



# Effective Health Care

## Medication-assisted Detoxification and Tapering for Opioid Dependence Nomination Summary Document

### Results of Topic Selection Process & Next Steps

- The topic, *Medication-assisted Detoxification and Tapering for Opioid Dependence*, was found to be addressed by six Cochrane systematic reviews, the first two of which addressed detoxification, and the remaining four of which addressed maintenance therapy only. Given the existing guidance identified no further activity will be undertaken on these topics.
  - Amato L, Davoli M, Minozzi S, Ferroni E, Ali R, Ferri M. Methadone at tapered doses for the management of opioid withdrawal. *Cochrane Database Syst Rev.* 2013; 28(2).
  - Minozzi S, Amato L, Vecchi S. Oral naltrexone maintenance treatment for opioid dependence. *Cochrane Database Syst Rev.* 2011 Apr 13;(4):CD001333.
  - Ferri M, Minozzi S, Bo A, Amato L. Slow-release oral morphine as maintenance therapy for opioid dependence. *Cochrane Database Syst Rev.* 2013 Jun 5;6.
  - Rahimi-Movaghar A, Amin-Esmaili M, Hefazi M, Yousefi-Nooraie R. Pharmacological therapies for maintenance treatments of opium dependence. *Cochrane Database Syst Rev.* 2013 Jan 31;1.
  - Ferri M, Davoli M, Perucci CA. Heroin maintenance for chronic heroin-dependent individuals. *Cochrane Database Syst Rev.* 2011 Dec 7;(12).
  - Gowing L, Farrell MF, Bornemann R. Oral substitution treatment of injecting opioid users for prevention of HIV infection. *Cochrane Database Syst Rev.* 2011 Aug 10;(8).

### Topic Description

**Nominator(s):** Organization

**Nomination Summary:** Non-prescription opiate use (including heroin) and prescription opioid use (e.g., hydrocodone and OxyContin) is widespread among adults and adolescents. The nominator wants to know about the comparative effectiveness of medication-assisted detoxification and tapering treatment for individuals with opioid dependence and the best methods for treating addiction and dependence on replacement drug treatment (i.e., methadone and buprenorphine).

**Staff-Generated PICO:**

**Population(s):** Individuals with opioid dependence, including the following subpopulations of interest: low-income, patients with chronic pain, active drug users, former drug users, pregnant women, minorities, patients with co-morbid mental health diagnoses, adolescents and young adults, and rural populations

**Intervention(s):** Available medication-assisted detoxification and tapering treatments of varying frequency of dosage (e.g., daily vs. alternate-day dosing) and duration of dosage/tapering

Available medication-assisted detoxification and tapering treatments administered in various settings (e.g., inpatient vs. outpatient)

**Comparator(s):** Other medication-assisted detoxification and tapering treatments, and maintenance therapy

**Outcome(s):** Long-term or permanent abstinence from opiates and opioids; decreased relapses and repeat treatments; improved overall health; improved self-image and confidence; decreased health burden; social benefits (e.g., restore family relationships, employability, avoid incarceration); reduced non-adherence; prevention of increased depression or mental health burden; prevention of severe opiate/opioid withdrawal; reduced dependence on treatment drugs; reduced overdose potential or risk of overdose; and reduced poly-pharmacy

**Key Questions from Nominator:** What is the comparative effectiveness of medication-assisted detoxification and tapering treatment for individuals with opioid dependence?

## Considerations

- The topic meets EHC Program appropriateness and importance criteria. (For more information, see <http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/>.)
- Almost two million people in the US were addicted to prescription opioid pain relievers and 359,000 were addicted to heroin in 2010. Since then, the number of unintentional deaths from an overdose of prescription pain relievers in the US has increased four-fold. Abuse of opioids, especially heroin, is also associated with the transmission of many blood-borne diseases, including human immunodeficiency virus (HIV), hepatitis, and other sexually transmitted infections (STIs).
- Detoxification is the process of removing the opioid in a controlled and humane manner. Medication-assisted treatments for opioid dependence are clinically driven and focused on individualized patient care. Medication-assisted treatment for individuals with opioid dependence typically involve the use of drugs that block the action of opioid drugs (e.g., naltrexone), opioid-type drugs (i.e., methadone and buprenorphine), and/or drugs that alleviate withdrawal symptoms such as clonidine and lofexidine. There are two general approaches to detoxification: abrupt termination of opioid use and tapering slowly with a replacement opioid agonist.
- Opioid maintenance or replacement therapy involves using a legal opiate to reduce a person's urge to take illicit drugs. The purpose of maintenance therapy is to facilitate a resumption of stability in the user's life, while they experience reduced symptoms of withdrawal symptoms and less intense drug cravings. Currently there are two kinds of opioid maintenance drugs, methadone and buprenorphine. To receive methadone, most people have to go to a clinic to receive a daily dose in liquid form.. However, barriers may prevent people from seeking or maintaining methadone treatment, including lack of transportation, the inconvenience of daily visits to the clinic, and cost.
- Two Cochrane systematic reviews and a guideline by the Department of Veterans Affairs (VA) and Department of Defense (DoD), which were identified in our search, address detoxification and tapering:
  - The review, *Methadone at Tapered Doses for the Management of Opioid Withdrawal* (2013) by Amato et al. , evaluated the effectiveness of tapered methadone compared with other detoxification treatments and placebo in managing opioid withdrawal on completion of detoxification and relapse

- rate. The authors found that programs vary widely with regard to the assessment of outcome measures, preventing the application of meta-analytic assessment of the evidence gathered.
- The review, *Oral Naltrexone Maintenance Treatment for Opioid Dependence* (2011) by Minozzi et al., evaluated the effects of naltrexone maintenance treatment versus placebo or other treatments in preventing relapse in opioid addicts after detoxification. The authors determined that oral naltrexone does not perform better than placebo with respect to the number of participants re-incarcerated during the study period and there is no statistically significant difference between buprenorphine and clonidine for detoxification. The authors also found no significant difference between buprenorphine detoxification and buprenorphine-naloxone maintenance.
  - The VA/DoD guideline, *Management of substance use disorders* (2009), provides recommendations on medication-assisted detoxification and tapering treatments for adult patients, including pregnant women, with substance use conditions treated in any VA/DoD clinical setting.
  - The following four Cochrane systematic reviews focus on maintenance therapy only:
    - The review, *Pharmacological Therapies for Maintenance Treatments of Opium Dependence* (2013) by Rahimi-Movaghar et al., evaluated the effectiveness and safety of various pharmacological therapies on maintenance of opium dependence (alone or in combination with psychosocial interventions) compared to no intervention, detoxification, different doses of the same intervention, other pharmacologic interventions and psychosocial interventions. The authors concluded that higher doses of buprenorphine increased the probability of retention in treatment.
    - The Ferri et al. review, *Slow-release Oral Morphine as Maintenance Therapy for Opioid Dependence* (2013), evaluated the efficacy of slow-release oral morphine (SROM). The authors concluded that quality of life in people treated with SROM was not significantly different compared to those taking methadone and buprenorphine. For other social functioning measures, such as finances, family and overall satisfaction, the comparison treatments were more effective than SROM.
    - In another review, *Heroin Maintenance for Chronic Heroin-dependent Individuals* (2011), Ferri et al compared heroin maintenance to methadone or other substitution treatments for opioid dependence and the following outcomes: efficacy and acceptability, retaining patients in treatment, reducing the use of illicit substances, and improving health and social functioning. The authors concluded that there is value in treatment with heroin alongside methadone for long-term for treatment-refractory opioid users for the following outcomes: decrease in the use of illicit substances, involvement in criminal activity and incarceration, reduction in mortality, and increase in treatment retention.
    - The review, *Oral Substitution Treatment of Injecting Opioid Users for Prevention of HIV Infection* (2008) by Growing et al., assessed the effect of oral substitution treatment for opioid-dependent injecting drug users on risk behaviors and rates of HIV infections. The authors determined that oral substitution treatment for opioid-dependent injecting drug users with methadone or buprenorphine is associated with statistically significant reductions in illicit opioid use, injecting use and sharing of injecting equipment. It was also associated with reductions in the proportion of injecting drug users reporting multiple sex partners or exchanges of sex for drugs or money, but had little effect on condom use.