

## Expanded Access to COVID-19 Convalescent Plasma Therapy in the Department of Veterans Affairs (VA)

August 2020

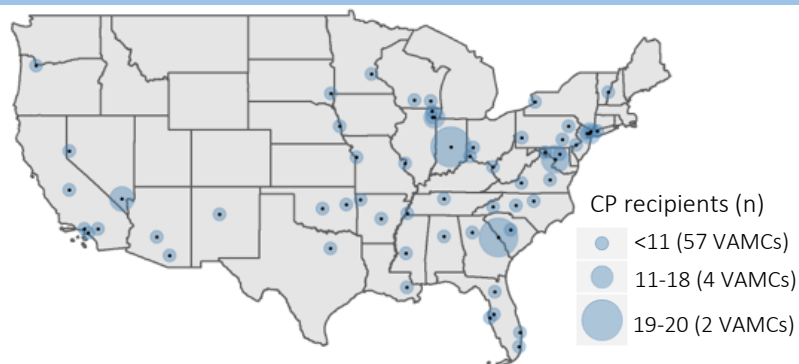
### Fact Sheet: Data on Veterans Using VA Health Care

CSPEAR provides timely epidemiologic information on VA health care users. This fact sheet presents summary data to inform a broad community of VA leaders, investigators, and clinicians as they consider how best to address the needs of Veterans.

#### Introduction

Convalescent plasma (CP) has gained attention as a promising treatment for coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The plasma of recovered patients contains antiviral and anti-inflammatory components that may help others fight SARS-CoV-2 infection.<sup>1</sup> In April 2020, VA began providing access to CP under the Mayo Clinic Expanded Access Program (EAP).<sup>2</sup> This fact sheet describes patients who received COVID-19 CP therapy under the Mayo Clinic EAP. Information is also shown on SARS-CoV-2-positive hospitalized Veterans who did not receive CP therapy.

#### Map of VA Medical Centers Providing CP Therapy



#### Methods

**Population:** Veteran inpatients who tested positive for SARS-CoV-2 infection within 1 to 15 days of hospitalization. Patients were excluded if they were enrolled in the Mayo Clinic EAP but had no data to indicate whether they underwent CP transfusion.

**Data Sources:** Data were pulled from the VA COVID-19 Shared Data Resource data domain of the VA Corporate Data Warehouse. A list of CP recipients was provided by the Mayo Clinic EAP.

**Analyses:** Descriptive statistics, including frequencies, medians, means, and standard deviations (SD), were used to show demographic and clinical characteristics of Veterans treated and untreated with CP.

**Time period:** March 1, 2020 - July 10, 2020. **Notes:** This work was conducted under the CSP #2030 study protocol (VA CIRB: E20-10). This material is the result of work supported with resources and the use of facilities at the VA Cooperative Studies Program Epidemiology Centers in Seattle, WA and Boston, MA. The contents do not represent the views of VA or the US Government.

#### Fast Facts

- Of 5,737 SARS-CoV-2-positive Veteran inpatients, 315 (5.5%) received CP from 63 VA medical centers under the Mayo Clinic EAP as of July 10, 2020.
- Two-thirds of CP recipients were judged to have severe or life-threatening illness by their providers upon enrollment into the Mayo Clinic EAP.
- Of 315 CP recipients, 242 (76.8%) were admitted to the intensive care unit (ICU) after the index date. Of those, 174 (71.9%) were transfused in the ICU, while 68 (28.1%) received CP outside the ICU.
- About half of CP recipients (n=155, 49.2%) were placed on a mechanical ventilator, and 31 (9.8%) received supplemental oxygen during their stay.
- Comorbidity burden as measured by the Charlson Comorbidity Index was high in both CP recipients [mean (SD) of 3.8 (3.3)] and non-recipients [mean (SD) of 3.5 (3.2)]. The most prevalent comorbidities were hypertension, diabetes mellitus, chronic lung disease, and heart disease.
- Among CP recipients, the median time from admission to CP therapy was 4 days. The median length of hospital stay was 15 days.

#### Definitions

**SARS-CoV-2-positive patients:** Patients identified as positive for SARS-CoV-2 infection according to the VA National Surveillance Tool

**Index date:** First Positive or First Suspect or First Negative (in that hierarchical order) or the Inpatient Admit Date closest to First Positive/First Suspect/First Negative in the 15 days prior

Visit the VA Centralized Interactive Phenomics Resource (CIPHER) for more information on the data elements from the VA COVID-19 Shared Data Resource used in this fact sheet: [https://cipherwiki.va.gov/phenotype/index.php?title=COVID-19:Shared\\_Data\\_Resource](https://cipherwiki.va.gov/phenotype/index.php?title=COVID-19:Shared_Data_Resource) (link is internal to VA)

Visit [CSPEAR's website](https://cspear.va.gov) or contact [CSPEAR@va.gov](mailto:CSPEAR@va.gov) for more information.

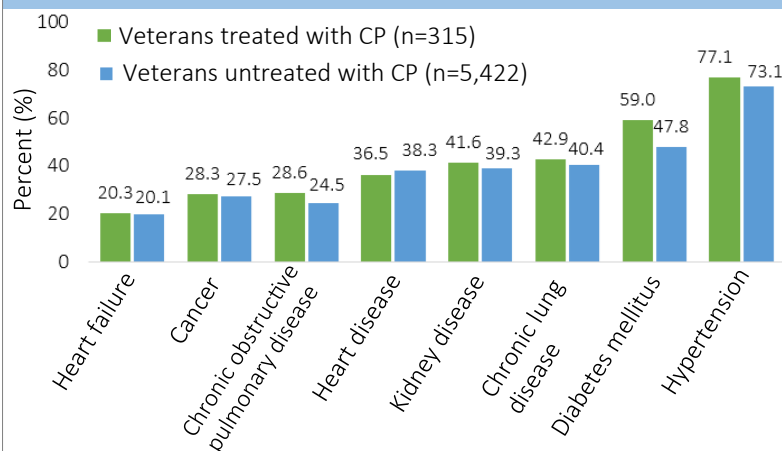
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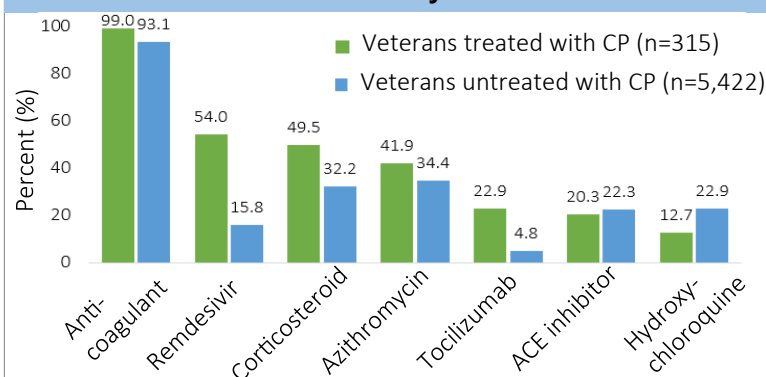
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Characteristic	n (%) among those treated with CP (n=315)	n (%) among those untreated with CP (n=5,422)
<b>Age (years)</b>		
18-34	1 (0.3%)	115 (2.1%)
35-44	11 (3.5%)	239 (4.4%)
45-54	29 (9.2%)	477 (8.8%)
55-64	64 (20.3%)	1,072 (19.8%)
65-74	116 (36.8%)	1,845 (34.0%)
75-84	66 (21.0%)	998 (18.4%)
85+	28 (8.9%)	676 (12.5%)
<b>Sex</b>		
Female	12 (3.8%)	299 (5.5%)
Male	303 (96.2%)	5,123 (94.5%)
<b>Race</b>		
American Indian/ Alaska Native	5 (1.6%)	32 (0.6%)
Asian	3 (1.0%)	39 (0.7%)
Black or African American	137 (43.5%)	2,387 (44.0%)
Native Hawaiian/ Pacific Islander	3 (1.0%)	32 (0.6%)
White	147 (46.7%)	2,589 (47.7%)
Unknown	20 (6.3%)	343 (6.3%)
<b>Ethnicity</b>		
Hispanic or Latino	22 (7.0%)	533 (9.8%)
Not Hispanic or Latino	287 (91.1%)	4,744 (87.5%)
Unknown	6 (1.9%)	145 (2.7%)

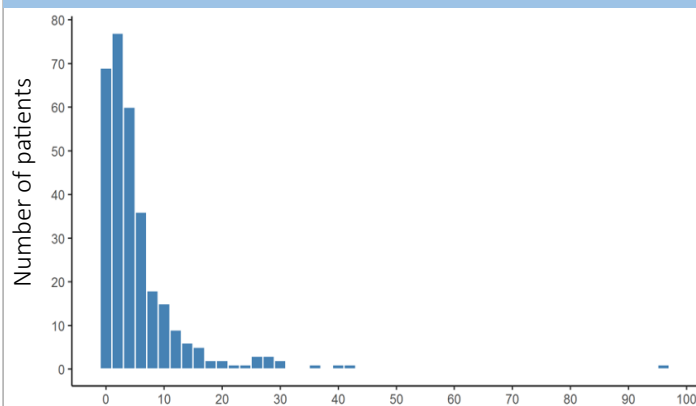
### Percentage of SARS-CoV-2-positive Veterans with Medical Diagnoses Recorded 2 Years Prior to Index Date



### Percentage of SARS-CoV-2-positive Veterans Taking Treatment within 60 Days Post-Index Date



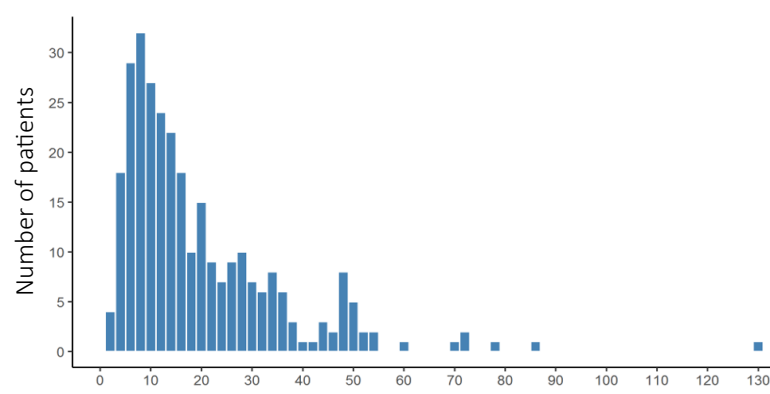
### Days from Admission to CP Treatment Initiation



Days of admission to CP treatment initiation

For patients with >1 inpatient admission, figure reports on the hospitalization in which CP treatment was given.

### Length of Hospital Stay among CP Recipients



Length of hospital stay (days)

Patients with no discharge as of 7/27/20 are excluded (n=20). Admission dates range from 3/15/20 to 7/8/20.

### Limitations and Challenges

- Data do not capture COVID-19 treatment that Veterans seek outside VA.
- Some patients treated with CP are not portrayed. No data were obtained on those who received CP outside the Mayo Clinic EAP. This is believed to be a small proportion of CP recipients in VA. There is a lag between care and reporting to the EAP. Of the 437 Veteran EAP enrollees with available data in the COVID-19 Shared Data Resource, 45 (10.1%) did not receive CP, and 77 (17.3%) had no data on whether they received CP.

### References and Resources

1. Rojas M., et al., Convalescent plasma in COVID-19: Possible mechanisms of action. Autoimmun Rev, 2020. 19(7): p. 102554.
2. Mayo Clinic Convalescent Plasma Expanded Access Program <https://www.uscovidplasma.org/>  
Visit <https://www.research.va.gov/va-research-covid-19.cfm> for information about VA research on COVID-19.

The CSPEAR team acknowledges the work of the VA providers who participated in the Mayo Clinic EAP. We thank them for their commitment to delivering the best care to the Veterans we serve.