

# Impact of Clinical Pharmacists on Homeless Outcomes and Medication Adherence



Lawrence Chang, Pharm.D., BCACP, Sophie Nguyen, Pharm.D., and Michael Wong, Pharm.D.



**O'CONNOR HOSPITAL**  
A COMMUNITY HOSPITAL



**SANTA CLARA  
VALLEY MEDICAL CENTER**  
Hospital & Clinics



**ST. LOUISE  
REGIONAL HOSPITAL**  
A COMMUNITY HOSPITAL

# Disclosures

- Potential conflicts of interest: None
- Sponsorship: None
- Proprietary information or results of ongoing research may be subject to different interpretations

# County of Santa Clara Health System

**Vision:** Better Health for All

**Mission:** Provide high-quality, compassionate, accessible healthcare regardless of patient's ability to pay



## Health System Includes:

- Behavioral Health Services Department
- Public Health Department
- Emergency Medical Services Agency
- Custody Health Services Department
- Valley Health Plan



## Santa Clara Valley Medical Center

- 731-bed safety-net teaching hospital
- Level 1 Trauma & Regional Burn Center



## O'Connor Hospital

- 358-bed acute care community hospital
- Level III Community NICU
- Accredited Cancer Care Program



## St. Louise Regional Hospital

- 93-bed community hospital
- Designated Primary Stroke Center



## Health Centers

- 15 outpatient pharmacy locations
- Valley Specialty Center
- Homeless Healthcare Program

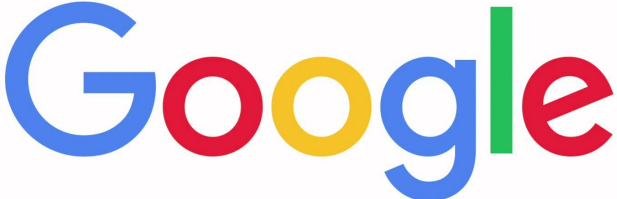
**Dedicated to the health & well-being of all communities in Santa Clara County**

# County of Santa Clara

# Santa Clara County

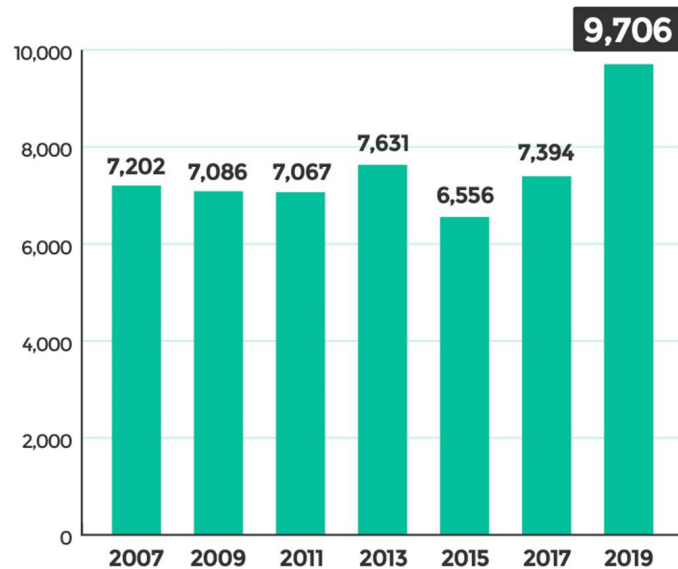


# Santa Clara County



# Homelessness in Santa Clara County

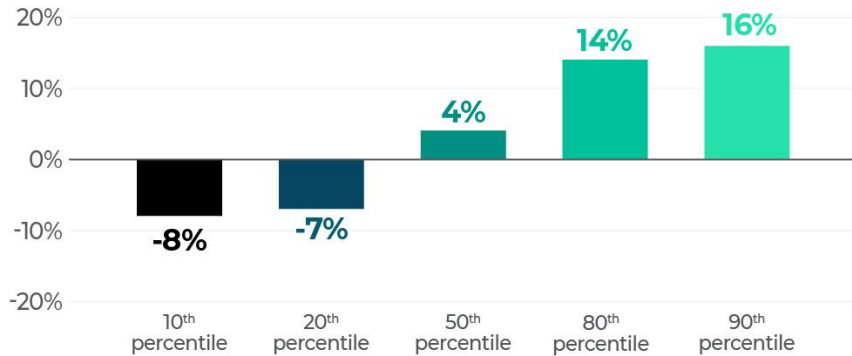
## Homeless Population by Year



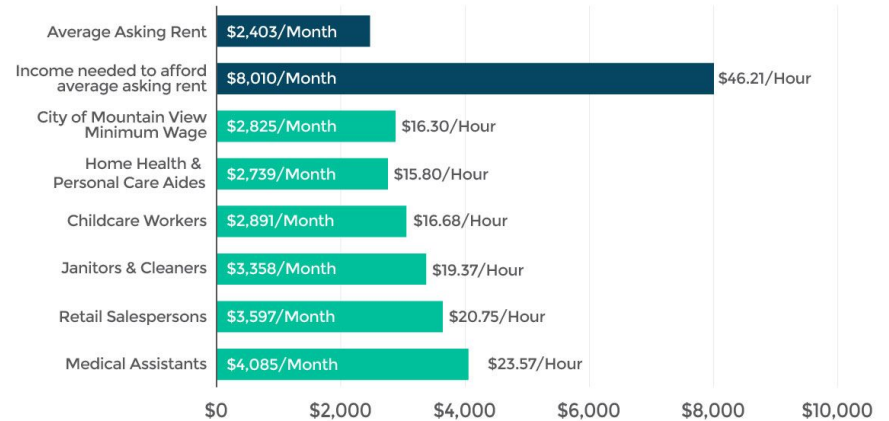
- In 2019, there were 9,706 people experiencing homelessness in Santa Clara County - the 4th highest total of any community in the country.
- Increase of 31% from 2017

# Rent in Santa Clara County

**Earned income growth for full-time wage and salary workers**  
Santa Clara County, CA: 2000-2019



## RENTERS NEED TO EARN 2.8 TIMES MINIMUM WAGE TO AFFORD MEDIAN ASKING RENTS



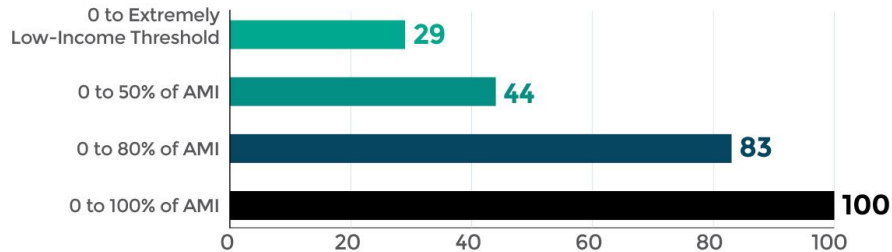
Source: CoStar Group average asking rent for two bedroom as of January 2021. Bureau of Labor Statistics Average Annual Wage Data for California Occupations, 2020.



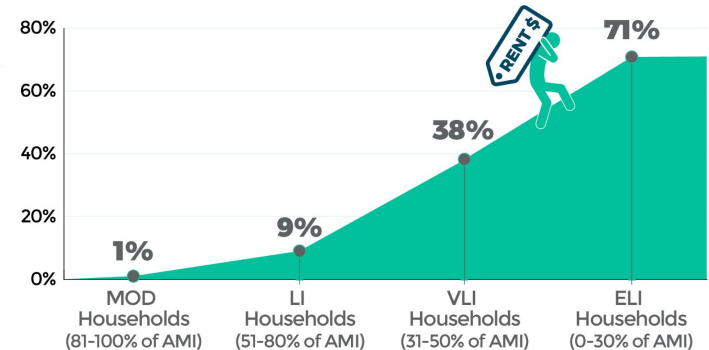
# Rent in Santa Clara County

Rent Burden: 71% of extremely low-income (ELI) households spend more than 50% of their income on rent and utilities

Affordable & Available Rental Homes “Per 100 Renter Households”  
San Jose Metropolitan Area: 2019



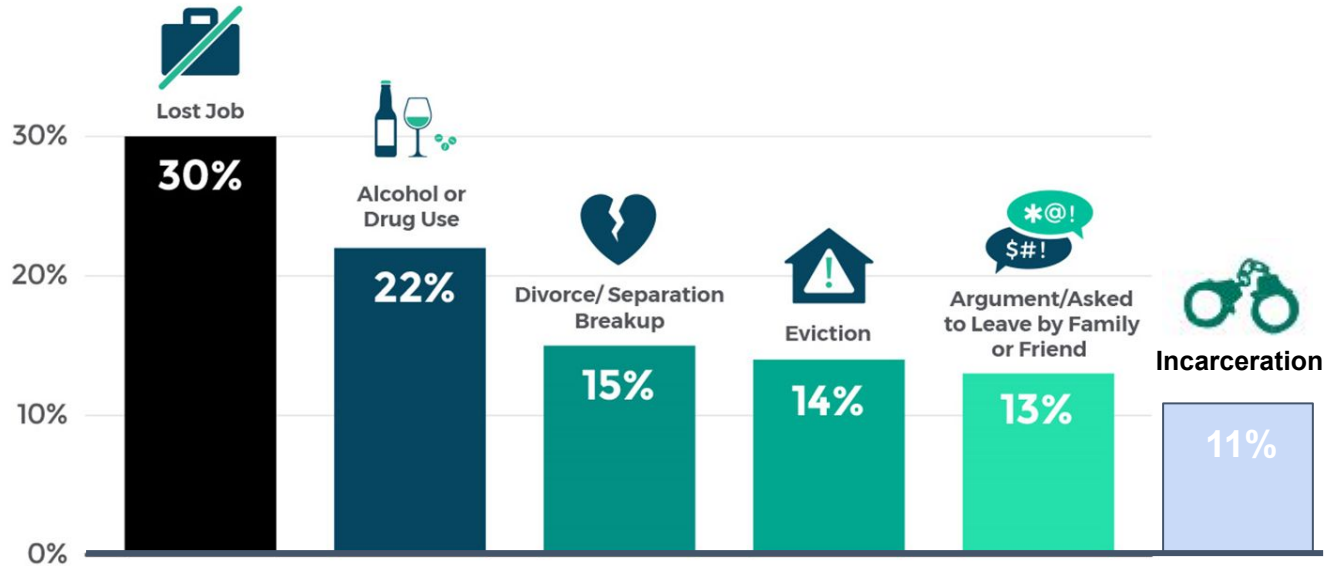
Percent of Households Severely Rent Burdened



1. 2019 Santa Clara County: Homeless Census & Survey  
2. Understanding Homelessness. Destination Home. <https://destinationhomesv.org/>. Accessed May 2, 2022.

# Homelessness in Santa Clara County

## PRIMARY EVENT OR CONDITION THAT LED TO HOMELESSNESS: Top Responses from the 2019 Homeless Census & Survey



1. 2019 Santa Clara County: Homeless Census & Survey  
2. Understanding Homelessness. Destination Home. <https://destinationhomesv.org/>. Accessed May 2, 2022.

# Valley Homeless Healthcare Program



# Valley Homeless Healthcare Program

## Mission of Valley Homeless Healthcare Program

We wish to promote human dignity, relieve suffering and provide hope so that people can achieve their full potential and improve their quality of life.

# Valley Homeless Healthcare Program

## Core Values

- Innovation and Creativity
- Providing compassionate care that centers around our patients' needs
- Provide services by many team members from different areas of expertise, working together to treat the whole person

# Valley Homeless Healthcare Program

We are a patient centered, integrated healthcare team consisting of:

Medical Providers (MD/NP)

Nurses

Medical Social Workers

Psychiatrists

Outreach Workers

Occupational Therapy

Pharmacists

Medical Assistants

Psychologists

Health Service Representatives

Outreach Drivers

Dietician

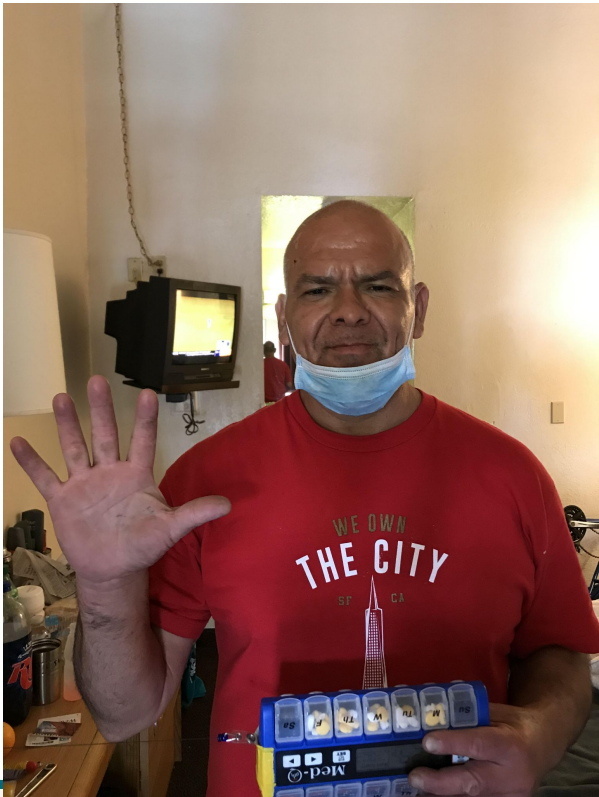
# Valley Homeless Healthcare Program

We serve the homeless population through:

- Four fixed clinic sites
  - Alexian Clinic/ Gender Clinic
  - Homefirst Shelter Clinic
  - Bill Wilson
  - Hope Clinic
- Mobile Medical Van
  - Reentry Clinic
  - Mobile Medical Unit
  - Teen Van
- Backpack Medicine Team
- Medical Respite Program
- Patient Outreach



# Case Presentation





# Case Presentation

JC is a 52 year old male with a past medical history of resistant hypertension, CKD, T2DM, HFpEF, Afib, stroke in 2005, and TBI.

He presents to clinic for refill of medications. Medical records were checked and it appears he received medications the day prior from pharmacy. Patient states he can't remember what happened to the medications.

Pertinent Baseline Labs/ Vitals (3/2020):

BP: 210/141

HbA1c: 11.6%

# Roles of a Pharmacist

# Medication Adherence

## World Health Organization (2003)

- “Increasing the effectiveness of **adherence interventions** may have greater impact on the health of the population than any improvement in specific medical treatments.”
- “Long-term adherence to chronic medications has been estimated to be **as low as 50%**.”



# Cost of Medication Non-Adherence

## Financial Burden

- “Of all medication-related hospital admissions in the United States, **33 to 69 percent** are due to poor medication adherence, with a resultant cost of approximately \$100-289 billion a year.”



Viswanathan M, Golin C, Jones C et al. Interventions to Improve Adherence to Self-administered Medications for Chronic Diseases in the United States. *Ann Intern Med.* 2012;157(11):785.

Osterberg L, Blaschke T. Adherence to Medication. *N Engl J Med.* 2005;353:487-497.

Berg JS, Dischler J, Wagner DJ, Raia JJ, Palmer-Shevlin N. Medication compliance: a healthcare problem. *Ann Pharmacother* 1993;27

# Major Predictors of Poor Adherence

NEJM (2005)

**Table 2. Major Predictors of Poor Adherence to Medication, According to Studies of Predictors.**

Predictor	Study
Presence of psychological problems, particularly depression	van Servellen et al., <sup>51</sup> Ammassari et al., <sup>52</sup> Stillely et al. <sup>53</sup>
Presence of cognitive impairment	Stillely et al., <sup>53</sup> Okuno et al. <sup>54</sup>
<u>Treatment of asymptomatic disease</u>	Sewitch et al., <sup>55</sup>
Inadequate follow-up or discharge planning	Sewitch et al., <sup>55</sup> Lacro et al. <sup>56</sup>
Side effects of medication	van Servellen et al. <sup>51</sup>
<u>Patient's lack of belief in benefit of treatment</u>	Okuno et al., <sup>54</sup> Lacro et al. <sup>56</sup>
<u>Patient's lack of insight into the illness</u>	Lacro et al., <sup>56</sup> Perkins <sup>57</sup>
Poor provider-patient relationship	Okuno et al., <sup>54</sup> Lacro et al. <sup>56</sup>
Presence of barriers to care or medications	van Servellen et al., <sup>51</sup> Perkins <sup>57</sup>
Missed appointments	van Servellen et al., <sup>51</sup> Farley et al. <sup>58</sup>
Complexity of treatment	Ammassari et al. <sup>52</sup>
Cost of medication, copayment, or both	Balkrishnan, <sup>59</sup> Ellis et al. <sup>60</sup>

# Motivational Interviewing (MI)

## Tips:

- Medication adherence is HARD
  - Roll with the resistance, and use harm reduction
- Stay curious
  - Until they feel like you truly “get” it, it’ll be hard for you to convince them to change.
- Change can happen IF and ONLY IF a person wholeheartedly internalizes the **discrepancy** between their goal and behavior

# Motivational Interviewing (MI)

## So what's an example?

- “You need to take your medications.”



- “You told me a lot about your goals to lower your sugars so you can prevent amputations. It seems clear to me that being independent and working is so important to you. At the same time, we're both noticing how drinking 4-6 sodas/day worsens your sugars. What do you think about that? How do you want your habits to change for the better?”

# Major Predictors of Poor Adherence

NEJM (2005)

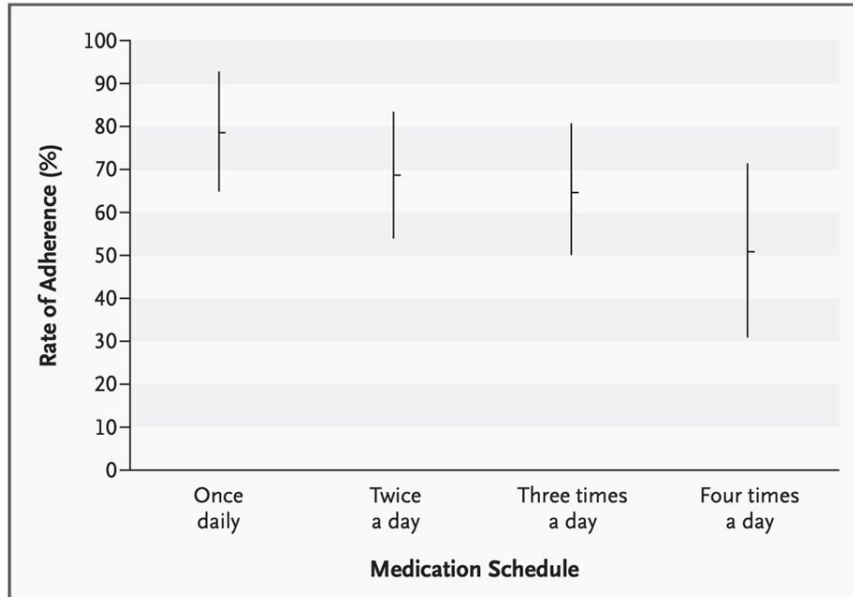
**Table 2. Major Predictors of Poor Adherence to Medication, According to Studies of Predictors.**

Predictor	Study
Presence of psychological problems, particularly depression	van Servellen et al., <sup>51</sup> Ammassari et al., <sup>52</sup> Stillely et al. <sup>53</sup>
<u>Presence of cognitive impairment</u>	Stillely et al., <sup>53</sup> Okuno et al. <sup>54</sup>
Treatment of asymptomatic disease	Sewitch et al., <sup>55</sup>
Inadequate follow-up or discharge planning	Sewitch et al., <sup>55</sup> Lacro et al. <sup>56</sup>
Side effects of medication	van Servellen et al. <sup>51</sup>
Patient's lack of belief in benefit of treatment	Okuno et al., <sup>54</sup> Lacro et al. <sup>56</sup>
Patient's lack of insight into the illness	Lacro et al., <sup>56</sup> Perkins <sup>57</sup>
Poor provider-patient relationship	Okuno et al., <sup>54</sup> Lacro et al. <sup>56</sup>
Presence of barriers to care or medications	van Servellen et al., <sup>51</sup> Perkins <sup>57</sup>
Missed appointments	van Servellen et al., <sup>51</sup> Farley et al. <sup>58</sup>
<u>Complexity of treatment</u>	Ammassari et al. <sup>52</sup>
Cost of medication, copayment, or both	Balkrishnan, <sup>59</sup> Ellis et al. <sup>60</sup>





# Major Predictors of Poor Adherence



**Figure 1. Adherence to Medication According to Frequency of Doses.**

Vertical lines represent 1 SD on either side of the mean rate of adherence (horizontal bars). Data are from Claxton et al.<sup>7</sup>

Frequency of dosing is **inversely** related to adherence.

# Simplifying Regimens

## Decreasing Frequency

- Atorvastatin 40 mg or Lantus 20 units at bedtime
  - Once daily
- Metoprolol tartrate 25 mg twice daily
  - Metoprolol succinate 50 mg once daily
- Glipizide 5 mg twice daily with food
  - Glipizide XL 10 mg once daily (regardless of food?)
- Isosorbide dinitrate 20 mg TID and hydralazine 25 mg TID
  - Isosorbide mononitrate 60 mg once daily and hydralazine 25 mg twice daily
  - Bonus: BiDil (isosorbide dinitrate-hydralazine) 20-37.5 mg twice daily

# Simplifying Regimens

## Reducing Pill Burden

### Medications to re-evaluate:

- Vitamins/Minerals (Folic Acid, Thiamine, Iron, etc.)
- Aspirin 81 mg?
- Temporary long-term treatments
  - DAPT? Anticoagulation? Bisphosphonates?
- Acid Reducers (PPIs?)
- As-needed medications (laxatives, stool softeners, etc)

# Strategies to Improve Adherence

## Non-Clinical:

- Pill box
- Blisterpacking medications



**DISPILL®-USA**



# Outreaches Visits by Pharmacists

- Patients staying in homeless shelters, temporary housing and streets
- Disabled who are unable to walk to a primary care clinic or make appointments
- Cognitively impaired patients who cannot manage their medicines independently

# Case Presentation

JC is a 52 year old male with a past medical history of resistant hypertension, CKD, T2DM, HFpEF, Afib, stroke in 2005, and TBI.

He presents to clinic for refill of medications. Medical records were checked and it appears he received medications the day prior from pharmacy. Patient states he can't remember what happened to the medications.

Pertinent Baseline Labs/ Vitals (3/2020):

BP: 210/141

HbA1c: 11.6%

# Patient Case



# Patient Case

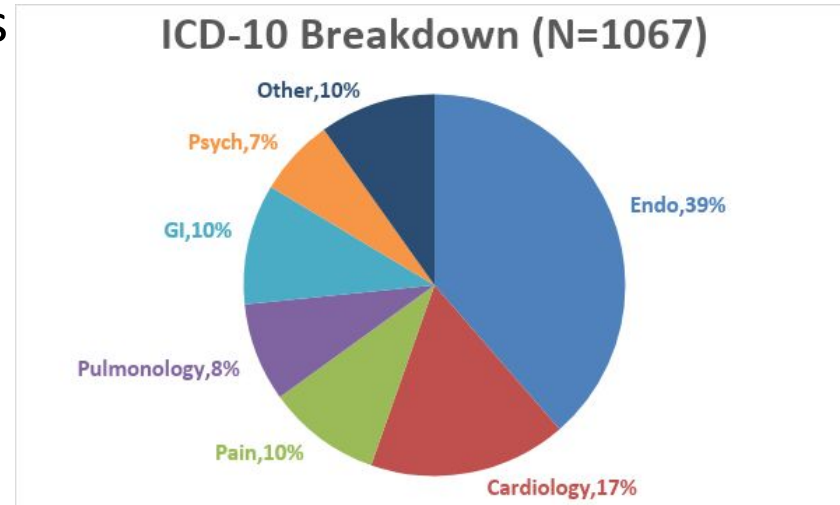




# Pharmacists' Clinical Interventions

Report of **ICD-10 codes** of all disease states intervened by VHHP pharmacists

- N = 1067 ICD-10 codes
- Average 1.9 problems/visit
- Diabetes most commonly addressed
- Area to improve: psychiatry support
  - Psychiatric collaborative practice agreement (first for depression)

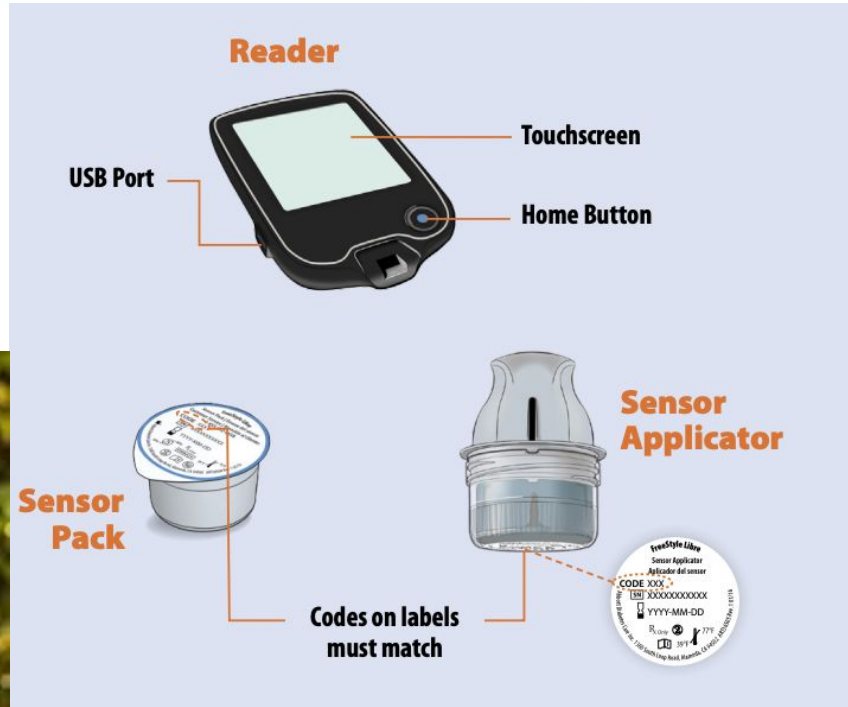
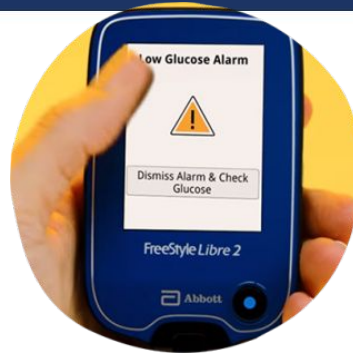
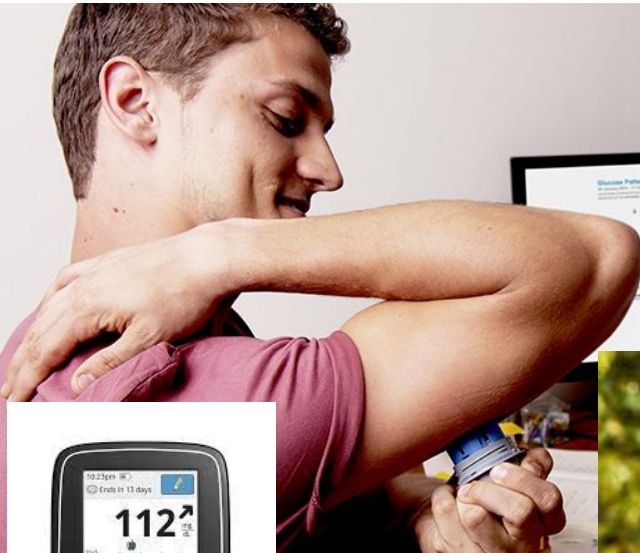


# Diabetes Management Strategies

- Collaborative practice protocol
- Outreaches visits
- **Freestyle Libre System**
- Non-insulin agents: SGLT2 inhibitors, GLP1 receptor agonist



# Frestyle Libre System

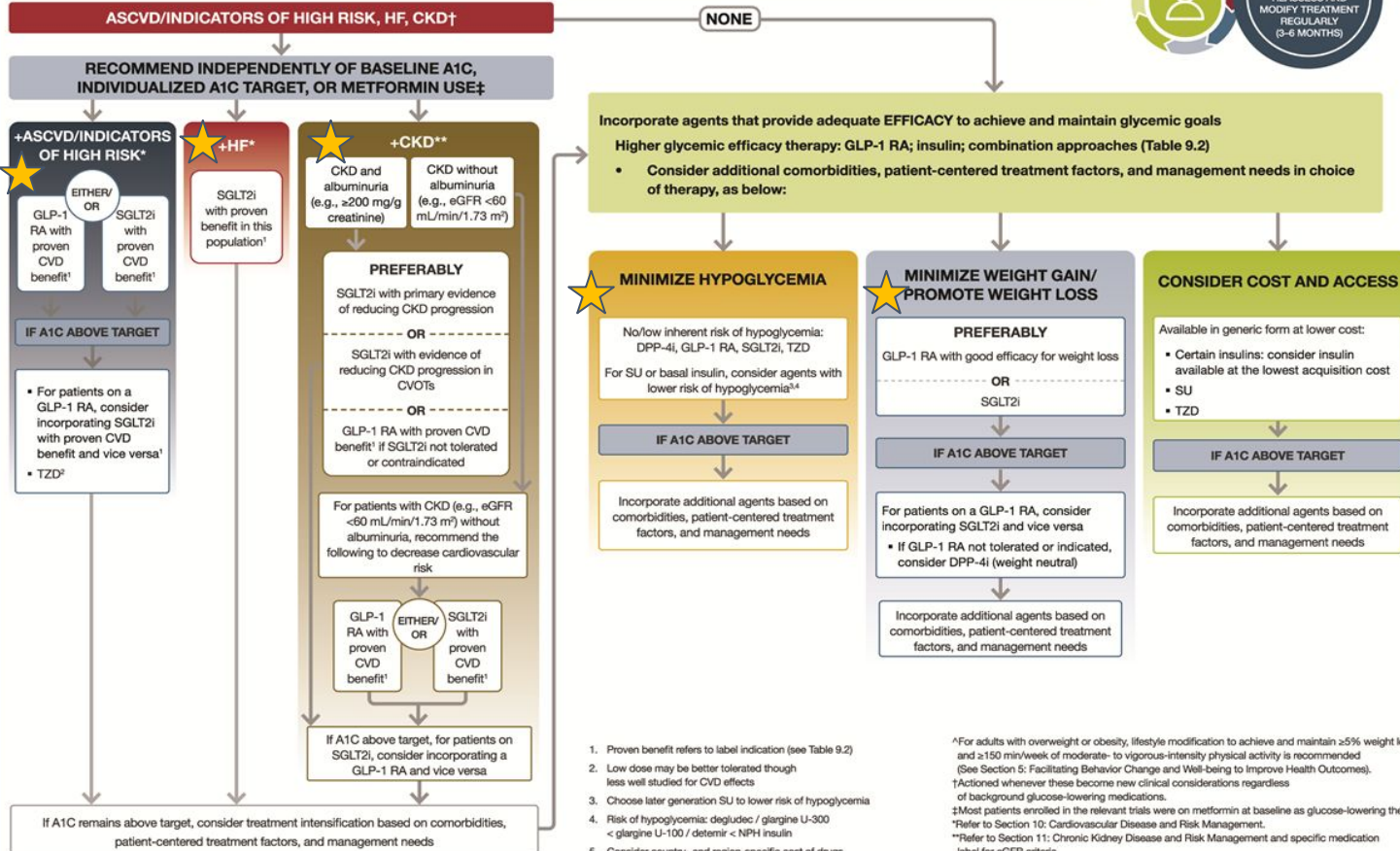


# Pharmacologic Approaches to Glycemic Treatment

2022 ADA Guidelines

# PHARMACOLOGIC TREATMENT OF HYPERGLYCEMIA IN ADULTS WITH TYPE 2 DIABETES

**FIRST-LINE THERAPY** depends on comorbidities, patient-centered treatment factors, including cost and access considerations, and management needs and generally includes metformin and comprehensive lifestyle modification<sup>4</sup>



1. Proven benefit refers to label indication (see Table 9.2)
2. Low dose may be better tolerated though less well studied for CVD effects
3. Choose later generation SU to lower risk of hypoglycemia
4. Risk of hypoglycemia: degludec / glargine U-300 < glargine U-100 / detemir < NPH insulin
5. Consider country- and region-specific cost of drugs

<sup>4</sup>For adults with overweight or obesity, lifestyle modification to achieve and maintain ≥5% weight loss and ≥150 min/week of moderate- to vigorous-intensity physical activity is recommended (See Section 5: Facilitating Behavior Change and Well-being to Improve Health Outcomes).  
<sup>†</sup>Actioned whenever these become new clinical considerations regardless of background glucose-lowering medications.  
<sup>‡</sup>Most patients enrolled in the relevant trials were on metformin at baseline as glucose-lowering therapy.  
<sup>1</sup>Refer to Section 10: Cardiovascular Disease and Risk Management.  
<sup>2</sup>Refer to Section 11: Chronic Kidney Disease and Risk Management and specific medication label for eGFR criteria.

# SGLT2 Inhibitors

Blocks reabsorption of glucose and facilitates its excretion in the urine

## FDA-approved:

- **Empagliflozin (Jardiance)\***
- **Dapagliflozin (Farxiga)\***
- Canagliflozin (Invokana)
- Ertugliflozin (Steglatro)

## Side effects:

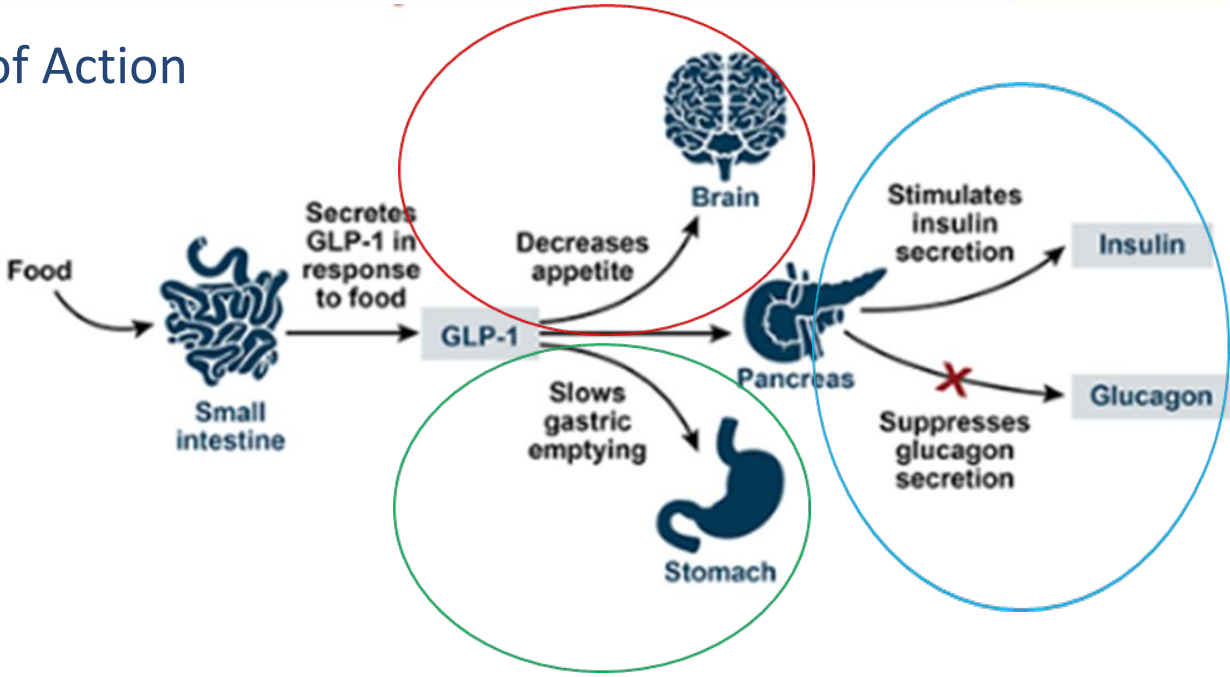
- Risk for UTI (females: 18%; males: 4%)
- Genitourinary fungal infection (~4-6%)
- Increased urine output (~3-5%)
  - Hypotension
  - Dehydration

**\*HFrEF Benefit with/without DM**  
CKD Benefit (all agents)

“-gliflozin”-

# GLP-1 Agonists

## Mechanism of Action



Meier JJ. *Nat Rev Endocrinol.* 2012;8:728-742.

# Injectable GLP-1 Agonists

- Injectable
- Strong efficacy (A1c  $>\downarrow$  1-2%)
- Available once daily/*weekly!*
- **CV Benefit**
- Weight Loss
- GI side effects
- Can be stored outside of refrigerator



## Once weekly

★ Semaglutide (Ozempic)

★ Dulaglutide (Trulicity)

Exenatide (Bydureon BCise)

## Once daily:

Liraglutide (Victoza)

Lixisenatide (Adlyxin)



# Oral GLP-1 Agonist

## Rybelsus<sup>®</sup> (semaglutide)

- Can be difficult for patients
- Administer on:
  - Empty stomach,
  - at least 30 minutes before first food, beverage, or other oral medications of the day
  - with  $\leq 4$  oz of plain water only.
  - Manufacturer recommends eating 30 to 60 minutes after the dose.



# Dulaglutide (Trulicity)

## Trulicity Steps:

- 1) Remove gray cap
- 2) Turn pen from "locked" position to "unlocked"
- 3) Press green button to inject SQ



Recently approved **3 mg** and **4.5 mg** strengths! (in addition to 0.75 mg and 1.5 mg)

# Semaglutide (Ozempic)

## Ozempic steps:

- 1) Attach pen needle (included in the box)
- 2) Dial the dose
- 3) Inject into abdomen like an insulin pen



Recently approved **2 mg** strength! (in addition to 0.25 mg, 0.5 mg and 1 mg)

# Once Daily Medications

**Metformin ER** (500 mg & 750 mg; 1000 mg ER covered by Medi-Cal)

## **Glipizide XL**



## **SGLT2-metformin ER**

- Xigduo XR (dapagliflozin-metformin ER)
- Synjardy XR (empagliflozin-metformin ER)
- Invokamet XR (canagliflozin-metformin ER)



# Diabetes Agents

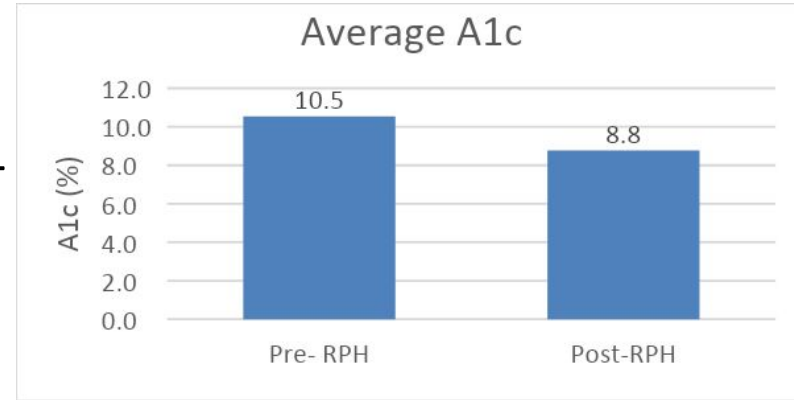
Drug Class	A1c Benefit	Clinical Benefits	Risk of hypoglycemia	Weight Change	Side Effects
Metformin	High (>1–2%)	CV benefit	None	Neutral	Diarrhea/GI upset • ER formulation: less ADRs Vitamin B12 deficiency
★ SGLT2 Inhibitors	Intermediate (>0.5–1%)	CV benefit CKD benefit CHF benefit	None	Loss	Risk for UTI/fungal infection (♀>♂) Caution hypotension/dehydration FDA warning: amputations?
★ GLP-1 Agonists	High (>1–2%)	CV benefit CKD benefit	None	Loss	Nausea (16-20%), diarrhea, abdominal pain, constipation <b>BBW:</b> Risk of Thyroid C-cell tumors (only seen in rats/mice)
DPP-4 Inhibitors	Intermediate (>0.5–1%)	None	None	Neutral	Nasopharyngitis (5%) <b>Alogliptin/Saxagliptin: CHF warning</b>
Sulfonylureas	High (>1–2%)	None	Yes	Gain	Hypoglycemia
Thiazolidinediones	High (>1–2%)	None	None	Gain	Edema <b>BBW: Congestive Heart Failure</b>

# Diabetes Management Outcomes

**Sample size:** N = 110 patients

**Time window:** Jan 2021 through March 2021

**Average A1c reduction:** -1.7%



**Clinical significance:** *an A1c reduction of just -0.8% was shown to be associated with a 45% lower risk of cardiovascular death according to an observational study published by the American Diabetes Association (ADA)*

# Case Presentation

JC is a 52 year old male with a past medical history of resistant hypertension, CKD, T2DM, HFpEF, Afib, stroke in 2005, and TBI.

He presents to clinic for refill of medications. Medical records were checked and it appears he received medications the day prior from pharmacy. Patient states he can't remember what happened to the medications.

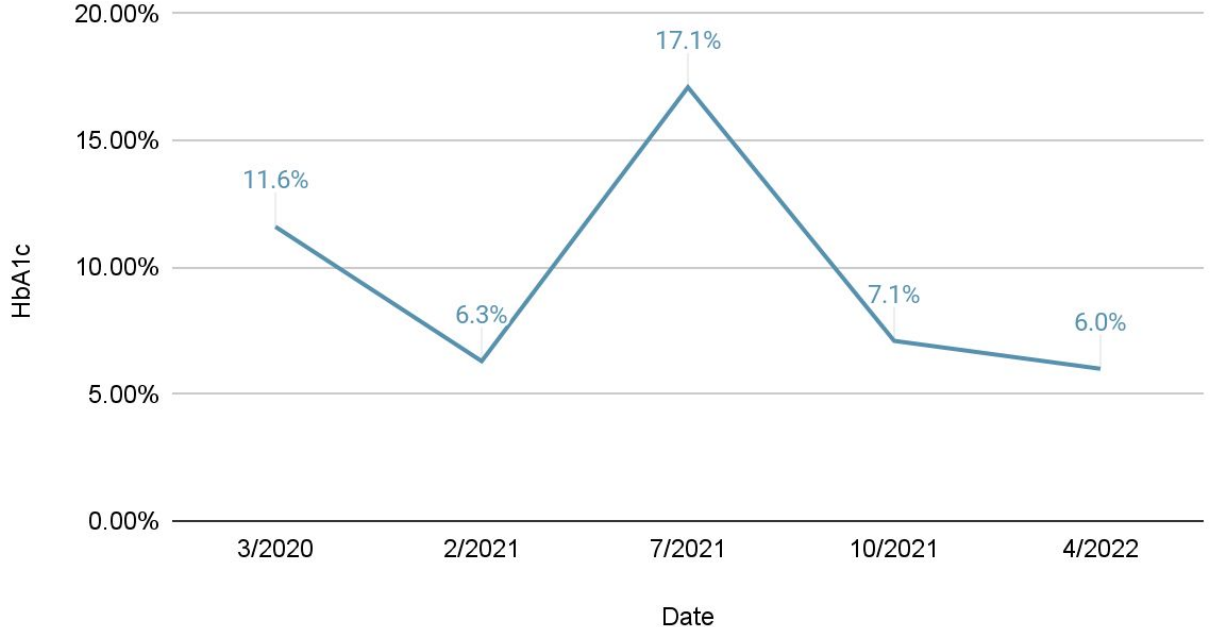
Pertinent Baseline Labs/ Vitals (3/2020):

BP: 210/141

**HbA1c: 11.6%**

# Patient Case

## Change in HbA1c





# Patient Case



# Case Presentation

JC is a 52 year old male with a past medical history of resistant hypertension, CKD, T2DM, HFpEF, Afib, stroke in 2005, and TBI.

He presents to clinic for refill of medications. Medical records were checked and it appears he received medications the day prior from pharmacy. Patient states he can't remember what happened to the medications.

Pertinent Baseline Labs/ Vitals (3/2020):

**BP: 210/141**

HbA1c: 11.6%

# Blood Pressure Management Strategies

- Blood pressure cuff
- Pill boxing
- Combination pills
- Home visits

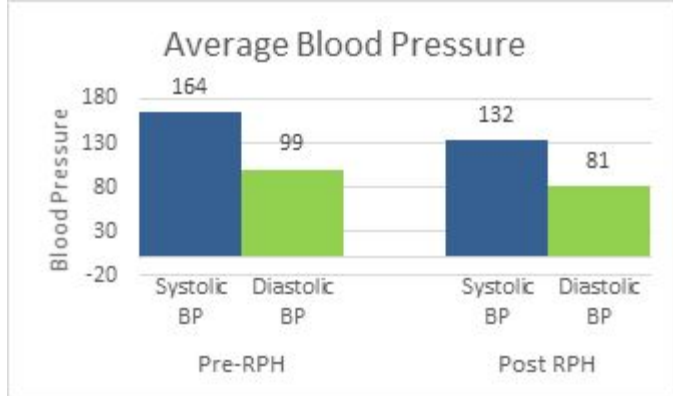


# Blood Pressure Management

**Sample size:** N = over 120 patients

**Average BP reduction:** 32 points in SBP and 18 points in diastolic BP.

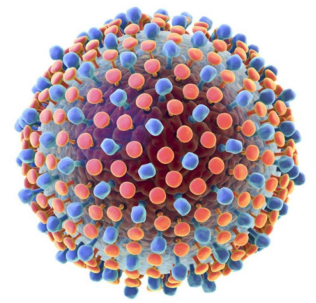
Mean BP after pharmacist intervention was **132/81**, which met PRIME target and almost met stricter BP goal of AHA/ACA



# Patient Case



# Hepatitis C Burden in the US



Hepatitis C virus infection (HCV) has impacted approximately 4.6-4.9 million people in the United States, of whom **41 percent** are homeless, incarcerated, or institutionalized

An estimated 55% to 85% of the infected population develop chronic hepatitis, 30% will later progress to **cirrhosis**, and 2% will develop **hepatocellular carcinoma (HCC)**

Injection drug use accounts for nearly **two-thirds** of acute HCV infections

# Fact or Fiction?

## Myths about Hepatitis C

- Treatment is complicated and should be reserved for GI/ID specialists
- Hepatitis C medications cause many side effects
- Patients who actively use drugs or alcohol are poor candidates for treatment
- Patients need to be highly adherent to successfully achieve SVR12
- Homeless patients need more support than other patients

# Fact or Fiction?

## Myths about Hepatitis C

- ~~Treatment is complicated and should be reserved for GI/ID specialists~~
- ~~Hepatitis C medications cause many side effects~~
- ~~Patients who actively use drugs or alcohol are poor candidates for treatment~~
- ~~Patients need to be highly adherent to successfully achieve SVR12~~
- Homeless patients need more support than other patients



# Features of our HCV Program

## Treatments led by Pharmacy team

- Increased multidisciplinary supports for patients: transportation, mental health
- Aggressive outreach (med delivery, search for people who are lost to follow up)
- Integrating treatment with primary care (suboxone for patient with opioid use disorder)



Increase chance of patient completing treatment

\*Treatment initiated only in non-cirrhotic and compensated cirrhotic patients

# Simplified Regimens for Treatment Naive Patients

Non-Cirrhotic and Compensated Cirrhotic patients

1. **Mavyret** x 8 weeks taken with food



2. **Epclusa** x 12 weeks



# Hepatitis C management Outcomes

N = 61 patients

Time window: Jan 2020 through Aug 2021

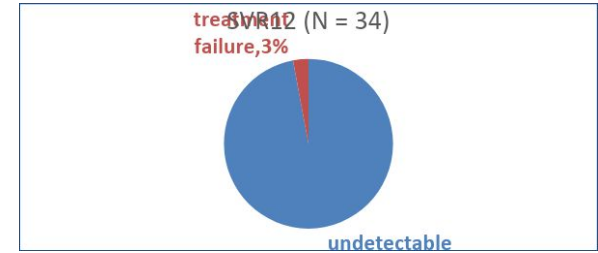
Most are complicated by social barriers and psychiatric conditions, as well as substance use disorder:

- Opioid use disorder: 23%
- Active Methamphetamine use: 21%
- Alcohol use disorder: 18%

# Results

61 patients completed treatment, 28/61 (46%) had compensated cirrhosis

- 34 patients obtained SVR12
- 33/34 (97%) patients had undetectable SVR12
- 1 patient failed treatment



*Excluded:*

- *14 patients who completed treatment but did not get SVR12 drawn.*
- *13 patients not due for SVR12 at the time of analysis*

# Opioid Use Disorder

# Opioid Use Disorder (OUD)

## Buprenorphine

- First agent available in the U.S. (FDA-approved in 2002) for office-based treatment of **Opioid Use Disorder** under the Drug Abuse Treatment Act of 2000 (DATA 2000)
- Partial  $\mu$ -receptor agonist
  - Blocks  $\mu$ -receptor while providing some therapeutic effect
- Typically, **sublingual** formulation prescribed (target dose: 24 mg/day)

# OUD Treatment Considerations

- Targets based on **Trough Plasma Concentrations**
  - **$\geq 1$  ng/mL**: Withdrawal Suppression
  - **$\geq 2-3$  ng/mL**: Blockade of Opioid Reinforcement/Effect
- Potential Issues with SL formulation:
  - Fluctuations in concentration
  - Medication non-adherence
  - Risk of diversion and/or misuse

Pharmacokinetic parameters	SUBUTEX daily stabilization	
	12 mg (steady-state)	24 mg (steady-state)
Mean		
$C_{avg,ss}$ (ng/mL)	1.71	2.91
$C_{max,ss}$ (ng/mL)	5.35	8.27
$C_{min,ss}$ (ng/mL)	0.81	1.54

# Long-Acting Injectable (LAI) Buprenorphine

- 1-month SQ Injection (Approved by FDA in 2017)
  - Loading Dose = 300 mg monthly x2
  - Maintenance Dose = 100 mg monthly (300 mg maintenance dose is off-label)
- Opioid blockade from 1<sup>st</sup> dose
- Consistent blockade ( $\geq 2$  ng/mL) during maintenance therapy

**Table 6. Comparison of Buprenorphine Mean Pharmacokinetic Parameters Between SUBUTEX and SUBLOCADE**

Pharmacokinetic parameters	SUBUTEX daily stabilization		SUBLOCADE		
	12 mg (steady-state)	24 mg (steady-state)	300 mg# (1 <sup>st</sup> injection)	100 mg* (steady-state)	300 mg* (steady-state)
Mean					
C <sub>avg,ss</sub> (ng/mL)	1.71	2.91	2.19	3.21	6.54
C <sub>max,ss</sub> (ng/mL)	5.35	8.27	5.37	4.88	10.12
C <sub>min,ss</sub> (ng/mL)	0.81	1.54	1.25	2.48	5.01

#Exposure after 1 injection of 300 mg SUBLOCADE following 24 mg SUBUTEX stabilization

\*Steady-state exposure after 4 injections of 100 mg or 300 mg SUBLOCADE, following 2 injections of 300 mg SUBLOCADE



# Risk Evaluation and Mitigation Strategy (REMS)

## Black Box Warning

“Serious harm or death could result if administered intravenously. SUBLOCADE forms a solid mass upon contact with body fluids and may cause occlusion, local tissue damage, and thrombo-embolic events, including life threatening pulmonary emboli, if administered intravenously.”

### Roadblocks:

- SUBLOCADE REMS Program
- Schedule III Drug
- Specialty Drug



# Role of a Pharmacist in OUD

## LAI-Buprenorphine Case Management

- Resolve insurance issues, ensure PA is submitted/approved (if needed)
- Coordinate delivery (same-day or ahead of time)
- Manage inventory
- Monitor sobriety and cravings/withdrawal symptoms
- Patient outreach prior to next dose

# Role of a Pharmacist in OUD

## Clinical Outcomes

Between 5/2021 and 5/2022:

- 101 total successful administrations of Sublocade
- Out of the 28 unique patients, 14 of them (50%) received at least 3 consecutive injections and reached steady state.

# A Special Message!



# Questions?

Thanks for attending our session!

Lawrence Chang: [Lawrence.Chang@hhs.sccgov.org](mailto:Lawrence.Chang@hhs.sccgov.org)

Sophie Nguyen: [Sophie.Nguyen@phd.sccgov.org](mailto:Sophie.Nguyen@phd.sccgov.org)

Michael Wong: [MichaelA.Wong@hhs.sccgov.org](mailto:MichaelA.Wong@hhs.sccgov.org)