

Phenylephrine

Newborn Use Only

2018

| | |
|-----------------------------|--|
| Alert | Watch for apnoeas and abdominal distension following administration. Lower concentration solutions and regimens minimising number of additional drops are recommended. |
| Indication | Mydriatic (dilates the pupil) for ophthalmic examinations and therapeutic procedures. |
| Action | Selective alpha-1-adrenoceptor agonist. Contracts dilator muscle of pupil and constricts arterioles in conjunctiva. |
| Drug Type | Sympathomimetic. |
| Trade Name | Minims® Phenylephrine hydrochloride. |
| Presentation | Phenylephrine hydrochloride 2.5 % (25 mg/mL) single-use sterile eye drop, approximately 0.5 mL. |
| Dosage/Interval | Use in conjunction with cyclopentolate 0.5% and/or tropicamide 0.5% eye drops. REGIMEN 1: Phenylephrine 2.5% + cyclopentolate 0.5% + tropicamide 0.5% eye drops [1-4]. Instil one drop of each agent (5 minutes apart) into each eye 60 minutes prior to examination. Repeat if pupillary dilatation inadequate. Perform examination 60 to 120 minutes after instillation. REGIMEN 2: Phenylephrine 2.5% + cyclopentolate 0.5% eye drops [5]. Instil one drop of each agent (5 minutes apart) into each eye 60 minutes prior to examination. Repeat if pupillary dilatation inadequate. Perform examination 60 to 120 minutes after instillation. Dark irides may require additional drops. |
| Maximum daily dose | REGIMEN 1: 3 drops of each eye drop. REGIMEN 2: 4 drops of each eye drop. |
| Route | Topical instillation into the eyes from the container or use a microdrop (5–7 microL) cannula. |
| Preparation/Dilution | |
| 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. Consider withholding feeds for four hours from administration of the last drops to reduce incidence of feed intolerance. |
| Monitoring | Blood pressure, heart rate and oxygen saturation in infants with bronchopulmonary dysplasia. |
| Contraindications | Necrotising enterocolitis (NEC) at the time of eye examination. Concurrent use with beta-adrenoceptor antagonists (beta-blockers). |
| Precautions | Infants with bronchopulmonary dysplasia. Lower concentration solutions and regimens minimising number of additional drops are recommended to minimise toxicity. |
| Drug Interactions | Atropine, beta-adrenoceptor antagonists (beta-blockers). |
| Adverse Reactions | Decreased pulmonary compliance, tidal volume and peak air flow in babies with bronchopulmonary dysplasia. Increased blood pressure. Skin pallor around eyes. |
| Compatibility | Cyclopentolate, tropicamide, amethocaine |
| Incompatibility | |
| Stability | Discard immediately after use. |
| Storage | Store in refrigerator at 2°C to 8°C. Do not freeze. Protect from light. |

| | |
|-------------------------|--|
| Special Comments | Cross check correct strength of Minims® Phenylephrine hydrochloride is used. Do NOT use 10 % in neonates. |
| Evidence summary | Refer to full version. |
| References | Refer to full version. |

| | |
|--|---|
| Original version Date: 16/02/2018 | Author: NMF Consensus Group |
| Current Version number: 1.0 | Current Version Date: 16/02/2018 |
| Risk Rating: Low | Due for Review: 16/02/2023 |
| Approval by: JHCH CQ&PCC | Approval Date: 24/07/2018 |

Authors Contribution

| | |
|--|---|
| Original author/s | Michael Hewson, Cathy Langdon |
| Expert review | Mark Jacobs, Hughie Tsang, Kimberley Tan |
| Evidence Review | David Osborn |
| Nursing Review | Eszter Jozsa |
| Pharmacy Review | Jing Xiao, Mariella De Rosa, Cindy Chen |
| Final content and editing review of the original | Ian Whyte |
| Electronic version | Mariella De Rosa, Cindy Chen, Ian Callander |
| Facilitator | Srinivas Bolisetty |