

# Creating an Effective Clinic Model for Post-COVID Mental Health Treatment

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**Background:** The University of Colorado (UCH) Consultation-Liaison Psychiatry (CLP) service and Psychiatric Consultation for the Medically Complex clinic (PCMC) are developing a brain health outreach program for those hospitalized with COVID. Patients with COVID have increased risk of cognitive and psychiatric sequelae due to intrinsic viral properties, hyperinflammatory state, and increased disposition to ICU level care. Development of a post COVID brain health program has become paramount and UCH is not alone in creation of new clinic protocols to meet the needs of this population. Hospitals around the globe are developing new screeners to identify patients at higher risk of neuropsychiatric sequelae and refer them to appropriate resources. This project aimed to determine which patients infected with COVID-19 are vulnerable to neuropsychiatric sequelae and contribute towards developing improved methods of reaching these populations for care. We hypothesized that patients with multiple psychiatric/medical comorbidities and lower socioeconomic status would be more likely to display neuropsychiatric sequelae after infection with COVID-19. Furthermore, we hypothesized that patients of lower socioeconomic status and minority identification would prove to be barriers to successful outreach.

**Methods:** The program makes use of two arms: The first assesses those discharged from the hospital using a screener developed by the UCH post-COVID hospitalization program. The second screens patients currently admitted to the hospital with COVID using psychiatric and neurocognitive screeners. Both allow patients to be referred to PCMC for evaluation and treatment. Evaluation includes psychiatric interview and additional screeners including: Hospital Anxiety and Depression Scale (HADS), Montreal Cognitive Assessment (MoCA) and PTSD Checklist for DSM-5 (PCL-5). Additional neuropsychiatric evaluation via Repeatable Battery for the Assessment of Neuropsychological Status (RBANS), and cognitive rehabilitation referral, are available. Clinic treatment includes pharmaceuticals, individual therapy referral, or referral to the PCMC COVID Survivorship Support Group.

**Results:** To date, 100 patients have been screened in arm 1 (outpatient outreach) and arm 2 (inpatient outreach). In arm 2, about 54% of the population identifies as female, 46% as male, 61% identified as non-hispanic white, and 86% spoke English. Of those in arm 2 that agreed to full participation, 26% agreed to future check-ins and 6% were seen in the clinic. There was a difference in those who did and didn't fully participate based on ethnicity, language, and insurance status; though not of statistical significance. HADS scores demonstrated different trends based on these same demographic factors, though also not statistically significant.

**Discussion:** By using this two-armed approach, the service has been able to more effectively outreach patients and refer them to appropriate care. Though data is not complete, referral needs seem to differ based on demographic data. As data continues to be collected, the clinic model is expanding to outreach high risk patients for neuropsychiatric sequelae. This will strengthen our existing system, with risk of reoccurrence of similar events, and inform a new standard of care for COVID survivors.