San Francisco
Health Network

SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH

London Breed
Mayor

CBHS PHARMACY SERVICES MANUAL

January 2019

CBHS PHARMACY SERVICES
1380 Howard Street, Room 130
San Francisco, CA 94103
415-255-3659

City and County of San Francisco
Department of Public Health
London Breed, Mayor

SF Health Network
Behavioral Health Services

San Francisco Health Network
SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH

CBHS Pharmacy Services
1380 Howard Street, Rm.130
San Francisco, CA 94103
Phone 415.255.3659
Fax 415.252.3036

Table of Contents

For updated drug formulary, listing of network pharmacies, policies & procedures, and treatment guidelines please visit:
http://www.sfdph.org/dph/comupg/oservices/mentalHlth/CBHS/default.asp

City and County of San Francisco
Department of Public Health
London Breed, Mayor

SF Health Network
Behavioral Health Services

San Francisco Health Network
SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH

CBHS Pharmacy Services
1380 Howard Street, Rm.130
San Francisco, CA 94103
Phone 415.255.3659
Fax 415.252.3036

Introduction

The CBHS Pharmacy Services Manual is updated and printed annually to help support BHS providers in medication related services. Welcome to our 2019 edition.

About CBHS Pharmacy Services

The CBHS Pharmacy Services team provides pharmaceutical services and medication expertise to support clinicians and BHS clients in the wellness and recovery model of care. We support system of care programs and serve as a safety net to clients to ensure continuous access to mental health medications.

OUR MISSION: TO ADVANCE WELLNESS BY DELIVERING INNOVATIVE PATIENT-CENTERED CARE WITH CLINICAL EXPERTISE

OUR VISION: TO BE A LEADER IN PROVIDING PHARMACY SERVICES IN AN INTEGRATED HEALTH NETWORK

OUR VALUES: LEAD, LEARN, COLLABORATE, SERVE, EDUCATE

Prescription Benefits

Behavioral Health Services (BHS) offers prescription benefits for BHS clients with Healthy San Francisco (HSF) when prescriptions are written by a BHS prescriber following BHS formulary guidelines. These services are provided through our pharmacy benefits manager (PBM), MedImpact. BHS clients covered by insurance that includes prescription benefits (e.g. Medi-Cal, Medi-Cal Managed Care, MediCare-MediCal) receive prescription coverage through their insurance plan, and not through the BHS PBM service. Clients with Medicare A-B must enroll in a Medicare D drug plan for prescription coverage.

The Affordable Care Act mandates uninsured clients enroll in insurance; those eligible for Medi-Cal must enroll in Medi-Cal. Covered California offers expanded health coverage for those whose income is too high to qualify for Medi-Cal. Clients who do not qualify for any coverage must enroll in HSF.

For HSF clients of CBHS to receive prescription benefits through MedImpact, the **following are required**:

- **Prescriptions are for psychiatric medications listed in the BHS Formulary** and prescribed by approved prescribers and dispensed according to BHS Formulary guidelines. Some medications may require a prior authorization request (PAR). If so, follow the current BHS protocol to obtain a PAR. Questions about the formulary or guidelines may be directed to any of our clinical pharmacists by calling CBHS Pharmacy Services at (415) 255-3659.

- **Provide the patient's BIS number (same as Avatar MRN)** to the pharmacy to access prescription benefits

- **For BHS Providers (Non-PPN): All prescriptions are entered into OrderConnect**

- **For PPN Providers: Prescriptions arewritten on special BHS prescription forms.** If you have not yet received a supply of these special prescription forms, call CBHS Pharmacy Services at (415) 255-3659.

Laboratory Services:

BHS offers laboratory services through Laboratory Corporation of America (LabCorp). BHS can only pay for laboratory tests that are on the BHS laboratory formulary, unless special arrangements have been made in advance. For clinics, laboratory tests may be ordered electronically and results are be reviewed via OrderConnect. Non-clinic programs use a BHS Labcorp Requisition form, ordered via CBHS Pharmacy.

Questions regarding tests approved on the laboratory formulary, and other general questions regarding BHS laboratory use policies may be directed to CBHS Pharmacy Services at (415) 255-3659. For more details, see the Laboratory Section of this manual.

Drug Information Service

CBHS Pharmacy provides clinical psychopharmacology telephone consultations for CBHS psychiatrists, staff and San Francisco County providers including primary care clinicians. This service is available Monday through Friday, except holidays, from 9:00 a.m. to 4:30 p.m. To access this service call (415) 255 -3705.

Please visit the link below and scroll down to “Medication Resources” for the most recent drug formulary, listing of network pharmacies, policies & procedures, and treatment guidelines.
www.sfdph.org/dph/comupg/oservices/mentalHlth/CBHS/default.asp
(or search “CBHS SF” via Google to access the link)

Resources to be found in “Medication Resources” via this link:

Medication Resources

Pharmacy Services Manual
Pharmacy Services Manual 2019

Attention-Deficit/Hyperactivity Disorder (ADHD) Prescribing Resources
Guideline for Evaluation and Treatment of Attention-Deficit/Hyperactivity Disorder (ADHD) in Adult

Antidepressant Prescribing Resources
Safer Prescribing of Antidepressants Guidelines

Antipsychotic Prescribing Resources
Safer Prescribing of Antipsychotics Guideline
Atypical Antipsychotic Metabolic Side Effects Patient Handout
Patient Flyer - Anticholinergics in Chinese | English | Spanish | Tagalog | Vietnamese

Sedative-Hypnotic Prescribing Resources
Safer Prescribing of Sedative-Hypnotics Guideline
Non Sedative-Hypnotic Treatments of Insomnia Toolkit
Sleep Diary
Sleep Habits Do's and Don'ts in Chinese | English | Russian | Spanish | Tagalog | Vietnamese
Empower Patient Handout
CBT for Insomia Handout
UCSF Sleep Clinic Referral
Non Sedative-Hypnotic Treatment of Anxiety, Trauma and Obsessive-Compulsive Disorders Toolkit
Appendix 1: CBT Worksheets
Patient Flyer - Sedative-Hypnotics in Chinese | English | Spanish | Tagalog | Vietnamese
Patient Flyer - Sedative-Hypnotics and Buprenorphine in Chinese | English | Spanish | Tagalog | Vietnamese
Patient Flyer - Sedative-Hypnotics and Methadone in Chinese | English | Spanish | Tagalog | Vietnamese

Substance Use Disorders Prescribing Resources
Buprenorphine FAQ
Medication Approaches to Alcohol Use Disorder
Naloxone Training for Providers
Patient Flyer - Naloxone for Adult | College Party | Older Adult | Pediatric Overdose
Smoking Cessation Treatment

Child Youth and Family Prescribing Resources
Safer Use of Psychotropic Medications in Children and Adolescents

Other Resources
ADHD Pharmacotherapy Adults (Dec 2011)
Blood Pressure Guidelines for Behavioral Health Adults (Aug 2015)
InfoScribeR/Avatar User Support
Medication Web Link Resources
Primary Care Clinic Information

Formulary Resources
CBHS Formulary December 2017
DPH Formulary Comparison for Psychiatric Medications December 2017
DPH Formulary Comparison for Stimulant Medications December 2017
Frequently Asked Formulary Questions

Useful Forms
CBHS Prior Authorization Request Form
CBHS Formulary Change Request Form
Primary Care Coordination Form

I. Directories

San Francisco Health Network
SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH

CBHS Pharmacy Services
1380 Howard Street, Rm 130
San Francisco, CA 94103
Phone: (415) 255-3659
FAX: (415) 252-3036

BEHAVIORAL HEALTH SERVICES
London Breed, Mayor

RESOURCES DIRECTORY

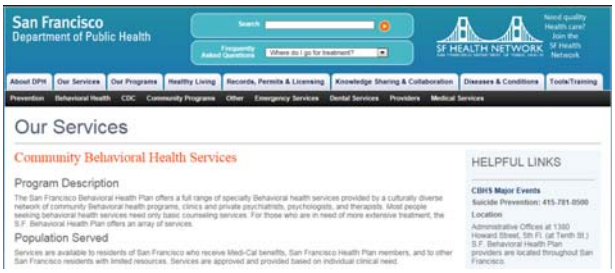
Avatar/Infoscriber Help	
Avatar Help Desk	415-255-3788 avatarhelp@sfdph.org
OrderConnect Member Support	888-227-6130 netsmartsupport@ntst.com
OrderConnect Registration/Login Support	415-255-3659
OrderConnect Web Access:	https://orderconnect.ntst.com
OrderConnect Account Update:	https://orderconnect.ntst.com/providers
Avatar User Support Webpage (Policy, User Manuals, FAQs) http://www.sfdph.org/dph/comupg/oservices/mentalHlth/BHIS/avatarUserDocs.asp	

Behavioral Health Access Center (BHAC)	415-255-3737
Healthy San Francisco	415-615-4500 www.healthysanfrancisco.org
Health Insurance Counseling and Advocacy Program (HICAP)	415-677-7520 800-434-0222 www.hicap.org
Laboratory Corporation of America (LabCorp)	800-888-1113 www.labcorp.com
Medi-Cal	
Eligibility (AEVS)	800-456-2387
Fax TAR	800-829-4325
Provider Service	800-541-5555
Website	www.medi-cal.ca.gov
Medicare	
Medicare Part D Website	www.medicare.gov
Medicare UPIN listing	*See Below*
MedImpact	800-788-2949
San Francisco Health Plan	www.sfhp.org
Pharmacy Information	415-547-7810
Provider Relations	415-547-7818 ex: 7084
Stericycle (Hazardous Waste Pick-up)	866-783-7422
Treatment Access Program (TAP)	415-503-4730

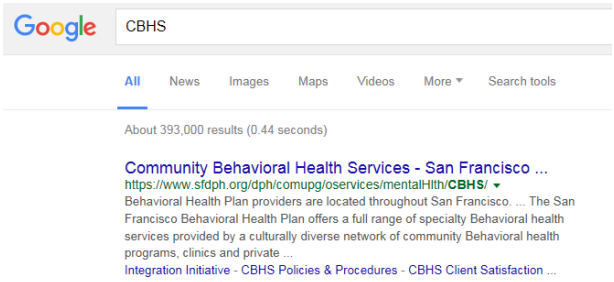
*https://www.cms.gov/Research-Statistics-Data-and-Systems/Files-for-Order/NonIdentifiableDataFiles/UniquePhysicianIdentificationDirectory.html

How to Find the BHS Public Website

Website:
https://www.sfdph.org/dph/comupg/oservices/mentalHlth/CBHS/default.asp



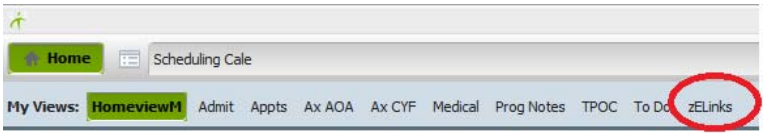
Google: Search "CBHS" or "CBHS SF"



Avatar: Go to ELinks page → Select "Community Behavioral Health Services"

→

Avatar Consoles: My Views → Select "zELinks"



CBHS Drug Information Consultation Service

The Drug Information Consultation Service responds to telephone drug information questions regarding mental health drug therapy and related questions. This service is available free of charge to all CBHS prescribers and staff, and to San Francisco County providers.

Mission

- Provide clinical psychopharmacology consultation for CBHS psychiatrists and staff, and to providers in San Francisco County (including physical health care providers)
- Develop and support evidence based drug use policy through comprehensive literature analysis and reviews

Consultations include:

- Dosing and designing drug regimens
- Evaluation of drug interactions
- Assessment of adverse drug effects
- Information on drug stability
- Drug use in pregnancy and lactation
- Practice guidelines and treatment algorithms
- Requests for primary literature
- Literature analysis and evaluation

Hours of Service

9:00am to 4:30pm Monday through Friday (except holidays)

Call (415) **255-3705** with your drug information request**.** Requests can be left on voice mail after hours or if no one is available to take your call. When leaving a voice mail, be certain to include the following information:

1. Your name and profession
2. Location
3. Phone or pager number and fax number
4. Time limitations
5. Question
6. Patient-specific information such as current drug regimen (including dosages), recent lab values, diagnosis, etc.

Response time depends on the complexity of the question, acuteness of the patient's problem, and staff resources. Please indicate when you need a response in your request. Our goal is to complete requests within one to five business days. The response you receive will be verbal or in writing via fax or mail. Due to staffing limitations, we are not a STAT service.

Staff

Pharmacy students with clinical pharmacist supervision frequently staff the service. The coordinator of the Drug Information Consultation Service is Jeanette Cavano, Pharm.D. In addition to completing a Doctorate in Pharmacy, Dr. Cavano has completed residency training in pharmacy practice and a fellowship in psychiatric pharmacy.

MEDICATION INFORMATION – CARLAT REPORT

www.thecarlatreport.com

Login: CBHS Password: CBHS

II. CBHS Prescription Procedures

CBHS Pharmacy Prescription Benefits Overview

Purpose:

To outline available CBHS prescription benefits based on client's insurance status

**** Clients with Medicare must enroll in a Medicare D drug plan for prescription coverage**

Client's Insurance	CBHS Benefit
Healthy San Francisco CBHS clients enrolled in Healthy San Francisco	Full coverage for CBHS Formulary prescriptions
Medi-Cal Medi-Cal (no share of cost) Medi-Cal with Share of Cost	No Prescription Coverage SOC may be covered by CBHS, retail pharmacies must contact MedImpact
Medicare D Medicare only	Pay up to $25 per prescription for co-pays for psychiatric medications Full coverage for CBHS Formulary over-the counter medications
Medi-Cal + Medicare Dual eligible Medicare and Medi-Cal	Pay up to $10 per prescription for co-pays for psychiatric medications
Healthy Workers San Francisco Health Plan	No prescription coverage by CBHS benefit Prescription coverage by SFHP
Other Health Coverage Kaiser, other private insurance	No prescription coverage
Temporary New clients activated with temporary number, or by a member activation request	Full coverage for CBHS Formulary prescriptions for 30 days

CBHS Prescription Information

For CBHS clients with Healthy San Francisco (HSF), the following applies:

❖ **Client Prescription Benefit Activation with MedImpact (Member Activation Form)**

- All clients are automatically eligible to receive prescription benefits 7 days after Avatar registration.

- **If medications are needed in less than 7 days**, prescription benefits must be manually activated.
  - To manually activate, the **Member Activation Form** must be completed and submitted. See form for detailed instructions (see following page).
  - Member activation occurs between the hours of 8:30 AM – 5:00 PM, Monday – Friday (excluding holidays).

❖ **Duration/Refill**

- Non-Scheduled medications: 90 day supply maximum
  - Maximum of 6 months worth of refills allowed
- Scheduled Medications: 35 day supply maximum
- Refills available when 75% of a 0-20 day supply has been used or when 82% of a 21 day or more supply has been used.
- Anything outside these parameters will require prior approval from Pharmacy Services by calling (415) 255-3659.

❖ **Lost/Stolen Medications**

- CBHS psychiatrist or another authorized prescriber must call the dispensing pharmacy or note "lost medication" on prescription. The dispensing pharmacy will then call MedImpact for approval.
- Limited to once per calendar year for all medications (controlled and non-controlled medications).

❖ **Vacation/Travel Supply of Medications**

- CBHS psychiatrist or another authorized prescriber must call the dispensing pharmacy or note "vacation supply" on prescription. The dispensing pharmacy will then call MedImpact for approval.
- One additional refill of the original quantity is the maximum amount that can be concurrently dispensed
- Clozapine and buprenorphine prescriptions are not included

❖ **Medi-Cal and Other Third Party Insured Clients**

- For clients with third party prescription coverage (including Medi-Cal and Medicare), the dispensing pharmacy must bill the third party insurer.
- For Medi-Cal clients, all non-electronic prescriptions must be executed on tamper-resistant pads.
- If you are seeing a client with third party prescription coverage (including Medi-Cal and Medicare), please contact the third party for questions concerning their formulary and prior approval process.

San Francisco Health Network
SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH

CBHS Pharmacy Services
1380 Howard Street, Rm 130
San Francisco, CA 94103
Phone: (415) 255-3659
FAX: (415) 252-3036

BEHAVIORAL HEALTH SERVICES
London Breed, Mayor

Kaiser Permanente Members

This is a memorandum to CBHS providers regarding the procedures to be followed when prescribing medications or ordering medication-related laboratory tests for CBHS clients who are Kaiser Permanente members. **Kaiser clients must fill prescriptions and receive blood draws at a Kaiser facility.**

Please follow the recommendations below before sending clients to Kaiser for pharmacy or laboratory services.

1. Provide the client with a copy of the Kaiser letter (on next page), filled-in with client name, Kaiser number, and date of birth. **Client should bring this letter to each pharmacy and laboratory visit.** Keep a copy in the client's chart.

2. Submit prescriptions in OrderConnect using eFax or provide client with a signed, printed prescription to bring to the Kaiser pharmacy. Always indicate on the prescription that client has an "**Authorized Outside Referral**".

3. Provide to client a filled-in lab requisition, with client name, Kaiser number, provider's information (full name, NPI number, telephone number, fax number, and address) so provider may receive lab results. Always indicate on the lab requisition that client has an "**Authorized Outside Referral**".

4. **Note that Kaiser clients insured through Medi-Cal must follow the Medi-Cal drug formulary. Kaiser clients insured through other means (i.e. Medicare, Medicare/Medi-cal, employment, self-pay, etc.) will follow the Kaiser formulary.**

If the client has problems getting prescriptions filled or laboratory work done, providers may contact CBHS Pharmacy Services at (415) 255-3659 for further assistance.

KAISER PERMANENTE

TO:

Kaiser Number:

Date of Birth: / /

Beginning July 1, 2001, your Kaiser Permanente supplemental prescription drug plan will no longer cover medications prescribed by non-Plan physicians. However, Kaiser Permanente has decided to make a coverage exception for certain prescriptions. Plan pharmacies will continue to fill those prescriptions that are prescribed by a County psychiatrist (or County-assigned psychiatrist) for their covered Kaiser Permanente patients who participate in certain County treatment programs.

Please bring this letter, with your prescription, to a Kaiser Permanente Plan pharmacy. For qualified prescriptions, you will be charged your regular drug plan copayment.

In addition, if your psychiatrist orders laboratory tests related to your psychiatric medications, the tests will be covered by Kaiser Permanente when you bring your physician order and this letter to a Kaiser Permanente laboratory.

Please remember that this exception applies only for your formulary psychiatric medications and related laboratory tests, and is subject to change at any time.

Sincerely,

Kaiser Foundation Health Plan

Remember...
Please bring this letter with you to the pharmacy or lab each visit, to help remind our staff that your prescription may qualify for this coverage exception.

DPH Formulary Comparison: Psychiatric Medications

December 1, 2018

Antidepressants	HSF	CBHS	LHH	MCAL	SFHP MediCal	ABC MediCal
amitriptyline	F	F	F	F	F	F
bupropion	F	F	F	F	F	F
bupropion SR (Wellbutrin SR)	NF	F	F	F	F	F
bupropion XL (Wellbutrin XL)	F	F	F	F	F	F
citalopram	F	F	F	NF	F	F
clomipramine	F	F	NF	F	F	F
desipramine	F	F	F	F	F	F
desvenlafaxine ER	NF	NF	NF	NF	NF	F
doxepin	F	F	F	F	F	F
duloxetine	RF	F	F	F	F	F
escitalopram	F	F	F	F	F	F
fluoxetine	F	F	F	F	F	F
fluvoxamine	F	F	NF	F	F	F
imipramine	F	F	F	F	F	F
isocarboxazid	NF	F	NF	NF	MCAL	F
levomilnacipran ER	NF	NF	NF	NF	NF	F
mirtazapine	F	F	F	F	F	F
nefazodone	F	F	NF	NF	F	F
nortriptyline	F	F	F	F	F	F
paroxetine hcl	F	F	F	F	F	F
phenelzine	F	F	F	NF	MCAL	F
protriptyline	F	F	NF	F	F	F
sertraline	F	F	F	F	F	F
tranylcypromine	NF	F	NF	NF	MCAL	F
trazodone	F	F	F	F	F	F
venlafaxine XR	F	F	F	F	F	F
vilazodone	NF	NF	NF	NF	NF	F
vortioxetine	NF	NF	NF	F	NF	F

Antipsychotics	HSF	CBHS	LHH	MCAL	SFHPMC	ABCMC
aripiprazole tablet	PAR	PAR	F	F (brand)	MCAL	MCAL
aripiprazole oral solution	PAR	PAR	F	F	MCAL	MCAL
aripiprazole ODT	NF	NF	F	F	MCAL	MCAL
aripiprazole ER injection	NF	PAP	F	NF	MCAL	MCAL
aripiprazole lauroxil ER inj	NF	PAP	NF	NF	MCAL	MCAL
asenapine	NF	NF	NF	F	MCAL	MCAL
brexpiprazole	NF	NF	NF	NF	MCAL	MCAL
cariprazine	NF	NF	NF	NF	MCAL	MCAL
chlorpromazine	F	F	F	F	MCAL	MCAL
clozapine	F	F	F(psych)	F	MCAL	MCAL
fluphenazine	F	F	F	F	MCAL	MCAL
fluphenazine decanoate	F	F	F	NF	MCAL	MCAL
haloperidol	F	F	F	F	MCAL	MCAL
haloperidol decanoate	F	F	F	F	MCAL	MCAL
iloperidone	NF	NF	NF	F	MCAL	MCAL
lurasidone	NF	NF	NF	F	MCAL	MCAL
loxapine	F	F	NF	F	MCAL	MCAL
olanzapine	PAR	PAR	F	F	MCAL	MCAL
olanzapine ODT	NF	NF	F	F	MCAL	MCAL
olanzapine long acting inj	NF	PAP	NF	NF	MCAL	MCAL
paliperidone	NF	NF	NF	NF	MCAL	MCAL
paliperidone inj (Sustena)	NF	PAP	NF	NF	MCAL	MCAL
paliperidone inj (Trinza)	NF	PAP	NF	NF	MCAL	MCAL
perphenazine	F	F	F	F	MCAL	MCAL
quetiapine	RF	PAR	F	F	MCAL	MCAL
risperidone	F	F	F	F	MCAL	MCAL
risperidone ODT	F	F	F	NF	MCAL	MCAL
thioridazine	F	F	F	F	MCAL	MCAL
thiothixene	F	F	F	F	MCAL	MCAL
trifluoperazine	F	F	F	F	MCAL	MCAL
ziprasidone	F	F	F	F	MCAL	MCAL

Sedatives/ Hypnotics	HSF	CBHS	LHH	MCAL	SFHP MediCal	ABC MediCal
alprazolam	NF	NF	F	NF	NF	F
chloral hydrate concentrate	F	F	NF	NF	NF	NF
chlordiazepoxide	F	F	NF	NF	F	F
clonazepam	F	F	F	QL	F	F
eszopiclone	NF	NF	NF	NF	QL/RF	NF
flurazepam	NF	F	NF	RF	PAR	F
hydroxyzine HCl (Atarax)	F	F	F	F	F	F
hydroxyzine pam (Vistaril)	NF	F	NF	F	F	F
lorazepam	F	F	F	QL	QL	F
temazepam	F	F	F	RF	QL	F
ramelteon	NF	NF	NF	NF	NF	NF
suvorexant	NF	NF	NF	NF	NF	NF
tasimelteon	NF	NF	NF	NF	NF	NF
zaleplon	F	F	NF	NF	QL/RF	F
zolpidem	F	F	NF	RF	QL/RF	F

Miscellaneous	HSF	CBHS	LHH	MCAL	SFHPMC	ABCMC
amantadine	F	F	F	F	MCAL	MCAL
atomoxetine	NF	NF	NF	NF	F	F (step therapy)
benztropine	F	F	F	F	MCAL	MCAL
buprenorphine	QL	QL	F	QL	MCAL	MCAL
buprenorphine/naloxone	QL	QL	F	QL	MCAL	MCAL
buspirone	F	F	F	F	QL	F
carbamazepine	F	F	F	F	F	F
clonidine	F	F	F	F	F	F
clonidine patch	F	F	F	F	QL	NF
diphenhydramine	F	F	F	F	F	F
disulfiram	F	F	NF	F	F	F
divalproex	F	F	F	F	F	F
divalproex sprinkles	F	F	F	F	QL	F
divalproex, extended release	F	F	F	F	F	F
folic acid	F	F	F	F	F	F
guanfacine	NF	F	NF	F	QL	F
guanfacine ER	NF	NF	NF	NF	F	NF
lamotrigine	F	F	F	F	F	F
liothyronine (T3)	F	F	NF	NF	F	F
lithium carbonate	F	F	F	F	MCAL	MCAL
lithium carbonate (Eskalith CR)	F	F	F	NF	MCAL	MCAL
lithium carbonate ER (Lithobid)	F	F	F	F	MCAL	MCAL
modafinil	NF	NF	NF	NF	PAR	NF
naloxone	F	F	F	F	MCAL	MCAL
naltrexone (oral)	F	F	NF	RF	MCAL	MCAL
prazosin	F	F	F	F	F	F
trihexyphenidyl	F	F	F	F	MCAL	MCAL
valproic acid	F	F	F	F	F	F

Legend						
F = Formulary	PAR = Prior Authorization Required					
RF=Restricted Formulary	MCAL = billed to Medi-Cal FFS (see MCAL formulary)					
NF=Non-Formulary	QL = quantity limits					
PAP= Patient Assistance Program						
HSF= Healthy San Francisco (Community Oriented Primary Care)						
CBHS = Community Behavioral Health Services						
LHH = Laguna Honda Hospital						
MCAL= Medi-Cal (Fee-for-Service)						
SFHP = San Francisco Health Plan						
ABC = Anthem Blue Cross						

FORMULARY ALIGNMENT AND PRESCRIBING

In concert with integration efforts in the San Francisco Health Network, the BHS and COPC (Healthy San Francisco) Formulary Committees continue to work to improve formulary alignment. Each core psychiatric drug class contains several full formulary ("F") options which have been selected as preferred drugs by the BHS and COPC Formulary Committees.These cross-formulary medications should be used as first-line treatment. Using cross-formulary medications will facilitate patient access to medications, particularly for those individuals who transition between COPC and CBHS providers. In addition please be mindful of health plan formularies such as Medi-Cal managed care providers (San Francisco Health Plan or Anthem Blue Cross).

DPH Formulary Comparison: Stimulant Medications

December 1, 2018

Stimulants	HSF	CBHS	LHH	Medi-Cal	SFHP Medi-Cal ≤18 yo	SFHP Medi-Cal > 18 yo	ABC Medi-Cal
amphetamine salts IR (Adderall)	F	F	NF	RF (covered for ages 4-16)	QL	PAR	F
amphetamine salts XR (Adderall XR)	F (psych)	F	NF	NF	QL	PAR	NF
amphetamine salts XR (Mydayis)	NF	NF	NF	NF	NF	NF	NF
amphetamine XR (Dyanavel XR)	NF	NF	NF	NF	NF	NF	NF
amphetamine XR ODT (Adzenys-XR ODT)	NF	NF	NF	NF	NF	NF	NF
dexmethylphenidate	NF	NF	NF	NF	QL	PAR	F
dexmethylphenidate XR	NF	NF	NF	RF (covered for ages 4-16)	NF	NF	NF
dextroamphetamine IR	F	F	F	RF (covered for ages 4-16)	QL	PAR	F
dextroamphetamine ER	F (psych)	F	NF	NF	QL	PAR	NF
dextroamphetamine IR liquid	NF	NF	NF	NF	NF	NF	NF
lisdexamfetamine	NF	NF	NF	RF (covered for ages 4-16)	PAR	PAR	NF
methylphenidate IR (Ritalin IR)	F	F	F	RF (covered for ages 4-16)	QL	PAR	F
methylphenidate IR chewable	NF	NF	NF	NF	NF	NF	NF
methylphenidate IR oral solution	NF	NF	NF	NF	QL (up to age 12)	PAR	NF
methylphenidate CD (Metadate CD)	NF	NF	NF	NF	QL	PAR	NF
methylphenidate ER (Metadate ER)	F (psych)	F	NF	NF	QL	PAR	F
methylphenidate ER (Concerta)	F (psych)	F	NF	NF	PAR	PAR	NF
methylphenidate XR suspension (Quillivant XR)	NF	NF	NF	NF	NF	NF	NF
methylphenidate XR chewable (Qullichew ER)	NF	NF	NF	NF	NF	NF	NF
methylphenidate LA (Ritalin LA)	NF	NF	NF	NF	PAR	PAR	NF
methylphenidate SR (Ritalin SR)	F (psych)	F	NF	NF	PAR	PAR	F
methylphenidate transdermal patch	NF	NF	NF	NF	NF	NF	NF

SAN FRANCISCO MENTAL HEALTH PLAN FORMULARY

Dec-18

CBHS	Medi-Cal	Antidepressants	Commonly Available Strengths	*Max Daily Dosage	Dosage Form
F	F	amitriptyline	10, 25, 50, 75, 100, 150	300	TAB
F	F	bupropion	75, 100	450	TAB
F	F	bupropion SR	100, 150, 200	400	TAB
F	F	bupropion XL	150, 300	450	TAB
F	NF	citalopram	10, 20, 40	40	TAB
F	F	clomipramine	25, 50, 75	250	TAB
F	F	desipramine	10, 25, 50, 75, 100, 150	300	TAB
NF	NF	desvenlafaxine ER	25, 50, 100	100	TAB
F	F	doxepin	10, 25, 50, 75, 100, 150	300	CAP
F	F	duloxetine	20, 30, 60	120	CAP
F	F	escitalopram	5, 10, 20	20	TAB
F	F	fluoxetine	10, 20, 40	80	CAP
F	F	fluvoxamine	25, 50, 100	300	TAB
F	F	imipramine	10, 25, 50	300	TAB
F	NF	isocarboxizid	10	60	TAB
NF	NF	levomilnacipran ER	20, 40, 80, 120	120	CAP
F	F	mirtazapine	15, 30, 45	45	TAB
NF	F	mirtazapine ODT	15, 30, 45	45	TAB
F	NF	nefazodone	50, 100, 150, 200, 250	600	TAB
F	F	nortriptyline	10, 25, 50, 75	150	CAP
F	F	paroxetine	10, 20, 30, 40	60	TAB
F	NF	phenelzine	15	90	TAB
F	F	protriptyline	5, 10	60	TAB
F	F	sertraline	25, 50, 100	200	TAB
F	NF	tranylcypromine	10	60	TAB
F	F	trazodone	50, 100, 150	400	TAB
F	F	venlafaxine XR	37.5, 75, 150	225	CAP
NF	NF	vilazodone	10, 20, 40	40	TAB
NF	F	vortioxetine	5, 10, 15, 20	20	TAB

CBHS	Medi-Cal	Antipsychotics	Commonly Available Strengths	*Max Daily Dosage	Dosage Form
PAR	F	aripiprazole	2, 5, 10, 15, 20, 30	30	TAB
NF	F	aripiprazole ODT	10,15	30	ODT
PAP	NF	aripiprazole ER injection	300, 400	400	INJ
PAP	NF	aripiprazole lauroxil ER injection	441, 662, 882	882	INJ
NF	F	asenapine	5, 10	20	TAB
NF	NF	brexpiprazole	0.25, 0.5, 1, 2, 3, 4	4	TAB
NF	NF	cariprazine	1.5, 3, 4.5, 6	6	CAP
F	F	chlorpromazine	10, 25, 50, 100, 200	2000	TAB
F	F	clozapine	12.5, 25, 50, 100, 200	900	TAB
F	F	fluphenazine	1, 2.5, 5, 10	40	TAB
F	NF	fluphenazine decanoate	25mg/ml		INJ
F	F	haloperidol	0.5, 1, 2, 5, 10, 20	30	TAB
F	NF	haloperidol decanoate	50mg/ml, 100mg/ml		INJ
NF	F	iloperidone	1, 2, 4, 6, 8, 10, 12	24	TAB
NF	F	lurasidone	20, 40, 80, 120	160	TAB
F	F	loxapine	5, 10, 25, 50	250	CAP
PAR	F	olanzapine	2.5, 5, 7.5, 10, 15,20	20	TAB
NF	F	olanzapine ODT	5,10,15,20	20	TAB
PAP	NF	olanzapine long acting injection	150, 210, 300, 405	405	INJ
NF	NF	paliperidone	1.5, 3, 6, 9	12	TAB
PAP	NF	paliperidone inj (Sustenna)	39, 78, 117, 156, 234	234	INJ
PAP	NF	paliperidone inj (Trinza)	273, 410, 546, 819	819	INJ
F	F	perphenazine	2, 4, 8, 16	64	TAB
PAR	F	quetiapine	25, 50, 100, 200, 300, 400	800	TAB
NF	F	quetiapine XR	50,100, 150, 200, 300, 400	800	TAB
F	F	risperidone	0.25, 0.5, 1, 2, 3, 4	8	TAB
F	NF	risperidone ODT	0.5, 1, 2, 3, 4	8	ODT
F	F	thiothixene	1, 2, 5, 10, 20	60	CAP
F	F	trifluoperazine	1, 2, 5, 10	40	TAB
F	F	ziprasidone	20, 40, 60, 80	200	CAP

F = Formulary

NF = Non-formularly; may be covered through Medi-Cal with a TAR

PAR = Prior Authorization Required

PAP = Patient Assistance Program (not paid for by San Francisco Mental Health Plan)

RF = Restricted formulary

CBHS Pharmacy Service 415-255-3659

MedImpact 800-788-2949

MediCal 800-541-5555

All oral dosage forms (tablet, capsule and liquid) and strengths are covered unless otherwise indicated.

*Max Daily Dosage and commons daily dosage are provided as an abitrary reference, each patient must be individually titrated to tolerance and response.

SAN FRANCISCO MENTAL HEALTH PLAN FORMULARY

Dec-18

CBHS	Medi-Cal	Anxiolytics/Sedatives/Hypnotics	Commonly Available Strengths	*Max Daily Dosage	Dosage Form
NF	NF	alprazolam	0.25, 0.5, 1, 2	4	TAB
F	NF	chloral hydrate conc.	500mg/5ml	1000	CONC
NF	NF	chloral hydrate capsules	500	1000	CAP
F	NF	chlordiazepoxide	5, 10, 25	300	CAP
F	QL	clonazepam	0.5, 1, 2	4	TAB
NF	RF	diazepam	2, 5, 10	60	TAB
F	F	diphenhydramine	25, 50	400	CAP
NF	NF	eszopiclone	1, 2, 3	3	TAB
F	RF	flurazepam	15, 30	30	CAP
F	F	hydroxyzine HCl (Atarax)	10, 25, 50	400	TAB
F	F	hydroxyzine pamoate (Vistaril)	25, 50	400	CAP
F	QL	lorazepam	0.5, 1, 2	10	TAB
NF	NF	ramelteon	8	8	TAB
NF	NF	suvorexant	5, 10, 15, 20	20	TAB
NF	NF	tasimelteon	20	20	CAP
F	RF	temazepam	7.5, 15, 22.5, 30	30	CAP
F	NF	zaleplon	5, 10	20	CAP
F	RF	zolpidem	5, 10	10	TAB
NF	NF	zolpidem CR	6.25, 12.5	12.5	TAB

CBHS	Medi-Cal	Stimulants	Commonly Available Strengths	*Max Daily Dosage	Dosage Form
F	RF	amphetamine salts (Adderall)	5, 7.5, 10, 12.5, 15, 20, 30	40	TAB
F	NF	amphetamine salts (Adderall XR)	5, 10, 15, 20, 25, 30	60	CAP
NF	NF	dexmethylphenidate (Focalin)	2.5, 5, 10	20	TAB
NF	RF	dexmethylphenidate XR (Focalin XR)	5, 10, 15, 20, 25, 30, 35, 40	40	CAP
F	RF	dextroamphetamine IR	5, 10	40	TAB
F	NF	dextroamphetamine ER	5, 10, 15	40	CAP
NF	NF	dextroamphetamine IR liquid	5mg/5mL	40	SOLN
NF	RF	lisdexamfetamine (Vyvanse)	10, 20, 30, 40, 50, 60, 70	70	CAP
F	RF	methylphenidate IR	5, 10, 20	60	TAB
NF	NF	methylphenidate IR chewable	2.5, 5, 10	60	TAB
NF	NF	methylphenidate IR oral solution	5mg/5mL, 10mg/5mL	60	SOLN
NF	NF	methylphenidate CD (Metadate CD)	10, 20, 30, 40, 50, 60	60	CAP
F	NF	methylphenidate ER (Metadate ER)	10, 20	60	TAB
F	NF	methylphenidate ER (Concerta)	18,27, 36, 54	72	TAB
NF	NF	methylphenidate XR suspension (Quillivant XR)	5mg/mL	60	SUS
NF	NF	methylphenidate LA (Ritalin LA)	10, 20, 30, 40	60	CAP
F	NF	methylphenidate SR (Ritalin SR)	20	60	TAB
NF	NF	methylphenidate transdermal patch	10, 15, 20, 30	30	PATCH

CBHS	Medi-Cal	Miscellaneous	Commonly Available Strengths	*Max Daily Dosage	Dosage Form
F	F	amantadine	100	400	CAP
F	F	atenolol	25, 50, 100	100	TAB
NF	NF	atomoxetine	10, 18, 24, 40, 60, 80, 100	100	CAP
F	F	benztropine	0.5, 1, 2	6	TAB
F	F	bethanechol	5, 10, 25, 50	400	TAB
PAR	NF	buprenorphine	2, 8	16	TAB
PAR	NF	buprenoprhine/naloxone	2/0.5, 8/2	16	TAB
F	F	buspirone	5, 10,15, 30	60	TAB
F	F	carbamazepine	100, 200	1200	TAB
F	F	clonidine	0.1, 0.2, 0.3	0.4	TAB
F	F	clonidine patch	0.1, 0.2, 0.3	0.4	PATCH
F	NF	cyproheptadine	4	32	TAB
F	F	disulfiram	250, 500	500	TAB
F	F	divalproex (Depakote)	125, 250, 500	60mg/kg/day	TAB
F	F	divalproex ext release (Depakote ER)	250, 500	60mg/kg/day	TAB
F	F	divalproex sprinkles (Depakote Sprinkles)	125	60mg/kg/day	CAP
F	F	docusate sodium	100, 250	500	CAP
F	F	folic acid	0.4, 0.8, 1		TAB
F	F	guanfacine	1, 2	4	TAB
NF	NF	guanfacine ER	1, 2, 3, 4	7	TAB
F	F	gabapentin	100, 300, 400, 600, 800	3600	CAP/TAB
F	F	lamotrigine	25, 100, 150, 200		TAB
F	F	levothyroxine (T4, Synthroid)	multiple doses	0.3	TAB
F	NF	liothyronine (T3, Cytomel)	0.005, 0.025, 0.05	0.1	TAB
F	F	lithium carbonate	150, 300		CAP
F	NF	lithium carbonate SR (Eskalith-CR)	450		TAB
F	F	lithium carbonate ER (Lithobid)	300		TAB
NF	NF	modafinil	100, 200	400	TAB
F	NF	multivitamin			TAB
F	F	naloxone	4mg/0.1ml, 2mg/2ml, 0.4mg/ml		SPRY/SYR/VL
F	RF	naltrexone (oral)	50	50	TAB
PAR	F	nicotine transdermal patch	7, 14, 21		PATCH
PAR	F	nicotine gum	2,4		GUM
NF	F	oxcarbazepine	150, 300, 600	2400	TAB
F	F	prazosin	1, 2, 5	15	CAP
F	F	propranolol	10, 20, 40, 60, 80	120	TAB
F	NF	psyllium powder			POW
F	F	trihexyphenidyl	2, 5	15	TAB
F	F	valproic acid	250	60mg/kg/day	CAP

F = Formulary
NF = Non-formularly; may be covered through Medi-Cal with a TAR
PAP = Patient Assistance Program (not paid for by San Francisco Mental Health Plan)
PAR = Prior Authorization Required
RF = Restricted formulary

CBHS Pharmacy Service 415-255-3659
MedImpact 800-788-2949
MediCal 800-541-5555

All oral dosage forms (tablet, capsule and liquid) and strengths are covered unless otherwise indicated.
*Max Daily Dosage and commons daily dosage are provided as an abitrary reference, each patient must be individually titrated to tolerance and response.

Active San Francisco OrderConnect Pharmacies

***HSF: Participants can pick up prescriptions at these Walgreens locations or at ZSFG Hospital Outpatient Pharmacy

Name	Store Number	Address	Cross_Street	City	State	Zip	Telephone	Fax
AHF Pharmacy San Francisco		4071 18th St	Castro St	San Francisco	CA	94114	415-255-2720	415-255-0937
B & B Prescription Pharmacy		1727-A Fillmore St	Post St	San Francisco	CA	94115	415-674-8116	415-674-8509
Bayview Mental Health		4301 3rd St	Jerrold Ave	San Francisco	CA	94124-2101	415-648-5785	415-695-9830
Bell Market Pharmacy	905	1336 Post St	Gough St	San Francisco	CA	94109	415-771-1844	415-771-1513
CarePlus CVS/Pharmacy	2708	445 Castro St	17th St	San Francisco	CA	94114	415-864-7030	415-864-7071
Castro Street Pharmacy		191 Golden Gate Ave	Leavenworth St	San Francisco	CA	94103	415-255-0516	415-864-4995
CBHS Pharmacy Services	Rm 130	1380 Howard St	10th St	San Francisco	CA	94103	415-255-3659	415-255-3754
Central Drug Store		4494 Mission St	Francis St	San Francisco	CA	94112	415-585-0111	415-585-9006
Chinese Hospital Pharmacy		845 Jackson St	Stockton St	San Francisco	CA	94133	415-677-2430	415-677-2441
Chronimed Pharmacy		2275 Market St #B	Sanchez St	San Francisco	CA	94114	415-437-1454	800-285-2999
Clay Medical Pharmacy		929 Clay St	Stockton St	San Francisco	CA	94108	415-956-5456	415-956-5459
Clement Pharmacy		1922 Clement St	20th St	San Francisco	CA	94121	415-387-3000	415-387-3008
Community A, Walgreens		2262 Market St	16th St	San Francisco	CA	94114	415-255-0101	415-255-0201
Community Pharmacy		2462 Mission St	21st St	San Francisco	CA	94110	415-648-0815	415-285-1237
Costco Pharmacy	144	450 10th St	Harrison St	San Francisco	CA	94103	415-626-4341	415-437-9438
County Jail 8 Pharmacy		425 7th St	Bryant St	San Francisco	CA	94103	415-522-8238	415-522-8236
CVS Pharmacy	10035	581 Market St	2nd St	San Francisco	CA	94105	415-777-1654	415-882-7995
CVS Pharmacy	10036	2280 Market St	Noe St	San Francisco	CA	94114	415-554-0113	415-554-0156
CVS Pharmacy	10080	1059 Hyde St	California St	San Francisco	CA	94109	415-346-6100	415-346-6109
CVS Pharmacy	10188	499 Haight St	Fillmore St	San Francisco	CA	94117	415-503-0722	415-503-1057
CVS Pharmacy	10189	1285 A Sutter St	Van Ness Ave	San Francisco	CA	94109	415-923-5863	415-923-5907
CVS Pharmacy	1983	701 Portola Dr	Evelyn Wy	San Francisco	CA	94127	415-504-6043	415-504-7029
CVS Pharmacy	2852	731 Market St	O'Farrell St	San Francisco	CA	94103	415-243-0273	415-371-1743
CVS Pharmacy	4675	377 32nd Ave	Clement St	San Francisco	CA	94121	415-666-3153	415-751-1415
CVS Pharmacy	4770	1101 Market St	6th St	San Francisco	CA	94103	415-558-1538	415-558-1563
CVS Pharmacy	7596	1760 Ocean Ave	Dorado Terr	San Francisco	CA	94112	415-586-2107	415-586-2951
CVS Pharmacy	7657	351 California St	Sansome St	San Francisco	CA	94104	415-398-2578	415-398-5653
CVS Pharmacy	7955	2025 Van Ness Ave	Pacific St	San Francisco	CA	94109	415-353-5705	415-353-5709
CVS Pharmacy	10330	3600 Geary Blvd	Arguello Blvd	San Francisco	CA	94118	415-688-6083	415-872-1536
CVS Pharmacy	10622	995 Market St	6th St	San Francisco	CA	94103	415-348-1814	415-872-1535
Daniels Pharmacy		943 Geneva Ave	Mission St	San Francisco	CA	94112	415-584-2210	415-584-2202
Dave's Pharmacy		2001 Union St Ste 104	Buchanan St	San Francisco	CA	94123	415-931-8255	415-931-8998
Franklin Pharmacy		1508 Franklin St	Bush St	San Francisco	CA	94109	(415) 775-3917	415-771-5945
450 (Four-Fifty) Sutter Pharmacy	7th Floor	450 Sutter St	Stockton St	San Francisco	CA	94108	415-392-4137	415-951-4912
Garden Health & Pharmacy	618	1750 Divisadero St	Bush St	San Francisco	CA	94115	415-202-0745	415-202-0747
Golden Gate Pharmacy		1844 Noriega St	26th Ave	San Francisco	CA	94122	415-661-0790	415-661-0639
Green House Pharmacy		1516 Noriega St	22nd Ave	San Francisco	CA	94122	415-665-7775	415-665-7796
Jewish Home For The Aged Pharmacy		302 Silver Ave	Lisbon St	San Francisco	CA	94112	415-469-2265	415-469-2369
Joes Pharmacy		5199 Geary Blvd	16th Ave	San Francisco	CA	94118	415-751-2326	415-751-2328
Kaiser Foundation Clinic Pharmacy		2238 Geary Blvd	Divisadero St	San Francisco	CA	94115	415-833-8152	415-833-8160
Kaiser Hosp Pharmacy French Campus		4141 Geary Blvd	5th Ave	San Francisco	CA	94118	415-833-1786	415-833-3645
Kaiser Permanente Medical Pharmacy		2200 O'Farrell St	Broderick St	San Francisco	CA	94115	415-833-4942	415-833-4648
Los Portales Pharmacy	Suite 110	2480 Mission St	21st St	San Francisco	CA	94110	415-826-3484	415-826-7077
Lucky's Pharmacy	756	1750 Fulton St	Masonic Ave	San Francisco	CA	94117	415-923-6789	415-923-6720
Lucky's Pharmacy	755	1515 Sloat Blvd	Ocean Ave	San Francisco	CA	94132	415-681-4136	415-681-9081
Mission Wellness Pharmacy		2424 Mission St	20th St	San Francisco	CA	94110	415-826-3484	415-826-7077
Mt Zion Medical Center UCSF	A002	1600 Divisadero St	Post St	San Francisco	CA	94143-1662	415-885-3817	415-353-9556
Parnassus Heights Pharmacy		350 Parnassus Ave Ste 100	Medical Center Wy	San Francisco	CA	94117	415-564-9191	415-566-9751
Pharmaca	7	925 Cole St	Carl St	San Francisco	CA	94117	415-661-3003	415-661-7646
Post & Divisadero Medical Phcy		2299 Post St	Divisadero St	San Francisco	CA	94115-3441	415-346-2663	415-346-8057
Red Square Pharmacy		442 Clement St.	6th Ave	San Francisco	CA	94118	415-387-5537	415-387-5489
Reliable Drug Pharmacy		801 Irving St	9th Ave	San Francisco	CA	94122-2310	415-664-8800	415-664-8518
Safeway #25-0970	250785	850 La Playa	Fulton St	San Francisco	CA	94121	415-387-0481	415-387-0932
Safeway #25-0909	250909	730 Taraval St	17th Ave	San Francisco	CA	94116	415-665-0119	415-665-3202
Safeway #25-0964	250964	4950 Mission St	Seneca Ave	San Francisco	CA	94112	415-239-8010	415-239-8066

Active San Francisco OrderConnect Pharmacies

***HSF: Participants can pick up prescriptions at these Walgreens locations or at ZSFG Hospital Outpatient Pharmacy

Name	Store Number	Address	Cross_Street	City	State	Zip	Telephone	Fax
Safeway #25-0985	250985	2350 Noriega St	30th Ave	San Francisco	CA	94122	415-665-8456	415-665-3802
Safeway #25-0995	250995	1335 Webster St	Byington St	San Francisco	CA	94115	415-921-4557	415-921-8566
Safeway #25-1490	251490	2300 16th St	Santiago St	San Francisco	CA	94103	415-575-1130	415-575-1133
Safeway #25-1507	251507	2020 Market St	Duboce Ave	San Francisco	CA	94114	415-436-9032	415-861-0196
Safeway #25-1711	251711	15 Marina Blvd	Baker St	San Francisco	CA	94123	415-563-5981	415-563-7718
Safeway #25-2606	252606	298 King St	4th St	San Francisco	CA	94107	415-633-1020	415-633-1005
Safeway #25-2646	252646	735 7th Ave	Townsend St	San Francisco	CA	94118	415-683-4074	415-683-4075
Zuckerberg SF Gen'l (ZSFG) Hospital Outpatient Pharmacy ***HSF - Pharmacy Network location	Rm 1P2	1001 Potrero Ave	22nd St	San Francisco	CA	94110-3594	415-206-8108	415-206-5551
ScriptSite Pharmacy	1028	870 Market Street	Powell St	San Francisco	CA	94102	855-328-8734	415-800-8062
St Luke Hospital Pharmacy		3555 Cesar Chavez St	Guerrero St	San Francisco	CA	94110	415-641-6505	415-641-6646
St Mary's Medical Clin Phcy		2235 Hayes St	Stanyan St	San Francisco	CA	94117-1012	415-750-4878	415-750-8189
St Mary's Prescription Pharmacy	Ste 100	2166 Hayes St	Shrader St	San Francisco	CA	94117	415-387-3231	415-387-0904
Sutter Professional Pharmacy		2300 Sutter St	Scott St	San Francisco	CA	94115	415-567-3223	415-567-2633
Target/CVS Pharmacy	3201/17672	225 Bush St	Sansome St	San Francscio	CA	94104	415-365-0835	415-365-0845
Target/CVS Pharmacy	2768/17625	2675 Geary Blvd	Masonic Ave	San Francscio	CA	94118	415-796-5280	415-796-5291
Target/CVS Pharmacy	3203/17674	1830 Ocean Ave	Dorado Terr	San Francscio	CA	94112	415-840-0523	415-840-0534
Target/CVS Pharmacy	2766/17623	789 Mission St	4th St	San Francisco	CA	94103	415-343-6273	415-343-6283
Thousand Cranes Pharmacy	203	1832 Buchanan St	Bush St	San Francisco	CA	94115	415-409-4357	415-409-4355
Torgsyn Discount Pharmacy		5614 Geary Blvd	20th Ave	San Francisco	CA	94121	415-752-3737	415-752-3730
UCSF Ambulatory Pharmacy	RM -M39	505 Parnassus Ave		San Francisco	CA	94143	415-353-1544	415-353-8548
Vale Road Pharmacy		2023 Vale Road		San Pablo	CA	94806	510-232-2377	510-234-7181
Visitacion Valley Pharmacy		100 Leland Ave	Desmond St	San Francisco	CA	94134	415-239-5811	415-239-5812
Walgreens Drug Store	887	1524 Polk St	California St	San Francisco	CA	94109	415-673-4701	415-673-4128
Walgreens Drug Store ***HSF - Pharmacy Network location	890	135 Powell St	O'Farrell St	San Francisco	CA	94102	415-391-7222	415-391-6649
Walgreens Drug Store ***HSF - Pharmacy Network location	893	1344 Stockton St	Vallejo St	San Francisco	CA	94133	415-981-6274	415-981-3931
Walgreens Drug Store	896	3601 California St	Spruce St	San Francisco	CA	94118	415-668-5202	415-668-1514
Walgreens Drug Store ***HSF - Pharmacy Network location	1054	3398 Mission St	Eugenia Ave	San Francisco	CA	94110	415-824-6886	415-824-0322
Walgreens Drug Store	1109	5260 Diamond Heights Blvd	Duncan St	San Francisco	CA	94131	415-695-2808	415-695-2842
Walgreens Drug Store ***HSF - Pharmacy Network location	1120	4645 Mission St	San Juan Ave	San Francisco	CA	94112	415-585-6900	415-585-1524
Walgreens Drug Store ***HSF - Pharmacy Network location	1126	1979 Mission St	16th St	San Francisco	CA	94103	415-558-8749	415-558-8729
Walgreens Drug Store ***HSF - Pharmacy Network location	1241	1201 Taraval St	22nd Ave	San Francisco	CA	94116	415-753-1305	415-753-3192
Walgreens Drug Store ***HSF - Pharmacy Network location	1283	500 Geary St	Taylor St	San Francisco	CA	94102	415-673-8413	415-673-8217
Walgreens Drug Store	1297	670 4th St	Balboa St	San Francisco	CA	94107	415-856-0543	415-856-0546
Walgreens Drug Store ***HSF - Pharmacy Network location	1327	498 Castro St.	18th St	San Francisco	CA	94114	415-861-3136	415-861-7358
Walgreens Drug Store ***HSF - Pharmacy Network location	1393	1630 Ocean Ave	Faxon Ave	San Francisco	CA	94112	415-239-0804	415-239-0462
Walgreens Drug Store	1403	3201 Divisadero St	Lombard St	San Francisco	CA	94123	415-931-6417	415-931-6241
Walgreens Drug Store ***HSF - Pharmacy Network location	1626	2494 San Bruno Ave	Felton St	San Francisco	CA	94134	415-468-4274	415-468-4283
Walgreens Drug Store	2005	2550 Ocean Ave	Woodacre Dr	San Francisco	CA	94132	415-587-9000	415-587-9893
Walgreens Drug Store	2088	1333 Castro St	Jersey St	San Francisco	CA	94114	415-826-8533	415-826-0298
Walgreens Drug Store	2125	320 Bay St	Powell St	San Francisco	CA	94133	415-296-0521	415-296-0505
Walgreens Drug Store	2152	1899 Fillmore St	Bush St	San Francisco	CA	94115	415-771-4603	415-771-8516
Walgreens Drug Store ***HSF - Pharmacy Network location	2153	790 Van Ness Ave	Eddy St	San Francisco	CA	94102	415-292-6155	415-292-9761

Active San Francisco OrderConnect Pharmacies

***HSF: Participants can pick up prescriptions at these Walgreens locations or at ZSFG Hospital Outpatient Pharmacy

Name	Store Number	Address	Cross_Street	City	State	Zip	Telephone	Fax
Walgreens Drug Store ***HSF - Pharmacy Network location	2244	3801 3rd St, #550	Evans Ave	San Francisco	CA	94124-1446	415-285-8773	415-285-8135
Walgreens Drug Store	2521	300 Montgomery St	Pine St	San Francisco	CA	94104	415-788-2984	415-788-2017
Walgreens Drug Store ***HSF - Pharmacy Network location	2705	2050 Irving St	22nd Ave	San Francisco	CA	94122	415-664-4215	415-664-2362
Walgreens Drug Store ***HSF - Pharmacy Network location	2866	1363 Divisadero St	O'Farrell St	San Francisco	CA	94115	415-931-9974	415-931-9825
Walgreens Drug Store ***HSF - Pharmacy Network location	3185	825 Market St	4th St	San Francisco	CA	94103	415-543-9502	415-543-9972
Walgreens Drug Store	3358	1301 Franklin St	Post St	San Francisco	CA	94109	415-775-6706	415-775-8064
Walgreens Drug Store	3383	141 Kearny St	Post St	San Francisco	CA	94108	415-834-0356	415-834-1065
Walgreens Drug Store ***HSF - Pharmacy Network location	3475	25 Point Lobos Ave	42nd Ave	San Francisco	CA	94121	415-386-0736	415-386-3005
Walgreens Drug Store	3624	275 Sacramento St	Front St	San Francisco	CA	94111	415-362-5227	415-362-5487
Walgreens Drug Store	3706	3838 California St	Jordan Ave	San Francisco	CA	94118	415-750-1322	415-750-1409
Walgreens Drug Store	3707	2100 Webster St Rm 105	Clay St	San Francisco	CA	94115	415-441-5742	415-441-6915
Walgreens Drug Store ***HSF - Pharmacy Network location	3711	1189 Potrero Ave	24th St	San Francisco	CA	94110	415-647-1397	415-647-0894
Walgreens Drug Store ***HSF - Pharmacy Network location	3849	745 Clement St	9th Ave	San Francisco	CA	94118	415-668-5250	415-668-1506
Walgreens Drug Store ***HSF - Pharmacy Network location	3869	1750 Noriega St	25th Ave	San Francisco	CA	94122	415-664-5543	415-664-6195
Walgreens Drug Store ***HSF - Pharmacy Network location	4231	2690 Mission St	23rd St	San Francisco	CA	94110	415-285-1576	415-285-1043
Walgreens Drug Store	4275	456 Mission St	Fremont St	San Francisco	CA	94105	415-348-9600	415-348-9605
Walgreens Drug Store ***HSF - Pharmacy Network location	4318	4129 18th St	Castro St	San Francisco	CA	94114	415-551-7837	415-551-7843
Walgreens Drug Store	4492	33 Drumm St	Sacramento St	San Francisco	CA	94111	415-989-6116	415-989-6143
Walgreens Drug Store	4529	2145 Market St	Church St	San Francisco	CA	94114	415-355-0800	415-355-0214
Walgreens Drug Store	4558	300 Gough St	Fell St	San Francisco	CA	94102	415-581-0600	415-581-0507
Walgreens Drug Store	4570	3001 Taraval St	40th Ave	San Francisco	CA	94116	415-759-0572	415-759-9408
Walgreens Drug Store ***HSF - Pharmacy Network location	4609	1301 Market St	9th St	San Francisco	CA	94103	415-861-4010	415-861-2777
Walgreens Drug Store	4680	730 Market St	3rd St	San Francisco	CA	94102-2502	415-397-4800	415-397-4038
Walgreens Drug Store ***HSF - Pharmacy Network location	5487	5300 3rd St	Williams Ave	San Francisco	CA	94124	415-671-0841	415-671-0870
Walgreens Drug Store	5599	2120 Polk St	Broadway	San Francisco	CA	94109	415-474-9752	415-474-0631
Walgreens Drug Store	5618	100 Sansome St	Bush St	San Francisco	CA	94104	415-362-2768	415-362-2937
Walgreens Drug Store	6291	116 New Montgomery St	Mission St	San Francisco	CA	94105	415-344-0891	415-344-0895
Walgreens Drug Store ***HSF - Pharmacy Network location	6557	199 Parnassus Ave	Stanyan St	San Francisco	CA	94117	415-661-5287	415-661-7519
Walgreens Drug Store	6625	2141 Chestnut St	Steiner St	San Francisco	CA	94123	415-567-9320	415-567-9162
Walgreens Drug Store	7043	459 Powell St	Sutter St	San Francisco	CA	94102	415-984-0793	415-984-0796
Walgreens Drug Store	7044	88 Spear St	Mission St	San Francisco	CA	94105	415-856-0733	415-856-0736
Walgreens Drug Store ***HSF - Pharmacy Network location	7150	965 Geneva Ave	London St	San Francisco	CA	94112	415-841-0507	415-841-0517
Walgreens Drug Store ***HSF - Pharmacy Network location	9886	3400 Cesar Chavez St	Mission St	San Francisco	CA	94110	415-285-0802	415-285-0158
Walgreens Drug Store	10044	45 Castro St Ste 124	Duboce Ave	San Francisco	CA	94114	415-565-0991	415-565-0997
Walgreens Drug Store	11385	1580 Valencia St	Duncan St	San Francisco	CA	94110	415-970-8001	415-970-8005
Walgreens Drug Store ***HSF - Pharmacy Network location	13583	901 Hyde St	Bush St	San Francisco	CA	94109	415-409-4230	415-409-4235
Walgreens Drug Store	13640	500 Parnassus Ave Rm I level	3rd Ave	San Francisco	CA	94143	415-504-8101	415-504-8106
Walgreens Drug Store ***HSF - Pharmacy Network location	13666	1300 Bush St	Larkin St	San Francisco	CA	94109	415-771-3303	415-771-0113

Active San Francisco OrderConnect Pharmacies

***HSF: Participants can pick up prescriptions at these Walgreens locations or at ZSFG Hospital Outpatient Pharmacy

Name	Store Number	Address	Cross_Street	City	State	Zip	Telephone	Fax
Walgreens Drug Store ***HSF - Pharmacy Network location	13667	5280 Geary Blvd	17th Ave	San Francisco	CA	94118	415-668-2041	415-668-7806
Walgreens Drug Store ***HSF - Pharmacy Network location	13668	1496 Market St	Van Ness Ave	San Francisco	CA	94102	415-626-9972	415-626-9919
Walgreens Drug Store ***HSF - Pharmacy Network location	13669	776 Market St	Stockton St	San Francisco	CA	94102	415-397-0837	415-397-2936
Walgreens Drug Store	13670	200 West Portal Ave	14th Ave	San Francisco	CA	94127	415-665-1008	415-665-1696
Walgreens Drug Store	15127	1175 Columbus Ave	Bay St	San Francisco	CA	94133	415-345-1079	415-673-3749
Walgreens Drug Store ***HSF - Pharmacy Network location	15296	2262 Market St	Noe St	San Francisco	CA	94114	415-255-0101	415-255-0201
Wellmans Pharmacy 1	1	1053 Stockton St	Jackson St	San Francisco	CA	94108	415-362-3622	415-956-6233
Wellmans Pharmacy 2	2	728 Pacific Ave	Grant Ave	San Francisco	CA	94133	415-788-8882	415-788-1103

III. Medicare Part D Prescription Drug Plan

RESOURCE FOR CLIENTS WITH MEDICARE D PLANS

HICAP (Health Insurance Counseling Advocacy Program) is available to assist our clients with their Medicare Part D plans. They are a program funded through State and Federal grants with a focus on helping seniors and disabled adults (including our behavior health clients) who are Medicare beneficiaries or pending Medicare coverage.

Clients can call to set up a one-on-one appointment to meet with a State Register HICAP Counselor to evaluate and compare their Part D plan. The HICAP counselors utilize the Medicare website and enter the client's medication list and explain the options to the clients who then chose a plan. Clients should bring a complete list of their prescription medications for the appointment, along with their Medicare card and Identification.

The program is run by appointment-only and does not function through walk in appointments due to site and counselor availability. They have several locations throughout San Francisco County.

Please call for appointments at their 1-800-434-0222 or locally at the 415-677-7520

For clients who may not be able to travel to HICAP offices, HICAP may be able to provide services at our clinics by special arrangement.

San Francisco County HICAP Office
601 Jackson Street, 2nd Floor
San Francisco, CA 94133
(415) 677-7520

Program Manager
Miguel Martinez

Link for HICAP website: http://hicap.org/

2019 California Medicare Part D Prescription Drug Plans
Premium <$120/month & No Deductible

PLAN NAME	MONTHLY PREMIUM	COVERAGE IN THE GAP?	PRIOR AUTHORIZATION	HELP DESK	FORMULARY WEBSITE	GENERAL WEBSITE
SilverScript Choice	$34.80	No	1-866-235-5660 https://www.silverscript.com/pdf/medicare-prescription-drug-coverage-authorization.pdf	1-800-790-6364	https://www.silverscript.com/pdf/choice-comprehensive-formulary.pdf	https://www.silverscript.com/
First Health Part D Value Plus	$56.30	Yes	1-800-551-2694 https://www.coventry-medicare.com/documents/individual/2017/providers/PA_PartD_Cd_2017_EN_CM.pdf	1-844-233-1938	https://www.coventry-medicare.com/documents/individual/2018/formularies/FORM_2018_18061FHDGC124_A2B_EN.pdf	https://www.coventry-medicare.com/en/compare-plans-enroll/first-health-part-d.html
Aetna Medicare Rx Value Plus (PDP)	$58.70	Yes	1-800-408-2386 http://www.aetna.com/pharmacy-insurance/healthcare-professional/documents/medicare-prior-auth-general-cd.pdf	1-844-233-1938	https://www.coventry-medicare.com/documents/individual/2018/formularies/FORM_2018_18061FHDGC124_A2B_EN.pdf	https://www.coventry-medicare.com/en/compare-plans-enroll/first-health-part-d.html
WellCare Extra	$73.70	No	1-866-800-6111 https://www.wellcare.com/California/Forms/Request-PDP-Prescription-Drug-Coverage	1-888-550-5252	https://www.wellcare.com/~/media/PDFs/PDP-2018/pdp_extra_comprehensive_formulary_18439_eng_09_2017_R.ashx	https://www.wellcare.com/en/california/members/prescription-drug-plans-2018/wellcare-extra
Humana Enhanced	$82.80	Yes	1-800-555-2546 http://apps.humana.com/marketing/documents.asp?file=2096263	1-888-204-4062	http://apps.humana.com/marketing/documents.asp?file=3146780	https://www.humana.com/
AARP MedicareRx Preferred	$84.30	Yes	1-800-711-4555 https://www.uhcmedicaresolutions.com/Individual/Medication%20Prior%20Authorization%20Request%20Form.pdf	1-888-867-5575	https://www.uhcmedicaresolutions.com/alphadms/ovdms10g/groups/ov/@ov/@highrespdf/documents/highrespdf/4200574.pdf	https://www.aarp.org/benefits-discounts/all/uhc-medicarerx/

PATIENT SERVICE CENTERS

SAN FRANCISCO

LABORATORY SERVICES

Laboratory Corporation of America (LabCorp)	Telephone	Fax
148 Noe Street (Noe Valley)	415-487-8960	415-487-3510
490 Post Street, Suite 419 (Union Square)	415-837-0782	415-788-7839
2233 Post Street, Suite 105(Mt. Zion Hospital Area)	415-928-0199	415-771-6730
2100 Webster Street, Ste 420 (Pacific Heights)	415-674-1662	415-674-1865
2000 Van Ness Ave, Suite 215 (Pacific Heights)	415-409-2563	415-474-2264
728 Pacific Ave, Suite 401 (Chinatown)	415-576-1017	415-576-1016
2622 Ocean Ave (West Portal)	415-469-9710	415-469-9776
55 Francisco St, Suite 430 (North Beach)	415-398-2198	415-398-5458
1440 Southgate Ave, Suite A (Daly City)	650-992-2986	650-757-6848

SITE MAP FOR
CBHS AFFILIATED LABORTORY
CUSTOMER SERVICE CENTERS

CBHS Formulary Laboratory Tests – OrderConnect eLabs
January 2, 2018

LabCorp Service Code	Test/Panel – eLABS OrderConnect Description	LabCorp Description
007476	Amitriptyline (Elavil), Serum	Amitriptyline
322758	Basic Metabolic Panel (8)	Metabolic Panel (8), Basic (Na,K,Cl,Ca,CO_2,Glu,BUN,Cr)
004416	hCG, Beta Subunit, Qual, Serum	Human Chorionic Gonadotropin (hCG), β-Subunit, Quantitative
004036	Pregnancy Test, Urine	Pregnancy Test, Urine (Beta HCG, Urine)
007419	Carbamazepine(Tegretol), S	Carbamazepine, Serum or Plasma
005009	CBC With Differential/Platelet	Complete Blood Count (CBC) With Differential
028142	CBC, Platelet, No Differential	Complete Blood Count (CBC) Without Differential
706465	Clomipramine, Serum	Clomipramine
706440	Clozapine (Clozaril), Serum	Clozapine, Serum or Plasma
322000	Comprehensive Metabolic Panel (14)	Metabolic Panel (14), Comprehensive (Na,K,Cl,Ca,CO_2,Glu,BUN,Cr,[BUN:Cr],Alb,Glub, [Alb:Glub],TBili,AlkPhos, AST,ALT,GGT,TP)
003012	Creatinine, 24-Hour Urine	Creatinine, 24-Hour Urine
007765	Desipramine, Serum	Desipramine
726778	**726778 7+Alc-Unbund**	Drug Abuse Profile, Urine (Seven Drugs + Alcohol)
007609	Doxepin (Sinequan), Serum	Doxepin
002014	Folate (Folic Acid), Serum	Folate (Folic Acid)
001958	GGT	γ-Glutamyl Transferase (GGT)
001453	Hemoglobin A1c	Hemoglobin (Hb) A1c
322755	Hepatic Function Panel (7)	Hepatic Function Panel (7) (Alb,TBili.,DBili.,AlkPhos,AST,ALT,TP):
083935	**Panel 083935**	Human Immunodeficiency Virus 1/O/2 (HIV-1/O/2) Antigen/Antibody (Fourth Generation) Preliminary Test With Cascade Reflex to Supplementary Testing
007468	Imipramine (Tofranil), Serum	Imipramine
001321	Iron and TIBC	Iron and Total Iron-binding Capacity (TIBC)
303756	Lipid Panel	Lipid Panel
007708	Lithium (Eskalith(R)), Serum	Lithium
001537	Magnesium, Serum	Magnesium
700070	Methadone Confirmation, Urine	Methadone Confirmation, Urine
007393	Nortriptyline (Aventyl), Serum	Nortriptyline
007401	Phenytoin (Dilantin), Serum	Phenytoin, Serum or Plasma
004465	Prolactin	Prolactin
005199	Prothrombin Time (PT)	Prothrombin Time (PT)
005207	PTT, Activated	Partial Thromboplastin Time (PTT), Activated
012005	RPR, Rfx Qn RPR/Confirm TP	Rapid Plasma Reagin (RPR) Test With Reflex to Quantitative RPR and Confirmatory Treponema pallidum Antibodies
140103	Testosterone,Free and Total	Testosterone, Free, Direct With Total Testosterone
004226	Testosterone, Serum	Testosterone, Total
000620	Thyroid Panel With TSH	Thyroid Profile With TSH
224576	TSH+Free T4	Thyroid-stimulating Hormone (TSH) and Free T4
001057	Uric Acid, Serum	Uric Acid
003772	Urinalysis, Complete	Urinalysis, Complete With Microscopic Examination
007260	Valproic Acid (Depakote)(R),S	Valproic Acid, Serum or Plasma
001503	Vitamin B12	Vitamin B12
005025	WBC	White Blood Cell (WBC) Count

Prior Authorization Required Laboratory Tests

The following tests are not covered by CBHS unless an allowable psychiatric condition/s exist/s to qualify for prior authorization approval (contact CBHS Pharmacy)

LabCorp Service Code	Test/Panel – eLABS OrderConnect Description	LabCorp Description
017996	Ethanol, Blood	Ethanol, Whole Blood
074401	Amphetamine Screen, Urine	Amphetamines, Screen and Confirmation, Urine
074427	Benzodiazepine Screen, Urine	Benzodiazepines, Screen and Confirmation, Urine
811083	Bupropion (Wellbutrin)	Bupropion and Hydroxybupropion, Serum or Plasma
071712	Clonazepam (Klonopin(R)),Serum	Clonazepam
074443	Cocaine Metabolite, Qual, Ur	Cocaine Metabolite, Screen and Confirmation, Urine
001370	Creatinine, Serum	Creatinine
120766	C-Reactive Protein, Cardiac	C-Reactive Protein (CRP), High Sensitivity (Cardiac Risk Assessment)
004515	Estradiol	Estradiol
004309	FSH, Serum	Follicle-stimulating Hormone (FSH)
070482	Haloperidol (Haldol(R)) Serum	Haloperidol, Serum or Plasma
004283	Luteinizing Hormone(LH), S	Luteinizing Hormone (LH)
004044	Metanephrines, Pheochromocyt	Metanephrines, Pheochromocytoma Evaluation
700070	Methadone Confirmation, Urine	Methadone Confirmation, Urine
811513	Olanzapine (Zyprexa)	Olanzapine, Serum or Plasma
737831	Opiates, Urine	Opiates, Screen and Confirmation, Urine
811133	Paroxetine (Paxil)	Paroxetine, Serum or Plasma
706838	Fluoxetine (Prozac(R)), Serum	Fluoxetine, Serum or Plasma
716563	Risperidone (Risperdal(R)), S	Risperidone
002188	Triiodothyronine (T3)	Triiodothyronine (T3)
001974	Thyroxine (T4) Free, Direct, S	Thyroxine (T4), Free, Direct
071688	Trazodone, Serum	Trazodone
123208	VMA, Random Urine	Vanillylmandelic Acid (VMA), Random Urine

PANELS – eLab Ordering in OrderConnect

Panel	LabCorp Service Code (STOM)	Test/Panel – eLABS OrderConnect Description
Atypical Antipsychotic Metabolic Monitoring	322000	Comp. Metabolic Panel (14)
	1453	Hemoglobin A1c
	303756	Lipid Panel
Carbamazepine Monitoring (Female)	7419	Carbamazepine(Tegretol), S
	5009	CBC With Differential/Platelet
	322000	Comp. Metabolic Panel (14)
	4556	hCG,Beta Subunit,Qual,Serum
	620	Thyroid Panel With TSH
Carbamazepine Monitoring (Male)	7419	Carbamazepine(Tegretol), S
	5009	CBC With Differential/Platelet
	322000	Comp. Metabolic Panel (14)
	620	Thyroid Panel With TSH
Lithium Monitoring (Female)	322758	Basic Metabolic Panel (8)
	5009	CBC With Differential/Platelet
	4556	hCG,Beta Subunit,Qual,Serum
	7708	Lithium (Eskalith(R)), Serum
	620	Thyroid Panel With TSH
Lithium Monitoring (Male)	322758	Basic Metabolic Panel (8)
	5009	CBC With Differential/Platelet
	7708	Lithium (Eskalith(R)), Serum
	620	Thyroid Panel With TSH
New Client	726778	726778 7+Alc-Unbund
	5009	CBC With Differential/Platelet
	322000	Comp. Metabolic Panel (14)
	1453	Hemoglobin A1c
	303756	Lipid Panel
	12005	RPR, Rfx Qn RPR/Confirm TP
	620	Thyroid Panel With TSH
Valproic Acid / Depakote Monitoring (Female)	5009	CBC With Differential/Platelet
	322000	Comp. Metabolic Panel (14)
	4416	hCG,Beta Subunit, Qnt, Serum
	7260	Valproic Acid (Depakote)(R),S
Valproic Acid / Depakote Monitoring (Male)	5009	CBC With Differential/Platelet
	322000	Comp. Metabolic Panel (14)
	7260	Valproic Acid (Depakote)(R),S
Urine Tox Screen 7 -726778	726778	Drug Screen (urine) with alcohol, without confirmation: Drug Abuse Profile, Urine (Seven Drugs + Alcohol)
HIV-1 Antibody Test - 083935	83935	HIV-1 Antibody with Reflex to Nucleic Acid Testing

Common ICD-10 Codes for Laboratory Test Orders

Note Medical Necessity Coverage Limitations

Complete list available through CMS

LABORATORY TEST	*ICD-10 CODE*	*DESCRIPTION*
A1C	Z79.899	Long term current use of other medication
	E11.9	Diabetes Mellitus
Blood Glucose	Z79.899	Long term current use of other medication
	E11.9	Diabetes Mellitus
CBC	Z79.899	Long term current use of other medication
HCG	Z33.1	Pregnancy
Lipids	Z79.899	Long term current use of other medication
Thyroid – TSH, FT4	Z79.899	Long term current use of other medication
	various	Bipolar I Disorder
	various	Anxiety States
	various	Other Extrapyramidal Diseases and Abnormal Movement Disorders
	G47.9	Difficulty sleeping
	R41.82	Altered Mental Status
	R63.5	Abnormal Weight Gain
	R63.4	Abnormal Weight Loss
Medication Monitoring	Z51.81	Encounter for therapeutic drug level monitoring

** Last Updated October 2018

V. Forms

Prior Authorizations

Effective January 1, 2015 the new PRESCRIPTION DRUG PRIOR AUTHORIZATION REQUEST FORM is required for all non-Medicare plans per California Department of Managed Health Care regulations (Section 1300.67.241). This form shall be used for all prior authorization requests.

Use the table below for reference and specific plan contact information.

Prescription plan	**Plan/Medical Group Name**	**Plan/Medical Group Phone Number**	**Plan/Medical Group Fax Number**
CBHS/Healthy San Francisco	CSF01	1-800-788-2949	1-858-790-7100
San Francisco Health Plan	Medi-Cal San Francisco Health Plan	1-888-989-0091	1-855-811-9331
Anthem Blue Cross	Medi-Cal Anthem Blue Cross	1-844-410-0746	1-844-474-3345

Note: Medi-Cal Anthem Blue Cross has a reduced pharmacy network. Walgreens and CVS are **NOT part of Anthem's pharmacy network. Pharmacies in Anthem's network include both retail chain and independent stores. Visit Anthem's website for a list of network pharmacies at:

http://lab.express-scripts.com/providers/physicians/

PRESCRIPTION DRUG PRIOR AUTHORIZATION REQUEST FORM

Plan/Medical Group Name: _____ **Plan/Medical Group Phone#: (_____)_____**
Plan/Medical Group Fax#: (_____)_____

Instructions: Please fill out all applicable sections on both pages completely and legibly. Attach any additional documentation that is important for the review, e.g. chart notes or lab data, to support the prior authorization request.

Patient Information: This must be filled out completely to ensure HIPAA compliance

First Name:	Last Name:	MI:	Phone Number:
Address:	City:	State:	Zip Code:
Date of Birth:	☐ Male ☐ Female	Circle unit of measure Height (in/cm): _____ Weight (lb/kg):_____	Allergies:
Patient's Authorized Representative (if applicable):		Authorized Representative Phone Number:	

Insurance Information

Primary Insurance Name:	Patient ID Number:
Secondary Insurance Name:	Patient ID Number:

Prescriber Information

First Name:	Last Name:	Specialty:
Address:	City:	State: Zip Code:
Requestor (if different than prescriber):	Office Contact Person:	
NPI Number (individual):	Phone Number:	
DEA Number (if required):	Fax Number (in HIPAA compliant area):	
Email Address:		

Medication / Medical and Dispensing Information

Medication Name:

☐ New Therapy ☐ Renewal
If Renewal: Date Therapy Initiated: Duration of Therapy (specific dates):

How did the patient receive the medication?
☐ Paid under Insurance Name:_____ Prior Auth Number (if known):_____
☐ Other (explain):

Dose/Strength:	Frequency:	Length of Therapy/#Refills:	Quantity:

Administration:
☐ Oral/SL ☐ Topical ☐ Injection ☐ IV ☐ Other:

Administration Location:
☐ Patient's Home ☐ Long Term Care
☐ Physician's Office ☐ Home Care Agency ☐ Other (explain):_____
☐ Ambulatory Infusion Center ☐ Outpatient Hospital Care _____

New 08/13

PRESCRIPTION DRUG PRIOR AUTHORIZATION REQUEST FORM

Patient Name:	ID#:

Instructions: Please fill out all applicable sections on both pages completely and legibly. Attach any additional documentation that is important for the review, e.g. chart notes or lab data, to support the prior authorization request.

1. Has the patient tried any other medications for this condition? ☐ **YES (if yes, complete below)** ☐ **NO**

Medication/Therapy (Specify Drug Name and Dosage)	**Duration of Therapy** (Specify Dates)	**Response/Reason for Failure/Allergy**

2. List Diagnoses:	**ICD-9/ICD-10:**

3. <u>Required clinical information</u> - Please provide all relevant clinical information to support a prior authorization review.

Please provide symptoms, lab results with dates and/or justification for initial or ongoing therapy or increased dose and if patient has any contraindications for the health plan/insurer preferred drug. Lab results with dates must be provided if needed to establish diagnosis, or evaluate response. Please provide any additional clinical information or comments pertinent to this request for coverage (e.g. formulary tier exceptions) or required under state and federal laws.

☐ Attachments

Attestation: I attest the information provided is true and accurate to the best of my knowledge. I understand that the Health Plan, insurer, Medical Group or its designees may perform a routine audit and request the medical information necessary to verify the accuracy of the information reported on this form.

Prescriber Signature:_____ **Date**:_____

Confidentiality Notice: The documents accompanying this transmission contain confidential health information that is legally privileged. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or action taken in reliance on the contents of these documents is strictly prohibited. If you have received this information in error, please notify the sender immediately (via return FAX) and arrange for the return or destruction of these documents.

Plan Use Only: Date of Decision:_____

☐ Approved ☐ Denied Comments/Information Requested: _____

_____

New 08/13

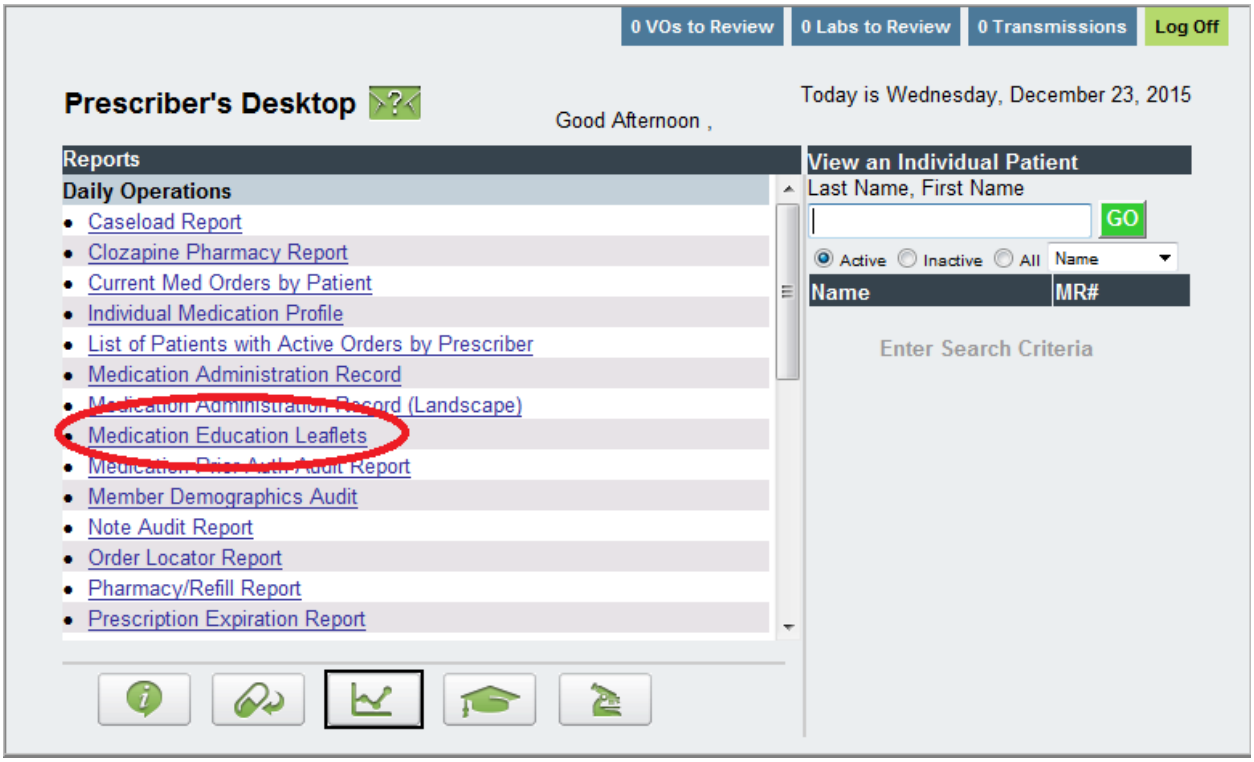
San Francisco Health Network
SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH
BEHAVIORAL HEALTH SERVICES
Mayor London Breed

CBHS Pharmacy Services
1380 Howard Street, Rm 130
San Francisco, CA 94103
Phone: (415) 255-3659
FAX: (415) 252-3036

Patient Medication Information Sheets

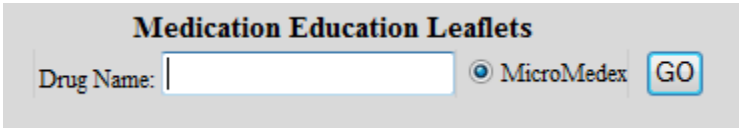
OrderConnect

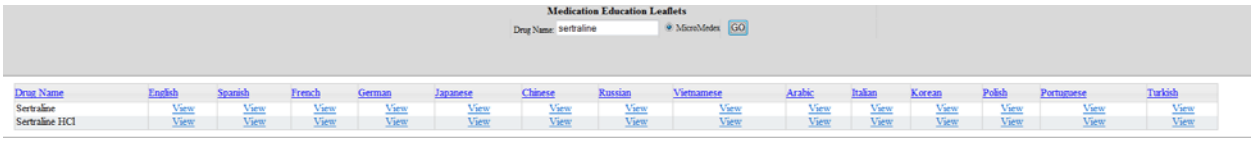
1. Access the "Leaflet" from the OrderConnect Prescriber's Desktop.



*Make sure to have pop-up blocker disabled

2. Type the medication in the text box.





**Language availability dependent on medication (English and Spanish available for all)

3. You may also click "Leaflet" on the Order Confirmation screen to access medication specific patient education when ordering medications.

For providers at clinics with access to the DPH Intranet

Online Drug Information Access: Lexi-Comp Online

Steps to Access Drug Information Online through Lexi-Comp

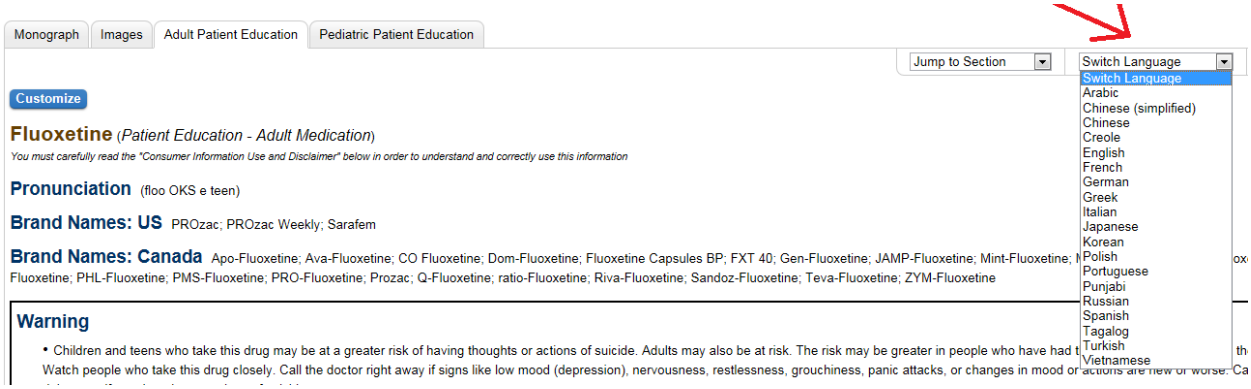
1. Begin at the Department of Public Health Intranet Home Page. (http://dphnet/)
2. Under Helpful Links, click on "Intranet - COPC".

3. Click on "Clinical Resources" located on the top of the screen. Then click on the sub-link "Formulary Lexi-Comp."

   Tip: We recommend that you bookmark this page so that you can access it directly in the future.

4. Type in the generic or brand name of the drug in the "Search for:" From this screen you can also access tabs **Interactions** for drug interactions and **Drug-ID** for drug identification.
5. Under "Search Results", click on the name of the drug. This will provide you with a drug monograph that includes information on adverse reactions, dosing, metabolism, safety in pregnancy and lactation, etc.
6. For patient information handouts for the drug you have selected, click the **"Patient Education - Adult" or "Patient Education - Pediatric"**.

7. Upon selection of the medication, there is an option to select different languages.



8. If you would like to customize the leaflet with the patient's name, any additional notes, or the provider's name, click on "customize leaflet" located above the drug name.

9. To print, click on the icon in the upper right corner or click on "File" located on the toolbar and then click on print.

VI. Policies and Procedures

BHS Policies and Procedures

City and County of San Francisco
Department of Public Health
San Francisco Health Network
BEHAVIORAL HEALTH SERVICES

1380 Howard Street, 5th Floor
San Francisco, CA 94103
415.255-3400
FAX 415.255-3567

POLICY/PROCEDURE REGARDING: BHS Clinic Medication Room

Issued By: Marcellina Ogbu, DrPH
Deputy Director of San Francisco Health Network

Date: May 17, 2016

Manual Number: 3.01-4
References:
California Business and Professions Code:
Code of Federal Regulations

(Substantive revision. Replaces version dated November 18, 2014)

PURPOSE:

This policy and procedures is intended to serve as a guideline for compliance with state and federal laws and regulations as well as to ensure medication safety in the clinic setting.

SCOPE:

This policy applies to BHS and BHS affiliated clinics and to staff working in BHS and BHS-affiliated clinics that store or maintain medications on site.

GLOSSARY:

a. **Prescription Refill**: Prescription refills or "refills" are defined as the remaining quantity of fills for a particular client prescription at the pharmacy. Prescription refills are stored on file at the pharmacy and are not filled until a medication request has been submitted by the client or clinic.

b. **Medication Request**: A medication request is defined as the request made by the client or clinic for a particular client medication to be filled by the pharmacy.

c. **Medication Reorder**: A medication reorder is defined as the prescriber issuance of additional fills for a particular client medication once refills of that medication are depleted.

d. **Medication Dispensing**: Medication dispensing is defined as the preparation, packaging, labeling, documenting, and transfer of a medication from an authorized medical personnel to the client for which the medication was prescribed and labeled for.

e. **Medication Administration**: Medication administration is defined as the directly observed administration of medications to a client (e.g. orally or via injection) by an authorized medical personnel during the course of a clinic visit.

POLICY:

1. RESPONSIBILITY

a. BHS and BHS affiliated clinic staff shall be in compliance with this policy and procedure, and with state and federal laws and regulations for medications including the access, ordering, receiving, storage, prescribing, dispensing, administration and disposal of medications.

b. The clinic Medical Director and Program Director have shared responsibility to ensure that the clinic staff and premises are in compliance. The Program Director has responsibility in the general support of the medication room including security and upkeep of the premises, and non-medical staff receiving of medications. The Medical Director has responsibility to ensure compliance by medical staff for medication room policies and procedures, and laws and regulations.

2. ACCESS

a. All prescription medications and medication injection equipment (syringes, needles) will be stored in a securely locked medication room or cabinet with access limited to medical personnel authorized to prescribe, dispense or administer medication. Designated medical staff will be identified in writing by the clinic and posted in the medication room. Housekeeping staff may only enter when a medical personnel is present.

LICENSED STAFF	NAME	AUTHORIZED (Access, dispensing, administration, ordering)
PHYSICIANS		
PHARMACISTS		
PHARMACY TECHNICIANS		
NURSE PRACTITIONERS		
NURSES		
PSYCHIATRY TECHNICIANS		
Other:		

Total number of keys available: _____

b. The medication room lock must be unique from other locks in the facility. The medication room shall not be accessible via the facility's master key.

c. Keys (keys, key cards, key codes) that open medication rooms and cabinets are issued to the above authorized medically licensed personnel who are assigned to work at these sites. These staff members must secure possession of the keys and must return the keys to the medical director when no longer assigned to the clinic. Under no circumstance shall staff members share keys with anyone else.

3. RECEIVING MEDICATIONS

a. The clinic shall only receive medication deliveries when authorized medical staff is present. Medications delivered to the clinic must be received by authorized personnel, then promptly and appropriately stored in the medication room.

b. If medications are received by non-medical staff such as front desk clerk, the front desk clerk shall immediately notify medical staff so that medications are promptly stored in the medication room. Packages shall never be left unattended.

c. Every clinic that receives and stores medications must keep records of their acquisition and disposition *(B&P Code 4081.4105,4180).* A chain of custody chronologically documenting the receipt, dispense, administration, and/or disposal of all medications shall be maintained.

d. Clinics must log the receipt of all client medications *(CCR, Title 22 73361*). Copies of the pharmacy's delivery log may serve as the receipt log. The records shall be retained for at least 3 years. *(CCR, Title 22 73361).* Incoming client medication logs must contain all the following information:
    i. Medication name
    ii. Strength and quantity
    iii. Name of the client
    iv. Date ordered (date medication request made to pharmacy)
    v. Date received
    vi. Name of issuing pharmacy

e. To document "date ordered" for the receipt of client medications, facilities shall do one of the following:
    a. Retain copies of medication requests sent to the pharmacy or
    b. Print and retain OrderConnect medication lists, noting date and requested medications or
    c. Record medication requests using the Client Medication Request Log (Attachment 1)

f. Clinics must log the receipt of all physician's own use medications *(CCR, Title 22 73361).* A copy of delivery log sent with the delivery, may serve as the receipt log. The records shall be retained for at least 3 years. Incoming medication logs must contain all of the following information:
    i. Medication name
    ii. Strength and quantity
    iii. Date ordered
    iv. Date received
    v. For prescription medications, name of ordering physician
    vi. Name of issuing pharmacy

g. Client medications received from a dispensing pharmacy must be properly labeled with *(CA B&P Code 4076)*:
    i. Name of the client
    ii. Name and strength of the medication; if generic name, include name of manufacturer
    iii. Description of the medication (color, shape, any identification code)
    iv. Directions for use
    v. Condition or purpose of the medication, if indicated
    vi. Date of issue.
    vii. Medication quantity

viii. Expiration date of the medication
ix. Name of the prescriber
x. Initials of the dispensing individual
xi. Name, address and phone number of the dispensing pharmacy
xii. FDA side effects statement label *(21 CFR 209)*
xiii. Any applicable auxiliary labels

h. Prescription labels may be altered only by persons legally authorized to do so.

4. STORAGE

a. The medication room/storage area shall be located in premises that are secure.
b. The medication room/storage area shall be secure, clean, and orderly. Drugs are organized in a manner that prevents crowding and confusion. The facility shall have a schedule or procedure for cleaning and upkeep of the premise. The premise shall be kept clean and sanitary, with no clutter or extraneous items.
c. Controlled substance floor stock medications must be stored in a separately locked cabinet in the medication room.
d. Medications labeled and intended for external-use only (topical) shall be stored separately from oral and injectable medications.
e. Germicidals, cleaning agents and test reagents are stored separately from all drugs.
f. Drugs stored at room temperature are between 59° and 86°F. Room temperatures shall be logged each working day on the Room Temperature Log form (Attachment 2). Contact CBHS Pharmacy immediately for instructions for any out-of-range temperatures and document actions taken on the Room Temperature Log form. Room temperature logs shall be retained for at least 3 years.
g. Drugs requiring refrigeration are stored in a refrigerator between 36° and 46°F. Refrigerator temperatures shall be logged each working day on the Refrigerator Temperature Log form (Attachment 3). Contact CBHS Pharmacy immediately for instructions for any out-of-range temperatures and document actions on the Refrigerator Temperature Log form. Refrigerator temperature logs shall be retained for at least 3 years.
h. If any vaccines are stored in refrigerators, storage and handling must be in compliance with the Center for Disease Control (CDC) guidelines. Refrigerator temperatures must be logged at the beginning and end of each working day. Vaccines cannot be stored in dormitory-style refrigerators which have a combined refrigerator and freezer in the same compartment.
i. Drugs shall not be stored in a refrigerator with any food or lab specimens.
j. Except for certain vaccines, multiple dose injectable medications will be initialed and have the expiration date recorded on the label when opened. Once opened, multiple dose vials expire in 28 days. Any open vial that appears to be contaminated or discolored shall be discarded and not used.
k. Vaccines in multidose vials that do not require reconstitution can be administered until the expiration date printed on the vial or vaccine packaging if the vial has been stored correctly and the vaccine is not visibly contaminated, unless otherwise specified by the manufacturer.

l. Drug containers shall not be cracked, soiled or without secure closures.

m. Expired, contaminated, or deteriorated prescription medications, Over The Counter (OTC) medications, and/or medical supplies are not available for use and shall be properly disposed of. All medications and supplies shall be checked for expiration.

n. Medication expiration dates will be checked and documented on a monthly basis by a designated person with legal access to the medication room. Facilities may use the Monthly Expired Medication Review form (Attachment 4) to document completion. Records shall be retained for at least 3 years.

o. Medication samples and drug vouchers are not allowed in clinics.

p. Prescription blanks are stored in a secure location inaccessible to clients.

5. HANDLING OF CLIENTS' OWN MEDICATIONS

a. Clients' own prescription medications that have been dispensed by a pharmacy may be stored in the clinic medication room if necessary to support the client's wellness and recovery. Justification shall be supported by documentation.
b. Clients' own medications are properly stored, clearly labeled, with internal use medications separated from external use.
c. No more than a six week supply of client's own medications should be stored in the clinic medication room.
d. If a client does not claim his or her medications within 8 weeks of receipt by the clinic, they may be considered as medications abandoned by the client.
e. Abandoned, expired, or discontinued medications shall be first sent back to the dispensing pharmacy for the billing to be reversed if possible. If the issuing pharmacy does not accept retuned dispensed medications, medications shall be disposed of as hazardous medication waste.
f. Clients' own medications shall only be distributed to the specific client for whom it was prescribed and labeled. Client's own medications shall not be administered or "shared" with other clients.
g. "Automatic medication refills" (i.e. automatic medication requests to the pharmacy) shall not be utilized for client's medications stored in the clinic medication room in compliance with CMS requirements mandating member consent for all prescription deliveries, new or refill. Client medications shall be requested as needed when supplies are depleted.

6. PHYSICIAN'S SUPPLY MEDICATIONS

a. "Physician's Supply Medications" refers to a physician's supply of medications for the physician's use in clinic *(B&P Code 4119.5 and 4170)*.

b. A physician's own supply of medications may be stored in the medication room. Medications should be prescribed by the physician, and use should be limited to providing acute need or emergency medications in the clinic. Prescribers should use a local community pharmacy to provide pharmacy dispensed medications to clients.

c. Usage shall be documented on the Physician's Supply Medication Log sheet. (Attachment 6).

Each medication use shall be logged separately with a running inventory of the quantity used and quantity remaining for that particular medication. The records shall be retained for at least 3 years. Logs must contain all of the following information:

i. The date and time the medication was administered
ii. The source of the medication
iii. The expiration date, lot and/or vial number of the medication
iv. The name of the client receiving the medication
v. The name, dosage and quantity of the medication given
vi. The route of administration for medication (if other than oral)
vii. The signature of authorized staff who administered the medication

d. Requests for Physician's Supply Medications shall be placed using the BHS Drug and Supply Request form (Attachment 5). Orders shall be placed by designated medical staff, and need to include a copy of the Physician's Supply Medication Log sheet for proof of use or expiration of the medication requested.

e. For Controlled Substances, medication quantities must be reconciled at least daily on the Physician's Supply Medication Log (Attachment 6) and shall be retained for at least three years. Controlled Substances are stored separate from non-controlled drugs.

7. MEDICATION ADMINISTRATION

a. "Medication Administration" refers to directly observed administration of medications to a client (e.g. orally or giving an injection) during the course of the clinic visit.

b. Medications may only be administered by authorized personnel upon an order by a lawfully authorized prescriber. BHS personnel who are authorized to administer medications under their scope of practice include: physicians, physician assistants, nurse practitioners, registered nurses, licensed vocational nurses, licensed psychiatric technicians and pharmacists.

c. Authorized personnel administering a medication are responsible for:

i. Knowing a drug's usual dosage range, indications, side effects, toxicity, stability, expiration date and the client's hypersensitivity or allergies.
ii. Ensuring that the fundamentals of medication administration are followed: right client, right drug, right dose, right route, and right time.

d. Prior to drug administration, establish the client's identity by using two distinct client identifiers (e.g. asking the client to state their name and date of birth).

e. For injectable medication administration:

i. Use universal and bloodborne pathogen precautions
ii. Use safety needles

f. Documentation by the person administering the medication(s) shall be in compliance with Medical Records Policy 3.10-02, and include:

i. Medication, dosage, frequency and route
ii. Date and time of administration
iii. Site/location of any injection
iv. The lot and/or vial number if medication was dispensed from a multi-dose container
v. Any unusual or adverse response to the medication

g. Client medications shall not be "shared" or utilized as floor stock medications under any circumstance. Client medications shall only be administered to the specific client for whom it was prescribed and labeled.

8. DRUG AND SHARPS DISPOSAL

a. General requirements: Every clinic that maintains a stock of drugs must keep records of their acquisition and disposition *(B&P Code 4081.4105,4180).* All medications shall be disposed in accordance to applicable federal, state, and local regulations for disposal of chemicals and potentially dangerous or hazardous substances.
b. Medications for disposal may include:
    i. Medications which are not taken with the client upon termination of services
    ii. Medications abandoned by the client
    iii. Discontinued medications
    iv. Expired, contaminated or deteriorated medications
c. Proper medication disposal
    i. Clients' medications may be returned to the dispensing pharmacy for disposal, or disposed of at the clinic through the use of a licensed medical waste disposal service (e.g. Stericycle) or destruction container (eg RxDestroyer).
    ii. Solid dosage form medications (e.g. pills, capsules) are removed from their original containers before disposal.
    iii. Non-Controlled Substances
        a. Non-Controlled pharmaceutical waste shall be place in the white waste container with the blue top that is puncture resistant and sealable when full. This container is labeled "Pharmaceutical Waste" and shall be stored in the medication room or other secure medication storage area.
        b. The waste shall be removed by a licensed medical waste disposal company.
    iv. Controlled Substances
        a. Controlled substances shall be placed in the "RxDestroyer" which is a white, puncture resistant container with a red top and sealable when full. This container is labeled "RxDestroyer", and shall be stored in the medication room or other secure medication storage area. RxDestroyer should only be used for destruction of controlled substances. All other pharmaceutical waste must be destroyed by placing in the blue and white pharmaceutical waste container as described above.
        b. Directions for using "RxDestoyer"
            i. Load medications into the bottle
            ii. Tightly replace cap
            iii. Gently shake to mix solution over medications. The bottle contains a solution that will dissolve medications on contact. Active medication ingredients are adsorbed or neutralized by activated charcoal.
            iv. Note that the outer shells of capsules or patch materials will not dissolve
            v. Bottle is full when contents are 2 inches from the cap. Do not overfill.
            vi. When full, the full container shall be discarded into regular trash receptacle.

v. Personnel conducting disposal
    a. Only individuals with authorized access to the medication room may dispose of expired or returned medications.
    b. Disposal and documentation of disposal of non-controlled medications shall be conducted by a pharmacist or registered nurse employed by the facility. In the absence of a pharmacist and registered nurse, by licensed medical staff authorized to access the medication room.
    c. Disposal and documentation of disposal of controlled medications shall be conducted by both a pharmacist and registered nurse. In the absence of a pharmacist and/or registered nurse, by two licensed medical staff authorized to access the medication room.

vi. Disposal shall be documented on a Medication Destruction Log (Attachment 7). The log shall be retained for at least 3 years and include the following information:

i. Name of the client
ii. Medication name and strength
iii. Quantity destroyed
iv. Prescription number
v. Date of destruction
vi. Name and signature of witness (two signatures if controlled substance)

d. Client Confidentiality
    i. Client identifiers, which are protected health information (PHI), include the client's name, medical record number, address, and date of birth. (Refer to San Francisco Department of Public Health Privacy and Data Security Policies)
    ii. Labels or documents containing PHI are placed in confidential waste or physically destroyed, which may be accomplished by cross-cut shredding, pulverizing, pulping, incinerating, or a combination of these techniques.

e. Sharps containers are stored in a secure location not accessible to clients. Containers are disposed of in accordance to applicable federal, state, and local regulations for disposal of chemical and potentially dangerous or hazardous substances. The method of disposal may include the use of a contracted medical waste disposal service.

9. MEDICATION ROOM COMPLIANCE CHECKLIST

a. The Medication Room Compliance Checklist (Attachment 8) form shall be completed each quarter (every three months) by a pharmacist or other medical staff.

b. The results of the audit shall be reviewed by the clinic Medical Director. Any areas of non-compliance shall be promptly addressed to ensure the clinic and staff are in compliance.

c. Compliance checklists and any plans of correction shall be retained for at least three years.

Contact Person: Director, CBHS Pharmacy Services

Distribution:
CBHS Policies and Procedures are distributed by the Health Information Management Department under the DPH Compliance Office

Administrative Manual Holders
CBHS Programs
SOC Managers
BOCC Program Managers
CDTA Program Managers

City and County of San Francisco
Department of Public Health
San Francisco Health Network
BEHAVIORAL HEALTH SERVICES

Client Medication Request Log (Via Non-Fax Modality)

Client Name	Medication			Name of Pharmacy	Date Ordered	Date Received[1]
	Name	Strength	Quantity			

[1]Document date received if the issuing pharmacy does not provide a delivery log

Client Medication Request Logs must be retained for **three years**.

Medication Room Temperature Log - Fahrenheit

Month/Year: _____ Days 1-15

Clinic Name:

Completing this temperature log: Check the temperature in the medication room EACH WORKING DAY. Place an "X" in the box that corresponds with the temperature, the time of the temperature reading, and your initials. Once the month has ended, save each month's completed for 3 years.

If temperature is out of range, contact dispensing pharmacy or CBHS Pharmacy Services (415-255-3659) immediately at
and document action taken on this form.

Staff Initials															
Day of Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exact Time															

*Write any unacceptable temperatures (above 86°F or below 59°F) in these boxes. Then take action!

Acceptable Temperatures																
	Danger! Temperatures above 86°F are too warm! Write any unacceptable temperatures on the boxes above and call CBHS Pharmacy Services immediately!															
	86°F															
	85°F															
	84°F															
	83°F															
	82°F															
	81°F															
	80°F															
	79°F															
	78°F															
	77°F															
	76°F															
	75°F															
	74°F															
	73°F															
	72°F															
	71°F															
	70°F															
	69°F															
	68°F															
	67°F															
	66°F															
	65°F															
	64°F															
	63°F															
	62°F															
	61°F															
	60°F															
	59°F															
	Danger! Temperatures below 59°F are too cold! Write any unacceptable temperatures on the boxes above and call CBHS Pharmacy Services immediately!															

Medication Room Temperature Log - Fahrenheit

Month/Year: _____ Days 16-31

Clinic Name:

Completing this temperature log: Check the temperature in the medication room EACH WORKING DAY. Place an "X" in the box that corresponds with the temperature, the time of the temperature reading, and your initials. Once the month has ended, save each month's completed for 3 years.

If temperature is out of range, contact dispensing pharmacy or CBHS Pharmacy Services (415-255-3659) immediately at
and document action taken on this form.

Staff Initials																
Day of Month	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Exact Time																

*Write any unacceptable temperatures (above 86°F or below 59°F) in these boxes. Then take action!

Danger! Temperatures above 86°F are too warm! Write any unacceptable temperatures on the boxes above and call CBHS Pharmacy Services immediately!																	
Acceptable Temperatures	**86°F**																
	85°F																
	84°F																
	83°F																
	82°F																
	81°F																
	80°F																
	79°F																
	78°F																
	77°F																
	76°F																
	75°F																
	74°F																
	73°F																
	72°F																
	71°F																
	70°F																
	69°F																
	68°F																
	67°F																
	66°F																
	65°F																
	64°F																
	63°F																
	62°F																
	61°F																
	60°F																
	59°F																
Danger! Temperatures below 59°F are too cold! Write any unacceptable temperatures on the boxes above and call CBHS Pharmacy Services immediately!																	

Temperature Log for Refrigerator — Fahrenheit

Month/Year:_____ **Days 1–15**

Program Name:

Completing this temperature log: Check the temperature in the refrigerator compartment of your storage unit at minimum of EACH WORKING DAY. Place an "X" in the box that corresponds with the temperature, the time of the temperature reading, and your initials. Once the month has ended, save each month's completed form for 3 years.

If temperature is out of range, contact dispensing pharmacy or CBHS Pharmacy Services immediately at 415-255-3659 and document action taken on this form.

Staff Initials																													
Day of Month	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15	
Exact Time																													
	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm

***Write any unacceptable temps (above 46°F or below 36°F) on these lines. Then take action!** ↳ _____

Danger! Temperatures above 46°F are too warm! Write any unacceptable temperature on the lines above* and call BHS Pharmacy Services immediately!

Acceptable Temperatures																													
46°F																													
45°F																													
44°F																													
43°F																													
42°F																													
41°F																													
40°F																													
39°F																													
38°F																													
37°F																													
36°F																													
35°F																													

Danger! Temperatures below 36°F are too cold! Write any unacceptable temperature on the lines above* and call BHS Pharmacy Services immediately!

Temperature Log for Refrigerator — Fahrenheit

Month/Year:_____ **Days 16–31**

Program Name:

If temperature is out of range, contact dispensing pharmacy or CBHS Pharmacy Services immediately at 415-255-3659 and document action taken on this form.

Completing this temperature log: Check the temperature in the refrigerator compartment of your storage unit at a minimum of EACH WORKING DAY. Place an "X" in the box that corresponds with the temperature, the time of the tempera-ture reading, and your initials. Once the month has ended, save each month's completed form for 3 years.

Staff Initials																														
Day of Month	16		17		18		19		20		21		22		23		24		25		26		27		28		29		30		31	
Exact Time																														
	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm

***Write any unacceptable temps (above 46°F or below 36°F) on these lines. Then take action!**

Danger! Temperatures above 46°F are too warm! **Write any unacceptable temperature on the lines above* and call BHS Pharmacy Services immediately!**

Acceptable Temperatures																														
46°F																														
45°F																														
44°F																														
43°F																														
42°F																														
41°F																														
40°F																														
39°F																														
38°F																														
37°F																														
36°F																														
35°F																														

Danger! Temperatures below 36°F are too cold! **Write any unacceptable temperature on the lines above* and call BHS Pharmacy Services immediately!**

Monthly Expired Medication Review

Program:_____ **Year:_____**

Month	Staff Member	Date Completed
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

All **medications and medical supplies** stored in the medication room must be **checked monthly** for **contamination, deterioration, and/or expiration** and shall be logged appropriately for destruction. Retain Logs for **3 years**.

City and County of San Francisco
Department of Public Health
San Francisco Health Network
BEHAVIORAL HEALTH SERVICES

Clinic Name & Address:_____

Ordered By:_____
Name- Please Print

Date Ordered:_____
Date Shipped:_____

OTC MEDICATIONS

DRUG	STRGTH	QUANTITY	ORDERED	REC'D
Acetaminophen tablets	500mg	1000/UD		
Antacid Liquid		12 fl oz		
Bacitracin Ointment, foil pack		12/pk		
Bisacodyl tablets	10mg	50/ pk		
Diphenhydramine capsules	25mg	24/ btl		
Docusate Sodium capsules	250mg	25/ btl		
Fiber		10 oz – each		
Folic acid	1mg	30/ btl		
Glucose gel	15gm	1tube		
Ibuprofen tablets	200mg	24/ btl		
Lice Shampoo		2 oz – each		
Multi Vitamins		30/ btl		
Senna tablets	8.6mg	100/ btl		
Sunblock, Ultra Sheer Dry Touch, SPF 45		3 oz - each		
Thiamine tablets	100mg	100/ btl		

PHYSICIAN'S SUPPLY MEDICATIONS
Specify prescriber's name, medication name, strength, and quantity requested in the rows below and **fax copies of Physician Medication Supplies Dispensing Logs** for each requested prescription medication.

PRESCRIBER	DRUG	STRGTH	QTY	ORDERED	REC'D
	Naloxone	2mg/2ml	2		
	Diphenhydramine	50mg/ml	1		
	Epipen	0.3mg	1		
	Tuberculin (Aplisol)		1ml		

Fax copies of Drug and Supply Request forms to **CBHS Pharmacy Services at 415-255-3754.**

MEDICATION ROOM SUPPLIES

SUPPLY	STRGTH	QUANTITY	ORDERED	REC'D
7-day pill box				
Alcohol Prep Pads		100/box		
Applicator, Cotton Tipped Wood	3" Stick- 10/Box			
Conforming Gauze Bandage, 1-ply	3" x 4yd Roll	100/box		
Digital Oral Thermometer		1		
Face Mask, Blue	50/Box	50/box		
Flexible Adhesive Bandage	2" x 4"- 10/Box	50/box		
Hydrogen Peroxide 3%		16 oz/btl		
Kerlix Bandage Wrap	4" x 4yds. Roll	12 fl oz		
Large Eye Pad	2" x 2.5" – Ea.	1roll		
Latex Gloves (S, M, L) (Please circle)		100/box		
Medicine Cups, Graduated	1oz	100/sleeve		
Non-Stick Sterile Pad, 3x4	3" x 4"- 100/Box			
Paper bags (small, large)				
Paper Cups	5oz. –150/Pkg.			
Porous Paper Tape, 1"	1" x 10yds. Roll	10 pages		
Porous Paper Tape, 2"	2" x 10yds. Roll	1roll		
Rx Destroyer		1		
Sterile Gauze Pad, 2x2	2" x 2"- 50/Box	100/btl		
Sterile Gauze Pad, 4x4	4" x 4"- 25/Box	100/btl		
Surgical Betasept Soln., 4%	32oz.Bottle			
Syringe w/ needle TB 1cc 27g x ½"*		100/box		
Syringe w/ needle 3cc 21g x 1½"*		100/box		
Syringe w/ needle 3cc 22g x 1½"*		100/box		
Syringe w/ needle 3cc 23g x 1½"*		100/box		
Syringe w/ needle 3cc 25g x 1"*		100/box		
Thermometer Sheaths, Disposable	50/Box	100/box		
Tongue Depressor, Wood	6" Stick – Ea.	100/btl		
Universal Precaution Kit		12/pk		
Waste Container - Pharmaceuticals		2 Gallon		
Waste Container – Sharps		1 Quart		

**Syringes & Needles in compliance with DPH Occupational Bloodborne Pathogens Exposure Control Plan*

City and County of San Francisco
Department of Public Health
San Francisco Health Network
BEHAVIORAL HEALTH SERVICES

Drug Name:_____

Strength:_____ **Form**:_____

Rx#:_____ Lot#:_____ Exp.:_____

Date	Client	Qty. Dispensed	Qty. Remaining	Authorized Staff (Signature)
Quantity Supplied ➔				

Medication Destruction Log

Date	Name of Drug and Strength	Qty.	Rx # *Required for client medication*	Client Name *Required for client medication*	Authorized Staff (Name and Signature)	2nd Authorized Staff (Name and Signature) *Required for Controlled Substances*

CBHS Medication Room Compliance Checklist

Clinic Name_____

General

1. CBHS Medication Storage Policy & Procedure available Yes No

2. Medication room personnel licenses current and available for review Yes No

3. There are no medication "samples" in the facility Yes No

4. No expired, contaminated, deteriorated or recalled medications on premises (including physician's supply, patient meds, OTCs, supplies) Yes No

5. Medications are properly received from pharmacy deliver according to CBHS Medication Room Policy & Procedures Yes No

Medication Room

1. Locked; Access limited to authorized personal who are identified in writing and posted in medication room Yes No

2. Organized and clean appearance Yes No

3. Drugs are properly labeled according to federal and state laws; Labels altered only by persons legally authorized to do so Yes No

4. Faxed client medication requests are retained with date ordered/received Yes No

5. Separate logs for the following exist, are neat and are up to date:
   a. Physician's supply meds ordered/received from CBHS pharmacy Yes No
   b. Client medication requests by phone with dates ordered/received Yes No
   c. Meds dispensed from Physician's supply Yes No
   d. Room temperature (daily) Yes No
   e. Refrigerator temperature (daily) Yes No
   f. Medication destruction log Yes No
   g. Monthly expired medication review Yes No

6. No single dose parenteral container opened. Yes No

7. Multi-dose parenteral container dated when first opened. 28 day expiration Yes No

Date_____

8. External drugs separated from internal drugs Yes No

Medication Room (continued)

9. No excessive amt of drugs present (more than 6-week supply) Yes No

10. Room temp within range (59-86°F) Yes No

Refrigerator (Skip if N/A)

1. Organized and clean appearance Yes No

2. Temp within range (36-46°F) Yes No

3. No food items or specimens present Yes No

4. Drugs requiring refrigeration properly stored & labeled. (Risperidone Consta, PPD) Yes No

5. Multi-dose parenteral container dated when first opened. 28 day expiration (except vaccines) Yes No

Controlled Substances (Skip if N/A)

1. Locked & separated from non-controlled drugs. Yes No

2. Log for dispensing/administering Physician's supply is separate from non-controlled Physician's supply log and is neat, completed and up to date Yes No

3. Log for daily inventory of Physician's supply Yes No

Disposal

1. Client identifiers are removed from prescription labels and leaflets before discarding/recycling Yes No

2. Sharps and hazardous waste disposal containers are stored in a secure location and disposed of properly Yes No

Comments_____
_____
_____
_____
_____

VII. Medication Resources (Approved in 2018)

The following Medication Resources published in the 2017 CBHS Pharmacy Services Manual may still be accessed via the SFDPH website:

- Safer Prescribing of Sedative-Hypnotics Medication Guideline
- Safer Prescribing of Antipsychotic Medication Guideline
- CURES Mandatory Use – What Prescribers Need to Know
- Approaches to Tobacco Use Disorder Medication-Assisted Treatment Guideline

City and County of San Francisco
Mark Farrell
Mayor

San Francisco Health Network Behavioral Health Services
Medication Use Improvement Committee
1380 Howard St. 5th Floor
San Francisco, CA 94103

SAFER PRESCRIBING OF SEDATIVE-HYPNOTICS GUIDELINE

SCOPE: This Safer Prescribing of Sedative-hypnotic Medication Guideline is intended to offer prescribing guidance for providers, clients and the interested general public to increase the effectiveness and safety of sedative-hypnotic use. It is not intended to be comprehensive in scope. These recommendations are not a substitute for clinical judgment. Decisions about care must carefully consider and incorporate the clinical characteristics and circumstances of each individual. If you have further questions about sedative-hypnotics, contact the CBHS drug information line.

INTRODUCTION: Sedative-hypnotics are prescribed for multiple conditions in mental health, most often for acute anxiety and insomnia. See introduction and treatment guidelines in the references and further reading section at the end of this document for suggested treatment algorithms for the use of these medications.

Unlike most other medications commonly prescribed in mental health settings, sedative-hypnotics have a high incidence of misuse, abuse and diversion. These medications are associated with memory impairment, can affect the ability to safely operate motor vehicles, and can increase the risk of falls. They have significant risks for respiratory depression and even death in combination with other CNS depressants including opioids and/or alcohol. Because of these safety concerns BHS recommends using alternatives to sedative-hypnotic medication as first line therapy. If sedative-hypnotic medication is prescribed, then short-term use is preferred (less than two weeks). For more chronic use, there are specific treatment recommendations in the next section.

The selection of a specific sedative-hypnotic medication, form of administration, dose and duration of treatment is a complex decision-making process involving multiple factors. These factors often include individualized treatment goal(s), client choice, history of past medication trials, family history, side effect profile and others.

TREATMENT RECOMMENDATIONS FOR SEDATIVE-HYPNOTIC USE: Sedative-hypnotics are most often prescribed for anxiety and/or insomnia in mental health settings. There are numerous effective and safer non-medication and non-sedative-hypnotic medication therapies for these conditions. All clients should first be offered these treatments. See Appendix 1 for more information on the treatment of insomnia and Appendix 2 for information on the treatment of anxiety, trauma and obsessive-compulsive disorders. Appendix 3 contains information about herbal supplements.

All clients being considered for a sedative-hypnotic medication should have a complete evaluation, including a CURES report (California's prescription drug monitoring program) to identify any prescribed scheduled substances. Note that CURES does not include methadone from methadone treatment facilities. Specific risk factors that could lead to poor outcomes should be identified and documented. Risk factors include:

- Current or previous alcohol or substance use disorder
- History of overdose
- Fall risk
- Traumatic brain injury
- Memory problems
- Sleep apnea
- Age >60
- Chronic obstructive pulmonary disease

CURES reports and risk factors should be reviewed quarterly during treatment with sedative-hypnotics. Clients with significant risk factors should be offered alternative, non-sedative-hypnotic therapies. If clients with significant risk factors are currently taking sedative-hypnotics, they should be tapered off them, unless there is a documented justification for continuing treatment.

When starting sedative-hypnotics, initial prescriptions should be limited in quantity and dose. Clients should be informed that these medications are high risk for adverse events in chronic use. If use greater than two weeks is indicated, providers should document a justification. Providers should consistently document attempts to change to non-medication or non-sedative-hypnotic medication therapies.

Special attention should be paid to clients receiving opioid medication therapy as well as sedative-hypnotic therapy. In combination, there is a significantly increased risk of respiratory depression, over-sedation and accidental overdose death. Providers should clearly document the justification for such combination therapy and an evaluation of risk. Prescribers should consult with their colleagues about these cases. Clients should be offered naloxone rescue kits with instructions and training on their use. Providers should coordinate care with the opioid prescriber. If clients decline to provide consent for care coordination with their opioid prescriber, the prescribing of sedative-hypnotics is not recommended.

The EMPOWER trial mailed 148 chronic benzodiazepine consumers aged 65-95 an 8-page education brochure on the risks of taking sedative-hypnotics along with a picture of a 20-week tapering protocol. After 6 months, 27% of individuals who received this intervention had discontinued their benzodiazepines and an additional 11% had reduced their dose. This handout can be given to clients as an educational tool to support clients during a taper of a sedative-hypnotic: https://www.sfdph.org/dph/files/CBHSdocs/EmpowerPatientHandout.pdf

BENZODIAZEPINES

Introduction: Benzodiazepines are used for various indications including anxiety, panic, alcohol withdrawal, seizures, catatonia, mania, agitation, muscle spasms and insomnia. This guideline refers to the use of benzodiazepines for anxiety, panic and insomnia. The use of benzodiazepines for other indications is beyond the scope of this guideline. Please refer to SFHN BHS Medication Approaches to Alcohol Use Disorder Guideline for details on how to use benzodiazepines in the management of alcohol withdrawal. Please refer to the SFHN BHS Safer Use of Mood Stabilizers Guideline for information on the use of benzodiazepines for agitation in acute mania.

Benzodiazepines work by binding to the γ subunit of the GABA-A receptor, thereby causing an allosteric modification of the receptor which increases the receptor activity. By doing so, benzodiazepines increase the frequency of channel opening events, increasing chloride ion conductance and inhibiting the action potential.

Due to the delayed onset of therapeutic action for antidepressant medications, benzodiazepines are used for rapid, symptomatic treatment of anxiety and panic. They are also used for insomnia, due to their sedating effect. Benzodiazepines differ in their onset of action, duration of action and relative potency. See Table 1 below for details on specific benzodiazepines.

TABLE 1: BENZODIAZEPINE DOSAGE FORMS AND PHARMACOKINETICS

Generic name	Dosage forms	Onset of Action[1]	Relative Potency (mg) [2]	Duration (hours)[2]
Alprazolam	IR Tab: 0.25, 0.5, 1, 2mg Oral solution: 1mg/mL ODT tab: 0.25, 0.5, 1, 2mg XR tab: 0.5, 1, 2, 3mg	Intermediate	0.5	IR: 5 XR: 11
Chlordiazepoxide	Cap: 5, 10, 25mg	Intermediate	10	
Clonazepam	Tab: 0.5, 1, 2mg ODT tab: 0.125, 0.25, 0.5, 1, 2mg	Intermediate	0.25-0.5	12
Diazepam	Tab: 2, 5, 10mg Oral solution: 5mg/mL Injection: 5mg/mL Rectal gel: 5mg/mL	Rapid	5	Variable (dose and frequency dependent)
Flurazepam	Capsule: 15, 30mg	Rapid	15	7-8
Lorazepam	Tab: 0.5, 1, 2mg Oral solution: 2mg/mL Injection: 2mg/mL, 4mg/mL	Intermediate (PO tab) Rapid (Soln, Inj)	1	6-8
Midazolam	Oral syrup: 2mg/mL Injection: 1mg/mL, 5mg/mL	Rapid	5 (PO) 2 (IV)	2
Oxazepam	Cap: 10, 15, 30mg	Slow	15-30	
Temazepam	Cap: 7.5, 15, 22.5, 30mg	Slow	10	
Triazolam	Tab: 0.125, 0.25mg	Intermediate	0.25	6-7

1. Rapid onset= within 15 minutes, Intermediate= 15-30 minutes, Slow= 30-60 minutes
2. Approximate. Duration of action is determined by redistribution rather than by metabolism, therefore half-life is not a good determination of duration of action (LexiComp Drug Information Handbook).

Benzodiazepines with faster onsets of action and shorter half-lives tend to have higher abuse potential and increased risk and severity of withdrawal syndromes. Common adverse effects of benzodiazepines include confusion, dizziness, sedation, short-term memory loss, disinhibition, ataxia, blurred vision, slurred speech and muscle weakness. Benzodiazepines are associated with an increased risk of hip fractures when used short-term. Benzodiazepines can impair the ability to drive a vehicle or operate heavy machinery.

Long term use of benzodiazepines is associated with depression, cognitive impairment, increased rates of motor vehicle crashes, increased rates of falls and hip fractures and increased rates of mortality. Chronic exposure to benzodiazepines alters the regulation of GABA-A receptor subunits and can lead to tolerance, physical dependence and withdrawal. Investigations of the association between use of benzodiazepines and cognitive decline have yielded mixed results. However, there is a body of evidence suggesting chronic benzodiazepine use is associated with cognitive decline and dementia. Chronic use of benzodiazepines is not recommended.

Benzodiazepines are not recommended for use in Post-Traumatic Stress Disorder as they are associated with lack of efficacy, worse overall severity, worse psychotherapy outcomes, aggression, depression and substance use. They may interfere with the extinction of fear conditioning and/or potentiate the acquisition of fear responses and worsen recovery from trauma.

Drug Interactions: See Table 2 below for information about drug interactions.

TABLE 2: BENZODIAZEPINE DRUG INTERACTIONS

Interaction	Clinical Concern
CNS depressants (ex: opioids, alcohol)	Increased risk of overdose and death. Avoid concomitant use.
CYP3A4 inducers (ex: carbamazepine, phenytoin)	Decreases levels of alprazolam, clonazepam and diazepam which are metabolized by CYP3A4.
CYP3A4 inhibitors (ex: fluconazole, diltiazem, grapefruit juice)	Increases levels of alprazolam, clonazepam and diazepam which are metabolized by CYP3A4.
Omeprazole	Increases the concentration of diazepam and prolongs its half-life.
Estrogen containing contraceptives	Increases the concentration of alprazolam. Decreases the concentration of lorazepam, oxazepam and temazepam which are metabolized via glucuronidation.

Discontinuation after Chronic Use: Discontinuing benzodiazepines after chronic daily administration is associated with withdrawal symptoms including sleep disturbances, irritability, panic attacks, hand tremor, sweating, difficulty concentrating, nausea, dry wretching, headaches, palpitations, muscular pain/stiffness and perceptual changes. Very serious withdrawal may include seizures or psychotic reactions. Withdrawal phenomena tend to be more severe following withdrawal from high doses or short acting benzodiazepines. Benzodiazepines should always be

tapered rather than ceased abruptly, unless a very severe adverse effect necessitates rapid discontinuation.

Pregnancy: The following benzodiazepines are rated as FDA pregnancy category D (positive evidence of risk): alprazolam, chlordiazepoxide, clonazepam, diazepam, lorazepam and oxazepam. Flurazepam, temazepam, triazolam are rated as category X (contraindicated in pregnancy). The use of benzodiazepines during the first trimester may be associated with a slightly increased risk for oral cleft, however, the overall risk remains less than 1%. Maternal use of benzodiazepines in the third trimester is associated with floppy infant syndrome which consists of hypothermia, lethargy, poor respiratory effort and feeding difficulties. Maternal use in the third trimester is also associated with infant withdrawal syndromes that may persist for several months after delivery.

Lactation: The American College of Obstetrics and Gynecology (ACOG) rates benzodiazepines as L3, moderately safe, and generally views benzodiazepines as compatible with breastfeeding. Shorter acting benzodiazepines are preferred in order to minimize any effect on the breastfed infant. Benzodiazepines are generally found in low levels in breastmilk. Reports of sedation, poor feeding and respiratory distress have been published and are mostly associated with longer acting benzodiazepines such as diazepam and clonazepam. Pre-term infants and newborns may have reduced ability to metabolize benzodiazepines, and there is concern about medication accumulation in those infants. Adverse effects in infants are rare with lorazepam, midazolam and oxazepam, so these are the preferred benzodiazepines in breastfeeding women.

Pediatrics: Benzodiazepines have not been well studied in children and adolescents. Due to the associated adverse effects and risk of dependence, their use should be limited in this population. Long term use is not recommended.

Older Adults: Older adults are more sensitive to potential side effects of benzodiazepines due to altered pharmacokinetics and pharmacodynamics. Some benzodiazepines undergo Phase I metabolism, which include hepatic oxidation and reduction reactions, while others undergo Phase II metabolism, which include glucuronidation reactions. Phase I metabolism is reduced in older adults while Phase II remains relatively preserved. Benzodiazepines with oxidative pathways and longer half-lives, such as diazepam and flurazepam, are more likely to accumulate in the body and cause prolonged effect. Lorazepam, oxazepam and temazepam undergo Phase II glucuronidation and are preferred over other benzodiazepines in older adults. Adverse effects in older adults, including sedation, ataxia, falls, delirium, short and long-term cognitive impairment and disinhibition contribute to increased mortality and higher rates of hospitalization. The risk of dependence in older adults increases with age and is more likely among those with multiple medical conditions, depression and alcohol use disorder.

The American Geriatrics Society (AGS) publishes a list of potentially inappropriate medications for older adults. The current AGS recommendation is to avoid all benzodiazepines in most adults age 65 years of age or older. When the use of these agents is unavoidable they should be initiated at lower doses, monitored carefully and used short term only. Consider reducing the use of other

CNS active medications that increase the risk of falls if the patient has a history of falls and a safer agent is not available.

Renal and Hepatic Impairment: See Table 3 below for information on the use of benzodiazepines in renal and hepatic impairment. Practice caution if using benzodiazepines in renal or hepatic impairment.

TABLE 3: BENZODIAZEPINE USE IN RENAL AND HEPATIC IMPAIRMENT

Generic Name	Renal Impairment	Hepatic Impairment
Alprazolam	No dose adjustments.	No dose adjustments.
Chlordiazepoxide	CrCl $\geq$ 10ml/min: No dose adjustment CrCl$\leq$ 10ml/min: Reduce dose by 50% Dialysis: Reduce dose by 50%	Undergoes hepatic metabolism. No dose adjustment recommendation provided
Clonazepam	Metabolites may accumulate. No dose adjustment recommendation provided	Undergoes hepatic metabolism. Contraindicated in significant hepatic impairment.
Diazepam	No dose adjustments.	Mild-to-moderate: Reduce dose by 50% Severe: use is contraindicated
Flurazepam	No dose adjustments.	No dose adjustments.
Lorazepam	No dose adjustments. Use is not recommended in severe renal impairment.	No dose adjustments for mild-to-moderate impairment. Lower doses may be required for severe impairment.
Midazolam	No dose adjustments. Half-life of drug and metabolites may be prolonged.	Duration of action may be prolonged. Consider reducing dose if using multiple doses.
Oxazepam	No dose adjustments.	No dose adjustments. Hepatic dysfunction not expected to decrease drug clearance.
Temazepam	No dose adjustments.	No dose adjustments.
Triazolam	No dose adjustments.	No dose adjustments.

NON-BENZODIAZEPINE RECEPTOR AGONISTS [NBRAs, "z-drugs"]

Introduction: NBRAs (often referred to as z-drugs) include zolpidem, zaleplon, and eszopiclone. While they are not chemically related to benzodiazepines based on their molecular structures, they bind to central benzodiazepine receptors as agonists. They are approved for use in treating sleep-onset insomnia due to their capacity to decrease sleep latency. Eszopiclone and extended-release zolpidem may be used for sleep maintenance.

Considerations when Initiating Treatment: Table 4 below lists recommended dosage ranges for NBRAs. Current labeling for zolpidem recommends that lower doses be used in women because of reported greater increases in serum concentrations compared with men that could impair the ability to drive or other activities that require mental alertness. Prolonged elevated

levels into the following day may also be seen after taking extended-release zolpidem. The FDA also recommends that the starting dose of eszopiclone for all individuals be reduced to 1 mg because of reports of impaired driving skills, memory, and coordination for almost 12 hours after taking an evening dose.

TABLE 4: NBRA DOSAGES AND PHARMACOKINETICS

Generic name	Dosage forms	Onset of Action	Duration	Usual Dose (mg)
Eszopiclone	Tablet: 1, 2, 3 mg	<30 minutes	~8 hours	1-3
Zaleplon	Capsule: 5, 10 mg	<30 minutes	~4 hours	10-20
Zolpidem (immediate-release)	Tablet: 5, 10 mg	<30 minutes	~8 hours	Men: 5-10 Women: 5
Zolpidem (extended-release)	ER tablet: 6.25, 12.5 mg	<30 minutes	~8 hours	Men: 6.25-12.5 Women: 6.25
Zolpidem (sublingual)	Tablet (*Edular*): 5, 10 mg	<30 minutes	~8 hours	Men: 5-10 Women: 5
	Tablet (*Intermezzo*): 1.75, 3.5 mg	20 minutes	~4 hours	Men: 3.5 Women: 1.75
Zolpidem (oral spray)	Spray: 5 mg/100 µL spray	20 minutes	~8 hours	Men: 5-10 Women: 5

Adverse Effects: Common adverse effects of NBRAs include drowsiness, dizziness and headache. NBRAs can potentially impair next-day cognitive performance and driving ability. Other complex sleep-related behaviors that have been reported with NBRAs include sleep-walking, sleep-eating, and sleep-driving; emergence of these adverse events warrant discontinuation of the medication. NBRA's are associated with an increased risk of hip fractures when used short term. NBRAs are controlled substances (Schedule IV) that carry risks of withdrawal, dependence, and abuse.

Drug Interactions: See Table 5 below for information about Drug Interactions.

TABLE 5: NBRA DRUG INTERACTIONS

Interaction	Clinical concern	Comments
Alcohol, opioids, other CNS depressants	Additive CNS depressant effects	Avoid combination to reduce risk
CYP3A4 inhibitors (*e.g.*, ketoconazole, clarithromycin)	Decreases in NBRA metabolism may lead to their accumulation with increased risk of toxicity	Use of lower doses may be warranted
CYP3A4 inducers (*e.g.*, rifampin)	Increases in NBRA metabolism may lead to decreased levels and reduced effectiveness	Use of higher doses may be warranted

Pregnancy: There are no adequate, well controlled studies of NBRAs in pregnant women. NBRAs are classified as FDA Pregnancy Category C (risk of teratogenicity cannot be ruled out).

Lactation: Zolpidem and zaleplon are known to be excreted in human milk; similar information is not known for eszopiclone. Caution should be exercised when administering NBRAs to a nursing woman.

Pediatrics: The safety and effectiveness of NBRAs have not been established in pediatric patients, so their use cannot be recommended. Controlled clinical studies of their use in pediatric patients with insomnia due to Attention-Deficit Hyperactivity Disorder failed to demonstrate efficacy.

Older Adults: Lower doses of NBRAs in older adults are recommended to minimize adverse events associated with impaired motor and/or cognitive performance, potential for falls, and unusual sensitivity to sedative-hypnotic medications.

Hepatic Impairment: In general, NBRAs undergo extensive hepatic clearance. Doses of zolpidem and zaleplon should be reduced in mild to moderate hepatic impairment; no similar dose adjustments are apparently necessary for eszopiclone. It is recommended that NBRAs be avoided in individuals with severe hepatic impairment.

Renal Impairment: Studies of NBRAs used in individuals with mild to moderate renal disease demonstrated no statistically significant differences in pharmacokinetic parameters compared with healthy control volunteers. No dose adjustments of NBRAs are necessary in these patients. The use of NBRAs has not been adequately studied in individuals with severe renal impairment.

SUVOREXANT

Introduction: Suvorexant is an antagonist of the orexin receptors (OX_{1R} and OX_{2R}). It is indicated for the treatment of insomnia, characterized by difficulties with sleep onset and/or sleep maintenance. The orexin signaling system is a central promoter of wakefulness, thus by blocking this signal suvorexant is thought to suppress the wake drive. It is contraindicated in individuals with narcolepsy.

Dosing: The recommended dose of suvorexant is 10-20mg within 30 minutes of going to bed, with at least 7 hours remaining before the planned time of awakening. Suvorexant peak concentrations occur at a median of 2 hours (range 30 minutes-6 hours). The time to effect may be delayed by approximately 1.5 hours if taken with or soon after a meal. Suvorexant is available as a tablet in 5, 10, 15 and 20mg strengths.

Adverse Effects/Warnings: Common side effects of suvorexant include somnolence, headache, abnormal dreams, dry mouth, cough and upper respiratory infections. Exposure to suvorexant is increased in obese individuals compared to non-obese individuals and in women compared to men; thus the risk of exposure related adverse events should be assessed prior to increasing the dose.

There are several warnings associated with the use of suvorexant. As it is a central nervous system (CNS) depressant, individuals should be monitored for daytime somnolence. It can impair driving and increase the risk of falling asleep while driving. Individuals should be monitored for worsening of depression or suicidal ideation while on this medication; prescribing the lowest number of tablets that is feasible is advisable in individuals at risk for suicidal behavior. Complex behaviors such as sleep-driving, sleep-eating, amnesia and hallucinations have been reported with this medication. If any of these behaviors occur, suvorexant should be discontinued. Sleep paralysis and hypnagogic/hypnopompic hallucinations may occur. Prescribers should counsel individuals about the possibility and nature of these events.

Interactions: The major metabolic pathway for suvorexant is via CYP3A4. See Table 6 below for information about drug interactions.

TABLE 6: SUVOREXANT DRUG INTERACTIONS

Interaction	Clinical Concern
CNS depressants (ex: opioids, alcohol)	Increased risk of CNS depression. Avoid concomitant use.
Moderate CYP 3A4 inhibitors (ex: atazanavir, ciprofloxacin, fluconazole, diltiazem, grapefruit juice)	Increased suvorexant exposure. Decrease dose to 5mg.
Strong CYP3A4 inhibitors (Ex: ketoconazole, ritonavir, nefazodone)	Suvorexant use is not recommended
CYP3A4 inducers (Ex: Phenytoin, carbamazepine, rifampin)	Decreased medication exposure. Efficacy may be reduced.

Pregnancy: Suvorexant is classified as pregnancy category C (risk cannot be ruled out), as there are no adequate, well-controlled studies completed in pregnant women.

Lactation: It is not known whether suvorexant is secreted in human milk; caution should be exercised if suvorexant is administered to a nursing woman.

Pediatrics: Suvorexant has not been studied in pediatric patients and its use is not recommended.

Older Adults: No meaningful differences in safety or effectiveness were seen for older adults treated with suvorexant in clinical trials. No dose adjustments are recommended at this time.

Hepatic Impairment: No dosing adjustment is necessary for mild or moderate hepatic impairment. Suvorexant has not been studied in severe hepatic impairment therefore its use is not recommended.

Renal Impairment: No dosing adjustment is necessary for renal impairment.

APPENDIX 1: NON SEDATIVE-HYPNOTIC TREATMENT OF INSOMNIA

Insomnia is often a symptom of a comorbid condition. Left untreated over time, patients may develop numerous psychological and behavioral issues that exacerbate insomnia, worrying about inability to sleep or daytime consequences of poor sleep, having distorted beliefs about the origin or meaning of insomnia, making schedule changes to accommodate the insomnia, and spending excessive time in bed. Treatment of insomnia should begin by treating comorbidities (such as major depression, pain, and movement disorders) or by eliminating activating medications. Psychologic and behavioral treatment should restructure maladaptive cognitions and establish healthy sleep habits/environments. Short term pharmacological treatment may be used to supplement these therapies. See reference section for more information.

PATIENT RESOURCES:
SLEEP DIARY: This can be used by patients to track their sleep patterns.
https://www.sfdph.org/dph/files/CBHSdocs/SleepDiary.pdf
SLEEP HABITS DO'S AND DON'TS**:** The American Academy of Sleep Medicine recommends that patients practice good sleep hygiene techniques in combination with other treatments for insomnia. This is an easy-to-read handout that reviews healthy sleep habits that can be given directly to patients.

English: https://www.sfdph.org/dph/files/CBHSdocs/SleepHabits-ENGLISH.pdf
Spanish: https://www.sfdph.org/dph/files/CBHSdocs/SleepHabits-SPANISH.pdf
Chinese: https://www.sfdph.org/dph/files/CBHSdocs/SleepHabits-CHINESE.pdf
Vietnamese: https://www.sfdph.org/dph/files/CBHSdocs/SleepHabits-VIETNAMESE.pdf
Tagalog: https://www.sfdph.org/dph/files/CBHSdocs/SleepHabits-TAGALOG.pdf
Russian: https://www.sfdph.org/dph/files/CBHSdocs/SleepHabits-RUSSIAN.pdf

PROVIDER RESOURCES:
CBT: CBT geared specifically for insomnia (CBT-I) has been found to improve sleep quality, reduce use of sedative-hypnotic medications and improve quality of life in a cost-effective manner. These handouts are outlines of CBT-I sessions and can be used by providers as a guide for nonpharmacological management of insomnia:
https://www.sfdph.org/dph/files/CBHSdocs/CBTforInsomniaHandout.pdf

SLEEP CLINIC REFERRAL: Sleep studies can be beneficial for ruling out medical causes of insomnia such as sleep apnea. Clients with Medi-Cal, Medicare or Medi-Medi may be referred to a sleep specialist, Dr. David Claman, at UCSF. For more information on Dr. Claman, see http://www.ucsfhealth.org/david.claman. For general information on referral to specialty clinics at UCSF, please visit http://www.ucsfhealth.org/health_professionals/make_a_referral/. The referral form can be accessed at http://www.ucsfhealth.org/pdf/referral.pdf, or here:
https://www.sfdph.org/dph/files/CBHSdocs/UCSF-SleepClinicReferral.pdf

MEDICATIONS:

Non sedative-hypnotic medications are preferred to sedative-hypnotic medications as the first line pharmacological treatment of insomnia. Table 7 below provides recommendations for non sedative-hypnotic medication therapy for insomnia.

TABLE 7: NON SEDATIVE-HYPNOTIC MEDICATIONS FOR INSOMNIA:

Name	Dosage Range	Mechanism	Comments
Doxepin*	3-10mg	Tricyclic antidepressant	Doses >10mg will have anticholinergic effects
Gabapentin	100-1200mg	Structurally related to GABA, may modulate the release of excitatory neurotransmitters	May also be helpful for neuropathic pain
Mirtazapine*	7.5-45mg	Central presynaptic alpha-2 antagonist	Lower doses are more sedating; may increase appetite and triglycerides; may cause weight gain
Ramelteon	8mg	Melatonin receptor agonist	Mild therapeutic effect, not covered by many insurance companies
Trazodone*	12.5-300mg	Potentiates serotonergic activity in the CNS	Start at low doses, may cause "hangover" feeling in the morning

*See related SFHN BHS Safer prescribing of antidepressant medication guideline for more information on these medications

APPENDIX 2: NON SEDATIVE-HYPNOTIC TREATMENT OF ANXIETY, TRAUMA AND OBSESSIVE-COMPULSIVE DISORDERS

GENERAL CONSIDERATIONS: Anxiety, trauma and obsessive-compulsive disorders encompass a group of conditions including but not limited to Generalized Anxiety Disorder (GAD), Panic Disorder (PD), Social Anxiety Disorder (SAD), Post-Traumatic Stress Disorder (PTSD), and Obsessive-Compulsive Disorder (OCD). These disorders may present alone or co-occur with other psychiatric conditions such as Depression, Bipolar Disorder, Schizophrenia, and Substance Use Disorders.

Proper diagnosis and treatment of other psychiatric conditions may alleviate anxiety, such as antipsychotics for schizophrenia or mood stabilizers for mania. Anxiety may manifest as a symptom of an underlying medical problem or as a side-effect of medications.

Treatment of these disorders should begin by evaluating for and treating any underlying medical problems and by targeting any contributory medications. These disorders may be treated with non-pharmacological interventions, such as psychotherapy and behavioral treatments, as well as with medications. Selective serotonin reuptake inhibitors (SSRIs) are recommended as first line pharmacologic treatment for anxiety, trauma and obsessive-compulsive disorders.

PSYCHOTHERAPY AND BEHAVIORAL TREATMENT: Psychotherapy can help uncover underlying causes of fears, teach clients how to relax and decrease anxiety responses, look at situations in new ways and develop better coping and problem-solving skills. Many people find relief from acute symptoms in 8-10 weeks of focused therapy, with ongoing treatment helpful in maintaining and supporting change. In general, the types of psychotherapy most studied and found to be effective focus on cognitive and behavioral change. Some psychotherapeutic techniques include:

- Cognitive Behavioral Therapy (CBT)
- Behavioral Techniques
- Acceptance and Commitment Therapy (ACT)
- Prolonged Exposure Therapy (PE)
- Cognitive Processing Therapy (CPT)
- Relaxation Techniques
- Breathing Exercises
- Stress Reduction
- Lifestyle changes including diet and physical exercise

There are many self-help manuals available with detailed instructions and worksheets. Example worksheets are available on the CBHS website. Mobile applications can be effective tools that make therapy more accessible, efficient, and portable for those suffering with anxiety. The Anxiety and Depression Association of America has reviewed several apps for anxiety. Clients and providers can find more information about those apps at www.adaa.org.

MOBILE PHONE APPLICATIONS:

These apps are not intended to be used as self-help without the guidance of a professional mental health care provider.

Acceptance and Commitment Therapy (ACT) Coach

- The App provides patients with exercises, tools, information and tracking logs to help them practice what they learn in therapy in their daily life.
- ACT can be useful for anyone who struggles with depression, anxiety, posttraumatic stress disorder or other trauma-related difficulties.

Features include:

- Six mindfulness exercises to practice the ACT core concepts of acceptance and willingness
- Tools to help identify personal values and to take concrete actions to live by them
- Logs for keeping track of useful coping strategies and willingness to practice ACT skills

Prolonged Exposure (PE) Coach

- PE Coach provides tools for patients using PE Therapy to reduce their symptoms of PTSD.
- PE Coach is integrated with smartphone calendar functionality to encourage patient recall and session attendance.
- The App can be useful to any trauma survivor participating in PE treatment.

Features Include:

- Audio and visual information about PE and common reactions to trauma.
- Capability for audio recording of PE therapy sessions directly onto the patient's mobile device.
- PTSD symptom tracking over time to evaluate treatment progress and outcomes.
- Tools to support patient tasks between sessions.
- An interactive breathing retraining coach.

Cognitive Processing Therapy (CPT) Coach

- The App contains support materials for a complete course of CPT to help patients manage their treatment, including between session assignments, readings, PTSD symptom monitoring and mobile versions of CPT worksheets.
- CPT has been shown to be one of the most effective treatments for PTSD from both civilian and military-related traumas.

Features Include:

- An assessment tool for tracking symptoms and progress
- CPT homework assignments and worksheets for each session
- Reminders for therapy sessions
- Educational materials about CPT and its treatment components

CPT Coach is not a self-help tool for patients. It is designed to be used interactively by both clinician and patient as an aide to face-to-face treatment using CPT principles. A requirement for successful use of this App by health care providers is formal clinical training in CPT. This app does not provide training in CPT and will not serve as a substitute for this training.

MEDICATIONS: Selective Serotonin Reuptake Inhibitors are the medication class with the most evidence to support their use in anxiety, trauma and obsessive-compulsive disorders. See Table 8 below for information on other medications with some evidence for their use in the various disorders. Tables 9 and 10 provide more details about the use of these medications.

TABLE 8: MEDICATION GUIDE FOR ANXIETY, TRAUMA AND OBSESSIVE-COMPULSIVE DISORDERS

	Generalized Anxiety Disorder	Panic Disorder	Social Anxiety Disorder	Post-Traumatic Stress Disorder	Obsessive-Compulsive Disorder
***Selective Serotonin Reuptake Inhibitors**	√	√	√	√	√
***Serotonin Norepinephrine Reuptake Inhibitors**	√	√	√	√	√
***Mirtazapine**	√	√	√	√	
***Tricyclic Antidepressants**	√	√		√	√
***Monoamine Oxidase Inhibitors**		√	√	√	
Buspirone	√				
Hydroxyzine	√				
Pregabalin	√		√		
Gabapentin	√		√		
Propranolol			√ (performance anxiety)		
Prazosin				√ (nightmares)	
Clonidine/guanfacine				√	
Nefazodone				√	

√ Evidence exists for the use of this medication or medication class for this indication
*See related SFHN BHS Safer prescribing of antidepressant medication guideline for more information on these medications

TABLE 9: DOSING INFORMATION

Medication	Daily Dose Range	Renal Adjustment	Hepatic Adjustment	Comments
Buspirone	10-60mg	No	No	Works best when used in conjunction with SSRIs/SNRIs. Onset of effect is delayed by 2 weeks, so best if doses daily rather than PRN.
Hydroxyzine	25-400mg	Yes	Yes, in cirrhosis	May be helpful for symptomatic use in the short term. Anticholinergic, especially at high doses; refer to SFHN BHS Safer Prescribing of Antipsychotic Medications Guideline for more information about the risks of anticholinergic medications.
Pregabalin	150-600mg	Yes	No	May be helpful for discontinuing long term benzodiazepines for those with GAD. Upon discontinuation, dose should be tapered over a week.
Gabapentin	100-1200mg TID	Yes	No	
Propranolol	10-240mg in divided doses	No	No	**Avoid in patients with asthma or other airway disease**. Monitor blood pressure and heart rate.
Prazosin	1-15mg	Titrate cautiously	No	Helpful for trauma-related nightmares. Start with 1mg and titrate carefully, monitoring blood pressure. Watch out for first dose effect
Clonidine	0.1-0.6mg	Use lower initial doses and monitor closely	No	Decreases sympathetic outflow from the CNS. May be helpful for agitation and hyperarousal not adequately treated by SSRIs. Monitor blood pressure and pulse.
Guanfacine	1-4mg	Use lower doses	Use caution	Decrease sympathetic outflow from the CNS. May be helpful for agitation and hyperarousal not adequately treated by SSRIs. Monitor blood pressure and pulse.
Nefazodone	200-600mg in divided doses	No	Use caution	Take on an empty stomach. **Risk of hepatotoxicity; do not use with known liver disease.** Monitor LFTs every 3-6 months and discontinue therapy if AST/ALT reach 3x or greater the upper limit of normal.

TABLE 10: INFORMATION ABOUT PREGNANCY AND LACTATION

Medication	Pregnancy Considerations	Lactation
Buspirone	Category B*	Not recommended
Hydroxyzine	Contraindicated	Not recommended
Pregabalin	Crosses the placenta; studies evaluating neonatal outcomes following exposure during pregnancy are limited	Not recommended
Gabapentin	Category C**	Relatively compatible with breastfeeding; monitor infants for drowsiness, adequate weight gain and developmental milestones
Propranolol	Category C**	Compatible with breastfeeding at usual doses; monitor infants for bradycardia, cyanosis and hypoglycemia
Prazosin	Limited use in pregnant women has not demonstrated any fetal abnormalities or adverse effects	Use caution
Clonidine	Category C**	Use caution; avoid using when nursing infants born <34 weeks gestation
Guanfacine	Category B*	Use caution
Nefazodone	Category C**	Use caution

* Category B: Animal reproduction studies have failed to demonstrate a risk to the fetus and there are no adequate and well-controlled studies in pregnant women

** Category C: Animal reproduction studies have shown an adverse effect on the fetus and there are no adequate and well-controlled studies in humans, but potential benefits may warrant use of the drug in pregnant women despite potential risks.

APPENDIX 3: HERBAL SUPPLEMENTS

In the US, herbal supplements are not regulated by the FDA. Purity and potency of available products are unknown. The regulations surrounding herbal supplements do not guarantee that they are effective or safe for anyone to use. Supplements should be reviewed for possible adverse effects and drug interactions before being cleared for client use. Most insurance plans do not cover herbal supplements, so clients may have to pay out-of-pocket if they wish to try them. Table 11 below describes some supplements used for insomnia, GAD, PD and OCD.

TABLE 11: HERBAL SUPPLEMENTS FOR INSOMNIA, GAD, PD AND OCD

Insomnia			
Supplement	**Dose Range**	**Efficacy**	**Comments**
Melatonin	1-6mg	Best evidence for sleep disturbances due to jet lag	Works best if combined with exposure to sunlight during the day
Valerian Root	400-900mg	Frequently studied with conflicting results	Daytime sleepiness; vivid dreams; may have BZD-like withdrawal symptoms with chronic use
L-tryptophan	1-4 gm	Two out of three published studies showed positive outcomes for sleep	Stomach upset
Generalized Anxiety Disorder			
Supplement	**Dose range**	**Efficacy**	**Comments**
Chamomile	1100mg/day	One small randomized trial showed modest efficacy (p =0.047) in mild to moderate GAD.	Well tolerated, though allergies and anaphylaxis reported
Kava	125-250 mg/day	Number of studies found in favor of kava over placebo in anxiety, but results are not consistent.	**Hepatotoxicity,** sedation, tremors, ataxia, visual disturbance, mild euphoria, urinary retention, scaly skin rash with heavy use
L-theanine	200-400mg/day	May provide relief of anxiety symptoms in psychotic disorders, but no evidence to support use in GAD.	Well tolerated
Panic Disorder			
Supplement	**Dose range**	**Efficacy**	**Comments**
Inositol	12-20gm/day	Limited evidence from 2 small studies.	Flatulence, mania
Obsessive-Compulsive Disorder			
Supplement	**Dose range**	**Efficacy**	**Comments**
Inositol	18gm/day	Limited evidence as monotherapy; No evidence for additional benefit as augmentation to SSRI treatment.	Flatulence, mania
N-acetyl cysteine	1200-2400mg/day	Limited evidence from small randomized controlled trial suggest tolerability and efficacy for adjunct treatment.	Well tolerated
Valerian Root	765mg/day	Superior to placebo as monotherapy in one small study.	Somnolence, vivid dreams; may have BZD-like withdrawal symptoms with chronic use

REFERENCES AND FURTHER READING

Introduction and Treatment Guidelines

Stein MB, Goin MK, Pollack MH, et al. (2009). Practice guideline for the treatment of patients with panic disorder, Available online at: http://psychiatryonline.org/pb/assets/raw/sitewide/practice_guidelines/guidelines/panicdisorder.pdf

National Institute for Health and Care Excellence (NICE). Generalized anxiety disorder and panic disorder in adults: management. 2011. Available at: http://www.nice.org.uk/guidance/cg113.

VA/DoD clinical practice guideline for management of post-traumatic stress disorder and acute stress reaction. 2017. Available at: https://www.healthquality.va.gov/guidelines/MH/ptsd/

Fenske JN and Petersen K. Obsessive-compulsive disorder: diagnosis and management. Am Fam Physician. 2015;92(10):896-903.

SFHN BHS Safer prescribing of antidepressant medication guideline. March 2017. Available at: https://www.sfdph.org/dph/files/CBHSdocs/SaferPrescribingAntidepressantsGuidelines.pdf

SFHN BHS Safer prescribing of mood stabilizers guideline. January 2018. Available at: https://www.sfdph.org/dph/files/CBHSdocs/610054-3764-Safer-Use-of-Mood-Stabilizers-Guideline.pdf

Pregnancy and Lactation

Massachusetts General Hospital: Center for Women's Mental Health. (2017). Psychiatric disorders during pregnancy. Available at: https://womensmentalhealth.org/specialty-clinics/psychiatric-disordersduring-pregnancy/.

American College of Obstetrics and Gynecologists: Use of psychiatric medications during pregnancy and lactation. Obstetrics & Gynecology. 2008;111(4):1001-1020.

Kronenfeld N, et al. Use of psychotropic medications in breastfeeding women. Birth Defects Research. 2017;109:957-997.

Benzodiazepines

Donnelly K, Bracchi R, Hewitt J, et al. Benzodiazepines, Z-drugs and the risk of hip fracture: a systematic review and meta-analysis. PLoS One. 2017;12(4):e0174730.

Lembke A, Papac J, Humphreys K. Our other prescription drug problem. N Engl J Med. 2018;378:693-695.

Crowe SF, Stranks EK. The residual medium and long-term cognitive effects of benzodiazepine use: an updated meta-analysis. Arch Clin Neuropsychol. 2017 Dec 13 [epub ahead of print].

Brandt J, Leong C. Benzodiazepines and z-drugs: an updated review of major adverse outcomes reported on in epidemiologic research. Drugs R D. 2017 Dec;17(4):493-507.

Ballokova A et al. Use of benzodiazepines and association with falls in older people admitted to hospital: a prospective cohort study. Drugs Aging. 2014 Apr;31(4):299-310.

Machado-Duque ME et al. Association between the use of benzodiazepines and opioids with the risk of falls and hip fractures in older adults. Int Psychogeriatr. 2017 Dec 10: 1-6.

Substance Abuse and Mental Health Services Administration. (2017). Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/.

Billoti S, Moride Y, Ducruet T, et al. Benzodiazepine use and risk of Alzheimer's disease: casecontrol study. BMJ. 2014;349:g5205 doi: 10.1136/bmj.g5205. 2. Gould RL, Coulson MC, Patel N, et al.
Olfson M, King M, Schoenbaum M. Benzodiazepine Use in the United States. JAMA Psychiatry. 2015;72(2):136-142. doi:10.1001/jamapsychiatry.2014.1763.

Abrahamsson T, et al. Benzodiazepine, z-drug and pregabalin prescriptions and mortality among patients in opioid maintenance treatment-A nation-wide register-based open cohort study. Drug Alcohol Depend. 2014 May 1;174:58-64.

Eyler RF, Unruh ML, Quinn DK, Vilay AM. Psychotherapeutic agents in end-stage renal disease. Semin Dial. 2015;28:417-426.

Non-Benzodiazepine Receptor Agonists

FDA Drug Safety Communication: FDA approves new label changes and dosing for zolpidem products and a recommendation to avoid driving the day after using Ambien CR. Available at: www.fda.gov/drugs/drugsafety/ucm352085.htm. Accessed February 20, 2018.

Treves N, Perlman A, Kolenberg Geron L, et al. Z-drugs and risk for falls and fractures in older adults- a systematic review and meta-analysis. Age Ageing. 2018;47(2):201-208.

Bush DM.Substance Abuse and Mental Health Services Administration. Emergency department visits for adverse reactions involving the insomnia medication zolpidem. CBHSQ Report. 2013. Rockville, MD.

N Gunja. In the Zzz zone: the effects of Z-drugs on human performance and driving. J Med Toxicol 2013; 9: 163-71.

N Gunja. The clinical and forensic toxicology of Z-drugs. J Med Toxicol 2013; 9: 155-62.

Suvorexant

Suvorexant [package insert]. Whitehouse Station, NJ: Merck Sharp & Dohme Corp., 2014.

Kuriyama A, Tabata H. Suvorexant for the treatment of primary insomnia: a systematic review and meta-analysis. Sleep Medicine Reviews. 2017;35:1-7.

Insomnia

Qaseem A, Kansagara D, Forciea MA, et al. Management of chronic insomnia disorder in adults: a clinical practice guideline from the American College of Physicians. Ann Internal Med. 2016;165:125-133.

Tannenbaum C, Martin P, Tamblyn R, et al. Reduction of inappropriate benzodiazepine prescriptions among older adults through direct patient education: the EMPOWER cluster randomized trial. JAMA Intern Med. 2014;174:890–8.

Interventions for reducing benzodiazepine use in older people: meta-analysis of randomized controlled trials. Br J Psychiatry. 2014;204: 98-107. doi: 1192/bjp.bp.113.126003.

Smith MT, Haythornthwaite JA. How do sleep disturbance and chronic pain interrelate? Insights from the longitudinal and cognitive-behavioral clinical trials literature. Sleep Medicine Reviews. 2004;8(2):119.132.

Anxiety, Trauma and Obsessive-Compulsive Disorders

Knaster P, Karlsson H, Estlander A, Kalso E. 2012 Psychiatric disorders as assessed with SCID in chronic pain patients: the anxiety disorders precede the onset of pain. General Hospital Psychiatry. 2012 Jan; 34(1):46-52.

Cheatle M, Gallagher R. Chronic pain and comorbid mood and substance use disorders: a biopsychosocial treatment approach. Curr Psychiatry Rep. 2006 Oct;8(5):371-6.

Schaffer A, McIntosh D, Goldstein BI, et al. The Canadian network for mood and anxiety treatments (CANMAT) task force recommendations for the management of patients with mood disorders and comorbid anxiety disorders. Ann Clin Psychiatry. 2012;24(1). Available at: http://www.canmat.org/guides.php.

Bandelow B, Sher L, Bunevicius R, et al. Guidelines for the pharmacologic treatment of anxiety disorders, obsessive-compulsive disorder and posttraumatic stress disorder in primary care. Int J Psychiatry Clin Pract. 2012;16:77-84.

Locke AB, Kirst N, Shultz CG. Diagnosis and management of generalized anxiety disorder and panic disorder in adults. Am Fam Physician. 2015;91(9):617-624.

National Institute for Health and Care Excellence (NICE). Generalised anxiety disorder and panic disorder in adults: management. 2011. Available at: http://www.nice.org.uk/guidance/cg113.

Hadley SJ, Mandel FS, Schweizer E. Switching from long-term benzodiazepine therapy to pregabalin in patients with generalized anxiety disorder: a double-blind, placebo-controlled trial. J Psychopharmacol. 2012;26(4):461-470.

Amsterdam JD, Li Y, Soeller I, et al. A randomized, double-blind, placebo-controlled trial of oral Matricaria recutita (chamomile) extract therapy for generalized-anxiety disorder. J Clin Psychopharmacol. 2009;29(4):378-382. doi: 10.1097/JCP.0b013e3181ac935c.

Ritsner MS, Miodownik C, Ratner Y, et al. L-theanine relieves positive, activation, and anxiety symptoms in patients with schizophrenia and schizoaffective disorder: an 8-week, randomized, double-blind, placebo-controlled, 2-center study. J Clin Psychiatry. 2011;72(1):34-42. doi: 10.4088/JCP.09m05324gre.

Lakhan SE, Vieira KF. Nutritional and herbal supplements for anxiety and anxiety-related disorders: systematic review. Nutr J. 2010;9:42. doi: 10.1186/1475-2891-9-42.

Benjamin J, Levine J, Fux M, et al. Double-blind, placebo-controlled, crossover trial of inositol treatment for panic disorder. Am J Psychiatry. 1995;152(7):1084-1086.

Palatnik A, Frolov K, Fux M, Benjamin J. Double-blind, controlled, crossover trial of inositol versus fluvoxamine for the treatment of panic disorder. J Clin Psychopharmacol. 2001;21(3):335-339.

National Institute for Health and Care Excellence (NICE). Social anxiety disorder: recognition, assessment and treatment. 2013. Available at: https://www.nice.org.uk/guidance/cg159.

Pande AC, et al. Treatment of social phobia with gabapentin: a placebo-controlled study. J Clin Psychopharmacol. 1999;19(4): 341-348.

Steenen SA, van Wijk AJ, van der Heijden GJ, van Westrhenen R, de Lange J, de Jongh A. Propranolol for the treatment of anxiety disorders: Systematic review and meta-analysis. J Psychopharmacol. 2015 Oct 20. pii: 0269881115612236. [Epub ahead of print].

Feltner DE, Liu-Dumaw M, Schweizer E, Bielski R. Efficacy of pregabalin in social anxiety disorder: results of a double-blind, placebo-controlled, fixed-dose study. Int Clin Psychopharmacol. 2011 Jul;26(4):213-220.

VA/DoD Clinical Practice Guideline for Management of Post-Traumatic Stress. 2010. Available at: http://www.healthquality.va.gov/guidelines/MH/ptsd/cpgPTSDFULL201011612c.pdf

American Academy of Child & Adolescent Psychiatry (AACAP). Practice Parameter for the assessment and treatment of children and adolescents with posttraumatic stress disorder. J Am Acad Child Adolesc Psychiatry. 2010;49(4). Available at: http://www.jaacap.com/article/S0890-8567(10)00082-1/pdf.

Belkin MR, Schwartz TL. Alpha-2 receptor agonists for the treatment of posttraumatic stress disorder. Drugs Context. 2015; 14;4:212286. doi: 10.7573/dic.212286. eCollection 2015.

Fenske JN and Petersen K. Obsessive-compulsive disorder: diagnosis and management. Am Fam Physician. 2015;92(10):896-903.

American Academy of Child & Adolescent Psychiatry (AACAP). Practice Parameter for the assessment and treatment of children and adolescents with obsessive-compulsive disorder. J Am Acad Child Adolesc Psychiatry. 2012;51(1). Available at: http://www.jaacap.com/article/S0890-8567(11)00882-3/pdf.

Kim J, Lee SL, Suji L., Kang I, et al. Natural products from single plants as sleep aids: a systematic review. J Med Food. 2018. doi: 10.1089/jmf.2017.4064

Sarris J, Byrne GJ. A systematic review of insomnia and complementary medicine. Sleep Med Rev. 2011;15(2):99-106.

Camfield DA, Sarris J, Berk M. Nutraceuticals in the treatment of obsessive compulsive disorder (OCD): a review of mechanistic and clinical evidence. Prog Neuropsychopharmacol Biol Psychiatry. 2011;35(4):887-895. doi: 10.1016/j.pnpbp.2011.02.011.

Afshar H, Roohafza H, Mohammad-Beigi H, et al. N-acetylcysteine add-on treatment in refractory obsessive-compulsive disorder: a randomized, double-blind, placebo-controlled trial. J Clin Psychopharmacol. 2012;32(6):797-803. doi: 10.1097/JCP.0b013e318272677d.

Pakseresht S, Boostani H, Sayyah M. Extract of valerian root (Valeriana officinalis L.) vs placebo in treatment of obsessive-compulsive disorder: a randomized double-blind study. J Complement Integr Med. 2011;8(1):1-9. doi: 10.2202/1553-3840.1465.

London Breed
Mayor

San Francisco Health Network Behavioral Health Services
Medication Use Improvement Committee
1380 Howard St. 5th Floor
San Francisco, CA 94103

Safer Prescribing of Antipsychotic Medications Guideline

SCOPE: This Safer Prescribing of Antipsychotic Medications Guideline is intended to offer antipsychotic prescribing guidance for providers, clients and the interested general public to increase the effectiveness and safety of antipsychotic use. It is not intended to be comprehensive in scope. These recommendations are not a substitute for clinical judgment, and decisions about care must carefully consider and incorporate the clinical characteristics and circumstances of each individual patient.

INTRODUCTION: Antipsychotic medications are prescribed for multiple conditions in mental health. They have a critical role in the treatment of most psychotic disorders, particularly schizophrenia and schizoaffective disorder. They have a role in the treatment of mood disorders, including bipolar disorder. These medications may also be used to treat other mental conditions. See References and Further Reading: Antipsychotic Prescribing Guidelines section at the end of this document for suggested treatment algorithms for the use of these medications.

As a class, antipsychotic medications are often divided into two sub-groups: first-generation antipsychotics (FGAs, "typical antipsychotics") and second-generation antipsychotics (SGAs "atypical antipsychotics"). FGAs exert their therapeutic effect by blocking dopamine D2 receptors in the brain. Their binding affinity to other receptors (ex: histamine, alpha-1) generally lead to adverse effects. SGAs also bind to dopamine receptors, but often have additional therapeutic effects on other receptor systems including serotonin receptors.

Antipsychotic medications are available in oral, sublingual, immediate release intramuscular injection and long-acting intramuscular injection forms.

Table of Contents

ANTIPSYCHOTIC SELECTION AND DOSING: The selection of a specific antipsychotic medication, form of administration, dose and duration of treatment is a complex decision-making process involving multiple factors. These often include individualized treatment goal(s), client choice, history of past antipsychotic trials, family history, side effect profile and other factors. See Tables 1 and 2 below for information on available oral dosage ranges for antipsychotics. Note that fewer companies are manufacturing first generation antipsychotics and that shortages of these medications may arise. Information on long acting injections are available in Appendix 1. See Appendix 5 for information about the use of SGAs in bipolar disorder.

TABLE 1: FIRST GENERATION ANTIPSYCHOTICS

Medication	Daily Dosage Range	Chlorpromazine equivalents	Comments
Low Potency			
Chlorpromazine*	50-800mg	100mg	Sedation, anticholinergic, hypotension
Thioridazine	50-800mg	100mg	
Medium Potency			
Loxapine	20-250mg	10mg	Moderate sedation, moderate extrapyramidal symptoms
Perphenazine	8-64mg	8mg	
High Potency			
Fluphenazine*	2.5-20mg	2mg	Less sedation, extrapyramidal symptoms
Haloperidol*	2.5-20mg	2mg	
Pimozide	0.5-4mg	Unavailable	
Thiothixene	5-60mg	4mg	
Trifluoperazine	2-20mg	2mg	

*Short acting intramuscular injection available for inpatient/emergent use

TABLE 2: SECOND GENERATION ANTIPSYCHOTICS

Medication	Daily Dosage Range	Comments
Aripiprazole	2.5-30mg	Akathisia; fewer metabolic effects
Asenapine	5-20mg	BID dosing; fewer metabolic effects
Brexpiprazole	0.5-4mg	Akathisia; increased triglycerides
Cariprazine	1.5-6mg	Nausea; insomnia; extrapyramidal symptoms
Clozapine	50-900mg	Constipation; sedation; most metabolic side effects; sialorrhea; myocarditis; requires ANC monitoring
Iloperidone	4-24mg	BID dosing; Increased prolactin; weight gain; dizziness
Lurasidone	20-160mg	Take with food; akathisia; fewer metabolic side effects
Olanzapine*	5-30mg	Metabolic side effects; sedation
Paliperidone	3-12mg	Metabolite of risperidone; increased prolactin; extrapyramidal side effects
Quetiapine	200-800mg	Sedation; orthostatic hypotension
Risperidone	0.5-6mg	Increased prolactin; extrapyramidal side effects
Ziprasidone*	20-160mg	Take with food; BID dosing; less metabolic effects

*Short acting intramuscular injection available for inpatient/emergent use

SIDE EFFECT MONITORING AND MANAGEMENT: Below are some of the most common side effects of antipsychotics and methods for management. This list is not exhaustive of all possible side effects. For specific drug recommendations and dosing, see Appendix 2: Side effect management medications by indication.

METABOLIC EFFECTS: Research has shown that SGAs increase the risk of metabolic syndrome, a group of conditions associated with heart disease and diabetes. These conditions include: hypertension

(high blood pressure), dyslipidemia (elevated cholesterol and triglycerides), elevated blood glucose (high blood sugar), and weight gain.

An individual is considered positive for metabolic syndrome if three or more measurements meet or exceed the risk criteria (See Appendix 3 for categorical cut-points). Note that a risk factor is considered positive in individuals receiving specific treatment for that condition, even if the measurement is in the normal range. The measurements include: waist circumference, blood pressure, HDL cholesterol, triglycerides, fasting glucose or HbG A1C.

The 2004 Consensus Development Conference on Antipsychotic Drugs and Obesity and Diabetes recommends the following interventions for abnormal values and/or positive family or medical history:

TABLE 3: RECOMMENDED INTERVENTIONS FOR POSITIVE METABOLIC FINDINGS

Findings	Recommended Intervention
Increased weight/BMI or glucose	Consider referral to primary care and change in SGA
Increased lipids	Consider change in SGA; increase frequency of monitoring
Positive family or medical history	More frequent monitoring

Clinicians should monitor for metabolic abnormalities and work closely with clients and their primary care providers whenever indicated. See Appendix 4 for recommended metabolic monitoring schedule for children, adolescents and adults as well as information about measurement cut-points. To provide patients at risk for metabolic syndrome education about healthy living, see the Antipsychotic Metabolic Monitoring Patient handout on the BHS public website.

EXTRAPYRAMIDAL SYMPTOMS (EPS): All antipsychotics may cause EPS which includes dystonia, akathisia and pseudoparkinsonism. Medications with anticholinergic properties have historically been utilized to counter EPS induced by antipsychotic medications. Commonly prescribed anticholinergic medications include benztropine, trihexyphenidyl, and diphenhydramine. These agents may have a role in the acute treatment of some antipsychotic-induced EPS. However, there is no evidence that anticholinergic medications are effective for the treatment of akathisia. There is evidence to support the use of propranolol and 5-HT_{2A} receptor antagonists (ex: cyproheptadine, low dose mirtazapine) for the treatment of acute akathisia.

Chronic and prophylactic use of anticholinergic agents is to be avoided. These medications can lead to troublesome side effects like urinary retention, blurred vision, dry mouth, delirium and others. Growing evidence suggests that anticholinergic medications can contribute to cognitive deficits. Additionally, concomitant use of anticholinergic medications with antipsychotic medications is associated with developing tardive syndrome.

Approach for managing antipsychotic-induced EPS:

- Use anticholinergic medications for the acute management of antipsychotic-induced EPS other than akathisia. They are not effective for treating akathisia.
- Avoid chronic or prophylactic use of anticholinergic medications.
- Consider antipsychotic dose reduction or change of antipsychotic medication if antipsychotic-induced EPS or other troublesome side effects occur.
- Avoid systemic anticholinergic medications in individuals taking clozapine. For sialorrhea (drooling), see section below on management
- Attempt gradual taper of anticholinergic medications in all individuals after antipsychotic-induced EPS has been effectively treated for three months.

Clinical treatment teams should periodically review cases of chronic and/or prophylactic anticholinergic use and work together with individual clients to reduce their usage.

TARDIVE SYNDROME: Tardive syndrome includes tardive dyskinesia, tardive dystonia, tardive akathisia, tardive stereotypy, tardive tourettism, tardive myoclonus, tardive tremor and tardive Parkinsonism. These delayed and persistent abnormal movements are thought to be caused by chronic (generally 3 months or more) exposure to dopamine-blocking agents, including antipsychotic medications. FGA, SGA and even clozapine exposure can lead to tardive syndrome. Prevention remains the most effective way to manage this class of side effect. The syndrome may be alleviated by antipsychotic discontinuation, dose reduction, or switching to another antipsychotic medication with less potent dopamine blockade. In patients who need to stay on the current antipsychotic regimen, a vesicular monoamine transporter 2 (VMAT2) inhibitor can be added. VMAT 2 inhibitors have demonstrated efficacy at reducing AIMS and are FDA approved for the treatment of tardive dyskinesia.

Clinicians should advise clients about the risks of developing tardive syndrome. The Abnormal Involuntary Movement Scale (AIMS) may be a useful monitoring tool.

SIALORRHEA: Sialorrhea (excessive salvation or drooling) is a common side effect of the antipsychotic clozapine. Sialorrhea can be treated with anticholinergic medications. Topical agents should be used rather than systemic agents as systemic anticholinergics will increase the risk of constipation.

CONSTIPATION: Antipsychotics with anticholinergic properties can lead to constipation from decreased peristalsis. Constipation can be managed by switching to an antipsychotic with less anticholinergic properties or adding a laxative.

QTc PROLONGATION: Changes in electrical activity that controls cardiac conduction can lead to an abnormally long QTc interval on electrocardiogram (ECG). A prolonged QTc interval may result in a rare, but potentially fatal, ventricular arrhythmia known as Torsades de Pointes (TdP). QTc is considered prolonged for males when >450ms and >470ms for females.

Several antipsychotics are classified as having substantial evidence that they prolong the QTc interval and are associated with TdP when used as directed. Antipsychotics with known risk for TdP include: chlorpromazine, haloperidol, pimozide and thioridazine. The website www.crediblemeds.org (access is free but registration may be required) is a useful source for obtaining updated information on the QTc prolonging risk of antipsychotics.

When possible, QTc-prolonging drugs should be avoided in those with risk factors for TdP (see Table 4 below) or used in the smallest effective dose with close ECG monitoring and patient vigilance for symptoms of TdP. Patients should be educated to go to the emergency room for any symptoms of lightheadedness, dizziness or fainting. Of note, there is no clear-cut consensus on the degree of drug-induced QTc prolongation that should require drug discontinuation.

TABLE 4: RISK FACTORS FOR PROLONGED QTC INTERVAL AND TDP*

Female gender	Underlying cardiac conditions (including congenital long QTc syndrome and bradycardia)
Age >65 years	Heart disease
Electrolyte abnormalities (including hypokalemia, hypomagnesemia and hypocalcemia)	Some endocrine diseases
Renal failure	Some auto-immune diseases
Liver failure	Treatment with multiple QTc prolonging drugs

*For complete list of potential risk factors, see www.crediblemeds.org

When prescribing medications known to prolong QTc interval, and particularly if these are prescribed to patients with risk factors for TdP, a baseline ECG should be obtained whenever possible, and a careful risk-benefit assessment should be performed, including the feasibility of prescribing alternatives with less potential to prolong QTc. To obtain an ECG, clients can be referred to their primary care providers. If treatment with a drug at high risk to cause QTc prolongation or a combination of drugs that increase QTc

interval is continued, routine monitoring of ECG and electrolytes is appropriate. However, no clear-cut guidelines as to frequency of this monitoring are defined.

USE OF CLOZAPINE: Clozapine is considered to be the most effective antipsychotic with the best supporting evidence. It has an estimated 50-60% response rate at 6-12 months. Clozapine is specifically indicated for the treatment of refractory schizophrenia. It should be considered in the following:

- After failure of adequate trials of two or more antipsychotics
- To reduce suicidal behavior in patients with schizophrenia or schizoaffective disorder
- For individuals struggling with tardive syndrome
- In individuals taking two or more antipsychotics concurrently

Before initiating clozapine, absolute neutrophil count (ANC) must be obtained (ANC must be $\geq$1,500/mm^3 in order to initiate treatment). To continue treatment, ANC must be monitored regularly (see Appendix 3 for monitoring schedule). Patients must adhere with scheduled blood testing to continue clozapine. In addition, all individuals receiving clozapine therapy must be enrolled in the clozapine Risk Evaluation and Mitigation Strategy (REMS) program and must meet all the program requirements.

Clozapine is often under-utilized due to its potential side effects; the most serious being blood dyscrasias. In addition, there are several, more common side effects that clinicians should educate clients about and help them to manage should they occur.

Constipation is a frequent side effect in individuals taking clozapine. Common strategies to address this include avoidance of concomitant anticholinergic agents, adequate hydration, and addition of a bowel regimen. See Appendix 2: Side effect management medications by indication for more information about the prevention and treatment of constipation.

Clozapine has to be titrated slowly to avoid oversedation and severe orthostatic hypotension (postural low blood pressure) due to alpha blockade. If a patient has missed doses for 72 hours or greater, it is recommended that clozapine be slowly re-titrated.

Seizures are a potential dose-related side effect of clozapine. To minimize seizure risk, avoid concomitant use of other medications that lower the seizure threshold, avoid rapid dosage elevation and minimize clozapine dosage above 600 mg/day. If doses of 600-900mg/day are required, the risk of seizures can be reduced by adding divalproex.

Sialorrhea (excessive salivation/drooling) is a common side effect among individuals taking clozapine. Patients may be advised to chew sugar-free gum during the day to prompt more frequent swallowing. See Appendix 2: Side effect management medications by indication for more information about the treatment of sialorrhea.

PEDIATRICS: Antipsychotics may be used for the treatment of schizophrenia and bipolar disorder in children and adolescents. Additionally, the atypical antipsychotics aripiprazole and risperidone have FDA approved indications for the treatment of irritability and aggression associated with autism spectrum disorder. The use of antipsychotics for other indications, such as disruptive behaviors, is not recommended due to a lack of evidence. When antipsychotics are used in the pediatric population, it is recommended to begin with low doses, to escalate doses slowly and to use the minimum effective dose in order to minimize side effects. Maximum doses should not exceed those recommended for adults. There is little data to support the use an antipsychotics in pre-school aged children (<5 years).

Adverse effects, especially metabolic complications, may occur with more frequency and severity in children and adolescents. See Appendix 3: Metabolic monitoring, for specific recommendations on monitoring metabolic parameters in this population.

OLDER ADULTS: The use of antipsychotics in older adults follow the same general guidelines established for younger adults. They are FDA-approved in the treatment of schizophrenia, bipolar disorder, and major depressive disorder. SGAs are preferred over FGAs in older adults because they are less likely to cause extrapyramidal and other neurological symptoms. Since older adults are more susceptible to experiencing medication-related side-effects, special care and attention should be taken when prescribing antipsychotics. Lower dosages and slower titrations are recommended, especially in the presence of medical comorbidities, cognitive deficits, and polypharmacy.

Antipsychotics are used to treat behavioral and psychological symptoms of dementia (BPSD) such as agitation, psychosis, and socially-inappropriate behaviors. Although SGAs have the strongest evidence for BPSD, benefits are modest and therefore their use should be reserved for when non-pharmacological interventions such as DICE (see Table 5 below) are unsuccessful or if there is concern about imminent harm to the patient or others. Black-box warnings added to all antipsychotics regarding the increased risk of death in elderly dementia patients should prompt their judicious use and continuous evaluation to find the lowest effective dose for the shortest duration. Prescribers can refer to the American Geriatrics Society Beers criteria which lists potentially inappropriate medication use in older adults.

TABLE 5: DICE BEHAVIORAL INTERVENTIONS

Describe the behavioral symptom, including when and under what conditions it occurs
Investigate the possible underlying causes of the behavior: • Patient: pain, sensory changes, medication side-effects, infection • Caregiver: communication style, mismatch of expectations with level of dementia • Environment: clutter, noise, lighting
Create a treatment plan to address the underlying causes • Treat the patient's physical problems • Provide caregiver education and support • Create meaningful activities for the patient • Create a safe and comfortable environment
Evaluate the impact of interventions and devise a new strategy as needed

PREGNANCY: Prescribers should be aware of and discuss potential for adverse effects to the newborn related to antipsychotic exposure during pregnancy. Alternatives to antipsychotics may be appropriate in some situations, however, some women, specifically those with psychotic disorders, may require an antipsychotic to maintain stability during pregnancy. Women taking antipsychotics should not stop them if they become pregnant without speaking to their healthcare provider. Abrupt discontinuation of antipsychotics can significantly increase the risk of illness relapse.

Starting in June 2018, the FDA eliminated the old classification system for pregnancy and lactation. There are two significant changes. First the labeling has changed from the three categories: pregnancy, labor and delivery and nursing mothers to: pregnancy, lactation, and females and males of reproductive potential. Second, instead of discrete categories (e.g. A, B, C, D, X), the label is required to have information about risk summary and clinical considerations. Thus it is more specific than simply classifying a medication into a particular risk category. The new rules also require the label to include information about a pregnancy registry, if one exists. Newer medications will be characterized in this way whereas older medications might have the old system, and/or the new one.

Clozapine and lurasidone are rated as FDA pregnancy category B (animal studies do not show risk to fetus, no well-controlled studies in pregnant women); the remaining antipsychotics are rated as category C (animal studies show adverse effect to fetus, no well-controlled studies in pregnant women). High

potency FGAs (i.e. haloperidol, fluphenazine) are recommended over low potency FGAs (chlorpromazine) during pregnancy.

In 2011, the FDA updated the labels for all antipsychotic medications to include warnings on the potential risk for abnormal muscle movements (extrapyramidal symptoms) and withdrawal symptoms in newborns exposed to antipsychotics during the 3rd trimester of pregnancy. The symptoms include agitation, abnormally increased or decreased muscle tone, tremor, sleepiness, severe difficulty breathing, and difficulty in feeding. Some symptoms subside within hours or days and do not require specific treatment, but some newborns may require longer hospital stays.

The use of antipsychotics during pregnancy remains an area that is understudied. Pregnant women who take antipsychotics may consider enrolling in a national pregnancy registry to help gather more information in the area. Information is available at: https://womensmentalhealth.org/research/pregnancyregistry/atypicalantipsychotic/.

LACTATION: A careful decision should be made whether to discontinue nursing or discontinue antipsychotic treatment. The health benefits of breastfeeding should be considered, along with the mother's clinical need for treatment and any potential adverse effects on the breastfed infant from the antipsychotic. Infants should be monitored closely if decision is made to continue antipsychotic and breastfeeding.

See Table 6 below for information about the use of certain antipsychotics during breastfeeding. It is unknown if the following antipsychotics are excreted into breastmilk: asenapine, brexpiprazole, cariprazine, fluphenazine, iloperidone, loxapine, lurasidone, pimozide, thioridazine, thiothixene and ziprasidone.

TABLE 6: ANTIPSYCHOTICS IN LACTATION

Medication	Lactation
Aripiprazole	Drug and metabolite present in breast milk; lactation failure has been observed
Chlorpromazine	Drugs and metabolites present in breast milk; lethargy observed in breastfed infant
Clozapine	Breastfeeding is not recommended
Haloperidol	Drug present in breast milk; breastfeeding is not recommended
Olanzapine	Drug present in low levels in breast milk; few adverse effects in infant; **preferred antipsychotic during breastfeeding**
Paliperidone	Drug present in breast milk
Perphenazine	Drug present in low levels breast milk
Quetiapine	Drug present in breast milk; peak milk concentration occurs 1 hour after oral maternal dose; **2nd line antipsychotic in breastfeeding**
Risperidone	Drug and metabolite present in breast milk; peak milk concentration occurs 2-4 hours after oral maternal dose; **2nd line antipsychotic in breastfeeding**; recommended that women using IM injection not breastfeed during or for 12 weeks after last injection
Trifluoperazine	Drug present in breast milk; no infant adverse events reported

RENAL AND HEPATIC IMPAIRMENT: See Table 7 below for information on the use of antipsychotics in renal and hepatic impairment. Note that older medications were not specifically studied in these populations. Practice caution if using antipsychotics in renal or hepatic impairment.

TABLE 7: RENAL AND HEPATIC IMPAIRMENT

Medication	Hepatic Impairment	Renal Impairment
Aripiprazole	No dose adjustments	No dose adjustments
Asenapine	Contraindicated for Child-Pugh class C. No dose adjustment for Child-Pugh class A or B.	No dose adjustments
Brexpiprazole	Child-Pugh class B or C: max dose of 3mg for schizophrenia and 2mg for major depression	CrCl <60ml/min: max dose of 3mg for schizophrenia and 2mg for major depression
Cariprazine	Child-Pugh class C: use not recommended	CrCl<30ml/min: use not recommended
Chlorpromazine	No dose adjustments.	No dose adjustments. Use caution. Not dialyzable.
Clozapine	Dose reductions may be necessary with significant impairment	Dose reductions may be necessary with significant impairment
Fluphenazine	Use is contraindicated.	No dose adjustments. Use with caution.
Haloperidol	No dose adjustments.	No dose adjustments.
Iloperidone	Use not recommended for severe impairment; use caution with moderate impairment	No dose adjustment
Loxapine	No dose adjustments	No dose adjustments.
Lurasidone	Child-Pugh class B: max dose 80mg/day; Child-Pugh class C: max dose 40mg/day	CrCl<50 ml/min: max dose of 80mg/day
Olanzapine	No dose adjustment.	No dose adjustment; not removed by hemodialysis
Paliperidone	No dose adjustment for Child-Pugh class A or B. Not studied in Child-Pugh class C.	CrCl 50-79ml/min: max dose 6mg/day CrCl 10-49ml/min: max dose 3mg/day CrCl<10ml/min: Use not recommended
Perphenazine	Contraindicated in patients with liver damage.	No dose adjustments.
Pimozide	No dose adjustments. Use with caution.	No dose adjustments. Use with caution.
Quetiapine	Lower starting dose.	No dose adjustment
Risperidone	Child-Pugh class C: Initial dose of 0.5mg BID; titrate slowly in increments of no more than 0.5mg BID	CrCl<30ml/min: Initial dose of 0.5mg BID; titrate slowly in increments of no more than 0.5mg BID
Thioridazine	No dose adjustments. Use with caution.	No dose adjustments.
Thiothixene	No dose adjustments.	No dose adjustments.
Trifluoperazine	Use is contraindicated.	No dose adjustments.
Ziprasidone	No dose adjustment; use with caution	No dose adjustment; not removed by hemodialysis

DRUG INTERACTIONS: Antipsychotics are highly metabolized in the liver by the cytochrome P450 system. This introduces the potential for drug interactions. See Tables 8 and 9 below for details on which CYP enzymes metabolize the antipsychotics.

TABLE 8: FGA CYTOCHROME P450 METABOLISM

Antipsychotic	CYP1A2	CYP2C19	CYP2D6	CYP3A4
Chlorpromazine	✓		✓	✓
Fluphenazine			✓	
Haloperidol	✓		✓	✓
Loxapine	✓		✓	✓
Perphenazine			✓	
Pimozide	✓			✓
Thioridazine		✓	✓	
Thiothixene	✓			
Trifluoperazine	✓			

TABLE 9: SGA CYTOCHROME P450 METABOLISM

Antipsychotic	CYP1A2	CYP2C19	CYP2D6	CYP3A4
Aripiprazole			✓	✓
Asenapine	✓		✓	
Clozapine	✓			✓
Iloperidone			✓	✓
Lurasidone				✓
Olanzapine	✓			
Paliperidone				
Quetiapine				✓
Risperidone			✓	✓
Ziprasidone	✓			✓

CONCURRENT USE OF TWO OR MORE ANTIPSYCHOTIC MEDICATIONS: In general, BHS does not recommend the concurrent use of two or more antipsychotics. Only one antipsychotic medication should be used at any one time, except during brief transitions from one to another or in exceptional circumstances. The reason for concurrent dosing should be well documented in the clinical record. This should be revisited approximately semi-annually and attempts to eliminate concurrent dosing should be made and documented regularly. Clinical treatment teams should periodically review these cases and work with individual clients to reduce concurrent use of two or more antipsychotic medications. Clients should be counselled about the risks of concurrent antipsychotic use and these discussions should be documented in the medical record.

USE OF LONG-ACTING INJECTABLE ANTIPSYCHOTIC MEDICATIONS: Long-acting injectable antipsychotic medications should be offered under these circumstances:

- Appropriate individuals upon client request
- When there is a history of poor adherence to oral antipsychotic medications
- To avoid certain side effects that may be increased after oral administration
- For those individuals unable to take oral medications
- To simplify complex medication regimens.

See Appendix 1 for prescribing information about long-acting injectable antipsychotic medications. BHS does not recommend olanzapine extended release injection due to risk of post-injection delirium/sedation syndrome.

APPENDIX 1: LONG-ACTING INJECTABLE ANTIPSYCHOTICS

HALOPERIDOL DECANOATE

Starting dose: 10-20 times the daily oral dose

Target dose: 10-15 times the daily oral dose

Maximum dose: 450mg/month. The maximum dosage for the first injection is 100mg; give the remaining dose in 3-7 days

Dosing interval: Injections should be given every 4 weeks

Overlap with oral medication: If using a dose that is 10-15 times the oral daily dose, overlap with oral medication for 7 days. If the dose is 20 times the oral daily dose, no overlap with oral medication is necessary

Dosing Tips:

Patient Characteristics	First injection	Maintenance injection (after 1st month)
Stabilized on <10mg/day, elderly, debilitated	10-15 times daily oral dose	10-15 times daily oral dose
Stabilized on >10mg/day, high risk of relapse	20 times daily oral dose	10-15 times daily oral dose

Medication supply, storage and handling*:

Supplied	Reconstitution	Refrigeration	Needle Size
Single-dose and multi-dose vials: 50mg/ml 100mg/ml	None	None	Gluteal or deltoid: 21 G

*Protect from light

Pharmacokinetics:

Half-Life (single-dose)	Half-Life (multiple doses)	Time to Maximum Concentration
16 days	3 weeks	6 days

FLUPHENAZINE DECANOATE

Starting dose: 12.5mg- 25mg

Target dose: 12.5mg- 50mg

Maximum dose: 100mg per dose

Dosing interval: Injections should be given every 2-4 weeks

Overlap with oral medication: Yes, there should be an overlap with oral medications for 1-2 weeks after the first injection

Conversion between oral dose to injectable dose:

Daily oral dose	Equivalent injectable dose
10mg/day	12.5mg every 3 weeks

Medication supply, storage and handling:

Supplied	Reconstitution	Refrigeration	Needle Size
Multi-dose vials: 25mg/ml	None	None	Gluteal or deltoid: 21 G

*Protect from light

Pharmacokinetics:

Half-life (single-dose)	Half-life (multiple doses)	Time to maximum concentration
6-9 days	2 weeks	24 hours

PALIPERIDONE PALMITATE (INVEGA SUSTENNA)

Rationale for loading dose: A loading dose provides rapid plasma drug levels, allowing for immediate discontinuation of oral dosing.

Recommended loading dose: Administer 234 mg on day 1, then 156 mg on day 8, both administered in a deltoid muscle. No oral overlap needed. The second dose (day 8 dose) may be administered +/- 4 days of its due date. Subsequent maintenance doses should be given every 4 weeks and may be administered +/- 7 days of its due date. See summary below:

Dose type	Dose schedule	Dose amount
First loading dose	Day 1 of Treatment	234 MG
Second loading dose	Day 8 of treatment (+/- four days)	156 MG
Maintenance dose	Day 36 of treatment (Five weeks after first injection)	39 – 234 MG*

* Usual maintenance dose is 117 mg monthly; Max dose is 234 mg monthly.

Conversion from oral risperidone or oral paliperidone to paliperidone long-acting injection (SUSTENNA): Administer 2 injection loading doses to ALL patients regardless of oral dose. Discontinue oral dosing after first injection. Select recommended maintenance dose based on conversion chart:

Oral risperidone	Oral paliperidone	Paliperidone palmitate (SUSTENNA)
1-2 mg daily	3 mg daily	78 mg monthly
3-4 mg daily	6 mg daily	117 mg monthly
5-6 mg daily	9 mg daily	156 mg monthly
	12 mg daily	234 mg monthly

Conversion from risperidone long-acting injection to paliperidone long-acting injection (SUSTENNA): No wash-out period required before switching treatment. The initial loading dose regimen is also not required. Paliperidone palmitate long-acting injectable (SUSTENNA) can be initiated at the next scheduled dosing in place of risperidone long-acting injectable. See below:

Drug	Risperidone long-acting injection	Paliperidone palmitate (SUSTENNA)
Frequency	Every two weeks	Every month
Dose	12.5 mg	39 mg
	25 mg	78 mg
	37.5 mg	117 mg
	50 mg	156 mg

Missed second loading doses:

Time since first injection	Dosing schedule
<4 weeks	156 mg ASAP, then 117 mg 5 weeks after first injection
4-7 weeks	156 mg ASAP, then 156 mg a week later
>7 weeks	Load patient as a new start

Missed maintenance dose re-loading:

Time since last injection	Dosing schedule
≤ 6 weeks	Resume regular monthly dosing ASAP
> 6 weeks to 6 months*	Resume regular monthly dosing ASAP and another injection of the same dose 1 week later *the only exception is if patient stabilized on 234 mg, the first 2 doses should be 156 mg
>6 months	Load patient as a new start

Medication supply, storage and handling:

Supplied	Reconstitution	Refrigeration	Administration instructions	Needle size
As kits in the following dosages: 39mg 78mg 117mg 156mg 234mg	None	None	Shake vigorously for 10 seconds prior to injection	Deltoid: <200 lbs: 23 G, 1” ≥200 lbs: 22 G, 1.5”
				Gluteal: 22 G, 1.5”

Pharmacokinetics:

Half-life (single-dose)	Half-life (multiple doses)	Time to maximum concentration
25-29 days	Not Published	13-17 days

Please call CBHS Pharmacy (415-255-3659) for special dosing in elderly patients, CrCl <80mL/min, or any other questions.

PALIPERIDONE PALMITATE (INVEGA TRINZA)

Paliperidone palmitate (TRINZA) is a long acting injectable form of paliperidone palmitate that is given every 3 months. It should be used only after a patient has been adequately treated with a stable dose of Paliperidone palmitate (SUSTENNA) for at least 4 months.

Recommended loading dose: Paliperidone palmitate (TRINZA) should only be used in patients who have been on an established, stable dose of paliperidone palmitate (SUSTENNA) for at least 4 months. Initiate the initial dose of Paliperidone palmitate (TRINZA) when the next dose of paliperidone palmitate (SUSTENNA) is due, using the equivalent dose below:

Paliperidone palmitate (SUSTENNA)	Paliperidone palmitate (TRINZA)
78mg	273mg
117mg	410mg
156mg	546mg
234mg	819mg

*Conversion from the Paliperidone palmitate (SUSTENNA**)** 39mg dose was not studied

Missed doses: If less than 4 months have elapsed since the last injection, the previously administered dose of paliperidone palmitate (TRINZA) should be administered as soon as possible. If 4-9 months have elapsed since the last injection use the re-initiation regimen shown below:

Paliperidone palmitate (TRINZA) dose	Administer paliperidone palmitate (SUSTENNA), two doses one week apart (into deltoid muscle)		Then administer paliperidone palmitate (TRINZA) (into deltoid or gluteal muscle)
	Day 1	Day 8	
273mg	78mg	78mg	273mg
410mg	117mg	117mg	410mg
546mg	156mg	156mg	546mg
819mg	156mg	156mg	819mg

If more than 9 months have elapsed since the last injection, re-initiate treatment with paliperidone palmitate (SUSTENNA).

Medication supply, storage and handling:

Supplied	Reconstitution	Refrigeration	Administration Instructions	Needle Size
As kits in the following dosages: 273mg 410mg 546mg 819mg	None	None	Shake vigorously with the syringe pointing up for at least 15 seconds within 5 minutes prior to administration	Deltoid: <90 kg: 22 G, 1” ≥90 kg: 22 G, 1.5” Gluteal: 22 G, 1.5”

Pharmacokinetics:

Half-life (single-dose)	Half-life (multiple doses)	Time to maximum concentration
Deltoid: 84-95 days Gluteal: 118-139 days	Not Published	30-33 days

RISPERIDONE LONG-ACTING INJECTION (RISPERDAL CONSTA)

Starting dose: 25mg every 2 weeks (12.5mg every 2 weeks for hepatic or renal impairment)

Target dose: 25mg- 50mg every 2 weeks

Maximum dose: 50mg every 2 weeks

Dosing interval: Injections should be given every 2 weeks

Overlap with oral medication: **T**here should be an overlap with oral medications for 3-4 weeks after the first injection

Conversion between oral dose to injectable dose:

Daily oral dose	Equivalent injectable dose
2mg	25mg every 2 weeks
3mg	37.5mg every 2 weeks
4mg	50mg every 2 weeks

Medication supply, storage and handling:

Supplied	Reconstitution	Refrigeration	Needle Size
As kits in the following dosages: 12.5mg 25mg 37.5mg 50mg	Required. Injections are stable for 6 hours at room temperature after reconstitution	Yes. Kits are stable at room temperature (not to exceed 77°F) for 7 days	Gluteal: 20 G, 2” Deltoid: 21 G, 1”

Pharmacokinetics:

Half-life (single-dose)	Half-life (multiple doses)	Time to maximum concentration
6-9 days	4-6 days	4-5 weeks

RISPERIDONE EXTENDED-RELEASE INJECTION (PERSERIS)

Starting dose: 90mg once per month

Target dose: 90-120mg once per month

Maximum dose: 120mg once per month

Dosing interval: Injections should be given once per month

Overlap with oral medication: No overlap with oral risperidone is necessary. Establish tolerability with oral risperidone prior to starting the long acting injection

Conversion between oral dose to injectable dose*:

Daily oral dose	Equivalent injectable dose
3mg	90mg once per month
4mg	120mg once per month

*Patients who are on stable oral risperidone doses lower than 3 mg/day or higher than 4 mg/day may not be candidates for this injection

Medication supply, storage and handling:

Supplied	Reconstitution	Refrigeration	Needle Size
As kits in the following dosages: 90mg 120mg	Required. Allow the medication to come to room temperature for at least 15 minutes prior to mixing.	Yes. Kits are stable at room temperature (not to exceed 77°F) for 7 days	Abdominal subcutaneous: 18 G, 5/8”

Pharmacokinetics:

Half-life (single-dose)	Half-life (multiple doses)	Time to maximum concentration
9-11 days	8-9 days	4-6 hours; Risperidone plasma concentrations approached steady-state after the 1st injection

ARIPIPRAZOLE EXTENDED RELEASE INJECTION (ABILIFY MAINTENA)

Dose: The starting, target and maximum dose is 400mg

Dosing interval: Injections should be given every 4 weeks

Overlap with oral medication: There should be an overlap with oral medications for 14 days after the first injection

Dosage adjustments:

Circumstance	Adjustment
Adverse events occur	Lower monthly dosage to 300mg
Strong CYP2D6 ***or*** CYP3A4 inhibitors	*200mg-300mg per month
Strong CYP2D6 ***and*** CYP3A4 inhibitors	*160mg-200mg per month
CYP 3A4 Inducers	Avoid use

*160mg and 200mg dose adjustments are obtained only by using the 300mg or 400mg strength single-use vials

Managing missed doses: Give the injection as soon as possible and follow the recommendations below regarding whether an oral overlap is required.

Dose number	Length of time since last injection	
	No oral overlap required	Overlap with 14 Days oral aripiprazole
Second or third	< 5 weeks	> 5 weeks
Fourth or subsequent doses	< 6 weeks	> 6 weeks

Medication supply, storage and handling:

Supplied	Reconstitution	Refrigeration	Administration	Needle Size
Pre-filled dual chamber syringe OR Single-use vials kits: 300mg 400mg	Required for both formulations. Pre-filled dual chamber: reconstituted in syringe. Single-use Vials: reconstituted in vial then drawn up in syringe	None for either formulation	Pre-filled dual chamber: Shake vertically for 20 seconds. Use within 30 minutes of reconstitution. Single-use vials: Shake for 30 seconds. If not using immediately, keep in vial and shake 60 seconds again prior to administration	Deltoid : Non-obese: 23 G, 1” Obese: 22 G, 1.5” Gluteal : Non-obese: 22 G, 1.5” Obese: 21 G, 2”

Pharmacokinetics:

Half-life (single-dose)	Half-life (multiple doses)	Time to maximum concentration
Not published	30-47 days	Deltoid: 4 days Gluteal: 5-7 days

ARIPIPRAZOLE LAUROXIL EXTENDED RELEASE INJECTION (ARISTADA)

Conversion from oral aripiprazole to aripiprazole lauroxil:

Oral Aripiprazole Dose	Aripiprazole Lauroxil Dose	Dosing Frequency*	Site of IM Injection
10mg per day	441mg	Every 4 weeks	Deltoid or Gluteal
15mg per day	662mg	Every 4 weeks	Gluteal
≥20mg per day	882mg	Every 4-6 weeks	Gluteal

*If an early dose is required, it may be given no earlier than 14 days since the last injection.

Overlap with oral medication: There should be an overlap with oral medications for 21 days after the first injection. Alternatively, patients can be loaded using ARISTADA INITIO- see next page.

Dose adjustments for drug interactions: Adjust dose of aripiprazole lauroxil if interacting medication is taken >14 days:

Circumstance	Aripiprazole lauroxil dose adjustment
Strong CYP3A4 inhibitor	Reduce dose to next lower strength*. No adjustment needed for 441mg dose
Strong CYP2D6 inhibitor	Reduce dose to next lower strength*. No adjustment needed for 441mg dose
Strong CYP2D6 ***plus*** CYP3A4 Inhibitor	Avoid use for 662mg and 882mg dose. No adjustment needed for 441mg dose
CYP 3A4 Inducers	No adjustment for 662mg and 882mg dose. Increase 441mg dose to 662mg

*****For 882mg every 6 weeks, next lower strength is 441mg every 4 weeks

Manage missed doses: Give the injection as soon as possible and follow the recommendations below regarding aripiprazole oral overlap. Supplemental oral aripiprazole dose should be the same as when the patient started aripiprazole lauroxil. Alternatively, missed doses can be managed with ARISTADA INITIO- see next page.

Last aripipirazole lauroxil dose	Length of time since last injection		
	No oral overlap required	Overlap with 7 days oral aripiprazole	Overlap with 21 days oral aripiprazole
441mg every 4 weeks	≤ 6 weeks	> 6 and ≤ 7 weeks	> 7 weeks
662mg every 4 weeks	≤ 8 weeks	> 8 and ≤ 12 weeks	> 12 weeks
882mg every 4 weeks	≤ 8 weeks	> 8 and ≤ 12 weeks	> 12 weeks
882 every 6 weeks	≤ 8 weeks	> 8 and ≤ 12 weeks	> 12 weeks

Medication supply, storage and handling:

Supplied	Reconstitution	Refrigeration	Administration	Needle Size
As prefilled syringe kits: 441mg 662mg 882mg	None	None, store at room temperature	Tap injection 10 times then shake 30 seconds	Deltoid (441mg only): Non-obese: 21 G, 1.5” Obese: 21 G, 2” Gluteal : Non-obese: 20 G, 1.5” Obese: 20 G, 2”

Pharmacokinetics

Half-Life (single-dose)	Half-Life (multiple doses)	Time to Maximum Concentration
Not Published	54-57 days	4 days with oral overlap 16 weeks with no oral overlap

ARIPIPRAZOLE LAUROXIL INJECTION (ARISTADA INITIO)

This is a one-time injection used to initiate treatment with aripiprazole lauroxil long acting injection (ARISTADA). It may also be used to re-initiate treatment with ARISTADA following a missed dose.

Dose: When initiating treatment, a single dose of 675mg should be given along with one 30mg dose of oral aripiprazole and the first ARISTADA injection (441mg, 662mg, 882mg or 1064mg). The first ARISTADA dose may be administered on the same day as ARISTADA INITIO or up to 10 days thereafter.

Missed doses of ARISTADA: Administer the next dose as soon as possible. Supplemental doses may be recommended, see table below:

Dose of last ARISTADA injection	**Length of time since last injection**		
441mg	≤6 weeks	>6 and ≤7 weeks	>7 weeks
662mg	≤8 weeks	>8 and ≤12 weeks	>12 weeks
882mg	≤8 weeks	>8 and ≤12 weeks	>12 weeks
1064mg	≤10 weeks	>10 and ≤12 weeks	>12 weeks
Dosage and administration for re-initiation of ARISTADA	No supplementation required	Supplement with a single dose of ARISTADA INITIO	Re-initiate with a single dose of ARISTADA INITIO and a single dose of oral aripiprazole 30mg

Dose adjustments for drug interactions: This product is only available at a single-dose pre-filled syringe, so dose adjustments are not possible. Avoid use in patients who are known CYP2D6 poor metabolizers, are taking strong CYP3A4 inducers/inhibitors or are taking strong CYP2D6 inhibitors.

Medication supply, storage and handling:

Supplied	**Reconstitution**	**Refrigeration**	**Administration**	**Needle Size**
As 675mg prefilled syringe kit	None	None, store at room temperature	Tap injection 10 times then shake vigorously 30 seconds	Deltoid: 21 G, 1” or 20 G, 1.5” Gluteal: 20 G, 1.5” or 20G, 2”

Pharmacokinetics

Half-Life (single-dose)	**Time to Maximum Concentration**
15-18 days	4 days with 30mg oral aripiprazole 27 days without oral overlap

APPENDIX 2: SIDE EFFECT MANAGEMENT MEDICATIONS BY INDICATION*

Drug	Mechanism	Dosing	Pregnancy**	Lactation**	Hepatic Impairment	Renal Impairment
Dystonia (non-acute) and Pseudoparkinsonism						
Amantadine	Unknown	100mg daily x1 week then 100mg BID. Maximum 300mg/day	Limited human data – animal data suggest risk	Limited human data – potential toxicity	No dose adjustments	-CrCl 30-50 ml/min: max dose 100mg/day -CrCl 15-29 ml/min: max 100mg every other day -CrCl: <15ml/min or hemodialysis: 200mg q7 days
Benztropine	Anticholinergic	0.5 – 4mg daily or BID	Limited human data – probably compatible	No human data – probably compatible	No dose adjustments	No dose adjustments
Diphenhydramine	Anticholinergic	25 – 50mg daily. Maximum 300mg/day	Compatible	Limited human data – probably compatible	No dosage adjustments provided in the manufacturer's labeling. Due to 50% liver metabolism, dose adjustments may be needed	No dosage adjustments provided in the manufacturer's labeling
Trihexyphenidyl	Anticholinergic	1mg daily, increase to 5-15mg/day divided in 3 doses with meals	Limited human data – no relevant animal data	Limited human data – probably compatible	No dosage adjustments provided in the manufacturer's labeling	No dosage adjustments provided in the manufacturer's labeling
Akathisia						
Mirtazapine	$5HT_{2A}$ antagonist	15mg QHS	Limited human data – animal data suggest moderate risk	Limited human data – potential toxicity	No dosage adjustments provided in the manufacturer's labeling; Use with caution	No dosage adjustments provided in the manufacturer's labeling; Use with caution
Propranolol	Centrally acting nonselective beta blocker	20-40mg BID. If needed, titrate up to 120mg/day	Human data suggest risk in 2^{nd} and 3^{rd} trimesters	Limited human data – potential toxicity	No dosage adjustments provided in the manufacturer's labeling	No dosage adjustments provided in the manufacturer's labeling

Drug	Mechanism	Dosing	Pregnancy**	Lactation**	Hepatic Impairment	Renal Impairment
Tardive Syndrome						
Deutetrabenazine	Reversible VMAT 2 inhibitor resulting in depletion of monoamine stores	6mg BID, may increase by 6mg/day weekly. Maximum 48mg/day	No data	No data	Use is contraindicated	No dosage adjustments provided in the manufacturer's labeling
Valbenazine	Reversible VMAT 2 inhibitor resulting in depletion of monoamine stores	40 daily x1 week then increase to 80mg daily	No data	No data	Child-Pugh class B or C: 40mg once daily; No dose adjustments for Child-Pugh class A	CrCl $\geq$ 30ml/min: no dose adjustment CrCl <30ml/min: use is not recommended
Sialorrhea						
Atropine	Topical anticholinergic	1% ophthalmic drops, 1-2 gtts SL qHS, if needed increase to TID	Sublingual: no data Opthalmic: no human data – probably compatible	Sublingual: no data Ophthalmic: no human data – probably compatible	No dosage adjustments provided in the manufacturer's labeling	No dosage adjustments provided in the manufacturer's labeling
Ipratropium	Topical anticholinergic	0.06% nasal spray, 1-2 puffs orally swish and spit daily, if needed increase to TID	Human data suggest low risk	No human data – probably compatible	No dosage adjustments provided in the manufacturer's labeling	No dosage adjustments provided in the manufacturer's labeling
Constipation						
Bisacodyl	Contact laxative stimulates peristalsis in large intestine and colon	Oral: 5 – 15mg daily Rectal: 10mg rectally once	No human data – probably compatible	Limited human data – probably compatible	No dosage adjustments provided in the manufacturer's labeling	No dosage adjustments provided in the manufacturer's labeling

Drug	Mechanism	Dosing	Pregnancy**	Lactation**	Hepatic Impairment	Renal Impairment
Docusate	Stool softener	100 – 300mg daily in once a day or divided doses. Maximum dose 300mg/day.	Compatible	Compatible	No dosage adjustments provided in the manufacturer's labeling	No dosage adjustments provided in the manufacturer's labeling
Lactulose	Increases osmotic pressure and acidification to cause water retention in stool	10 – 20g daily x1-2 days then may increase to 40g daily	No human data – probably compatible	No human data – probably compatible	No dosage adjustments provided in the manufacturer's labeling	No dosage adjustments provided in the manufacturer's labeling
Polyethylene glycol 3350	Osmotic laxative to cause retention of water in stool	17g daily	Compatible	No human data – probably compatible	No dosage adjustments provided in the manufacturer's labeling	No dosage adjustments provided in the manufacturer's labeling
Senna	Stimulant laxative	17.2mg daily. Maximum 34.4mg BID	Compatible	Compatible	No dosage adjustments provided in the manufacturer's labeling	No dosage adjustments provided in the manufacturer's labeling

*This table contains off-label uses of medications
**Data from Briggs Drug in Pregnancy and Lactation

APPENDIX 3: CLOZAPINE MONITORING AND MANAGEMENT*

ANC level	Treatment Recommendation	ANC Monitoring
Normal Range for a New Patient - General Population (ANC> 1500/µL)	-Initiate treatment -If treatment interrupted: - <30 days, continue monitoring as before - ≥30 days, monitor as new patient -Discontinuation for reasons other than neutropenia	-Weekly from initiation to 6 months -Every 2 weeks from 6 to 12 months -Monthly after 12 months - See Section 2.4 of the full Prescribing Information
BEN Population -BEN Population (ANC> 1000/ µL) -Obtain at least two baseline ANC levels before initiating treatment		
Mild Neutropenia (1000 to 1499/µL)*	**General Population** - Continue treatment	**General Population** -Three times weekly until ANC≥1500/ µL -Once ANC ≥1500/ µL, return to patient's last "Normal Range" ANC monitoring interval**
	BEN Population - Mild neutropenia is normal range for BEN population, continue treatment -Obtain at least two baseline ANC levels before initiating treatment -If treatment interrupted: - <30 days, continue monitoring as before - ≥30 days, monitor as new patient - Discontinuation for reasons other than neutropenia	**BEN Population** -Weekly from initiation to 6 months -Every 2 weeks from 6 to 12 months -Monthly after 12 months - See Section 2.4 of the full Prescribing Information
Moderate Neutropenia (500-999/µL)*	**General Population** - Recommend hematology consultation -Interrupt treatment for suspected clozapine induced neutropenia -Resume treatment once ANC normalizes to ≥1000/µL	**General Population** - Daily until ANC ≥ 1000/µL, then -Three times weekly until ANC≥1500/µL -Once ANC ≥ 1500/µL, check ANC weekly for 4 weeks, then return to patient's last "normal range" ANC monitoring interval**
	BEN Population - Recommend hematology consultation - Continue treatment	**BEN Population** -Three times weekly until ANC≥1000/µL or > patient's known baseline -Once ANC ≥ 1000/µL or patient's known baseline, then check ANC weekly for 4 weeks, then return to patient's last "normal range" ANC monitoring interval**
Severe Neutropenia (less than 500/µL)*	**General Population and BEN Population** -Recommend hematology consultation -Interrupt treatment for suspected clozapine induced neutropenia -Do not rechallenge unless prescriber determines benefits outweigh risks	**General Population** -Daily until ANC≥ 1000/µL -Three times weekly until ANC ≥1500/ µL -If patient rechallenged, resume treatment as a new patient under "Normal Range" monitoring once ANC ≥ 1500/µL
		BEN Population -Daily until ANC≥ 500/µL -Three times weekly until ANC ≥ patient's established baseline -If patient rechallenged, resume treatment as a new patient under "Normal Range" monitoring once ANC ≥ 1000/µL or at patient's baseline

* Confirm all initial reports of ANC < 1500/µL (< 1000/µL for BEN patients) with a repeat ANC measurement within 24 hours

** If clinically appropriate

APPENDIX 4: METABOLIC MONITORING

The 2004 Consensus Development Conference on Antipsychotic Drugs and Obesity and Diabetes recommends baseline and routine monitoring as follows:

	Baseline	4 Weeks	8 Weeks	12 Weeks	Quarterly	Annually	Every 5 Years
Personal/Family history	√						
Weight/BMI	√	√	√	√	√		
Waist Circumference	√					√	
Blood Pressure	√			√		√	
Fasting Glucose or HbG A1C	√			√		√	
Fasting Lipids	√			√		√*	√

*Fasting Lipids should be measured at baseline, 12 weeks, and annually in children and adolescents. Other monitoring recommendations are the same for children, adolescents and adults.

The 2005 American Heart Association/National Heart, Lung, and Blood Institute Scientific Statement on the Diagnosis and Management of the Metabolic Syndrome defines the diagnosis of metabolic syndrome meeting ≥3 of the following 5 categories:

Category	Categorical Cut-points
Waist Circumference	Men: ≥ 40 in (102 cm) Women: ≥ 35 in (88 cm)
Blood Pressure*	Systolic: ≥130 mm Hg OR Diastolic: ≥85 mm Hg
Fasting Plasma Glucose*	≥100 mg/dL
Triglycerides*	>150 mg/dL
HDL	Men: <40 mg/dL Women: <50 mg/dL

* Also positive if measurement in normal range and receiving treatment for that indication

APPENDIX 5: USE OF SGAS IN BIPOLAR DISORDER

SGAs are effective for the treatment of acute mania and mixed mood states in bipolar I disorder. They are frequently prescribed in the maintenance phase to prevent the recurrence of mania or hypomania. Fewer SGAs have an FDA indication for treatment of the depressed phase of bipolar disorder. Table 10 provides information on which SGAs are FDA approved for each phase of bipolar I disorder in both adults and children. Refer to the BHS Safer Prescribing of Mood Stabilizer Medication Guideline for more information about the treatment of bipolar disorder.

TABLE 10: SGA INDICATIONS IN BIPOLAR I DISORDER

	Mania and Mixed Episodes		Depressive Episodes		Maintenance Therapy	
Medication	**Adults**	**Children**	**Adults**	**Children**	**Adults**	**Children**
Aripiprazole	✓	✓ [1]				
Asenapine	✓	✓ [1]			✓	
Brexpiprazole						
Cariprazine	✓					
Clozapine						
Iloperidone						
Lurasidone			✓	✓ [1]		
Olanzapine	✓	✓ [2]			✓	
Olanzapine/fluoxetine			✓	✓ [1]		
Paliperidone						
Quetipine	✓ [4]	✓ [1 4]	✓			
Risperidone	✓	✓ [1]				
Ziprazidone	✓				✓ [3]	

[1] Children ages 10 to 17 years
[2] Adolescents ages 13 to 17 years
[3] For adjunctive therapy with lithium or valproate
[4] Indicated in mania only

REFERENCES AND FURTHER READING

Antipsychotic Prescribing Guidelines

National Institute for Health and Care Excellence (NICE). (2015). Antipsychotics in people with dementia. Available at: https://www.nice.org.uk/advice/ktt7/resources/antipsychotics-in-people-with-dementia-pdf-1632175200709.

National Institute for Health and Care Excellence (NICE). (2014). Psychosis and schizophrenia in adults: treatment and management. Available at: guidance.nice.org.uk/cg178

Volkmar F, Siegel M, Woodbury-Smith M, et al. (2014). Practice parameter for the assessment and treatment of children and adolescents with autism spectrum disorder. J Am Acad Child Adolesc Psychiatry. Feb;53(2):237-257.

McClellan J, Stock S, American Academy of Child and Adolescent Psychiatry (AACAP) Committee on Quality Issues (CQI). (2013). Practice parameters for the use of atypical antipsychotics medications in children and adolescents. J Am Acad Child Adolesc Psychiatry. Sep;52(9):976-90.

National Institute for Health and Care Excellence (NICE). (2013). Psychosis and schizophrenia in children and young people: recognition and management. Available at: guidance.nice.org.uk/cg155

Pilling S, Baron-Cohen S, Megnin-Viggars O, et al. (2012). Recognition, referral, diagnosis, and management of adults with autism: summary of NICE guidance. BMJ. Jun;344:e4082:1-4.

American Psychiatric Association. (2010). Practice guideline for the treatment of patients with major depressive disorder. 3rd ed. Arlington (VA): American Psychiatric Association (APA); Oct. 152 p.

Moore TA, Buchanan RW, Buckley PF, et al. (2007) The Texas Medication Algorithm Project antipsychotic algorithm for schizophrenia: 2006 update. J Clin Psychiatry. Nov;68(1):1751-62.

Suppes T, Dennehy EB, Hirschfeld RM, et al. (2005). The Texas implementation of medication algorithms: update to the algorithms for treatment of bipolar I disorder. J Clin Psychiatry. Jul;66(7):870-86.

BHS Medication Guidelines

SFHN BHS Safer prescribing of mood stabilizer medication guideline. January 2018. Available at: https://www.sfdph.org/dph/files/CBHSdocs/610054-3764-Safer-Use-of-Mood-Stabilizers-Guideline.pdf

SFHN BHS Safer prescribing of antidepressant medication guideline. March 2017. Available at: https://www.sfdph.org/dph/files/CBHSdocs/SaferPrescribingAntidepressantsGuidelines.pdf

SFHN BHS Blood pressure guidelines for behavioral health adults. August 2015. Available at: https://www.sfdph.org/dph/files/CBHSdocs/BHS-BP-Guidelines.pdf

SFHN BHS Safer use of psychotropic medications in children and adolescents. March 2016. Available at: https://www.sfdph.org/dph/files/CBHSdocs/Psychotropic-Medications-Guideline.pdf

Clozapine

Sherwood, M, Thornton, A E, & Honer, W G. (2012). A quantitative review of the profile and time course of symptom change in schizophrenia treated with clozapine. Journal of Psychopharmacology. 26(9), 1175-84.

Buchanan, R W, Kreyenbuhl, J, Kelly, D L, et al. (2010). The 2009 schizophrenia PORT psychopharmacological treatment recommendations and summary statements. Schizophrenia Bulletin. 36(1), 71-93.

Lundblad, W, Azzam, P N, Gopalan, P, et al. (2015). Medical management of patients on clozapine: A guide for internists. Journal of hospital medicine. Mar 23 [Epub ahead of print].

Clozaril (package insert) East Hanover, New Jersey: Novartis Pharmaceuticals Corporation 2014.

Older Adults

Lyketsos CG, Carrillo MC, Ryan JM, et al. (2011). Neuropsychiatric symptoms in Alzheimer's disease. Alzheimer's & Dementia : The Journal of the Alzheimer's Association. *7*(5):532–539.

Azermai M. (2015). Dealing with behavioral and psychological symptoms of dementia: a general overview. Psychology Research and Behavior Management. 8:181–185.

Alexander GC, Gallagher SA, Mascola A, et al. (2011). Increasing off-label use of antipsychotic medications in the United States 1995-2008. Pharmacoepidemiology and Drug Safety. 20(2):177–184.

Kales HC, Gitlin LN, Lyketsos CG. (2014). Management of neuropsychiatric symptoms of dementia in clinical setting: Recommendations from a multidisciplinary expert panel. J Am Geriatr Soc. 62:762-769.

Steinberg M, Lyketsos CG. (2012). Atypical antipsychotic use in patients with dementia: managing safety concerns. The American Journal of Psychiatry. 169(9):900–906.

American Geriatrics Society 2015 Updated Beers Criteria for potentially inappropriate medication use in older adults. (2015). J Am Geriatr Soc 63:2227–2246, 2015.

Pregnancy and Lactation

Massachusetts General Hospital: Center for Women's Mental Health. (2018). Psychiatric disorders during pregnancy. Available at: https://womensmentalhealth.org/specialty-clinics/psychiatric-disordersduring-pregnancy/.

FDA Drug Safety Communication: Antipsychotic drug labels updated on use during pregnancy and risk of abnormal muscle movements and withdrawal symptoms in newborns. (2011). Available at: https://www.fda.gov/Drugs/DrugSafety/ucm243903.htm.

Drug and Lactation Database (LactMed). Updated monthly. Available at: https://www.toxnet.nlm.nih.gov/newtoxnet/lactmed.htm.

Side Effect Monitoring and Management

Aquino CCH, Lang AE. (2014). Tardive dyskinesia syndromes: current concepts. Parkinsonism Relat Disord. Jan; Suppl :S113-7.

Hazari N, Kate N, Grover S. (2013). Clozapine and tardive movement disorders: a review. Asian Journal of Psychiatry. 6:439-451.

Desmarais JE, Beauclair L, Margolese HC. (2012). Anticholinergics in the era of atypical antipsychotics: short-term or long-term treatment? J Psychopharmacol. Sept;26(9):1167-74.

Poyurovsky M. (2010). Acute antipsychotic-induced akathisia revisited. British Journal of Psychiatry. 196:89-91.

Grundy SM, Cleeman JI, Daniels SR, et al. (2005). Diagnosis and management of the metabolic syndrome: an American Heart Association/National Heart, Lung and Blood Institute Scientific Statement. Circulation. Oct 25;12(17):2735-52.

Clark, Nathanial G. (2004). Consensus development conference on antipsychotic drugs and obesity and diabetes. Diabetes care. 27.2: 596.

*State Bill 482 requires **All PRESCRIBERS** to consult CURES prior to prescribing, ordering, administering, or furnishing a Schedule II–IV controlled substance effective on October 2, 2018 for outpatient and discharge prescriptions*

Every possible prescriber is required to register for a CURES account, which can be done here (it is quick): https://cures.doj.ca.gov/registration/confirmEmailPnDRegistration.xhtml.

- "Consulting of CURES" means a prescriber, not a designee, must log onto CURES to review a Patient Activity Report (PAR). This activity is available for audit and review by the Medical Board of California during any investigation.

When MUST I consult CURES?

1. ***Before the FIRST TIME** prescribing, ordering, administering, or furnishing a controlled substance to a patient, unless one of the exemptions below apply. Consulting of CURES must occur within the 24-hour period, or the previous business day, before the prescription is provided to the patient. Even if you are cross-covering for another prescriber, if this is the first time you prescribed to the patient or it has been over four months from the last time you consulted CURES for this patient for this controlled substance, you must consult CURES.*
2. ***At least once every four months** if the controlled substance remains a part of the patient's treatment plan.*
3. *Before any subsequent prescribing a controlled II-IV substance, if previous prescription was exempt*

- **Outpatient clinic** prescriptions
- **Residential care** prescriptions
- **Discharge** medications (eg from Skilled Nursing Facility, Mental Health Rehabilitation Center)
- **Take home** medications (eg from Narcotic Treatment Programs)

Who is NOT required to consult CURES?

A health care practitioner is exempt from checking CURES in any of the following circumstances:

- **Admitted patients** to or transfer between a Licensed Clinic, Outpatient Setting, Health Facility, or County Medical Facility or medications administered to the patient at these locations. See links for detailed definition
- **Emergency department** of a general acute care hospital if prescription is for ≤ 7-day supply (no refills)
- Patient's treatment for a **surgical procedure** if prescription is for ≤ 5-day supply (no refills)
- The patient is receiving **hospice care**

Circumstance	*Exemption Status*
Admitted to a Skilled Nursing Facility (ex: Laguna Honda Hospital)	Exempt
Admitted to Mental Health Rehabilitation (ex: Behavioral Health Center)	Exempt
Admitted to a Narcotic Treatment Program - Only Getting Dosed in Clinic	Exempt

What if it is not 'reasonably possible' to consult CURES?

If a healthcare provider determines consulting CURES would result in patients inability to obtain a prescription in a timely manner, a 5-day supply with no refills may be prescribed

- Prescriber **must** document in the medical record the reason for **not** consulting CURES
- Examples may include – CURES is malfunctioning, clinic computer system is down

What are the consequences if I do not check CURES?

Failing to consult CURES could result in the issuance of a citation and fine, or could be a cause of action in an accusation that leads to disciplinary action such as public reprimand, suspension, probation, or revocation. Each violation of the law is reviewed on a case-by-case basis

- Documentation of CURES consultation in the patient's medical record is not required, but the California Medical Board recommends it (as noted above, documentation IS required if CURES cannot be consulted)
- Currently there is no requirement for institutions to proactively report compliance rates to outside agencies or professional boards

What controlled substances does this apply to?

Providers must check CURES the first time they prescribe any schedule II, III, or IV medication (even if a previous provider already prescribed the medication)

Common Examples	***Don't Forget About***
• Benzodiazepines	• Carisoprodol (SOMA)
• Z-drugs (ex: zolpidem)	• Xyrem for narcolepsy
• Stimulants for ADHD	• Midrin for migraine
• Modafanil (Provigil)	• Eloxaludine (Viberzi) for IBD
• Cannabinoids (Marinol)	• Dexfenfluramine, Lorcaserin for weight loss
• Opioids including buprenorphine	• Testosterone patch or gel

How can I document in my Behavioral Health Services clinic?

All BHS providers can document CURES consultations in progress notes and bill as Medication Support

- Prescribers may assign a delegate to save CURES searches on their behalf; they are responsible for the delegate's searches (see CURES Delegate Info). The prescriber is responsible for review of the CURES searches created by the delegate and documentation of this review.

For more information, please see the following links

Overview: http://www.mbc.ca.gov/Licensees/Prescribing/CURES/Mandatory_Use.aspx

FAQ: http://www.mbc.ca.gov/Licensees/Prescribing/CURES/CURES_FAQ.pdf.

San Francisco Health Network Behavioral Health Services
Medication Use Improvement Committee
1380 Howard St. 5th Floor
San Francisco, CA 94103

City and County of San Francisco
Mark E. Farrell
Mayor

APPROACHES TO TOBACCO USE DISORDER MEDICATION-ASSISTED TREATMENT GUIDELINE

SCOPE: This Approaches to Tobacco Use Disorder Medication-Assisted Treatment (TUD MAT) Guideline is intended to offer prescribing assistance for providers, clients and the interested general public to increase the effectiveness and utilization of TUD MAT in the ambulatory care setting. It is not intended to be comprehensive in scope. These recommendations are not a substitute for clinical judgment, and decisions about care must carefully consider and incorporate the clinical characteristics and circumstances of each individual client.

INTRODUCTION: Tobacco Use Disorder is a chronic and relapsing disease characterized by the compulsive use of tobacco products despite known negative health effects and/or negative financial consequences. Although smoking cigarettes represents the most common form of tobacco use, other forms of tobacco ingestion include; smokeless tobacco, compressed dissolvable tobacco, cigars, tobacco pipes and water pipes (hookahs) and electronic nicotine delivery system (ENDS: vaporizers and electronic cigarettes). There is currently no form of tobacco that is considered without health risks. Despite heavy debate about recommending ENDS as a form of harm reduction to replace smoking tobacco, they are currently not a recommended treatment. ENDS are not FDA regulated and products being advertised as containing no nicotine have been found to contain varying levels of nicotine. ENDS contain cancer causing chemicals and heavy metals.

In the past 50 years smoking rates have significantly declined from approximately 40% prevalence in 1965 to 16.8% in 2014. Despite the substantial decrease in prevalence in the overall population, tobacco use has not declined in persons with mental health (MH) and/or substance use disorders (SUD). In fact, it is estimated that 75% of those with either a SUD or MH disorder use tobacco products. Nearly half of all deaths occurring in those being treated for a SUD or MH disorder are due to a tobacco related illness. Tobacco related deaths also occur decades earlier than in the general population. A staggering 200,000 of the 435,000 annual deaths from smoking are in people with a SUD or MH disorder. The lack of progress within these groups is not due to lack of desire as the majority of persons with a SUD or a MH disorder want to quit using tobacco products and want information about the resources to aid in doing so. Of clients residing in substance use facilities, 50-70% are interested in quitting. Of hospitalized psychiatric clients with TUD, approximately 80% are interested in smoking cessation. Therefore, SUD and MH disorder clients are in many cases willing and ready to attempt to stop using tobacco products.

Barriers that contribute to inadequate TUD treatment in the SUD and MH populations include lack of adequate staff training, lack of knowledge about treatment resources, time constraints, providers and clients alike may share concerns about MH or SUD symptom relapse/exacerbation and may expect failure to quit as the rule not the exception. On the contrary, persons who abstain from tobacco use during SUD treatment are less likely to relapse to drugs or alcohol. Although it is not uncommon for people to believe that smoking helps improve or control MH symptoms research suggests that tobacco use is associated with greater depressive symptoms, anxiety and an increase in suicidal behavior. People

with depression, schizophrenia and post-traumatic stress disorder can quit without impairing their mental health recovery. Despite some misconceptions this population can stop smoking at rates comparable to those in the general population. Tobacco use and dependence should routinely and aggressively be treated within the behavioral health system. Treatment should include both counseling and medication interventions. Having a psychiatric disorder can make this population more susceptible to relapse related to stress and negative feelings. In fact, a psychiatric diagnosis in itself is a risk factor for relapse even for those who haven't smoked in more than 1 year. Treatment should include relapse support and be offered well past the point of cessation.

A further barrier is the historical relationship of tobacco used as a therapeutic tool in the SUD and MH treatment facility setting. Long term relationships with tobacco by providers and clients alike have made TUD more accepted in MH and SUD than in comparable primary care settings. Research has revealed that ignoring TUD in MH and SUD treatment is tantamount to causing harm. This has resulted in policy changes in some residential programs requiring smoke free campuses. Smoke free campus requirements have significantly decreased smoking prevalence in treatment facility staff and have resulted in meaningful decreases in cigarettes per day for clients. Currently the Department of Health Care Services will reimburse residential treatment programs for their smoking cessation efforts, including groups. To decrease program absences medical staff is encouraged to write prescriptions for nicotine replace therapy (NRT) for TUD clients attending residential smoke-free programs.

ASSESSMENT AND INTERVENTION PLANNING: A comprehensive approach to addressing quitting is summarized in Table 1. See Appendix 1 for resources available to clients and providers.

Table 1: "5 A's" Algorithm

ASK	
Ask about tobacco use at every encounter	Identify all tobacco users and determine nicotine product used, quantity and current tobacco use status **Suggested Dialogue:** "Benazepril is used to treat hypertension which is often made worse by smoking tobacco products. Do you, or does someone in your household smoke?" "Anxiety is made worse by tobacco smoke. Do you, or does someone in your household smoke?"
ADVISE	
In a clear, personalized, non-judgmental message advise every smoker to quit	**Suggested Dialogue:** "As your medical provider I want to encourage you to consider cutting down or quitting smoking." "I'm concerned about your smoking and how that is affecting your goal to stop drinking alcohol. Did you know that some research has shown when you stop drinking and using tobacco products at the same time you can improve your chances of sobriety?"
ASSESS	
Assess willingness to make a quit attempt in the next month Discuss client specific benefits Identify client's position on readiness to change model	**Preparation**: Ready to make a quit attempt in the next 30 days → Proceed to Assist **Contemplation:** Ready to quit in the next 6 months → Schedule a follow up "what is getting in the way of you quitting now?" **Pre-Contemplation:** Not ready to quit in the next 6 months → Offer empathy and autonomy support. Offer to set a date

	in the future to check-in and provide motivational intervention. **Maintenance:** Quit for longer than 6 months → Relapse prevention
ASSIST	
Aid client in quitting	See Appendix 2 Smoking Cessation Client Interview 1) Assess tobacco use history 2) Set a quit date "have you thought about a quit date?" a. Alternative: recommended practicing not smoking for 24 hours and seeing how it goes→ then setting a quit date 3) Develop a quit plan which may include: a. Referral to local resources (see Appendix 1) b. Identifying social support/resources c. Identifying pattern of use/triggers d. Planning coping skills and routine changes e. Exploring past attempts and identifying what worked well and what didn't work well f. Determining preferred method of cessation (medication-assisted, cold turkey, reduction)
ARRANGE	
Schedule follow-up contact	Highest risk of drop-out is within the first 7 days. Some evidence suggests more contact with mental health clients leads to more success. Actions during follow-up: 1) Congratulate any successes 2) Review wins and challenges 3) Assess pharmacotherapy Minimum follow-up frequency: 1) First contact within first week after the quit date 2) Second contact within the first month after quit date 3) Further contact as needed

NICOTINE WITHDRAWAL: Nicotine causes physical dependence and tolerance to the user. When quitting, nicotine withdrawal symptoms can peak in the first 3 days. Symptoms typically subside over the next 3 weeks but may continue for months. Symptoms include negative mood, urges to use, difficulty concentrating, increased appetite/weight gain, insomnia, irritability, anxiety, and restlessness. About half of nicotine users experience at least four of these symptoms when they quit. Any of the first-line pharmacologic agents described below are efficacious in reducing withdrawal symptoms. Clients that report prolonged cravings and withdrawal may be candidates for extended treatment or a combination of pharmacotherapy agents to target symptoms. See Appendix I for client resources regarding nicotine withdrawal and behavioral strategies to treat nicotine withdrawal symptoms and cravings.

TOBACCO USE DISORDER PHARMACOTHERAPY: The use of pharmacotherapy improves the rate of abstinence by 100%-200% compared to "cold-turkey." Three pharmacologic modalities are approved by the US Food and Drug Administration (FDA) for the treatment of TUD and include: nicotine replacement therapy (NRT), varenicline, and bupropion. These agents have different mechanisms of action and should be used with the consideration of client specific factors and preferences. The goal of treatment is complete abstinence from smoking. Clients that fail to quit, but

reduce the number of cigarettes per day, still incur the negative health risks associated with smoking. The health benefits of smoking reduction are not well studied, however clients that are able to reduce their smoking are more likely to quit in the future. Pharmacotherapy is generally not recommended in clients who smoke less than 10 cigarettes a day. Best outcomes are obtained when pharmacotherapy is used with behavioral counseling. See Appendix 3 for a summary of pharmacotherapy options.

NICOTINE REPLACEMENT THERAPY (NRT): See Appendix 3 for a summary of the nicotine products available, common side effects, and dosing recommendations. NRT relieves nicotine withdrawal symptoms and is used to treat nicotine cravings. The combination of long-acting nicotine (transdermal patch) plus short-acting nicotine as needed (gum or lozenge) is more effective than either alone, however the choice is based largely on client preference and cost. Alternatively, nicotine replacement therapy can safely be added to bupropion to improve abstinence rates. NRT should gradually be reduced as the client abstains from smoking.

Side effects: Treatment side effects are listed in Appendix 3 and differ depending on route of administration. Thorough education of how to use each product is necessary to maximize benefit and limit side effects. For clients that experience vivid dreams with the nicotine transdermal patch, it is suggested to remove the patch at bedtime. Clients that complain of gastrointestinal symptoms with nicotine gum products should be educated on proper gum chewing technique to minimize oral ingestion of nicotine. Those with temporomandibular joint disease, poor dentition, or dental appliances may find nicotine lozenges easier to use compared to the gum.

Drug interactions: There are no clinically meaningful drug interactions with nicotine in any of the routes of administration described. Some clients may experience increased side effects (i.e. nausea, headache, indigestion) to NRT when used in combination with varenicline, however the mechanism to this interaction is unknown.

VARENICLINE: Varenicline is an oral medication that works by blocking nicotine from binding to the receptors that mediate nicotine dependence to reduce withdrawal symptoms and decrease cravings. Randomized controlled trials with varenicline suggest a more robust quit rate in the general population when compared to other monotherapy treatment modalities. When compared to combination NRT, varenicline did not show superior efficacy and produced similar quit rates. It has yet to be studied in a prospective manner in clients with unstable psychiatric symptoms and therefore is not recommended as first-line treatment in clients with unstable psychiatric symptoms. Varenicline allows for an alternative gradual approach to quitting for clients who are not able or not willing to quit abruptly. See Appendix 3 for dosing recommendations and client considerations.

Side effects: Varenicline carried a boxed warning regarding potential neuropsychiatric side effects that was removed in 2016 after more recent studies demonstrated no difference in neuropsychiatric side effects compared with nicotine or bupropion. Neuropsychiatric effects include behavioral changes, hostility, agitation, depressed mood, and suicidal thoughts and attempts. Systematic reviews of varenicline in clients with mental health disorders reveal no significant difference in neuropsychiatric events compared to placebo, however the included studies have smaller sample sizes and exclude clients with unstable psychiatric symptoms (see special populations below). Despite the removal of the warning, clients should be counseled on the potential exacerbation of psychiatric symptoms and report any changes in mood or behavior. In the event of new or worsening suicidal thoughts, varenicline should be stopped immediately.

Drug interactions: There are no clinically meaningful pharmacokinetic drug interactions with varenicline. Some clients may experience increased side effects (i.e. nausea, headache, indigestion) to NRT when used in combination with varenicline, however the mechanism to this interaction is unknown.

BUPROPION: Bupropion is an oral antidepressant medication that enhances norepinephrine and dopamine release in the brain. Its exact mechanism to aid in smoking cessation is not known. It can be considered for those with underlying depression but is also effective in those that are not diagnosed with depression. Bupropion can potentially reduce the amount of weight gain associated with smoking cessation and can be considered in clients for which this would be a concern. When used as monotherapy for the treatment of TUD, bupropion demonstrates slightly lower abstinence rates than other first-line therapies. See Appendix 3 for dosing recommendations and client considerations.

Side effects: Bupropion reduces the seizure threshold in a dose-dependent manner and should be avoided in clients with a known seizure disorder or predisposition to seizure (e.g. alcohol withdrawal, bulimia nervosa). Common side effects are listed in Appendix 3.

Drug Interactions: The major metabolic pathway for bupropion is via CYP2B6 and acts as a moderate inhibitor of CYP2D6. See Table 2 for more information about drug interactions.

Table 2: Bupropion Drug Interactions

Interaction	Clinical Concern
CYP2D6 substrates (ex: fluoxetine, tamoxifen, risperidone, beta-blockers, tramadol)	Increased concentrations of 2D6 substrates when co-administered with bupropion.
CYP2B6 inducers (ex: phenytoin, carbamazepine, rifampin)	Decrease in bupropion exposure when co-administered. Efficacy may be reduced.
MAO inhibitors in preceding 14 days or concurrent use of reversible MAO inhibitors	Increased risk of hypertensive reaction. Combination is contraindicated.

DURATION OF TREATMENT WITH TUD MAT: All clients who initiate pharmacotherapy should have initial follow-up via an office visit or phone call within one to two weeks to assess for positive responses, side effects, and medication optimization. The optimal duration of TUD MAT has not been established.

NRT manufacturers recommend treatment for two to three months, however BHS recommends continuing NRT until the client feels they are no longer at risk for relapse as continued pharmacotherapy can help prevent relapse. When treated with NRT for two months relapse rates are up to 80% during the first year following NRT cessation. It is estimated that approximately 50% of relapses could be averted with extended NRT use past the recommended guidelines. Long-term treatment with NRT (> 6 months) has not been associated with additional major health risks or adverse effects and is preferable in clients who are at high risk of relapsing to cigarette use. Clients with prolonged use may be at higher risk of nicotine withdrawal when stopping their NRT and should be tapered using a lower dose patch, gum, or lozenge. Insurance companies may not cover smoking cessation medications beyond three months and may require additional authorizations for continued use.

Clients may benefit from continuing varenicline after the recommended 12 weeks to prevent relapse. Safety and efficacy have been established up to 6 months of continued use.

The duration of treatment with bupropion may be influenced by other indications outside of TUD (i.e. depression, ADHD) that would require longer term treatment. The recommended duration of treatment with bupropion for TUD is 7-12 weeks, however safety and efficacy has been established up to 12 months of continued use.

MEDICATION SELECTION FOR TUD MAT: Appendix 5 provides decision guidance in selecting pharmacologic therapy. Recommendations are based on randomized-controlled trials, cost, availability,

and other practical considerations. Client preference and co-morbid conditions should be considered when choosing an initial agent as the three different treatment modalities have relatively comparable abstinence rates ranging from 20-35%. Clients with no response to the initial agent at four weeks should have a re-assessment of their treatment to determine if a change in medication is indicated. Medication dosing and administration should be reviewed to ensure adherence and proper use. Those with a partial response to the initial treatment may benefit from the addition of a second agent based residual symptoms such as ongoing withdrawal or cravings. For clients who successfully quit then relapse, the medication that previously worked should be considered.

OFF-LABEL AGENTS WITH INSUFFICIENT EVIDENCE TO RECOMMEND AS FIRST-LINE THERAPY

Nortriptyline: Nortriptyline is a tricyclic antidepressant medication with modest evidence for use in TUD. It can be considered for clients who require adjunctive treatment to a first-line therapy. It may be poorly tolerated in many clients due to sedation, dry mouth, constipation, and dizziness. Nortriptyline should be avoided in clients at risk of arrhythmias, bipolar disorder, and those at risk of overdose. See Appendix 3 for dosing recommendations and client considerations.

Clonidine: Clonidine has limited evidence to support its use in smoking cessation with conflicting efficacy study results. Side effects such as drowsiness, fatigue, and dry mouth may further limit its use. See Appendix 3 for dosing recommendations and client considerations.

Electronic Cigarettes: The role of electronic cigarettes (also known as e-cigarettes) in the treatment of TUD is still unknown. They do not burn tobacco like in conventional cigarettes and have fewer traditional toxins, however information regarding their safety is still uncertain. The use of e-cigarettes to aid in smoking cessation is not currently recommended.

CO-OCCURING DISORDERS AND SPECIAL POPULATIONS

Cardiovascular disease: In those with stable cardiovascular disease (CVD) the same treatments can safely be used as the general population. Caution should be used with NRT in the first two weeks immediately following a myocardial infarction because of its potential to increase cardiac demand.

Pregnancy: Smoking during pregnancy is the most important modifiable risk factor associated with adverse pregnancy outcomes. Smoking cessation early in pregnancy is most beneficial for the mother and fetus, however quitting at any time in pregnancy can provide benefit. The U.S. Clinical Practice Guideline states that pregnant smokers should be encouraged to quit without medication based on insufficient evidence of effectiveness and theoretical concerns with safety. It is reasonable to consider pharmacotherapy in women who are unable to quit and are at high risk for continued smoking throughout pregnancy. Women that are unable to quit smoking should be referred to a specialist in high risk obstetrics. American College of Obstetricians and Gynecologists recommends the use of NRT with close supervision after discussing the risks of continued smoking against possible risks of pharmacotherapy. There is no strong evidence that pregnant smokers who use NRT are at higher risk of adverse events than pregnant smokers not using NRT. Bupropion can also be considered in this population after discussing the risks and benefits of treatment. Bupropion is known to cross the placenta, however is associated with a low risk of teratogenicity. There is no information regarding the safety of varenicline in pregnancy and thus should be avoided in this population.

Lactation: The Committee on Drugs of the American Academy of Pediatrics recommends NRT as the preferred pharmacotherapy in breastfeeding women. Although nicotine passes into breast milk, the risks associated with smoking are deemed to be of greater harm. Nicotine may have adverse effects on the infant, such as interfering with lung development and increasing the risk of sudden infant death syndrome. Bupropion and its active metabolites are present at low concentrations in breast milk. It may be used in breastfeeding women after discussion of the potential risks of exposure that include vomiting,

jitteriness, sedation, and potential seizures. Data on varenicline in humans is not available and thus should be avoided in breastfeeding women.

Co-occurring mental illness: Those with mental illness are often more nicotine dependent than the general population and may need higher doses, longer duration of treatment, and combined medications to optimize therapy. Clients on medications for the treatment of their mental illness may incur changes in medication blood levels depending on their smoking status. This drug interaction is due to the induction of CYP 1A2 secondary to the hydrocarbons found in smoke that is inhaled from cigarettes, therefore nicotine replacement therapy would not have the same effect. See Appendix 4 for a summary of psychotropic medications susceptible to this interaction. Monitoring medication side effects and symptoms of illness are necessary as a client quits smoking or relapses to determine if a change is dose is required.

Depression: Consider using bupropion for clients with a diagnosis of depression although bupropion's efficacy has been shown independent of depressive symptoms. Varenicline has limited evidence in clients with unstable depressive symptoms or active suicidal ideation. Existing prospective studies have only included patients currently in remission or those on a stable dose of antidepressant for at least 2 months. These studies have not demonstrated an increase in suicidality or worsening depression. Clients with comorbid depression with unstable symptoms should be monitored closely if started on varenicline due to potential for worsening suicidality and other neuropsychiatric symptoms.

Schizophrenia: The combination of bupropion and NRT has been shown to be more effective in clients with schizophrenia than NRT alone and may be considered as a first-line option. Conflicting evidence exists regarding varenicline exacerbating psychotic symptoms in schizophrenia. Generally, varenicline should be avoided in this population, particularly in the setting of unstable symptoms as this has not been evaluated in a prospective manner. Studies that have not demonstrated a worsening in neuropsychiatric symptoms have included participants without hospitalization or acute exacerbation for at least 6 months prior to enrollment and stable dose of treatment.

Bipolar disorder: There are relatively fewer data specific to smokers with bipolar disorder. It is reasonable to avoid bupropion in the setting of bipolar disorder as antidepressant therapy may lead to resurgence of manic symptoms. Clients with unstable symptoms of bipolar disorder should be monitored closely if started on varenicline due to potential for worsening neuropsychiatric symptoms.

Anxiety disorders: Bupropion has the potential to worsen anxiety symptoms upon initiation, however has been effectively used in clients with comorbid anxiety. Bupropion has also demonstrated efficacy in the treatment of TUD in clients with PTSD. Clients with uncontrolled symptoms or unstable comorbid mental illnesses should be monitored closely if started on varenicline due to potential for worsening neuropsychiatric symptoms.

Substance use disorders: Clients with a co-occurring substance use disorder have the highest prevalence of smoking among people with mental illness reaching as high as 98%. Recent evidence supports treating TUD improves treatment of other substance use disorders. Clients with comorbid substance use disorders have a lower abstinence rate than the general population and may benefit from more intensive behavioral interventions. Active substance abuse precludes clients from enrollment into most prospective studies, therefore other patient factors should be considered in treatment selection.

Adolescents: The safety and efficacy of TUD MAT in adolescents is less known as compared with adults. NRT can be used safely in this population and may be considered in addition to behavioral interventions. Lower doses of nicotine patches and gum should be used in those with body weight less than 45 kilograms. Of note, over the counter (OTC) sales of NRT products are restricted to those ≥ 18

years of age. Bupropion and varenicline should be used at the discretion of the clinician as evidence in this age group is limited.

Older adults: There are no meaningful differences in safety or efficacy in older adults.

Hepatic impairment: NRT can safely be used in hepatic impairment although clearance may be reduced. Bupropion should be used with caution in clients with hepatic impairment. Dose reductions are recommended in for those with moderate-severe impairment. No dosage adjustment is necessary for varenicline.

Renal impairment: No dosage adjustment is necessary for NRT. Bupropion side effects should be monitored in those with reduced renal clearance. Varenicline requires dose reduction for clients with creatinine clearance less than 30 ml/min. See Appendix 3 for recommendations.

REFERENCES AND FURTHER READING

INTRODUCTION, ASSESSMENT, AND INTERVENTION PLANNING

U.S. Department of Health and Human Services. (2014). Reducing the health consequences of smoking: 50 years of progress: a report of the surgeon general. US Department of Health and Human Services, Rockville, MD. Available online at: https://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf

Grant BF, Hasin DS, Chou P, et al. Nicotine dependence and psychiatric disorders in the United States; results from the national epidemiologic survey on alcohol and related conditions. Arch Gen Psychiatry. 2004;61:1107-1115.

Bandiera FC, Anteneh B, Le T, et al. Tobacco-related mortality among persons with mental health and substance abuse problems. PloS One. 2015;10 e0120581.

Royal College of Physicians, Royal College of Psychiatrist. (2013). Smoking and mental health. London RCP. Available online at: https://www.rcplondon.ac.uk/file/3583/download?token=bAgvRKDO

Morris CD, Giese AA, Turnbull JJ, et al. Predictors of tobacco use among persons with mental illness in a statewide population. Psychiatric Serv. 2006;57:1035-1038.

Tulloch HE, Pipe AL, Clyde MJ, et al. The quit experience and concerns of smokers with psychiatric illness. AM J of Prev Med. 2016;50:709-718.

Han B, Compton, M, Blanco C. Tobacco use and 12-month suicidality amount adults in the United States. Nicotine Tob Res. 2017;19:39-48.

Weinberger AH, Platt J, Esan H, et al. Cigarette smoking is associated with increased risk of substance use disorder relapse. A nationally representative, prospective longitudinal investigation. J Clin Psych. 2017; 78:e152-e160.

Weir K. Smoking and mental illness. People with behavioral health conditions are more likely to smoke. Psychologists are among those working to understand why and helping them quit. Monitor on Psychology. 2013;44:36.

Alvarez Gutierrez FJ, Ferrer Galvan M, Ruiz Bernal AP, et al. Predictors of 10-year smoking abstinence in smokers abstinent for 1 year after treatment. Addiction. 2016;111:545-551.

McKelvey K, Thrul J, Ramo D. Impact of quitting smoking and smoking cessation treatment on substance use outcomes; An updated and narrative review. Addict Behav. 2017;65:161-170.

Knudsen HK, Studts JL, Boyd S, et al. Structural and cultural barriers to the adoption of smoking cessation services in addiction treatment organizations. J of Addict Dis. 2010;29:294-305.

U.S. Department of Health and Human Services. (2016). E-cigarette use among youth and young adults: a report of the surgeon general. US Department of Health and Human Services, Rockville, MD. Available online at: https://e-cigarettes.surgeongeneral.gov/documents/2016_sgr_full_report_non-508.pdf

National Association of State Mental Health Program Directors. (2007). Tobacco-free living in psychiatric settings: a best-practices toolkit promoting wellness and recovery. Available online at: https://www.nasmhpd.org/sites/default/files/April142011TCIP_tk_FINAL_electronic0414.pdf

PHARMACOTHERAPY

University of California San Francisco School of Pharmacy. (2018). The Rx for change: clinician-assisted tobacco cessation curriculum. Available online at: http://rxforchange.ucsf.edu

Fiore MC, Jaén CR, Baker TB, et al. (2008). Treating tobacco use and dependence: 2008 update. US Department of Health and Human Services, Rockville, MD. Public Health Service. Available online at: https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/clinicians-providers/guidelines-recommendations/tobacco/clinicians/update/treating_tobacco_use08.pdf

National Institute for Clinical Excellence (NICE). (2013). Smoking: acute, maternity and mental health services. NICE Public Health Guidance 48. Available online at: https://www.nice.org.uk/guidance/ph48/resources/smoking-acute-maternity-and-mental-health-services-pdf-1996364658373

Stead LF, Koilpillai P, Fanshawe TR, et al. Combined pharmacotherapy and behavioral interventions for smoking cessation. Cochrane Database Syst Rev. 2016;24:3:CD008286.

Cahill K, Stevens S, Perera R, Lancaster T. Pharmacological interventions for smoking cessation: an overview and network meta-analysis. Cochrane Database Syst Rev. 2013;5:CD009329.

Hajek P, West R, Foulds J, et al. Randomized comparative trial of nicotine polacrilex, a transdermal patch, nasal spray, and an inhaler. Arch Intern Med. 1999;159:2033–2038.

Wennike, P, et al. Smoking reduction promotes smoking cessation: results from a double blind, randomized, placebo-controlled trial of nicotine gum with 2-year follow-up. Addiction. 2003;98:1395–402.

Ziedonis D, Hitsman B, Beckham JC, et al. Tobacco use and cessation in psychiatric disorders: national institute of mental health report. Nicotine Tob Res. 2008;10:1691–1715.

Williams JM, Hughes JR. Pharmacotherapy treatments for tobacco dependence among smokers with mental illness or addiction. Psychiatric Annals. 2003;33:457- 466.

Morris CD, Morris CW, Matrin LF, et al. (2009). Tobacco cessation toolkit for mental health providers. University of Colorado Denver, Department of Psychiatry, Behavioral Health and Wellness Program. Available online at: https://www.integration.samhsa.gov/Smoking_Cessation_for_Persons_with_MI.pdf

Kleber HD, et al. (2006). Treatment of patients with substance use disorders, second edition. American Psychiatric Association. Available online at: http://www.psych.org/psych_pract/treatg/pg/SUD2ePG_04-28-06.pdf

Wu Q, Gilbody S, Peckham E, et al. Varenicline for smoking cessation and reduction in people with severe mental illness: systematic review and meta-analysis. Addiction. 2016 Sep;111:1554-67.

Kroon LA. Drug interactions with smoking. Am J Health-Syst Pharm. 2007;64:1917-21.

APPENDIX 1: LOCAL RESOURCES

Program Name	Overview
Free Smoking Cessation Groups	
San Francisco Tobacco Free Project Zuckerberg San Francisco General Hospital and Trauma Center 2550 23rd St, Building 40, on the 5th floor San Francisco, CA 94110 Phone: (628) 206-6074 http://sanfranciscotobaccofreeproject.org/you/	A free program to assist residents of San Francisco to quit smoking or cut back located at the Zuckerberg San Francisco General Hospital. This program consists of a series of classes aimed at assisting those that wish to quit smoking achieve this goal.
The Last Drag 290 Dolores Street San Francisco, CA 94103 Phone: 415-339-7867 Hours: Wednesdays 6:30-8:00 pm www.lastdrag.org	A group cessation program for lesbian, gay, bisexual, transgender, and HIV positive individuals.
Northern California Intergroup of Nicotine Anonymous 1748 Market St, Suite #202 San Francisco, CA 94102 Phone: 415-775-7171 Hours: Wednesdays 6:30 pm 2118 Greenwich St San Francisco, CA 94123 Phone: 415-308-1886 Hours: Saturdays 10:00 am http://www.nica-norcal.org/index.shtml	A 12-step help program for men and women.
Free Phone and Online Programs	
California Smokers' Helpline English: 1-800-NO-BUTTS (1-800-662-8887) Spanish: 1-800-456-6386 Mandarin & Cantonese: 1-800-400-0866 Vietnamese: 1-800-778-8440 Korean: 1-800-556-5564 Deaf/Hearing Impaired: 1-800-933-4TDD https://www.nobutts.org/	Free telephone counseling, self-help materials, and online help in six languages to help clients quit smoking.
quitSTART smartphone app http://tinyurl.com/freequitstart	A free smartphone app created by the Tobacco Control Research Branch at the National Cancer Institute in collaboration with the FDA. The app takes personal information about a person's smoking history and gives tips, inspiration, and challenges to assist in becoming smokefree.
QuitGuide smartphone app **https://www.cdc.gov/tobacco/campaign/tips/quit-smoking/mobile-quit-guide/index.html**	A free smartphone app developed by the Tobacco Control Research Branch at the National Cancer Institute. The app helps an individual understand smoking patterns and build the skills needed to become and stay smokefree.
Smokefree.gov	An online website created by the Tobacco Control Research Branch at the National Cancer Institute that provides free, accurate, evidence-based information and professional assistance to help support the immediate and long-term needs of people trying to quit smoking.

Program Name	Overview
Resources for Providers	
Rx for Change http://rxforchange.ucsf.edu/	Clinician-Assisted Tobacco Cessation is a comprehensive tobacco cessation training program that equips health professional students and practicing clinicians, of all disciplines, with evidence-based knowledge and skills for assisting clients with quitting. UCSF openly shares the Rx for Change materials with others at no cost; however, all persons who receive any component of the Rx for Change program must complete an online registration process. Rx for Change can be used only for non-commercial teaching and research purposes and cannot be used for profit.
Smoking Cessation Leadership Center https://smokingcessationleadership.ucsf.edu/	A national program office of the Robert Wood Johnson Foundation at the University of California, San Francisco with a mission to raise the number of health professionals and health care institutions that successfully help their clients to quit smoking. It provides clinicians with research and information, and smokers with resources to quit. The Center creates partnerships for results with a variety of groups and institutions to develop and implement action plans around smoking cessation.
1800-NO-BUTTS https://www.nobutts.org/free-training	The Center for Tobacco Cessation (CTC) provides training for the California Smokers' Helpline. CTC helps organizations with professional training, structure and provides the following free services: 1) Free continuing education credits through online courses designed to provide the knowledge necessary to treat tobacco dependence. Smoking cessation behavioral health CE's include: substance use disorder, anxiety, depression and behavioral health 2) Provider Toolkits complete with webinars and client educational materials 3) Customized Training- CTC staff can come onsite upon request and put together customized training for health professionals upon request. 4) Provider Support-CTC offers phone and email consultation in areas such as, developing a comprehensive cessation strategy, cessation in special populations, evidence-based behavioral treatments, pharmacological treatments and preventing relapse For assistance, please contact Lesley C. Phillips at (858) 300-1051 or lcopeland@ucsd.edu.

APPENDIX 2: SMOKING CESSATION INTERVIEW

CALIFORNIA SMOKERS' HELPLINE 1-800-NO-BUTTS

Smoking Cessation Interview

1. Smoking Status

a. How many cigarettes do you smoke each day? _____

b. How soon do you smoke after you wake up? _____

2. Readiness

a. On a scale from 0-10, (where "0" is not ready to quit smoking and "10" is ready to quit smoking), what score would you give yourself?
_____

b. If not 0, you gave yourself a score of __. Why did you think __ and not a lower number?

c. If 0, is there anything that would help raise your score to a 1 or 2?

_____

3. Confidence

a. On the same scale (from 0-10), how confident are you that you would be able to quit smoking?

_____

b. If score is < 6, what would help you feel more confident?

_____

3. Motivation

a. What would you say are the good things about smoking? (What do you like about smoking)?

_____

b. What are the not so good things about smoking? (What is your main reason to quit)?

_____

4. Smoking History

a. How old were you when you first started smoking regularly? _____

b. Have you ever quit before? ◯ Yes ◯ No

c. If yes. Last time? _____ Longest time? _____

5. Quitting Method

a. What method(s) would you like to use to quit smoking?

◯ Nicotine replacement therapy (e.g., patches, gum, lozenges)
◯ Medication (e.g., Zyban, Chantix)
◯ Cold Turkey
◯ Cutting down……. toward a Quit Date.

6. Planning

a. When you quit smoking what will be your 3 most difficult triggers?

b. What can you do instead of smoking in those situations? (Cognitive & behavioral strategies, pharmacotherapy & referral)

Triggers	Strategies

7. Setting a Quit Date

a. When would you like to set your quit date?

8. If planning on using Nicotine Replacement Products Please complete the following questions:

<u>Questions to be asked by pharmacist</u>:

a. Could you be pregnant or do plan to become pregnant? *If yes-defer to health care provider*
□ YES □ NO

Heart History: *If yes to any of the below furnish with caution and defer to provider*

a. Have you had a heart attack within the last two weeks?
□ YES □ NO

b. Do you have a history of heart palpitations/irregular beats/arrhythmia?
□ YES □ NO

c. Do you currently experience frequent chest pain or do you have unstable angina?
□ YES □ NO

Other History:

a. Do you have serious dental problems or have you been diagnosed with TMJ (pain or popping of the jaw)? *If yes-avoid nicotine gum*
□ YES □ NO

b. Do you have a history of severe acid reflux or stomach upset? *If yes-monitor for exacerbation from gum or lozenge*
□ YES □ NO

APPENDIX 3: FDA-APPROVED MEDICATIONS FOR TOBACCO USE DISORDER

Product	Dosage^	Common Side Effects	Availability	Counseling Points	Advantages	Disadvantages
Short-Acting Products						
Nicotine Gum 2 mg, 4 mg	For the following weeks, use gum as needed for cravings or urges to smoke: Wks 1-6 every 1-2 hrs Wks 7-9 every 2-4 hrs Wks 10-21 every 4-8 hrs *If 1-24 cigs/day*: use 2 mg *If 25+ cigs/day**: use 4 mg NTE: 24 pcs/day *for combination NRT, start with 2 mg dose	Mouth/jaw soreness, indigestion, hiccups	OTC Only Relative Cost: $	• Chew each piece slowly • Park between cheek and gum when peppery or tingling sensation appears (~15–30 chews) • Resume chewing when tingle fades • Repeat chew/park steps until most of the nicotine is gone (tingle does not return; generally 30 min) • Park in different areas of mouth No food or beverages 15 minutes before or during use	• Might serve as an oral substitute for tobacco • Can be titrated to manage withdrawal symptoms • Can be used in combination with other agents to manage situational urges • Relatively inexpensive	• Frequent dosing can be problematic with significant dental work • Proper chewing technique is required for effectiveness
Nicotine Lozenge 2 mg, 4 mg	For the following weeks, take one lozenge* as needed for cravings or urges to smoke: Wks 1-6 every 1-2 hrs Wks 7-9 every 2-4 hrs Wks 10-21 every 4-8 hrs NTE: 20 pcs/day *If 1st cig within 30 mins of waking:* use 4 mg *If 1st cig after 30 mins of waking:* use 2 mg *for combination NRT, start with 2 mg dose	Mouth and throat soreness, indigestion, hiccups	OTC Only Relative Cost: $	• Allow to dissolve slowly (20–30 minutes for standard; 10 minutes for mini lozenge) • Nicotine release may cause a warm, tingling sensation • Do not chew or swallow • Occasionally rotate to different areas of the mouth • No food or beverages 15 minutes before or during use	• Might serve as an oral substitute for tobacco • Can be titrated to manage withdrawal symptoms • Can be used in combination with other agents to manage situational urges • Relatively inexpensive	• Frequent dosing • Gastrointestinal side effects can compromise use of lozenge

Product	Dosage^	Common Side Effects	Availability	Counseling Points	Advantages	Disadvantages
Short Acting Products						
Nicotine Nasal Spray 10 mg/ml metered spray	Spray 1-2 sprays in each nostril every hour as needed for nicotine cravings. *One dose= 1 spray in each nostril, each spray delivers 0.5 mg.* NTE: 5 doses/hr or 40 doses/day	Nasal irritation, change in sense of smell/taste, cough, tearing, headache	Prescription Only Relative Cost: $$$	• Avoid with underlying chronic nasal disorders (rhinitis, nasal polyps, sinusitis) or severe reactive airway disease • Do not sniff or inhale the spray when administering	• Can be titrated to rapidly manage withdrawal • Can be used in combination with other agents to manage situational urges • Shown to be more efficacious than other short-acting NRT	• Frequent dosing • Nasal irritation can be problematic • Relatively expensive
Nicotine Inhaler 10 mg cartridges	Puff or deeply inhale 1 cartridge every 1-2 hrs; Titrate to level of nicotine desired to diminish cravings. Each cartridge delivers 4 mg of nicotine NTE: 16 cartridges/day	Local irritation of mouth and throat, cough, indigestion	Prescription Only Relative Cost: $$$	• Avoid in clients with bronchospastic disease • Inhale into back of throat or puff in short breaths • Highest chance of success when at least 6 cartridges/ day are used at start of treatment • Best effects with continuous puffing for 20 minutes • Nicotine in cartridge is depleted after 20 minutes of active puffing • Open cartridge retains potency for 24 hours • No food or beverages 15 minutes before or during use	• Might serve as an oral substitute for tobacco • Can be titrated to rapidly manage withdrawal • Can be used in combination with other agents to manage situational urges	• Frequent dosing • Relatively expensive

Product	Dosage^	Common Side Effects	Availability	Counseling Points	Advantages	Disadvantages
Long-Acting Products						
Nicotine Transdermal Patch 7 mg, 14 mg, 21 mg (24-hr release) patches	Place one patch on dry skin every 24 hours as directed*: 21 mg/24 hrs x 4 wks, 14 mg/24 hrs x 2 wks, 7 mg/24 hrs x 2 wks Start with 21 mg patch if smoking > 10 cigs/day and 14 mg patch is ≤ 10 cigs NTE: 21 mg/day (Higher doses may be considered on an individual basis for those that smoke >20 cigs or continue to smoke while using the patch)	Local skin reaction, insomnia, vivid dreams	OTC and Prescription Relative Cost: $	• Rotate patch application site daily; do not apply a new patch to the same skin site for at least one week • May wear patch for 16 hours if client experiences sleep disturbances (remove at bedtime) • Not recommended for use by clients with dermatologic conditions (i.e. psoriasis, eczema, atopic dermatitis)	• Once-daily dosing • Discreet appearance • Can be used in combination with other agents • Delivers consistent nicotine levels over 24 hours • Relatively inexpensive • Most efficacious product on BHS formulary as NRT monotherapy	• When used as monotherapy, cannot be titrated to acutely manage withdrawal symptoms

Product	Dosage^	Common Side Effects	Availability	Counseling Points	Advantages	Disadvantages
Oral Medications						
Bupropion Sustained Release (SR) 150 mg tablet	Begin therapy 1–2 weeks prior to quit date: Take 150 mg PO qAM x 3 days, then 150 mg PO BID **Contraindications:** • Seizure disorder • Current or prior diagnosis of bulimia or anorexia nervosa • Simultaneous abrupt discontinuation of alcohol or sedatives/benzodiazepines • MAO inhibitors in preceding 14 days; concurrent use of reversible MAO inhibitors	Insomnia, dry mouth, nervousness/difficulty concentrating, nausea, dizziness, constipation, seizures	Prescription Only Relative Cost: $$	• Allow at least 8 hours between doses • Avoid bedtime dosing to minimize insomnia • Use with caution in clients with concomitant therapy with medications/conditions known to lower the seizure threshold	• May reduce weight gain associated with quitting • May be beneficial in clients with co-morbid depression • Once daily bupropion extended-release (XL) may be used in place of the SR formulation to enhance adherence • Can be used in combination with NRT • Dose tapering is not necessary	• Seizure risk is increased • Several contraindication and precautions preclude use in some clients (see below) • No emergent relief
Varenicline 0.5 mg, 1 mg tablets	Start 1 week before quit date: On days 1-3, take 0.5 mg PO qAM On days 4-7, take 0.5 mg PO BID On weeks 2-12, take 1 mg PO BID Dosing adjustment is necessary for clients with severe renal impairment (< 30 ml/min) to a maximum of 0.5 mg BID	Nausea, vomiting, sleep disturbances (insomnia, abnormal/vivid dreams), constipation, flatulence, neuropsychiatric symptoms	Prescription Only Relative Cost: $$$	• Take dose after eating and with a full glass of water • Clients that incur sleep disturbances can be instructed to take the evening dose earlier in the day or may require skipping the evening dose • Avoid alcohol while taking • Gradual approach with no defined quit date or if clients continue to smoke past quit date: Titrate dose as above to 1 mg PO BID.	• Offers a different mechanism of action for clients who failed other agents • Dose tapering is not necessary • May provide greater efficacy in the general population compared to other monotherapy	• Cost of treatment • No emergent relief • Clients should be monitored for potential neuropsychiatric symptoms

Product	Dosage^	Common Side Effects	Availability	Counseling Points	Advantages	Disadvantages
				Clients should reduce smoking by 50% in first 4 weeks, then additional 50% in following 4 weeks, continued until abstinence in 12-24 weeks •		
Off-Label Agents						
Nortriptyline 10 mg, 25 mg, 50 mg, 75 mg capsules	Take 25 mg PO at bedtime. Increase dose as tolerated by 25 mg/week up to 75-100 mg **Contraindications** MAO inhibitors in preceding 14 days; concurrent use of reversible MAO inhibitors	Dry mouth, orthostatic hypotension, cardiac arrhythmia, constipation, urinary retention, sexual dysfunction, sedation	Prescription Only Relative Cost: $	• Begin therapy 4 weeks prior to quit date • Take at bedtime to avoid daytime sedation • Should be used with caution in clients with a history of cardiovascular disease	• May be beneficial in clients with co-morbid depression, anxiety, insomnia, or chronic pain • Relatively inexpensive • Can be used in combination with NRT	• High side effect burden • Dangerous in overdose • May require blood level monitoring
Clonidine 0.1 mg, 0.2 mg, 0.3 mg tablets 0.1 mg/24hr, 0.2 mg/24 hr, 0.3 mg/24 hr patches	**Oral**: Can be started at 0.1 mg PO BID and titrated to 0.4 mg divided TID **Patch**: Apply 0.1 mg/24 hr patch to dry skin every 7 days. Can be titrate based on effect and tolerability.	Decreased heart rate, sedation, orthostatic hypotension, dizziness, dry mouth	Prescription Only Relative Cost: $	• Begin therapy 48-72 hours before quit attempt • Do not discontinue abruptly, dose must be gradually reduced • Start medication at bedtime as it can cause drowsiness and dizziness	• May be beneficial in clients with co-morbid ADHD or insomnia • Weekly patch may improve adherence • Relatively expensive	• Can be poorly tolerated due to side effects • Drug interaction and disease states may limit use

APPENDIX 4: TOBACCO USE DISORDER MEDICATION PHARMACOTHERAPY SELECTION

Level of Recommendation	Medication(s)	Pertinent Treatment Considerations (Not exhaustive, see Appendix 3 for additional details)
Strongest	NRT combination: nicotine patch + gum or lozenge	• Produces relatively constant levels of nicotine and allows for acute dose titration as needed • Cost-effective, on BHS formulary • Demonstrates superior efficacy over other monotherapy pharmacologic treatments • Minimal risk of exacerbating psychiatric symptoms
Moderate	NRT monotherapy: nicotine patch, gum, or lozenge	• NRT monotherapy results in significantly lower quit rates than combination NRT • If a single NRT agent is preferred, the patch has been shown to be most efficacious and on BHS formulary
	Bupropion	• Least robust effects compared to other pharmacologic treatments • Treatment for co-morbid depression • Drug interactions, precautions, and contraindications may preclude use in clients with mental health disorders
	Varenicline	• Shown to be most efficacious in general population compared to other monotherapy pharmacologic treatments • Limited prospective evidence in clients with unstable psychiatric symptoms • Not on BHS formulary
Lowest	Nortriptyline	• Moderate efficacy in clients who cannot use a first-line agent or who need an adjunct to first-line therapy • Treatment of co-morbid depression, chronic pain, insomnia, and anxiety • High side effect burden • Dangerous in overdose
	Clonidine	• Treatment of comorbid ADHD • Limited evidence of benefit over placebo

APPENDIX 4: NOTABLE DRUG INTERACTIONS OF PSYCHIATRIC MEDICATIONS WITH HYDROCARBONS FROM TOBACCO SMOKE

Drug/Class	Mechanism of interaction and effects
Alprazolam	• Conflicting data on significance, but possible ↓ plasma concentrations (up to 50%); ↓ half-life (35%).
Caffeine	• Metabolism (induction of CYP1A2); ↑ clearance (56%). Caffeine levels likely ↑ after cessation
Chlorpromazine	• ↓ AUC (36%) and serum concentrations (24%). • ↓ Sedation and hypotension possible in smokers; smokers may require ↑ dosages.
Clozapine	• ↑ Metabolism (induction of CYP1A2); ↓ plasma concentrations (by 18%). • ↑ Levels upon cessation may occur; closely monitor drug levels and reduce dose as required to avoid toxicity.
Fluvoxamine	• ↑ Metabolism (induction of CYP1A2); ↑ clearance (24%); ↓ AUC (31%); ↓ Cmax (32%) and Css (39%). • Dosage modifications not routinely recommended but smokers may need ↑ dosages.
Haloperidol	• ↑ Clearance (44%); ↓ serum concentrations (70%); data are inconsistent therefore clinical significance is not established
Methadone	• Possible ↑ metabolism (induction of CYP1A2, a minor pathway for methadone). • Carefully monitor response upon cessation.
Olanzapine	• ↑ Metabolism (induction of CYP1A2); ↑ clearance (98%); ↓ serum concentrations (2%). • Dosage modifications not routinely recommended but smokers may need ↑ dosages.
Propranolol	• ↑ Clearance (77%; via side-chain oxidation and glucuronidation).
Ropinirole	• ↓ Cmax (30%) and AUC (38%) in study with clients with restless legs syndrome. • Smokers may need ↑ dosages.
Tizanidine	• ↓ AUC (30–40%) and ↓ half-life (10%) observed in male smokers.
Tricyclic antidepressants (e.g. imipramine, nortriptyline)	• Possible interaction with tricyclic antidepressants in the direction of ↓ blood levels, but the clinical significance is not established.

Not a comprehensive list, for additional interactions see:
https://smokingcessationleadership.ucsf.edu/sites/smokingcessationleadership.ucsf.edu/files/A4%20DI%20TABLE.pdf