

BC Cancer Protocol Summary for First-Line Treatment of Epidermal Growth Factor Receptor (EGFR) Mutation-Positive Advanced Non-Small Cell Lung Cancer (NSCLC) with Gefitinib

Protocol Code:

LUAVGEFF

Tumour Group:

Lung

Contact Physician:

Dr. Christopher Lee

ELIGIBILITY:

- Advanced non-small cell lung cancer unsuitable for definitive local therapy
- EGFR mutation-positive tumour confirmed by an accredited laboratory
- Ambulatory performance status
- NOTE:
 - Use of first-line gefitinib to progression precludes the use of both afatinib and erlotinib as any subsequent line of therapy in the same patient
- NOTE:
 - Consideration should be given to a standard platinum-based doublet as second-line therapy after progression or failure with gefitinib

TESTS:

- Baseline: [alkaline phosphatase](#), [ALT](#), [total bilirubin](#), [LDH](#), chest X-ray
 - C-reactive protein and albumin (optional, and results do not have to be available to proceed with first treatment)
- During treatment: [alkaline phosphatase](#), [ALT](#), [total bilirubin](#) and [LDH](#) should be checked two weeks after starting gefitinib and at each subsequent visit.
- For patients with pre-existing liver disease or concomitant hepatotoxic medications, hepatic function should be closely monitored throughout treatment.
- As required: chest X-ray and scans to monitor index lesions
- Chest radiographs should be performed for monitoring of dyspnea to rule out development of interstitial pneumonitis

PREMEDICATIONS:

- At physician's discretion, prophylaxis for rash: minocycline 100 mg PO BID.

TREATMENT:

Drug	Dose	BC Cancer Administration Guideline
gefitinib	250 mg	PO daily until progression

- Careful re-evaluation after initiation of therapy is essential as gefitinib should be continued only if tumour regression continues or the disease is stable and cancer-related

symptoms have improved. Continued gefitinib for “psychological” palliation in the face of progressive disease is inappropriate.

DOSE MODIFICATIONS:

1. **Rash:** generally improves with time but if severe, may require treatment interruption and/or dose reduction.
2. **Diarrhea:** if severe, may require treatment interruption and/or dose reduction.
3. **Elevated liver enzymes:** no guidelines for dose modification, but if very high may need to interrupt or stop therapy.

PRECAUTIONS:

1. **Skin toxicity:** rash, acne, dry skin and pruritus are common. They appear on the face, neck and trunk, and commonly fade or improve despite continuing gefitinib therapy. Interrupt or discontinue treatment if severe bullous, blistering or exfoliating conditions develop as fatal cases suggestive of Stevens-Johnson syndrome/toxic epidermal necrolysis have been reported.
2. **Diarrhea:** this is usually mild and self-limiting. No routine prophylactic antidiarrheal medication is needed.
3. **Ocular disorders:** corneal perforation or ulceration have been reported. Interrupt or discontinue therapy if patients present with acute/worsening of ocular disorders such as eye pain.
4. **Gastrointestinal Perforation:** patients receiving concomitant corticosteroids and/or NSAIDs, or who have prior history of peptic ulceration or diverticular disease are at increased risk for developing gastrointestinal perforation. Permanently discontinue gefitinib in patients who develop gastrointestinal perforation as fatalities have been reported.

Contact Dr. Christopher Lee or tumour group delegate @ (604) 877-6000 or (800)-663-3333 with any problems or questions regarding this treatment program.

REFERENCES:

- (1) Mok TS, Wu YL, Thongprasert S, et al. Gefitinib or carboplatin-paclitaxel in pulmonary adenocarcinoma. *N Engl J Med* 2009;361(10):947-57.
- (2) Maemondo M, Inoue A, Kobayashi K, et al. Gefitinib or Chemotherapy for non-small cell lung cancer with mutated EGFR. *N Engl J Med* 2010;362(25):2380-8.
- (3) Rosell R, Moran T, Queralt C, et al. Screening for epidermal growth factor receptor mutations in lung cancer. *N Engl J Med* 2009;361(10):958-67.
- (4) Azzoli CG, Baker S, Temin S, et al. American Society of Clinical Oncology Clinical Practice Guideline update on chemotherapy for stage IV non-small cell lung cancer. *J Clin Oncol* 2009;27(36):6251-66.