Melatonin (mel-uh-toh-nin)

**Other Name(s):**
- pineal hormone
- N-acetyl-5-methoxytryptamine

**Classification**
- Therapeutic: sedative/hypnotics

**Common Uses**
- Sleep disorders (including insomnia, jet lag and circadian rhythm disorders).

**Action**
- Melatonin is a hormone secreted from the pineal gland in a 24-hour circadian rhythm, regulating the normal sleep/wake cycle. As a supplement, melatonin has both phase-shifting and sleep-promoting properties. In addition to promoting sleep, pharmacologic roles of melatonin include regulation of the secretion of growth hormone and gonadotropic hormones. It also possesses antioxidant activity.

**Therapeutic Effects:**
- Improved sleep pattern.

**Pharmacokinetics**
- **Absorption:** Unknown.
- **Distribution:** Unknown.
- **Metabolism and Excretion:** Unknown.
- **Half-life:** Unknown.

**TIME/ACTION PROFILE**

<table>
<thead>
<tr>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
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<td>Unknown</td>
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**Contraindications/Precautions**
- Contraindicated in: Hypersensitivity; Pregnancy and lactation.
- Use Cautiously in: Seizure disorders; Diabetes; Hypertension.

**Adverse Reactions/Side Effects**
- **CV:** hypotension.
- **CNS:** drowsiness, headache, dizziness.
- **GI:** nausea, vomiting, abdominal cramps.

**Interactions**
- **Natural Product-Drug:**
  - Additive sedation with CNS depressants. May increase bleeding risks with antiplatelet agents and anticoagulants. May interfere with the glucose lowering effects of hypoglycemic agents. May decrease effectiveness of midodrine.
  - **Natural-Natural Products:**
    - May have additive sedative effects with herbs that have sedative properties including 5-HTP, kava, St. John's wort, valerian and others.
    - May increase risk of bleeding with herbs that have antiplatelet/anticoagulant properties such as clove, garlic, ginger, ginkgo, ginseng, and others.

**Route/Commonly Used Doses**
- **PO (Adults):** 0.3–10 mg daily at bedtime.

**NURSING IMPLICATIONS**

**Assessment**
- Assess sleep patterns before and periodically throughout therapy.

**Lab Test Considerations:**
- Monitor blood glucose, coagulation panel, hormone panel, and lipid panel periodically during therapy.

**Potential Nursing Diagnoses**
- Insomnia (Indications)

**Implementation**
- **PO:** Administer before bedtime.

**Patient/Family Teaching**
- Instruct patient to take at bedtime as directed.
- Causes drowsiness. Caution patient to avoid driving and other activities requiring alertness until response to medication is known.
- Caution patient to avoid concurrent use of alcohol or other CNS depressants.
- Advise female patient to notify health care professional if pregnancy is planned or suspected or if breast feeding.

**Evaluation**
- Relief of insomnia.

**Why was this drug prescribed for your patient?**