Amethocaine (Tetracaine)
Newborn Use Only

Alert
Prolonged ophthalmic use is not recommended due to risk of severe keratitis and corneal adverse effects.
Safety data is lacking and therefore use the lowest concentration available.

Indication
Local anaesthesia for eye examination (including RetCam) and procedures (laser) in newborn infants in conjunction with other pharmacological and/or non-pharmacological analgesic methods.

Action
Local anaesthetic.

Drug Type
Ester-type local anaesthetic.

Trade Name
Minims Amethocaine Eye Drops (Tetracaine (amethocaine) hydrochloride)

Presentation
Eye drops 0.5% (5 mg/mL), 1% (10 mg/mL) approximately 0.5 mL. Excipients include hydrochloric acid and purified water. No preservatives.

Dosage / Interval
One drop each eye as required 1–5 minutes prior to examination. Further drops may be needed to achieve a complete anaesthetic effect.

Maximum daily dose
No information.

Route
Topical instillation into the eyes from the container or use a microdrop (5–7 microL) cannula.

Preparation/Dilution
Eye drops (clear, colourless, sterile) 0.5% (5 mg/mL), 1% (10 mg/mL), approximately 0.5 mL.

Administration
Apply pressure to the lacrimal sac during and for 60 seconds after instillation of eye drop to minimise systemic absorption. Wipe away excess medication. Normal corneal sensitivity can be expected after approximately 1 hour.

Monitoring

Contraindications
Hypersensitivity to any of the components of the preparation. Eye infection.

Precautions
The cornea may be damaged by prolonged or frequent application of anaesthetic eye drops. Prolonged use of topical ophthalmic local anaesthetics has been associated with severe keratitis and permanent corneal opacification and scarring with accompanying reduction of visual acuity or visual loss.
Systemic toxicity typical of local anaesthetics could occur if sufficient amounts were absorbed systematically. Systemic absorption of tetracaine (amethocaine) may be reduced by compressing the lacrimal sac at the medial canthus for a minute during and following the instillation of the drops.

Drug Interactions
Metabolism may be inhibited by anticholinesterases with prolongation of the effects of tetracaine (amethocaine).
May competitively enhance the neuromuscular blocking action of suxamethonium.

Adverse Reactions
Local burning and stinging sensation.
Blurred vision, keratitis, hyperaemia, lacrimation and allergic conjunctivitis.
Systemic (if systemic absorption occurs) – Rare. Apnoea, cardiac arrest, ventricular arrhythmias, irritability and excitation.
Prolonged ophthalmic use may lead to severe keratitis and corneal adverse effects.

Compatability
Cyclopentolate, phenylephrine, tropicamide

Incompatibility
No information.

Stability
Discard immediately after use.

Storage
Store at 2°C to 8°C. (Refrigerate. Do not freeze.) Protect from light. Each Minims unit should be discarded after a single use.

Special Comments
Not approved for use in preterm infants by FDA (Food and Drug Administration of USA) in view of the immaturity of the enzyme system that metabolises the ester type of local anaesthetic. The American Academy of Ophthalmology in January 2013 suggested the use of proparacaine to assess premature infants. Proparacaine is not registered in Australia. Consensus among Australian ophthalmologists during the development of this formulary was to continue to use tetracaine(amethocaine) as no reported adverse effects in neonates in Australia.

Evidence summary
Refer to full version.

NMF Consensus Group
Amethocaine
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References
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