

Publication

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

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Author(s) Arnet, Isabelle; Schacher, Sabrina; Balmer, Eva; Koeberle, Dieter; Hersberger, Kurt E.

Author(s) at UniBasel [Arnet, Isabelle](#) ; [Hersberger, Kurt](#) ;

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Renewal of fentanyl transdermal patch (transdermal therapeutic system [TTS]) should occur every 3 days (72 hours) according to manufacturer's guidelines. Some studies mentioned patients reporting end-of-dose failure, and thus, some authors recommend shortening the interval of application to 2 days (48 hours). However, reasons for early replacement are mostly unknown.; The objectives of this study were to assess the prevalence of early replacement of fentanyl TTS in a cancer center in Basel, Switzerland, and to assess the reasons for early replacement in stationary patients.; We retrieved all fentanyl TTS administered in a cancer center in Basel, Switzerland, between November 11, 2011, and January 31, 2015, from the electronic medical database.; A total of 739 patients (mean age 71.4±11.5 years, 55% women) were administered 2,250 fentanyl TTS (dosage 6-500 µg/hour). Most replacements occurred after 72 hours (61.6%) and a few after 48 hours (7.4%). Patients with early replacement after 48 hours were significantly younger (63.8 years versus 71.5 years, p<0.001) and obtained higher mean dosages of fentanyl TTS (89 µg/hour versus 44.1 µg/hour, p<0.001) and rescue medication (calculated as oral morphine equivalent in milligrams: 185.1 mg versus 39.6 mg during the first 24 hours after replacement, p<0.001). No pharmacological rationale for early replacement was observed. According to 57 physicians, nurses, and pharmacists, the most often reasons for early TTS replacement were end-of-dosage pain (41.4%) and poor adhesion (31.4%).; In the absence of any physiological, pharmacological, or environmental reasons recorded in the database to explain an early replacement of fentanyl TTS, skin adhesion problems may point practical reasons and mimic end-of-dosage failure.

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