

CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Timing of Fentanyl Patch Re-Application: Clinical Effectiveness and Guidelines

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Research Questions

1. What is the clinical evidence regarding the re-application of a new fentanyl patch within 48 hours of a previous application?
2. What are the evidence-based guidelines regarding the re-application of fentanyl patches?

Key Findings

One non-randomized study was identified regarding the re-application of a new fentanyl patch within 48 hours of a previous application.

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 limited to English language documents, and was performed on May 18, 2018.

Selection Criteria

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

Table 1: Selection Criteria

Population	Patients (any age)
Intervention	Q1. Application of the fentanyl patch every 72 hours Q2. Re-application of fentanyl patches
Comparator	Q1. Re-application of a new fentanyl patch in less than 48 hours Q2. No comparator
Outcomes	Q1: Clinical effectiveness, safety Q2. Guidelines (timing of the patch re-application)
Study Designs	Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, evidence-based 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 was identified regarding the re-application of a new fentanyl patch within 48 hours of a previous application. No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, or evidence-based guidelines were identified.

Additional references of potential interest are provided in the appendix.

Overall Summary of Findings

One non-randomized study¹ was identified that examined the reasons for the replacement of fentanyl patches earlier than the recommended 72 hours when used for patients with cancer. The majority (61.6%) of patches were changed after the full 72 hours. Some patch replacement occurred after 48 hours.¹ The authors determined that there was no pharmacological reason for the early replacement of the patches and that poor skin adhesion and breakthrough pain were the main drivers for early replacement.¹

References Summarized

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

No literature identified.

Randomized Controlled Trials

No literature identified.

Non-Randomized Studies

1. Arnet I, Schacher S, Balmer E, Koeberle D, Hersberger KE. Poor adhesion of fentanyl transdermal patches may mimic end-of-dosage failure after 48 hours and prompt early patch replacement in hospitalized cancer pain patients. *Journal of Pain Research*. 2016;9:993-999.

[PubMed: PM27877065](#)

Guidelines and Recommendations

No literature identified.

Appendix — Further Information

Previous CADTH Reports

2. Fentanyl transdermal patches in palliative care: clinical effectiveness, safety, and guidelines [Internet]. Ottawa: CADTH; 2014. [cited 2018 May 31]. (CADTH rapid response report: summary of abstracts). Available from: <https://cadth.ca/fentanyl-transdermal-patches-palliative-care-clinical-effectiveness-safety-and-guidelines>

Non-Randomized Studies – Alternative Dosing Strategy

3. Koike K, Terui T, Nagasako T, Horiuchi I, Machino T, Kusakabe T, et al. A new once-a-day fentanyl citrate patch (Fentos Tape) could be a new treatment option in patients with end-of-dose failure using a 72-h transdermal fentanyl matrix patch. *Supportive Care in Cancer*. 2016 Mar;24(3):1053-9.
[PubMed: PM26248654](#)

Additional References

4. Palliative Care Service, Canterbury District Health Board. Sandoz fentanyl patch [handout on the Internet]. [Christchurch, New Zealand]: Canterbury Regional Cancer & Haematology Service; 2016. [cited 2018 May 31]. Available from: <http://www.cdhb.health.nz/Patients-Visitors/patient-information-pamphlets/Documents/Sandoz-Fentanyl-Patch-3594.pdf>
5. Pawasauskas J, Perdrizet G. Daily application of transdermal fentanyl patches in patients receiving hyperbaric oxygen therapy. *Journal of Pain & Palliative Care Pharmacotherapy*. 2014 Sep;28(3):226-32.
[PubMed: PM25102042](#)