

MEDICAL ARTS PHARMACY NEWSLETTER

HEALTH Matters

A MONTHLY RESOURCE TO HELP KEEP YOU INFORMED

Merry Christmas

November - December 2008

TO CUT OR NOT TO CUT

Many drugs are now available in transdermal dosage forms. These include estrogens, fentanyl, contraception, anesthetic, nitroglycerin, nicotine, oxybutinin, rivastigmine, scopolamine and testosterone.

There are two main types of transdermal delivery systems: membrane controlled **reservoir** system and monolithic **matrix** system. For the reservoir patches, the active drug is contained in a reservoir delivered to the skin via a rate controlling membrane. For the matrix patches, the drug is integrated into the solid adhesive where once applied to the skin, the drug is released over the components of the matrix controlling the rate of drug delivery.

Problems encounter with Transdermal Therapy System:

Cutting patches: Not all patches can be cut. Although manufacturers do not recommend cutting or altering patches in anyway regardless of **patch type**, dosage-strength **UNAVAILABILITY** leave the health care professional with no choice but to CUT the patch where theory makes it possible. Although the theory has not been sustained or proven, **matrix-based transdermal systems** may be cut to effectively deliver a lower dose. **Reservoir patches should not be cut** or altered due to dose-dumping effect when the rate controlling membrane is destroyed.

Adhesion problems: Apply to a clean, dry, hairless skin area (do not shave the skin but clipping the hair if necessary) is recommended. Taping entirely over patches may increase drug absorption and cause toxicity. If Ratio-fentanyl does not stick well or loosens, **tape the Edges** down with first aid tape. If still does not stick, cover patch with special see-through adhesive dressing such as Tegaderm specifically. Other drug patches should not be taped or held in place with tape, bandages, etc.as manufacturer does not recommend, but professional judgment is advised.

Exposure to heat: can increase drug absorption from some patches leading to toxicity. Avoid exposing the patch to heating pads, electric blankets, saunas, hottubs, whirlpools, sunbathing. A fever of 40° C can potentially increase fentanyl levels by one-third.

Document on MARS:

Documentation of patch administration should include: site of application, the patch removal and the application of a new patch.

Finally **Remove the old patch before applying a new one since some transdermal patches may contain more of the drug that will be absorbed during the time of application.** (U.S. Pharmacist Vol. No.28:04 Transdermal Drug Delivery posted 4/15/03). If time and date of application of patches is a problem in your unit, choose a «**patch day**» and a specific time of day to apply the patch and allow consistency.

Brand Name	Drug/Application	Indications	Site of Application	Type of Patch	Cutting Patches
Climara	estradiol Replace patch every 7 days	For relief of menopause or postmenopausal symptoms	Best on lower abdomen, hip, buttocks. Avoid breasts and waist line.	Matrix	Theoretically Possible
Climara-Pro	estradiol and levonorgestrel Replace patch every 7 days	Same as Climara	Same as Climara	Matrix	Theoretically Possible
Estracomb (consist of Estraderm and estragel)	estradiol (four patches) estradiol plus norethindrone (four patches) Replace patch twice a week (e.g. every 3 to 4 days)	For relief of menopause or postmenopausal symptoms	Best on lower abdomen, hip, buttocks. Avoid breasts and waist line. Rotate application site.	Reservoir	No
Estraderm	estradiol Replace patch twice weekly (e.g. every 3 to 4 days)	For relief of menopause or postmenopausal symptoms	Best on lower abdomen, hip, buttocks. Avoid breasts and waist line.	Reservoir	No

This package includes :

- 1) Chart of commonly prescribed transdermal drug patches
- 2) Healthy Living Newsletter

SEROQUEL 25,100, 200 and 300mg are now available as a generic brand. **PMS-quetiapine** is the name. This transition results in big savings for Ontario Drug Benefit (ODB).

Note that **SEROQUEL XR 50, 200, 300 or 400mg** are **NOT** available as a generic brand and are **NOT** interchangeable. Seroquel XR can not be crushed and is best recommended to be administered at bedtime.

If you have requests, suggestions or comments for future issues, your feedback may be directed to

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Brand Name	Drug/Application	Indications	Site of Application	Type of Patch	Cutting Patches
Estalis	estradiol plus norethindrone Replace patch twice weekly (e.g. every 3 to 4 days)	For relief of menopause or postmenopausal symptoms	Lower abdomen, buttocks. Avoid breasts and waist line.	Matrix	Theoretically Possible
Estrodot	estradiol Replace patch twice weekly (e.g. every 3 to 4 days)	For relief of menopause or postmenopausal symptoms	Best on lower abdomen, hip, buttocks. Avoid breasts and waist line	Matrix	Theoretically Possible
Oesclim	estradiol Replace patch twice weekly	For relief of menopause or postmenopausal symptoms	Buttocks, torso, upper arm/thigh area. Avoid breasts and waist line.	Matrix	Theoretically Possible
Evra	ethinylestradiol/norelgestromin Replace patch weekly for 3 weeks per cycle (week 4 is patch free)	Contraception	Buttocks, abdomen, upper outer arm, or upper back. Avoid breasts.	Matrix	Theoretically Possible
Ratio-Fentanyl	fentanyl Replace patch every 48 to 72 hours as prescribed by physician.	Pain Management	Chest, back, flank, upper arm	Matrix	Theoretically Possible
Ran-Fentanyl	fentanyl Replace patch every 48 to 72 hours as prescribed by physician.	Pain Management	Chest, back, flank, upper arm.	Reservoir	No
Duragesic	fentanyl Replace patch every 48 to 72 hours as prescribed by physician.	Chronic Pain Management	Chest, back, flank, upper arm.	Reservoir	No
Emla	lidocaine/prilocaine Apply only to selected skin area(s) < 10cm ² for a minimum of 1 hour and maximum of 5 hours.	Topical analgesia of intact skin.	Apply only to selected skin areas. Avoid area near eyes, inside ear or mouth.	Matrix	Theoretically Possible
Oxytrol	oxybutynin Replace twice weekly (e.g. every 3 to 4 days)	Overactive bladder	Abdomen, hip or buttock.	Matrix	Theoretically Possible
Nicoderm	nicotine Replace every 24 hours	Smoking Cessation	Upper body or outer upper arm.	Reservoir	No
Habitrol	nicotine Replace every 24 hours	Smoking Cessation	Trunk or upper outer arm	Matrix	Theoretically Possible
Nitro-Dur	nitroglycerin Patch-on period 12 to 14 hours and a daily patch-off period of 10 to 12 hours	Angina Pectoris	Arm or chest. Do not apply to distal extremities unless prescribed.	Matrix	Theoretically Possible
Trinipatch	nitroglycerin Application same as Nitro-Dur	Angina Pectoris	Same as Nitro-Dur	Matrix	Theoretically Possible
Transderm-Nitro	nitroglycerin Application same as Nitro-Dur	Angina Pectoris	Same as Nitro-Dur	Reservoir	No
Minitran	nitroglycerin	Angina Pectoris	Chest, shoulders, upper arm or back. Do not apply to distal extremities unless specified by physician.	Matrix	Theoretically Possible
Exelon	rivastigmine Replace patch daily after 24 hours.	For symptomatic treatment of patients with mild to moderate dementia of the Alzheimer's Type	Upper or lower back, upper arm, or chest. Avoid other areas (e.g. abdomen, thighs) as has been shown to decrease bioavailability and cause skin irritation.	Matrix	Theoretically Possible
Transderm-V	scopolamine 1.5 mg Replace patch every 3 days	nausea, motion sickness	Dry, hairless area behind the ear lobe.	Reservoir	No
Androderm	testosterone Replace patch nightly	testosterone replacement therapy for certain condition in men	Back, abdomen, upper arms, or thighs. Do not apply to scrotum.	Reservoir	No

In common practice, cutting the Matrix patch is being done. A 6.25 mcg/hr fentanyl requires cutting in four very equal parts the 25 mcg/hr fentanyl patch to allow this drug regimen. Same strategy would apply to a prescription for fentanyl 12.5 mcg where the Ratio-Fentanyl Patch would be cut in half (The Ratio-Fentanyl, or Duragesic 12mcg/hr not being covered by Ontario Drug Benefit)

None of the nitroglycerin 0.2mg/hr. dosage strength being covered by the Ontario Drug Benefit Program, a similar practice will be done with nitroglycerin 0.4mg/hr to accommodate the patient.

To avoid skin irritation, rotate application site for all drug patch.

The newsletters can be found at www.medicalartsparmacy.ca

A question of STATS!

For better accuracy of the statistics on the number of medications per resident, we will be combining medication taken on a regular basis and as needed basis under the same prescription number.(ex. Trazodone 50mg twice a day and for 2 doses as needed in 24 hours will appear on the pharmacy label! Documentation at the back of the MARS record of administration with drug, dosage, date, time and reason for use is required for PRN medications!

Pharmacy holiday Hours

Dec. 24th	9 am to 3 pm
Dec. 25th	Closed
Dec. 26th	10 am to 2 pm
Dec. 27th	9 am to 5 pm
Dec. 28th	Closed
Dec. 29th	9 am to 6 pm
Dec. 30th	9 am to 6 pm
Dec. 31st	9 am to 3 pm
Jan. 1st	Closed
Jan. 2nd	9 am to 6 pm

*Happy
New Year*