

CADTH RAPID RESPONSE REPORT: REFERENCE LIST

# The Use of Transdermal Buprenorphine Patches in Aiding in Opioid Withdrawal: Clinical Effectiveness and Guidelines

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## Research Questions

1. What is the clinical effectiveness regarding the use of buprenorphine patches for aiding in opioid withdrawal prior to starting a patient on buprenorphine/naloxone?
2. What are the evidence-based guidelines regarding the use of buprenorphine patches for aiding in opioid withdrawal prior to starting a patient on buprenorphine/naloxone?

## Key Findings

One non-randomized study and one evidence-based guideline were identified regarding the use of buprenorphine patches for aiding in opioid withdrawal prior to starting a patient on buprenorphine/naloxone.

## Methods

A limited literature search was conducted on key resources including PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2012 and June 2, 2017. Internet links were provided, where available.

## Selection Criteria

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

**Table 1: Selection Criteria**

<b>Population</b>	Patients addicted to opioids who will be starting on buprenorphine/naloxone (Suboxone)
<b>Intervention</b>	Transdermal buprenorphine patches (Butrans patches)
<b>Comparator</b>	Q1: No treatment, supportive therapy (clonidine, other medications, etc.) Q2: N/A
<b>Outcomes</b>	Efficacy, compliance with future treatment, safety, misuse/diversion of the patch, guidelines
<b>Study Designs</b>	Health technology assessments, systematic reviews, meta-analysis, randomized controlled trials, non-randomized studies, guidelines

## Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, and evidence-based guidelines.

One non-randomized study and one evidence-based guideline were identified regarding the use of buprenorphine patches for aiding in opioid withdrawal prior to starting a patient on buprenorphine/naloxone. No health technology assessments, systematic reviews, meta-analyses, and randomized controlled trials were found.

Additional references of potential interest are provided in the appendix.

### Health Technology Assessments

No literature identified.

### Systematic Reviews and Meta-analyses

No literature identified.

### Randomized Controlled Trials

No literature identified.

### Non-Randomized Studies

1. Hess M, Boesch L, Leisinger R. et al. Transdermal buprenorphine to switch patients from higher dose methadone to buprenorphine without severe withdrawal symptoms. *Am J Addict.* 2011; 20:480 – 481.

### Guidelines and Recommendations

2. British Columbia Centre on Substance Abuse, BC Ministry of Health. A guideline for the clinical management of opioid use disorder [Internet]. Vancouver (BC): British Columbia Centre on Substance Use; 2017. [cited 2017 Jun 8]. Available from: [http://www.bccsu.ca/wp-content/uploads/2017/06/BC-OUD-Guidelines\\_June2017.pdf](http://www.bccsu.ca/wp-content/uploads/2017/06/BC-OUD-Guidelines_June2017.pdf)  
See: 3.C, page 43

## Appendix — Further Information

### Non-Randomized Studies – Alternate Use

3. Coplan PM, Sessler NE, Harikrishnan V, Singh R, Perkel C. Comparison of abuse, suspected suicidal intent, and fatalities related to the 7-day buprenorphine transdermal patch versus other opioid analgesics in the National Poison Data System. *Postgrad Med.* 2017 Jan;129(1):55-61.  
[PubMed: PM27922764](#)
4. Wallace L, Kadakia A. Buprenorphine transdermal system utilization. *Postgrad Med.* 2017 Jan;129(1):81-6.  
[PubMed: PM27901359](#)
5. Sarkar S, Subramaniam E, Konthoujam J. A novel approach in the detoxification of intravenous buprenorphine dependence. *Indian J Psychiatry [Internet].* 2016 Apr [cited 2017 Jun 8];58(2):152-6. Available from:  
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4919958>  
[PubMed: PM27385847](#)
6. Ripa SR, McCarberg BH, Munera C, Wen W, Landau CJ. A randomized, 14-day, double-blind study evaluating conversion from hydrocodone/acetaminophen (Vicodin) to buprenorphine transdermal system 10 mug/h or 20 mug/h in patients with osteoarthritis pain. *Expert Opin Pharmacother.* 2012 Jun;13(9):1229-41.  
[PubMed: PM22409388](#)

### Case Series

7. Hämmig R, Kemter A, Strasser J, et al. Use of microdoses for induction of buprenorphine treatment with overlapping full opioid agonist use: the Bernese method. *Substance Abuse and Rehabilitation.* 2016;7:99-105. doi:10.2147/SAR.S109919.

### Review Article

8. Kornfeld H, Reetz H. Transdermal buprenorphine, opioid rotation to sublingual buprenorphine, and the avoidance of precipitated withdrawal: a review of the literature and demonstration in three chronic pain patients treated with butrans. *Am J Ther.* 2015 May;22(3):199-205.  
[PubMed: PM23846520](#)