

**IN BRIEF**

Summarizing the Evidence

# Buprenorphine – Naloxone Tablet Versus Methadone for the Treatment of Patients with Opioid Use Disorder: A Review

## Key Messages

- There are mixed conclusions on the clinical effectiveness of buprenorphine-naloxone (BUP-NAL) tablet compared with methadone for the treatment of patients with opioid use disorder (OUD). While some studies found no differences between the medications when comparing several outcomes of interest (i.e., female sexual risk, health risk behaviours), other studies had mixed findings with regard to treatment retention. One study revealed a higher quality of life, and abstinence for those on BUP-NAL. There are no clear patterns to suggest the overall superiority of one pharmacotherapy over another.
- There is a lack of evidence on the cost-effectiveness of BUP-NAL tablets compared with methadone for the treatment of patients with OUD.
- There is a lack of consensus in the six reports of four evidence-based guidelines —one guideline recommends involving the patient in a discussion of their options, while three others recommend BUP-NAL for treatment initiation or maintenance. Two guidelines focused on the pregnant population and presented conflicting recommendations with one recommending BUP-NAL as first-line treatment and the second recommending those on BUP-NAL be switched to the buprenorphine monoproduct or alternative.

## Context

An estimated 1.01% of Canadians have OUD, which is described as the problematic pattern of opioid use that leads to clinically significant impairment or distress. Multiple drugs have been developed to support individuals with OUD, collectively referred to as opioid agonist treatments.

Common drugs include methadone, naltrexone, and buprenorphine that work to relieve opioid withdrawal symptoms and reduce cravings.

## Technology

Buprenorphine is available as a monoproduct in different formulations, or as a combined formulation with naloxone, an opioid antagonist. The BUP-NAL combination is available as a tablet that is taken under the tongue (sublingual). Naloxone is intended to discourage injection use, as it does not get absorbed by the body when taken sublingually but causes severe withdrawal if injected. Buprenorphine tightly binds to, and partially agonizes the mu-opioid receptors while methadone binds to, and fully agonizes mu-opioid receptors.

## Issue

There is a need for high-quality evidence comparing BUP-NAL with methadone for the treatment of OUD. CADTH has previously reviewed the evidence to compare BUP-NAL with methadone for the treatment of OUD. In a 2016 report entitled Buprenorphine/ Naloxone Versus Methadone for the Treatment of Opioid Dependence: A Review of Comparative Clinical Effectiveness, Cost-Effectiveness and Guidelines, BUP/NAL was found to possibly be more effective than methadone in preventing relapse, while patients taking methadone were found to possibly stay in treatment longer. These findings were based on studies that used lower, less effective doses of both treatments. No difference in safety or harms were found between the two treatments. Non-Canadian studies found the costs of BUP-NAL to be marginally higher before the less costly, generic drug was made available, but it was suggested in 2016 that BUP-NAL may be more cost-effective than methadone in Canada.

An updated review of the comparative clinical effectiveness, cost-effectiveness, and the evidence-based guidelines for BUP-NAL compared with methadone will help inform decisions regarding treatment options for managing opioid dependence.

## Methods

A limited literature search was conducted of key resources, and titles and abstracts of the retrieved publications were reviewed. Full-text publications were evaluated for final article selection according to predetermined selection criteria (population, intervention, comparator, outcomes, and study designs).

## Results

A total of 184 citations were identified in the literature search, with nine additional publications identified from the grey literature. Of these, 12 publications (four systematic reviews [one with meta-analysis], one randomized controlled trial, one non-randomized study, and six reports representing four guidelines) met the criteria for inclusion in this review and were summarized.

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