This document is meant to aid the physician in dosing and prescribing TriMix and QuadMix formulations for treatment of erectile dysfunction. These medications are used for penile injection therapy, which is described as the most effective, non surgical method of treating erectile dysfunction by the American Board of Urology. Because each patient is very different, this is meant to be used as a guideline and individual results may vary.

The goal of prescribing and dosing TriMix should be focused on two items.
1. Patient maintains erection that is suitable/comfortable for intercourse (70%-80%)
2. The dose of medication falls somewhere between .1 and .5 ML

**TriMix Blends and Uses**

TriMix is a mixture of three medications; papaverine, phentolamine and alprostadil. These three medications are used in varying concentrations in Trimix, making the therapy very customizable for each individual. With the proper dosing and mixture a patient can get and maintain an erection for as long as desired. The patient can also maintain an erection after orgasm making Trimix a viable treatment for premature ejaculation. Olympia can compound any concentration of TriMix, however, the mixtures presented below will effectively treat almost all levels of erectile dysfunction. The mixtures are listed in order of increasing "potency". Atropine is introduced as a 4th ingredient creating a "QuadMix".

**TriMix Standard:** (30 mg/ml Papaverine, 1 mg/ml Phentolamine, 10 mcg/ml Alprostadil)
**TriMix Plus:** (30 mg/ml Papaverine, 1 mg/ml Phentolamine, 25 mcg/ml Alprostadil)
**QuadMix:** (30 mg/ml Papaverine, 1 mg/ml Phentolamine, 25 mcg/ml Alprostadil, .02 mg/ml Atropine)
**Super QuadMix:** (29 mg/ml Papaverine, 1 mg/ml Phentolamine, 150 mcg/ml Alprostadil, .02 mg/ml Atropine)

Generally speaking, Alprostadil is the ingredient that controls the firmness of the erection and as the level of erectile dysfunction goes up, so will the amount needed of Alprostadil. Some individuals, however, may have a sensitivity to Alpostadil that can produce a painful erection. These patients can be dosed with a BiMix, which is Papaverine and Phentolamine only, or a TriMix with a low concentration of Alprostadil. It is often necessary to dose these patients with a higher volume of medication than mentioned above to produce a functional erection. Atropine can be introduced as an agent that will help maintain an erection for a longer duration. (QuadMix)
Office Test Dose and Reversal

Office test dosing is a very important aspect of the treatment. Because of the nature of TriMix therapy, the patient often has anxiety about the injection and should be educated and supervised to be sure the medication is delivered into the corpus cavernosum. If the medication is NOT delivered into the corpus cavernosum, it simply will not work.

In addition to the TriMix and QuadMix blends we provide for test dosing, we also provide a special concentration of Phenylephrine, which will reverse the effects of the TriMix. We recommend the physician perform the injection of the TriMix for the patient, assess the patients erection and then, let the patient inject the Phenylephrine to bring the erection down again. This protocol shows the patient the effectiveness of TriMix and also allows him to practice his self injection technique with the supervision of a physician. Patients starting TriMix therapy for the first time should be test dosed with the Trimix Standard blend. This blend will cover most patients experiencing erectile dysfunction.

Dosing and Titration Guidelines

Patients experiencing a mild case of erectile dysfunction should be initially dosed with .1 ML of the TriMix Standard formula. Patients experiencing a higher level of erectile dysfunction can be initially dosed with .2ML of the TriMix Standard formula. The medication will begin to work in as soon as 5 minutes, but can take up to 20 minutes to work. Titrations should be done in increments of .05ML. If the patient reaches a total dose of .5ML and has not achieved a satisfactory erection (70%-80% erect), the patient should be sent home for at least 24 hours before administering another test dose. The next test dose should be done with a more potent blend of Trimix, ie TriMix Plus. If the patient fails on test dosing of TriMix Plus, the same procedure above can be followed and a QuadMix dose can be given the following day. If the patient fails with QuadMix we recommend the physician contact our pharmacists for further instruction. The blend and amount of the TriMix medication can vary greatly from patient to patient.
However, once the patient learns their correct blend and dosage, they can often maintain an erection for as long as they want. Using Phenylephrine as a reversing agent can give the patient an "on/off" switch effect for their erection!

**Use of Auto Injector Devices**

Delivering the medication to the corpus cavernosum is paramount to the success of TriMix therapy. We recommend using 1/2", 29 or 30 gauge syringes. Auto injectors do work for penile injection therapy, however, special care must be taken to insure the medication is delivered into the corpus cavernosum. The majority of medication delivery problems are caused by the improper use of auto injectors. When using an auto injector, the unit must be held firmly against the penis to insure the needle penetrates the wall of the corpus cavernosum. Failure to penetrate the wall of the cavernosum will render the medication ineffective.

**Cost Factors and Other Advantages**

The normal retail price of the medication to the patient is around $200 for a Trimix "kit". The kit typically includes 5ML of TriMix, 5ML of Phenylephrine, syringes and alcohol swabs and overnight shipping. Using the guidelines above for dosing, the patient can get from a minimum of 10 doses, up to as many as 50 doses per 5ML bottle of TriMix. The "average" number of doses per 5ML is 25. This works out to $10 per dose, which is less than HALF the cost of the oral medications such as Viagra, Cialis and Levitra! Other advantages of TriMix therapy over the PDE5 inhibitors are:

- TriMix is not systemic and therefore produces none of the side effects of the oral medications
- TriMix is not effected by food or alcohol consumption
- TriMix therapy works even in "high pressure" situations

The goal of our treatment plans are to provide the patient with a safe, very effective and affordable medication in an effort to earn their repeat business.