# DRUG NAME: Lazertinib

**SYNONYM(S)**[1]**:** GNS1480, YH25448, lazertinib mesylate

**COMMON TRADE NAME(S):** LAZCLUZE®

**CLASSIFICATION:** molecular targeted therapy

*Special pediatric considerations are noted when applicable, otherwise adult provisions apply.*

## MECHANISM OF ACTION:

Lazertinib is a third-generation, orally administered epidermal growth factor receptor (EGFR) tyrosine kinase inhibitor. By binding to EGFR, lazertinib blocks the downstream signalling pathways, preventing cell proliferation. Lazertinib selectively inhibits primary activating EGFR mutations (exon 19 deletion, exon 21 L858R substitution) and T790M mutations, while demonstrating reduced activity against wild-type EGFR.[2,3]

## PHARMACOKINETICS:

| | | |
|---|---|---|
| Oral Absorption | $T_{max}$ = 2-4 h; bioavailability is not significantly affected by food | |
| Distribution | extensive tissue distribution | |
| | cross blood brain barrier? | yes[4] |
| | volume of distribution | 4264 L |
| | plasma protein binding | ~99% |
| Metabolism | primarily metabolized via glutathione conjugation (enzymatically via glutathione-S-transferase or non-enzymatically) and to a lesser extent via CYP3A4 | |
| | active metabolite(s) | no information found |
| | inactive metabolite(s) | glutathione catabolites |
| Excretion | primarily eliminated via feces | |
| | urine | 4% (<0.2% unchanged) |
| | feces | 86% (<5% unchanged) |
| | terminal half life | 64.7 h |
| | clearance | 44.5 L/h |
| Sex | no clinically significant differences | |
| Elderly | no clinically significant differences | |
| Ethnicity | no clinically significant differences | |

Adapted from standard reference[3] unless specified otherwise.

## USES:

***Primary uses:***

*Lung cancer, non-small cell

***Other uses:***

*Health Canada approved indication



Developed: 1 May 2026
Revised:

## SPECIAL PRECAUTIONS:

***Caution:***
- ***venous thromboembolism***, including fatal cases, has been reported; anticoagulant prophylaxis may be required during lazertinib treatment[3]
- decreased ***left ventricular ejection fraction (LVEF)*** has been reported; consider baseline LVEF assessment in patients with cardiac risk factors or pre-existing cardiovascular conditions[3]

***Carcinogenicity:*** Carcinogenicity studies have not been conducted.[3]

***Mutagenicity:*** Not mutagenic in Ames test. Lazertinib was not genotoxic in mammalian *in vitro* and *in vivo* chromosome tests.[3]

***Fertility:*** In animal studies, adverse findings in both female and male reproductive systems were observed. In female test subjects, the number of corpora lutea in the ovary was decreased and atrophy in the uterus and vagina were observed at exposures approximately 2 times the expected human exposure with clinical doses. Findings in female reproductive organs were reversible. In male test subjects, lazertinib induced histologic tubular degeneration in the testes. Cellular lumen debris, degeneration, necrosis, and decreased number of sperm in the epididymis were observed at exposures comparable to the expected human exposure at clinical doses. Tubular degeneration in the testes which was observed at exposures 4 times the expected human exposure was not reversible within the 2 week recovery period.[3]

***Pregnancy:*** In animal studies, effects on early embryonic development included: increased post-implantation loss, reductions in the number of live fetuses, and skeletal malformations (e.g., misaligned caudal vertebra and unossified hyoid bone). Effects were observed at exposures comparable to the expected human exposure with clinical doses. Decreased fetal body weight was observed at exposures 4 times the expected human exposure at clinical doses. Pregnancy tests are recommended prior to starting treatment. Contraception is recommended during treatment and for 3 weeks after the last dose of lazertinib for females of childbearing potential and for male patients with female partners of reproductive potential. Semen should not be donated or stored during treatment and for 3 weeks after the last dose of lazertinib.[3]

***Breastfeeding*** is not recommended due to the potential secretion into breast milk. Women should not breastfeed during treatment and for 3 weeks after the last dose of lazertinib.[3]

## SIDE EFFECTS:

The table includes adverse events that presented during drug treatment but may not necessarily have a causal relationship with the drug. Because clinical trials are conducted under very specific conditions, the adverse event rates observed may not reflect the rates observed in clinical practice. Adverse events are generally included if they were reported in more than 1% of patients in the product monograph or pivotal trials, and/or determined to be clinically important.[5,6] **Incidence data from combination therapy with amivantamab is indicated with an asterisk (*)[3].**

| ORGAN SITE | SIDE EFFECT |
|---|---|
| Clinically important side effects are in ***bold, italics*** | |
| blood and lymphatic system/ febrile neutropenia | anemia (17-20%, severe 1%) |
| | leukopenia (7%) |
| | neutropenia (15%, severe 1%)* |
| | thrombocytopenia (9%, severe <1%) |
| cardiac | ***cardiomyopathy***, including congestive heart failure and pulmonary edema (7%)* |



Developed: 1 May 2026
Revised:

| ORGAN SITE | SIDE EFFECT |
|---|---|
| Clinically important side effects are in ***bold, italics*** | |
| eye | ***ocular toxicity*** (15%, severe <1%)*; see paragraph following **Side Effects** table |
| gastrointestinal | *emetogenic potential:* low[7] |
| | constipation (17%, severe <1%) |
| | ***diarrhea*** (32%, severe 2%) |
| | gingival bleeding (5%)* |
| | hemorrhoids (10%)* |
| | nausea (18%, severe <1%) |
| | vomiting (9%)[2] |
| | ***stomatitis*** (18%, severe <1%) |
| general disorders and administration site conditions | asthenia (15%, severe 2%) |
| | paresthesia (15%, severe <1%) |
| | peripheral edema (7%) |
| | pyrexia (12%)* |
| infections and infestations | COVID-19 (11-20%, severe 1%) |
| | ***paronychia*** (22-29%, severe <1%) |
| | pneumonia (severe 4%) |
| investigations | alkaline phosphatase increase (6%) |
| | ALT increase (19-23%, severe 3%) |
| | AST increase (17-21%, severe 1%) |
| | creatinine increase (26%, severe 1%)* |
| | gamma glutamyl transferase increase (5%) |
| | left ventricular ejection fraction decrease (3%)* |
| metabolism and nutrition | appetite decrease (15%, severe <1%) |
| | hyperbilirubinemia (4%) |
| | hypermagnesemia (12%, severe 3%)* |
| | hypoalbuminemia (5%) |
| | ***hypocalcemia***, corrected (41%, severe <1%)* |
| | ***hypokalemia*** (30%, severe <5%)* |
| | ***hypomagnesemia*** (5-25%, severe <1%)* |
| | hyponatremia (38%, severe 7%)* |
| musculoskeletal and connective tissue | back pain (11%, severe <1%)* |
| | muscle pain (13, severe <1%)* |
| | muscle spasm (23%, severe <1%) |
| nervous system | dizziness (12%)* |



Developed: 1 May 2026
Revised:

| ORGAN SITE | SIDE EFFECT |
|---|---|
| Clinically important side effects are in ***bold, italics*** | |
| | headache (18%, severe <1%) |
| renal and urinary | hematuria (5%)* |
| respiratory, thoracic, and mediastinal | cough (17%, severe <1%) |
| | dyspnea (12%, severe 1%) |
| | epistaxis (8%)* |
| | ***interstitial lung disease/pneumonitis*** (2%, severe 1%) |
| skin and subcutaneous tissue (see paragraph following **Side Effects** table) | alopecia (4%)* |
| | ***dermatitis acneiform*** (14-21%, severe <1%) |
| | dry skin (18%) |
| | ***nail toxicity***, including onycholysis and onychomadesis (8%)* |
| | ***rash*** (45%, severe 2-3%) |
| | palmar-plantar erythrodysesthesia syndrome (6%)* |
| | pruritus (17-25%) |
| vascular | ***venous thromboembolism*** (13%, severe 5%); see paragraph following **Side Effects** table |

Adapted from standard reference[2,8] unless specified otherwise.

***Skin reactions*** and ***nail toxicity*** have been reported, including rash, dermatitis acneiform, palmar-plantar erythrodysesthesia, pruritus, dry skin, and paronychia. Prophylactic measures such as use of topical antibiotics (clindamycin scalp lotion), oral antibiotics (doxycycline or minocycline), and/or anti-dandruff shampoo have been used to reduce severity of skin reactions.[3,9] Topical antiseptics such as chlorhexidine solution (4%) may be used to wash hands and feet during treatment. Application of moisturizers that provide long-lasting skin hydration (e.g., ceramide based) is recommended during treatment. Avoid drying agents including alcohol-based emollients. Sun exposure should be limited during treatment with lazertinib and for 2 months following treatment. Use protective clothing and broad-spectrum UVA/UVB sunscreen if sun exposure cannot be avoided. Skin reactions are managed based on the severity of the reaction, by withholding lazertinib, dose reduction, or permanent discontinuation. Topical/oral steroids or topical/oral antibiotics may be required to treat infections. Dermatology consult is recommended for patients presenting with severe rash or rash with an atypical appearance or distribution, and patients whose skin reaction fails to show improvement within 2 weeks.[3,10]

***Ocular toxicity*** may present as keratitis, dry eye symptoms, blurred vision, or visual impairment. Conjunctivitis, ocular itching, eyelash growth, and blepharitis have also been reported in patients treated with lazertinib. Although severe cases of ocular toxicity are rare, ophthalmology referral is recommended for patients with worsening eye symptoms. Patients who wear contact lenses should stop wearing their lenses until symptoms are evaluated.[3]

***Venous thromboembolism***, including deep vein thrombosis and pulmonary embolism, have been reported. When lazertinib is administered in combination regimens, the incidence of venous thromboembolism is significantly higher compared with lazertinib monotherapy (36% vs 13%). Events occur predominantly in the first four months of therapy.[2,3] The exact mechanism is not well understood; however, it is hypothesized that rapid tumour cell death induced by combination therapies is thought to contribute to a transient prothrombotic state.[11] Anticoagulant prophylaxis is recommended for the first four months of treatment when lazertinib is used in combination regimens. If clinically indicated, prophylactic anticoagulants may be continued beyond four months. Vitamin K antagonists (VKA) are not recommended due to known susceptibility of VKAs to CYP 3A4-mediated drug interactions and the increased risk of unstable anticoagulation.[12] Management of thromboembolic events may include lazertinib dose interruption and anticoagulant treatment.[3]



Developed: 1 May 2026
Revised:

## INTERACTIONS:

| AGENT | EFFECT | MECHANISM | MANAGEMENT |
|---|---|---|---|
| acid reducing agents[3] | no clinically meaningful changes in lazertinib exposure | pH-dependent solubility of lazertinib | no lazertinib dose adjustment is required |
| efavirenz[3,10] | *predicted*: 44% decrease in lazertinib AUC and 32% decrease in $C_{max}$ | moderate induction of CYP 3A4 by efavirenz | avoid concurrent use |
| itraconazole[3] | 1.5-fold increase in lazertinib AUC and 1.2-fold increase in $C_{max}$ | strong inhibition of CYP 3A4 by itraconazole | no lazertinib dose adjustment is required; monitor for lazertinib toxicity |
| midazolam[3] | 1.5-fold increase in midazolam AUC and 1.4-fold increase in $C_{max}$ | weak inhibition of CYP 3A4 by lazertinib | monitor for midazolam toxicity |
| rifampin[3] | 83% decrease in lazertinib AUC and 72% decrease in $C_{max}$ | strong induction of CYP 3A4 by rifampin | avoid concurrent use |
| rosuvastatin[3] | 2-fold increase in rosuvastatin AUC and 2.2-fold increase in $C_{max}$ | inhibition of BCRP by lazertinib | monitor for rosuvastatin toxicity; consider rosuvastatin dose reduction[13] |

Lazertinib is a substrate of ***CYP 3A4. CYP 3A4 inducers*** may decrease the plasma concentration of lazertinib. Avoid concurrent use with *strong or moderate* CYP 3A4 inducers. ***CYP 3A4 inhibitors*** may increase the plasma concentration of lazertinib. If concurrent use with a *moderate or strong* CYP 3A4 inhibitor cannot be avoided, monitor for increased toxicity of lazertinib. Dose adjustment of lazertinib is NOT required.[2,3]

Lazertinib is an inhibitor of BCRP and CYP 3A4 (weak). If used concurrently with a CYP 3A4 or BCRP substrate with a narrow therapeutic index, monitor for toxicity of the substrate.[2,3]
In vitro, lazertinib is an inhibitor of UGT1A1 and OCT1; however, no clinically meaningful interaction has been reported.[3]

## SUPPLY AND STORAGE:

***Oral:*** Janssen Inc. supplies lazertinib as 80 mg and 240 mg film-coated tablets. Store at room temperature.[3]

## DOSAGE GUIDELINES:

Refer to protocol by which patient is being treated.

***Adults***:

BC Cancer usual dose noted in ***bold, italics***

*Oral*[3,11]: 240 mg (range 80-240 mg) PO once daily

Administer with food or on an empty stomach.[3]

*Concurrent radiation:* no information found

*Dosage in renal failure:* eGFR ≥15 mL/min: no adjustment required[3]
eGFR <15 mL/min: no information found



Developed: 1 May 2026
Revised:

*Dosage in hepatic failure*[3]*:*

| Total bilirubin | Dose |
|---|---|
| ≤1.5xULN | no adjustment is required |
| 1.5-3xULN | no adjustment is required; monitor for lazertinib toxicity |
| >3xULN | no information found |

*Dosage in dialysis:* no information found

***Children*:** safety and efficacy have not been established[3]

## REFERENCES:

1. Lexi-Drugs® (database on the Internet). Lazertinib. UpToDate® Lexidrug®; Accessed February 23, 2026. Updated November 11, 2025. Available at: http://online.lexi.com
2. European Medicines Agency. Committe for Medicinal Products for Human Use (CHMP). Assessment Report - LAZCLUZE (lazertinib). Amsterdam, The Netherlands; November 14, 2024. http://www.ema.europa.eu/ema/
3. Janssen Inc. LAZCLUZE® product monograph. Toronto, Ontario; March 6, 2025.
4. Cho BC, Ahn M, Kang JH, et al. Lazertinib Versus Gefitinib as First-Line Treatment in Patients With EGFR-Mutated Advanced Non–Small-Cell Lung Cancer: Results From LASER301. Journal of Clinical Oncology ; 2023;41(26):4208–4217
5. Jenny Ko MD. BC Cancer Lung Tumour Group. Personal communication. March 26, 2026.
6. Jelena Mucovic, Tumour Group Pharmacist. Provincial Pharmacy. Personal Communication. March 27, 2026.
7. BC Cancer Supportive Care Tumour Group. (SCNAUSEA) BC Cancer Guidelines for Prevention and Treatment of Chemotherapy-Induced Nausea and Vomiting in Adults. Vancouver, British Columbia: BC Cancer; September 1 , 2022.
8. Lee S, Lu S, Hayashi H, et al. Lazertinib Versus Osimertinib in Previously Untreated EGFR-Mutant Advanced NSCLC: A Randomized, Double-Blind, Exploratory Analysis From MARIPOSA. Journal of Thoracic Oncology ; 2025;20(11):1655
9. Cho BC, Li W, Spira AI, et al. Enhanced Versus Standard Dermatologic Management With Amivantamab-Lazertinib in EGFR-Mutated Advanced NSCLC: The COCOON Global Randomized Controlled Trial. Journal of Thoracic Oncology ; 2025;20(10):1517
10. Janssen Biotech Inc. LAZCLUZE® full prescribing information. Horsham, PA, USA; November 7, 2025.
11. Cho BC, Lu S, Felip E, et al. Amivantamab plus Lazertinib in Previously Untreated EGFR-Mutated Advanced NSCLC. N.Engl.J.Med. ; 2024;391(16):1486–1498
12. Janssen Inc Medical Information. Personal Communication. March 28, 2026.
13. UpToDate® Lexidrug: Interactions (database on the Internet). Lazertinib/Rosuvastatin. UpToDate Inc. Wolters Kluwer.; Accessed March 10, 2026. Available at: https://online-lexi-com.bccancer.idm.oclc.org/lco/action/interact



Developed: 1 May 2026
Revised: