PHENYLEPHRINE EYEDROPS

Trade Name	Minims, single use (Bausch and Lomb)
Class	Mydriatic
Mechanism of Action	Direct-acting alpha-receptor agonist: contracts dilator muscle of pupil, and constricts arterioles in conjunctiva. Is also cycloplegic if used with cyclopentolate
Indications	Ophthalmic examination
Contraindications	Allergy, severe hypertension, ventricular tachycardia
Supplied As	Phenylephrine Hydrochloride 2.5% **(Also comes as 10% but not for use in children < 1 year)**
Dilution	Use undiluted
Dosage	1 microdrop of 2.5% per eye
Interval	30-60 minutes before examination
Administration	Draw up the 2.5% phenylephrine from the minim into a 1mL syringe. Take a 24g cannula, remove the needle and attach the cannula to the 1mL syringe and administer one microdrop topically into the eye
Compatible With	Cyclopentolate, sodium chloride
Incompatible With	N/A
Monitoring	For adverse reactions; HR, BP, CVP, arterial blood gases in babies with bronchopulmonary dysplasia
Stability	Manufacturer's expiry on box; do not use if solution is brown or contains a precipitate
Storage	Fridge (2-15 °C), protect from light.
Adverse Reactions	Burning or stinging in eye; headache Systemic sympathomimitec effects (rare at 2.5% strength, but greater risk if having other sympathomimetics): palpitations, tachycardia or reflex bradycardia, premature ventricular contractions, occipital headache, tremors, increased sweating, hypertension, peripheral vasoconstriction.
Metabolism	Peak effects at 15-60 minutes; recovery within 3 hours for 2.5% strength. Systemic absorption can occur (up to 80%) - metabolism of this is by MAO liver enzymes.

Comments	If systemic side effects seen, can minimise these by applying pressure to lacrimal sac during and for 1-2 minutes after eyedrop administration (reduces systemic absorption).
References	1. Lexi-comp's Pediatric Dosage Handbook 6th ed 1999-2000 2. Neofax 2000 3. American Hospital Formulary Service AHFS 2001
Updated By	K Simonsen A Lynn, B Robertshawe Dec 2012 (re-order profile) A Lynn, B Robertshawe Dec 2021 (routine review – no changes) A Lynn, N Austin, C Muir Sept 2022 (based on Little Eye Study)