# Withdrawal management and methadone initiation in hospital settings

## Provider toolkit

SUPHR

Substance Use Prevention & Harm Reduction

Department of Public Health
CITY OF PHILADELPHIA

# Introduction

## A letter from SUPHR

Dear Colleagues,

As clinicians serving the people of Philadelphia, you are at the front lines of our overdose crisis and familiar with the challenges of treating substance use disorder in the context of a constantly changing drug supply.

Today, people who use illicit opioids are also using veterinary sedatives, such as xylazine, which can complicate withdrawal management. In response to the changing drug supply, Philadelphia hospitals are developing strategies and adapting protocols to improve withdrawal treatment for people who use drugs. In addition, regulation changes are facilitating hospital methadone initiation. Thus, hospitals and emergency rooms can now do more than ever to provide excellent care to Philadelphians suffering from substance use disorder.

This toolkit contains scalable and effective strategies for managing withdrawal, initiating methadone in the hospital, and ensuring post-discharge continuity of care.

Thank you for your continued commitment to providing empathetic, high-quality care to people with substance use disorder in Philadelphia.

Sincerely,

**Daniel Teixeira da Silva, MD, MSHP**
Medical Director
Division of Substance Use Prevention and Harm Reduction (SUPHR)
Philadelphia Department of Public Health

**About SUPHR.** The Philadelphia Department of Public Health Division of Substance Use Prevention and Harm Reduction works to prevent substance use, drug-related deaths and the associated with drug use. We advance programs and policies that promote the dignity, autonomy, and health of people who use drugs.

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# Clinical roadmap of hospital care for patients with Opioid Use Disorder

adapted from Englander et al. (2024)

## 1. Stabilize, treat withdrawal

**Assess and treat acute withdrawal early.**

- Address patients' cravings and high-priority symptoms.
- Recognize that appropriate medication doses vary based on use patterns, tolerance, and potency of the local drug supply.
- Recognize the high prevalence of polysubstance use (intentional and/or contamination).

**Treat acute pain.**

- Recognize that patients with opioid use disorder (OUD) have high opioid tolerances and need higher opioid doses.
- Utilize multimodal pain management.

**Have conversations about hospital policies.**

- Emphasize a shared goal of effective withdrawal/pain management.
- Ensure patients know where/how to discard sharps.
- Outline hospital policies/expectations for patient and staff safety.
- Discuss strategies to manage anxiety, stress, and boredom associated with hospitalization.

**Recognize stigmatizing experiences and trauma faced by people with OUD within healthcare settings.**

- Communicate respectfully and directly.
- Use non-stigmatizing language.
- Ask permission before touching patients.
- Respect and value patients' lived experience.
- Engage in shared decision-making.

## 2. Initiate OUD treatment

**Discuss patient goals, priorities, and needs. Offer medication for opioid use disorder (MOUD) to all patients with OUD.**

- Recognize that patients may not be able or willing to discuss MOUD until after withdrawal and pain are effectively managed.
- Recognize that MOUD choices are highly personal. Patient preference and post-discharge feasibility and access should guide choice.
- Discuss discharge considerations early, including barriers to methadone and buprenorphine.

**Offer psychosocial interventions like peer support.**

**In the event of in-hospital substance possession/use:**

- Avoid automatic administrative discharge.
- Ask patients about triggers for use (e.g., undertreated pain, withdrawal) and address when possible.
- Avoid automatically calling security.
- Document objective findings in medical records in a clear, nonjudgmental way.
- Avoid sharing suspicions, which may be stigmatizing.

**Offer all patients harm reduction interventions, such as:**

- Overdose prevention education (e.g., avoid mixing substances, carry naloxone, use near others).
- Safer use education (e.g., smoking vs injecting, especially if using an indwelling catheter or at high risk of bloodstream and/or skin/soft tissue infection).

**Distribute naloxone to all patients with OUD.**

## 3. Anticipate, support care transition

**Consider unique post-acute care needs of MOUD.**

- Contact the methadone clinic to ensure continuity. The opioid treatment program (OTP) should continue the hospital dose and further titrate if necessary.
- Arrange next-day intake with the OTP and address barriers to daily OTP visits, such as transportation other medical follow-up.
- Provide a buprenorphine prescription at discharge or the medication in-hand.
- Provide a buprenorphine follow-up appointment.
- Coordinate MOUD with the skilled nursing facility, include an OTP if prescribing methadone.

**Recognize barriers to community care.**

- Tailor care plans to minimize patient burden.
- Advocate for health systems (e.g., OTP, skilled nursing, and ambulatory clinics) to accommodate OUD.

**Manage pain.**

- Treat acute pain with clinically appropriate doses at discharge. Do not withhold opioids solely because of a history of OUD.

**Service linkage and ongoing engagement.**

- Support linkage to community OUD care based on patient preferences, needs, and service availability.
- Refer patients to community harm reduction services.
- Offer care navigation, transportation assistance, housing, and communication assistance.

# Recognizing withdrawal

**Typical symptom onset:**

- 8 - 24 hours after last use of **fentanyl**
- 8 - 12 hour after last use of **short-acting** opioids (heroin or oxycodone)
- 24 - 72 hours after last use of **long-acting** opioids (methadone)

Englander et al. (2024)

## Opioid withdrawal symptoms

The Clinical Opiate Withdrawal Scale (COWS) is an 11-item scale designed to reproducibly rate common signs and symptoms of opiate withdrawal and monitor these symptoms over time. Each symptom is rated from 0 to 5, and the composite score determines withdrawal severity. **See full scale here.**

**Symptoms assessed:**

1. Resting pulse rate
2. Sweating
3. Restlessness
4. Pupil size
5. Bone or Joint aches
6. Runny nose or tearing
7. GI upset
8. Tremor
9. Yawning
10. Anxiety or irritability
11. Gooseflesh skin

**Score interpretation:**

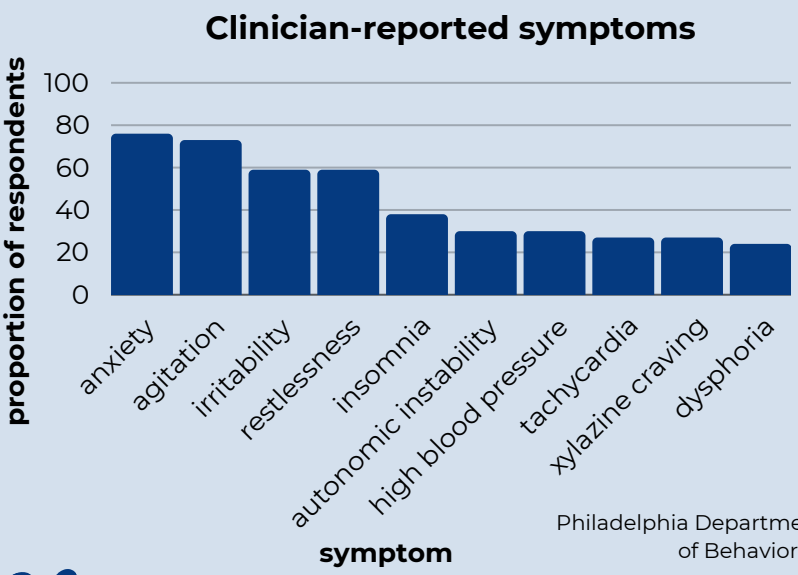
5 - 12 = mild
13 - 24 = moderate
25 - 36 = moderately severe
more than 36 = severe withdrawal

National Institute on Drug Abuse (NIDA)

## Xylazine withdrawal symptoms

Xylazine withdrawal is poorly understood, but is reported in the literature as co-occurring with fentanyl withdrawal among patients in the Philadelphia area. (Reed et al.; D'Orazio et al.; Ehrman-Dupre et al.) Many symptoms of xylazine withdrawal overlap with symptoms of opioid withdrawal.

Below are the responses from 37 Philadelphia-area clinicians who were surveyed from February to August 2024, and asked to describe symptoms they attributed to xylazine withdrawal. Here xylazine withdrawal was defined as persistent or poorly controlled symptoms after optimizing treatment for fentanyl withdrawal.




Symptoms that **overlap** with Clinical Opiate Withdrawal Scale:

- Anxiety, irritability, restlessness, tachycardia.

Symptoms that **don't overlap** with Clinical Opiate Withdrawal Scale:

- Agitation, insomnia, autonomic instability, high blood pressure, xylazine craving, dysphoria.

**Most symptom onset was reported to be 2 to 12 hours after last use.**

Philadelphia Department of Public Health and Philadelphia Department of Behavioral Health and Intellectual disAbility Services (2024)

**Always listen to your patients.** Their symptoms may not match diagnostic criteria or scales. Let their feedback guide your care.

# Treating withdrawal

## Medications for withdrawal

Withdrawal is typically treated with the combination of a full opioid agonist and select adjunctive medication. Some **emerging strategies** are showing increased effectiveness in addressing withdrawal.

### Full opioid agonist + Adjunctive medications +

- Oral methadone
- Sublingual buprenorphine

- Clonidine
- Ondansetron
- Lorazepam
- Acetomenophen
- NSAIDS
- Ketamine
- Droperidol
- Olanzapine
- Ropinerole
- Hydroxyzine
- Diphenhydramine
- Gabapentin
- Phenobarbital
- Tizanidine
- Guanfacine
- Dexmedetomidine

**orange box = emerging strategy**

### supplemental short-acting opioids

Supplemental, short-acting opioids such as **oxycodone** and **hydromorphone** can provide immediate relief while patients wait for effective dosing of a full opioid agonist, or if the patient is uninterested in MOUD, may encourage them to remain in the hospital and complete their treatment before discharge. (Stern et al. 2023, Thakrar et al. 2023)

## Dosing recommendations

| Article | Medications listed |
|---|---|
| Tranq Dope: Characterization of an ED cohort treated with a novel opioid withdrawal protocol in the era of fentanyl/xylazine (London et al., 2024) | Buprenorphine, Oxycodone, Olanzapine, Tizanidine, Gabapentin, Hydromorphine, Ketamine, Droperidol, Diphenhydramine |
| Xylazine Adulteration of the Heroin-Fentanyl Drug Supply : A Narrative Review (D'Orazio et al., 2023) | Clonidine, Olanzapine, Lorazepam, Gabapentin, Phenobarbital, Dexmedetomidine, Ropinirole, Ketamine, Pregabalin |
| Best Practices for Management of Xylazine Withdrawal and Xylazine-related Overdose (Penn CAMP) | Clonidine, Gabapentin, Ketamine, Olanzapine, Hydroxyzine, GABA agonists, Dexmedetomidine |

See information about article access on page 11.

**Best practices for withdrawal treatment are still in development and are likely to evolve as the drug supply continues to change.**

# Initiating methadone

## Why start methadone in the hospital?

Only 15% of patients with OUD receive OUD treatment during admission.

Methadone initiation during hospital stays is associated with positive outcomes:

- Reduction in overdose and all-cause mortality
- Decrease in acute care utilization
- Lower risk of self-discharge

**Patients started on methadone for OUD are more than twice as likely to present to an OTP after discharge.**

Martin et al. (2023)

Choosing Wisely
shm Society of Hospital Medicine

**"Methadone should be offered for withdrawal management regardless of a patient's desire or ability to continue it after hospitalization"**

SOCIETY OF HOSPITAL MEDICINE CONSENSUS STATEMENT

## Initiation protocol

There are several approaches to initiate methadone in the hospital. This is one dosing example. See other methadone initiation protocols here and here. (Sue et al., 2023; San Francisco Health Network, page 4, 2024 )

| Day | Max total daily dose | Recommended dosing |
|---|---|---|
| 1 | 40 mg | 20-30 mg, then up to 10 mg every 4-6 hours as needed for opioid withdrawal or craving up to 40 mg total. |
| 2 | 50 mg | Total day 1 dose, then up to 10 mg every 4-6 hours as needed for opioid withdrawal or craving up to 50 mg total. |
| 3 | 60 mg | Total dose from day 2, then up to 10 mg every 4-6 hours as needed for opioid withdrawal or craving to 60 mg total. |
| 4 and beyond | | 60 mg (or average total daily dose from day 3), then increase by 10-20 mg every 3-4 days based on withdrawal, cravings, patient preference. |

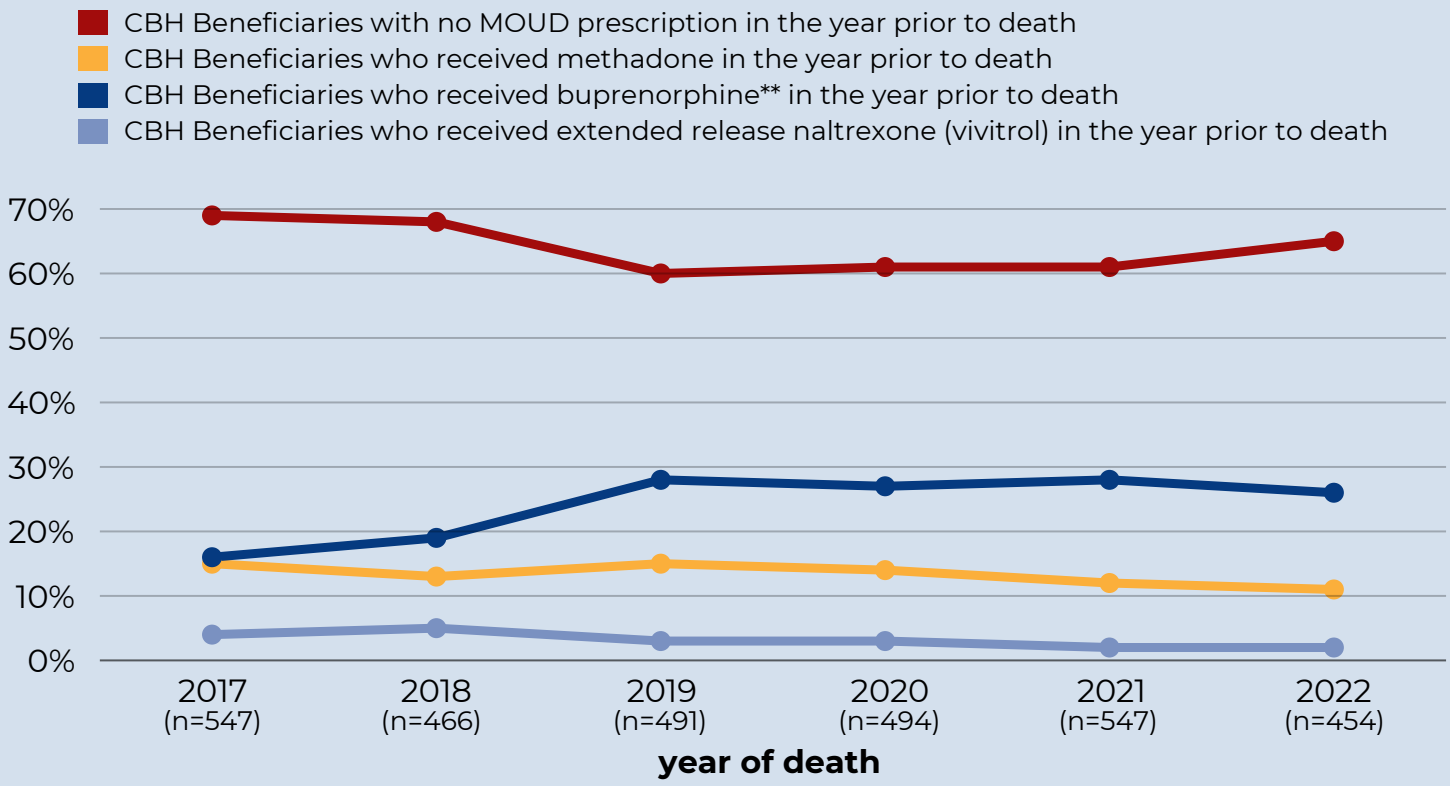
Englander et al. (2024)

# DATA SPEAKS: missed opportunities to initiate methadone

**An analysis of Community Behavioral Health (CBH) beneficiaries with opioid use disorder who died of an overdose between 2017 and 2022 found:**

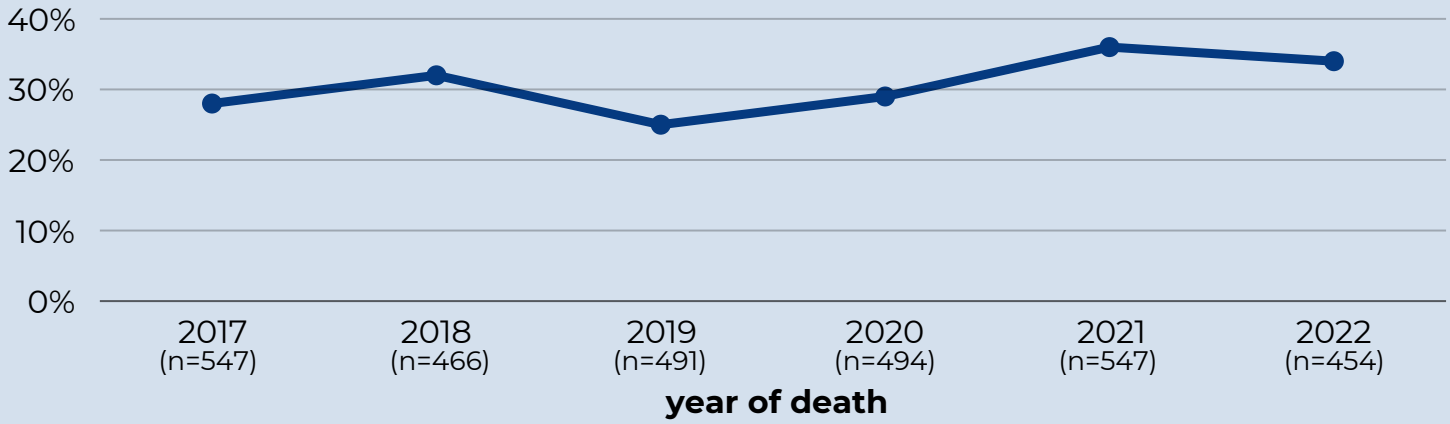
- Nearly one third of individuals were seen in an emergency department or hospitalized in the 30 days prior to their death.
- Approximately two-thirds of individuals who died of an overdose did not receive any medication for opioid use disorder (MOUD) in the year prior to their death.
- Only one in seven individuals who died of an overdose received methadone in the year prior to their death.

**Percent of overdose decedents (who were ever a CBH member and diagnosed with OUD prior to death) who were prescribed MOUD* in the year preceding death, Philadelphia, PA 2017-2022**




*Counts of CBH beneficiaries receiving different types of MOUD are not mutually exclusive.
** Buprenorphine claims exclude belbuca, butrans, and buprenex

**Percent of overdose decedents (who were ever a CBH member and diagnosed with OUD prior to death) who were seen in an ED or hospitalized within 30 days prior to death, Philadelphia, PA 2017-2022**




**Don't miss an opportunity** to engage your patient in a conversation about methadone and connect them to ongoing behavioral health treatment.

Visit www.cbhphilly.org or call 888-545-2600 to reach CBH member services.

# Continuity of care for patients on methadone

## Discharge planning checklist

- **Identify an opioid treatment program (OTP) that dispenses methadone.**
  - Engage in a **shared decision-making** process with patients to ensure the OTP program meets the patients needs.
- **Assess and support health-related social needs:**
  - Transportation assistance
  - Housing instability
  - Access to technology (e.g., cell phones)
  - Food insecurity
  - Social support
- **Administer methadone in the hospital on the day of discharge & communicate last dose of methadone to an OTP.**
- **Arrange an appointment at an OTP within 24 hours of discharge.**
- **Provide naloxone in-hand at discharge.**
- **Offer referrals to care navigation, such as warm hand-off programs, peer navigation services, and community health services.**
- **Offer referrals to harm reduction programs.**

**PLAN AHEAD. If a patient is being discharged to a skilled nursing facility (SNF), support close coordination between the SNF and OTP to avoid interruption in methadone treatment.**

## Admitting patients to OTPs during their hospitalization

**State and federal policy**

April 2024 - The Substance Abuse and Mental Health Service Administration (SAMHSA) revised federal regulations for OTPs, allowing **consent to be obtained verbally and telehealth methadone initiation**. See full rule change on the SAMHSA website.

September 2024 - The Pennsylvania Department of Drug and Alcohol Programs adopted SAMHSA's regulations to allow verbal consent. See full licensing alert here.

December 2024 - The Independent Regulatory Review Commission approved the Pennsylvania State Board of Medicine Regulation (#16A-4962: Opioid Treatment Programs) allowing telehealth methadone initiation. See regulation here.

# Transitional care: bridge clinic models

Bridge clinics provide low-barrier, transitional care to patients who may otherwise become lost to follow-up while waiting for admission (or between visits) to an OTP. Engagement in a bridge clinic is associated with higher MOUD and SUD **treatment retention**, **fewer emergency room visits,** and **increased screening and treatment for infectious disease**. The three bridge models currently being used in Philadelphia are described below.

Bridge clinics are safety net programs that help transition patients to substance use treatment. Hospitals should develop relationships with OTPs to streamline discharge plans.

Read more about each bridge model in Taylor et al. (2023).

## ED-based models

This emergency department-based model makes use of the 72-hour rule - the federal guideline that permits EDs to dispense methadone for 3 days before transitioning patients to an OTP. This is accomplished by:

- Instructing patients to return to the ED every day, starting the day after discharge, for methadone administration, until the patient is admitted to an OTP. This is also an opportunity to provide follow-up care and test results.
- Writing a care plan in the chart to notify the ED of the dosing plan. Download a **sample plan.**
- Entering an expected arrival notification on the ED track board.
- Triaging patients in a low-acuity section of the ED for dosing. Discharge immediately as long as patients don't appear to be intoxicated of have other complaints.

Read more about ED-based models in Nikolaides et al. (2024).

## Hospital-based outpatient models

In February 2024, Thomas Jefferson University Hospital opened the Sheller Consult and Bridge Program to provide the following services:

- Post-acute care coordination
- MOUD
- Primary care
- HIV/HCV/STI screening, prevention, and treatment
- Recovery support services with Certified Recovery Specialists
- Social drivers of health support (e.g. transportation, housing, IDs)

Read more about the Sheller Program.

## Telehealth model

The Penn Medicine Center for Addiction Medicine and Policy (CAMP) operates the CareConnect Warmline to provide access to short-term buprenorphine treatment and facilitate enrollment in OUD care programs. CAMP's team of substance use navigators include certified recovery specialists and certified peer specialists.

Read more about CareConnect.

**Opioid treatment is follow-up care.** Just like you would send a patient to a cardiologist after a heart attack, you should connect patients with OUD/SUD to treatment programs.

# Transition to outpatient and community care

## Treatment resources

**Jefferson Stephen and Sandra Sheller Consult and Bridge Program**
**Outpatient bridge clinic**
1015 Chestnut Street
Philadelphia, PA 19107

**Penn CAMP CareConnect Warmline**
**Telehealth buprenorphine bridge clinic**
484-278-1679

**Behavioral Health Services Initiative (uninsured)**
215-546-1200

**Community Behavioral Health (Medicaid)**
888-545-2600

**DBHIDS Addiction Services**

## Harm reduction resources

**Provide patients with (or direct them to) overdose prevention resources.** Anyone can get free naloxone and test strips mailed to their home through NextDistro, or pick them up at PDPH resource hubs.

**Integrate harm reduction frameworks into your clinical practice.** Hawk et al. (2017) outlines six harm reduction principles and accompanying approaches. They include humanism, pragmatism, individualism, autonomy, incrementalism, and accountability without termination.

**Direct patients to technical assistance resources to keep themselves safe while using.**

- The Grayken Center for Addiction at Boston Medical Center created a video series that covers different safer use concepts.
- Thomas Jefferson University Center for Supportive Healthcare created a harm reduction video series.

**Direct patients to the NeverUseAlone hotline (877-696-1996) or Brave App.** Using around others is an effective strategy to reduce the chance of fatal overdose. Encouraging patients to avoid using in isolation.

# Citations

## Supporting articles


**Caring for Hospitalized Adults With Opioid Use Disorder in the Era of Fentanyl - A Review**
Honora **Englander**, et al. (2024). JAMA Internal Medicine.
*ARTICLE ACCESS: SUPHR has obtained permission to host this article on SubstanceUsePhilly.com for free through May 2025. After May 2025, this article will only be accessible with login credentials.

**Tranq Dope: Characterization of an ED cohort treated with a novel opioid withdrawal protocol in the era of fentanyl/xylazine**
Kory **London**, et al. (2024). The American Journal of Emergency Medicine.
OPEN ACCESS

**Xylazine Adulteration of the Heroin–Fentanyl Drug Supply**
Joseph **D'Orazio**, et al. (2023) Annals of Internal Medicine.
*ARTICLE ACCESS: SUPHR has obtained web access to this article through December 2026. After December 2026, this article will only be accessible with login credentials.

**Xylazine's Impacts on the Community in Philadelphia: Perspectives of People Who Use Opioids and Harm Reduction Workers**
Megan K. **Reed**, et al. (2024). Substance Use & Misuse.
SUPHR is not able to provide access to the full-text article.

**Management of Xylazine Withdrawal in a Hospitalized Patient: A Case Report**
Rachel **Ehrman-Dupre**, at al. (2022). Journal of Addiction Medicine, 16(5), 595-598.
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**Point/counterpoint: Should full agonist opioid medications be offered to hospitalized patients for management of opioid withdrawal?**
Sam J. **Stern**, et al. (2023). Journal of Hospital Medicine.
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**Safety and preliminary outcomes of short-acting opioid agonist treatment (sOAT) for hospitalized patients with opioid use disorder**
Ashish P. **Thakrar**, et al. (2023) Addiction Science & Clinical Practice
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**Things We Do for No Reason™: Avoiding methadone for opioid withdrawal**
Marlene **Martin**, et al. (2023). Journal of Hospital Medicine.
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**Substance use disorder bridge clinics: models, evidence, and future directions**
Jessica L. **Taylor**, et al. (2023). Addiction Science & Clinical Practice.
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**Methadone Inductions in the Fentanyl Era**
Kimberly **Sue**, et al. (2023) American Society of Addiction Medicine Annual Meeting.
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**Methadone for Treatment of Opioid Use Disorder in an Opioid Treatment Program (OTP): Recommendations for Management in the Fentanyl Era.**
San Francisco Health Network Behavioral Health Services Medication Use Improvement Committee. (2024).
OPEN ACCESS

**A Novel Use of the "3-Day Rule": Post-discharge Methadone Dosing in the Emergency Department**
Jenna K. **Nikolaides**, et al. (2024). Western Journal of Emergency Medicine.
OPEN ACCESS

**Harm reduction principles for healthcare settings**
Mary **Hawk**, et al. (2017). Harm Reduction Journal, 14, 1-9.
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