methocarbamol (meth-oh-**kar**-ba-mole)

Robaximol, Robaxin

Classification

Therapeutic: skeletal muscle relaxants (centrally acting)

Pregnancy Category C

Indications

Adjunctive treatment of muscle spasm associated with acute painful musculoskeletal conditions (with rest and physical therapy).

Action

Skeletal muscle relaxation, probably as a result of CNS depression. **Therapeutic Effects:** Skeletal muscle relaxation.

Pharmacokinetics

Absorption: Rapidly absorbed from the GI tract.

Distribution: Widely distributed. Crosses the placenta; enters breast milk in small amounts.

Metabolism and Excretion: Metabolized by the liver.

Half-life: 1–2 hr.

TIME/ACTION PROFILE (skeletal muscle relaxation)

ROUTE	ONSET	PEAK	DURATION
PO	30 min	2 hr	unknown
IM	rapid	unknown	unknown
IV	immediate	end of infusion	unknown

Contraindications/Precautions

Contraindicated in: Hypersensitivity; Hypersensitivity to polyethylene glycol (parenteral form); Renal impairment (parenteral form).

Use Cautiously in: Seizure disorders (parenteral form); ***OB, Pedi: Lactation:*** Safety not established; ***Geri:*** Appears on Beers list. Poorly tolerated due to anticholinergic effects.

Adverse Reactions/Side Effects

CNS: SEIZURES (IV, IM only), dizziness, drowsiness, light-headedness. **EENT:** blurred vision, nasal congestion. **CV:** *IV*— bradycardia, hypotension. **GI:** anorexia, GI upset, nausea. **GU:** brown, black, or green urine. **Derm:** flushing (IV only), pruritus, rashes, urticaria. **Local:** pain at IM site, phlebitis at IV site. **Misc:** allergic reactions including ANAPHYLAXIS (IM, IV use only), fever.

Interactions

Drug-Drug: Additive CNS depression with other **CNS depressants**, including **alcohol**, **antihistamines**, **opioid analgesics**, and **sedative/hypnotics**.

Drug-Natural Products: Concomitant use of **kava-kava**, **valerian**, **chamomile**, or **hops** can ↑ CNS depression.

Route/Dosage

PO (Adults): 1.5 g 4 times daily initially (up to 8 g/day) for 2–3 days, then 4–4.5 g/day in 3–6 divided doses; may be followed by maintenance dosing of 750 mg q 4 hr or 1 g 4 times daily or 1.5 g 3 times daily.

IM, IV (Adults): 1–3 g/day for not more than 3 days; course may be repeated after a 48-hr rest.

NURSING IMPLICATIONS

Assessment

- Assess patient for pain, muscle stiffness, and range of motion before and periodically throughout therapy.
- Monitor pulse and BP every 15 min during parenteral administration.
- ***Geri:*** Assess geriatric patients for anticholinergic effects (sedation and weakness).
- **Assess patient for allergic reactions (skin rash, asthma, hives, wheezing, hypotension) after parenteral administration. Keep epinephrine and oxygen on hand in the event of a reaction.**
- Monitor IV site. Injection is hypertonic and may cause thrombophlebitis. Avoid extravasation.
- ***Lab Test Considerations:*** Monitor renal function periodically during prolonged parenteral therapy (>3 days), because polyethylene glycol 300 vehicle is nephrotoxic.
- May cause falsely increased urinary 5-hydroxyindoleacetic acid (5-HIAA) and vanillylmandelic acid (VMA) determinations.

Potential Nursing Diagnoses

Acute pain (Indications)
Impaired physical mobility (Indications)
Risk for injury (Side Effects)

Implementation

- Provide safety measures as indicated. Supervise ambulation and transfer of patients.
- **PO:** May be administered with food to minimize GI irritation. Tablets may be crushed and mixed with food or liquids to facilitate swallowing. For administration via NG tube, crush tablet and suspend in water or saline.
- **IM:** Do not administer subcut. IM injections should contain no more than 5 mL (500 mg) at a time in the gluteal region.

IV Administration

- **Direct IV:** ***Diluent:*** Administer undiluted. ***Concentration:*** 100 mg/mL. ***Rate:*** Administer at a maximum rate of 180 mg/m^2/min but not > 3 mL (300 mg)/min.
- **Intermittent Infusion:** ***Diluent:*** Dilute each dose in no more than 250 mL of 0.9% NaCl or D5W for injection. ***Concentration:*** 4 mg/mL for slower infusions. Do not refrigerate after dilution.
- Have patient remain recumbent during and for at least 10–15 min after infusion to avoid orthostatic hypotension.

Patient/Family Teaching

- Advise patient to take medication as directed. Take missed doses within 1 hr; if not, return to regular dosing schedule. Do not double doses.
- Encourage patient to comply with additional therapies prescribed for muscle spasm (rest, physical therapy, heat).
- May cause dizziness, drowsiness, and blurred vision. Advise patient to avoid driving and other activities requiring alertness until response to drug is known.
- Instruct patient to change positions slowly to minimize orthostatic hypotension.
- Advise patient to avoid concurrent use of alcohol and other CNS depressants.
- Inform patient that urine may turn black, brown, or green, especially if left standing.
- Instruct patient to notify health care professional if skin rash, itching, fever, or nasal congestion occurs.
- Emphasize the importance of routine follow-up exams to monitor progress.

Evaluation/Desired Outcomes

- Decreased musculoskeletal pain and muscle spasticity.
- Increased range of motion.

Why was this drug prescribed for your patient?