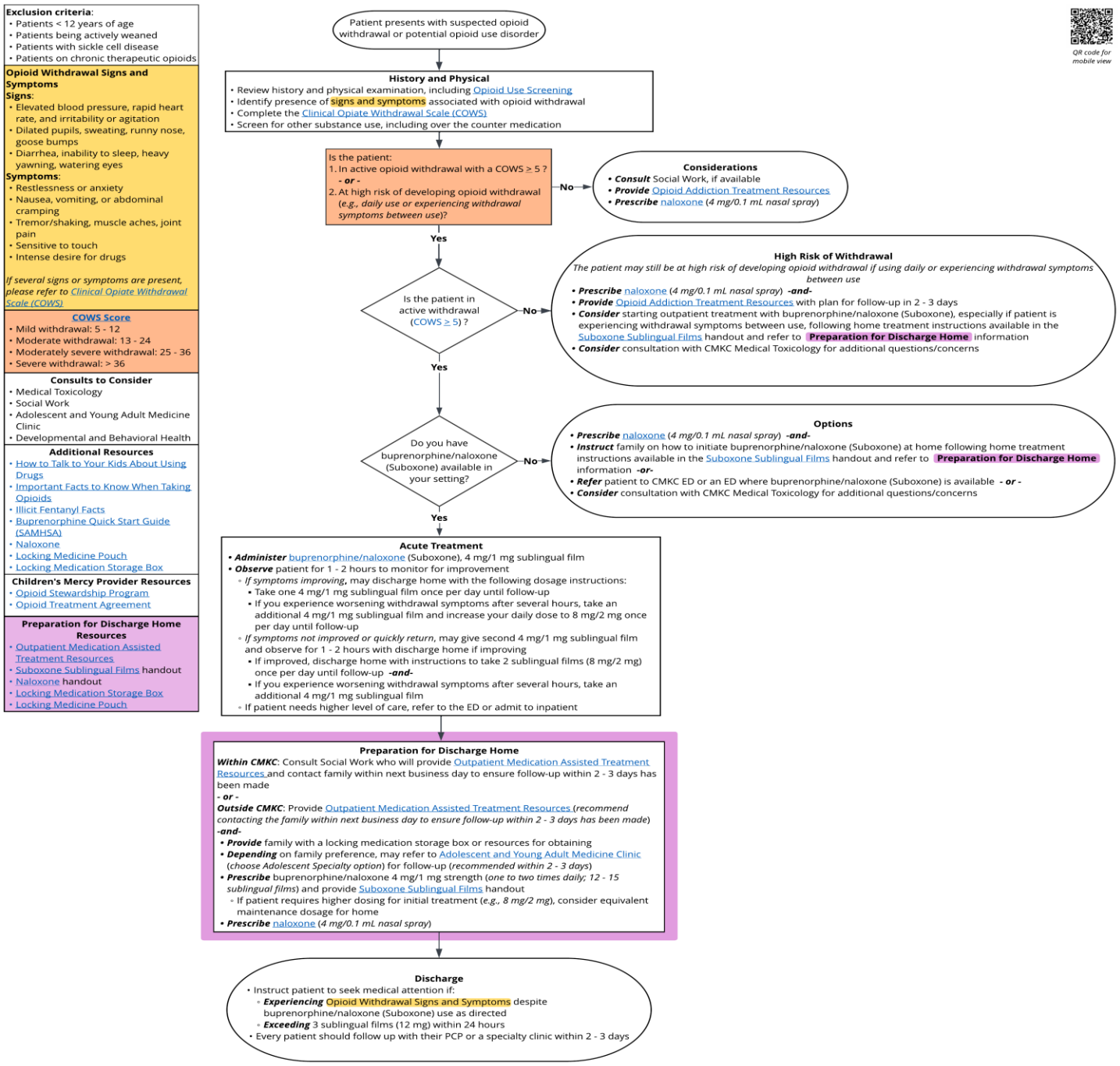
# Opioid Withdrawal Treatment
# Clinical Pathway Synopsis

## Opioid Withdrawal Treatment: Buprenorphine/Naloxone (Suboxone) Algorithm




*These clinical pathways do not establish a standard of care to be followed in every case. It is recognized that each case is different, and those individuals involved in providing health care are expected to use their judgment in determining what is in the best interests of the patient based on the circumstances existing at the time. It is impossible to anticipate all possible situations that may exist and to prepare a clinical pathway for each. Accordingly, these clinical pathways should guide care with the understanding that departures from them may be required at times.*

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**Objective of Clinical Pathway**

To provide care standards for the patient who presents with suspected opioid withdrawal or potential opioid use disorder. The Opioid Withdrawal Treatment Clinical Pathway aims to provide decision support and considerations for how to prescribe buprenorphine/naloxone (Suboxone) to adolescents and young adults safely when addressing opioid withdrawal.

**Background**

While adolescence is the bridge between childhood and adulthood, neurological and biological processes during this life phase predispose risk-taking and reward-seeking behaviors, such as substance use (Connolly et al., 2024; Simon et al., 2022). The confounder is that an adolescent's maturing brain is susceptible to addiction, which creates the circumstance for experiencing an overdose, developing substance use disorder, and negatively impacting health and well-being (Connolly et al., 2024; Simon et al., 2022).

Prescription opioid misuse and illicit opioid use are prevalent among adolescents and young adults and can lead to substance use disorder, specifically opioid use disorder (Connolly et al., 2024; Warren et al., 2023). National trends suggest that the prevalence of opioid misuse begins to increase when an adolescent is approximately 12 years of age and will continue to increase into young adulthood, and that opioid use disorder represents approximately 90% of overdose-related adolescent deaths (Tanz et al., 2022; Warren et al., 2023). Therefore, recognizing the signs and symptoms of acute opioid withdrawal and when to initiate pharmacological management are imperative first steps to address opioid use disorder and prevent relapse or overdose (Kosten, 2019; Saloner et al., 2017; Srivastava et al., 2020; Tanz et al., 2022; Trope et al., 2023). However, in practice, access to medications for the acute management of withdrawal and the ongoing medication-assisted treatment for opioid use disorder in adolescents may be limited or underutilized (Borodovsky et al., 2019; Kosten, 2019; Saloner et al., 2017; Srivastava et al., 2020; Trope et al., 2023). The Opioid Withdrawal Treatment Clinical Pathway Committee aims to establish a decision-support resource to guide clinicians through the acute management of opioid withdrawal and provide resources to address the ongoing treatment needs for opioid use disorder in adolescents and young adults. The Opioid Withdrawal Clinical Pathway is part of a broader quality improvement initiative that aims to reduce opioid misuse and overdose through the Opioid Stewardship Program.

**Target Users**

- Physicians (Emergency Medicine, Urgent Care, Hospital Medicine, Adolescent and Young Adult Medicine, Developmental and Behavioral Health, Residents, Fellows)
- Advanced Practice Providers
- Nursing
- Pharmacy
- Social Work

**Target Population**

***Inclusion Criteria***

- Patient presenting with suspected opioid withdrawal or potential opioid use disorder

***Exclusion Criteria***

- Patients < 12 years of age
- Patients who are being actively weaned
- Patients with sickle cell disease
- Patients on chronic therapeutic opioids

**AGREE II**

The American Society of Addiction Medicine (ASAM) national guideline provided guidance to the Opioid Withdrawal Treatment Clinical Pathway Committee (Cunningham et al., 2020). See Table 1 for AGREE II.

Table 1

*AGREE II Summary for the ASAM National Practice Guideline for the Treatment for Opioid Use Disorder: 2020 Focused Update (Cunningham et al., 2020)*

| Domain | Percent Agreement | Percent Justification^ |
|---|---|---|
| Scope and purpose | 98% | The aim of the guideline, the clinical questions posed, and the target populations **were** identified. |
| Stakeholder involvement | 92% | The guideline **was developed** by the appropriate stakeholders and represents the views of its intended users. |
| Rigor of development | 85% | The process used to gather and synthesize the evidence, formulate the recommendations, and update the guidelines **was** explicitly stated. |
| Clarity and presentation | 94% | The guideline recommendations **are** clear, unambiguous, and easily identified; in addition, different management options are presented. |
| Applicability | 77% | Barriers and facilitators to implementation, strategies to improve utilization, and resource implications **were addressed** in the guideline. |
| Editorial independence | 96% | The recommendations **were not** biased by competing interests. |
| Overall guideline assessment | 90% | |
| See Practice Recommendations | | |

*Note:* Four EBP Scholars completed the AGREE II on this guideline.
^ Percentage justification is an interpretation based on the Children's Mercy EBP Department standards.

**Practice Recommendations**

Please refer to the ASAM (Cunningham et al., 2020) national guideline for practice recommendations specific to opioid withdrawal treatment.

**Additional Questions Posed by the Clinical Pathway Committee**

No clinical questions were posed for this review.

**Recommendation Specific for Children's Mercy**

No deviations were made from the ASAM national practice guideline (Cunningham et al., 2020) regarding opioid withdrawal treatment recommendations, but logistical processes specific to Children's Mercy were added.

- Considerations should the patient not meet criteria for active opioid withdrawal, or when not being at high risk of developing opioid withdrawal, were provided
- Options if buprenorphine/naloxone (Suboxone) was not available in the care setting were included
- Resources for discharge preparation were provided

**Measures**

- Use of the Opioid Withdrawal Treatment Clinical Pathway
- Number of buprenorphine/naloxone (Suboxone) prescriptions
- Dosage of buprenorphine/naloxone (Suboxone) administered in the emergency department

**Value Implications**

The following improvements may increase value by reducing healthcare costs and non-monetary costs (e.g., missed school/work, loss of wages, stress) for patients and families and reducing costs and resource utilization for healthcare facilities.

- Decreased risk of missed signs and symptoms associated with opioid withdrawal
- Decreased risk of missed treatment opportunity when a patient is in active opioid withdrawal or at high risk of developing opioid withdrawal
- Decreased frequency of admission
- Decreased unwarranted variation in care

**Organizational Barriers and Facilitators**

***Potential Barriers***

- Variability of the acceptable level of risk among providers

- Challenges with follow-up faced by some families

***Potential Facilitators***

- Collaborative engagement across care continuum settings during clinical pathway development
- Availability of buprenorphine/naloxone in most settings
- Anticipated need for the clinical pathway in response to the opioid epidemic (Kansas Fights Addiction Act [HB 2079])

**Bias Awareness**

Bias awareness is our aim to recognize social determinants of health and minimize healthcare disparities, acknowledging that our unconscious biases can contribute to these inequities.

**Power Plans**

- There are no power plans associated with this clinical pathway

**Associated Policies**

- Opioid Stewardship Program

**Education Materials**

- Suboxone Sublingual Film
  - Intended to be provided to families when prescribing Suboxone sublingual films
  - Found in the Cerner depart process or through the Opioid Stewardship Program Resources Scope page
  - Available in English and Spanish
- Naloxone
  - Intended to be provided to families when prescribing naloxone
  - Found through the Opioid Stewardship Program Resources Scope page
  - Available in English and Spanish

**Clinical Pathway Preparation**

This pathway was prepared by the Evidence Based Practice (EBP) Department in collaboration with the Opioid Withdrawal Treatment Clinical Pathway Committee, which is composed of content experts at Children's Mercy Kansas City. If a conflict of interest is identified, it will be disclosed next to the committee member's name.

**Opioid Withdrawal Treatment Clinical Pathway Committee Members and Representation**

- Michelle DePhillips, MD | Pediatric Emergency Medicine | Committee Co-Chair
- Michael Christian, MD | Clinical Pharmacology and Toxicology | Committee Co-Chair
- Adam Algren, MD | Clinical Pharmacology and Toxicology | Committee Member
- Liz Edmundson, PhD, RN, NE-BC | Patient Care Services, Program Manager, Comfort Promise and Opioid Stewardship | Committee Member
- Jonathan Ermer, MD | Pediatric Hospital Medicine Fellow | Committee Member
- Giang Nguyen, MD, FAAP | Hospital Medicine | Committee Member
- Sara Anderson, MD, MPH | Developmental and Behavioral Health | Committee Member
- Ryan Hodges Pasternak, MD, MPH | Adolescent Medicine | Committee Member
- Ellen Bryant, MD | Pediatric Adolescent Medicine Fellow | Committee Member
- Justin Chu, MD | Pediatric Resident | Committee Member
- Rebecca Eck, MSN, APRN, FNP-C, CPN | Urgent Care | Committee Member
- Sarah Lee, LCSW, LSCSW | Social Work | Committee Member
- Ibad Siddiqi, PharmD | Pharmacy | Committee Member
- Sarah Dierking, MSN, RN, CPHQ | Clinical Practice and Quality | Committee Member

**Patient/Family Committee Member**

- Kasi Trader | Committee Member

**EBP Committee Members**

- Todd Glenski, MD, MSHA, FASA | Anesthesiology, Evidence Based Practice
- Kelli Ott, OTD, OTR/L | Evidence Based Practice

**Clinical Pathway Development Funding**

Children's Mercy Hospital received grant funding from the Sunflower Foundation through the Kansas Fights Addiction Act for the project titled 'Suboxone Clinical Pathways.' Grant funding through the Kansas Fights Addiction Act is intended to address substance abuse disorders and ensure that prevention and treatment services are offered throughout the state of Kansas.

**Conflict of Interest**

The contributors to the Opioid Withdrawal Treatment Clinical Pathway have no conflicts of interest to disclose related to research funding regarding the subject matter or materials discussed. The views of the funding body did not influence the content of this pathway.

**Approval Process**

- This pathway was reviewed and approved by the Opioid Withdrawal Treatment Committee, content expert departments/divisions, and the EBP Department; after which, it was approved by the Medical Executive Committee.
- Pathways are reviewed and updated as necessary every 3 years within the EBP Department at CMKC. Content expert teams are involved with every review and update.

**Review Requested**

| Department/Unit | Date Obtained |
|---|---|
| Pediatric Emergency Medicine | August 2025 |
| Clinical Toxicology | August 2025 |
| Urgent Care | August 2025 |
| Hospital Medicine | July 2025 |
| Adolescent and Young Adult Medicine | August 2025 |
| Developmental and Behavioral Health | July 2025 |
| Social Work | July 2025 |
| Pharmacy | July 2025 |
| Opioid Stewardship Program | July 2025 |
| Clinical Practice and Quality | August 2025 |
| Patient and Family Engagement | July 2025 |
| Evidence Based Practice | August 2025 |

**Version History**

| Date | Comments |
|---|---|
| September 2025 | Version one – (*algorithm, Suboxone Sublingual Films educational handout, and synopsis developed*) |

**Date for Next Review**

- September 2028

**Implementation & Follow-Up**

- Once approved, the pathway was presented to appropriate care teams and implemented. Care measurements will be assessed and shared with appropriate care teams to determine if changes need to occur.
- Education tools were reviewed by the Teen Advisory Board and Health Literacy representatives.
- The policy was reviewed. It details the oversight process for controlled substance prescribing for advanced practice providers, physicians, dentists, nurses, pharmacists, respiratory therapists, and transport.
- Education was provided to all stakeholders:
  Nursing units where the Opioid Withdrawal Treatment Clinical Pathway is used

Department of Clinical Toxicology, Developmental and Behavioral Health, Social Work, and Pharmacy
Providers from Pediatric Emergency Medicine, Urgent Care, Hospital Medicine, and Adolescent and Young Adult Medicine
Resident physicians

- Additional institution-wide announcements were made via email, the hospital website, and relevant huddles.

**Disclaimer**

When evidence is lacking or inconclusive, options in care are provided in the supporting documents and the power plan(s) that accompany the clinical pathway.

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It is impossible to anticipate all possible situations that may exist and to prepare clinical pathways for each. Accordingly, these clinical pathways should guide care with the understanding that departures from them may be required at times.

**References**

Borodovsky, J. T., Levy, S., Fishman, M., & Marsch, L. A. (2018). Buprenorphine treatment for adolescents and young adults with opioid use disorders: A narrative review. *Journal of Addiction Medicine*, *12*(3), 170-183. https://doi.org/10.1097/ADM.0000000000000388

Centers for Disease Control and Prevention (2022, July 11). *Teens newsletter: Opioids.* https://www.cdc.gov/museaum/education/newsletter/2022/july/index/html

Connolly, S., Govoni, T. D., Jiang, X., Terranella, A., Guy, G. P., Green, J. L., & Mikosz, C. (2024). Characteristics of alcohol, marijuana, and other drug use among persons aged 13 – 18 years being assessed for substance use disorder treatment – United States, 2014 – 2022. *Morbidity and Mortality Weekly Report*, *73*(5), 93-98. http://dx.doi.org/10.15585/mmwr.mm7305a1

Gowing, L., Ali, R., White, J. M., & Mbewe, D. (2017). Buprenorphine for managing opioid withdrawal. *Cochrane Database of Systematic Reviews*. https://doi.org/10.1002/14651858.CD002025.pub5

Kosten, T. R., & Baxter, L. E. (2019). Review article: Effective management of opioid withdrawal symptoms: A gateway to opioid dependence treatment. *The American Journal on Addictions*, *28*(2), 55-62. https://doi.org/10.1111/ajad.12862

Kumar, P., Kaliamurthy, S., & Thomas, J. (2024). Initiation of buprenorphine treatment of opioid use disorder in pediatric emergency departments. *Pediatrics*, *154*(2), e2024066226. https://doi.org/10.1542/peds.2024-066226

Oakley, B., Wilson, H., Hayes, V., & Lintzeris, N. (2021). Managing opioid withdrawal precipitated by buprenorphine with buprenorphine. *Drug and Alcohol Review*, *40*(4), 567-571. https://doi.org/10.1111/dar.13228

Opioid Stewardship Program (OSP), (May, 2023), *CMH Patient Care Services Medication Manual*. Children's Mercy Hospital, Kansas City, Missouri

Rittenhouse, D., & Sandelich, S. (2024). A national survey of pediatric emergency medicine clinicians' comfort levels, beliefs, and experiences with initiating buprenorphine in the emergency department. *Cureus*, *16*(9), e69331. https://doi.org/10.7759/cureus.69331

Saloner, B., Feder, K. A., & Krawczyk, N. (2017). Closing the medication-assisted treatment gap for youth with opioid use disorder. *The Journal of the American Medical Association Pediatrics*, *171*(8), 729-731. https://doi.org/10.1001/jamapediatrics.201

Simon, K. M., Levy, S. J., & Bukstein, O. G. (2022). Adolescent substance use disorder. *New England Journal of Medicine Evidence*, *1*(6), EVIDra2200051. https://doi.org/10.1056/EVIDra2200051

Srivastava, A. B., Mariani, J. J., & Levin, F. R. (2020). New directions in the treatment of opioid withdrawal. *Lancet (London, England)*, *395* (10241), 1938-1948. https://doi.org/10.1016.S0140-6736(20)30852-7

Tanz, L. J., Dinwiddie, A. T., Mattson, C. L., O'Donnell, J., & Davis, N. L. (2022). Drug overdose deaths among persons aged 10-19 years – United States, July 2019 – December 2021. *Morbidity and Mortality Weekly*, *71*(50), 1576-1582. http://dx.doi.org/10.15585/mmwr.mm7150a2

Trope, L. A., Stemmle, M., Chang, A., Bashiri, N., Bazazi, A. R., Lightfoot, M., & Congdon, J. L. (2023). A novel inpatient buprenorphine induction program for adolescents with opioid use disorder. *Hospital Pediatrics*, *13*(2), e23-e28. https://doi.org/10.1542/hpeds.2022-006864

Warren, L. K., Adams, J., & Bobashev, G. (2023). Trends in opioid misuse among individuals aged 12 to 21 years in the US. *Journal of the American Medical Association Network Open*, *6*(6), e2316272. https://doi.org/10.1001/jamanetworkopen.2023.16276

Wesson, D. R., & Ling, W. (2003). The clinical opiate withdrawal scale (COWS). *Journal of Psychoactive Drugs*, *35*(2), 253-259. https://doi.rog/10.1080/02791072.2003.10400007