization rate for each site

Supplement Table 3A. COVID-19-Associated Intensive Care Unit Admission* and In-Hospital Death* Rates (and 95% Confidence Intervals) per 100,000 Population by Age Group and Month, COVID-NET, March–December 2020 (n=18,508)

| Month | Overall | | 18-49 years | | 50-64 years | | ≥65 years | |
|------------------|--|-------------------|---------------|-------------------|------------------|-------------------|------------------|-------------------|
| | ICU Admission | In-Hospital Death | ICU Admission | In-Hospital Death | ICU Admission | In-Hospital Death | ICU Admission | In-Hospital Death |
| | Rate per 100,000 population (95% Confidence Interval) | | | | | | | |
| March | 7.6 (7.3-8.0) | 2.8 (2.6-3.0) | 2.4 (2.1-2.6) | 0.2 (0.2-0.3) | 11.1 (10.3-11.9) | 2.8 (2.4-3.2) | 18.9 (17.7-20.1) | 10.6 (9.7-11.5) |
| April | 18.0 (17.5-18.5) | 9.2 (8.9-9.6) | 6.4 (6.0-6.8) | 0.9 (0.7-1.0) | 22.4 (21.2-23.6) | 6.7 (6.1-7.4) | 47.2 (45.3-49.2) | 37.4 (35.7-39.1) |
| May | 10.6 (10.2-11.0) | 5.0 (4.7-5.3) | 4.0 (3.7-4.3) | 0.4 (0.3-0.5) | 14.6 (13.7-15.6) | 5.0 (4.5-5.6) | 24.9 (23.5-26.3) | 18.8 (17.6-20.0) |
| June | 6.5 (6.2-6.8) | 1.6 (1.5-1.8) | 2.8 (2.5-3.1) | 0.2 (0.2-0.3) | 8.3 (7.6-9.0) | 1.8 (1.5-2.2) | 15.2 (14.1-16.3) | 5.5 (4.8-6.2) |
| July | 10.7 (10.3-11.1) | 4.1 (3.9-4.4) | 4.4 (4.1-4.8) | 0.5 (0.4-0.6) | 14.3 (13.4-15.3) | 3.4 (3.0-3.9) | 24.6 (23.2-26.0) | 16.0 (14.9-17.2) |
| August | 6.4 (6.1-6.7) | 2.7 (2.5-2.9) | 3.0 (2.7-3.3) | 0.2 (0.1-0.2) | 8.1 (7.4-8.8) | 1.5 (1.2-1.8) | 14.4 (13.3-15.4) | 11.7 (10.8-12.7) |
| September | 4.6 (4.3-4.8) | 1.9 (1.7-2.0) | 1.8 (1.6-2.0) | 0.3 (0.2-0.3) | 5.7 (5.1-6.3) | 0.8 (0.6-1.0) | 11.4 (10.4-12.3) | 8.0 (7.2-8.8) |
| October | 7.9 (7.6-8.3) | 3.2 (3.0-3.4) | 2.4 (2.1-2.6) | 0.3 (0.2-0.4) | 9.6 (8.9-10.4) | 2.9 (2.5-3.3) | 22.4 (21.1-23.8) | 12.2 (11.2-13.2) |
| November | 17.9 (17.4-18.4) | 8.5 (8.2-8.9) | 5.7 (5.3-6.1) | 0.7 (0.6-0.9) | 20.9 (19.7-22.0) | 6.3 (5.7-7.0) | 50.5 (48.4-52.5) | 34.8 (33.1-36.5) |
| December | 20.2 (19.7-20.8) | 11.7 (11.3-12.1) | 7.0 (6.6-7.5) | 0.9 (0.7-1.0) | 20.8 (19.6-21.9) | 9.7 (9.0-10.5) | 58.9 (56.8-61.1) | 46.6 (44.7-48.6) |

COVID-NET= COVID-19-Associated Hospitalization Surveillance Network; ICU= Intensive Care Unit

* A sample of hospitalized cases with completed chart reviews and a discharge disposition were used for calculation of ICU admission and in-hospital death rates. Unadjusted ICU admission and in-hospital death rates per 100,000 population among hospitalized patients were calculated using the weighted number of sampled cases per month with each outcome as the numerator, divided by the National Center for Health Statistics' vintage 2019 bridge-race postcensal population estimates for the counties included in surveillance.

Supplement Table 3B. COVID-19-Associated Intensive Care Unit Admission* and In-Hospital Death* Rates (and 95% Confidence Intervals) per 100,000 Population by Sex and Month, COVID-NET, March–December 2020 (n=18,508)

| Month | ICU Admission | | In-Hospital Death | |
|------------------|---|------------------|-------------------|------------------|
| | Males | Females | Males | Females |
| | Rate per 100,000 population (95% CI) | | | |
| Overall | 137.3 (135.2-139.3) | 85.1 (83.5-86.7) | 61.0 (59.6-62.4) | 41.2 (40.1-42.3) |
| March | 10.3 (9.7-10.8) | 5.2 (4.8-5.6) | 4.1 (3.7-4.4) | 1.6 (1.4-1.9) |
| April | 21.6 (20.8-22.4) | 14.7 (14.0-15.3) | 11.1 (10.5-11.7) | 7.5 (7.0-8.0) |
| May | 13.5 (12.8-14.1) | 7.8 (7.3-8.3) | 6.3 (5.9-6.8) | 3.8 (3.5-4.1) |
| June | 8.0 (7.5-8.5) | 5.1 (4.7-5.5) | 2.1 (1.9-2.4) | 1.1 (1.0-1.3) |
| July | 12.1 (11.5-12.7) | 9.3 (8.8-9.8) | 4.9 (4.5-5.3) | 3.5 (3.1-3.8) |
| August | 8.2 (7.7-8.7) | 4.7 (4.3-5.1) | 2.8 (2.5-3.1) | 2.6 (2.3-2.8) |
| September | 5.6 (5.1-6.0) | 3.6 (3.3-4.0) | 2.1 (1.8-2.3) | 1.6 (1.4-1.8) |
| October | 10.1 (9.5-10.7) | 5.9 (5.5-6.3) | 4.9 (4.5-5.3) | 1.6 (1.4-1.8) |
| November | 23.0 (22.1-23.8) | 13.1 (12.5-13.7) | 10.3 (9.7-10.9) | 6.9 (6.4-7.3) |
| December | 24.9 (24.0-25.8) | 15.8 (15.1-16.5) | 12.5 (11.9-13.1) | 11.0 (10.4-11.5) |

COVID-NET= COVID-19-Associated Hospitalization Surveillance Network; ICU= Intensive Care Unit

* A sample of hospitalized cases with completed chart reviews and a discharge disposition were used for calculation of ICU admission and in-hospital death rates. Unadjusted ICU admission and in-hospital death rates per 100,000 population among hospitalized patients were calculated using the weighted number of sampled cases per month with each outcome as the numerator, divided by the National Center for Health Statistics' vintage 2019 bridge-race postcensal population estimates for the counties included in surveillance.

Supplement Table 4A. COVID-19 Associated Hospitalization* Rates (and 95% Confidence Intervals) per 100,000 Population by Age and Race/Ethnicity, COVID-NET, March–May, June–September, October–December 2020 (n=101,021)*

| Race/Ethnicity | Age Group (years) | Value | March-May | June-September | October-December |
|-----------------|----------------------|----------------------|---------------------|---------------------|---------------------|
| NH White | Overall | N | 9,880 | 9,321 | 27,722 |
| | | Hospitalization Rate | 63.8 (62.5-65.0) | 60.2 (58.9-61.4) | 178.9 (176.8-181.0) |
| | 18-49 | N | 1,207 | 1,755 | 3,749 |
| | | Hospitalization Rate | 15.2 (14.4-16.1) | 22.1 (21.1-23.2) | 47.3 (45.7-48.8) |
| | 50-64 | N | 2,310 | 2,416 | 6,346 |
| | | Hospitalization Rate | 57.2 (54.9-59.6) | 59.9 (57.5-62.3) | 157.3 (153.4-161.1) |
| 65+ | N | 6,363 | 5,150 | 17,627 | |
| | Hospitalization Rate | 180.5 (176.1-184.9) | 146.1 (142.1-150.1) | 500.0 (492.6-507.4) | |
| NH Black | Overall | N | 9,575 | 9,384 | 12,060 |
| | | Hospitalization Rate | 220.9 (216.4-225.3) | 216.5 (212.1-220.8) | 278.2 (273.2-283.1) |
| | 18-49 | N | 2,165 | 3,373 | 3,364 |
| | | Hospitalization Rate | 80.9 (77.5-84.3) | 126.1 (121.8-130.3) | 125.8 (121.5-130.0) |
| | 50-64 | N | 3,230 | 2,911 | 3,896 |
| | | Hospitalization Rate | 312.1 (301.4-322.9) | 281.3 (271.1-291.5) | 376.5 (364.6-388.3) |
| 65+ | N | 4,180 | 3,100 | 4,800 | |
| | Hospitalization Rate | 668.4 (648.1-688.6) | 495.7 (478.2-513.1) | 767.5 (745.8-789.2) | |
| Hispanic | Overall | N | 6,246 | 7,098 | 9,735 |
| | | Hospitalization Rate | 200.1 (195.2-205.1) | 227.4 (222.1-232.7) | 311.9 (305.7-318.1) |
| | 18-49 | N | 3,103 | 3,686 | 3,831 |
| | | Hospitalization Rate | 139.3 (134.4-144.2) | 165.5 (160.1-170.8) | 172.0 (166.5-177.4) |
| | 50-64 | N | 1,945 | 1,985 | 2,889 |
| | | Hospitalization Rate | 327.4 (312.9-342.0) | 334.2 (319.5-348.9) | 486.3 (468.6-504.1) |
| 65+ | N | 1,198 | 1,427 | 3,015 | |
| | Hospitalization Rate | 400.4 (377.8-423.1) | 477.0 (452.2-501.7) | 1008 (971.8-1044) | |

COVID-NET= COVID-19-Associated Hospitalization Surveillance Network; NH=Non-Hispanic; Hispanic = Hispanic or Latino

* All hospitalized COVID-NET cases with known race/ethnicity, who were classified as either NH White, NH Black or Hispanic were included in this analysis. Unadjusted hospitalization rates per 100,000 population were calculated by taking the total number of hospitalized cases each month, divided by the National Center for Health Statistics' vintage 2019 bridge-race postcensal population estimates for the counties included in surveillance.

Supplement Table 4B. COVID-19-Associated Intensive Care Unit Admission* and In-Hospital Death* Rates (and 95% Confidence Intervals) per 100,000 Population by Age and Race/Ethnicity, March–May, June–September, October–December 2020 (n=16,035)

| Race/Ethnicity | Age Group (years) | Value | March-May | June-September | October-December |
|-----------------|-------------------|------------------------|---------------------|---------------------|---------------------|
| NH White | Overall | N | 3,208 | 2,706 | 1,555 |
| | | ICU Admission Rate | 20.5 (19.8-21.2) | 13.6 (13.1-14.2) | 33.7 (32.8-34.6) |
| | | In-hospital Death Rate | 13.2 (12.7-13.8) | 6.3 (5.9-6.7) | 19.1 (18.4-19.8) |
| | 18-49 | N | 685 | 700 | 277 |
| | | ICU Admission Rate | 4.8 (4.3-5.2) | 3.4 (3.0-3.8) | 7.1 (6.5-7.7) |
| | | In-hospital Death Rate | 0.5 (0.4-0.7) | 0.2 (0.1-0.3) | 0.6 (0.5-0.8) |
| | 50-64 | N | 776 | 744 | 520 |
| | | ICU Admission Rate | 20.4 (19.0-21.8) | 15.2 (14.0-16.4) | 29.4 (27.7-31.1) |
| | | In-hospital Death Rate | 5.4 (4.7-6.1) | 2.2 (1.7-2.7) | 9.4 (8.4-10.3) |
| | 65+ | N | 1,747 | 1,262 | 758 |
| | | ICU Admission Rate | 56.1 (53.7-58.6) | 35.0 (33.0-36.9) | 98.6 (95.3-101.9) |
| | | In-hospital Death Rate | 50.9 (48.5-53.2) | 24.9 (23.2-26.5) | 71.8 (69.0-74.6) |
| NH Black | Overall | N | 2,233 | 1,524 | 617 |
| | | ICU Admission Rate | 69.5 (67.0-72.0) | 49.6 (47.5-51.7) | 50.8 (48.7-52.9) |
| | | In-hospital Death Rate | 30.3 (28.6-31.9) | 18.0 (16.7-19.3) | 25.1 (23.6-26.6) |
| | 18-49 | N | 848 | 716 | 214 |
| | | ICU Admission Rate | 17.6 (16.0-19.2) | 18.6 (17.0-20.2) | 13.8 (12.4-15.2) |
| | | In-hospital Death Rate | 2.4 (1.8-2.9) | 1.2 (0.8-1.7) | 1.5 (1.0-2.0) |
| | 50-64 | N | 673 | 430 | 251 |
| | | ICU Admission Rate | 98.1 (92.0-104.1) | 64.0 (59.1-68.8) | 74.3 (69.1-79.6) |
| | | In-hospital Death Rate | 35.3 (31.7-38.9) | 15.6 (13.2-18.0) | 35.9 (32.2-39.5) |
| | 65+ | N | 712 | 378 | 152 |
| | | ICU Admission Rate | 244.1 (231.9-256.3) | 158.5 (148.6-168.3) | 170.3 (160.1-180.5) |

| | | | | | |
|-----------------|---------|------------------------|---------------------|---------------------|---------------------|
| | | In-hospital Death Rate | 141.4 (132.1-150.7) | 93.7 (86.1-101.3) | 108.3 (100.1-116.4) |
| Hispanic | Overall | N | 1,820 | 1,745 | 627 |
| | | ICU Admission Rate | 65.8 (63.0-68.7) | 60.2 (57.4-62.9) | 85.6 (82.4-88.9) |
| | | In-hospital Death Rate | 18.3 (16.8-19.8) | 18.1 (16.6-19.6) | 34.9 (32.9-37.0) |
| | 18-49 | N | 1,183 | 1,021 | 292 |
| | | ICU Admission Rate | 36.1 (33.6-38.6) | 33.9 (31.5-36.4) | 40.9 (38.3-43.6) |
| | | In-hospital Death Rate | 4.4 (3.5-5.3) | 4.5 (3.6-5.3) | 5.6 (4.6-6.6) |
| | 50-64 | N | 424 | 464 | 224 |
| | | ICU Admission Rate | 142.3 (132.7-151.9) | 105.1 (96.9-113.4) | 142.5 (132.9-152.1) |
| | | In-hospital Death Rate | 41.4 (36.2-46.6) | 21.5 (17.8-25.3) | 60.0 (53.8-66.2) |
| | 65+ | N | 213 | 260 | 111 |
| | | ICU Admission Rate | 135.3 (122.1-148.5) | 166.0 (151.4-180.6) | 305.5 (285.7-325.4) |
| | | In-hospital Death Rate | 75.6 (65.7-85.4) | 112.5 (100.5-124.5) | 203.6 (187.4-219.7) |

COVID-NET= COVID-19-Associated Hospitalization Surveillance Network; NH=Non-Hispanic; Hispanic = Hispanic or Latino; ICU= Intensive Care Unit

* A sample of hospitalized COVID-NET cases with completed chart reviews and a discharge disposition, and with known race/ethnicity, who were classified as either NH White, NH Black or Hispanic, were included in this analysis. Unadjusted ICU admission and in-hospital death rates per 100,000 population among hospitalized patients were calculated using the weighted number of sampled cases per month with each outcome as the numerator, divided by the National Center for Health Statistics' vintage 2019 bridge-race postcensal population estimates for the counties included in surveillance.

Supplement Table 5. Percentage Receiving COVID-19-Associated Treatments Among a Sample of Hospitalized Adults with COVID-19 by Month, COVID-NET, March–December 2020 (n=18,508)

| Month | Unweighted N | Cortico-steroids | Remdesivir | Azithromycin | Convalescent Plasma | HCQ* | Tocilizumab | Zinc | Vitamin C | Protease Inhibitor† | Other Drug‡ | Study Drug§ | Remdesivir Study |
|-----------|--------------|------------------|------------|--------------|---------------------|-------|-------------|------|-----------|---------------------|-------------|-------------|------------------|
| | | | | | | | | | | | | | |
| Overall | 18,508 | 54.80 | 36.13 | 25.96 | 10.48 | 8.19 | 2.54 | 6.86 | 6.61 | 0.30 | 1.64 | 0.72 | 0.29 |
| March | 1,375 | 18.88 | 1.75 | 43.52 | 0.46 | 48.93 | 4.90 | 3.61 | 2.55 | 4.28 | 0.94 | 0.06 | 1.44 |
| April | 3,488 | 20.87 | 2.78 | 32.84 | 3.83 | 40.85 | 7.83 | 7.99 | 7.11 | 0.60 | 0.97 | 0.37 | 0.40 |
| May | 3,466 | 19.59 | 15.53 | 22.67 | 10.40 | 8.58 | 6.56 | 8.94 | 8.91 | 0.09 | 0.94 | 1.28 | 0.30 |
| June | 1,523 | 31.17 | 29.88 | 22.02 | 12.42 | 0.56 | 3.67 | 6.20 | 6.46 | 0.02 | 0.52 | 2.50 | 0.36 |
| July | 2,176 | 61.12 | 31.61 | 29.95 | 13.97 | 0.78 | 2.48 | 6.12 | 5.94 | 0.07 | 1.01 | 1.41 | 0.02 |
| August | 1,823 | 59.19 | 32.06 | 26.02 | 11.64 | 1.09 | 0.87 | 5.81 | 5.88 | 0.34 | 0.85 | 1.01 | 0.34 |
| September | 1,472 | 58.57 | 38.74 | 22.58 | 11.28 | 0.24 | 1.07 | 5.91 | 5.28 | 0.00 | 1.18 | 1.03 | 0.80 |
| October | 901 | 65.00 | 45.47 | 24.14 | 17.42 | 0.38 | 1.38 | 7.75 | 6.56 | 0.00 | 1.08 | 0.55 | 0.13 |
| November | 1,429 | 73.98 | 54.33 | 24.07 | 12.18 | 0.39 | 0.60 | 5.23 | 5.31 | 0.00 | 1.17 | 0.58 | 0.26 |
| December | 855 | 74.19 | 53.82 | 22.19 | 9.71 | 0.36 | 0.36 | 8.15 | 8.22 | 0.00 | 3.85 | 0.19 | 0.05 |

COVID-NET= COVID-19-Associated Hospitalization Surveillance Network; HCQ= Hydroxychloroquine

*Hydroxychloroquine with or without azithromycin

† Protease inhibitors excluded if patient had known history of HIV

‡ Other drugs include chloroquine, sarilumab (Kevzara), Baricitinib (Olumiant), losartan, immunomodulators, casirivimab/imdevimab (REGN-COV2), bamlanivimab, IVIG, interferon, ivermectin, cholecalciferol and daclizumab

§ Study drugs other than remdesivir studies include: hydroxychloroquine study, losartan study, baricitinib study, monoclonal antibody study, interferon study, sarilumab (Kevzara) study, tocilizumab study, casirivimab/Imdevimab (REGN-COV2) study, kinase Inhibitor study, convalescent plasma study, dexamethasone study and other specified study drugs

Supplement Table 6. Percentage with Select Clinical Interventions and Outcomes among a Sample of Hospitalized Adults with COVID-19 by Month, COVID-NET, March–December 2020* (n=18,508)

| Age Group (Years) | Variable | March | | April | | May | | June | | July | |
|--------------------------------|---|----------------|----------------------------|----------------|----------------------------|----------------|----------------------------|----------------|----------------------------|---------------|----------------------------|
| | | N | Wtd % (95%CI) | N | Wtd % (95%CI) | N | Wtd % (95%CI) | N | Wtd % (95%CI) | N | Wtd % (95%CI) |
| All Ages 18+ | N | 1,375 | | 3,488 | | 3,466 | | 1,523 | | 2,176 | |
| | ICU Admission | 500 | 37.8 (33.9-41.8) | 1,153 | 33.3 (31.0-35.7) | 965 | 27.8 (25.3-30.3) | 421 | 28.5 (24.4-32.8) | 531 | 25.6 (22.6-28.8) |
| | Mechanical Vent | 343 | 27.8 (24.2-31.5) | 677 | 20.7 (18.8-22.8) | 560 | 17.0 (15.0-19.2) | 201 | 12.5 (9.7-15.7) | 238 | 12.8 (10.5-15.5) |
| | CPAP/BIPAP | 37 | 2.5 (1.4-4.0) | 142 | 4.0 (3.1-5.1) | 175 | 5.0 (3.8-6.3) | 59 | 4.0 (2.3-6.3) | 124 | 4.9 (3.6-6.5) |
| | HFNC | 82 | 5.6 (3.9-7.8) | 280 | 7.2 (6.0-8.6) | 250 | 8.0 (6.6-9.7) | 105 | 10.0 (7.2-13.4) | 165 | 10.4 (8.3-12.9) |
| | RRT | 80 | 6.3 (4.5-8.5) | 206 | 6.7 (5.5-8.0) | 178 | 5.9 (4.6-7.3) | 58 | 4.6 (2.9-6.9) | 69 | 5.1 (3.6-7.0) |
| | Vasopressor Use | 278 | 22.7 (19.4-26.3) | 589 | 18.2 (16.4-20.2) | 534 | 17.0 (15.0-19.2) | 197 | 12.1 (9.4-15.2) | 199 | 11.2 (9.0-13.7) |
| | In-Hospital Death | 163 | 13.9 (11.2-17.0) | 487 | 17.1 (15.2-19.0) | 394 | 13.2 (11.3-15.1) | 91 | 7.1 (5.0-9.8) | 146 | 9.9 (7.8-12.3) |
| | In-Hospital Death or Hospice | 183 | 15.0 (12.2-18.1) | 581 | 21.2 (19.3-23.3) | 484 | 16.9 (14.8-19.1) | 108 | 8.4 (6.0-11.3) | 177 | 11.8 (9.6-14.4) |
| | LOS [‡] for cases discharged alive | 1,203 | 6.0 (2.6-17.1) | 2,990 | 6.1 (3.1-12.9) | 3,045 | 4.9 (2.4-9.9) | 1,424 | 4.7 (2.3-9.4) | 2,015 | 4.3 (2.0-7.7) |
| | LOS [‡] for in-hospital deaths | 163 | 9.0 (5.1-15.8) | 487 | 8.0 (4.3-15.0) | 394 | 8.1 (3.7-17.4) | 91 | 15.6 (10.1-23.5) | 145 | 12.8 (10.2-21.9) |
| LOS [‡] for all cases | 1,372 | 6.4 (2.9-16.8) | 3,480 | 6.5 (3.2-13.3) | 3,443 | 5.2 (2.5-10.9) | 1,520 | 5.1 (2.4-10.7) | 2,164 | 4.7 (2.2-9.2) | |
| 18-49 | N | 539 | | 1,303 | | 1,403 | | 669 | | 952 | |
| | ICU Admission | 174 | 28.5 (22.2-35.5) | 385 | 29.0 (24.7-33.5) | 310 | 19.4 (16.0-23.3) | 137 | 17.8 (12.9-23.6) | 163 | 17.2 (12.9-22.2) |
| | Mechanical Vent | 112 | 18.7 (13.4-24.9) | 208 | 15.9 (12.6-19.7) | 155 | 9.2 (6.8-12.1) | 49 | 4.8 (2.7-7.9) | 68 | 6.8 (4.2-10.4) |
| | CPAP/BIPAP | 15 | 2.1 (0.6-5.0) [†] | 35 | 2.1 (1.0-3.7) [†] | 37 | 3.5 (1.9-5.9) | 13 | 2.4 (0.7-5.9) [†] | 26 | 2.5 (1.0-5.3) [†] |
| | HFNC | 30 | 4.8 (2.3-8.8) [†] | 90 | 6.5 (4.4-9.2) | 108 | 8.8 (6.2-12.0) | 44 | 9.2 (5.4-14.3) | 50 | 7.1 (4.2-11.1) |
| | RRT | 31 | 4.8 (2.3-8.6) [†] | 76 | 6.2 (4.1-8.9) | 51 | 3.4 (1.9-5.5) | 16 | 1.7 (0.7-3.3) [†] | 13 | 0.8 (0.3-1.8) [†] |
| | Vasopressor Use | 92 | 15.5 (10.7-21.5) | 163 | 12.1 (9.2-15.6) | 140 | 8.5 (6.2-11.3) | 43 | 5.7 (3.0-9.7) | 49 | 4.7 (2.6-7.9) |
| | In-Hospital Death | 24 | 2.8 (1.2-5.5) [†] | 47 | 4.0 (2.3-6.5) | 26 | 1.9 (0.8-3.7) [†] | 11 | 1.5 (0.3-4.6) [†] | 12 | 1.8 (0.5-4.6) [†] |
| | In-Hospital Death or Hospice | 25 | 2.9 (1.3-5.6) [†] | 50 | 4.1 (2.4-6.6) | 28 | 2.0 (0.9-3.8) [†] | 13 | 1.7 (0.4-4.6) [†] | 12 | 1.8 (0.5-4.6) [†] |
| | LOS [‡] for cases discharged alive | 509 | 4.7 (2.0-9.0) | 1,252 | 4.6 (2.3-9.0) | 1,374 | 3.5 (1.9-6.9) | 655 | 3.2 (1.7-6.2) | 935 | 2.9 (1.5-5.4) |
| | LOS [‡] for in-hospital deaths | 24 | 15.6* (7.6-30.7) | 47 | 7.4 (5.7-9.2) | 26 | (4.9-16.6) | 11 | 17.6 (14.2-20.9) | 11 | (9.7-15.6) |
| LOS [‡] for all cases | 537 | 4.8 (2.1-9.3) | 1,300 | 4.7 (2.4-9.0) | 1,402 | 3.6 (1.9-7.1) | 668 | 3.3 (1.7-6.4) | 947 | 3.0 (1.6-5.6) | |
| 50-64 | N | 376 | | 882 | | 879 | | 448 | | 595 | |

| | | | | | | | | | | | |
|------------|---|-----|----------------------------|-------|------------------|-------|------------------|-----|-----------------------------|-----|------------------|
| | ICU Admission | 145 | 39.0 (32.1-46.1) | 331 | 35.6 (31.4-40.0) | 307 | 32.4 (27.7-37.4) | 144 | 29.5 (22.4-37.5) | 189 | 28.4 (22.9-34.5) |
| | Mechanical Vent | 104 | 28.3 (22.3-34.9) | 200 | 23.5 (19.8-27.5) | 204 | 21.6 (17.6-26.1) | 79 | 16.2 (10.7-23.0) | 86 | 12.0 (8.2-16.7) |
| | CPAP/BIPAP | 8 | 2.3 (0.8-5.2) [†] | 37 | 3.2 (1.9-4.9) | 37 | 3.8 (2.1-6.2) | 23 | 3.9 (1.5-8.4) [†] | 53 | 8.4 (5.4-12.5) |
| | HFNC | 15 | 3.9 (1.6-7.8) [†] | 72 | 7.2 (5.1-9.9) | 51 | 6.2 (3.9-9.3) | 30 | 8.8 (4.5-15.2) | 53 | 11.4 (7.5-16.4) |
| | RRT | 27 | 8.4 (5.0-13.0) | 64 | 7.8 (5.7-10.4) | 64 | 8.0 (5.4-11.2) | 23 | 5.8 (2.9-10.2) | 27 | 5.9 (3.2-9.9) |
| | Vasopressor Use | 88 | 23.9 (18.3-30.4) | 172 | 20.1 (16.7-24.0) | 186 | 20.4 (16.5-24.8) | 77 | 15.0 (10.0-21.3) | 71 | 11.2 (7.5-15.8) |
| | In-Hospital Death | 36 | 9.9 (6.1-14.9) | 98 | 10.7 (8.1-13.8) | 95 | 11.1 (8.1-14.7) | 26 | 6.5 (3.3-11.4) | 36 | 6.8 (3.8-11.0) |
| | In-Hospital Death or Hospice | 37 | 10.2 (6.4-15.2) | 114 | 13.1 (10.3-16.5) | 96 | 11.1 (8.1-14.8) | 29 | 6.7 (3.4-11.5) | 37 | 7.5 (4.3-12.0) |
| | LOS [‡] for cases discharged alive | 340 | 5.3 (2.2-15.2) | 783 | 6.0 (2.7-13.1) | 783 | 5.0 (2.4-10.7) | 419 | 5.5 (2.5-10.3) | 551 | 5.3 (2.5-8.8) |
| | LOS [‡] for in-hospital deaths | 36 | 9.6 (4.7-18.3) | 98 | 11.5 (4.5-21.0) | 95 | 11.5 (6.3-20.4) | 26 | 32.3 (11.6-40.5) | 36 | 18.9 (11.0-28.2) |
| | LOS [‡] for all cases | 376 | 5.7 (2.3-15.4) | 882 | 6.5 (2.9-14.0) | 878 | 5.4 (2.5-12.0) | 447 | 5.8 (2.6-11.4) | 590 | 5.7 (2.7-9.8) |
| 65+ | N | 460 | | 1,303 | | 1,184 | | 406 | | 629 | |
| | ICU Admission | 181 | 42.0 (35.5-48.6) | 437 | 34.1 (30.6-37.6) | 348 | 30.9 (26.7-35.3) | 140 | 40.9 (32.4-49.8) | 179 | 31.5 (25.9-37.6) |
| | Mechanical Vent | 127 | 32.4 (26.4-38.9) | 269 | 21.4 (18.5-24.6) | 201 | 19.7 (16.1-23.7) | 73 | 18.6 (12.5-26.2) | 84 | 19.5 (14.7-25.1) |
| | CPAP/BIPAP | 14 | 2.8 (1.1-5.7) [†] | 70 | 5.5 (3.9-7.4) | 101 | 6.9 (4.9-9.5) | 23 | 6.0 (2.5-11.9) [†] | 45 | 4.3 (2.5-7.0) |
| | HFNC | 37 | 7.5 (4.5-11.7) | 118 | 7.5 (5.8-9.7) | 91 | 8.7 (6.3-11.7) | 31 | 12.2 (6.6-19.9) | 62 | 12.8 (8.9-17.6) |
| | RRT | 22 | 5.4 (2.8-9.2) | 66 | 6.3 (4.6-8.4) | 63 | 6.2 (4.2-8.9) | 19 | 7.0 (3.0-13.6) [†] | 29 | 8.6 (5.2-13.2) |
| | Vasopressor Use | 98 | 25.7 (20.1-31.9) | 254 | 20.0 (17.2-23.1) | 208 | 21.2 (17.5-25.3) | 77 | 17.4 (11.7-24.3) | 79 | 17.6 (13.0-23.0) |
| | In-Hospital Death | 103 | 23.3 (18.0-29.3) | 342 | 26.9 (23.7-30.3) | 273 | 23.3 (19.6-27.3) | 54 | 14.7 (9.3-21.7) | 98 | 20.3 (15.6-25.8) |
| | In-Hospital Death or Hospice | 121 | 25.5 (20.0-31.6) | 417 | 34.0 (30.6-37.7) | 360 | 32.4 (28.2-36.8) | 66 | 18.4 (12.1-26.1) | 128 | 25.2 (20.0-31.0) |
| | LOS [‡] for cases discharged alive | 354 | 9.8 (4.2-19.9) | 955 | 7.4 (3.9-14.5) | 888 | 6.3 (3.4-12.9) | 350 | 7.3 (3.8-13.9) | 529 | 5.2 (2.7-9.8) |
| | LOS [‡] for in-hospital deaths | 103 | 8.1 (5.1-14.8) | 342 | 7.7 (4.0-14.4) | 273 | 7.0 (3.2-16.8) | 54 | 12.7 (6.0-19.0) | 98 | 12.6 (8.4-21.3) |
| | LOS [‡] for all cases | 459 | 9.3 (4.5-19.4) | 1,298 | 7.5 (3.9-14.5) | 1,163 | 6.5 (3.3-13.6) | 405 | 8.2 (4.0-15.6) | 627 | 6.2 (3.1-12.2) |

Supplement Table 6 continued...

| Age Group (Years) | Variable | August | | September | | October | | November | | December | |
|--------------------------------|---|---------------|----------------------------|---------------|-----------------------------|---------------|-----------------------------|---------------|------------------------------|---------------|-----------------------------|
| | | N | Wtd % (95%CI) | N | Wtd % (95%CI) | N | Wtd % (95%CI) | N | Wtd % (95%CI) | N | Wtd % (95%CI) |
| All Ages 18+ | N | 1,823 | | 1,472 | | 901 | | 1,429 | | 855 | |
| | ICU Admission | 410 | 21.4 (18.2-24.9) | 345 | 22.3 (18.6-26.4) | 184 | 21.7 (18.2-25.5) | 294 | 21.1 (18.8-23.6) | 163 | 20.5 (17.1-24.3) |
| | Mechanical Ventilation | 171 | 10.2 (7.8-13.1) | 151 | 10.2 (7.5-13.4) | 76 | 8.7 (6.4-11.5) | 154 | 10.8 (9.1-12.7) | 97 | 12.3 (9.6-15.3) |
| | CPAP/BIPAP | 118 | 6.1 (4.3-8.3) | 93 | 4.5 (3.1-6.4) | 53 | 7.0 (4.9-9.8) | 112 | 8.1 (6.6-9.9) | 60 | 7.5 (5.4-10.1) |
| | High Flow Nasal Cannula | 121 | 7.5 (5.4-9.9) | 101 | 6.9 (4.7-9.8) | 92 | 10.3 (7.9-13.2) | 131 | 9.5 (7.8-11.3) | 69 | 8.7 (6.6-11.2) |
| | Renal Replacement Therapy | 70 | 6.4 (4.5-8.8) | 46 | 4.9 (2.8-7.9) | 37 | 4.1 (2.6-6.2) | 73 | 5.4 (4.1-6.9) | 52 | 6.1 (4.4-8.2) |
| | Vasopressor Use | 167 | 9.9 (7.5-12.7) | 147 | 10.7 (7.9-14.1) | 83 | 8.8 (6.6-11.4) | 150 | 10.9 (9.1-12.9) | 95 | 12.8 (10.0-16.0) |
| | In-Hospital Death | 123 | 8.9 (6.7-11.6) | 118 | 9.0 (6.6-12.1) | 71 | 8.7 (6.5-11.5) | 119 | 10.1 (8.3-12.1) | 89 | 11.9 (9.2-15.1) |
| | In-Hospital Death or Hospice | 150 | 10.9 (8.4-13.7) | 135 | 10.5 (7.8-13.8) | 87 | 12.3 (9.4-15.6) | 137 | 12.0 (10.1-14.2) | 107 | 15.7 (12.5-19.3) |
| | LOS [‡] for cases discharged alive | 1,692 | 4.3 (2.1-7.8) | 1,343 | 4.0 (1.9-7.2) | 812 | 4.3 (2.0-7.6) | 1,294 | 4.4 (2.3-8.5) | 740 | 4.3 (2.0-8.4) |
| | LOS [‡] for in-hospital deaths | 123 | 14.1 (5.0-21.7) | 118 | 12.1 (7.0-19.8) | 71 | 11.5 (7.2-16.8) | 119 | 10.1 (4.4-18.2) | 89 | 9.7 (5.3-18.7) |
| LOS [‡] for all cases | 1,820 | 4.6 (2.3-8.6) | 1,466 | 4.4 (2.0-8.1) | 894 | 4.6 (2.1-8.6) | 1,421 | 4.7 (2.4-9.4) | 844 | 4.6 (2.2-9.0) | |
| 18-49 | N | 711 | | 555 | | 275 | | 417 | | 242 | |
| | ICU Admission | 133 | 18.0 (12.9-24.2) | 92 | 15.9 (10.5-22.7) | 41 | 13.6 (9.3-19.0) | 70 | 17.0 (13.4-21.2) | 43 | 19.0 (13.6-25.5) |
| | Mechanical Ventilation | 43 | 7.0 (3.8-11.8) | 36 | 6.4 (3.4-10.7) | 15 | 5.4 (2.6-9.9) [†] | 39 | 9.8 (7.0-13.3) | 22 | 9.5 (5.8-14.5) |
| | CPAP/BIPAP | 42 | 6.4 (3.3-11.1) | 19 | 1.7 (0.8-3.2) | 7 | 1.7 (0.5-4.1) [†] | 21 | 4.6 (2.8-7.1) | 10 | 3.9 (1.7-7.6) [†] |
| | High Flow Nasal Cannula | 30 | 5.1 (2.4-9.2) [†] | 28 | 4.6 (2.0-8.8) [†] | 20 | 7.6 (4.1-12.5) | 32 | 7.4 (5.0-10.6) | 14 | 6.8 (3.4-11.9) |
| | Renal Replacement Therapy | 11 | 1.0 (0.3-2.5) [†] | 13 | 3.0 (0.9-7.2) [†] | 8 | 2.2 (0.7-5.1) [†] | 13 | 3.2 (1.7-5.5) | 15 | 7.8 (4.1-13.1) |
| | Vasopressor Use | 35 | 4.6 (2.2-8.4) [†] | 34 | 7.1 (3.4-12.6) [†] | 17 | 4.4 (2.3-7.6) | 32 | 7.9 (5.3-11.1) | 22 | 9.5 (5.7-14.7) |
| | In-Hospital Death | 9 | 1.0 (0.3-2.5) [†] | 13 | 2.2 (0.8-5.0) [†] | 5 | 1.9 (0.5-4.6) [†] | 10 | 2.1 (1.0-4.0) [†] | 8 | 2.4 (0.8-5.2) [†] |
| | In-Hospital Death or Hospice | 12 | 1.3 (0.5-2.7) [†] | 14 | 2.4 (0.9-5.1) [†] | 6 | 3.0 (0.9-7.3) [†] | 11 | 2.4 (1.1-4.4) [†] | 8 | 2.4 (0.8-5.3) [†] |
| | LOS [‡] for cases discharged alive | 696 | 3.2 (1.7-6.3) | 536 | 2.9 (1.4-5.7) | 269 | 2.9 (1.6-5.3) | 404 | 3.4 (1.7-6.5) | 228 | 3.8 (1.7-8.0) |
| | LOS [‡] for in-hospital deaths | 9 | 14.6 (4.2-16.3) | 13 | (4.8-26.4) | 5 | 1.8 (1.0-10.8) [†] | 10 | 11.4 (5.3-17.4) [†] | 8 | 8.0 (1.3-13.4) [†] |
| LOS [‡] for all cases | 709 | 3.3 (1.7-6.4) | 551 | 3.0 (1.4-5.9) | 275 | 2.9 (1.5-5.3) | 414 | 3.5 (1.8-7.0) | 241 | 3.7 (1.7-8.0) | |
| 50-64 | N | 483 | | 396 | | 312 | | 526 | | 276 | |
| | ICU Admission | 136 | 24.6 (18.3-31.9) | 109 | 25.6 (18.6-33.6) | 73 | 22.8 (16.9-29.7) | 118 | 22.2 (18.6-26.1) | 51 | 19.7 (14.7-25.5) |

| | | | | | | | | | | | |
|-----|---------------------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|
| | Mechanical Ventilation | 59 | 10.3 (6.1-16.1) | 48 | 12.4 (7.0-20.0) | 32 | 9.4 (5.9-14.1) | 64 | 11.8 (9.2-14.9) | 28 | 11.2 (7.4-16.1) |
| | CPAP/BIPAP | 28 | 5.0 (2.2-9.6) † | 33 | 7.1 (3.5-12.5) † | 15 | 3.9 (1.8-7.2) † | 41 | 7.3 (5.2-9.8) | 18 | 6.9 (4.0-11.1) |
| | High Flow Nasal Cannula | 45 | 7.8 (4.1-13.4) | 34 | 8.7 (4.4-15.0) | 35 | 10.6 (6.4-16.2) | 58 | 11.5 (8.8-14.7) | 24 | 9.6 (6.1-14.2) |
| | Renal Replacement Therapy | 30 | 8.6 (4.5-14.4) | 9 | 1.5 (0.5-3.4) † | 18 | 6.9 (3.5-12.1) | 37 | 7.3 (5.2-10.0) | 22 | 8.1 (5.1-12.3) |
| | Vasopressor Use | 63 | 11.8 (7.2-18.0) | 51 | 12.3 (7.2-19.1) | 36 | 10.6 (6.9-15.4) | 63 | 11.7 (9.0-14.8) | 27 | 11.5 (7.5-16.6) |
| | In-Hospital Death | 29 | 4.5 (1.9-8.9) † | 20 | 3.7 (1.7-6.8) † | 20 | 6.9 (3.6-11.7) | 35 | 6.8 (4.7-9.4) | 24 | 9.2 (5.8-13.7) |
| | In-Hospital Death or Hospice | 31 | 4.6 (2.0-9.1) † | 24 | 4.0 (2.0-7.1) † | 23 | 8.4 (4.7-13.6) | 36 | 6.9 (4.9-9.6) | 26 | 10.0 (6.4-14.6) |
| | LOS‡ for cases discharged alive | 452 | 4.4 (2.4-9.0) | 372 | 4.8 (2.7-7.8) | 283 | 4.9 (2.9-7.6) | 487 | 4.5 (2.5-8.1) | 245 | 3.8 (1.8-7.5) |
| | LOS‡ for in-hospital deaths | 29 | 22.8 (17.6-42.9) | 20 | 19.5* (7.0-43.9) | 20 | 15.8 (6.2-18.3) | 35 | 12.4 (6.1-23.0) | 24 | 13.3 (4.0-21.4) |
| | LOS‡ for all cases | 482 | 4.6 (2.5-9.7) | 394 | 5.0 (2.7-8.1) | 309 | 5.1 (2.9-8.3) | 525 | 4.6 (2.5-8.9) | 273 | 4.0 (1.9-8.6) |
| 65+ | N | 629 | | 521 | | 314 | | 486 | | 337 | |
| | ICU Admission | 141 | 22.0 (16.8-27.8) | 144 | 25.1 (18.8-32.4) | 70 | 25.8 (19.7-32.6) | 106 | 22.4 (18.6-26.6) | 69 | 21.6 (16.2-27.8) |
| | Mechanical Ventilation | 69 | 12.7 (8.5-17.9) | 67 | 11.7 (7.2-17.7) | 29 | 10.3 (6.3-15.5) | 51 | 10.7 (8.0-14.0) | 47 | 13.9 (9.7-19.1) |
| | CPAP/BIPAP | 48 | 6.5 (4.0-10.0) | 41 | 5.1 (2.8-8.4) | 31 | 12.2 (7.8-17.9) | 50 | 10.1 (7.5-13.3) | 32 | 9.2 (5.8-13.8) |
| | High Flow Nasal Cannula | 46 | 9.1 (5.7-13.6) | 39 | 7.7 (3.9-13.4) | 37 | 11.8 (7.8-17.0) | 41 | 9.3 (6.6-12.5) | 31 | 9.0 (5.9-13.0) |
| | Renal Replacement Therapy | 29 | 9.2 (5.7-14.0) | 24 | 8.7 (4.2-15.5) † | 11 | 3.5 (1.4-7.1) † | 23 | 5.3 (3.3-8.1) | 15 | 4.4 (2.2-7.6) |
| | Vasopressor Use | 69 | 12.8 (8.6-18.1) | 62 | 12.6 (7.8-18.9) | 30 | 10.3 (6.5-15.3) | 55 | 11.8 (8.9-15.2) | 46 | 14.7 (10.2-20.3) |
| | In-Hospital Death | 85 | 17.9 (13.1-23.5) | 85 | 17.5 (12.1-24.1) | 46 | 14.0 (9.7-19.3) | 74 | 15.5 (12.2-19.2) | 57 | 17.2 (12.6-22.8) |
| | In-Hospital Death or Hospice | 107 | 22.3 (17.0-28.4) | 97 | 20.7 (14.8-27.7) | 58 | 20.2 (14.7-26.6) | 90 | 19.1 (15.5-23.1) | 73 | 24.0 (18.3-30.4) |
| | LOS‡ for cases discharged alive | 544 | 5.0 (2.6-8.4) | 435 | 4.6 (2.3-7.9) | 260 | 5.0 (2.1-10.2) | 403 | 5.0 (2.6-10.0) | 267 | 4.9 (2.5-8.9) |
| | LOS‡ for in-hospital deaths | 85 | 12.4 (4.6-19.7) | 85 | 11.2 (7.2-17.4) | 46 | 11.4 (7.6-16.0) | 74 | 9.1 (4.2-17.4) | 57 | 8.9 (5.4-16.7) |
| | LOS‡ for all cases | 629 | 5.4 (2.9-9.9) | 521 | 5.3 (2.5-9.7) | 310 | 5.7 (2.5-11.3) | 482 | 5.4 (2.8-11.0) | 330 | 5.5 (2.8-9.6) |

COVID-NET= COVID-19-Associated Hospitalization Surveillance Network; Wtd %= Weighted percentage; ICU= Intensive care unit; CPAP/BIPAP = continuous positive airway pressure/bilevel positive airway pressure; In-Hospital Death or Hospice= Died in-hospital or discharged alive to hospice; LOS = Hospital length of stay: LOS for all cases= length of stay among cases that were discharged alive (including discharged to hospice) and those who died in-hospital

*Missingness of data: ICU Admission 160 (1.5%); Mechanical Ventilation, CPAP/BIPAP and High Flow Nasal Cannula 230 (2.3%); Renal Replacement Therapy 227 (2.3%); Vasopressor Use 261 (2.4%); In-Hospital Death 141 (1.4%); LOS 84 (0.6%)

† Relative standard error >30%

‡ Median and Interquartile range presented for LOS

COVID-19-Associated Hospitalization Surveillance Case Report Form



| | | |
|---------------------------|--------------------------|------------------------------------|
| Case ID: C 2 0 2 1 | CDC 2019-nCoV ID: | NNDSS loc. rec. ID/Case ID: |
|---------------------------|--------------------------|------------------------------------|

A. Patient Data – THIS INFORMATION IS NOT SENT TO CDC

| | | | |
|------------|-------------|--------------|---------------|
| Last Name: | First Name: | Middle Name: | Chart Number: |
| Address: | | | Address Type: |
| City: | State: | Zip Code: | |
| Site Use: | | | CDCTrack: |

B. Abstractor Information – THIS INFORMATION IS NOT SENT TO CDC

| | |
|---------------------|--|
| 1. Abstractor Name: | 2. Date of Abstraction: ____/____/____ |
|---------------------|--|

C. Enrollment Information

| | | | | | | |
|--|--|---|--|--|--|--|
| 1. Admission Type: <input type="checkbox"/> Hospitalization <input type="checkbox"/> Observation only | 2. State: | 3. County: | 4. Case Type: <input type="checkbox"/> Pediatric <input type="checkbox"/> Adult | 5. Date of Birth: ____/____/____ | 6. Age: ____ <input type="checkbox"/> Years <input type="checkbox"/> Months (if < 1 yr) <input type="checkbox"/> Days (if < 1 month) | 7. Sex: <input type="checkbox"/> Male <input type="checkbox"/> Female |
| 8. Race: <input type="checkbox"/> White <input type="checkbox"/> Black or African American <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> American Indian or Alaska Native <input type="checkbox"/> Multiracial <input type="checkbox"/> Not specified | 9. Ethnicity <input type="checkbox"/> Hispanic or Latino <input type="checkbox"/> Non-Hispanic/Latino <input type="checkbox"/> Not Specified | 10. Type of Insurance <i>(select all that apply):</i> <input type="checkbox"/> Private <input type="checkbox"/> Medicare <input type="checkbox"/> Medicaid/state assistance program <input type="checkbox"/> Military <input type="checkbox"/> Indian Health Service <input type="checkbox"/> Incarcerated <input type="checkbox"/> Uninsured <input type="checkbox"/> Unknown <input type="checkbox"/> Other, specify: _____ | | 11. Pregnant? (15-49 years of age only): <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown <input type="checkbox"/> Not applicable (male) | | |
| 13. Was patient transferred from another hospital? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown | | | 13a. Transfer Hospital ID: _____ | 13b. Transfer Hospital Admission Date: ____/____/____ 13c. Transfer Date: ____/____/____ | | |
| 14. Where did the patient reside at the time of hospitalization? (Indicate TYPE of residence.) <input type="checkbox"/> Private residence <input type="checkbox"/> Private residence with services <input type="checkbox"/> Homeless/shelter <input type="checkbox"/> Nursing home/Skilled nursing facility <input type="checkbox"/> Alcohol/Drug Abuse Treatment <input type="checkbox"/> Hospitalized at birth <input type="checkbox"/> Rehabilitation facility <input type="checkbox"/> Corrections facility <input type="checkbox"/> Hospice <input type="checkbox"/> Assisted living/Residential care <input type="checkbox"/> LTACH <input type="checkbox"/> Group/Retirement home <input type="checkbox"/> Psychiatric facility <input type="checkbox"/> Other long term care facility <input type="checkbox"/> Other, specify: _____ <input type="checkbox"/> Unknown | | | | | | |

14a. If resident of a facility, indicate NAME of facility: _____

D. SARS-CoV-2 Testing Results (can add up to 10 test results in database)

| |
|--|
| 1. Test 1: <input type="checkbox"/> Molecular Assay (e.g. RT-PCR, RVP) <input type="checkbox"/> Antigen detection test <input type="checkbox"/> Serology <input type="checkbox"/> Method Unknown <input type="checkbox"/> Other, specify: _____ |
| 1a. Specimen collection date: ____/____/____ 1b. Specimen collection ID: _____ 1c. Testing facility ID: _____ |
| 1d. Test result: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Indeterminate |
| 2. Test 2: <input type="checkbox"/> Molecular Assay (e.g. RT-PCR, RVP) <input type="checkbox"/> Antigen detection test <input type="checkbox"/> Serology <input type="checkbox"/> Method Unknown <input type="checkbox"/> Other, specify: _____ |
| 2a. Specimen collection date: ____/____/____ 2b. Specimen collection ID: _____ 2c. Testing facility ID: _____ |
| 2d. Test result: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Indeterminate |

E. ICU and Other Interventions (can add up to 3 ICU stays in database)

| | |
|--|--|
| 1. Was the patient admitted to an intensive care unit (ICU)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown 1a. Date of 1st ICU Admission: ____/____/____ <input type="checkbox"/> Unknown 1b. Date of 1st ICU Discharge: ____/____/____ <input type="checkbox"/> Unknown | |
| 2. BiPAP or CPAP use? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown | 3. High flow nasal cannula (e.g., Vapotherm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown |
| 4. Invasive mechanical ventilation? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown | 5. ECMO? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown |
| 6. Vasopressor use? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (Common vasopressors are Dobutamine, Dopamine, Epinephrine, Milrinone, Neosynephrine, Norepinephrine, Vasopressin) | |
| 7. Systemic steroids? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (Common systemic steroids include: Methylprednisolone, Prednisone, Prednisolone, Dexamethasone, Hydrocortisone, Cortisone) | |
| 7a. Systemic steroid start date: ____/____/____ <input type="checkbox"/> Unknown | 7b. Systemic steroid end date: ____/____/____ <input type="checkbox"/> Unknown |
| 8. IVIG? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown | |
| 9. Renal Replacement Therapy (RRT) or Dialysis? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Includes Peritoneal Dialysis (PD), Hemodialysis (HD), Continuous Venovenous Hemofiltration (CVVH), Continuous Venovenous Hemodialysis (CVVHD), and Slow Continuous Ultrafiltration (SCUF) | |

J. Underlying Medical Conditions (continued)

1e. Neurologic Disorder: Yes No/Unknown

- Amyotrophic lateral sclerosis (ALS)
- Cerebral palsy
- Cognitive dysfunction
- Dementia/Alzheimer's disease
- Developmental delay
- Down syndrome/Trisomy 21
- Edward's syndrome/Trisomy 18
- Epilepsy/seizure/seizure disorder
- Mitochondrial disorder (See list)
- Multiple sclerosis (MS)
- Muscular dystrophy (See list)
- Myasthenia gravis (MG)
- Neural tube defects/Spina bifida (See list)
- Neuropathy
- Parkinson's disease
- Plegias/Paralysis/Quadriplegia
- Scoliosis/Kyphoscoliosis
- Traumatic brain injury (TBI), history of

1f. History of Guillain-Barre Syndrome: Yes No/Unknown1g. Immunocompromised Condition: Yes No/Unknown

- AIDS or CD4 count < 200
- Complement deficiency (See list)
- Graft vs. host disease (GVHD)
- HIV infection
- Immunoglobulin deficiency/immunodeficiency (See list)
- Immunosuppressive therapy (within the 12 months previous to admission) (see instructions):
 If yes, for what condition? _____
- Leukemia*
- Lymphoma/Hodgkins/Non-Hodgkins (NHL)*
- Metastatic cancer*
- Multiple myeloma*
- Solid organ malignancy*
 If yes, which organ? _____
- Steroid therapy (within 2 weeks of admission) (see instructions)
- Transplant, hematopoietic stem cell (bone marrow transplant (BMT), peripheral stem cell transplant (PSCT)), history of
- Transplant, solid organ (SOT), history of

*Current/in treatment or diagnosed in last 12 months

1h. Renal Disease Yes No/Unknown

- Chronic kidney disease (CKD)/chronic renal insufficiency (CRI)
- Dialysis (HD)
- End stage renal disease (ESRD)
- Glomerulonephritis (GN)
- Nephrotic syndrome
- Polycystic kidney disease (PCKD)

1i. Gastrointestinal/Liver Disease (Do Not Record GERD): Yes No/Unknown

- Alcoholic hepatitis
- Autoimmune hepatitis
- Barrett's esophagitis
- Chronic liver disease
- Chronic pancreatitis
- Cirrhosis/End stage liver disease (ESLD)
- Crohn's disease
- Esophageal varices
- Esophageal strictures
- Hepatitis B, chronic (HBV)
- Hepatitis C, chronic (HCV)
- Non-alcoholic fatty liver disease (NAFLD)/NASH
- Ulcerative colitis (UC)

1j. Rheumatologic/Autoimmune/Inflammatory Conditions (Do Not Record OA):

- Yes No/Unknown
- Ankylosing spondylitis
- Dermatomyositis
- Juvenile idiopathic arthritis
- Kawasaki disease
- Microscopic polyangiitis
- Polyarteritis nodosum (PAN)
- Polymyalgia rheumatica
- Polymyositis
- Psoriatic arthritis
- Rheumatoid arthritis (RA)
- Systemic lupus erythematosus (SLE)/Lupus
- Systemic sclerosis
- Takayasu arteritis
- Temporal/Giant cell arteritis
- Vasculitis, other (See list)

1k. Other: Yes No/Unknown

- Hypertension (HTN)
- Obesity
- Post-partum (two weeks or less)
- Feeding tube dependent (PEG, see list)
- Trach dependent/Vent dependent
- Wheelchair dependent
- Other, specify _____

1l. PEDIATRIC CASES ONLY

- Abnormality of airway (see instructions)
- Chronic lung disease of prematurity/Bronchopulmonary dysplasia (BPD)
- History of febrile seizures
- Long term aspirin therapy
- Premature (gestation age < 37 weeks at birth for patients < 2 years)
If yes, specify gestational age at birth in weeks: _____
 Unknown gestational age at birth

K. Bacterial Pathogens – Sterile or respiratory site only

1. Were any bacterial culture tests performed with a collection date within 7 days of admission, or if deceased, within 3 days prior to death or 24 hours after death? Yes No Unknown

2. If yes, was there a positive culture for a bacterial pathogen? Yes No Unknown

2a. If yes, specify Pathogen 1:

2b. Date of culture:

2c. Site where pathogen identified: Blood Bronchoalveolar lavage (BAL) Pleural fluid Cerebrospinal fluid (CSF)
 Sputum Endotracheal aspirate Other, specify: _____

2d. If *Staphylococcus aureus*, specify: Methicillin resistant (MRSA) Methicillin sensitive (MSSA) Sensitivity unknown

3a. If yes, specify Pathogen 2:

3b. Date of culture:

3c. Site where pathogen identified: Blood Bronchoalveolar lavage (BAL) Pleural fluid Cerebrospinal fluid (CSF)
 Sputum Endotracheal aspirate Other, specify: _____

3d. If *Staphylococcus aureus*, specify: Methicillin resistant (MRSA) Methicillin sensitive (MSSA) Sensitivity unknown

L. Viral Pathogens

1. Was patient tested for any of the following viral respiratory pathogens within 14 days prior to or within 7 days after admission, or if deceased, 14 days prior to death or 24 hours after death? Yes No Unknown

1a. RSV Yes, positive Yes, negative Not tested/Unknown Date: _____ / _____ / _____

1b. Flu A (type: _____) Yes, positive Yes, negative Not tested/Unknown Date: _____ / _____ / _____

1c. Flu B (type: _____) Yes, positive Yes, negative Not tested/Unknown Date: _____ / _____ / _____

1d. Flu (no subtype specified) Yes, positive Yes, negative Not tested/Unknown Date: _____ / _____ / _____

1e. Adenovirus Yes, positive Yes, negative Not tested/Unknown Date: _____ / _____ / _____

1f. Parainfluenza 1 Yes, positive Yes, negative Not tested/Unknown Date: _____ / _____ / _____

1g. Parainfluenza 2 Yes, positive Yes, negative Not tested/Unknown Date: _____ / _____ / _____

1h. Parainfluenza 3 Yes, positive Yes, negative Not tested/Unknown Date: _____ / _____ / _____

1i. Parainfluenza 4 Yes, positive Yes, negative Not tested/Unknown Date: _____ / _____ / _____

1j. Human metapneumovirus Yes, positive Yes, negative Not tested/Unknown Date: _____ / _____ / _____

1k. Rhinovirus/Enterovirus Yes, positive Yes, negative Not tested/Unknown Date: _____ / _____ / _____

1l. Coronavirus 229E Yes, positive Yes, negative Not tested/Unknown Date: _____ / _____ / _____

1m. Coronavirus HKU1 Yes, positive Yes, negative Not tested/Unknown Date: _____ / _____ / _____

1n. Coronavirus NL63 Yes, positive Yes, negative Not tested/Unknown Date: _____ / _____ / _____

1o. Coronavirus OC43 Yes, positive Yes, negative Not tested/Unknown Date: _____ / _____ / _____

1p. Coronavirus (no subtype specified) Yes, positive Yes, negative Not tested/Unknown Date: _____ / _____ / _____

M. COVID-19 Treatment (can add up to 15 treatment courses in database)

1. Did the patient receive treatment for COVID-19 illness? Yes No Unknown

1a. Treatment 1: Atazanavir Convalescent plasma Remdesivir Other, specify: _____
 Azithromycin Hydroxychloroquine (Plaquenil) Tocilizumab Unknown
 Chloroquine Lopinavir-ritonavir (Kaletra)

1b. Start date: _____ / _____ / _____ Unknown 1c. End date: _____ / _____ / _____ Unknown

2. Did the patient receive treatment for COVID-19 illness? Yes No Unknown

2a. Treatment 2: Atazanavir Convalescent plasma Remdesivir Other, specify: _____
 Azithromycin Hydroxychloroquine (Plaquenil) Tocilizumab Unknown
 Chloroquine Lopinavir-ritonavir (Kaletra)

2b. Start date: _____ / _____ / _____ Unknown 2c. End date: _____ / _____ / _____ Unknown

N. Influenza Treatment (can add up to 4 treatment courses in database)

1. Did the patient receive treatment for influenza? Yes No Unknown

1a. Treatment 1: Baloxavir marboxil (Xofluza) Peramivir (Rapivab) Other, specify: _____
 Oseltamivir (Tamiflu) Zanamivir (Relenza) Unknown

1b. Start date: _____ / _____ / _____ Unknown 1c. End date: _____ / _____ / _____ Unknown

O. Chest Imaging – Based on radiology report only

| | | |
|--|---|---|
| 1. Was a chest x-ray taken during hospitalization? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown | 2. Were any of these chest x-rays abnormal? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown | 2a. Date of first abnormal chest x-ray: _____ / _____ / _____ |
|--|---|---|

2b. For first abnormal chest x-ray, please check all that apply:

| | | | |
|---|---|--|----------------------------------|
| <input type="checkbox"/> Report not available | <input type="checkbox"/> Cannot rule out pneumonia | <input type="checkbox"/> Lung infiltrate | <input type="checkbox"/> Empyema |
| <input type="checkbox"/> Air space density | <input type="checkbox"/> Consolidation | <input type="checkbox"/> Interstitial infiltrate | <input type="checkbox"/> Other |
| <input type="checkbox"/> Air space opacity | <input type="checkbox"/> Cavitation | <input type="checkbox"/> Lobar infiltrate | |
| <input type="checkbox"/> Bronchopneumonia/pneumonia | <input type="checkbox"/> ARDS (acute respiratory distress syndrome) | <input type="checkbox"/> Pleural Effusion | |

| | | |
|---|--|--|
| 3. Was a chest CT/MRI taken during hospitalization? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown | 4. Were any of these chest CT/MRIs abnormal? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown | 4a. Date of first abnormal chest CT/MRI: _____ / _____ / _____ |
|---|--|--|

4b. For first abnormal chest CT/MRI, please check all that apply:

| | | | |
|--|---|--|---|
| <input type="checkbox"/> Report not available | <input type="checkbox"/> Cavitation | <input type="checkbox"/> Pleural effusion | <input type="checkbox"/> Enlarged epiglottis |
| <input type="checkbox"/> Air space density | <input type="checkbox"/> ARDS (acute respiratory distress syndrome) | <input type="checkbox"/> Empyema | <input type="checkbox"/> Tracheal narrowing |
| <input type="checkbox"/> Air space opacity/opacification | <input type="checkbox"/> Lung infiltrate | <input type="checkbox"/> Pneumothorax | <input type="checkbox"/> Ground glass opacities |
| <input type="checkbox"/> Bronchopneumonia/pneumonia | <input type="checkbox"/> Interstitial infiltrate | <input type="checkbox"/> Pneumomediastinum | <input type="checkbox"/> Other |
| <input type="checkbox"/> Consolidation | <input type="checkbox"/> Lobar infiltrate | <input type="checkbox"/> Widened mediastinum | |

P. Discharge Summary

1. Did the patient have any of the following new diagnoses at discharge? (select all that apply) No discharge summary available

| | | | |
|--|--|---|--|
| Acute encephalopathy/encephalitis | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown | Disseminated intravascular coagulation (DIC) | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown |
| Acute liver failure | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown | Guillain-Barre syndrome | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown |
| Acute myocardial infarction | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown | Hemophagocytic syndrome | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown |
| Acute myocarditis | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown | Invasive pulmonary aspergillosis | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown |
| Acute renal failure/acute kidney injury | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown | Kawasaki disease | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown |
| Acute respiratory distress syndrome (ARDS) | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown | Multisystem inflammatory syndrome in children (MIS-C) | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown |
| Acute respiratory failure | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown | Other thrombosis/embolism/coagulopathy | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown |
| Asthma exacerbation | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown | Pneumonia | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown |
| Bacteremia | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown | Pulmonary embolism (PE) | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown |
| Bronchiolitis | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown | Reyes Syndrome | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown |
| Bronchitis | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown | Rhabdomyolysis | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown |
| Chronic lung disease of prematurity/BPD | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown | Sepsis | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown |
| Congestive heart failure | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown | Seizures | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown |
| COPD exacerbation | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown | Stroke (CVA) | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown |
| Deep vein thrombosis (DVT) | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown | Toxic shock syndrome (TSS) | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown |
| Diabetic ketoacidosis | <input type="checkbox"/> Yes <input type="checkbox"/> No/Unknown | | |

Q. ICD 10 Discharge Diagnoses (to be recorded in order of appearance)

ICD 10 codes available? Yes No

| | | |
|----------|----------|----------|
| 1. _____ | 4. _____ | 7. _____ |
| 2. _____ | 5. _____ | 8. _____ |
| 3. _____ | 6. _____ | 9. _____ |

R. Pregnancy Information - To be completed for pregnant women only

1. Total # of pregnancies to date (Gravida, G):
 _____ Unknown

2. Total # of pregnancies to date that resulted in a live birth (Parity, P):
 _____ Unknown

3. Specify total # of fetuses for current pregnancy
 1 2 3 >3 Unknown

4. Estimated delivery date (EDD):
 _____ / _____ / _____ Unknown

5. Specify gestational age in weeks: _____ Unknown

If gestational age in weeks unknown, specify trimester of pregnancy: 1st (0 to 13 6/7 weeks) 2nd (14 0/7 to 27 6/7 weeks) 3rd (28 0/7 to end) Unknown

6. Pregnancy complications during current pregnancy? (Select all that apply):

None Gestational diabetes Pre-eclampsia Pregnancy-induced hypertension (PIH) Intrauterine growth restriction (IUGR) Unknown

7. Indicate pregnancy status at discharge or death: Still pregnant No longer pregnant Unknown

7a. If patient was pregnant on admission but no longer pregnant at discharge, indicate pregnancy outcome at discharge:

Miscarriage (intrauterine death at <22 weeks GA) Ill newborn Healthy newborn Stillbirth (intrauterine death at ≥22 weeks GA)
 Preterm delivery, gestational age in weeks: _____ or Unknown Newborn died Abortion Unknown

7b. If no longer pregnant, indicate date of delivery or end of pregnancy:
 _____ / _____ / _____ Unknown

7c. If delivered, plurality at delivery:
 1 2 3 >3 Unknown

7d. If delivered, delivery type:
 C-section Vaginal Unknown

S. Additional Comments