enzalutamide (en-za-loo-ta-mide)

**Staged**

**Classification**

Therapeutic: antineoplastics

Pharmacologic: androgen receptor inhibitors

**Pregnancy Category X**

**Indications**

Management of metastatic castration-resistant prostate cancer in patients previously treated with docetaxel.

**Action**

Acts as an androgen receptor inhibitor, preventing the binding of androgen; also inhibits androgen nuclear translocation and DNA interaction. Decreases proliferation and induces cell death of prostate cancer cells.

**Therapeutic Effects:**

Decreased growth and spread of prostate cancer.

**Pharmacokinetics**

**Absorption:**

Well absorbed following oral administration.

**Distribution:**

Unknown.

**Protein Binding:**

Enalutamide—97–98%; N-desmethylenzalutamide—95%.

**Metabolism and Excretion:**

Extensively metabolized by the liver (CYP2C8 and CYP3A4 enzyme systems); one metabolite (N-desmethylenzalutamide) has antineoplastic activity. Metabolites are primarily renally excreted, only minimal amounts as unchanged drug.

**Half-life:**

Enalutamide—5.8 days; N-desmethylenzalutamide—7.8–8.6 days.

**TIME/ACTION PROFILE (improved survival)**

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**Contraindications/Precautions**

**Contraindicated in:**

- Pregnancy (may cause fetal harm) or women with childbearing potential.

**Use Cautiously in:**

- History of seizures, underlying brain pathology, cerebrovascular accident, transient ischemic attack (within 12 mos), brain metastases or brain abnormalities (may increase risk of seizures).

**Adverse Reactions/Side Effects**

**CNS:**

- Seizures, spinal cord compression/cauda equina syndrome, headache, weakness, anxiety, dizziness, hallucinations, insomnia, mental impairment disorders.

**EENT:**

- Epistaxis.

**CV:**

- Hypertension, peripheral edema.

**GI:**

- Diarrhea.

**GU:**

- Hematuria, urinary frequency.

**Derm:**

- Hot flush, dry skin, pruritus.

**MS:**

- Arthralgia, musculoskeletal pain, muscular stiffness, muscular weakness.

**Neuro:**

- Hypoesthesia, paresthesia.

**Interactions**

**Drug-Drug:**

- Strong inhibitors of the CYP2C8 enzyme system (including gemfibrozil) may alter blood levels and the risk of adverse reactions/toxicity and should be avoided; if concurrent administration is necessary, dose of enzalutamide should be reduced.

- Strong/moderate inducers of the CYP3A4 or CYP2C8 enzyme systems (including rifampin) may alter levels and response and should be avoided.

- Substrates of the CYP3A4, CYP2C9 (including warfarin) and CYP2C19 systems that have narrow therapeutic indexes should be avoided at their levels and activity can be decreased, careful monitoring is recommended. Concurrent use of drugs that may alter seizure threshold may raise risk of seizures.

**Route/Dosage**

**PO (Adults):**

- 160 mg (four 40-mg capsules) once daily; if Grade 3 toxicity or intolerable adverse reactions occur, discontinue for 1 wk and resume at the same or lower dose (80 or 120 mg).

**NURSING IMPLICATIONS**

**Assessment**

- Monitor for seizures. Implement seizure precautions.

**Lab Test Considerations:**

- May cause hematuria.

**Potential Nursing Diagnoses**

- Activity intolerance

**Patient/Family Teaching**

- Instruct patient to notify health care professional immediately if any of the following occur: headache, weakness, anxiety, dizziness, hallucinations, insomnia, mental impairment disorders (may increase risk of seizures). Notify health care professional of all Rx or OTC medications, vitamins, or herbal products used. Excessive intake of alcohol may be more sensitive to drug effects. Report any new or worsening side effects.
Implementation

- **PO:** Administer 4 capsules once daily without regard to food. Swallow capsules whole; do not open, dissolve, or chew.
- If ≤ Grade 3 toxicity or intolerable side effects occur, withhold dose for 1 wk or until symptoms improve to ≤ Grade 2, then resume at same or reduced dose (120 mg or 80 mg).

Patient/Family Teaching

- Instruct patient to take enzalutamide as directed at the same time each day. Take missed doses as soon as remembered within the same day. If a whole day is missed, omit dose and take next day's scheduled dose; do not double doses. Advise patient not to interrupt, modify dose, or stop taking enzalutamide without consulting health care professional.
- May cause seizures, dizziness, mental impairment, paresthesia, hyporexia, falls, and hallucinations. Caution patient to avoid driving and other activities requiring alertness until response to medication is known. Notify health care professional immediately if new seizures or seizures occur.
- Inform patient of common side effects associated with enzalutamide: asthenia/fatigue, headache, chills, arthralgia, hot flush, peripheral edema, musculoskeletal pain, headache, upper and lower respiratory infection, muscular weakness, dizziness, insomnia, spinal cord compression, cauda equina syndrome, leukopenia, pancreatitis, amnestic, and hypertensive. Notify health care professional if falls or problems thinking clearly, or if side effects are bothersome.
- Caution patients that enzalutamide is teratogenic. Advise patient to avoid pregnancy and breast feeding during and for 3 months following completion of therapy. Male patients should use a condom if having sex with a pregnant woman, and a condom and another effective method of birth control should be used if having sex with a woman of child-bearing potential.

Evaluation/Desired Outcomes

- Decreased growth and spread of prostate cancer.

Why was this drug prescribed for your patient?