amobarbital (am-oh-bar-bi-tal)

**Action**

- Produces all levels of CNS depression: Depresses sensory cortex, Decreases motor activity, Acts on central nervous system. Induces CNS depression.

**Pharmacokinetics**

- **Absorption:** Well absorbed after IM administration.
- **Distribution:** Rapidly and widely distributed; concentrates in brain, liver, and kidneys. Readily crosses placenta; small amounts enter breast milk. Moderately bound to plasma proteins.
- **Metabolism and Excretion:** Mostly metabolized by the liver.
- **Half-life:** 16–40 hr.

**TIME/ACTION PROFILE (sedation)**

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV</td>
<td>several min</td>
<td>rapid</td>
<td>6–8 hr</td>
</tr>
<tr>
<td>IM</td>
<td>30–45 min</td>
<td>rapid</td>
<td>6–8 hr</td>
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</tbody>
</table>

**Contraindications/Precautions**

- Use Cautionfully in: History of suicide attempts or substance abuse; Debilitated patients (use smaller doses); Patients using alcohol or drugs that cause CNS depression; Patients with hepatic or renal impairment; Severe hepatic dysfunction; Porphyria; OB, Lactation: Not recommended.

**Adverse Reactions/Side Effects**

- CNS: drowsiness, abnormal thinking, agitation, ataxia, CNS depression, confusion, seizures (IV only), withdrawal symptoms (IV only), L-dopa-induced dyskinesia, St. John's wort may decrease barbiturate effect.
- Resp: bronchospasm (IV only), laryngospasm (IV only), apnea, respiratory depression.
- CV: bradycardia, hypotension, syncope.
- GI: constipation, nausea, vomiting.
- Derm: angioedema, exfoliative dermatitis, purpura, rash.
- Local: pain or sterile abscess at IM site, phlebitis at IV site.
- MS: hyperkinesia.
- Misc: hypersensitivity reactions including Stevens-Johnson syndrome, fever.

**Interactions**

- **Drug-Drug:** Additive CNS depression with other CNS depressants including alcohol, antidepresants, antihistamines, opioid analgesics, and other sedatives/hypnotics. Caution is advised when used with other sedative/hypnotics because the barbiturate effect may be prolonged. Barbiturates decreases the effects of MAO inhibitors and valproic acid. Barbiturates induce hepatic enzymes that metabolize other drugs, decreasing their effectiveness, including hormonal contraceptives, furosemide, disopyramide, propranolol, methadone, danazol, corticosteroids, triyclic antidepressants, warfarin, diisopropyl, and gentamicin.
- **Drug-Natural Products:** Concomitant use of kava, valerian, skullcap, chamomile, or hops can cause CNS depression. St. John’s wort may decrease barbiturate effect.

**Route/Dosage**

<table>
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<th>Dosage</th>
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<tr>
<td>IM</td>
<td>30–50 mg 2–3 times daily; hypnotic—65–200 mg at bedtime.</td>
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<tr>
<td>IV</td>
<td>Psychotropic: 50–100 mg/min for total dose of 200–1000 mg or until patient experiences drowsiness, impaired attention, altered speech, or nystagmus.</td>
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</table>
IM, IV (Children 6–12 yr): Sedative—65–500 mg (3–5 mg/kg), depending on response.

IM (Children <6 yr): Hypnotic—2–5 mg/kg/dose.

NURSING IMPLICATIONS

Assessment
- Monitor respiratory status, pulse, and BP frequently.
- Prolonged therapy may lead to psychological or physical dependence. Restrict amount of drug available to patient, especially if depressed, suicidal, or with a history of addiction.
- Hypnotic: assess sleep patterns before and periodically throughout therapy. Hypnotic doses of amobarbital suppress REM sleep. Patient may experience an increase in dreaming on discontinuation of medication. Monitor ambulation after administration.

Potential Nursing Diagnoses
- Insomnia (Indications)
- Risk for injury (Side Effects)

Implementation
- IM, IV: Reconstitute with sterile water for injection. Rotate vial to mix; do not shake. Do not use if solution does not become absolutely clear within 5 min after reconstitution or if precipitate forms after the solution clears. Solution should be used within 30 min of reconstitution.
- IM: Do not administer subcut. Administer IM injections deep into gluteal muscle to minimize tissue irritation. IM doses should not exceed 500 mg or 5 mL.

IV Administration
- Diluent: May be further diluted in D5W, D10W, D5/0.9% NaCl, D5/0.45% NaCl, or LR.
- Concentration: Not to exceed 100 mg/mL.
- Direct IV: Use the largest vein possible to prevent thrombosis. Solution is highly alkaline; avoid extravasation, which may cause tissue damage and necrosis. If extravasation occurs, infiltration of 5% procaine solution into affected area and application of moist heat may be ordered. Rate: Do not exceed the rate of 50 mg/min. Titrate slowly for desired response. Rapid administration may result in respiratory depression, apnea, laryngospasm, bronchospasm, or hypotension. Equipment for resuscitation should be readily available.

Evaluation/Desired Outcomes
- Improvement in sleep pattern without excessive daytime sedation. May take 2 days for effects to become evident. Therapy is usually limited to a 2-wk period.
- Sedation.

Patient/Family Teaching
- Discuss the importance of preparing environment for sleep (dark room, quiet, avoidance of noise and caffeine).
- May cause dizziness, drowsiness. Caution patient to avoid driving and other activities requiring alertness until response to medication is known.
- Advise patient to make position changes slowly to minimize orthostatic hypotension.
- Caution patients to avoid taking alcohol or other CNS depressants concurrently with this medication.
- Advise patient to use a nonhormonal method of contraception while taking amobarbital and to notify health care professional promptly if pregnancy is planned or suspected.
- Instruct patient to contact health care professional immediately if sore throat, fever, mouth sores, unusual bleeding or bruising, or petechiae occur.

Why was this drug prescribed for your patient?