Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Table 1: Personal and Professional Concerns of Physician Fathers

Personal Questions	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
I was personally prepared for the local impact of the COVID-19 pandemic.	6%(15)	40%(100)	22%(58)	26%(67)	6%(16)
Before the pandemic, I was satisfied with the amount of time I spent with my family.	13%(34)	45%(117)	12%(32)	27%(71)	2%(6)
Now (during the pandemic), I am satisfied with the amount of time I spend with my family.	23%(60)	48%(126)	9%(24)	16%(41)	3%(9)
Professional Questions					
I was professionally prepared for the local impact of the COVID-19 pandemic.	14%(36)	53%(138)	15%(38)	16%(41)	3%(7)
As a consequence of the pandemic, I wish I had not gone into medicine.	1%(2)	1%(2)	11%(29)	28%(73)	60%(155)
As a consequence of the pandemic I wish I had not gone into my specialty.	1%(2)	2%(4)	9%(23)	28%(74)	61%(158)

89 Predictors of Early Clinical Deterioration from the Emergency Department and Clinical Gestalt: A Prospective Case-Control Study

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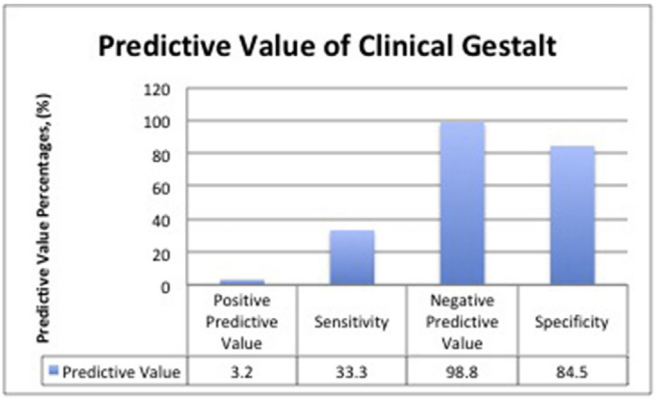
Study Objectives: Rapid response teams (RRT) aim to reduce morbidity and mortality of hospitalized patients through early intervention on those who are clinically deteriorating. Identifying predictors of early deterioration of patients may improve quality and safety. Abnormal vital signs (VS) have previously been studied as predictors of early deterioration and increased RRT activation after admission from the ED. The primary objective is to identify these predictors of RRT activation within 24 hours of admission. Secondary objectives are to detect differences in hospital length-of-stay (LOS), admitting diagnoses, and 30-day mortality in those with and without RRT (+RRT and –RRT). Last, we examine the predictive value of physician clinical gestalt on RRTs.

Methods: This was a prospective, observational case-control study by chart review of adult patients admitted at Kaweah Health Medical Center between December 2020 and March 2021. Exclusion criteria were age <18, admission to ICU, and direct transfer out of the ED. At time of admission, we performed chart review to collect eight VS used to activate a RRT at our hospital. To determine clinician gestalt, the physician was also asked if RRT would occur within 24 hours. Each patient's hospital course was later reviewed for the occurrence of RRT, admitting diagnoses, LOS, and 30-day mortality. Categorical variables were analyzed using Fisher's exact test. Noncategorical variables were analyzed using Wilcoxon rank sum test, independent T-test, and Pearson correlation coefficient. Predictive value was analyzed with negative and positive predictive values (NPV and PPV), sensitivity, and specificity.

Results: 199 patients met inclusion/exclusion criteria for analysis (+RRT N=3, -RRT N=196). No significant differences were detected in sex, age, or level of care between our groups. The groups differed in median heart rate and respiratory rate, but the difference was insignificant. There was a marginally significant association between COVID-19 as admitting diagnosis and RRT (p=0.052). There was no significant association between RRT and 30-day mortality. Mean LOS did not differ between the groups (p=0.297). The mean number of abnormal VS in those deceased at 30 days (1.2) was significantly higher than those alive at 30 days (0.7) (p=0.047, correlation coefficient r=0.14). Analysis of clinical gestalt on RRT showed PPV 3.2%, NPV 98.8%, sensitivity 33.3%, and specificity 84.5%.

Conclusion: Due to small sample size, our results did not show significant differences in sex, age, level of care, heart rate, respiratory rate, or LOS between the +RRT and –RRT groups. However, our study was significant for three findings. First, there was a marginally significant association between an admitting diagnosis of COVID-19 and RRT. Second, patients deceased within 30 days had a significantly higher number of abnormal VS than patients who were alive at 30 days, suggesting a positive correlation. Third, results suggest that the clinical gestalt of emergency physicians at predicting who will not have an RRT is reasonably good, but may not be as good at predicting who will have an RRT. Further studies determining other factors contributing to early deterioration can help craft interventions to improve patient safety.



90 Comparing Patient Demographics in Those Receiving Monoclonal Antibody Therapy For SARS-CoV-2 in the Emergency Department Versus Outpatient Infusion Centers: A Lesson in Health Care Access During a Global Pandemic

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Study Objectives: Ensuring equitable access to novel treatment modalities has been an ongoing challenge throughout the SARS-CoV-2 pandemic. By implementing a novel SARS-CoV-2 monoclonal antibody (MAB) distribution plan in the emergency department (ED), our health system aimed to improve therapeutic access to more diverse patient populations and limit potential barriers in referral-based outpatient infusion centers (OIC) offering the same treatment. Our study attempts to highlight the unique role the ED can play in the equitable distribution of novel SARS-CoV-2 therapeutics by evaluating the association between patient demographics and MAB infusion location.

Methods: Retrospective cohort study of all COVID-19 infected patients who received MAB infusion at one of six different EDs or four OICs within a single 23-hospital health care system between December 28, 2020 and May 12, 2021. Patients were grouped by MAB infusion location (ED versus OIC). The ED group was defined as all treat-and-release patients presenting unscheduled to the ED who received MAB infusion during their visit. The OIC group was defined as all patients referred to an OIC for a scheduled appointment to receive MAB infusion. A single blinded abstractor gathered specific patient demographic data, defined a priori, from an electronic medical record. We compared race, ethnicity, sex, socioeconomic status (SES) score, and age between the two groups. Chi-square tests were performed to assess the associations between categorical variables and MAB infusion location. T-Tests were used to compare continuous variables between the two MAB infusion locations.

Results: 5,165 patients were eligible for inclusion, of which 195 (4%) received MAB infusions in the ED and 4,970 (96%) received MAB infusions in the OIC. ED patients were more likely to be female (114/195 [58%] versus 2,531/4,970 [51%], p<0.05), more likely to be Black (22/188 [12%] versus 261/4,898 [5%], p<0.001), and less likely to be White (116/188 [62%] versus 3,621/4,898 [74%], p<0.001) when compared to OIC patients. There were no significant associations between the following demographic characteristics and MAB infusion location when comparing ED

patients mean age in years (62 versus 62, p=0.827), Hispanic or Latinx ethnicity (20/188 [11%] versus 377/4730 [8%], p=0.188), and SES score (-18,900 versus -19,100, p=0.695) versus OIC patients. Racial and ethnic comparisons excluded 79 and 247 patients, respectively, due to unavailable data.

Conclusion: Patient sex and race are associated with SARS-CoV-2 MAB infusion location. Compared to OIC patients, ED patients were more likely to be female and Black.

91 Pediatric Emergency Department Utilization by Newborns During The COVID-19 Pandemic

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Background: Pediatric emergency departments (PED) reported a decrease in overall visits during the COVID-19 pandemic. Telemedicine, fewer visits for lower acuity complaints, and decreased transmission of infectious illnesses have contributed. These factors however may have less impact on ED usage by very young children.

Study Objective: To characterize the early impact of COVID-19 mitigation efforts on the volume, presenting complaints and clinical course of newborns presenting to a tertiary care PED.

Methods: We conducted a descriptive cross-sectional study of all visits by newborns, defined as children < 30 days of age, to a tertiary care PED in the U.S. during the onset of the SARS-CoV-2 pandemic. A state-wide shelter-at-home order was announced on 3/16/2020. Data abstracted from the electronic medical record during the 60-days following the order (3/16/2020-4/28/2020; study period) was compared to the same date range during 3 prior years (2017-2019; baseline period).

Results: Of the 406 total newborn ED visits, 315 were in 2017-2019 (1.1% total ED volume for the baseline period) and 91 were in 2020 (2.3% total ED volume for the study period; P <.001). Mean age, insurance status and race distribution were unchanged; however, the study period proportion of Hispanic patients was significantly lower (27% vs 15.4%; P =.02). A higher proportion of study patients had imaging, procedures, and consults (23.2% vs 41.8%; P <.001, 11.4% vs 30.8%; P <.001, 10.8% vs 24.2%; P =.001). The most common chief complaints were similar with the top 3 complaints accounting for 40% of the baseline period and 48% of the study period. The study admission rate was 31.9% as compared to the baseline rate of 18.7%.

Conclusions: Compared to the general population, visits to a tertiary care PED remained largely unchanged for newborn aged patients. While the most common chief complaint categories were consistent between time periods, a higher proportion of interventions and admissions occurred in the study population.

Table 1: Characteristics of ED newborn visits

	Baseline period (n=315)	Study period (n= 91)	*P* value
Visit year (total ED volume)			
2017	109 (9363)	0	
2018	97 (8579)	0	
2019	107 (9966)	0	
2020	0	91 (3939)	
Daily visits	1.69 ± 0.69	1.53 ± 1.13	.28
Age, days	15.5 ± 8.8	15.9 ± 9.7	.729
Age < 8 days	76 (24.1%)	24 (26.4%)	.661
Female	135 (42.9%)	37 (40.7%)	.709
Race			.097
African American	95(30.2%)	30 (33%)	
White	149 (47.3%)	52 (57.1%)	
Asian or Pacific Islander	16 (5.1%)	1 (1.1%)	
Other	55 (17.4%)	8 (8.8%)	
Hispanic or Latino	85 (27%)	14 (15.4%)	**.020**
Private insurance	131 (41.6%)	44 (48.4%)	.251
NICU history	37 (11.7%)	17 (18.7%)	.086
High acuity (ESI triage 1, 2 or 3)	276 (87.6%)	80 (88%)	.940
Laboratory testing	135 (42.9%)	42 (46.2%)	.576
Radiological imaging	73 (23.2%)	38 (41.8%)	**<.001**
Consults	36 (11.4%)	28 (30.8%)	**<.001**
Procedures	34 (10.8%)	22 (24.2%)	**.001**
Admission	59 (18.7%)	29 (31.9%)	**.007**
72 hour ED return	5 (1.6%)	2 (2.2%)	.656

Values are mean ± SD or number (%)

Procedures include: ECG, echocardiogram, lumbar puncture, suture placement, foreign body removal, endotracheal intubation, intraosseous access, fluorescein exam, umbilical granuloma cauterization and EEG

Table 2: Top chief complaints for newborn ED visits

Chief complaints	Baseline period (n=315)	Study period (n=91)
Jaundice	46 (14.6%)	8 (8.8%)
Vomiting	41 (13%)	19 (20.9%)
Breathing problems	40 (12.7%)	17 (18.7%)
Rash	39 (12.4%)	6 (6.6%)
Abnormal temperature	25 (7.9%)	8 (8.8%)

92 The Impact of the COVID-19 Pandemic on Medical Student Residency Specialty Selection

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Background: The COVID-19 pandemic has had an unprecedented impact on the medical community, including in the way that medical students are educated. While media outlets have portrayed health care workers actively battling this disease, there has been little to no discussion of how the pandemic has affected medical students. Currently practicing physicians chose their specialties long before the threat of this novel coronavirus was known. It is unclear how the pandemic may change the mindset of current medical students and their decisions regarding their choice of residency specialty following graduation.

Study Objectives: The purpose of this study was to determine if the COVID19 pandemic has affected future residency specialty choices for current M.D. candidate students.

Methods: In September 2020, a brief (approximately 3 minute) anonymous survey of first through fourth-year medical students was created utilizing Qualtrics software and emailed via medical school listservs. Survey questions included basic demographics, what residency specialty they plan to pursue, and what residency specialty they planned to pursue prior to the COVID19 pandemic. The electronic survey was disseminated to current M.D. candidate students (first year [MS-1] through fourth year [MS-4]) at a large, suburban medical school in New Jersey with over 600 students over four clinical and pre-clinical years. A 14 day period was provided for medical students to complete the survey, with a reminder sent to students at the 7 day mark.

Results: A total of 87 medical students responded to the survey. Of those that responded, 21% were MS-1, 18% were MS-2, 29% were MS-3, and 29% were MS-4. Eighty-six participants chose to report a sex. Of those, 60% identified as female. Seventy percent of those who responded knew someone personally who was negatively affected by the COVID-19 pandemic. Eleven respondents intended to go into emergency medicine. Five medical students planned on selecting a different residency specialty based on the pandemic. Of those, two had initially planned to pursue emergency medicine and changed specialties based on the pandemic (to radiology and ophthalmology). Of the remaining students, they made the following changes in specialty: psychiatry to anesthesiology, orthopedic to general surgery, and obstetrics/gynecology to undecided. Of these five students who switched specialties, 4 (80%) knew someone negatively affected by COVID-19.

Conclusions: Despite the COVID-19 pandemic and the effect it has had on medical student education, the majority of current medical students who responded to this survey have not let it affect their decision regarding which residency specialty to pursue. Of the small sample of students in this survey that did change their decision regarding residency specialty, two students made the decision to switch from emergency medicine to radiology and ophthalmology.

93 Emergency Department Visits for Cerebral Venous Thrombosis After the Arrival of COVID-19

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Study Objectives: Cerebral venous thrombosis (CVT) has garnered attention recently because of reports of cases following COVID-19 vaccine administration. Even before vaccinations began, COVID-19 infection has been shown to be associated with increased incidence of venous thromboembolic diseases. Since CVT is a