eribulin (e-rib-yoo-lin)

**Halaven**

**Classification**

Therapeutic: antineoplastics
Pharmacologic: antimicrotubulars

**Pregnancy Category D**

**Indications**

Metastatic breast cancer that has progressed despite at least two previous regimens which included an anthracycline and a taxane in either regimen.

**Action**

Inhibits intracellular microtubule growth phase, causing G2/M cell-cycle block resulting in apoptotic cell death. **Therapeutic Effects:** Death of rapidly replicating cells, particularly malignant ones.

**Pharmacokinetics**

**Absorption:** IV administration results in complete bioavailability.

**Distribution:** Unknown.

**Metabolism and Excretion:** Minimal metabolism, mostly excreted unchanged in feces (82%) and less in urine (9%).

**Half-life:** 40 hr.

**TIME/ACTION PROFILE (effects on blood counts)**

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
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<tbody>
<tr>
<td>IV</td>
<td>within days</td>
<td>7–14 days</td>
<td>up to 2 wk</td>
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**Contraindications/Precautions**

**Contraindicated in:** Severe hepatic impairment; Severe renal impairment (CrCl <30 mL/min); Congenital long QT syndrome; OB: Pregnancy; OB: Women with childbearing potential.

**Use Cautiously in:** HF, bradyarrhythmias, concurrent use of drugs known to prolong the QT interval, electrolyte abnormalities; OB: Women with childbearing potential; Pedi: Safety and effectiveness not established.

**Adverse Reactions/Side Effects**


**Interactions**

**Drug-Drug:** Risk of bone marrow depression with other antineoplastics or radiation therapy. Antibody response and risk of adverse reactions with live virus vaccines.

**Route/Dosage**

**IV (Adults):** 1.4 mg/m2 on days 1 and 8 of a 21-day cycle; dose modifications required for hepatic impairment, moderate renal impairment, neutropenia, thrombocytopenia, or peripheral neuropathy.

**Renal Impairment**

**IV (Adults):**

- Mild hepatic impairment (Child-Pugh A) — 1.1 mg/m2 on days 1 and 8 of a 21-day cycle
- Moderate hepatic impairment (Child-Pugh B) — 0.7 mg/m2 on days 1 and 8 of a 21-day cycle

**Renal Impairment**

**IV (Adults):** Moderate renal impairment (CrCl 30–50 mL/min) — 1.1 mg/m2 on days 1 and 8 of a 21-day cycle.

**NURSING IMPLICATIONS**

**Assessment**

- Monitor peripheral motor and sensory neuropathy (numbness, tingling, burning in hands or feet). Withhold eribulin in patients who experience Grade 3 or 4 peripheral neuropathy until resolution to Grade 1 or less.
- Monitor EKG periodically and acid-base balance.
- Monitor CBC prior to each dose; frequency of monitoring in patients who develop Grade 3 or 4 cytopenias. Delay administration as indicated.

**Nursing Considerations**

- Monitor CBC prior to each dose; frequency of monitoring in patients who develop Grade 3 or 4 cytopenias. Delay administration as indicated.
and reduce subsequent doses in patients who develop febrile neutropenia or Grade 4 neutropenia lasting longer than 7 days.
- Monitor electrolytes periodically during therapy.

### Potential Nursing Diagnoses

#### Activity Intolerance

- Correct hypokalemia or hypomagnesemia prior to initiating therapy.

### Implementation

- Do not administer on Day 1 or Day 8 if: ANC < 1000/mm³, platelets < 75,000/mm³, or Grade 3 or 4 non-hematological toxicities occur.
- Day 6 dose may be delayed for a maximum of 7 days. Eriimiters do not resolve or improve to = Grade 2 severity by Day 15, omit dose.
- If toxicities resolve or improve to = Grade 2 severity by Day 15, administer eribulin at a reduced dose and initiate next cycle no sooner than 7 days later.
- If a dose has been delayed for toxicity and toxicities have recovered to Grade 2 severity or less, resume eribulin at a reduced dose of 1.8 mg/m².
- Permanently reduce 1.4 mg/m² eribulin dose to 1.1 mg/m² if: ANC < 900/mm³ for >7 days, ANC < 1000/mm³ on 2 consecutive days, platelets < 50,000/mm³, platelets < 90,000/mm³ on 2 consecutive days, grade 3 or 4 nonhematological toxicities, or Grade 3 or 4 neutropenia.
- Permanently reduce 1.4 mg/m² eribulin dose to 0.7 mg/m² if occurrence of any event requiring permanent dose reduction while receiving 1.1 mg/m² dose.

### IV Administration

- Direct IV:
  - Diluent: Administer undiluted or dilute in 100 mL of 0.9% NaCl. Store undiluted in syringe or diluted eribulin for up to 4 hr at room temperature or for up to 24 hr under refrigeration. Discard unused portion of vial.
  - Rate: Infuse over 2–5 minutes on Days 1 and 8 of a 21-day cycle.

- Y-Site Incompatibility: Do not dilute in or administer through an IV line containing solutions with dextrose or other medications.

### Patient/Family Teaching

- Advise patient to notify health care professional if fever of 100.5°F or other signs or symptoms of infection (chills, cough, burning, or pain on urination) occur.
- Advise female patient to use effective contraception during therapy and to notify health care professional immediately if pregnancy is planned or suspected or if breastfeeding.
- Instruct patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken and consult health care professional before taking any new medications.
- Advise patient not to receive vaccinations without consulting health care professional.

### Evaluation/Desired Outcomes

- 2 spread of breast cancer

Why was this drug prescribed for your patient?