Eye drops used in JA exams

A listing of the common eye drops used during examination for and treatment of uveitis follows:

1. Dilating Drops:

There are two main groups of dilating drops: Parasympatholytics and Sympathomimetics

Parasympathetic antagonists (parasympatholytics):	**Most Common Brand Name**	**Duration of Action**	**Formulation**	**Comments**
Tropicamide	Tropicamide, Mydriacyl, Tropicacyl	Up to 6 hours	Drops available as 0.5% (used in premature infants) and 1%	Act by paralyzing the iris sphincter muscle. This category of medicines will both make the pupil larger and paralyze the muscle involved in the focusing of the lens (accommodation). As a result, they will cause the eye to be blurry, especially for up close activities, such as reading and near play.
Cyclopentolate	Ak-Pentolate, Diopentolate, Cyclogyl)	Up to 24 hours	Drops available as 0.5% (used in premature infants) 1% and 2% (rarely used).	
Homatropine	Isopto Homatropine	2 to 3 days	Drops available as 2% and 5%. The lower strength is usually preferred in children	
Atropine	Atropisol, Isopto Atropine	1 to 2 weeks	Drops available as 0.5% or 1% (0.5% only available as special preparation from selected pharmacies, recommended for infants less than 1 year old), ointment 1%.	

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Sympathetic agonists (sympathomimetics):	Most Common Brand Name	Duration of Action	Formulation	Comments
Phenylephrine	Ak-Dilate, Dionephrine, Mydfrin, Prefrin Liquifilm, Spersaphrine	Up to 6 hours	Drops available as 2.5% for use in children	Act by stimulating the iris dilator muscle. Although the advantage of phenylephrine is that it does not cause blurring of vision like the parasympatholytics, it tends not to dilate the pupil well enough, unless used in combination with parasympatholytics

2. Steroid Eye Drops:

There are a variety of topical steroid drops with varying degrees of strength used for children with uveitis. A significant proportion of children receiving steroid eye drops may experience a rise in the intraocular pressure of the eye as a side-effect of treatment. They need to be closely monitored both for assessing the effect of treatment and checking the pressure in the eyes. Your child's ophthalmologist may start your child on a more potent eye drop to begin. As the uveitis is controlled, the ophthalmologist may slowly decrease the frequency and strength of the eye drops.

The most common topical steroids are:

Steroid Eye Drops	Most Common Brand Name	Formulation	Comments	Side Effects
Prednisolone acetate	Pred Forte (1%) Pred Mild (0.12%)	Drops available as 1% or 0.12%	Pred Forte used most often to start therapy as most potent.	Prolonged and frequent use of topical steroids can be associated with an increased risk of developing cataracts

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Prednisolone (preservative free)		Drops available as 0.5%	Preservative free drops for cases of allergy to preservatives in the eye drops.	and glaucoma in children with uveitis. To reduce the likelihood of these complications, some patients may require treatment with steroid-sparing systemic medications (such as methotrexate). This allows the frequency and strength of the topical steroids to be decreased. Some patients develop raised pressure in the eyes, which can be caused by the persistent uveitis or as a side-effect of topical/ systemic steroid medication. There are a number of medications available as drops and oral medication to reduce the raised eye pressure. Your child's ophthalmologist will prescribe these medications, if needed, and can provide more detailed information.
Dexamethasone	Maxidex	Drops available as 1% and ointment	Ointment may be recommended for overnight treatment when sleeping.	
Rimexolone	Vexol	Drops available as 1%		
Loteprednol etabonate	Lotemax (0.5%) Alrex (0.2%)	Drops available as 0.5% and 0.2%		
Fluorometholone	FML	Drops available as 0.1%		