

FAST FACTS AND CONCEPTS #95 OPIOID WITHDRAWAL

Debra Gordon RN and June Dahl PhD

Background Physical dependence is a normal and predictable neurophysiological response to regular treatment with opioids for more than 1-2 weeks duration. Continuous or near continuous opioid blood levels are required (one oxycodone-acetaminophen tablet per day will not lead to physical dependence). Physical dependence is characterized by a withdrawal syndrome when the opioid is abruptly discontinued, if an opioid antagonist (naloxone) is given, or when drug blood levels fall below a critical level. Withdrawal can also be caused by administration of a mixed agonist-antagonist (e.g., buprenorphine, butorphanol, nalbuphine, pentazocine). Physical dependence is not a defining condition of addiction (see below and *Fast Facts* #68 and #69).

Important definitions

- **Tolerance:** state of adaptation in which exposure to a drug induces changes that result in diminution of one or more of the drug's effects over time.
- **Physical dependence:** state of adaptation manifested by a drug class-specific withdrawal syndrome that can be produced by abrupt cessation, rapid dose reduction, decreasing blood level of the drug and/or administration of an antagonist.
- **Addiction / psychological dependence:** a primary, chronic, neurobiologic disease, with genetic, psychosocial, and environmental factors. Characterized by one or more of the following: impaired control over drug use, compulsive use, continued use despite harm, and craving.

Signs and symptoms of the opioid withdrawal syndrome include yawning, sweating, lacrimation, rhinorrhea, anxiety, restlessness, insomnia, dilated pupils, piloerection, chills, tachycardia, hypertension, nausea/vomiting, cramping abdominal pains, diarrhea, and muscle aches and pains. Unlike withdrawal from alcohol or benzodiazepines, opioid withdrawal is not life threatening. Emergence of withdrawal symptoms varies with half-life of the particular opioid; within 6-12 hours after the last dose of a short-acting drug or 72-96 hours following methadone (see *Fast Facts* #75, 86). Duration and intensity of withdrawal are related to clearance of the drug such that withdrawal is shorter (5-10 days) and more intense for opioids like morphine and less severe and more protracted with methadone.

Prevention Opioid withdrawal syndrome should always be prevented. Patients treated with opioids for more than one to two weeks should be instructed to gradually reduce the opioid before discontinuing use. In general, **dose reductions of about 20-25% every day or two** will allow a tapering schedule that will prevent signs and symptoms of withdrawal. An alternative recommendation is to give half the previous dose for the first 2 days and then reduce the dose by 25% every 2 days. When the dose reaches the equivalent of approximately 30 mg/day of oral morphine, this dose is given for 2 days, and then the drug is discontinued. It is important to continue to provide around-the-clock opioids to prevent withdrawal in the patient at end-of-life who is no longer able to communicate or take oral opioids.

Treatment Clonidine 0.1-0.2 mg PO Q 4-6 hours PRN or by transdermal patch (clonidine transdermal 0.1 mg/24hour patch which provides 0.1 mg a day for 7 days) can be used to treat autonomic hyperactivity symptoms. It will not relieve insomnia. The major drawback of clonidine therapy is the tendency to cause hypotension in some patients. Other agents used for control of withdrawal symptoms include: diphenoxylate/atropine (Lomotil), hydroxyzine, trazodone, and dicyclomine hydrochloride (Bentyl). For patients still in pain who have abruptly stopped their opioids (because they ran out, lost their prescription, or stopped because of side effects) reinstating opioid therapy may be appropriate to treat both their withdrawal symptoms and ongoing pain. Depending on how long a patient has been without opioids it may not be safe to reinstate the full opioid dose immediately (especially for long-acting opioids). In this case patients should go through a dose-titration phase with short-acting opioids to safely achieve analgesia.

This Fast Fact was adapted with permission from the University of Wisconsin Hospital & Clinics, Madison, WI Pain Patient Care Team '*Pain Management Fast Facts – 5 Minute Inservice*' series.

References:

1. McCaffery M, Pasero C. *Pain: Clinical Manual*. 2nd Ed. St Louis, MO: Mosby; 1999.
2. American Academy of Pain Medicine (AAPM), American Pain Society (APS), American Society of Addiction Medicine (ASAM). Definitions Related to the Use of Opioids for the Treatment of Pain. Consensus Statement, 2001. Available at: <http://www.ampainsoc.org/advocacy/opioids2.htm>.
3. Kenna GA, Nielson DM, Mello P, Schiesl A, Swift RM. Pharmacotherapy of dual substance abuse and dependence. *CNS Drugs*. 2007; 21:213-237.

Version History: This *Fast Fact* was originally edited by David E Weissman MD. 2nd Edition was edited by Drew A Rosielle and published October 2007; 3rd Edition June 2015. Current version re-copy-edited April 2009; then again June 2015.

Fast Facts and Concepts are edited by Sean Marks MD (Medical College of Wisconsin) and associate editor Drew A Rosielle MD (University of Minnesota Medical School), with the generous support of a volunteer peer-review editorial board, and are made available online by the [Palliative Care Network of Wisconsin](#) (PCNOW); the authors of each individual *Fast Fact* are solely responsible for that *Fast Fact's* content. The full set of *Fast Facts* are available at [Palliative Care Network of Wisconsin](#) with contact information, and how to reference *Fast Facts*.

Copyright: All *Fast Facts and Concepts* are published under a Creative Commons Attribution-NonCommercial 4.0 International Copyright (<http://creativecommons.org/licenses/by-nc/4.0/>). *Fast Facts* can only be copied and distributed for non-commercial, educational purposes. If you adapt or distribute a *Fast Fact*, let us know!

Disclaimer: *Fast Facts and Concepts* provide educational information for health care professionals. This information is not medical advice. *Fast Facts* are not continually updated, and new safety information may emerge after a *Fast Fact* is published. Health care providers should always exercise their own independent clinical judgment and consult other relevant and up-to-date experts and resources. Some *Fast Facts* cite the use of a product in a dosage, for an indication, or in a manner other than that recommended in the product labeling. Accordingly, the official prescribing information should be consulted before any such product is used.

