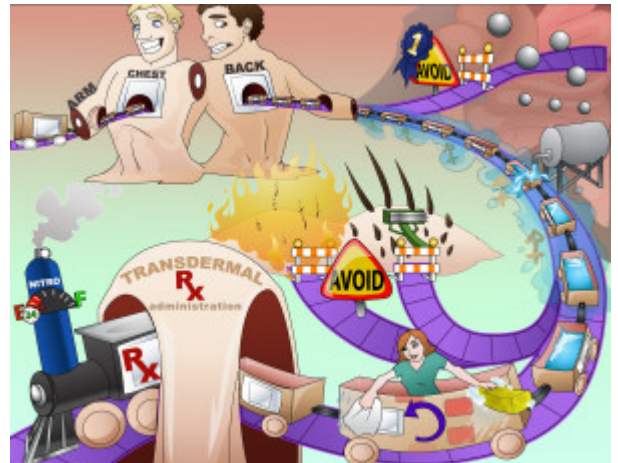


Transdermal Medication Administration

Transdermal medications are administered directly onto the skin and can be left in place for several days, depending on the medication. This route allows the medication to slowly absorb into the system, giving a prolonged systemic effect while having few side effects. Some drug examples are oxybutynin, clonidine, nitroglycerin, selegiline, fentanyl, and nicotine.



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Application

Patch or Disc

[Patch and Discs](#)

Transdermal medication comes in two forms. Both types are used to ensure that the patient receives a continuous level of medication. They can be left on the skin for a couple hours or for several days.

Directly on Skin of Arms, Chest, Upper Back

[Arms, Chest, and Upper Back](#)

It is important to rotate sites when placing a new application on the patient. Do not place the patch over hairy areas, and make sure the site is clean and dry.

Benefits

Avoids First Pass Metabolism

[Avoid First-pass Metabolism with Metal-balls](#)

The first pass effect of drug metabolism is when the concentration of a drug is greatly reduced before it reaches the systemic circulation due to the liver inactivating some or all of the medication, along with GI enzymes. Topical medications avoid this phenomenon because they enter directly into the bloodstream, thereby temporarily bypassing any hepatic inactivation.

Sustained Administration of Medication

[Sustained-stain of Medication](#)

Transdermal patches or discs slowly absorb into the skin and then into the systemic circulation. The slow absorption rate allows the medication to have a sustained therapeutic response.

Nursing Considerations

Clean Skin After Removal

[Cleaning Skin with a sponge After Removal](#)

Always clean the skin after removing the old patch to wipe off any medication that might still be on the skin. This eliminates skin irritation and possible transfer of medicine to other individuals if they touch that area.

Rotate Sites of Patches

Rotating Patch Sites

Always remove the old patch before placing a new one on. To prevent skin irritation and breakdown, always rotate where the new application will be placed.

Apply to Dry Skin

Applying patch to Skin Dried by towel

To improve adhesiveness, ensure that the skin is clean and dry.

Avoid Shaved Skin

Avoiding razor with Shaved Skin

Placing a medication patch on recently shaved skin can cause intense skin irritation. However, to improve adhesiveness and absorption make sure that you avoid placing the patch on dense hairy spots.

Avoid Heat

Avoiding Fire

Heat to the patch will increase the absorption rate. Educate the patient to never place a hot pack on the patch. Patients with fevers could be at risk for increase absorption as well. Monitor the patient's temperature and possible signs of overdose for that medication.

Nitro Effects Lost After 24 Hours

Nitro-tank Empty After 24 Hours

Always follow provider orders when replacing patches. The frequency of changing out patches will be determined by the half-life of the medicine.

Nitroglycerin has no effect after 24 hours, and is usually worn up to 12 to 14 hours and then removed.