Practice Sting Adhesive patches that do not stick

This Practice Sting was developed in collaboration with the Netherlands Pharmacovigilance Centre Lareb.

This Practice Sting is particularly relevant for prescribers, pharmacists and healthcare professionals who administer medicines.

Pay extra attention to the use of transdermal medicinal patches and follow the instructions in the package leaflet. If the patient continues to experience problems, consider an alternative.

Reports from patients

1. FENTANYL MATRIX PATCH 25 MCG/HOUR

At first, it made me feel very ill. But now I feel as though it no longer works. Very strange: from extremely strong to nothing at all. The patch also did not stay attached properly for me. I now buy expensive adhesive film from the pharmacy, which I can apply over the fentanyl patches. This keeps the patches in place for three days. The only disadvantage is that one piece of film costs more than €1. However, at least the medicine stays in place.

2. ESTRADIOL TRANSDERMAL PATCH 50 MCG/24 HOURS

After three to four months, the symptoms decreased. The patches do not always stay attached properly, so I secure them with a regular plaster. I do increasingly often develop an itchy red rash with bumps and even blisters, but that is less problematic than menopausal symptoms.

Recommendations for healthcare professionals

- Follow the instructions in the package leaflet when administering transdermal medicinal patches.
- Advise the patient to check daily whether the patch is still attached.
- If patches come loose, alert the patient to the risks of stray patches, especially for children and pets.
- Ask how the patient applies the patches if patches come loose. Creams, perspiration, body hair and the application site, such as areas subject to friction from clothing, may affect patch adhesion.
- Advise patients not to apply plasters or dressings over the medicinal patch. Covering patches may affect drug release. Securing a patch edge that does not release medicine with adhesive tape does not affect release.
- Be aware that replacing patches earlier than scheduled may change exposure to the medicine.
- Does a patch keep falling off? Consider another route of administration to reduce the risk of underdosing or overdosing.

Analysis

Package leaflets often provide advice on improving adhesion. An analysis of nine package leaflets (Deponit® [1], Minitran® [2], Transiderm nitro® [3], Neupro® [4], fentanyl CF® [5], fentanyl Aurobindo® [6], estradiol Sandoz® [7], Evra® [8] and Duragesic® [9]) and several transdermal medicinal patches identified the following general recommendations:

- Apply to clean, dry and intact skin.
- Do not apply immediately after bathing or showering, or after applying skin-care products.
- Press firmly after application for 10 to 30 seconds, depending on the product.
- Trim, rather than shave, body hair at the application site.
- Avoid direct exposure to heat sources, sunbathing and saunas.

We found the following specific recommendations in package leaflets:

- Degrease the skin in case of excessive perspiration [3].
- Do not apply to an area where clothing may rub against the patch [4, 7, 8].
- Shave hair at the application site at least three days before applying the patch [4].

Securing patches

In practice, we regularly hear that users cover patches with film or secure them with adhesive tape. The consequences vary depending on the medicine and the way in which the patch is covered. For example, covering fentanyl patches with film is known to potentially increase fentanyl release [9]. This is not described in the package leaflet [5, 6], although the leaflets do contain warnings such as "*do not wear a tight or elastic band over the patch*" and "*increased release when exposed to heat sources*". The Evra package leaflet clearly states that the patch must not be secured [8], but for other transdermal medicinal patches, such as estradiol, rotigotine and nitroglycerin, it is unclear whether covering or securing is possible.

Applying a new patch

For patches with a longer wear time, the risk of premature detachment may be higher, for example with fentanyl (72 hours/3 days) and Evra® (7 days). For fentanyl patches, the package leaflet advises applying a new patch to a different area of skin as soon as possible and consulting a physician [5, 6]. Consulting a physician is important because the patch has non-linear release kinetics [10]. During the first 48 hours, the hourly release of fentanyl is higher than during the final 24 hours. Applying a new patch within 48 hours may therefore result in slightly higher exposure to fentanyl.

Several points stood out in the package leaflets. For example, the Evra® package leaflet is the only one that describes in detail what the user should do if the patch falls off, and this differs by day [8]. Another example is that the user may reapply an estradiol patch that has fallen off to the skin [7].

For many transdermal medicinal patches, the risks of more frequent replacement are unknown. Manufacturers test their patches according to the instructions for use.

Sources

For this Practice Sting, the package leaflets for Deponit, Minitran, Transiderm nitro, Neupro, Evra, fentanyl (CF and Aurobindo) and estradiol Sandoz were reviewed. These were consulted in April 2026. In addition, source [10], "*Nelson L, Schwaner R. Transdermal fentanyl: Pharmacology and toxicology. J Med Toxicol. 2009;5(4):230-241.*", was consulted.