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Implementation of telehealth services for inpatient psychiatric Covid-19 positive patients: A blueprint for adapting the milieu

The COVID-19 pandemic has brought unprecedented upheaval to the traditional practice of healthcare worldwide [1]. Social distancing and hospital isolation protocols pose a unique challenge for inpatient psychiatric settings, where the standard of care includes social interactions through group and milieu therapy [2]. During the height of the COVID-19 pandemic in New York, our hospital created an inpatient unit dedicated to the care of COVID-19 positive psychiatric patients. We designed and implemented an inpatient telehealth delivered mental health care (Telemental Health) [3] protocol to: 1) maintain multidisciplinary treatment delivery despite isolation protocols; 2) promote patient support by family and friends during a time of in-person visitor restrictions, and 3) reduce the risk of COVID-19 cross-contamination during inperson contact. Here we describe in brief the benefits and challenges of our inpatient Telemental Health conversion (see Appendix 1 for detailed information).

Prior to admitting only COVID-19 positive patients, our unit had a capacity of 17 beds, with most rooms housing one patient per room. Patients received daily assessment by a psychiatrist, individual psychotherapy, several group therapy and activity sessions, and met with nursing staff and non-psychiatric physicians, physical therapists, pharmacists, chaplains, as needed throughout the day. After the COVID-19 conversion, the census was limited to 15 patients, so that each patient had an individual room; two rooms were used for donning and doffing personal protective equipment (PPEs). To mitigate viral spread, patients had to remain in their room with the door closed and only had in-person interactions with the treatment staff for medication dispensing, vital signs, blood drawing, and room checks. [4]

Initially, patients communicated with staff and family via portable landline telephones, therapy groups were suspended, and PPE including masks, gowns, and face shields made in-person interactions difficult. We quickly realized, while these procedures limited the risk of contamination, they led to patient isolation with the potential to interfere with treatment progress.

Within two weeks, we planned and implemented our protocol for inpatient Telemental Health delivered mainly through electronic tablets provided by our hospital. We selected a core team consisting of a clinical psychologist and a clinical social worker to design and lead our Telemental Health conversion program and manage program logistics including training hospital staff on-site. All program documentation was stored in a secured server-based folder accessible to clinical staff. Each patient received a tablet to use for meetings with the treatment team, virtual family visits and to access therapeutic applications and content. Password secured meetings via teleconferencing software replaced inperson clinical team rounds.

While rapidly designed out of necessity, the implementation of Telemental Health followed an iterative process of improvement [5]. Our

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paramount concern was patient safety. In response, we implemented daily risk and safety screenings before patients were given a tablet (Appendix 2: Tablet risk screening). Another concern had been the patients' ability to navigate technology. Psychopathology, cognitive impairment, and limited prior familiarity with technology were potential barriers to use. To address these issues patients received verbal and written instructions to orient them to tablet functions.

We were particularly sensitive to protecting patient privacy. Initially, we created "dummy" email addresses for anonymous use of telecommunication software by patients. However, we were forced to abandon this approach because the high volume of COVID-19 positive admissions placed heavy demands on staff time. The hospital's Information Technology Department purchased several hundred temporary email addresses from a large corporation for patient use. These email addresses were used to access telecommunications software and were kept in a "directory" on our secured server so that staff could contact patients directly. At discharge, patients' temporary email addresses were retired, and the tablet was reset to factory settings, deleting all personal user information. A new temporary email address was assigned to the next admitted inpatient. Disinfection and charging of tablets was also challenging. Each night, we collected all tablets from the patients, disinfected, charged and returned each tablet to the assigned patients the following morning.

The Telemental Health conversion of our inpatient psychiatric COVID-19 positive unit was supported by funding from our hospital system. Although investing in technology to support inpatient psychiatric treatment is costly, containing the spread of COVID-19 while offering high-quality psychiatric care to address psychiatric symptoms is imperative and could prevent greater long-term healthcare costs. Our inpatient Telemental Health protocol can be modified and used with a variety of different hardware and software to fit the needs of smaller institutions during these challenging times.

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Declaration of competing interest

Dr. Alexopoulos serves on the Eisai Advisory Board and Otsuka Speakers Bureau. He also served on the Speakers Bureaus of Allergan and Takeda-Lundbeck and Janssen Advisory Board. All other authors do not have financial conflicts of interest to report.

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