riluzole (ril-yoo-zole)

**Drug Class: agents for amyotrophic lateral sclerosis (ALS)**

**Indications**
- Treatment of patients with amyotrophic lateral sclerosis (ALS).

**Action**
- Action may be related to: Inhibition of glutamate release, Inactivation of sodium channels or, Interference with neurotransmitter binding at receptor sites.

**Therapeutic Effects:**
- Extended survival or time to tracheostomy in ALS patients.

**Pharmacokinetics**
- Absorption: Well absorbed (90%) after oral administration, but bioavailability is 50%.
- Distribution: Readily penetrates brain.
- Protein Binding: 96%.
- Metabolism and Excretion: Highly metabolized by the liver (some metabolites are pharmacologically active; 2% excreted unchanged in urine).
- Half-life: 12 hr (after multiple doses).

**Contraindications/Precautions**
- Contraindicated in: Severe hypersensitivity.
- Use Cautiously in: Hepatic or renal impairment; Female patients (metabolism); OB, Lactation, Pedi: Safety not established.

**Adverse Reactions/Side Effects**
- CNS: dizziness, weakness, headache.
- Resp: decreased lung function, hypersensitivity pneumonitis, interstitial lung disease.
- CV: hypertension, peripheral edema.
- GI: abdominal pain, nausea, anorexia, diarrhea, dyspepsia, flatulence, liver enzymes, vomiting, cholestasis, pancreatitis.
- Metab: weight loss.
- Neuro: back pain, altered vision, memory loss.

**Interactions**
- Drug-Drug: Effects may be increased by amitriptyline, caffeine, fluoroquinolones, or theophylline. Effects may be decreased by cigarette smoke (nicotine), rifampin, or omeprazole.
- Drug-Natural Products: St. John’s wort may increase levels and effectiveness.

**Route/Dosage**
- PO (Adults): 50 mg q 12 hr.

**NURSING IMPLICATIONS**

**Assessment**
- Assess patient for aggravation reaction causing worsening of ALS symptoms (unusual tiredness or weakness, spasticity, diarrhea, nausea, vomiting). May require dose reduction.

**Potential Nursing Diagnoses**
- Impaired physical mobility (Indications)
- Diarrhea (Adverse Reactions)

**Implementation**
- PO: Administer on an empty stomach 1 hr before or 2 hr after meals.

**Patient/Family Teaching**
- Instruct patient to take riluzole at the same time each day on an empty stomach. Missed doses should be omitted; start again at next scheduled dose. Do not increase or double doses. Higher doses do not increase effectiveness but increase incidence of side effects.
May cause drowsiness or dizziness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.

Advise patient to avoid drinking alcohol while taking riluzole.

Instruct patient to notify health care professional of any febrile illnesses.

Evaluation/Desired Outcomes

Extended survival or time to tracheostomy in ALS patients.

Why was this drug prescribed for your patient?