## **Headache Toolbox**

## Patient Information Regarding Subcutaneous\* Self-Administration of Dihydroergotamine (DHE)

Dihydroergotamine (DHE) can be a highly effective, self-administered therapy for acute migraine of moderate to severe intensity or acute cluster headache. It tends to take somewhat longer than injectable sumatriptan to exert its therapeutic effect, and it may be more likely to provoke nausea than sumatriptan, but to balance this it is associated with a lower likelihood of early recurrent headache.

Inhibiting more widespread use of DHE has been the lack of a formulated unit dose and a matched "autoinjector," with the consequent need for patients to make do with a syringe, needle, and glass ampule. The following instructions should assist in facilitating patient self-administration of DHE.

DHE comes in small glass ampules which contain 1 mL of liquid and 1 mg of the drug itself. For your first treatment, carefully break off the top of the ampule and fill the syringe with one-half of the liquid contents (ie, 0.5 mL, containing 0.5 mg of DHE). Wipe off the skin injection site with alcohol (the anterior thigh is easiest to use for self-administering the drug). Holding the syringe nearly parallel to the skin, slide the needle just under the skin and inject the syringe contents. You probably will raise a small wheal at the injection site; if you do, rubbing the wheal gently will help diffuse the drug into the surrounding tissue and thus speed its therapeutic effect.

First use of DHE: If you experience severe nausea or other unpleasant side effects within 20 minutes of the initial injection, administer no more DHE. If the

initial 0.5 mg dose causes no side effect and leads to no improvement in your headache within 20 minutes of the initial injection, administer the rest of the liquid in the ampule (ie, the remaining 0.5 mL, containing 0.5 mg DHE). If your headache persists unchanged despite your having administered the entire ampule, and if you have no significant side effects from the drug, you may administer a second ampule (all 1 mL at once) 60–120 minutes after the second injection.

Subsequent use of DHE: If with your first use of DHE you experienced no side effects but required more than 0.5 mL to obtain relief, you may administer the entire ampule (1 mL) at once with subsequent treatments, again administering a second ampule 60–120 minutes later if the headache has persisted without change.

DHE may cause nausea, neck or chest tightness, or increased headache. Of these side effects, nausea is the most common and may be treated with an oral or intrarectal antiemetic.

Do not use DHE if you have uncontrolled hypertension (high blood pressure), a history of clinically significant heart disease (eg, heart attack or angina) or acute chest pain suggestive of angina. Do not use DHE within 6 hours of having administered a triptan (eg, Imitrex, Zomig, Maxalt, Axert, Relpax), and do not administer a triptan within 24 hours of having taken DHE.

John F. Rothrock, MD Editor-in-Chief, *Headache* 

<sup>\*</sup>DHE may also be self-administered intramuscularly.