gefitinib (ge-fi-tin-ib)
Iressa

Classification
Therapeutic: antineoplastics
Pharmacologic: enzyme inhibitors

Pregnancy Category D

Indications
Patients who are currently benefiting from or have benefited from gefitinib in the past for treatment of non-small cell lung cancer.

Action
Inhibits activation of kinases found in transmembrane cell surface receptors, including epidermal growth factor receptor (EGFR-TK).

Therapeutic Effects:
Death of rapidly replicating cells, particularly malignant ones.

Pharmacokinetics
Absorption: 60% absorbed following oral administration.
Distribution: Extensively distributed.
Metabolism and Excretion: Mostly metabolized by the liver (CYP3A4 enzyme system); excreted in feces, 4% excreted in urine.
Half-life: 48 hr.

TIME/ACTION PROFILE
ROUTE ONSET PEAK DURATION
PO unknown unknown unknown

Contraindications/Precautions
Use Cautiously in: Idiopathic pulmonary fibrosis (q risk of pulmonary toxicity); Concurrent use of strong inhibitors of the CYP3A4 enzyme system (may q risk of toxicity).

Adverse Reactions/Side Effects
CNS: weakness.
EENT: aberrant eyelash, conjunctivitis, corneal erosion/ulcer, eye pain, vision.
CV: peripheral edema.
Resp: PULMONARY TOXICITY, dyspnea.
GI: diarrhea, nausea, vomiting, anorexia, hepatotoxicity, mouth ulceration. Drene: acne, dermatitis, pruritus. Metab: weight loss. Misc: allergic reactions including AN-GIOEDEMA.

Interactions
Drug-Drug: Strong inducers of the CYP3A4 enzyme system, including rifampin and phenytoin q blood levels and effects (consider q dose of gefitinib to 500 mg/day). Strong inhibitors of the CYP3A4 enzyme system, including ketoconazole and itraconazole q blood levels and effects (use with caution). Absorption and efficacy may be by 50% drugs that q gastric pH including cimetidine and ranitidine. May q the risk of bleeding with warfarin. Concurrent use with vincristine may q risk severity of neutropenia.

Route/Dosage
PO (Adults): 250 mg once daily.

NURSING IMPLICATIONS
Assessment
● Assess for signs of pulmonary toxicity (dyspnea, cough, fever). If interstitial lung disease is confirmed, discontinue gefitinib and treat appropriately.
● Assess patient for eye symptoms such as pain during therapy. May require interruption of therapy and removal of abnormal eyelash. After symptoms and eye changes have resolved, may reinstate therapy.

● Lab Test Considerations: Monitor liver function tests periodically. May cause q transaminases, bilirubin, and alkaline phosphatase. Discontinue gefitinib if elevations are severe.

 ● Monitor for changes in prothrombin time and INR in patients taking warfarin. May cause q levels.

Potential Nursing Diagnoses
Diarrhea (Adverse Reaction)
Impaired skin integrity (Side Effects)
Ineffective breathing pattern (Adverse Reactions)

Implementing
● Available only through the Iressa Access Program. Patients must be currently on the medication or in an approved study and must sign the Patient Consent Form. Physicians and prescribers must enroll in the program.

● Administer undiluted every 12 hr.

● Commercially available by AstraZeneca. For more information, contact AstraZeneca, 1-866-368-7782.
PO: Administer one tablet daily without regard to food. Tablets can also be dispersed in half a glass of drinking water (non-carbonated). No other liquids should be used. Drop the tablet into the water, without crushing it, stir until the tablet is dispersed (approximately 10 minutes) and drink the liquid immediately. Rinse the glass with half a glass of water and drink. The liquid can also be administered through a nasogastric tube.

- May interrupt therapy briefly (14 days) for patients with poorly tolerated diarrhea with dehydration or skin adverse reactions. Follow by resuming 250 mg dose.

Patient/Family Teaching
- Instruct patient to take gefitinib as directed. Advise patient to read the Instruction Sheet with each Rx refill; new information may be available.
- Advise patient to notify health care professional promptly if severe persistent diarrhea, nausea, vomiting, or anorexia occur; if shortness of breath or cough occur or worsen; or if new symptoms develop;
- Instruct patient to notify health care professional if pregnancy is planned or suspected or if breast feeding.

Evaluation/Desired Outcomes
- Decrease in size and spread of tumors in non-small cell lung cancer.

Why was this drug prescribed for your patient?