Gefitinib Monotherapy

INDICATION FOR USE:

INDICATION	ICD10	Regimen Code	HSE Approved Reimbursement Status*
Treatment of adult patients with locally advanced or metastatic non-small cell lung cancer (NSCLC) with activating mutations of EGFR-TK.	C34	00220a	N/A

*This applies to post 2012 indications

TREATMENT:

The starting dose of the drugs detailed below may be adjusted downward by the prescribing clinician, using their independent medical judgement, to consider each patients individual clinical circumstances.

Gefitinib is administered orally once daily until disease progression or unacceptable toxicity develops.

Drug	Dose	Route	Cycle
Gefitinib	250mg daily	PO with or without food at the same time each day. Tablet may be swallowed whole or may be dispersed* in water (non-carbonated)	Continuous
To prepare dispersion the whole tablet should be dropped in half a glass of drinking water. The glass should be swirled occasionally, until the tablet is dispersed (this may take up to 20 minutes). The dispersion should be drunk immediately after dispersion is complete (i.e. within 60 minutes). The glass should be rinsed with half a glass of water, which should also be drunk. The dispersion can also be administered through a naso-gastric or gastrostomy tube.			
If a dose is missed it should be taken as soon as the patient remembers. If it is less than 12hours to the next dose the patient should not take the missed dose. Patients should not take a double dose (two doses at the same time) to make up for a forgotten dose.			

ELIGIBILITY:

- Indication as above
- EGFR activating mutation positive tumour as demonstrated by a validated test method
- ECOG status 0-2

EXCLUSIONS:

- Hypersensitivity to gefitinib or any of the excipients
- Pregnancy
- Breastfeeding

PRESCRIPTIVE AUTHORITY:

The treatment plan must be initiated by a Consultant Medical Oncologist.

TESTS:

Baseline tests:

- FBC, renal and liver profile
- Chest X-ray and CT scan

Regular tests:

- FBC, renal and liver profile throughout treatment as clinically indicated

Disease monitoring:
Disease monitoring should be in line with the patient's treatment plan and any other test/s as directed by the supervising Consultant.

DOSE MODIFICATIONS:

- Any dose modification should be discussed with a Consultant
- Patients with poorly tolerated diarrhoea or skin adverse reactions may be successfully managed by providing a brief (up to 14 days) therapy interruption followed by reinstatement of the 250 mg dose
- For patients unable to tolerate treatment after a therapy interruption, gefitinib should be discontinued and an alternative treatment should be considered

Renal and Hepatic Impairment:

Table 1: Dose modification of gefitinib in renal and hepatic impairment.

Renal Impairment	Hepatic Impairment	
No need for dose adjustment is expected. Haemodialysis – no need for dose adjustment is expected.	**Severity**	**Dose**
	Impairment due to metastasis and Child-Pugh A	No dose adjustment is needed
	Child-Pugh B and C	50% of the original dose
Renal and hepatic recommendations as per Giraud et al 2023		

Management of adverse events:

Table 2: Dose modification schedule for gefitinib for adverse events. Refer to local policies for the management of EGFR-inhibitor adverse skin reactions and diarrhoea.

Adverse reactions	Recommended dose modification
Worsening of respiratory symptoms (e.g. cough, dyspnoea)	Interrupt therapy and clinically evaluate for interstitial lung disease (ILD).
Interstitial lung disease (ILD)	Discontinue
Hepatotoxicity and liver impairment	Discontinuation should be considered if severe changes in liver function

SUPPORTIVE CARE:

EMETOGENIC POTENTIAL:

- As outlined in NCCP Classification Document for Systemic Anti-Cancer Therapy (SACT) Induced Nausea and Vomiting - Available on NCCP website

Gefitinib: Minimal-Low (**Refer to local policy)**

For information:
Within NCIS regimens, antiemetics have been standardised by Medical Oncologists and Haemato-oncologists. Information is available in the following documents:

- NCCP Supportive Care Antiemetic Medicines for Inclusion in NCIS (Medical Oncology) - Available on NCCP website
- NCCP Supportive Care Antiemetic Medicines for Inclusion in NCIS (Haemato-oncology) - Available on NCCP website

PREMEDICATIONS: Not usually required

OTHER SUPPORTIVE CARE:

- Medication may be required for management of diarrhoea, e.g. loperamide (4mg at first onset followed by 2mg after each loose stool (max 16 mg /day) or see local policy
- See local skin care policy for the prevention and treatment of EGFR-inhibitor adverse reactions
- Patients should be advised to seek medical advice immediately if they experience severe or persistent diarrhoea, nausea, vomiting or anorexia as these may indirectly lead to dehydration
- During treatment with gefitinib, asthenia has been reported. Therefore, patients who experience this symptom should be cautious when driving or using machines

ADVERSE EFFECTS

- Please refer to the relevant Summary of Product Characteristics (SmPC) for details.

DRUG INTERACTIONS:

- Current SmPC and drug interaction databases should be consulted for information.

REFERENCES:

1. Mok TS, Wu YL, Thongprasert S, Yang CH, Chu DT, Saijo N, et al. Gefitinib or carboplatin-paclitaxel in pulmonary adenocarcinoma. NEJM 2009;361(10):947-957.
2. Maemondo M, Inoue A et al. Gefitinib or Chemotherapy for Non-Small Cell Lung Cancer with Mutated EGFR. NEJM. 2010 Jun 24; 362(25):2380-2388.
3. Mitsudomi T. Mitsudomi T. et al. Gefitinib versus cisplatin plus docetaxel in patients with non-small-cell lung cancer harbouring mutations of the epidermal growth factor receptor (WJTOG3405): an open label, randomised phase 3 trial. Lancet Oncol. 2010 11(2):121-8
4. Giraud E L, Lijster B D, et al. Dose recommendations for anticancer drugs in patients with renal or hepatic impairment: an update. Available at: https://pubmed.ncbi.nlm.nih.gov/37269847/
5. NCCP Classification Document for Systemic Anti-Cancer Therapy (SACT) Induced Nausea and Vomiting. V6 2025. Available at: https://www.hse.ie/eng/services/list/5/cancer/profinfo/chemoprotocols/nccp-classification-document-for-systemic-anti-cancer-therapy-sact-induced-nausea-and-vomiting.pdf
6. Gefitinib (IRESSA®) Summary of Product Characteristics Last updated: 17/07/2023. Accessed April 2025. Available at: https://www.ema.europa.eu/en/documents/product-information/iressa-epar-product-information_en.pdf

Version	Date	Amendment	Approved By
1	05/04/2014		Prof Maccon Keane
2	25/03/2016	Inclusion of standard wording re treatment	Prof Maccon Keane
3	18/04/2018	Updated with new NCCP Regimen Template and updated emetogenic status	Prof Maccon Keane
4	29/04/2020	Reviewed.	Prof Maccon Keane
5	14/07/2025	Regimen reviewed. Updated regular testing requirements. Updated dose modification section. Updated renal and hepatic impairment recommendations to align with Giraud et al 2023. Adverse effects and drug interaction section amended as per NCCP standardisation.	Prof Maccon Keane

Comments and feedback welcome at oncologydrugs@cancercontrol.ie.