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Special Issue Article Ethical and Logistical Considerations of Caring for Older Adults on Inpatient Psychiatry During the COVID-19 Pandemic

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ABSTRACT

The coronavirus disease 2019 (COVID-19) pandemic has brought challenges to delivery of care for older adults on inpatient psychiatry. We describe two cases: patient A, a 62-year-old woman who initially refused screening for potential COVID-19, bringing up questions about threshold for capacity when public health is at risk and questions about whether screening for infection should be different in older adults. The other case, patient B, is that of an 83-year-old man who was on the unit when patient A tested positive, and brought up concerns for risk of dissemination in the context of wandering, spitting behaviors, and inability to adhere to room isolation or masking measures. We review measures taken to decrease risk of transmission and improve screening for infection in older adults. (Am J Geriatr Psychiatry 2020; 28:829–834)

T hese are unprecedented times. The coronavirus disease 2019 (COVID-19) pandemic has upended day-to-day life and care delivery. The older adult population is at high risk of negative outcomes from a COVID infection. In fact, the CDC estimates that eight out of 10 deaths reported in the Unite States have been in adults 65 years old and older.¹ This makes the task of caring for this population on an inpatient psychiatry unit especially challenging. Inpatient psychiatry units are ambulatory units that are designed to promote recovery through socialization and milieu therapy, and thus, there exists an increased risk of person-to-person transmission.

Mental healthcare workers find themselves questioning standard treatment protocols and face daily ethical and logistical challenges they have never faced before. The cases below describe specific challenges we have faced in delivering care.

CASES PRESENTATION AND MANAGEMENT

Patient A is a 62-year-old woman with past psychiatric history of narcicisstic personality disorder who was admitted from a skilled nursing facility (SNF)

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after a suicide attempt in the context of interactions with staff at the SNF. She was medically asymptomatic on assessment in the Emergency Department and on the admitting physical exam on the inpatient psychiatry unit. She screened negative for any mood or psychotic disorders, had longstanding insomnia and was cognitively intact. She declined to start medications for insomnia. On day 2 of admission, patient was noted to have a dry cough, denied any recent sick contact within the SNF, chills, shortness of breath, or phlegm production. She insisted that she felt "well" and initially declined to have her vitals taken. She was found to have capacity to refuse vitals, but her decision immediately raised an ethical dilemma for the team. We decided to start isolation precautions and defer vitals to ensure safety of staff. She later agreed to have her vitals taken, and they were found to be within normal limits. Droplet precautions were continued, nonetheless. Medicine was consulted: X-ray was not suggestive of airway disease, and a complete blood count showed chronic stable anemia and no leukopenia or leukocytosis. At this point, contact and droplet precautions were discontinued. Twelve hours later, the patient was found to have a temperature of 99.2F, which climbed rapidly to 100.7F within 3 hours. She was then transferred to medicine for COVID rule out and was confirmed to be COVID positive shortly after.

Patient B is an 83-year-old man admitted for agitation due to Alzheimer's disease. He had a protracted hospital stay with multiple failed attempts to discharge to nursing homes. He was managed with nonpharmacological approaches that were identified through a multidisciplinary "DICE" (Describe, Investigate, Create, and Evaluate) approach² and minimally effective pharmacological treatment trials that included melatonin, donepezil, buspar, sertraline, escitalopram, memantine, quetiapine, ziprasidone, aripiprazole, olanzapine, trazodone, haloperidol, and valproic acid. He continued to struggle with mood lability, agitation, intermittent biting, and scratching of staff. He also had longstanding pooling of saliva with spitting behaviors, that did not respond to any behavioral interventions (a cup, toweling) and was likely worsened by antipsychotics. After patient A was confirmed to be COVID positive, we became concerned that patient B was a carrier as he had been on the unit at the same time. We increased vitals frequency and isolated him to his room, which resulted in an increased frequency of episodes of agitation. He required multiple behavioral codes with very limited benefit from medications for agitation. In fact, we feared the medications would worsen the drooling. Confinement made his mood lability worse, as his main coping skill during hospitalization was walking around the unit. He was unable to adhere to a universal masking protocol. Spitting behaviors became a prominent concern. We considered intrabuccal atropine or intrabuccal ipratropium as treatments, but staff felt that they did not have sufficient access at the time to personal protective equipment (PPE) needed to administer these treatments. As systemic anticholinergic medications were likely to make the patient's agitation worse, we opted to allow the patient to wander the unit at times when other patients were confined to their rooms. He remained asymptomatic and never met criteria for testing. Everyone wore a mask except patient B.

DISCUSSION

How Do We Help Prevent Spread in an Inpatient Psychiatric Unit?

While the spread of COVID-19 in the community is being addressed by "social-distancing" and the closure of businesses and public gatherings, hospitals and medical facilities do not have the ability to close their doors. Patients who have contracted the virus or who have symptoms that mimic the virus will continue to be admitted to these facilities for indicated treatment. With a constant influx of new cases, how do we protect both COVID-19 negative patients and hospital staff from contracting or spreading the virus? Furthermore, what can be done to prevent the virus from entering an inpatient psychiatric unit? Hosts for entry can come from three sources: staff, patients, or visitors. The easiest population to control is visitors. Visitors should be screened at hospital entrances before they are allowed entry. However, as the spread has progressed, many hospitals are banning all visitors (barring select circumstances) which will hopefully eliminate one source of viral introduction or spread. Our facility banned all visitors within a week of the first patient testing COVID-19 positive on the medical units.

Introduction and spread of the virus by medical, nursing and social work staff is a difficult factor to control, as they face exposure from the world outside of the hospital. Limiting staff to only essential members will be very important in preventing spread. Nondirect patient care can be performed over the phone or via webcams if needed, as our colleagues in Italy had done.³ Staff that is needed for direct patient care should be screened prior to entering the unit (sick contacts, exposure, symptoms, fever). A "hospitalist" model could be employed where teams of staff members work in alternating week blocks to help decrease staff exposure inside and outside the hospital during a period of time. Consults to outside services should only be done if absolutely necessary to protect patient safety. As well, consulting teams should include the minimum amount of staff necessary to complete the consult. Follow-up rounding for consults should be done only when absolutely necessary and "tele-rounding" performed if possible, as was implemented in France.⁴ We instituted this approach in both the Emergency Department and Consultation Liaison services, with positive reception by staff and patients. Staff mobile phones can also harbor infectious agents. In one study performed by Bodena et al. 2019, it was revealed that 94.2% of the mobile phones of health professionals were contaminated with bacteria.⁵ Needless to say, phones could also transport COVID-19 and regular phone sanitization could help reduce transmission. Antiseptic wipes should be placed in all staff work areas with reminders to sanitize phones and frequently touched devices.

Patients entering the inpatient unit, whether from the emergency department, another hospital floor, or from an outside facility should all follow standardized COVID-19 screening procedures. Patients should be monitored daily for the classic symptoms of cough, shortness of breath, and fever. But as we discuss below, geriatric patients may not show a typical infectious presentation and should be screened following modified guidelines. Suspension of group activities, social distancing, and single patient rooms (if possible) can be effective in decreasing transmission. Despite implementing these measures, there is always a risk that a newly admitted patient is actually COVID-19 positive but asymptomatic. Precautions to address this possibility could include universal mask use by all patients and staff. In addition, newly admitted patients could be placed in a single room for observation for up to 5 days, but such policies may not be feasible to implement, and 5 days may be an insufficient time period to identify everyone with an underlying infection. Given the recent findings from Lauer et al. 2020, the median incubation period was estimated to be 5.1 days (95%CI, 4.5-5.8 days), and 97.5% of those who develop symptoms will do so within 11.5 days (CI, 8.2–15.6 days) of infection.⁶ Ideally, inpatient psychiatric censuses and new admissions should be kept low and limited to only the most psychiatrically ill who are in need of immediate care. This can help reduce infectious spread. While we could not place patients in observation rooms, having a low census allowed for single patient rooms. If COVID-positive patients require a behavioral unit due to unsafe behaviors, we may consider creating a psychiatric holding space within the COVID-positive floors as was implemented in Italy.³ In our specific case, universal mask-wearing had been implemented throughout the hospital prior to these events. Patients who came into contact with patient A were identified, vitals frequency was increased, and symptom monitoring dictated whether patients qualified for testing. Staff who had worked with patient A were identified using contact tracing and were quarantined to home. Testing was not indicated as they had not developed symptoms.

How Do We Prevent Spread Across All Healthcare Facilities (Hospital Wards, Psychiatric Unit, Skilled Nursing Facilities, Group Homes)?

The recommendations outlined above that aim to help prevent COVID-19 introduction and spread in a psychiatric facility can be applied to other healthcare facilities, likely with good effect. Hospital wards will have proper PPE and adequately trained staff, barring any future equipment or staff shortages. However, viral spread to and from nursing facilities and group homes is important for health systems to recognize and take steps to prevent. Patients and loved ones who live in these settings are among the highest risk for morbidity and mortality from COVID-19 due to advanced age or underlying medical conditions. As we saw at the King County, Washington long-term care facility (LTCF) in late February 2020, the virus can be deadly for residents and visitors.⁷ As we learn more about the virus, no age group or demographic is "immune" to its complications, but in the King County facility episode, no deaths occurred among staff members. Reported symptom onset dates for facility residents and staff members ranged from February 16 to March 5, 2020. The median patient age was 81 years (range = 54-100 years) among facility residents, 42.5 years (range = 22-79 years) among staff members, and 62.5 years (range = 52-88 years) among visitors; 84 (65.1%) patients were women. Overall, 56.8% of residents, 35.7% of visitors, and 5.9% of staff members with COVID-19 were hospitalized. Preliminary case fatality rates among residents and visitors as of March 9, 2020 were 27.2% and 7.1%, respectively. The most common chronic underlying conditions among facility residents were hypertension (69.1%), cardiac disease (56.8%), renal disease (43.2%), diabetes (37.0%), obesity (33.3%), and pulmonary disease (32.1%). Six residents and one visitor had hypertension as their only chronic underlying condition.

Information received from a survey and on-site visits to the care facility and other affected facilities in the surrounding area, identified factors that likely contributed to the vulnerability of these facilities.⁷ This included:

- 1) Staff members who worked while symptomatic.
- 2) Staff members who worked in more than one facility.
- 3) Inadequate familiarity and adherence to standard, droplet, and contact precautions and eye protection recommendations.
- 4) Challenges to implementing infection control practices including inadequate supplies of PPE and other items (e.g., alcohol-based hand sanitizer).
- 5) Delayed recognition of cases because of low index of suspicion, limited testing availability, and difficulty identifying persons with COVID-19 based on signs and symptoms alone.

To best prevent the spread of COVID-19 from person to person and facility to facility, we must recognize the previous gaps and issues in the system, protocol, and training. Unfortunately, limited supplies of PPE, testing kits, antiseptic products, medication, and life sustaining equipment are factors that cannot always be controlled for in our current situation.

How Should We Screen for Infection in Older Adults?

From a clinical standpoint, there is a dearth of evidence at this time about the nuances of presentation of COVID in older adults. A recently published study with n=56, 18 of whom were older adults showed that the most common symptoms were fever (>40°C) followed by cough and sputum.⁸

In regard to screening for infection in the elderly, the standard temperature threshold of 100.4F no longer holds.⁹ In fact, the clinical practice guideline for the evaluation of fever in older adults in LTCF recommends that infection should be suspected in LTCF residents with:

A) Decline in functional status, defined as new or increasing confusion, incontinence, falling, deteriorating mobility, reduced food intake, or failure to cooperate with staff.

B) Fever, defined as: 1) A single oral temperature greater than 100°F (>37.8°C); or 2) repeated oral temperatures >99°F (>37.2°C) or rectal temperatures greater than 99.5°F(>37.5°C); or 3) an increase in temperature of greater than 2°F (1.1°C) over the baseline temperature.¹⁰ Meticulous and frequent documentation of the above are required to detect an infection early and slow its spread (Table 1).

Ethical and Logistical Considerations in Treating Older Adults on Inpatient Psychiatry

Patient A also presented an ethical dilemma about capacity to consent or refuse testing or vitals to screen for COVID-19. What becomes of the threshold for capacity if patients on the inpatient service refuse necessary tests or vitals to rule out COVID-19? What was once a decision about one's own health becomes a

TABLE 1.	Clinical Practice Guideline for Suspicion of infec-
	tion in Older Adults in Long-Term Care Facilities
	(LTCF) ¹⁰

A. Decline in functional status, defined as new or increasing confusion, incontinence, falling, deteriorating mobility, reduced food intake, or failure to cooperate with staff.B. Fever, defined as:

- (1) A single oral temperature $>100^{\circ} F (>37.8^{\circ} C)$; or
- (2) repeated oral temperatures >99°F (>37.2°C) or rectal temperatures >99.5°F (>37.5°C); or
- (3) an increase in temperature of >2°F(1.1°C) over the baseline temperature.

public health question with the risk of spread of a deadly infectious virus. These questions are especially pertinent in the treatment of older adults. One reason is that capacity to make medical decisions is commonly assessed in the setting of disorders of the elderly such as neurocognitive impairment and delirium. Another reason is that as noted by the Center for Disease Control and Prevention (CDC), older adults are at higher risk of complications from COVID-19, and a decision by one impacts the entire milieu and has consequences for other patients, literally creating a "toxic environment." If the threshold for capacity were to take public health into account, and thus this patient was deemed not to have capacity, is it ethical to obtain the vitals? Would the risk that staff would incur to obtain vital signs against will justify the benefit of obtaining these vitals? Does the good of the many outweigh the liberty of the individual? As such ethical quandaries were being discussed, we followed the precept that it is best to err on the side of caution and therefore implemented strict droplet isolation to protect the milieu.

In addition, management of patient B's Behavioral and Psychological Symptoms in Dementia (BPSD) became complicated by his exposure to the virus. The team had to weigh the risk associated with repeated behavioral codes due to room isolation and allowing the patient to wander around the unit without a mask. The initial exposure was due to the wandering itself. And once exposure was confirmed, the risks associated with the spitting behaviors became exponentially more concerning. Spitting behaviors a recommon in dementia,¹¹ and their management remains a challenge. This is especially relevant when we are facing a highly infectious process that could be carried by droplets. The patient was unable to wear a mask, which made this risk more prominent. We were also unable to administer medications for this, given the need for N95 masks for intrabuccal manipulations in a patient who would not tolerate such an intervention. Medications used for agitation had very limited efficacy in symptom control for patient B. Ultimately, we made the choice to allow the patient to wander at times when we asked all the other patients to clear the milieu.

CONCLUSION

Caring for older adults in times of COVID-19 brings a specific set of challenges that highlight the complex interplay between facilities, units, staff members, and patients who are especially vulnerable to the virus. Specific infection control measures may be at odds with therapeutic benefits of inpatient units. Ethical questions about accountability to patients and duty to protect staff complicate treatment algorithms. There is no consensus yet for management of these situations, and thus, there is a dire need to develop treatment guidelines.

AUTHOR CONTRIBUTIONS

Mario Fahed, M.D. and Gregory Barron, M.D. participated in drafting of the manuscript.

David Steffens, M.D., M.H.S. participated in drafting the manuscript and critical revision.

DISCLOSURE

The authors have no disclosures to report.

References

- 1. CDC: Older Adults. 2020
- Kales HC, Gitlin LN, Lyketsos CG: Management of neuropsychiatric symptoms of dementia in clinical settings: recommendations from a multidisciplinary expert panel. J Am Geriatr Soc 2014; 62:762–769
- Fagiolini A, Cuomo A, Frank E: COVID-19 diary from a psychiatry department in Italy. J Clin Psychiatry 2020; 81:3
- 4. Corruble E: A viewpoint from Paris on the COVID-19 pandemic: a necessary turn to telepsychiatry. J Clin Psychiatry 2020; 81:2020
- 5. Bodena D, Teklemariam Z, Balakrishnan S, et al: Bacterial contamination of mobile phones of health professionals in Eastern

Ethiopia: antimicrobial susceptibility and associated factors. Trop Med Health 2019; 47:1-10

- Lauer SA, Grantz KH, Bi Q, et al: The incubation period of Coronavirus disease 2019 (COVID-19) from publicly reported confirmed cases: estimation and application. Ann Intern Med 2020; 2019
- Mcmichael TM, Clark S, Pogosjans S, et al: COVID-19 in a longterm care facility — King County, Washington. Morb Mortal Wkly Rep COVID-19 2020; 69:339-342
- Liu K, Chen Y, Lin R, et al: Clinical feature of COVID-19 in elderly patients: a comparison with young and middle-aged patients. J Infect 2020; 11:11

- **9.** Huang, Huang C, Wang Y, et al: Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. Lancet (London, England) 2020; 395:497–506
- **10.** High KP, Bradley SF, Gravenstein S, et al: Clinical practice guideline for the evaluation of fever and infection in older adult

residents of long-term care facilities: 2008 update by the Infectious Diseases Society of America. Clin Infect Dis 2009; 48:149-171

11. Koopmans RTCM, van der Molen M, Raats M, et al: Neuropsychiatric symptoms and quality of life in patients in the final phase of dementia. Int J Geriatr Psychiatry 2009; 24:25–32