

# Clozapine Prescribing Practices in a Community Mental Health System

Tyler Wheeler MD (tyler.wheeler@ucsf.edu)

UCSF Public Psychiatry Fellowship 2023-24

## Background:

- Clozapine (CLZ) use is steadily declining in the US despite evidence of superiority in treatment resistant schizophrenia (TRS), association with decreased hospitalizations, higher patient satisfaction, and reduced healthcare costs in Medicaid populations.
- Racial and ethnic inequities exist (Black and Latinx individuals are less likely to be prescribed CLZ than white individuals).
- There is great variability in CLZ prescribing rates between states and a dearth of current, local data.

## Setting:

Chinatown North Beach Mental Health Services (CTNB) is a specialty mental health clinic within SFDPH serving a diverse population. The clinic has a new point-of-care testing (POCT) device that can provide immediate absolute neutrophil count (ANC) results via fingerstick that is not currently in use due to regulatory hurdles.

## Objectives:

- Understand how CLZ is prescribed within CTNB and SFDPH.
- Determine how patient- and system-based factors impact CLZ prescribing.
- Identify barriers to and enabling factors for CLZ prescribing within the local system.

## Methods:

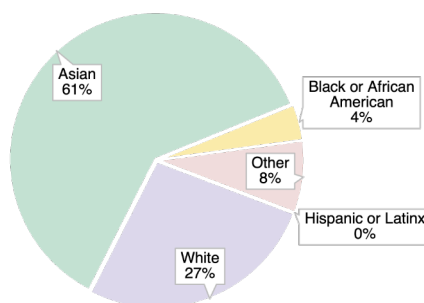
- Quantitative analysis of extracted Avatar data
  - Individuals with schizophrenia spectrum diagnoses treated 2017-2023
  - Prescription dates falling within open episode of care dates
- Qualitative thematic analysis of interviews with CTNB prescribers
  - Semi-structured interviews with 4 psychiatrists and 1 nurse practitioner about education, clinical experience, and prescribing practices with CLZ
  - Mean yrs post-training=20 (5-33; SD=10); at CTNB=19 (3.5-33; SD=11)

## Quantitative Results:

### Antipsychotic prescribing rates by clinic type

	All DPH* (n=4342)	CTNB (n=497)	Other civil service clinic (n=1908)
Any anti- psychotic	3868 (89%)	473 (95%)	1752 (92%)
Clozapine	262 (6%)	26 (5%)	131 (7%)

\* Non-urgent Avatar care episodes with medication management



CLZ prescribing by race/ethnicity at CTNB

### Demographic differences in CLZ prescribing across DPH

Race/ Ethnicity		Prescribed CLZ	Not prescribed CLZ
Race/ Ethnicity	Asian	6%	94%
	Black or African American**	3%	97%
	Hispanic or Latinx	8%	92%
	White	7%	93%
	Other	7%	93%
Age (mean)**		51 yrs	54 yrs
Total		6%	94%

\*\* Statistically significant based on p-value < 0.05

- No significant difference based on primary language or gender

## Qualitative Results: Journey Map of CLZ Prescribing Practices at CTNB

	Diagnosis	Assessment and Treatment Decision	Initiation and Titration (>6 months)	Ongoing Treatment (<6 months)
Patient factors	<ul style="list-style-type: none"><li>History of illness with multiple antipsychotic trials</li></ul>	<ul style="list-style-type: none"><li>Severity of symptoms</li><li>Medical conditions</li><li>Support system</li><li>Perceived ability to adhere with monitoring</li><li>Race/ethnicity (BEN concern)</li></ul>	<ul style="list-style-type: none"><li>Frequent clinic visits</li><li>Weekly lab, pharmacy visits</li></ul>	<ul style="list-style-type: none"><li>Biweekly or monthly blood draws</li><li>Side effects</li></ul>
Prescriber-level barriers and challenges	<ul style="list-style-type: none"><li>Separating failed antipsychotic trial from adherence issues</li></ul>	<ul style="list-style-type: none"><li>Limited training and experience with outpatient initiation</li><li>CLZ considered "last resort"</li></ul>	<ul style="list-style-type: none"><li>Using REMS, coordinating with pharmacy and lab</li><li>Need for slow titration and frequent visits</li></ul>	<ul style="list-style-type: none"><li>Missed doses requiring re-titration</li><li>Managing side effects</li></ul>
System-level barriers and challenges	<ul style="list-style-type: none"><li>Lack of historical data</li></ul>	<ul style="list-style-type: none"><li>Limited time for necessary patient education (side effects, monitoring guidelines)</li></ul>	<ul style="list-style-type: none"><li>Coordinating frequent patient clinic visit, blood draw, dispensing of medication</li></ul>	<ul style="list-style-type: none"><li>Missed blood draw requiring coordination with lab, pharmacy</li></ul>
Identified facilitators and opportunities	<ul style="list-style-type: none"><li>Increased recognition of treatment resistance</li></ul>	<ul style="list-style-type: none"><li>Advice from experienced clozapine prescribers</li><li>Prescriber education</li></ul>	<ul style="list-style-type: none"><li>Initiation while inpatient</li><li>POC testing devices</li><li>Support from clinic pharmacists, RNs (labs, REMS)</li></ul>	<ul style="list-style-type: none"><li>Much easier to maintain CLZ treatment than to initiate</li></ul>
Recommendations	<ul style="list-style-type: none"><li>Adopt consistent, broad definition of treatment resistance</li></ul>	<ul style="list-style-type: none"><li>Standardize selection criteria</li><li>Provide education and support for patients and prescribers (toolkits, trainings, expert advice)</li></ul>	<ul style="list-style-type: none"><li>Pursue POC testing certification</li><li>Implement interdisciplinary "clozapine clinic" model</li></ul>	<ul style="list-style-type: none"><li>Study and learn from clinics that have high CLZ prescribing rates</li></ul>

## Key Findings

- There was *no significant difference* in CLZ prescribing rates between CTNB and other civil service clinics or all included DPH clinics.
- Rates of CLZ prescribing were *low across the system* when considering prevalence of TRS.
- Black or African American-identified individuals were prescribed CLZ at *significantly lower rates* compared to white-identified individuals.
- Increasing CLZ prescribing requires *system-level* coordination, interventions along the spectrum of treatment, and a focus on addressing prescribing inequities.

## NY State Clozapine Initiative



<https://doi.org/10.1176/appi.ps.201500493>