family members' health all increased significantly after COVID-19. Only a minority of African-Americans agreed they would get the needed healthcare if they contracted COVID-19. These findings have implications for the mental health and behavioral impacts of COVID-19 on African-Americans and for the development of health communications to high-disease-incidence populations.

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546. Capturing Clinician's Experiences Repurposing Drugs to Inform Future Studies During COVID-19

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Session: P-21. COVID-19 Treatment

Background: CURE ID is an internet-based repository developed collaboratively by FDA and NCATS/NIH, with the support of WHO and IDSA. It encourages clinicians globally to share novel uses of existing drugs for patients with difficult-to-treat infections. It is designed to serve as a rapid communication platform for healthcare providers during an outbreak, providing for systematic case-sharing, discussion, and the latest literature. Besides case reports, CURE ID offers a discussion platform for clinicians, disease-specific clinical trials curated from clincialtrials.gov, and a newsfeed that shows relevant journal articles and news related to COVID-19 and other infectious diseases.

Methods: The CURE ID team extracted individual case reports on patient-level treatments and outcomes of COVID-19 infection from the published literature and gathered clinician-submitted cases through the electronic case report form. Additionally, CURE ID partnered with the University of Pennsylvania's CORONA database to further populate the CURE ID database with published cases.

Results: As of submission, lopinavir-Ritonavir (n=51) was the most commonly reported drug used. The following were also reported: hydroxychloroquine (n=31), azithromycin (n=28), arbidol (n=22), interferon alfa-2B (n=18), moxifloxacin (n=18), methylprednisolone (n=17), ivermectin (n=14), lopinavir (n=12), oseltamivir (n=12). The other drugs reported were danoprevir-ritonavir, intravenous immunoglobulins, interferon, interferon alfa, and tocilizumab. CURE ID currently includes more than 150 detailed COVID case reports of 65 repurposed drugs. We expect case reporting for specific drugs to be dynamic and additional data to accrue. Updated results will be presented.

Conclusion: Several drugs are being repurposed to treat COVID-19. CURE ID gives clinicians an opportunity to share their treatment experiences and discuss their questions with a global community of healthcare providers. By utilizing the CURE ID platform, in conjunction with data gathered from other registries, observational studies and clinical trials, hypotheses can be generated that may inform future clinical trials and ultimately, potentially find safe and effective treatments for this deadly disease.

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547. A Retrospective Cohort Study of Treatment Patterns and Clinical Outcomes in Patients with COVID-19

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Session: P-21. COVID-19 Treatment

Background: The SARS-CoV-2 pandemic has caused over 400,000 deaths worldwide thus far, and poses therapeutic challenges for millions of patients. There is currently no treatment for SARS-CoV-2 infection approved by the United States Food and Drug Administration. Multiple agents have been used off-label to treat SARS-CoV-2 infection based on small observational cohorts and *in vitro* data. Here we present the experience of a large academic medical center in treating SARS-CoV-2 infection.

Methods: We performed a retrospective cohort study of patients admitted for greater than 24 hours with a nasopharyngeal, oropharyngeal, and/or bronchoalveolar lavage sample positive for SARS-CoV-2 by polymerase chain reaction (PCR). Demographic data, comorbidities, clinical data, and treatment data were collected from the electronic medical record. Off-label therapies were used at the discretion of the treating providers guided by regularly updated treatment guidelines assembled by infectious diseases physicians and antimicrobial stewardship pharmacists. The primary outcome assessed was in-hospital mortality. Secondary outcomes included admission to the intensive care unit (ICU), endotracheal intubation, initiation of vasopressors, and drug-related adverse events.

Results: Data collection was completed for 448 patients admitted between March 18, 2020 and May 8, 2020. All-cause in-hospital mortality was 13.4% (60/448) during this time. Mortality rates increased with age, up to 45% for patients over 80 years old. Male sex, hypertension, chronic pulmonary disease, end-stage renal disease, chronic liver disease were also risk factors for increased mortality. QTc interval prolongation occurred significantly more frequently in patients who received hydroxychloroquine (HCQ) with or without azithromycin(AZM) than those who did not (HCQ 6%, HCQ+AZM 7.8% vs all other patients, 0%, p< .0001). Review of treatment trends showed close adherence to the treatment recommendations at that time (Figure 1).

Patient Characteristics

Demographics	
Age (years)	57.07 (19.53); 0 – 98
Height (cm)	168 (21.5 – 203)
Weight (kg)	88.95 (3.8 – 229.1)
Gender	
Female	210 (49.1)
Male	218 (50.9)
Treatment	
Hydroxychloroquine	84 (18.8)
Hydroxychloroquine + intentional Azithromycin	55 (12.3)
Hydroxychloroquine + empirical Azithromycin	60 (13.4)
Convalescent plasma	35 (7.8)
Tocilizumab	19 (4.2)
Remdesivir	26 (58.8)
IMAB study drug	4 (0.9)
Supportive Care Only	165 (36.8)
Severity Groups	
No supplemental O2, no ICU admission	86 (19.2)
Supplemental O2, no ICU admission	178 (39.7)
ICU admission < 48 hours after admission	61 (13.6)
ICU admission >= 48 hours after admission	32 (7.1)
Required vasopressors	91 (20.3)
Primary Outcome	
Disposition	
Alive	388 (86.6)
Dead	60 (13.4)
Secondary Outcomes	
Need for intubation	122 (27.2)
Need for ICU admission	183 (40.9)
Time from admit to intubation (days)	1 (0, 17)
Time from admit to ICU admission (days)	0 (0, 17)
Time intubated	10 (0, 49)
Time in ICU	9 (0, 50)
ECMO	8 (1.8)
Drug adverse events	46 (10.3)
QTc prolongation	14 (3.1)

Values are mean (standard deviation); range for age, median (range) for height, weight, and "time until" variables, and frequencies (percentages) for the categorical variables. Frequencies may not add to overall sample size due to missing data.

Admission Laboratory Data by Disease Severity

Lab value	No suppl O2, no ICU (n=86)	Suppl O2, no ICU (n=178)	ICU < 48 hrs after admission (n=61)	ICU >= 48 hrs after admission (n=32)	Vasopressors (n=91)	p-value
Fibrinogen (mg/dL)	405(359,483)	554(377,651)	538(463,615)	461(300,657.5)	528(438,632)	0.2247
Oxygen saturation (%)	97(95,99)	91(87,95)	87(76,92)	93(87,95)	87(70,91)	<.0001
White Blood Cell count (cells/mm³)	6.3(4.7,8.6)	6.6(5,9)	8.4(6.05,10.6)	5.85(4.45,7.7)	7.3(5.1,11.9)	0.0002
Hemoglobin (g/dL)	12.8(11.7,13.6)	13.2(11.8,14.3)	13.5(12.25,14.55)	13.45(11,14.45)	13.35(11.2,14.7)	0.1931
Platelets (k/mm³)	214(150,296)	194(151,267)	239.5(179,279)	191(121.5,233.5)	189(139,265)	0.0125
Lymphocyte (%)	19(12,29)	14(10,23)	12(7,19)	14(9,22)	10.5(7,16)	<.0001
D-dimer (ng/mL)	315(200,462)	339.5(241,499)	480(273,807)	301(200,595)	658(346,1849)	<.0001
Creatinine (mg/dl)	0.9(0.72,1.41)	1.03(0.79,1.45)	1.04(0.83,1.36)	1.1(0.94,1.72)	1.26(0.85,2.06)	0.0431
Alkaline phosphatase (Units/L)	70(55,94)	68(53,89)	76(57,95)	64(44,81)	64(47.5,84)	0.1835
Alanine aminotransferase (Units/L)	19(13,35)	25(15,41)	28(18,48)	31(21,56)	29.5(19,54.5)	0.0026
Aspartate aminotransferase (Units/L)	25.5(20,43)	36(24,48)	41(30,62)	36(28,61)	53.5(32,80)	<.0001
Hemoglobin A1C (%)	7.6(5.9,9.35)	7.8(6.7,9)	7.5(6.6,11.5)	7.2(6.65,8.4)	7.7(6.6,8.9)	0.9101
Lactate dehydrogenase (mg/dL)	272(218,355)	343(264,458)	453(319,558)	342(306,433)	440.5(337,591)	<.0001
Troponin (ng/mL)	0.03(0.03,0.03)	0.03(0.03,0.04)	0.03(0.03,0.05)	0.03(0.03,0.03)	0.05(0.03,0.15)	<.0001
Ferritin (ng/mL)	288.3(105.9,859.2)	418.45(207.5,808.7)	605.5(245,1146.3)	454.55(259.8,1062.35)	718.7(372.55,1262.85)	0.0009
C-reactive protein (mg/dL)	3.9(1.1,9)	7.1(3.5,14.3)	10(6.9,19.3)	8.2(3.9,13.1)	13.85(9,24.3)	<.0001
IL-6 (pg/mL)	5(5,5)	6(5,13.5)	12(5,32)	12(6,28)	15(7,41.9)	<.0001
Procalcitonin (ng/mL)	0.14(0.07,0.27)	0.17(0.1,0.45)	0.24(0.13,0.54)	0.15(0.1,0.35)	0.51(0.19,1.91)	<.0001

Values are medians (IQRs) with p-values from Kruskal-Wallis rank-sum tests, due to data skewness.

QTc Prolongation

	HCQ	HCQ+AZM	No HCQ or AZM	p-value
QTc prolongation	5 (6.0)	9 (7.8)	0 (0)	<.0001*
No QTc prolongation	79 (94.1)	106 (92.2)	249 (100)	

Values are frequencies (percentages) with p-value from Fisher's Exact test.

AZM, azithromycin; HCQ, hydroxychloroquine

Conclusion: SARS-CoV-2 infection is associated with significant inpatient mortality, and use of off-label treatments was associated with significant drug-related adverse events. Treatment regimens changed rapidly, and providers adhered closely to institutional guidelines as they evolved.