

# Tagrisso

(osimertinib)



New Product  
Slideshow

MPR

# Introduction

- **Brand name:** Tagrisso
- **Generic name:** Osimertinib
- **Pharmacological class:** Kinase inhibitor
- **Strength and Formulation:** 40mg, 80mg; tablets
- **Manufacturer:** AstraZeneca
- **How supplied:** Bottle—30
- **Legal Classification:** Rx

# TAGRISSE



# Indications

- Treatment of patients with metastatic epidermal growth factor receptor (EGFR) T790M mutation-positive **non-small cell lung cancer (NSCLC)**, as detected by an FDA-approved test, who have progressed on or after EGFR tyrosine kinase inhibitor therapy

# Dosage & Administration

- 80mg once daily until disease progression or unacceptable toxicity
- If swallowing difficulty, may disperse tab in 4tbsps (~50mL) of non-carbonated water only; stir and swallow immediately or give through NG tube; then rinse container with 4–8oz water and drink immediately or give through NG tube
- Dose modification: see full labeling

# Considerations for Special Populations

- **Pregnancy:** Can cause fetal harm
- **Nursing mothers:** Not recommended (during and for 2 weeks after final dose)
- **Pediatric:** Not established
- **Geriatric:** No overall differences
- **Renal impairment:** Severe impairment or ESRD: no recommended dose
- **Hepatic impairment:** Moderate or severe impairment: no recommended dose

# Warnings/Precautions

- Confirm presence of T790M mutation prior to treatment initiation
- **Permanently discontinue** if:
  - Interstitial lung disease (ILD)/pneumonitis is confirmed
  - QTc interval prolongation with signs/symptoms of life-threatening arrhythmia
  - Persistent, asymptomatic LV dysfunction that does not resolve within 4 weeks
  - Symptomatic CHF
  - No improvement of Grade  $\geq 3$  adverse reaction within 3 weeks occurs

# Warnings/Precautions

- **Withhold** dose if worsening respiratory symptoms indicative of ILD occur or if QTc interval  $>500$  msec on  $\geq 2$  separate electrocardiograms (ECGs)
- Monitor ECGs and electrolytes periodically in patients with congenital long QTc syndrome, CHF, electrolyte abnormalities, or those who are taking drugs known to prolong the QTc interval
- Assess LVEF by echocardiogram or multigated acquisition (MUGA) scan prior to initiation and every 3 months during treatment



# Warnings/Precautions

- Severe renal impairment (CrCl <30mL/min) or ESRD
- Moderate or severe hepatic impairment
- **Females** of reproductive potential should use effective contraception during and for 6 weeks after final dose
- **Males** with female partners of reproductive potential should use effective contraception during and for 4 months after final dose

# Interactions

- **Avoid** concomitant with strong CYP3A inhibitors (eg, telithromycin, itraconazole, ritonavir, nefazodone); if no other alternative, monitor closely
- **Avoid** concomitant with strong CYP3A inducers (eg, phenytoin, rifampicin, carbamazepine, St. John's Wort)
- **Avoid** concomitant with sensitive substrates of CYP3A, BCRP, or CYP1A2 with narrow therapeutic indices (eg, fentanyl, cyclosporine, quinidine, ergots, phenytoin, carbamazepine)

# Adverse Reactions

- Diarrhea
- Rash
- Dry skin
- Nail toxicity

# Mechanism of Action

- Osimertinib is a kinase inhibitor of the EGFR, which binds irreversibly to certain mutant forms of EGFR (T790M, L858R, and exon 19 deletion) at approximately 9-fold lower concentrations than wild-type
- It exhibits anti-tumor activity against NSCLC lines harboring EGFR-mutations (T790M/L858R, L858R, T790M/exon 19 deletion, and exon 19 deletion) and, to a lesser extent, wild-type EGFR amplifications

# Pharmacokinetics

- **Metabolism:** Oxidation and dealkylation (predominantly CYP3A)
- **Elimination:** Fecal (major)

# Clinical Trials

- The efficacy of Tagrisso was studied in 2 multicenter, single-arm, open-label clinical trials (**Studies 1 and 2**) of 411 patients with metastatic EGFR T790M mutation-positive NSCLC who had progressed on prior systemic therapy, including an EGFR TKI

# Clinical Trials

- The **major efficacy outcome** measure for both studies was objective response rate (ORR) according to RECIST v1.1 as evaluated by a Blinded Independent Central Review
- An additional outcome measure was duration of response

# Clinical Trials

- The overall ORR was seen in **59%** of patients (95% CI: 54, 64) with 0.5% exhibiting complete response and 59% exhibiting partial response
- The majority of patients (96%) with confirmed objective responses had ongoing responses ranging from 1.1–5.6 months after a median duration of follow-up of 4.2 months (Study 1) and 4.0 months (Study 2)
- For more clinical trial data, see full labeling



# New Product Monograph

- For more information view the complete product monograph available at:

<http://www.empr.com/tagrisso/drugproduct/412/>