### METARAMINOL

| ACTIONS | • Potent sympathomimetic amine with predominant direct and indirect $\alpha_1$ effect  
  • Acts to increase systolic and diastolic blood pressure by increasing total peripheral resistance  
  • Minor positive inotropic action on the heart via $\beta$ effect |
|---|---|
| INDICATIONS | • Acute or severe hypotension where abnormal vascular tone is contributory  
  • Treatment of hypotension associated with:  
  - Spinal anaesthesia  
  - Trauma/head injury  
  - Reaction to medication  
  - Cardiogenic or septic shock  

Hypovolaemic states should be corrected prior to, or concurrent with administration |

| DOSAGE & ADMINISTRATION | Metaraminol must be diluted prior to administration.  
Administration in larger veins is preferred to avoid extravasation which may cause tissue necrosis.  
**IV Bolus**  
- Dilute 10mg with 0.9% Normal saline to a total volume of 20mls  
  Final concentration: 0.5mg/1ml  
  - Administer 0.5-1mg followed by a 10-20ml 0.9% Normal saline flush  
  - Repeat dose in increments of 0.5-1mg followed by a flush and monitor BP response  
Effect will commence within 1-2 minutes, effects can last up to 20minutes  
**IV infusion**  
- Dilute 20mg with 0.9% Normal saline to a total volume of 40mls  
  Final concentration: 0.5mg/1ml  
  - Commence infusion at 1ml/hour and titrate to achieve BP goals  
  - Maximum effect of dose adjustments may take up to 10minutes  
  - With the exception of an acute emergency (until further IV access is established), the metaraminol infusion must be administered via dedicated line only; do not attach 2 way infusions |

Noradrenaline is the preferred drug if central access is available

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**Important:** This is a guideline ONLY, for more detailed information please refer to: MIMS, Micromedex, and The Australian Injectable Drugs Handbook, Australian Medicines Handbook.
| **MONITORING** | • ECG, blood pressure, heart rate  
• Mental state, Level of consciousness  
• Urine output |
| **ADVERSE REACTIONS** | • Hypertension, myocardial ischaemia and acute pulmonary oedema  
• Cardiac arrhythmia  
• Bradycardia  
• Apprehension, anxiety, restlessness, tremor, weakness, faintness, dizziness, precordial pain, headache, flushing, pallor, nausea and vomiting, sweating, respiratory distress  
• Tissue necrosis, abscess formation with extravasation  
• Bronchospasm in patients sensitive to sulfites |
| **CONTRAINdICATION** | • Hypersensitivity to any component of product, including sulfites |
| **PRECAUTIONS** | • Ensure adequate circulating volume prior to commencing therapy  
• Poor response in patients with both shock and acidosis  
• Concomitant use with digitalis, MAOI or tricyclic antidepressants or Linezolid therapy (MAOI effect)  
• Patients with :  
  o Diabetes mellitus  
  o Heart disease  
  o Hypertension  
  o Liver cirrhosis  
  o Thyroid disorders  
• Metabisulfite sensitivity (more prevalent in patients with asthma)  
• Repeated use may result in tachyphylaxis |
| **COMPATABILITY** | 5% Dextrose, 0.9% Normal Saline, 0.45% Normal saline, Hartmann’s solution |
| **INCOMPATIBILITY** | Atropine, azathioprine, benzylpenicillin, chloramphenicol, ergometrine, erythromycin, folic acid, frusemide, ganciclovir, imipenem-cilastatin, indomethacin, ketorolac, thiopentone |
| **TRADE NAMES** | Metaraminol Montrose |
| **REFERENCES** | Micromedex December 2015; MIMS December 2015; Liverpool Hospital Metaraminol Guideline 2013; Australian Injectable Drug Handbook December 2015 |
| **REVISED BY** | Katina Skylas ICU CNC December 2015  
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| **REVISION DUE** | March 2020 |