abarelix (a-ba-re-lix)

Plenaxis

**Classification**

Therapeutic: antisteroides
Pharmacologic: GnRH antagonist

**Pregnancy Category X**

**Indications**

Advanced prostate cancer when LHRH agonists are inappropriate or surgical castration is refused and there is risk of neurologic compromise from metastatic disease, urinary/bladder obstruction due to local/metastatic disease or severe metastatic bone pain unresponsive to adequate opioid analgesia.

**Action**

Directly and competitively blocks pituitary GnRH receptors, thereby suppressing production of luteinizing hormone (LH) and follicle-stimulating hormone (FSH). This results in decreased production of testosterone by the testes, which is not accompanied by an initial increase in testosterone. **Therapeutic Effects:** Suppressed spread of metastatic prostate cancer, with decreased neurologic complications, bladder outlet obstruction and need for opioid analgesics.

**Pharmacokinetics**

Absorption: Well absorbed following IM administration.
Distribution: Extensively distributed.
Protein Binding: 96–99%.
Metabolism and Excretion: Metabolized by hydrolysis of peptide bonds; 13% excreted unchanged in urine.
Half-life: 13.2 days.

**TIME/ACTION PROFILE (decrease in testosterone levels)**

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ROUTE ONSET PEAK DURATION
IM 2 days 3 days (blood level) 1 mo*
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*Testosterone levels at mo reflect medical castration

**Contraindications/Precautions**

Contraindicated in: Hypersensitivity; Adult females or children.

Use Cautiously in: Patients with pre-existing QTc prolongation or concurrent use of Class IA antiarrhythmics (amiodarone, sotalol); Weight < 225 pounds (decreased effectiveness over time).

**Adverse Reactions/Side Effects**

CNS: dizziness, fatigue, headache, sleep disturbances.
CV: peripheral edema, prolonged QTc interval.
GI: constipation, diarrhea, nausea, increased transaminases.
GU: dysuria, urinary frequency.
Derm: hot flushes.
Endo: breast enlargement/nipple tenderness.
MS: back pain.
Misc: allergic reactions, decreased bone mineral density.

**Interactions**

Drug-Drug: None noted.

**Route/Dosage**

IM (Adults): 100 mg on Day 1, 15, and 29 and then every 4 wk thereafter.

**NURSING IMPLICATIONS**

**Assessment**

- Observe patient for at least 30 min following injection for immediate-onset systemic allergic reactions (urticaria, pruritus, hypotension, syncope). Treat symptomatically; if hypotension or syncope occur, measures such as leg elevation, oxygen, IV fluids, antihistamines, corticosteroids, and epinephrine should be used. Risk of reaction increases with duration of treatment.
- Lab Test Considerations: Measure serum total testosterone concentrations just prior to administration on Day 29 and every 8 wk thereafter. Overall effectiveness may decrease with increased duration of therapy.
- Monitor serum PSA levels periodically during therapy.
- Monitor serum transaminase levels prior to and periodically during therapy.
- Monitor serum AST and ALT levels prior to and periodically during therapy.
- Monitor serum PSA levels periodically during therapy.
- Monitor serum glucose levels periodically.
- Monitor serum triglycerides periodically.
- Monitor serum AST and ALT levels periodically.
- Monitor serum transaminase levels periodically.

**Potential Nursing Diagnoses**

Chronic pain (Side Effects)
Implementation

- Abarelix should be prescribed only by physicians enrolled and qualified by the Plenaxis User Safety Program.

- IM: Prior to reconstitution, shake vial. Hold vial at 45° angle and tap lightly on table to break up any caking. Using enclosed 18 gauge needle and 3 cc syringe, withdraw 2.2 mL of 0.9% NaCl. Discard remaining diluent. With vial upright, insert needle all the way into vial and aspirate diluent quickly. Before withdrawing needle, remove 2.2 mL of air. Shake vial immediately for approximately 15 seconds. Allow vial to stand for approximately 2 min. Tap vial to reduce foaming and vertical caking. Do not reconstitute IM twice. Locate second injection site on thigh and insert 22 gauge 1 1/2 inch needle. Discard remaining solids in vial without removing needle. Repeat until all solids are dispersed. Detach needle from syringe and withdraw entire contents (at least 2 mL) by positioning needle in vial at a 45° angle. Pull the plunger back to recover residual suspension in needle; then exchange needle with the enclosed 22 gauge 1 1/2 inch injection needle. Administration the entire reconstituted suspension IM immediately. Must be administered within 1 hr of reconstitution.

Patient/Family Teaching

- Inform patient of purpose and risks of abarelix.
- May cause dizziness. Caution patient to avoid driving and other activities requiring alertness until response to medication is known.
- Advise patient to notify physician immediately if symptoms of immediate-onset systemic allergic reaction occur.

Evaluation/Desired Outcomes

- Decreased serum testosterone levels resulting in suppressed spread of metastatic prostate cancer, with decreased neurologic complications, bladder outlet obstruction and need for opioid analgesics.

Why was this drug prescribed for your patient?