**Anesthesia of the Eye for Exam**

The use of 0.5% proparacaine solution and other topical anesthetics are essential for certain ophthalmic procedures that require extensive touching or manipulation of the globe or conjunctiva. Topical anesthetic agents cause mild stinging upon installation and hyperemia of the conjunctiva and are mildly toxic to the corneal epithelium, thus resulting in a mild, diffuse corneal epithelial thickening and faint, diffuse fluorescein uptake after topical anesthetic administration.

Complete external examination of the eye, including fluorescein staining, should always be performed before anesthetic installation.

A repeated administration of topical anesthetic every 15 to 30 seconds for 3 to 5 minutes greatly enhances the depth of topical anesthetic. Application to the eye of topical anesthetics or any other ocular solutions is most easily performed by *gently* spraying the medication or solution onto the surface of the eye. This technique conserves costly ophthalmic medications, can often be performed without touching the patient’s eyelids, and is very hygienic.

If the spray device is kept clean, it can be used repeatedly over many days while maintaining sterility of the stock bottle.

A very effective “squirt gun” can be made by drawing 1 to 3 ml of the ophthalmic stock solution into a tuberculin or 3-cc syringe. A 25-g needle attached to the syringe *is* *removed* from the needle hub after the syringe is filled by grasping it between index finger and thumb and bending it until the needle breaks off the hub. The end of the hub is still sharp, so the hub should not be held too close to the patient’s eye.

The administrator’s hand should rest somewhere on the patient’s head during administration so that the hand will move away simultaneously to inadvertent movements of the patient’s head during spray administration and the patient’s eye will not bump the hub. A test spray before administration will ensure the medication is coming straight out of the syringe and is not being diverted to the side as a result of bending during needle removal.