Table 2: Non-parametric analysis of all prognostic markers. (WBC – White blood count, ANC – Absolute neutrophil count, ALC – Absolute lymphocyte count, MPV – mean platelet volume, CRP – C-reactive protein, LDH – Lactate dehydrogenase, LFR – Lymphocyte-ferritin ratio, DMR – Lymphocyte-D-dimer ratio, LCR – Lymphocyte-CRP ratio, LDR – Lymphocyte-LDH ratio, AST – Aspartate transferase, ALT – Alanine transferase, BNP – Brain natriuretic peptide, NLR – Neutrophil-lymphocyte ratio, PLR – Platelet-lymphocyte ratio)

| Laboratory Profile                              | All Patients (n=39) | Survival (n=20) | Expired (n=19) | p-value |
|-------------------------------------------------|---------------------|-----------------|---------------|---------|
| **Complete Blood Profile**                       | WBC 7.16 ± 4.26 76.6 ± 4.75 6.63 ± 3.73 0.4585 |
| **ANC**                                         | 5.50 ± 4.23 6.10 ± 4.23 4.87 ± 2.28 0.2066 |
| **ALC**                                         | 0.63 ± 0.35 0.70 ± 0.36 0.57 ± 0.33 0.2630 |
| **Platelets**                                   | 164 ± 80 177 ± 87.25 150 ± 71.3 0.3015 |
| **MPV**                                         | 9.17 ± 1.05 9.61 ± 1.53 9.34 ± 0.65 0.1390 |
| **Inflammatory Markers**                        | Ferritin 4093 ± 8547 3599 ± 2177 15588 ± 14371 0.0011 |
| **D-dimer**                                     | 4290 ± 6441 4407 ± 5386 4174 ± 7504 0.9130 |
| **CRP**                                         | 8.67 ± 0.17 8.03 ± 0.82 9.36 ± 2.85 0.5074 |
| **LDH**                                         | 7901 ± 821.5 4097 ± 200.3 1238 ± 1124 0.0026 |
| **Lymphocyte-Inflammatory Markers Ratio**       | LFR 0.42 ± 0.39 0.54 ± 0.45 0.20 ± 0.28 0.0457 |
| **LDR**                                         | 0.43 ± 0.32 0.50 ± 0.71 0.30 ± 0.21 0.4343 |
| **LCR**                                         | 0.12 ± 0.15 0.18 ± 0.29 0.07 ± 0.05 0.0289 |
| **LLR (100)**                                   | 2.39 ± 1.62 2.6 ± 1.64 1.99 ± 1.57 0.2417 |
| **Liver Profile**                               | AST 60.18 ± 95.25 38.80 ± 18.76 82.68 ± 133.2 0.1520 |
| **ALT**                                         | 32.13 ± 28.45 28.15 ± 10.88 36.32 ± 39.34 0.3374 |
| **AST/ALT ratio**                               | 1.84 ± 1.14 1.44 ± 0.55 2.25 ± 1.43 0.0231 |
| **Total Protein**                               | 7.36 ± 0.80 7.40 ± 0.66 7.32 ± 0.93 0.7631 |
| **Albumin**                                     | 2.85 ± 0.58 2.93 ± 0.65 2.76 ± 0.50 0.3641 |
| **Cardiac Profile**                             | Troponin 0.30 ± 0.62 0.18 ± 0.49 0.41 ± 0.72 0.2581 |
| **BNP**                                         | 1984 ± 3061 1735 ± 1800 2296 ± 4223 0.6449 |
| **Miscellaneous**                               | NLR 17.06 ± 13.76 13.97 ± 16.87 12.09 ± 9.99 0.6478 |
| **PLR**                                         | 215.6 ± 256 269.6 ± 335.3 158.8 ± 114.2 0.1799 |

**Conclusion:** Our observation of COVID-19 disease in patients with ESRD on HD confirms that this population is at the highest risk for mortality from SARS-CoV-2 infection, and that a low AST/ALT ratio is independently associated with decreased mortality, while mechanical ventilation had an increased mortality. Larger prospective studies in this population may help us understand better those prognostic markers and suggest how to intervene in order to decrease this catastrophic rate of mortality.

**Disclosures:** Jihad Slim, MD, Abbvie (Speaker’s Bureau) Gilead (Speaker’s Bureau) Jansen (Speaker’s Bureau) Merck (Speaker’s Bureau) ViiV (Speaker’s Bureau)

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534. Halting a SARS-COV2 Outbreak in a Veterans Affairs Nursing Home.

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

**Background:** Health care systems have been significantly overwhelmed during the SARS-CoV-2 (SC2) pandemic. Cases in the USA have exceeded 1.9 million with over 40% of deaths occurring in nursing homes and assisting living facilities. We describe our experience in controlling an outbreak in our community living centers (CLC).

**Methods:** We retrospectively reviewed the charts of Veterans with positive nasopharyngeal (NP) RT-PCR for SC2 from March 24 to April 18, 2020 in 2 neighboring CLC units (80 bed capacity), at Northport Affairs Medical Center.

**Results:** Twenty five Veterans (24 men) tested positive for SC2. Of these, 5 remained asymptomatic, 9 got hospitalized, 6 died. No coinfection with influenza or other respiratory viruses identified. 11 health care workers (HCW) tested positive. Figure 1 shows test results by date. Table 1 summarizes the demographic characteristics, medical history, and laboratory findings. The median age was 74 years, with no difference in age between recovered and deceased, 73 vs. 77, P=0.105. Simplified acute physiology score (SAPS) II score was higher in the deceased group (P=0.001) and so were D-dimer (admission and peak levels), CRP, LDH, and peak ferritin/procalcitonin levels. There was no ICU admission. Figure 2 illustrates the CLC 1 and 2 outline of beds depicting positive cases in sequence of detection. Initial spread of the virus was fast, affecting residents and HCW. CLC visits were prohibited, floating of staff minimized, internal group activities halted, infection control measures and education on proper use of personal protective equipment provided. A SC2 (or “COVID”) unit was created in CLC1 and all patients and staff got tested. Withdrawal of isolation precautions required resolution of symptoms, and two sequential negative NP PCR tests which were obtained after 14 days from diagnosis. If the PCR was positive, a repeat test was obtained in 72 hours. 13 patients had persistent positive PCR for average 32 days (19 to 52) since diagnosis. 7/13 got tested and all were positive for SC2 IgG antibody.

SARS-CoV-2 Outbreak in VA Nursing Home, Dates of Tests

**Bed Outline of CLCs Depicting the Location And Numerical Sequence of Positive Tests**

SARS-CoV-2 Outbreak Dates of Tests

| Dates | Positive | Negative |
|-------|----------|----------|
| 03/24 |          |          |
| 03/25 |          |          |
| 03/26 |          |          |
| 03/27 |          |          |
| 03/28 |          |          |
| 03/29 |          |          |
| 03/30 |          |          |
| 03/31 |          |          |
| 04/01 |          |          |
| 04/02 |          |          |
| 04/03 |          |          |
| 04/04 |          |          |
| 04/05 |          |          |
| 04/06 |          |          |
| 04/07 |          |          |
| 04/08 |          |          |
| 04/09 |          |          |
| 04/10 |          |          |
| 04/11 |          |          |
| 04/12 |          |          |
| 04/13 |          |          |
| 04/14 |          |          |
| 04/15 |          |          |
| 04/16 |          |          |
| 04/17 |          |          |
| 04/18 |          |          |
Conclusion: Controlling SARS-CoV-2 outbreaks in nursing homes is a unique challenge as the virus can spread quickly among residents and staff. Mortality rate in our cohort was 24%. Prompt, effective isolation and broad testing was instrumental in halting the SC2 (COVID-19) outbreak.

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535. Harm reduction strategies and positive behaviors of medical providers in mitigating the effects of COVID-19 among HIV-infected children and HIV-exposed infants
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Session: P-20. COVID-19 Special Populations

Background: There are limited data on the disease course of COVID-19 among children with HIV and among HIV-exposed infants. It is sensible to maximize the preventive effort against SARS-CoV-2 infections in this group of patients using harm reduction strategies and positive behaviors provided by medical providers.

Methods: A quality improvement project was started in the 2nd week of April in our Children’s Hospital Subspecialty Clinic caring for children with HIV and HIV-exposed infants on antiretroviral therapy (ART). All patients are offered Telehealth at baseline and at 4 weeks after interventions making sure they remain adherent to their ART, with enough supply of ART for 4 weeks, and discussed harm reduction strategies (hand washing, use of hand sanitizer & face mask, social distancing, shelter-at-home) via telehealth and video clips. The goal was an increase of hand hygiene performance by 25% at 4 weeks after interventions. The number of hand washing and hand sanitizer use per day was categorized as < 5, 5–10, and >10 per day and was analyzed by Cochran-Armitage test for trend. Adherence to ART was categorized as <50%, 50–90%, >90–100% per week.

Results: There are 19 patients included: 11 with HIV infections (9–20 yo) and 8 HIV-exposed infants (2 weeks-6 months old), where parents received the intervention. Sanitizer use of >10 times a day increased from 21% to 43% (p value: 0.013). While 21% of participants washed hands >10 times a day, which increased to 71% after the intervention consisting of harm reduction strategies and positive behaviors by medical providers. All patients remained healthy and adherent to ART 4 weeks after the project began. COVID-19 pandemic is an opportunity for impactful health education that can positively affect the patients’ life.

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536. HIV Patients with COVID-19 in the Bronx: A Retrospective Cohort Study
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Session: P-20. COVID-19 Special Populations

Background: Since the start of the pandemic there has been limited data on mortality in people living with HIV (PLWH) who have Coronavirus Disease 2019 (COVID-19) in the United States (US). We conducted a retrospective review to investigate potential risk factors associated with survival and need for medical ventilation for PLWH and COVID-19.

Methods: This is a retrospective observational cohort from a large academic center across three campuses, conducted from January 1, 2020 to April 30, 2020. Thirty day readmissions were observed from January 1, 2020 to May 31, 2020. Our patients were identified by an ICD-10 code (B20) corresponding to HIV and positive SARS-CoV-2 PCR test. As a primary endpoint, we compared survivors vs. non-survivors. As a secondary endpoint, we compared patients who needed mechanical ventilator (MV) vs. those who did not need MV.

Results: Seventy two PLWH (28 female patients (39%), median [IQR] age was 62 [43-71] years) had positive SARS-CoV-2 PCR tests during this retrospective review. Median CD4+ count was 235 cells/ul and 11 (15%) had an HIV viral load >200 copies/mL. The median length of stay was 5 days and 6 patients were directly discharged from the emergency department. Ten patients were readmitted within 30 days with SARS-CoV-2-like symptoms and 2 are still inpatient. Twenty patients (27.8%) have expired. All non-survivors that expired had an undetectable HIV viral load (0%, p=0.02). The 11 patients with unsuppressed HIV viral loads at the start of the study period all survived, p=0.02. Non-survivors were more likely to have chronic kidney disease CKD (p<0.01)