

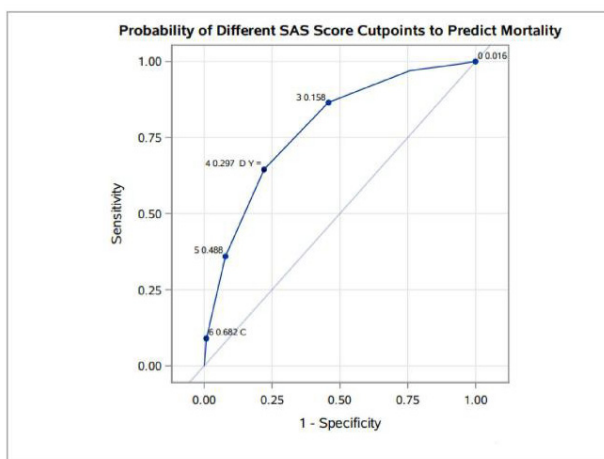
analysis of the SAS score adjusted for modified SOFA [Sequential organ failure assessment] score (mSOFA) showed that age (odds ratio [OR] 2.4, 95% confidence interval [CI] 2.04–2.72,  $p < 0.0001$ ) and oxygen saturation (OR 1.6, 95% CI 1.27–1.98) were the most significant predictors of mortality in the model. The SAS score had an AUROC of 0.78 (95% CI 0.77–0.81) (Figure 1). A cutoff score of 3 offered the most sensitivity for predicting mortality while maintaining a negative predictive value of 95% (Table 3). Comparison of AUROC shows that SAS score adjusted to mSOFA has better diagnostic information compared to either SAS score or mSOFA alone (Figure 2).

**Table 3. Accuracy of the SAS score for predicting mortality in COVID-19 patients**

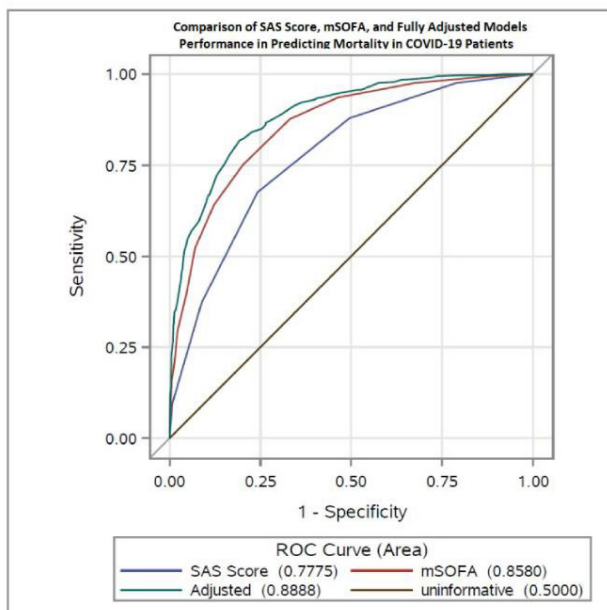
SAS score and Variables	Performance
AUROC	0.78 (0.77-0.81)
<b>SAS score 3 (95% CI)</b>	
Sensitivity, %	86.5 (83.1-89.5)
Specificity, %	54.3 (52.1-56.4)
Positive predictive value, %	29.5 (28.3-30.7)
Negative predictive value, %	94.8 (52.1-96.4)
<b>SAS score 4 (95% CI)</b>	
Sensitivity, %	64.6 (60.0-68.9)
Specificity, %	77.9 (76.1-79.7)
Positive predictive value, %	39.2 (36.8-48.9)
Negative predictive value, %	90.9 (89.8-91.9)

Abbreviations: AUROC, area under ROC curve; ROC, receiver operating characteristic; SAS, sex, age, and oxygen saturation score, CI, confidence interval.

**Figure 1. Probability of SAS score cutoff points to predict mortality in COVID-19 patients**



**Figure 2. Comparison of ROC curves of SAS score, mSOFA and adjusted model in predicting mortality in COVID-19 patients**



**Conclusion:** The easy to use SAS score at time of presentation identified hospitalized COVID-19 patients at high risk for mortality. Application of the SAS score

in the emergency department may help triage patients to inpatient versus outpatient care.

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**523. COVID-19 Preparedness in Hospice and Palliative Care**

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**Session:** P-20. COVID-19 Special Populations

**Background:** Due to the emergence of COVID-19 and resulting pandemic, there is an increased demand for palliative care and hospice care services. However, the impact of COVID-19 on the hospice and palliative agencies is unknown.

**Methods:** An electronic survey was disseminated via the Hospice & Palliative Nurses Association newsletter, posted to the Sigma Theta Tau Hospice and Palliative Care Community Group discussion board and advertised through social media from May 7–28, 2020. Summary statistics were computed.

**Results:** We collected 36 surveys representing all U.S. regions. Most respondents (78%) reported that their agency has cared for confirmed COVID-19 patients. Only half of agencies had access to laboratory facilities for surveillance and detection of the presence of outbreaks in both patients and staff (58%) and the ability to test patients and providers for COVID-19 (55%). Due to COVID-19, participants stated that the agency added new protocols regarding aerosol-generating procedures policies (58%), use of surface barriers (61%) and PPE usage (e.g. donning and doffing) in patient homes (56%). The majority (76%) reported that their agency required field clinicians to call ahead to ascertain COVID-19 exposure/symptoms before a home visit.

More than half (58%) reported that their agency lacked supplies, including N95 respirators (45%), cleaning/disinfectant product (23%), alcohol based sanitizer (18%), eye protection (18%), gowns (18%), and surgical masks (14%). Overall, participants shared that field clinicians had to reuse (76%), extend (73%) or ration (30%) PPE supplies. Respondents reported that their agency accessed supplemental PPE through state/local resources (67%), private/community donations (67%), and do-it-yourself efforts (55%). One third (31%) reported that their agency was experiencing staffing shortages due to COVID-19; of these, 60% reported that shortages were due to staff infected with/quarantined due to COVID-19.

**Conclusion:** Our findings suggest that COVID-19 has presented significant challenges for palliative care and hospice agencies as they provide care to patients and families at an unprecedented rate.

**Disclosures:** All Authors: No reported disclosures

**524. COVID 19 Infection in Pregnant Women and Newborn Infants at a Single**

**U.S. Center: What Disparities, Testing and Isolation Practices can Teach Us**

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**Session:** P-20. COVID-19 Special Populations

**Background:** COVID-19 transmission from mother to infant suggests that vertical and horizontal transmission of COVID-19 are possible. Here we describe the demographic and clinical characteristics and outcomes of SARS-CoV-2 positive pregnant women and their newborns.

Summarized Characteristics of 19 COVID-19 Positive Mothers that Delivered 3/31/20–6/17/20 at Boston Medical Center

Maternal Characteristics	n	%
Age at delivery	36	33.9%
Parity	36	33.9%
Black or African American	18	16.7%
Hispanic or Latino	15	14.1%
White	3	2.8%
Other	2	1.9%
Medicaid	17	15.8%
Private Insurance	12	11.1%
Uninsured	7	6.5%
Other	3	2.8%
Pre-pregnancy BMI	36	33.9%
<18.5	1	0.9%
18.5-24.9	19	17.6%
25-29.9	13	12.0%
30-34.9	2	1.9%
35-39.9	2	1.9%
≥40	7	6.5%
Pre-pregnancy gestational weight gain	36	33.9%
<10 lb	1	0.9%
10-20 lb	16	14.7%
20-30 lb	10	9.2%
30-40 lb	3	2.8%
40-50 lb	2	1.9%
50-60 lb	2	1.9%
60-70 lb	3	2.8%
70-80 lb	1	0.9%
80-100 lb	3	2.8%
>100 lb	2	1.9%
Pre-pregnancy hypertension	36	33.9%
Yes	1	0.9%
No	35	33.0%
Pre-pregnancy diabetes	36	33.9%
Yes	1	0.9%
No	35	33.0%
Pre-pregnancy asthma	36	33.9%
Yes	1	0.9%
No	35	33.0%
Pre-pregnancy chronic kidney disease	36	33.9%
Yes	1	0.9%
No	35	33.0%
Pre-pregnancy thyroid disease	36	33.9%
Yes	1	0.9%
No	35	33.0%
Pre-pregnancy autoimmune disease	36	33.9%
Yes	1	0.9%
No	35	33.0%
Pre-pregnancy depression	36	33.9%
Yes	1	0.9%
No	35	33.0%
Pre-pregnancy anxiety	36	33.9%
Yes	1	0.9%
No	35	33.0%
Pre-pregnancy mental health condition	36	33.9%
Yes	1	0.9%
No	35	33.0%

**Methods:** We collected data from the electronic medical records of pregnant women. Data composed of maternal demographics and morbidities, and symptoms of COVID-19. Descriptive statistics were used to analyze data. Women had positive polymerase chain reaction (PCR) testing done by nasopharyngeal swabs.

Each newborn was tested for SARS-CoV-2 by RT-PCR with a nasopharyngeal swab at 24 hours, 48 hours, and day 5 of life.

**Results:** 36 women met criteria to be included in this study. 22% had chronic hypertension, 8% had asthma, one had chronic HIV and hepatitis C, 30% had pregnancy-related morbidities including pregnancy-induced hypertension (19%), cholestasis of pregnancy (8%) and gestational diabetes (3%) (Table 1). Of the 32 deliveries to date, 17 (53%) delivered vaginally and 15 (47%) via C-section. Of the 15 C-sections, 6 (40%) were due to complications related to COVID-19. 38% (14/36) women developed hypoxia.

Five newborns (15%) born to SARS-CoV-2 positive mothers had positive PCR testing for SARS-CoV-2. 2 of them were born prematurely and by C section secondary to COVID 19 infection respiratory deterioration. One premature infant tested positive for RT-PCR for SARS-CoV-2 on days 1, 2, and 5. The other one was positive on day 2. The two full-term newborns who tested positive by PCR for COVID 19 after delivery, were not delivered secondary to COVID 19 complications. One infant who was separated from his mother was negative by PCR at days 1,2 and 5 but tested positive later after being in contact with his mother.

**Conclusion:** Our population of pregnant mothers had a high incidence of cesarean section secondary to COVID 19 infection complications. They also had a high frequency of chronic health conditions.

Infants born to mothers with COVID-19 can have positive PCR tests for SARS-CoV-2 suggesting that both, vertical and horizontal mother to infant transmission is possible. Infants had negative tests before positive tests, suggesting false negative testing may have occurred.

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### 525. Characteristics of HIV SARS-COV-2 Coinfection in a Highly HIV Seropositive Population in New York City

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**Session:** P-20. COVID-19 Special Populations

**Background:** The HIV and COVID-19 co-infection prevalence has not been described extensively. Given the high prevalence of HIV positive patients in our population-our Designated AIDS Center (DAC) caters to approximately 600 patients-of which 68% are virally suppressed, this relationship is of great interest. The objectives of this analysis are to report the characteristics of HIV and COVID-19 patients, and to evaluate for any associations of HIV with COVID-19 outcomes.

**Methods:** Retrospective chart review of all patients admitted with both HIV and confirmed COVID-19. Collected demographics, past medical history, HIV history including therapy, compliance, viral loads, and CD4 counts, and COVID-19 disease course. Evaluate baseline clinical status utilizing the World Health Organization's Ordinal Scale for Clinical Improvement, and note disease outcomes. Analyzed mortality and disease severity as compared to the general COVID-19 patient population.

**Results:** 39 patients were identified with HIV and COVID-19 from March 15<sup>th</sup> – June 18<sup>th</sup> 2020. Baseline characteristics of these patients are listed in Figure 1. Of the available labs, 60% of patients were virally suppressed, and 87% had CD4+ counts above 200/ $\mu$ L. On admission, most patients either did not require oxygen support, or received support through noninvasive methods. In Figure 2 we see the final outcome of the patients, with 77% of the patients discharged, and a mortality rate of 18%. Of note, the only baseline characteristic that had a significant correlation with mortality among our patients was age > 60 (p = 0.03).

### Baseline Characteristics of HIV COVID-19 Patients and Pertinent COVID-19 Admission Statistics

Baseline Characteristics	
Age (years, median)	57
African American/Black (%)	67%
Hispanic/Latino (%)	44%
Past Medical History	
Hypertension (%)	69%
Diabetes (%)	51%
BMI (median, kg/m <sup>2</sup> )	28.3
Viral Load (number of patients, %)	
≥ 20 copies/mL	8 (40%)
< 20 copies/mL (undetectable)	12 (60%)
CD4+ Count (number of patients, %)	
≥ 200/ $\mu$ L	27 (87%)
< 200/ $\mu$ L	4 (13%)
HIV Medication Compliance (number of patients, %)	
Yes	30 (77%)
No	3 (8%)
Unknown	6 (15%)
Admission Vitals (median)	
Temperature (°F)	98.9
Oxygen Saturation	94%
Hematology (median)	
White Blood Cell (10 <sup>3</sup> / $\mu$ L)	6.3
Neutrophils	72%
Lymphocytes	17.5%
Inflammatory Markers (median)	
IL-6 Level (pg/mL)	159
C- Reactive Protein (mg/dL)	9.8
Admission Ordinal Scale Score (%)	
3 (no respiratory dysfunction)	15 (38%)
4 (nasal cannula or nonrebreather)	16 (41%)
6 (mechanically ventilated)	8 (21%)

### COVID-19 Outcomes

Final Outcome (number of patients, %)	
Discharged	30 (77%)
Deceased	7 (18%)
Still Hospitalized	2 (5%)
Length of Stay (median)	7 Days