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thromboembolic disease, we hypothesized that the number of ED patients with CVTs increased after the arrival of COVID-19 in the New York City area in early March 2020.

Methods: Retrospective cohort design. EDs of 28 hospitals within 150 miles of New York City. Hospitals were teaching or non-teaching and rural, suburban or urban. Annual ED volumes were from 12,000 to 122,000. The database we had available included consecutive patients seen by ED physicians from March through November in 2019 and 2020. We tallied the number of patients diagnosed with CVTs using International Classification of Disease (version 10) codes.

Results: The database contained a total of 1,975,332 visits, 1,161,080 in 2019 and 814,252 in 2020 (a 30% decrease from 2019 to 2020). In 2019 six patients were diagnosed with CVT and in 2020, three patients. For these CVT patients, the median age [interquartile range] was 44 [36-50] and 78% were female.

Conclusion: Contrary to our hypothesis, we found that after the arrival of COVID-19 in our area, visits for CVTs did not increase. We speculate that total ED visits decreased in 2020 because of public health mandates and fear of contracting COVID-19. The decrease in visits for CVTs that we found may have been due to the overall decrease in ED visits. Another factor may have been that ED testing was reduced to move patients out of the ED expeditiously, to lower the risk of exposing personnel and other patients to infection.

94 COVID-19 Prognostic Factors: A Retrospective Study Challenging The Risk Factors Contributing To Poor Outcomes.



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Study Objectives: COVID-19 research has shown that factors associated with severe illness are age, some socioeconomic factors, male sex, smoking, obesity, some chronic medical conditions, immunosuppression, and certain laboratory findings. This study provides data showing various factors associated with poor prognosis in Louisiana and compared with national data, especially with its majority-Black population.

Methods: Data was collected from 1381 patients who tested positive for COVID-19 from March 1st to May 5th, 2020 at various medical facilities in Shreveport, Monroe, and New Orleans. Variables included age, sex, race, ethnicity, body mass index (BMI), and comorbidities. Daily labs included CBC, BMP, CRP, ESR, D-Dimer, LDH, AST, ALT, Bilirubin, Alkaline Phosphatase, Ferritin, Troponin, CPK, PT, PTT, and INR. Outcomes were patient discharge status, intubation, and deterioration during the hospital course.

Results: The mean age was 53.39 years old with the most positive tests from 55-69 years of age. The highest fatality rate was in ages 75-84 and 95-99. Congestive heart failure (CHF) patient had the highest fatality rate, at 42.47%. Racial distribution was similar to the studied areas but, had a higher rate of Black patients (63.1%) and a lower rate of White patients (23.9%). Fatality rates of Black patients were higher (17.26%) than White patients (14.94%). Black patients accounted for 59.54% of the deaths, while White patients accounted for 19.85%. Sex distribution was mainly female (55.8%). Males had a higher fatality rate (22%) than females (12.6%). The mean BMI was 32.3, being the Obese I category, while most patients were in the overweight category. As BMI increased, fatality rates decreased. Creatinine, LDH, BUN, WBC, CPK, and D-dimer levels were significantly higher in those with worse outcomes. Oxygen saturation, CO₂, and Platelets were lower in patients who died. Calcium levels were significantly lower in those with poor outcomes.

Conclusion: This study reinforces some known risk factors and challenges others. Elderly were at a higher risk of death compared to younger patients. There is a direct correlation between increasing age and fatality rate, but older age may correlate with increased concomitant medical conditions contributing to poor outcome. CHF showed the strongest relationship to fatality rate, which was nearly three times higher than those without CHF. Males and Black patients showed higher fatality rates than females and White patients. Contrary to current data, BMI alone may not be an independent variable for poor outcome. BMI correlates with diabetes, heart disease, and myocardial infarction rates and, if coexisting, may contribute to poor outcomes. Hypocalcemia, hypoxia, hypocarbia, and thrombocytopenia was seen more in patients who died but, clinical significance and correlation with disease process is unknown. Thus, further studies are needed to determine significance of these findings in relation to outcomes.

95 Experiences of Detained Asylum Seekers During the COVID-19 Pandemic



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Introduction: COVID-19 disproportionately affects racial and ethnic minority groups as well as people in jails and immigration detention centers in the United States. Between April and August of 2020, the mean monthly COVID-19 case ratio for ICE detainees was 13.4 times that of the general US population. This study aims to understand the experiences of detained asylum seekers during the pandemic and to provide insight into COVID-19's impact on this population.

Methods: This qualitative study employed first-person, in-depth narratives gathered via semi-structured interviews with 12 asylum seekers, all of whom were detained in immigration detention centers during part of the COVID-19 pandemic and who had subsequently been released. Interview transcripts were analyzed using a consensual qualitative research approach.

Results: The analysis yielded seven domains and 22 categories. The first domain focused on participants' health before detention, including reports of good physical health, previous experiences of psychological distress, and pre-existing conditions. The next domain contained descriptions of detention conditions and reflected interviewees' experiences of poor conditions, lack of food and/or poor quality of food, limited freedom of movement, isolation, and disrupted sleep. The third domain represented themes of COVID-related detention conditions, such as lack of access to masks, inability to social distance, poor facility hygiene, and insufficient or extended isolation/quarantine. The fourth domain encompassed asylum seekers' reports of the prevalence of COVID-like symptoms in detention settings. They indicated that they knew someone who had symptoms or experienced COVID-like symptoms themselves. The fifth domain included participants' health care experiences in detention. They noted a poor response to COVID-19 in the facility, obstacles to receiving care, and dissatisfaction with management of their symptoms while detained. The sixth domain included the impact of detention conditions on the health of interviewees; they reported a deterioration of their physical health and mental health. The final domain consisted of the interviewees' perceptions of their current health. Some stated their experiences in detention continue to impact their health; others reported improvement in their physical health and mental health after their release.

Discussion: Detained asylum seekers are a vulnerable population who face inadequate medical care, an inability to social distance, poor hygiene, restricted movement, and a lack of infection control which exacerbate their risk of contracting and spreading COVID-19. Advocating for improved disease prevention, screening, prompt access to health care and treatment, cohorting of cases, and community alternatives to detention to decrease population size are crucial to halt the communicability of the virus.

96 A Comparison of Presenting Characteristics, Comorbidities, and Outcomes of Those With COVID-19 Who Present to Either a Rural or Urban Emergency Department in Arizona



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Background: Although over half of all counties in the United States are classified as rural, less than 20% of the population live in rural areas. Those who live in rural areas have been shown to have a higher mortality rate from heart disease, cancer and cerebral vascular accidents as compared to their urban counterparts. However, no data is currently available for those with COVID-19.

Study Objective: To describe and compare the clinical characteristics and outcomes of patients with COVID-19 who presented to rural and urban emergency departments (ED).

Methods: A retrospective, multi-center cohort study of adult patients who required hospitalization between March 01, 2020 and July 01, 2020 due to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection was conducted. All data was abstracted from two rural and one urban ED in Arizona. Research assistants who were blinded to the study hypothesis were trained on proper data abstraction prior to collection. With adherence to a quality-controlled protocol and structured abstraction tool, research assistants manually collected patient demographics, intake laboratory values, initial vital signs, ICU admissions, and mortality. Data was collected using a one-to-one allocation ratio based upon ethnicity for each site. Comparisons between rural and urban populations were completed using chi-square, Mann-Whitney U, and independent samples T-tests.

Results: A total of 304 patients (175 urban and 129 rural) with confirmed SARS-CoV-2 infection were admitted to the hospital during the study period. Patients presenting to a rural ED were more likely to be admitted to the ICU (24 urban vs 39 rural; OR = 2.1; p=0.01). Of those hospitalized, a total of 137 (43.9%) were female (87 [47.5%] urban and 50 [38.8%] rural). The median age of patients hospitalized from the urban cohort was 67 years old (IQR=25) and from the rural cohort was 63 years (IQR=28). Of those studied, 43 (14.1%) patients expired from COVID-19 with 24 (13.1%) patients in the urban cohort and 19 (14.7%) in the rural cohort (p=0.06). Those in the rural population presented to the ED 7.0 (IQR 7) days from initial symptoms onset and those in the urban population 5 (IQR 4) (p=0.005). Patients treated at urban EDs had a higher systolic blood pressure (138.6 mmHg vs 130.3 mmHg; p=0.01) but lower oxygen saturation (91.7% vs 93.1%; p=0.04) than those treated at a rural ED. When intake laboratory values were considered, patients treated in an urban ED had a statistically significant lower white blood cell count and ferritin level as compared to those at a rural ED but a higher hemoglobin, hematocrit, and calcium level (Table).

Conclusion: Rural patients with COVID-19 exhibit a delay in presentation to their local ED, producing atypical prognostic laboratory measures when compared to urban centers. This delay may contribute to symptom exacerbation and a higher rate of critical care admissions among rural patients.

Diagnostic Test	Urban ED	Rural ED	P-Value
	Mean (95% CI)	Mean (95% CI)	
White Blood Cell	7.5 (6.8-8.2)	9.3 (8.0-10.5)	0.02
Hemoglobin	13.6 (13.3-14.0)	13.0 (12.6-13.5)	0.03
Hematocrit	41.0 (40.0-41.9)	39.1 (37.8-40.3)	0.01
Sodium	135.4 (134.7-136.1)	134.9 (134.0-135.8)	0.46
Potassium	4.0 (3.9-4.1)	3.9 (3.8-4.0)	0.11
Chloride	101.1 (99.6-102.6)	101.7 (100.7-102.7)	0.46
Bicarbonate	24.1 (23.3-24.8)	24.1 (23.2-25.0)	0.98
BUN	22.4 (19.8-24.9)	23.7 (19.4-28.0)	0.59
Creatine	1.17 (1.0-1.3)	1.55 (1.2-1.9)	0.06
Glucose	161.7 (138.7-184.4)	142.8 (127.6-158.1)	0.16
Calcium	8.7 (8.6-8.8)	8.5 (8.4-8.6)	0.006
AST	63.1 (49.7-76.4)	52.0 (43.1-61.0)	0.13
ALT	41.7 (34.0-49.4)	41.0 (35.1-47.0)	0.898
LDH	445.1 (394.8-495.4)	446.6 (337.0-556.3)	0.75
Procalcitonin	1.04 (0.0-2.2)	0.37 (0.1-0.6)	0.61
Ferritin	409.1 (323.2-495.0)	831.6 (594.3-1069.0)	<0.001
C-Reactive Protein	8.7 (6.7-10.6)	10.4 (8.4-12.5)	0.32

Table: Emergency Department Laboratory Values Conducted at the Time of Patient Presentation.

97 Impact of Virtual Simulation to Teach Paramedics Respiratory Failure Management During the COVID-19 Pandemic

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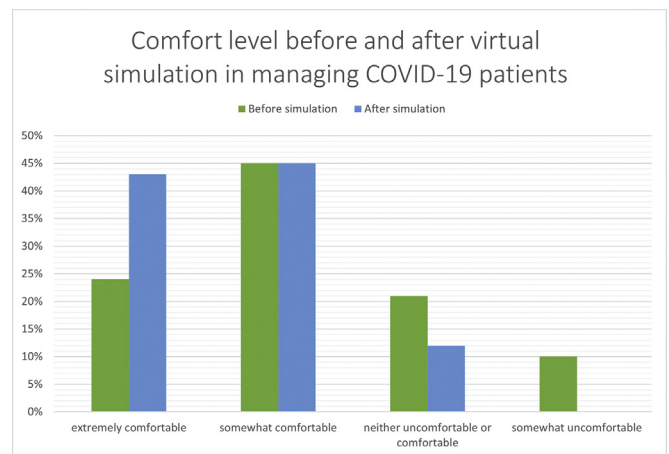
Study Objectives: Continuing education for EMS personnel is often limited to online lectures and self-study, as educational resources vary from department to department. Moreover, social distancing measures during the current COVID-19 pandemic further limit the ability for in-person training experiences. Simulation, unlike traditional forms of online learning, allows educators to create specific learning objectives and reinforce clinical concepts through a scenario and debrief, in an environment that does not compromise patient safety. Traditionally simulation is performed in-person, however given the need to socially distance, virtual simulation has been proposed in various forms as an educational tool. The aim of our study was to

determine the impact of virtual simulation to teach EMS personnel respiratory failure management. We also explored their perceptions of this learning experience in comparison to other training modalities. This study presents a unique way to provide education to paramedics during the Coronavirus pandemic, without some of the logistical concerns that accompany traditional in-person simulation.

Methods: In total 90 Kissimmee Fire Department (KFD) personnel underwent a virtual simulation on respiratory failure. The participants were divided in groups of 3-6 with a designated team leader. Each session was virtually conducted by a physician. The physician facilitator was remotely broadcasted to the EMS team, performing tasks on a mannequin in the physician's broadcasted room as dictated by the EMS team and providing vital signs. Each session was approximately 25 minutes with 15 minutes of case progression and 10 minutes of debrief. 42 EMS personnel then participated in a 13 question survey to determine how the simulation affected their comfort level with respiratory failure in both COVID-19 patients and non-COVID-19 patients. They also recorded feedback on the virtual simulation and any issues they might have had during the sessions.

Results: The 42 EMS personnel responding to the survey felt an increased comfort level in managing respiratory failure in a suspected or known COVID-19 patient after the virtual simulation. There was an increase in "extremely comfortable" responses from 24% to 43% before and after the simulation, and a decrease in "somewhat uncomfortable" responses from 10% to 0%. There was a slight increase in the comfortability of managing respiratory non-COVID-19 patients as well, with an increase in "extremely comfortable" responses from 40% to 48%, and a decrease of "somewhat uncomfortable" responses from 2% to 0%. Only 12% of the responders stated they underwent simulation training once a month or more. In general 86% of the responders felt the video platform was easy to use, and the most common technical difficulty involved audio issues.

Conclusions: EMS personnel undergoing a virtual simulation and debrief in the management of respiratory failure in the setting of the COVID-19 pandemic felt more comfortable in their management of these patients after their sessions. The majority recommended continuing this type of training in the future in survey responses. Our cohort had extensive EMS experience, but did not frequently undergo simulation training, which highlights a potential area of improvement for EMS education. First responders continue to be essential in the safe and effective management of COVID-19 patients, and virtual simulation is a viable option to facilitate EMS training.



98 Social Stressors and Isolation Have Biggest Effect on Resident Wellness During a Pandemic

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Background: Emergency physicians are already known to be high-risk for depression and burnout. In all likelihood the COVID-19 pandemic has added to this risk.

Study Objectives: We sought to identify the primary stressors for EM residents during this pandemic and determine which factors and interventions have helped most to improve their wellness.

Methods: The setting was an EM residency program in the state with the highest per-capita deaths from COVID-19. All EM residents were surveyed eight months into