Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.
eFigure. Study Profile

3,990 NYS OMH PC inpatients 18 years and older on census during the period March 8, 2020, to July 1, 2020

- Excluded 796 without serious mental illness (affective or nonaffective psychoses)
- Excluded 1,107 not continuously on census from March 8 to July 1, 2020
- Excluded 125 without polymerase chain reaction (PCR) or antibody test information
- Excluded 4 with less than 30 days on hospital census prior to testing

1,958 with complete COVID-19 test information.

969 COVID-19 positive inpatients:
- 374 RT-PCR
- 572 IgG antibody
- 23 unknown test type (testing performed after medical transfer)

989 COVID-19 negative inpatients:
- 215 RT-PCR
- 774 IgG antibody

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### eTable 1. Psychotropic Medications Exposure in Full Cohort and by Infection and Death

| Psychotropic medication                  | Total, n (%) | COVID-19 positive, n (%) | COVID-19 death, n (%) |
|-----------------------------------------|--------------|--------------------------|-----------------------|
| All                                     | 1,958 (100·0)| 969 (100.0)              | 38 (100.0)            |
| **First-generation antipsychotics**     |              |                          |                       |
| Haloperidol                             | 886 (45.2)   | 453 (46.8)               | 19 (50.0)             |
| Fluphenazine                            | 274 (14.0)   | 138 (14.2)               | 3 (7.9)               |
| Chlorpromazine                          | 134 (6.8)    | 47 (4.9)                 | 0 (0·0)               |
| Perphenazine                            | 37 (1.9)     | 20 (2.1)                 | 0 (0·0)               |
| Loxapine                                | 31 (1.6)     | 19 (2.0)                 | 0 (0·0)               |
| Prochlorperazine                        | 10 (0·5)     | 3 (0·3)                  | 0 (0·0)               |
| Thioridazine                            | 5 (0·3)      | 4 (0·4)                  | 0 (0·0)               |
| Pimozide                                | 1 (0·1)      | 1 (0·1)                  | 1 (2·6)               |
| Trifluoperazine                         | 1 (0·1)      | 0 (0·0)                  | 0 (0·0)               |
| **Second-generation antipsychotics**    |              |                          |                       |
| Olanzapine                              | 860 (43.9)   | 398 (41.1)               | 14 (36.8)             |
| Clozapine                               | 712 (36.4)   | 341 (35.2)               | 6 (15·8)              |
| Risperidone                             | 377 (19.2)   | 157 (16.2)               | 3 (7.9)               |
| Aripiprazole                            | 266 (13.6)   | 131 (13.5)               | 3 (7.9)               |
| Quetiapine                              | 262 (13.4)   | 126 (13.0)               | 6 (15.8)              |
| Paliperidone                            | 186 (9.5)    | 67 (6.9)                 | 2 (5·3)               |
| Ziprasidone                             | 56 (2.9)     | 19 (2.0)                 | 0 (0·0)               |
| Lurasidone                              | 11 (0·6)     | 3 (0·3)                  | 0 (0·0)               |
| Cariprazine                             | 5 (0·3)      | 1 (0·1)                  | 0 (0·0)               |
| Palinzanserin                           | 1 (0·1)      | 0 (0·0)                  | 0 (0·0)               |
| **Mood stabilizers**                    | 1,043 (53·3) | 541 (55.8)               | 19 (50.0)             |
| Valproic acid                           | 688 (35.1)   | 363 (37.5)               | 16 (42.1)             |
| Lithium                                 | 375 (19.2)   | 190 (19.6)               | 6 (15.8)              |
| Lamotrigine                             | 136 (7·0)    | 74 (7.6)                 | 2 (5.3)               |
| Topiramate                              | 38 (1·9)     | 20 (2.1)                 | 0 (0·0)               |
| **Antidepressants**                     | 547 (27.9)   | 261 (26.9)               | 6 (15.8)              |
| Sertraline                              | 145 (7·4)    | 62 (6.4)                 | 1 (2.6)               |
| Citalopram                              | 134 (6.8)    | 70 (7.2)                 | 1 (2.6)               |
| Escitalopram                            | 88 (4.5)     | 47 (4.9)                 | 0 (0·0)               |
| Mirtazapine                             | 82 (4·2)     | 35 (3.6)                 | 3 (7.9)               |
| Fluoxetine                              | 66 (3·4)     | 29 (3.0)                 | 0 (0·0)               |
| Venlafaxine                             | 53 (2·7)     | 26 (2.7)                 | 0 (0·0)               |
| Bupropion                               | 43 (2·2)     | 16 (1.7)                 | 0 (0·0)               |
| Paroxetine                              | 29 (1·5)     | 22 (2.3)                 | 1 (2·6)               |
| Fluvoxamine                             | 25 (1·3)     | 16 (1.7)                 | 0 (0·0)               |
| Duloxetine                              | 18 (0·9)     | 5 (0·5)                  | 0 (0·0)               |
| Clomipramine                            | 13 (0·7)     | 6 (0·6)                  | 0 (0·0)               |
| Doxepin                                 | 7 (0·4)      | 0 (0·0)                  | 0 (0·0)               |
| Amitriptyline                           | 3 (0·2)      | 0 (0·0)                  | 0 (0·0)               |
| Imipramine                              | 3 (0·2)      | 2 (0·2)                  | 0 (0·0)               |
| Nortriptyline                           | 2 (0·1)      | 1 (0·1)                  | 0 (0·0)               |
| **Benzodiazepines**                     | 1,016 (51·9) | 502 (51.8)               | 16 (42.1)             |
| Lorazepam                               | 810 (41·4)   | 404 (41.7)               | 12 (31·6)             |
| Clonazepam                              | 420 (21·4)   | 198 (20.4)               | 4 (10.5)              |
| Diazepam                                | 19 (1·0)     | 11 (1·1)                 | 0 (0·0)               |
| Alprazolam                              | 1 (0·1)      | 1 (0·1)                  | 0 (0·0)               |
| Temazepam                               | 1 (0·1)      | 1 (0·1)                  | 0 (0·0)               |

*Patients can be prescribed multiple medications both within and across psychopharmacologic classes.*
### eTable 2. ICD-9/10 Category Codes Used to Identify Medical Conditions and Psychiatric Diagnoses

| Condition                                      | ICD-9/10 category code     |
|------------------------------------------------|---------------------------|
| Bipolar disorder                               | F30* or F31*              |
| Chronic respiratory disease                    | J43-J45                   |
| Delusional disorder                            | F22                       |
| Diabetes                                       | E08-11, E13               |
| Heart disease                                  | I21-I25, I30-I52          |
| Hypertension                                   | I10, I11, I15, I16        |
| Major depressive disorder with psychotic features | F2.3 or F33.3             |
| Schizoaffective disorder                       | F25*                      |
| Schizophrenia                                  | F20*                      |
**eTable 3.** Incidence and Adjusted Odds Ratios of COVID-19 Infection by Psychotropic Medication Exposure in Patients with PCR Testing

| Psychotropic medication | COVID-19 positive n (%) | Medications only | Age-Sex Adjusted | Fully Adjusted* |
|-------------------------|-------------------------|------------------|------------------|-----------------|
|                         | OR (95% CI)            | OR (95% CI)      | OR (95% CI)      |                 |
| All (n=1,363)           | 374 (27.4)             | --               | --               | --              |
| First generation antipsychotic |                     |                  |                  |                 |
| Haloperidol (n=610)     | 177 (29.0)             | 1.04 (0.81, 1.35)| 1.24 (0.87, 1.46)| 0.84 (0.62, 1.13)|
| Fluphenazine (n=187)    | 51 (27.3)              | 0.93 (0.64, 1.35)| 0.96 (0.66, 1.39)| 0.81 (0.53, 1.22)|
| Chlorpromazine (n=101)  | 14 (13.9)              | 0.42 (0.23, 0.75)| 0.45 (0.24, 0.82)| 0.71 (0.37, 1.37)|
| Second generation antipsychotic |                   |                  |                  |                 |
| Olanzapine (n=618)      | 156 (25.2)             | 0.67 (0.52, 0.88)| 0.70 (0.54, 0.92)| 0.85 (0.62, 1.16)|
| Clozapine (n=493)       | 122 (24.8)             | 0.62 (0.47, 0.82)| 0.73 (0.55, 0.98)| 0.99 (0.70, 1.39)|
| Risperidone (n=282)     | 62 (22.0)              | 0.68 (0.48, 0.94)| 0.69 (0.50, 0.97)| 0.78 (0.53, 1.13)|
| Aripiprazole (n=174)    | 39 (22.4)              | 0.68 (0.46, 1.01)| 0.77 (0.52, 1.14)| 0.67 (0.43, 1.04)|
| Quetiapine (n=185)      | 49 (26.5)              | 0.84 (0.58, 1.21)| 0.85 (0.59, 1.23)| 0.75 (0.49, 1.15)|
| Paliperidone (n=144)    | 25 (17.4)              | 0.51 (0.32, 0.81)| 0.54 (0.34, 0.87)| 0.55 (0.33, 0.92)|
| Mood stabilizers        |                        |                  |                  |                 |
| Valproic acid (n=467)    | 142 (30.4)             | 1.40 (1.08, 1.82)| 1.41 (1.09, 1.83)| 1.57 (1.15, 2.13)|
| Lithium (n=261)         | 76 (29.1)              | 1.22 (0.90, 1.67)| 1.28 (0.93, 1.75)| 1.10 (0.77, 1.58)|
| Lamotrigine (n=99)      | 37 (37.4)              | 1.88 (1.21, 2.92)| 1.83 (1.17, 2.87)| 2.05 (1.20, 3.49)|

*The fully adjusted odds ratios control for age, sex, race/ethnicity, facility size, hospital region, BMI, chronic respiratory disease, diabetes, hypertension, heart disease, and exposure to medications in the model.