



Question: Can transdermal fentanyl patches be changed every 48 hours instead of every 72 hours?

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Summary

In the majority of patients, analgesia is maintained for the duration of the recommended 72 hours that the patch is in situ. However, some patients may require replacement of the transdermal patch at 48-hour intervals to maintain adequate analgesia.^{1,2,3,4,5}

Reducing the duration of application of a patch by replacing the system before 72 hours may result in increased serum concentrations of fentanyl. Before the dosing interval is reduced, consider that exposure to heat may increase the rate of absorption of fentanyl from the transdermal patch; assess the patient for pyrexia and ensure that the patch is not exposed to external heat sources (e.g. heat pad, hot water bottle, electric blanket, hot bath).^{1,2,6,7} The necessity for an increase in dose should also be considered.⁴

Detailed Information

There are two brands of matrix transdermal fentanyl patches currently available in Ireland, Durogesic DTrans® and Matrifen®. The licensing for both preparations indicates that the transdermal fentanyl patch should be replaced every 72 hours.^{1,2} Poor adhesion and end of dosage pain have been reported as reasons necessitating early patch replacement.⁸ It has been suggested that up to 25% of patients with cancer pain may require more frequent application than 72 hourly.³ One study found that at steady state 80% of the total dose is absorbed within 48 hours.⁹ Thus, while in many patients the analgesic effect lasts for 72 hours, some patients may find that the effect begins to decline after 48 hours, usually at around 60 hours.⁹

Palliative Meds Info: Terms and Conditions

The information outlined above is intended for healthcare professionals only. The information outlined above is believed to accurately reflect the medical literature at the time of writing. Healthcare professionals must use their own judgment to determine the accuracy and relevance of the information. See www.olh.ie for full terms and conditions.

The Summary of Product Characteristics (SPC) for Durogesic DTrans® transdermal patches advises that if analgesia is insufficient during the first application only, the patch may be replaced after 48 hours with a patch of the same dose.¹ The SPC for Matrifen® transdermal patches advises that in patients who experience a marked decrease in analgesia in the period 48-72 hours after patch application, replacement of fentanyl after 48 hours may be necessary.²

However, reducing the duration of application of a patch by replacing the system before 72 hours may result in increased serum concentrations of fentanyl.¹ It is recommended that before shortening the dosing interval in patients not responding adequately to a given dose, an increase in dose should be evaluated so that patients can be maintained on a 72-hour regimen if possible.⁴ Consider also that exposure to heat may increase the rate of absorption of fentanyl from the transdermal patch; assess the patient for pyrexia and ensure that the patch is not exposed to external heat sources (e.g. heat pad, hot water bottle, electric blanket, hot bath).^{1,2,6,7}

References

- 1) Summary of Product Characteristics Durogesic DTrans Transdermal Patch. Available from www.medicines.ie. Accessed on the 06/02/2017.
- 2) Summary of Product Characteristics Matrifen Transdermal Patches. Available from www.medicines.ie. Accessed on the 06/02/2017.
- 3) Monograph Fentanyl. Martindale, The Complete Drug Reference. Available from www.medicinescomplete.com. Accessed on the 06/02/2017.
- 4) Monograph Fentanyl. American Hospital Formulary Services (AHFS). Available from www.medicinescomplete.com. Accessed on the 06/02/2017.
- 5) Monograph Fentanyl. Palliative Care Formulary. Available from www.palliativedrugs.com. Accessed on the 06/02/2017.
- 6) Monograph Fentanyl. British National Formulary. Available from www.medicinescomplete.com. Accessed on the 06/02/2017.
- 7) Monograph Fentanyl. Micromedex Solutions. Available from www.micromedexsolutions.com/. Accessed on the 06/02/2017.

- 8) Arnet I et al. 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.
- 9) Breitbart W, Chandler S et al. An alternative algorithm for dosing transdermal fentanyl for cancer-related pain. Available from psychiatrictimes.com. Accessed on the 06/02/017