Week 18 Newsletter Prepared by:
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<table>
<thead>
<tr>
<th>Data Source</th>
<th>Last Updated</th>
<th>COVID-19 cases in Texas</th>
<th>COVID-19 cases in Harris County</th>
<th>COVID-19 related deaths in Texas</th>
<th>COVID-19 related deaths in Harris County</th>
<th>Total tests performed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Texas DSHS 4</td>
<td>July 26, 2020, 3:50 PM</td>
<td>381,656 (Active cases: 152,540)</td>
<td>64,113 (Active cases: 43,846)</td>
<td>5,038</td>
<td>696</td>
<td>3,369,975 Texas</td>
</tr>
<tr>
<td>2. Johns Hopkins 5</td>
<td>July 27, 2020, 12:23 PM</td>
<td>394,846 (Active cases: 165,739)</td>
<td>65,344</td>
<td>5,085</td>
<td>N/A</td>
<td>3,369,975 Texas</td>
</tr>
</tbody>
</table>

4Texas DSHS daily case count now includes all cases reported publicly by local health departments around the state
5Data sources from WHO, CDC, ECDC, NHC, DXF, 1point3acres, Worldometers.info, BNO, state and national government health departments, and local media reports.
6Data represents total viral tests performed (positive and negative) at private and public labs in Texas.

COVID-19 diagnoses per day in the greater Houston area

Source: County health authorizes, Texas DSHS
In the News:

1. The American Academy of Pediatrics updates guidance on newborns whose mothers have suspected or confirmed COVID-19:
   https://www.aappublications.org/news/2020/05/21/covid19newborn052120
   a. In conjunction with recommended infection-control precautions, use of delayed-cord clamping and skin-to-skin contact following delivery can continue as usual.
   b. While difficult, discontinuing rooming-in to allow the mother to become less infectious is currently recommended.
   c. Breastfeeding continues to be recommended as the best option for feeding either via expressed breast milk or with strict infection-control precautions.
   d. If testing capacity is available, testing with 1-2 samples obtained at 24-48 hours of life is recommended.


Articles:


Background:
- Diabetes has rapidly emerged as a major comorbidity for COVID-19 severity.
- The authors examined the phenotypic characteristics and prognosis of inpatients with diabetes and COVID-19.

Methods:
- The primary outcome was combined tracheal intubation for mechanical ventilation and/or death within 7 days of admission.
- Age- and sex-adjusted multivariable logistic regressions were performed to assess the prognostic value of clinical and biological features with the endpoint.

Results:
- A total of 1317 patients (64.9% men), mean age 69.8 ± 13.0 years, median BMI 28.4 kg/m² with a predominance of type 2 diabetes (88.5%) were studied. Microvascular and macrovascular diabetic complications were found in 46.8% and 40.8% of cases, respectively.
- The primary outcome was encountered in 29.0% (95% CI 26.6, 31.5) of participants, while 10.6% (9.0, 12.4) died and 18.0% (16.0, 20.2) were discharged on day 7.
In univariate analysis, characteristics prior to admission significantly associated with the primary outcome were sex, BMI and previous treatment with renin–angiotensin–aldosterone system (RAAS) blockers, but not age, type of diabetes, HbA1c, diabetic complications or glucose lowering therapies. In multivariable analyses with covariates prior to admission, only BMI remained positively associated with the primary outcome (OR 1.28 [1.10, 1.47]).

On admission, dyspnea (OR 2.10 [1.31, 3.35]), as well as lymphocyte count (OR 0.67 [0.50, 0.88]), C-reactive protein (OR 1.93 [1.43, 2.59]) and AST (OR 2.23 [1.70, 2.93]) levels were independent predictors of the primary outcome. Finally, age (OR 2.48 [1.74, 3.53]), treated obstructive sleep apnea (OR 2.80 [1.46, 5.38]), and microvascular (OR 2.14 [1.16, 3.94]) and macrovascular complications (OR 2.54 [1.44, 4.50]) were independently associated with the risk of death on day 7.

Conclusion:
- In people with diabetes hospitalized for COVID-19, BMI, but not long-term glucose control, was positively and independently associated with tracheal intubation and/or death within 7 days. Elderly populations with long-term diabetes with advanced diabetic complications and/or treated OSA were particularly at risk of early death.

Limitations: The study investigators focused on hospitalized COVID-19 cases and the results cannot be generalized to all people with COVID19 and diabetes, especially those with a less severe form of the disease. Also, the limited size of the study population and the large proportion (i.e. 35.7%) of patients without available HbA1c measurements. The report focuses only on short-term prognosis (i.e. 7 days after admission) and cannot exclude the possibility that diabetes characteristics prior to admission could be associated with severe COVID-19 outcomes in the longer duration.
Background:

- Prolonged hospitalization can be common in patients with severe or critical COVID-19.
- In recent months, number of people who have been diagnosed with COVID-19 in outpatient setting has been increasing
- Influenza Vaccine Effectiveness in the Critically Ill (IVY) Network is conducting epidemiologic studies of COVID-19 for inpatients and outpatients

Methods:

- 14 academic medical centers in 13 states around the United States sent list of patients who had positive SARS-CoV-2 PCR tests from March 31 – June 4, 2020
- Site-specific random sampling performed on the subset of patients diagnosed either in outpatient clinics or in Emergency Departments (and did not have admission to the hospital)
- At 14–21 days from the testing date, CDC interviewed the patients or their proxies by telephone to obtain self-reported baseline demographic, socioeconomic, underlying health information, the number of days of symptoms prior to the first test date, specific symptoms experienced, whether symptoms had resolved by the time of the interview, and whether the patient had returned to overall usual baseline state of health. Interviews conducted in multiple languages.
- Participants excluded if: interview was not completed; proxy completed the interview; report of a previously positive SARS-CoV-2 test; questions about symptoms were not answered; or the respondent had not had any symptoms
• Descriptive statistics used to compare characteristics among respondents. Generalized estimating equation regression models with exchangeable correlation structure accounting for clustering by site were fitted to evaluate association between baseline characteristics and return to usual health with adjustment for potential confounders.

Results:
• At least 1 telephone call was attempted for 582 participants
  • 175 (30%) tested in Emergency Department
  • 407 (70%) tested in outpatient clinics
• 325/582 (56%) interviews completed
  • 89 (27%) tested in Emergency Department
  • 236 (73%) tested in outpatient clinics
• 51/325 respondents excluded
  • 9 had proxy complete interview
  • 17 because previously positive SARS-CoV-2 test was reported
  • 5 did not answer questions about symptoms
  • 2 called early by mistake
  • 18 did not report any symptoms at testing
• Median interval from test date to interview date was 16 days
• Baseline demographics:
  • Median age of respondents = 42.5 years
  • 142/274 (52%) female
  • 98/274 (36%) Hispanic; 96/274 (35%) non-Hispanic white; 48/274 (18%) non-Hispanic Black; 32/274 (12%) other non-Hispanic race
• Most commonly reported symptoms were fatigue (71%), cough (61%), and headache (61%)
• 7% (19 of 262 patients for whom data was available) reported being hospitalized after their initial outpatient test
  • Hospitalization occurred at a median of 3.5 days following initial test
• Among 270 participants for whom data was available:
  • 175 (65%) reported having returned to their usual state of health by the interview date
  • 95 (35%) reported not having returned to their usual state of health
    • By age group (p = 0.010)
      • 26% in 18-34 age group
      • 32% in 35-49 age group
      • 47% in ≥50 age group
    • By presence of chronic conditions (p = 0.003):
      • 28% if 0-1 chronic conditions
      • 46% if 2 chronic conditions
      • 57% if ≥3 chronic conditions
• Risk factors for not having returned to usual state of health by date of interview:
  • Age ≥50 vs. 18-34 had adjusted odds ratio (aOR) of 2.29
  • ≥3 chronic conditions vs. no chronic medical conditions also aOR of 2.29
  • Obesity with aOR = 2.31
  • Psychiatric condition with aOR = 2.32
• Most common symptoms not to have resolved by interview were cough (43%), fatigue (35%), and dyspnea (29%)
• Interval to symptom resolution among those who did not have persistent symptoms was 4-8 days

Conclusions:
• Symptoms can persist for 2-3 weeks after acute infection in outpatients with COVID-19
• Approximately 1/3rd of respondents had not returned to their usual state of health by 2-3 weeks after acute infection
• Findings have implications for understanding full spectrum of COVID-19 and potentially prolonged absences from work, school, or other activities

Limitations:
• Patients who did not respond to the telephone inquiry might have been different from those who did respond.
• Symptoms that had resolved prior to the test date or that started after the test date were not obtained in this study.
• Study relied upon patient self-report and so therefore might be subject to recall bias.

Additional Resources: