



Bonus Monographs



Mephentermine sulfate

(meh-FEN-ter-meen)

PREGNANCY CATEGORY: C

CLASSIFICATION(S):

Sympathomimetic, indirect-acting
Rx: Wyamine Sulfate, Wyamine Sulfate

SEE ALSO SYMPATHOMIMETIC DRUGS.

ACTION/KINETICS

Acts indirectly by releasing norepinephrine from its storage sites and directly by exerting a slight effect on alpha and beta-1 receptors and a moderate effect on beta-2 receptors mediating vasodilation. Causes increased CO; also elicits slight CNS effects. **IV:** **Onset,** immediate; **duration:** 15–30 min. **IM:** **Onset,** 5–15 min; **duration:** 1–2 hr. Metabolized in liver. Excreted in urine within 24 hr (rate increased in acidic urine).

USES

Hypotension due to anesthesia, ganglionic blockade, or hemorrhage (only as emergency treatment until blood or blood substitutes can be given).

CONTRAINDICATIONS

To treat hypotension caused by chlorpromazine. In combination with MAO inhibitors.

SPECIAL CONCERNS

Use with caution in CV disease, in chronically ill clients, and in treating shock secondary to hemorrhage. Safety and efficacy have not been demonstrated in children.

SIDE EFFECTS

Anxiety, cardiac arrhythmias, increased BP (especially in those with heart disease).

ADDITIONAL DRUG INTERACTIONS

Mephentermine will potentiate hypotensive effects of phenothiazines.

HOW SUPPLIED

Injection: 15 mg/mL, 30 mg/mL

DOSAGE

• IV, IM

Hypotension during spinal anesthesia.

IV, Adults: 30–45 mg; 30-mg doses may be repeated as required; or, **IV infusion, Adults and children:** 0.1% (1 mg/mL) mephentermine in D5W with the rate of infusion and duration dependent on client response. **IV, Pediatric:** 0.4 mg/kg (12 mg/m²) as a single dose.

Prophylaxis of hypotension in spinal anesthesia.

IM, Adults: 30–45 mg 10–20 min before anesthesia. **IM, Pediatric:** 0.4 mg/kg (12 mg/m²) as a single dose.

Shock following hemorrhage.

Not recommended, but IV infusion of 0.1% in D5W may maintain BP until blood volume is replaced.

NURSING CONSIDERATIONS

SEE ALSO NURSING CONSIDERATIONS FOR SYMPATHOMIMETIC DRUGS.

ADMINISTRATION/STORAGE

IV 1. For shock, the preferred method of administration is either injection of the undiluted solution containing 30 mg/mL or a continuous infusion of a 1-mg/mL solution in D5W directly into the vein.

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2. Prepare the 0.1% solution by adding 10 or 20 mL of mephentermine (the 30-mg/mL strength) to either 250 or 500 mL of D5W, respectively.

ASSESSMENT

Determine cause of hypotensive episode; note CV disease, hemorrhage, or chronic illness.

INTERVENTIONS

Record BP q 5 min until stable; once stabilized, check q 15–30 min beyond duration of action (IM 1–4 hr; IV 5–15 min).

OUTCOMES/EVALUATE

Stabilization of BP