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Pain Care Fast Facts: 5-Minute Clinical Inservice

Opioid Withdrawal 3rd Ed, 5/09

Physical dependence is a normal and predictable neurophysiological response to repeated treatment with an opioid for more than one to two weeks. It is characterized by a withdrawal syndrome when the opioid is abruptly discontinued, if an opioid antagonist (naloxone) is given, or when drug blood concentrations 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 important definitions below).

Opioid Withdrawal

A complex range of variables can influence the course and severity of withdrawal, including the type of opioid used, dose taken, concomitant use of other drugs including alcohol, duration of use, general physical health, and other factors, such as the reasons for undergoing withdrawal and fear of withdrawal (Gowing et al, 2009).

"Signs and symptoms of opioid withdrawal syndrome include irritability, anxiety, apprehension, muscular and abdominal pains, chills, nausea, diarrhea, yawning, lacrimation, sweating, sneezing, rhinorrhea, general weakness, anxiety, and insomnia. Symptoms of opioid withdrawal usually begin two to three half-lives after the last opioid dose, i.e., six to 12 hours for short half-life opioids such as heroin and morphine, and 36 to 48 hours for long half-life opioids such as methadone. Following cessation of a short half-life opioid, symptoms reach peak intensity within two to four days; most physical signs of withdrawal are gone in seven to 14 days. The opioid withdrawal syndrome is rarely life-threatening. However, completion of withdrawal is difficult for most people (page 4, Gowing et al, 2009). The first or acute phase of withdrawal can be followed by a period of six months or more of a secondary or protracted withdrawal syndrome which is characterized by a general feeling of reduced well-being.

Prevention

Opioid withdrawal should always be prevented. Patients treated with opioids for more than one to two weeks should be instructed to gradually reduce the dose before discontinuing use. The longer a patient has been takig opioids, the longer it will take to safely complete the weaning process. When a rapid reduction in IV opioid use is desired, patients **can be weaned by reducing the daily dose by 10%**. An alternative recommendation is to give half the previous dose for the first two days and then reduce the dose by 25% every two days. When the dose reaches the equivalent of approximately 30mg /day of PO morphine, this dose is given for two days, and then the drug is discontinued. Longer acting opioid such as methadone and levorphanol may need to be reduced more slowly to avert withdrawal symptoms.

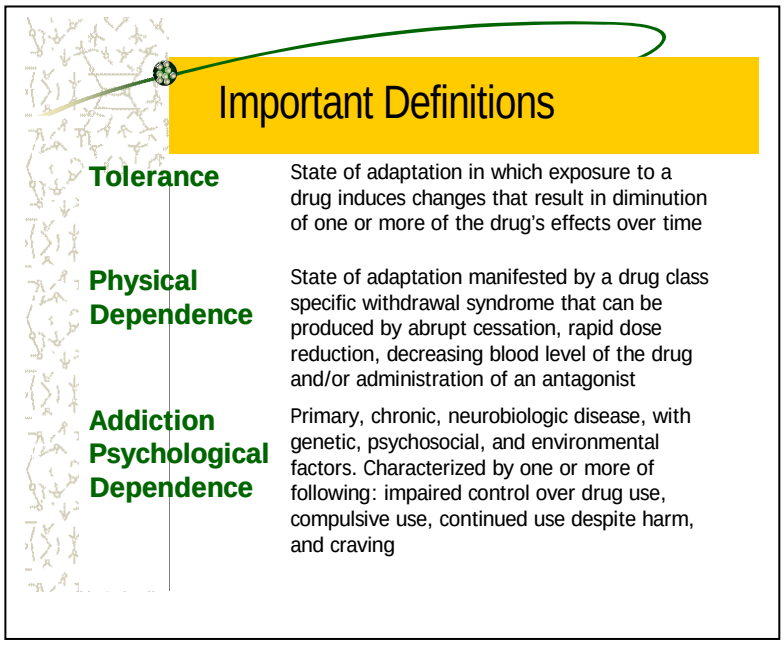
Treatment

Alpha2-adrenergic agonists can be used to treat autonomic hyperactivity symptoms. However, these drugs will not relieve insomnia, anxiety or the associated aches and pains of withdrawal. Clonidine is recommended to be administered orally in two to four divided doses per day, with the total dose adjusted daily according to the intensity of the withdrawal symptoms and side effects (particularly changes in blood pressure). Clonidine is generally started at 0.1 to 0.2mg/dose and increased to a maximum of around 1.0mg/day (Gowling et al, 2009).The transdermal clonidine patch (Catapres TTS®-1-(2.5mg) which provides 0.1mg daily delivery for seven days) may also be considered, but has a slow onset and may take up to two to three days to achieve therapeutic levels. The major drawbacks of

clonidine therapy are hypotension and sedation. Maximal doses are generally administered for only a few days at the time of most intense withdrawal symptoms, usually two to four days after cessation of opioids (depending on the half-life of the opioid). Doses are then tapered, and discontinued seven to ten days after cessation of the opioid, again depending on the half-life of the particular opioid. There is inadequate information to guide the dosing of alpha2-adrenergic agonists other than clonidine (and lofexidine which is not available in the U.S.).

Other agents used for control of withdrawal symptoms include: diphenoxylate/atropine or loperamide for diarrhea, hydroxyzine for agitation and anxiety, trazodone for sleep, and dicyclomine hydrochloride (Bentyl™) for abdominal cramping.

For opioid withdrawal related to addiction consult an addiction medicine specialist. A special DEA license is required to prescribe methadone or buprenorphine for addiction treatment. For more information see the Fast Facts on methadone and buprenorphine.



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Gowing L, Farrel M, Ali R, White JM. Alpha(2)-adrenergic agonists for the management of opioid withdrawal. Cochrane Database Systematic Review 2009;ap 15;(2):CD002024.

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