Tapentadol (ta-pen-ta-dol)
Nucynta, Nucynta ER

**Classification**
Therapeutic: analgesics (centrally acting), opioid analgesics
Pharmacologic: opioid agonists

**Schedule II**

**Pregnancy Category C**

**Indications**
Management of moderate to severe pain; extended release product should be used for patients requiring around-the-clock management of chronic pain. Diabetic pain associated with diabetic peripheral neuropathy in patients requiring around-the-clock opioid analgesics for an extended time.

**Action**
Acts as μ-opioid receptor agonist. Also inhibits the reuptake of norepinephrine.

**Therapeutic Effects:**
Decrease in pain severity.

**Pharmacokinetics**

**Absorption:** 32% absorbed following oral administration.

**Distribution:** Widely distributed.

**Metabolism and Excretion:** Undergoes extensive first-pass hepatic metabolism (97%); metabolites have no analgesic activity; metabolized drug is 99% renally excreted.

**Half-life:** 4 hr.

**TIME/ACTION PROFILE (analgesic effect)**

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
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<tbody>
<tr>
<td>PO</td>
<td>unknown</td>
<td>1 hr</td>
<td>4–6 hr</td>
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**Contraindications/Precautions**

**Contraindicated In:** Hypersensitivity. Significant respiratory depression in unmonitored settings or where resuscitative equipment is not readily available. Paralytic ileus; Severe hepatic or renal impairment; Concurrent MAO inhibitors or use of MAO inhibitors in the preceding 2 wk; Acute or severe bronchial asthma; Acute, mild, intermittent, or postoperative pain (extended-release only); Seizure disorders; Moderate hepatic impairment; History of substance abuse or addiction disorder; Severe respiratory disease; Moderate or severe cardiovascular disease; Concurrent use of other CNS depressants including sedative/hypnotics, alcohol, antihistamines, antidepressants, phenothiazines, and other opioids; Concurrent use of other CNS depressants including sedative/hypnotics, alcohol, antihistamines, antidepressants, phenothiazines, and other opioids; Concurrent use of other CNS depressants including sedative/hypnotics, alcohol, antihistamines, antidepressants, phenothiazines, and other opioids.

**Usual Dosage**

When switching from immediate-release to extended-release product, the same total daily dose can be used.

**PO (Adults):**
Immediate-release or oral solution—50 mg, 75 mg, or 100 mg initially, then every 4–6 hr as needed and tolerated. Doses should not exceed 700 mg on the first day or 600 mg/day thereafter; Extended-release—50 mg twice daily, titrate dose up to 100–250 mg twice daily (route of oral dose of 500 mg/day).

**Adverse Reactions/Side Effects**

**CNS:** SEIZURES, dizziness, headache, somnolence. **Resp:** RESPIRATORY DEPRESSION. **CV:** hypotension. **GI:** diarrhea, nausea, vomiting. **Misc:** ANGIOEDEMA.

**Interactions**

**Drug-Drug:** Concurrent MAO inhibitors or use of MAO inhibitors in the preceding 2 wk can result in potentially life-threatening adverse cardiovascular reactions due to additive effects on norepinephrine levels. Concurrent use of other CNS depressants including sedative/hypnotics, alcohol, antihistamines, antidepressants, phenothiazines, and other opioids can result in further respiratory depression, consider dose of one or both agents.

**Route/Dosage**

When switching from immediate-release to extended-release product, the same total daily dose can be used.

**PO (Adults):** Immediate-release or oral solution—50 mg, 75 mg, or 100 mg initially, then every 4–6 hr as needed and tolerated. Doses should not exceed 700 mg on the first day or 600 mg/day thereafter; Extended-release—50 mg twice daily, titrate dose up to 100–250 mg twice daily (route of oral dose of 500 mg/day).
Hepatic Impairment

PO (Adults): Moderate hepatic impairment—Immediate release or oral solution: 50 mg every 6 hr initially; then titrate to maintain analgesia without intolerable side effects. Extended-release: 50 mg once daily; may titrate up to maximum dose of 100 mg once daily; titrated.

NURSING IMPLICATIONS

Assessment

● Assess type, location, and intensity of pain before and 1 hr (peak) after administration.
● Assess BP and respiratory rate before and periodically during administration.
● Assess bowel function routinely. Prevention of constipation should be instituted with increased intake of fluids and bulk with laxatives to minimize constipating effects. Administer stimulant laxatives routinely if opioid use exceeds 2–3 days, unless contraindicated.
● Prolonged use may lead to physical and psychological dependence and tolerance, although these may be milder than with opioids. This should not prevent patient from receiving adequate analgesia. Most patients who receive tapentadol for pain do not develop psychological dependence.
● Monitor patient for seizures. May occur within recommended dose range. Risk is increased in patients with a history of seizures and in patients taking antiepileptics (SNRIs, SNRIs, tricyclics) or other drugs that decrease the seizure threshold.
● Monitor for serotonin syndrome (mental-status changes [agitation, hallucinations, coma], autonomic instability [tachycardia, labile BP, hyperthermia], neuromuscular aberrations [hyperreflexia, incoordination] and/or gastrointestinal symptoms [nausea, vomiting, diarrhea] in patients taking SNRIs, SNRIs, tricyclic antidepressants, or MAO inhibitors concurrently with tapentadol.

Patient/Family Teaching

● Instruct patient on how and when to ask for and take pain medication and to take tapentadol as directed; do not adjust dose without consulting health care professional. Report breakthrough pain and adverse reactions to health care professional. Do not take tapentadol if pain is mild or can be controlled with other pain medications such as NSAIDs or acetaminophen.
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Potential Nursing Diagnoses

Acute pain (indications)

Implementation

● Initial dose of 50 mg, 75 mg, or 100 mg is individualized based on pain severity, previous experience with similar drugs, and ability to monitor patient. Second dose may be administered as soon as 1 hr after first dose if adequate pain relief is not obtained with first dose.
● PO: Tapentadol may be administered without regard to meals.
● Small-dose extended-release tablets which do not crush, break or chew.
● Use calibrated syringe to administer correct dose of oral solution.

Patient/Family Teaching

● Instruct patient on how and when to ask for and take pain medication and to take tapentadol as directed; do not adjust dose without consulting health care professional. Report breakthrough pain and adverse reactions to health care professional. Do not take tapentadol if pain is mild or can be controlled with other pain medications such as NSAIDs or acetaminophen.
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Potential Nursing Diagnoses

Acute pain (indications)

Implementation
tapentadol

- Encourage patient to turn, cough, and breathe deeply every 2 hr to prevent atelectasis.
- Advise female patients to notify health care professional if pregnancy is planned or suspected, or if breast feeding.

Evaluation/Desired Outcomes
- Decrease in severity of pain without a significant alteration in level of consciousness or respiratory status.

Why was this drug prescribed for your patient?