Erlotinib

Indication
Locally advanced or metastatic non-small cell lung cancer with activating mutation of EGFR

Regimen details
Erlotinib 150mg orally once daily

Cycle frequency
Continuous treatment, dispense monthly

Number of cycles
Until disease progression or unacceptable toxicity

Administration
Erlotinib is available as 25 mg, 100 mg and 150 mg film-coated tablets.

The dose should be taken once daily at least one hour before or two hours after food.

Tablets should not be crushed.

Grapefruit and grapefruit juice should be avoided whilst taking erlotinib.

Patients should be encouraged to use a regular moisturiser at the start of erlotinib treatment to prevent and minimise problems with skin dryness

Pre-medication
N/A

Emetogenicity
Minimal, no routine antiemetics required

Additional supportive medication
Loperamide 2mg prn
Hydrocortisone 1% cream Apply bd if required
Aqueous cream: Apply if required

Extravasation
N/A

Investigations – pre first cycle

Investigation	Validity period
FBC	14 days
U+E (including creatinine)	14 days
LFT (including AST)	14 days
Calcium	14 days

Investigations –pre subsequent cycles

FBC, U+E (including creatinine), LFT (including AST), calcium, medical review, chest X-ray

Standard limits for administration to go ahead

None specific but discontinue treatment if toxicity becomes unacceptable or disease progression

Dose modifications

Treatment of skin toxicity:
Topical treatment with aqueous cream and hydrocortisone 1% cream for grade 1 or 2 rash
Reduce dose by 50mg for grade 3 or 4 rash – consider dose escalation when resolved
Consider stronger topical steroid for established rash
Oral antibiotics e.g. oxytetracycline 250mg qds may be indicated for superinfected rash

Dose modification for GI toxicity (diarrhoea)
Grade 1 or 2: treat with loperamide
Grade 3: treat with loperamide, withhold dose if no resolution within 24 hours. Restart at 50mg dose reduction when symptoms resolved
Grade 4: treat with loperamide; discontinue erlotinib if no resolution within 24 hours

Interstitial Lung Disease
Around 1 in 100 patients taking erlotinib develop Interstitial Lung Disease like events (which can be fatal). Patients who develop acute onset of new and/or progressive unexplained pulmonary symptoms such as dyspnoea, cough and fever, should have their erlotinib interrupted pending diagnostic evaluation

Adverse effects –

for full details consult product literature/ reference texts

- **Serious side effects**

GI bleeding
Stevens-Johnson syndrome/toxic epidermal necrosis
Interstitial lung disease

- **Frequently occurring side effects**

Diarrhoea
Rash
Anorexia
Fatigue
Elevated LFTs

- **Other side effects**

Significant drug interactions

– for full details consult product literature/ reference texts

CYP3A4 inhibitors (e.g. ketoconazole, itraconazole, clarithromycin, erythromycin): avoid co-administration these may increase plasma concentrations of erlotinib

Grapefruit and grapefruit juice: avoid as an inhibitor of CYP3A4 and may increase plasma concentrations of erlotinib

Inducers of CYP3A4 (e.g. rifampicin, phenytoin, carbamazepine, St John's Wort): avoid co-administration as these may reduce exposure to erlotinib

Coumarin anticoagulants, e.g. warfarin: Avoid if possible as may cause elevation and fluctuation in INR. Consider switching to low molecular weight heparin

Drugs that reduce gastric acidity: reduce the solubility of erlotinib, thereby reducing its absorption. The manufacturers advise against the concurrent use of proton pump inhibitors or H2-receptor antagonists. If the use of ranitidine is

essential, administration should be separated, with the erlotinib taken 2 hours before, or 10 hours after, the ranitidine.

Although antacids are also predicted to interact, antacid interactions can usually be minimised by separation of administration. The manufacturer recommends that, if treatment with antacids is essential, they should be taken at least 4 hours before, or 2 hours after, erlotinib

Additional comments

Smoking may reduce the effectiveness of erlotinib so patient should be advised to stop if possible.

References

Tarceva SPC - https://www.medicines.org.uk/emc/product/8845/smpc

SWCN protocol - http://www.swscn.org.uk/guidance-protocols/cancer-protocols/

This protocol has been reviewed by the Lancashire & South Cumbria Lung Oncology Consultants' Group and responsibility for the protocol lies with the Head of Service.

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