DAYTRANA (methylphenidate transdermal system) Fact Sheet

Manufacturer: Shire, marketing exclusivity expires about 2009

Indications:

- Attention Deficit Hyperactivity Disorder in children

Mechanism: Blocks reuptake of norepinephrine and dopamine

Dosing:

- Supplied as extended release adhesive patches (to be applied to the hip only) in 10 mg/9 hours, 15 mg/9 hours, 20 mg/9 hours, and 30 mg/9 hours.
- Manufacturer recommends applying the patch 2 hours before an effect is needed. Begin with the 10 mg patch and titrate up to next highest dose weekly until you see a response.
- If a patient has side effects later in the day, you can remove the patch sooner than 9 hours to decrease the duration of action.
- Heat applied to the pad increases speed of absorption markedly.

Side effects:

- Most common are decreased appetite, weight loss, tics, nausea, affective lability, application site reaction.
- All stimulants are required to carry a warning about the possibility of sudden death, primarily in children with pre-existing cardiac abnormalities.
- Risk of stimulant abuse. However, diversion is unlikely with Daytrana, because once the patch is removed (for example, at school), it cannot be used either transdermally or orally by anyone else.
- Growth suppression, usually mild, is possible with all stimulants.
- Pregnancy Category C.

Drug-drug interactions:

- Avoid in combination with MAOIs.

Pharmacokinetics:

- Metabolized by the liver, but since it is absorbed directly into the bloodstream there is no first pass effect, allowing relatively low dosages of methylphenidate to be effective.
- Average lag time after patch application before presence of methylphenidate in serum is 3 hours.
- Half-life is 3-4 hours.