

# LITFULO- ritlecitinib capsule

## Pfizer Laboratories Div Pfizer Inc

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### HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use LITFULO safely and effectively. See full prescribing information for LITFULO.

LITFULO™ (ritlecitinib) capsules, for oral use  
Initial U.S. Approval: 2023

#### **WARNING: SERIOUS INFECTIONS, MORTALITY, MALIGNANCY, MAJOR ADVERSE CARDIOVASCULAR EVENTS (MACE), and THROMBOSIS**

*See full prescribing information for complete boxed warning.*

- Increased risk of serious bacterial, fungal, viral, and opportunistic infections that may lead to hospitalization or death, including tuberculosis (TB). Interrupt treatment if serious infection occurs until the infection is controlled. LITFULO should not be given to patients with active tuberculosis. Test for latent TB before and during therapy; start treating latent TB prior to use. Monitor all patients for active TB during treatment, even patients with initial negative, latent TB test. (5.1). Monitor all patients for signs and symptoms of infection during and after treatment with LITFULO. (5.1)
- Higher rate of all-cause mortality, including sudden cardiovascular death with another Janus kinase inhibitor (JAK) vs. TNF blockers in rheumatoid arthritis (RA) patients. LITFULO is not approved for use in RA patients. (5.2)
- Malignancies were reported in patients treated with LITFULO (5.3). Higher rate of lymphomas and lung cancers with another JAK inhibitor vs. TNF blockers in RA patients.
- Higher rate of MACE (defined as cardiovascular death, myocardial infarction, and stroke) with another JAK inhibitor vs. TNF blockers in RA patients. (5.4).
- Thrombosis has occurred in patients treated with LITFULO. Increased incidence of pulmonary embolism, venous and arterial thrombosis with another JAK inhibitor vs. TNF blockers. (5.5)

### INDICATIONS AND USAGE

LITFULO is a kinase inhibitor indicated for the treatment of severe alopecia areata in adults and adolescents 12 years and older. (1)

Limitations of Use: Not recommended for use in combination with other JAK inhibitors, biologic immunomodulators, cyclosporine or other potent immunosuppressants (1).

### DOSAGE AND ADMINISTRATION

- For recommended testing, evaluations and immunizations prior to LITFULO initiation, see Full Prescribing Information. (2.1)
- Recommended dosage is 50 mg orally once daily. (2.2)
- For dosage interruption for certain adverse reactions, see Full Prescribing Information. (2.4)

### DOSAGE FORMS AND STRENGTHS

Capsules: 50 mg of ritlecitinib (3)

### CONTRAINDICATIONS

LITFULO is contraindicated in patients with known hypersensitivity to ritlecitinib or any of its excipients. (4)

### WARNINGS AND PRECAUTIONS

- Hypersensitivity: Discontinue LITFULO if a clinically significant hypersensitivity reaction occurs. (5.6)
- Laboratory Abnormalities: Perform ALC and platelet counts prior to LITFULO initiation. Treatment interruption or discontinuation are recommended based on ALC and platelet count abnormalities. (5.7)
- Vaccinations: Avoid use of live vaccines during or shortly prior to LITFULO treatment. (5.8)

## ADVERSE REACTIONS

Most common adverse reactions (incidence  $\geq 1\%$ ) are headache, diarrhea, acne, rash, urticaria, folliculitis, pyrexia, atopic dermatitis, dizziness, blood creatine phosphokinase increased, herpes zoster, red blood cell count decreased, and stomatitis. (6.1)

To report SUSPECTED ADVERSE REACTIONS, contact Pfizer Inc. at 1-800-438-1985 or FDA at 1-800-FDA-1088 or [www.fda.gov/medwatch](http://www.fda.gov/medwatch).

## DRUG INTERACTIONS

- Certain CYP3A substrates: Additional monitoring and dose adjustment of CYP3A substrate should be considered. (7.1)
- Certain CYP1A2 substrates: Additional monitoring and dose adjustment of CYP1A2 substrate should be considered. (7.1)
- Certain CYP3A inducers: Coadministration with strong inducers of CYP3A is not recommended. (7.2)

## USE IN SPECIFIC POPULATIONS

- Lactation: Breastfeeding not recommended. (8.2)
- Severe Hepatic Impairment: Not recommended. (8.6)

See 17 for PATIENT COUNSELING INFORMATION and Medication Guide.

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## **FULL PRESCRIBING INFORMATION**

### **WARNING: SERIOUS INFECTIONS, MORTALITY, MALIGNANCY, MAJOR ADVERSE CARDIOVASCULAR EVENTS (MACE), and THROMBOSIS**

- **Increased risk of serious bacterial, fungal, viral and opportunistic infections leading to hospitalization or death, including tuberculosis (TB). Interrupt treatment if serious infection occurs until the infection is controlled. LITFULO should not be given to patients with active tuberculosis. Test for latent TB before and during therapy; treat latent TB prior to use. Monitor all patients for active TB during treatment, even patients with initial negative, latent TB test. (5.1)**
- **Higher rate of all-cause mortality, including sudden cardiovascular death with another Janus kinase inhibitor (JAK) vs. TNF blockers in rheumatoid arthritis (RA) patients. LITFULO is not approved for use in RA patients. (5.2)**
- **Malignancies have occurred in patients treated with LITFULO [see *Warnings and Precautions (5.3)*]. Higher rate of lymphomas and lung cancers with another JAK inhibitor vs. TNF blockers in RA patients. (5.3)**
- **Higher rate of MACE (defined as cardiovascular death, myocardial infarction, and stroke) with another JAK inhibitor vs. TNF blockers in RA patients. (5.4)**
- **Thrombosis has occurred in patients treated with LITFULO. Increased incidence of pulmonary embolism, venous and arterial thrombosis with another JAK inhibitor vs. TNF blockers. (5.5)**

## 1 INDICATIONS AND USAGE

LITFULO is a kinase inhibitor indicated for the treatment of severe alopecia areata in adults and adolescents 12 years and older.

Limitations of Use: Not recommended for use in combination with other JAK inhibitors, biologic immunomodulators, cyclosporine or other potent immunosuppressants.

## 2 DOSAGE AND ADMINISTRATION

### 2.1 Recommended Evaluations and Immunizations Prior to Treatment Initiation

Perform the following evaluations prior to LITFULO initiation:

- Tuberculosis (TB) infection evaluation: LITFULO initiation is not recommended in patients with active TB. For patients with latent TB or those with a negative latent TB test who are at high risk for TB, start preventive therapy for latent TB prior to initiation of LITFULO [see *Warnings and Precautions (5.1)*].
- Viral hepatitis screening in accordance with clinical guidelines: LITFULO initiation is not recommended in patients with hepatitis B or hepatitis C [see *Warnings and Precautions (5.1)*].
- Treatment with LITFULO should not be initiated in patients with an absolute lymphocyte count (ALC)  $<500/\text{mm}^3$  or a platelet count  $<100,000/\text{mm}^3$  [see *Warnings and Precautions (5.7)*].
- Update immunizations according to current immunization guidelines [see *Warnings and Precautions (5.8)*].

### 2.2 Recommended Dosage

The recommended dosage of LITFULO is 50 mg orally once daily with or without food [see *Clinical Pharmacology (12.3)*].

Swallow capsules whole. Do not crush, split, or chew LITFULO capsules.

If a dose is missed, administer the dose as soon as possible unless it is less than 8 hours before the next dose, in which case, skip the missed dose. Thereafter, resume dosing at the regular scheduled time.

### 2.3 Patients with Severe Hepatic Impairment

LITFULO is not recommended in patients with severe (Child Pugh C) hepatic impairment [see *Use in Specific Populations (8.6)* and *Clinical Pharmacology (12.3)*].

### 2.4 Treatment Interruption or Discontinuation

If treatment interruption is indicated, a temporary treatment interruption for less than 6 weeks is not expected to result in significant loss of regrown scalp hair.

#### Hematologic Abnormalities

Recommendations for LITFULO treatment interruption or discontinuation for hematologic abnormalities are summarized in Table 1.

**Table 1. Laboratory Monitoring Guidance**

<b>Laboratory Measure</b>	<b>Recommendation</b>
Platelet Count	Treatment should be discontinued if platelet count is $<50,000/\text{mm}^3$
Lymphocytes	Treatment should be interrupted if ALC is $<500/\text{mm}^3$ and may be restarted once ALC return above this value.

ALC = absolute lymphocyte count.

ALC and platelet counts are recommended before treatment initiation and at 4 weeks after treatment initiation, and thereafter according to routine patient management [see *Warnings and Precautions (5.7)*].

### **3 DOSAGE FORMS AND STRENGTHS**

Capsules: 50 mg of ritlecitinib, size 3, opaque capsules with yellow body and blue cap. The body is printed with “RCB 50” and the cap is printed with “Pfizer” in black.

### **4 CONTRAINDICATIONS**

LITFULO is contraindicated in patients with known hypersensitivity to ritlecitinib or any of its excipients [see *Warnings and Precautions (5.6)*].

### **5 WARNINGS AND PRECAUTIONS**

#### **5.1 Serious Infections**

Serious infections have been reported in patients receiving LITFULO. The most frequent serious infections have been appendicitis, COVID-19 infection (including pneumonia), and sepsis [see *Adverse Reactions (6.1)*]. Among opportunistic infections, multi-dermatomal herpes zoster was reported with LITFULO.

Avoid use of LITFULO in patients with an active, serious infection. Consider the risks and benefits of treatment prior to initiating LITFULO in patients:

- with chronic or recurrent infection
- who have been exposed to TB
- with a history of serious infection or an opportunistic infection
- who have resided or traveled in areas of endemic TB or mycoses, or
- with underlying conditions that may predispose them to infection

Closely monitor patients for the development of signs and symptoms of infection during and after treatment with LITFULO. Interrupt LITFULO if a patient develops a serious or opportunistic infection. A patient who develops a new infection during treatment with LITFULO should undergo prompt and complete diagnostic testing appropriate for an immunocompromised patient, appropriate antimicrobial therapy should be initiated, and the patient should be closely monitored. LITFULO may be resumed once the infection is

controlled.

## Tuberculosis

Screen patients for tuberculosis (TB) before starting therapy. LITFULO should not be given to patients with active TB. Anti-TB therapy should be started prior to initiating therapy with LITFULO in patients with a new diagnosis of latent TB or previously untreated latent TB. In patients with a negative latent TB test, consider anti-TB therapy before initiating treatment with LITFULO in those at high risk and consider screening patients at high risk for TB during treatment with LITFULO.

## Viral Reactivation

Viral reactivation, including cases of herpes virus reactivation (e.g., herpes zoster), was reported in clinical trials [see *Adverse Reactions (6.1)*]. If a patient develops herpes zoster, consider interrupting treatment until the episode resolves.

Screening for viral hepatitis should be performed in accordance with clinical guidelines before starting therapy with LITFULO. Patients with evidence of HIV infection or hepatitis B or C infection were excluded from clinical trials.

## **5.2 Mortality**

In a large, randomized, postmarketing safety study of another JAK inhibitor in RA patients 50 years of age and older with at least one cardiovascular risk factor, a higher rate of all-cause mortality, including sudden cardiovascular death, was observed in patients treated with the JAK inhibitor compared with TNF blockers. Consider the benefits and risks for the individual patient prior to initiating or continuing therapy with LITFULO.

## **5.3 Malignancy and Lymphoproliferative Disorders**

Malignancies, including non-melanoma skin cancer (NMSC), were observed in clinical trials of LITFULO [see *Adverse Reactions (6.1)*].

In a large, randomized, postmarketing safety study of another JAK inhibitor in RA patients, a higher rate of malignancies (excluding non-melanoma skin cancer (NMSC)) was observed in patients treated with the JAK inhibitor compared to those treated with TNF blockers. A higher rate of lymphomas was observed in patients treated with the JAK inhibitor compared to those treated with TNF blockers. A higher rate of lung cancers was observed in current or past smokers treated with the JAK inhibitor compared to those treated with TNF blockers. In this study, current or past smokers had an additional increased risk of overall malignancies.

The risks and benefits of ritlecitinib treatment should be considered prior to initiating or continuing therapy in patients with a known malignancy other than a successfully treated NMSC or cervical cancer.

Periodic skin examination is recommended for patients who are at increased risk for skin cancer.

## **5.4 Major Adverse Cardiovascular Events (MACE)**

In a large, randomized, postmarketing safety study of another JAK inhibitor in RA patients 50 years of age and older with at least one cardiovascular risk factor, a higher rate of major adverse cardiovascular events (MACE) defined as cardiovascular death,

non-fatal myocardial infarction (MI), and non-fatal stroke was observed with the JAK inhibitor compared to those treated with TNF blockers. Patients who are current or past smokers are at additional increased risk.

Consider the benefits and risks for the individual patient prior to initiating or continuing therapy with LITFULO, particularly in patients who are current or past smokers and patients with other cardiovascular risk factors. Patients should be informed about the symptoms of serious cardiovascular events and the steps to take if they occur. Discontinue LITFULO in patients that have experienced a myocardial infarction or stroke.

### **5.5 Thromboembolic Events**

An event of pulmonary embolism (PE) was reported in a patient receiving LITFULO [see *Adverse Reactions (6.1)*]. In a ritlecitinib higher dosing group, 1 patient reported an event of retinal artery occlusion.

In a large, randomized, postmarketing safety study of another JAK inhibitor in RA patients 50 years of age and older with at least one cardiovascular risk factor, higher rates of overall thrombosis, DVT, and PE were observed compared to those treated with TNF blockers.

Avoid LITFULO in patients who may be at increased risk of thrombosis. If symptoms of thrombosis or embolism occur, patients should interrupt LITFULO and be evaluated promptly and treated appropriately.

### **5.6 Hypersensitivity**

Serious reactions including anaphylactic reactions, urticaria and rash have been observed in patients receiving LITFULO in clinical trials. If a clinically significant hypersensitivity reaction occurs, discontinue LITFULO and institute appropriate therapy [see *Adverse Reactions (6.1)*].

### **5.7 Laboratory Abnormalities**

Treatment with LITFULO was associated with decreases in lymphocytes and platelets [see *Adverse Reactions (6.1)*].

Prior to LITFULO initiation, perform ALC and platelet counts [see *Dosage and Administration (2.1)*]. After initiating treatment with LITFULO, treatment interruption or discontinuation are recommended based on ALC and platelet count abnormalities [see *Dosage and Administration (2.4)*].

**Liver Enzyme Elevations** – Treatment with LITFULO was associated with increased incidence of liver enzyme elevation compared to placebo. Increases of ALT  $\geq 5$  times the upper limit of normal (ULN) and increases of AST  $\geq 5$  times the ULN were observed in patients in LITFULO clinical trials. Evaluate at baseline and thereafter according to routine patient management. Prompt investigation of the cause of liver enzyme elevation is recommended to identify potential cases of drug-induced liver injury. If increases in ALT or AST are observed and drug-induced liver injury is suspected, interrupt LITFULO until this diagnosis is excluded.

**Creatine Phosphokinase (CPK) Elevations** – Treatment with LITFULO was associated with increased incidence of CPK elevation compared to placebo.

## 5.8 Vaccinations

No data are available on the response to vaccination in patients receiving LITFULO. Use of live attenuated vaccines should be avoided during or shortly prior to initiating treatment. Prior to initiating LITFULO, it is recommended that patients be brought up to date with all immunizations, including prophylactic herpes zoster vaccinations, in agreement with current immunization guidelines.

## 6 ADVERSE REACTIONS

The following clinically significant adverse reactions are described elsewhere in the labeling:

- Serious Infections [see Warnings and Precautions (5.1)]
- Malignancy and Lymphoproliferative Disorders [see Warnings and Precautions (5.3)]
- Thromboembolic Events [see Warnings and Precautions (5.5)]
- Hypersensitivity [see Warnings and Precautions (5.6)]
- Laboratory Abnormalities [see Warnings and Precautions (5.7)]

### 6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

The safety of LITFULO was evaluated in three randomized, placebo-controlled clinical trials and one long-term trial in subjects with alopecia areata, including alopecia totalis and alopecia universalis, who were 12 years of age and older. A total of 1628 subjects were treated with LITFULO representing 2085 subject-years of exposure. There were 1011 subjects with at least 1 year of exposure to LITFULO. In the placebo-controlled period of clinical trials in alopecia areata, a total of 668 subjects were exposed to LITFULO with 130 receiving 50 mg once daily for up to 24 weeks. The median age of subjects was 33 years, 105 (11.9%) subjects were 12 to <18 years old and 22 (2.5%) subjects were 65 years of age or older. The majority of subjects were White (70.7%) and female (63.6%).

Adverse reactions occurring at  $\geq 1\%$  in the treated groups and at a higher rate than placebo are presented in Table 2. A total of 2 (1.5%) subjects treated with LITFULO 50 mg were discontinued from the trials due to adverse reactions.

**Table 2. Adverse Reactions in Clinical Trials of LITFULO for the Treatment of Alopecia Areata\***

	<b>LITFULO 50 mg N=130 n (%)</b>	<b>Placebo N=213 n (%)</b>
Headache <sup>†</sup>	14 (10.8)	18 (8.5)
Diarrhea <sup>‡</sup>	13 (10.0)	8 (3.8)
Acne <sup>§</sup>	8 (6.2)	10 (4.7)
Rash <sup>¶</sup>	7 (5.4)	2 (0.9)

Urticaria	6 (4.6)	3 (1.4)
Folliculitis	4 (3.1)	4 (1.9)
Pyrexia	4 (3.1)	0
Dermatitis atopic	3 (2.3)	1 (0.5)
Dizziness	3 (2.3)	3 (1.4)
Blood creatine phosphokinase increased	2 (1.5)	0
Herpes zoster	2 (1.5)	0
Red blood cell count decreased	2 (1.5)	0
Stomatitis	2 (1.5)	0

\* Reported in  $\geq 1\%$  of subjects and at a higher rate than placebo for up to 24 weeks.

† Headache includes headache and migraine.

‡ Diarrhea includes diarrhea and frequent bowel movements.

§ Acne includes acne and acne pustular.

¶ Rash includes rash and dermatitis allergic.

### Specific Adverse Reactions

Exposure adjusted incidence rates were adjusted by clinical trial size for all adverse reactions reported in this section.

#### *Overall Infections*

In the placebo-controlled trials, for up to 24 weeks, overall infections were reported in 66 subjects (80.35 per 100 subject-years) treated with placebo and 43 subjects (74.53 per 100 subject-years) treated with LITFULO 50 mg. Across clinical trials, including the long-term trial, overall infections were reported in 645 subjects (50.71 per 100 subject-years) treated with LITFULO 50 mg or higher.

#### *Serious Infections*

In the placebo-controlled trials, for up to 24 weeks, 3 subjects reported serious infections across all ritlecitinib doses studied. Across clinical trials, including the long-term trial, serious infections were reported in 12 subjects (0.66 per 100 subject-years) treated with LITFULO 50 mg or higher. The most common serious infections were related to appendicitis, COVID-19 infection (including pneumonia), and sepsis.

#### *Herpes Zoster*

In the placebo-controlled trials, for up to 24 weeks, herpes zoster was reported in 4 subjects across all ritlecitinib doses studied and 0 subjects treated with placebo. Across clinical trials, including the long-term trial, herpes zoster was reported in 21 subjects (1.17 per 100 subject-years) treated with LITFULO 50 mg or higher. Opportunistic infections of multi-dermatomal herpes zoster were reported in 1 subject (0.50 per 100 subject-years) treated with the ritlecitinib higher dose in the placebo-controlled trials and 2 subjects (0.1 per 100 subject-years) treated with LITFULO 50 mg or higher in all clinical trials.

#### *Malignancy*

In the placebo-controlled trials, for up to 24 weeks, 1 malignancy (breast cancer) was reported in 1 subject (1.33 per 100 subject-years) treated with ritlecitinib higher dose

and no malignancy was reported in subjects treated with placebo. Across clinical trials, including the long-term trial, malignancies excluding NMSC were reported in 7 subjects (0.37 per 100 subject-years) treated with LITFULO 50 mg or higher.

### *Thromboembolic Events*

Across clinical trials, including the long-term trial, pulmonary embolism (PE) was reported in 1 subject (0.06 per 100 subject-years) treated with LITFULO. There was 1 report of retinal artery occlusion and 1 report of acute myocardial infarction.

### *Urticaria*

In the placebo-controlled trials, for up to 24 weeks, urticaria was reported in 28 subjects treated in all ritlecitinib doses studied and 3 subjects treated with placebo. The rate of urticaria was 8.23 per 100 subject-years in subjects treated with ritlecitinib 50 mg and 4.03 per 100 subject-years in subjects treated with placebo. Across clinical trials, including the long-term trial, urticaria was reported in 76 subjects treated with LITFULO 50 mg or higher. Among all subjects treated with ritlecitinib 50 mg or higher in the integrated safety analysis, the rate of urticaria was 4.10 per 100 subject-years. The median time to onset of an initial event was 8 weeks; median duration of urticaria was 7 days. Most of the cases were mild to moderate in severity.

### *Decreased Lymphocyte Counts*

Across clinical trials, including the long-term trial confirmed ALC  $<500/\text{mm}^3$  occurred in 1 subject ( $<0.1\%$ ) treated with LITFULO 50 mg. Age appeared to be a risk factor for lower ALC in subjects  $\geq 65$  years of age.

### *Decreased Platelet Count*

In the placebo-controlled trials, for up to 24 weeks, treatment with LITFULO was associated with a decrease in platelet count. Maximum effects on platelets were observed within 4 weeks, after which platelet count remained stable at a lower level with continued therapy. Across clinical trials, including the long-term trial, 1 subject ( $<0.1\%$ ) had a confirmed platelet count  $<100,000/\text{mm}^3$ . No subject had a confirmed platelet count  $<75,000/\text{mm}^3$ .

### *Creatine Phosphokinase (CPK) Elevations*

In the placebo-controlled trials, for up to 24 weeks, events of blood CPK increased were reported in 2 (1.5%) subjects treated with LITFULO 50 mg and 0 subjects treated with placebo.

### *Liver Enzyme Elevations*

In the placebo-controlled trials, for up to 24 weeks, events of increases in liver enzymes  $\geq 3$  times the upper limit of normal (ULN) were observed in subjects treated with LITFULO [see *Warnings and Precautions (5.7)*].

## **7 DRUG INTERACTIONS**

### **7.1 Effects of LITFULO on Other Drugs**

Table 3 includes clinically significant drug interactions affecting other drugs.

**Table 3. Clinically Significant Interactions Affecting Other Drugs**

<b>CYP3A Substrates Where Small Concentration Changes May Lead to Serious Adverse Reactions</b>	
<i>Clinical Impact</i>	Ritlecitinib is a CYP3A inhibitor. Concomitant use of ritlecitinib increases AUC and C <sub>max</sub> of CYP3A substrates [see <i>Clinical Pharmacology (12.3)</i> ], which may increase the risk of adverse reactions of these substrates.
<i>Intervention</i>	Consider additional monitoring and dosage adjustment in accordance with approved product labeling of CYP3A substrates where small concentration changes may lead to serious adverse reactions when used with LITFULO.
<b>CYP1A2 Substrates Where Small Concentration Changes May Lead to Serious Adverse Reactions</b>	
<i>Clinical Impact</i>	Ritlecitinib is a CYP1A2 inhibitor. Concomitant use of ritlecitinib increases AUC and C <sub>max</sub> of CYP1A2 substrates [see <i>Clinical Pharmacology (12.3)</i> ], which may increase the risk of adverse reactions of these substrates.
<i>Intervention</i>	Consider additional monitoring and dosage adjustment in accordance with the approved product labeling of CYP1A2 substrates where small concentration changes may lead to serious adverse reactions when used concomitantly with LITFULO.

## 7.2 Effects of Other Drugs on LITFULO

Table 4 includes clinically significant drug interactions affecting LITFULO.

**Table 4. Clinically Significant Interactions Affecting LITFULO**

<b>CYP3A Inducers</b>	
<i>Clinical Impact</i>	Concomitant use of strong CYP3A inducer (e.g., rifampin) may decrease AUC and C <sub>max</sub> of ritlecitinib [see <i>Clinical Pharmacology (12.3)</i> ], which may result in loss of or reduced clinical response.
<i>Intervention</i>	Coadministration with strong inducers of CYP3A is not recommended.

## 8 USE IN SPECIFIC POPULATIONS

## 8.1 Pregnancy

### Pregnancy Exposure Registry

If a patient becomes pregnant while receiving LITFULO, healthcare providers should report LITFULO exposure by calling 1-877-390-2940.

### Risk Summary

Available data from clinical trials with LITFULO use in pregnant women are insufficient to identify a drug-associated risk of major birth defects, miscarriage or other adverse maternal or fetal outcomes. In animal reproduction studies, oral administration of ritlecitinib to pregnant rats and rabbits during organogenesis caused fetotoxicity and fetal malformations at exposures 49 and 55 times the maximum recommended human dose (MRHD) based on area under the curve (AUC) comparison, respectively (see *Animal Data*).

The background risks of major birth defects and miscarriage for the indicated population are unknown. All pregnancies carry some risk of birth defects, loss, or other adverse outcomes. The estimated background risks in the U.S. general population of major birth defects and miscarriages are 2-4% and 15-20% of clinically recognized pregnancies, respectively.

### Data

#### *Animal Data*

In an embryo-fetal development study in pregnant rats, oral administration of ritlecitinib from gestation days 6 to 17 decreased fetal body weights and caused fetal skeletal malformations (malformed vertebrae and ribs) and variations (delayed ossification) at doses  $\geq 175$  mg/kg/day (49 times the MRHD based on AUC comparison). Maternal toxicity (lower body weights) was noted at 325 mg/kg/day (102 times the MRHD based on AUC comparison). There was no developmental toxicity at 75 mg/kg/day (16 times the MRHD based on AUC comparison).

In an embryo-fetal development study in pregnant rabbits, oral administration of ritlecitinib from gestation days 7 to 19 decreased mean fetal body weights and increased visceral malformations (malpositioned kidneys), skeletal malformations (supernumerary sternebrae, absent thoracic arch, and/or fused thoracic centra), and skeletal variations (delayed ossification) at 75 mg/kg/day (55 times the MRHD based on AUC comparison). There was no developmental toxicity at doses up to 25 mg/kg/day (12 times the MRHD based on AUC comparison).

In a pre- and postnatal development study in rats, oral administration of ritlecitinib from gestation day 6 through lactation day 20 had no effects on pre- and postnatal development at doses up to 75 mg/kg/day (14 times the MRHD based on AUC comparison). At 175 mg/kg/day (41 times the MRHD based on AUC comparison), ritlecitinib caused adverse lower postnatal survival and lower offspring body weights, which correlated with delayed sexual maturation in both sexes. Bred females in the F<sub>1</sub> generation also exhibited lower mean numbers of corpora lutea at 175 mg/kg/day.

## 8.2 Lactation

## Risk Summary

There are no data on the presence of ritlecitinib in human milk, the effects on the breastfed infant, or the effects on milk production. Ritlecitinib is present in the milk of lactating rats (*see Data*). When a drug is present in animal milk, it is likely that it will be present in human milk. Because of the serious adverse effects in adults, including risks of serious infection and malignancy, advise women not to breastfeed during treatment with LITFULO and for approximately 14 hours after the last dose (approximately 6 elimination half-lives).

## Data

After a single oral 30 mg/kg dose of ritlecitinib to lactating rats, ritlecitinib concentrations in milk over time were higher than those in plasma. The mean milk to plasma AUC ratio was 2.2.

## **8.4 Pediatric Use**

The safety and effectiveness of LITFULO for the treatment of alopecia areata have been established in pediatric patients ages 12 years and older. A total of 181 pediatric patients ages 12 to <18 years were enrolled in alopecia areata clinical trials, with 105 pediatric patients ages 12 to <18 years with alopecia areata randomized in a pivotal, double-blind, placebo-controlled trial (Trial AA-I). Efficacy was consistent between the pediatric patients and adults [*see Clinical Studies (14)*]. The adverse reaction profile in the pediatric patients was similar to adults.

The safety and efficacy of LITFULO have not been established in pediatric patients under 12 years of age.

## **8.5 Geriatric Use**

No dose adjustment is required for patients  $\geq 65$  years of age.

A total of 28 patients enrolled in alopecia areata trials were 65 years of age and older, and none were 75 years of age and older. Clinical trials of LITFULO did not include sufficient numbers of patients 65 years of age and older to determine whether they respond differently from younger adult patients.

As there is a higher incidence of infections in the elderly population in general, caution should be used when treating the elderly.

## **8.6 Hepatic Impairment**

No dose adjustment is required in patients with mild (Child Pugh A) or moderate (Child Pugh B) hepatic impairment.

LITFULO is not recommended in patients with severe (Child Pugh C) hepatic impairment [*see Dosage and Administration (2.3) and Clinical Pharmacology (12.3)*].

## **10 OVERDOSAGE**

LITFULO was administered in clinical trials up to a single oral dose of 800 mg. Adverse reactions were comparable to those seen at lower doses and no specific toxicities were identified. Pharmacokinetics (PK) data up to and including a single oral dose of 800 mg in

healthy adult volunteers indicate that more than 90% of the administered dose is expected to be eliminated within 48 hours.

There is no specific antidote for overdose with LITFULO. Treatment should be symptomatic and supportive, and monitor patients for signs and symptoms of adverse reactions [see *Clinical Trials Experience (6.1)*].

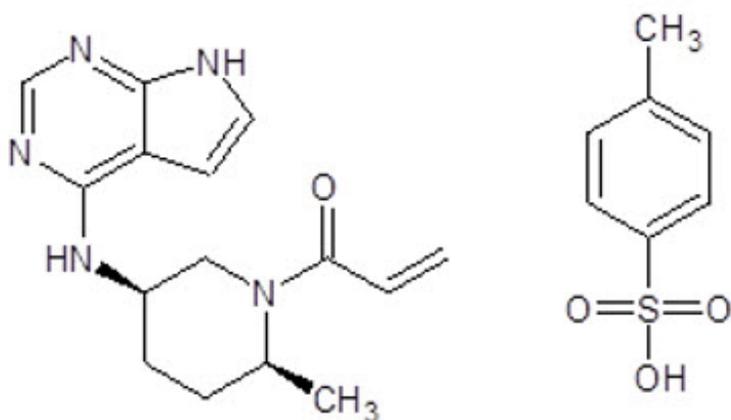
In case of an overdose, call Poison Control Center at 1-800-222-1222 for latest recommendations.

## 11 DESCRIPTION

LITFULO (ritlecitinib) capsules are formulated with ritlecitinib tosylate, a kinase inhibitor.

Ritlecitinib tosylate is a white to off white to pale pink solid which is freely soluble in water. The chemical name is 1-[(2S,5R)-2-Methyl-5-[(7H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]piperidin-1-yl]prop-2-en-1-one 4-methylbenzene-1-sulfonic acid.

The molecular formula for ritlecitinib tosylate is  $C_{22}H_{27}N_5O_4S$ . The molecular weight is 457.55 g/mol and its structural formula is:



LITFULO is supplied for oral administration as a 50 mg immediate-release capsule. Each capsule contains 50 mg ritlecitinib (equivalent to 80.13 mg ritlecitinib tosylate) and the following inactive ingredients: crospovidone, glyceryl dibehenate, lactose monohydrate, microcrystalline cellulose, and hypromellose (HPMC) capsule shells. The yellow/blue, opaque capsule shells contain Brilliant blue FCF - FD&C Blue, hypromellose, titanium dioxide, and yellow iron oxide.

## 12 CLINICAL PHARMACOLOGY

### 12.1 Mechanism of Action

LITFULO is a kinase inhibitor.

Ritlecitinib irreversibly inhibits Janus kinase 3 (JAK3) and the tyrosine kinase expressed in hepatocellular carcinoma (TEC) kinase family by blocking the adenosine triphosphate (ATP) binding site. In cellular settings, ritlecitinib inhibits cytokine induced STAT

phosphorylation mediated by JAK3-dependent receptors. Additionally, ritlecitinib inhibits signaling of immune receptors dependent on TEC kinase family members. The relevance of inhibition of specific JAK or TEC family enzymes to therapeutic effectiveness is not currently known.

## **12.2 Pharmacodynamics**

### Lymphocyte Subsets

A dose-dependent early decrease in absolute lymphocyte levels, T lymphocytes (CD3) and T lymphocyte subsets (CD4 and CD8) was associated with LITFULO treatment in patients with alopecia areata. In addition, there was a dose-dependent early decrease in NK cells (CD16/56) which remained stable at the lower level up to Week 48. For the 50 mg QD dose, there was an initial decrease in median lymphocyte levels which remained consistent up to Week 48. There was no change observed in B lymphocytes (CD19) in any treatment group.

### Cardiac Electrophysiology

At 12 times the mean maximum exposure of the 50 mg once daily dose in patients with alopecia areata, there was no clinically relevant effect on the QTc interval.

## **12.3 Pharmacokinetics**

Ritlecitinib  $AUC_{0-\tau}$  and  $C_{max}$  increase in an approximately dose-proportional manner up to 200 mg. Steady state was reached approximately by Day 4.

### Absorption

The ritlecitinib absolute oral bioavailability is approximately 64%. Ritlecitinib peak plasma concentrations were reached within 1 hour following an oral dose.

### *Effect of Food*

Food does not have a clinically significant impact on the systemic exposures of ritlecitinib. The coadministration of a 100 mg ritlecitinib capsule with a high-fat meal reduced the ritlecitinib  $C_{max}$  by ~32% and  $AUC_{inf}$  was increased by 11%. In clinical trials, ritlecitinib was administered without regard to meals [see *Dosage and Administration (2.2)*].

### Distribution

Approximately 14% of circulating ritlecitinib is bound to plasma proteins.

### Elimination

The ritlecitinib mean terminal half-life ranges from 1.3 to 2.3 hours.

### *Metabolism*

The metabolism of ritlecitinib is mediated by multiple pathways with no single route contributing to more than 25% of the total metabolism. These pathways include:

- Glutathione S-transferase (GST): cytosolic GST A1/3, M1/3/5, P1, S1, T2, Z1 and microsomal GST 1/2/3
- CYP enzymes (CYP3A, CYP2C8, CYP1A2, and CYP2C9)

## Excretion

Approximately 66% of radiolabeled ritlecitinib dose is excreted in the urine and 20% in the feces. Approximately 4% of the ritlecitinib dose is excreted unchanged drug in urine.

## Specific Populations

No clinically relevant differences in the pharmacokinetics of ritlecitinib were observed based on age (12-73 years), body weight, gender, GST genotype, and race.

### Patients with Renal Impairment

The AUC<sub>24</sub> observed in patients with severe renal impairment (eGFR <30 mL/min) was 55.2% higher compared with the AUC<sub>24</sub> in matched participants with normal renal functions. These differences are not considered clinically significant. Ritlecitinib has not been studied in patients with mild (eGFR 60 to <90 mL/min) or moderate (eGFR 30 to <60 mL/min) renal impairment, as a clinically relevant increase in ritlecitinib exposure is not expected in these patients. The eGFR and classification of renal function status of patients was done using the Modification of Diet in Renal Disease (MDRD) formula. Ritlecitinib has not been studied in patients with ESRD or in renal transplant recipients.

### Patients with Hepatic Impairment

Patients with moderate (Child Pugh B) hepatic impairment had an 18.5% increase in ritlecitinib AUC<sub>24</sub> compared to patients with normal hepatic function. Ritlecitinib has not been studied in patients with mild (Child Pugh A) hepatic impairment, as a clinically relevant increase in ritlecitinib exposure is not expected in these patients.

Ritlecitinib has not been studied in patients with severe (Child Pugh C) hepatic impairment and is not recommended for use in these patients [see *Dosage and Administration (2.3) and Use In Specific Populations (8.6)*].

## Drug Interaction Studies

### Clinical Studies

#### Effect of other drugs on ritlecitinib

The effect of coadministered drugs on the pharmacokinetics of ritlecitinib is presented in Table 5.

**Table 5. Change in Pharmacokinetics of Ritlecitinib in the Presence of Coadministered Drugs**

Coadministered Drugs	Regimen of Coadministered Drug	Dose of Ritlecitinib	Ratio* (90% Confidence Interval)	
			C <sub>max</sub>	AUC <sub>inf</sub>
Strong CYP3A inhibitor: Itraconazole†	200 mg once daily × 5 days	30 mg	1.03 (0.83, 1.27)	1.15 (1.05, 1.27)
Strong CYP enzyme inducer: Rifampin	600 mg once daily × 8 days	50 mg	0.75 (0.63, 0.89)	0.56 (0.52, 0.60)

\* Ratios for C<sub>max</sub> and AUC<sub>inf</sub> compare coadministration of ritlecitinib with the drug versus administration of ritlecitinib alone.

† Drug interaction with CYP3A inhibitor is not clinically significant.

## Effect of ritlecitinib on other drugs

The effect of ritlecitinib on the pharmacokinetics of coadministered drugs is presented in Table 6.

**Table 6. Change in Pharmacokinetics of Coadministered Drugs in the Presence of Ritlecitinib**

Coadministered Drugs	Dose Regimen of Ritlecitinib	Ratio* (90% Confidence Interval)	
		C <sub>max</sub>	AUC <sub>inf</sub>
Oral contraceptive: Ethinyl estradiol (EE) and levonorgestrel (LN) <sup>†</sup>	50 mg once daily × 11 days	EE: 0.92 (0.84, 1.01) LN: 0.80 (0.73, 0.88)	EE: 0.98 (0.91, 1.06) LN <sup>‡</sup> : 0.88 (0.83, 0.93)
Sensitive CYP3A substrate: Midazolam [see Drug Interactions (7.1)]	200 mg once daily × 11 days <sup>§</sup>	1.81 (1.48, 2.21)	2.69 (2.16, 3.36)
Sensitive CYP1A2 substrate: Caffeine [see Drug Interactions (7.1)]	200 mg once daily × 9 days <sup>§</sup>	1.10 (1.04, 1.16)	2.65 (2.34, 3.00)
Sensitive CYP2B6 substrate: Efavirenz <sup>†</sup>	200 mg once daily × 11 days <sup>§</sup>	0.88 (0.77, 1.01)	1.00 <sup>¶</sup> (0.95, 1.04)
Sensitive CYP2C substrate: Tolbutamide <sup>†</sup>	200 mg once daily × 10 days <sup>§</sup>	1.03 (0.97, 1.10)	0.99 (0.92, 1.07)
Sensitive OATP1B1, BCRP and OAT3 substrate: Rosuvastatin <sup>†</sup>	200 mg once daily × 10 days <sup>§</sup>	0.73 (0.63, 0.83)	0.87 (0.75, 1.01)
Sensitive OCT1 substrate: Sumatriptan <sup>†</sup>	400 mg single dose coadministration <sup>#</sup>	0.87 (0.73, 1.03)	1.30 (1.17, 1.44)
	400 mg single dose 8 hours prior to Sumatriptan <sup>#</sup>	1.50 (1.26, 1.78)	1.50 (1.35, 1.66)

\* Ratios for C<sub>max</sub> and AUC<sub>inf</sub> compare coadministration of the drug with ritlecitinib versus administration of the drug alone.

† Drug interactions with ritlecitinib for oral contraceptives, CYP2B6 substrates, CYP2C substrates, and substrates of OATP1B1, BCRP, OAT3, and OCT1 transporters are not clinically significant.

‡ AUC<sub>last</sub> of levonorgestrel was reported in lieu of AUC<sub>inf</sub> because the terminal phase of levonorgestrel was not well characterized.

§ Ritlecitinib dosage 4 times the approved recommended dosage.

¶ AUC<sub>0-72</sub> of efavirenz was reported

# Ritlecitinib dosage 8 times the approved recommended dosage.

## In Vitro Studies

**CYP Related Pathways:** Ritlecitinib is not an inhibitor of CYP2D6.

*Other Metabolic Pathways:* Ritlecitinib is not an inhibitor of uridine 5' diphospho glucuronosyltransferases (UGTs) (UGT1A1, UGT1A4, UGT1A6, UGT1A9, and UGT2B7), GSTs or sulfotransferases (SULTs).

*Transporter Systems:* Ritlecitinib is not an inhibitor of P-glycoprotein (P-gp) or bile salt export pump (BSEP).

## **13 NONCLINICAL TOXICOLOGY**

### **13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility**

In a 2-year rat carcinogenicity study, ritlecitinib increased the incidence of combined benign and malignant thymomas in female rats, and thyroid follicular adenomas and combined follicular adenomas and carcinomas in male rats at 100 mg/kg/day (29 times the MRHD based on AUC comparison). No ritlecitinib-related tumors were noted at doses up to 30 mg/kg/day (6.3 times the MRHD based on AUC comparison). No ritlecitinib-related tumors were noted in a 6-month Tg.rasH2 mouse carcinogenicity study at doses up to 300 mg/kg/day.

Ritlecitinib was not mutagenic in the in vitro bacterial reverse mutation assay (Ames assay). Ritlecitinib was positive in an in vitro micronucleus assay in TK6 cells. However, mechanistic studies determined that ritlecitinib is aneugenic and does not present a clinically relevant genotoxic concern. Additionally, in an in vivo rat bone marrow micronucleus assay, ritlecitinib was not aneugenic or clastogenic at doses up to 400 mg/kg/day.

Ritlecitinib had no effects on female rat fertility at doses up to 200 mg/kg/day (55 times the MRHD based on AUC comparison). Effects on male rat fertility were noted (higher preimplantation loss resulting in lower number of implantation sites and corresponding lower litter size in naïve females mated with ritlecitinib-dosed males) at 200 mg/kg/day (55 times the MRHD based on AUC comparison). No effects on male fertility were noted at doses up to 60 mg/kg/day (14 times the MRHD based on AUC comparison). No effects on spermatogenesis (sperm counts, production rate, motility, or morphology) were noted at any dose.

### **13.2 Animal Toxicology and Pharmacology**

In two 9-month oral repeat dose toxicity studies in dogs, dose-related reversible axonal dystrophy was noted in the brainstem, spinal cord, sciatic nerve, nerve branches of the vagus nerve, and myenteric/submucosal plexuses of the GI tract at doses  $\geq 20$  mg/kg/day (14 times the MRHD based on AUC comparison). At 40 mg/kg/day (33 times the MRHD based on AUC comparison), ritlecitinib-related axonal dystrophy caused adverse reversible hearing loss and waveform deficits in brainstem auditory evoked potential (BAEP) testing. BAEP deficits were first noted during Month 7 of dosing and persisted through the end of dosing. No auditory threshold deficits were noted at 6 months after the end of dosing. No BAEP deficits were noted at doses  $\leq 20$  mg/kg/day. Additional mechanistic studies provided preliminary evidence that ritlecitinib-related hearing loss was not directly caused by JAK3 or TEC family kinase inhibition, but did not identify the underlying mechanism of axonal dystrophy in dogs.

## **14 CLINICAL STUDIES**

The efficacy and safety of LITFULO were evaluated in one randomized, double-blind, placebo-controlled trial (Trial AA-I) in subjects 12 years of age and older with alopecia areata with  $\geq 50\%$  scalp hair loss, including alopecia totalis (AT) and alopecia universalis (AU).

Trial AA-I evaluated a total of 718 subjects who were randomized to one of the following treatment regimens for 48 weeks: 1) 200 mg once daily for 4 weeks followed by 50 mg once daily for 44 weeks; 2) 200 mg once daily for 4 weeks followed by 30 mg once daily for 44 weeks; 3) 50 mg once daily for 48 weeks; 4) 30 mg once daily for 48 weeks; 5) 10 mg once daily for 48 weeks; 6) placebo for 24 weeks followed by 200 mg once daily for 4 weeks and 50 mg once daily for 20 weeks; or 7) placebo for 24 weeks followed by 50 mg once daily for 24 weeks.

The recommended dose of LITFULO is 50 mg once daily and the results for this dose are discussed below.

Across all treatment groups 62% of subjects were female, 68% were White, 26% were Asian, and 4% were Black or African American. The majority of subjects (85%) were adults ( $\geq 18$  years of age) with a mean age of 33.7 years. A total of 105 (15%) subjects 12 to  $< 18$  years of age and 20 (3%) subjects 65 years of age and older were enrolled. The mean baseline Severity of Alopecia Tool (SALT) score ranged from 88.3 to 93.0 across treatment groups; among subjects without AT/AU at baseline, the mean SALT score ranged from 78.3 to 87.0. The majority of subjects had abnormal eyebrows (83%) and eyelashes (75%) at baseline across treatment groups. The median duration since alopecia areata diagnosis was 6.9 years and the median duration of the current alopecia areata episode was 2.5 years. Randomization was stratified by AT/AU status with 46% of subjects classified as AT/AU based upon a baseline SALT score of 100.

### Clinical Response

Assessment of scalp hair loss was based on the SALT score. At Week 24, a greater proportion of subjects had a SALT  $\leq 20$  response (20% or less of scalp hair loss) and SALT  $\leq 10$  response (10% or less of scalp hair loss) with LITFULO compared to placebo (Table 7). The percentage of subjects achieving SALT  $\leq 20$  response by visit is shown in Figure 1.

**Table 7. Proportion of Subjects with Response on the SALT Scale at Week 24**

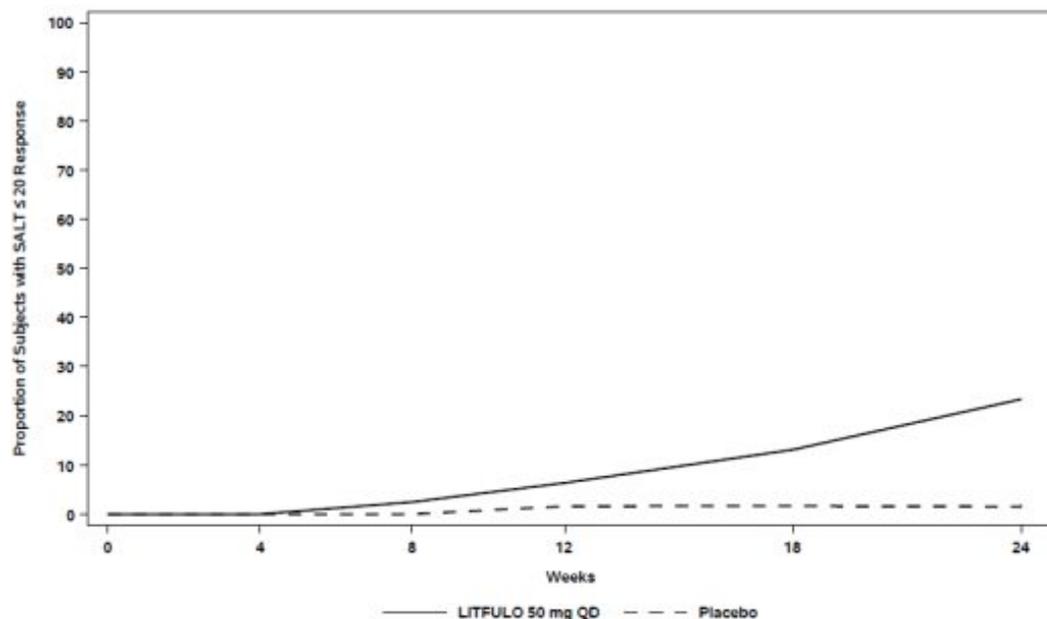
	<b>LITFULO 50 mg QD (N=130) % Responders</b>	<b>Placebo (N=131) % Responders</b>	<b>Difference from Placebo (95% CI)</b>
SALT $\leq 20$ response*	23.0	1.6	21.4 (13.4, 29.5)
SALT $\leq 10$ response†	13.4	1.5	11.9 (5.4, 18.3)

Abbreviations: CI = confidence interval; N = total number of subjects; QD = once daily; SALT = Severity of Alopecia Tool.

\* SALT  $\leq 20$  responders were subjects with scalp hair loss of  $\leq 20\%$ . SALT scores range from 0 to 100 with 0 = no scalp hair loss and 100 = total scalp hair loss.

† SALT  $\leq 10$  responders were subjects with scalp hair loss of  $\leq 10\%$ .

**Figure 1. SALT  $\leq$ 20 Response through Week 24**



Abbreviations: QD = once daily; SALT = Severity of Alopecia Tool.

## 16 HOW SUPPLIED/STORAGE AND HANDLING

LITFULO capsules are packaged in child-resistant, white, high-density polyethylene (HDPE) bottles with polypropylene (PP) cap with a foil heat induction seal liner. The bottles contain 1g of desiccant in a high-density polyethylene (HDPE) canister. Do not eat the desiccant.

Dosage Form	Strength	Description	Bottle Size (number of capsules)	NDC Number
Capsules	50 mg of ritlecitinib	Size 3, opaque capsules with yellow body and blue cap. The body is printed with "RCB 50" and the cap is printed with "Pfizer" in black.	28 count bottle	0069-0334-28

Store LITFULO at 20°C to 25°C (68°F to 77°F), excursions permitted between 15°C to 30°C (59°F to 86°F) [See USP Controlled Room Temperature]. Keep in original package.

## 17 PATIENT COUNSELING INFORMATION

Advise the patient to read the FDA-approved patient labeling (Medication Guide).

### Administration

Advise patients not to crush, split or chew LITFULO capsules [see Dosage and Administration (2.2)].

### Serious Infections

Inform patients that they may develop infections when taking LITFULO which in some cases can be serious. Instruct patients to tell their healthcare provider if they develop any signs or symptoms of an infection [see *Warnings and Precautions (5.1)*].

Advise patients that the risk of herpes zoster is increased in patients treated with LITFULO [see *Warnings and Precautions (5.1)*].

### Malignancies

Inform patients that LITFULO may increase their risk of certain cancers, including skin cancers. Periodic skin examinations are recommended while using LITFULO [see *Warnings and Precautions (5.3)*].

### Thromboembolic Events

Advise patients that events of PE and retinal artery occlusion have been reported in clinical trials with LITFULO. Instruct patients to seek immediate medical attention if they develop any signs or symptoms of a thrombosis [see *Warnings and Precautions (5.5)*].

### Hypersensitivity Reactions

Advise patients to discontinue LITFULO and seek immediate medical attention if they develop any signs and symptoms of serious allergic reaction [see *Warnings and Precautions (5.6)*].

### Laboratory Abnormalities

Inform patients that LITFULO may affect certain lab tests, and that blood tests are required before and during LITFULO treatment [see *Dosage and Administration (2.1)* and *Warnings and Precautions (5.7)*].

### Vaccinations

Advise patients that vaccination with live vaccines is not recommended during LITFULO treatment and shortly prior to LITFULO treatment. Instruct patients to inform the healthcare practitioner that they are taking LITFULO prior to a potential vaccination [see *Warnings and Precautions (5.8)*].

### Pregnancy

Advise pregnant females and females of reproductive potential to inform their healthcare providers if they are pregnant or intend to become pregnant during treatment with LITFULO. Instruct patients to report their pregnancy to Pfizer Inc. at 1-877-390-2940 [see *Use in Specific Populations (8.1)*].

### Lactation

Advise women not to breastfeed during treatment with LITFULO and for 14 hours after the last dose [see *Use in Specific Populations (8.2)*].

For Medical Information about LITFULO, please visit [www.pfizermedinfo.com](http://www.pfizermedinfo.com) or call 1-800-438-1985.



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**Medication Guide**  
**LITFULO™ (lit-FUL-oh)**  
**(ritlecitinib)**  
**capsules, for oral use**

**What is the most important information I should know about LITFULO?**

LITFULO may cause serious side effects, including:

**1. Serious infections**

LITFULO is a medicine that affects your immune system. LITFULO can lower the ability of your immune system to fight infections. Some people have had serious infections while taking LITFULO or other similar medicines, including tuberculosis (TB), and infections caused by bacteria, fungi, or viruses that can spread throughout the body and have been hospitalized. Some people taking similar medicines to LITFULO have died from these infections.

- Your healthcare provider should test you for TB before starting treatment with LITFULO.
- Your healthcare provider should watch you closely for signs and symptoms of TB during treatment with LITFULO.

You should not start taking LITFULO if you have any kind of infection unless your healthcare provider tells you it is okay.

You may be at a higher risk of developing shingles (herpes zoster).

**Before starting LITFULO, tell your healthcare provider if you:**

- are being treated for an infection.
- have an infection that has not gone away or that keeps coming back.
- have diabetes, chronic lung disease, HIV, or a weak immune system.
- have TB or have been in close contact with someone with TB.
- have had shingles (herpes zoster).
- have had hepatitis B or hepatitis C.
- live or have lived or have traveled to certain parts of the country (such as the Ohio and Mississippi River valleys and the Southwest) where there is an increased chance for getting certain kinds of fungal infections. These infections may happen or become more severe if you use LITFULO. Ask your healthcare provider if you do not know if you have lived in an area where these infections are common.
- think you have an infection or have symptoms of an infection such as:

- o fever, sweating, or
- o blood in your phlegm
- o diarrhea or stomach

- o chills
- o muscle aches
- o cough or shortness of breath
- o weight loss
- o warm, red, or painful skin or sores on your body
- o pain
- o burning when you urinate or urinating more often than usual
- o feeling very tired

After starting LITFULO, call your healthcare provider right away if you have any symptoms of an infection. LITFULO can make you more likely to get infections or make any infections that you have worse. If you get a serious infection, your healthcare provider may stop treatment with LITFULO until your infection is controlled.

**2. Increased risk of death in people 50 years of age and older who have at least 1 heart disease (cardiovascular) risk factor and are taking a medicine in the class of medicines called Janus kinase (JAK) inhibitors. LITFULO is a kinase inhibitor medicine.**

### **3. Cancer and immune system problems**

LITFULO may increase your risk of certain cancers by changing the way your immune system works.

- Lymphoma and other cancers, including skin cancers, can happen in people taking LITFULO.
- People taking a medicine in the class of medicines called JAK inhibitors have a higher risk of certain cancers including lymphoma and lung cancer, especially if you are current or past smoker.
- Follow your healthcare provider's advice about having your skin checked for skin cancer during treatment with LITFULO.

Tell your healthcare provider if you have ever had any type of cancer.

**4. Increased risk of major cardiovascular events such as heart attack, stroke, or death in people 50 years of age and older who have at least 1 heart disease (cardiovascular) risk factor and taking a medicine in the class of medicines called JAK inhibitors, especially if you are a current or past smoker.**

**Get emergency help right away** if you have any symptoms of a heart attack or stroke while using LITFULO, including:

- discomfort in the center of your chest that lasts for more than a few minutes, or that goes away and comes back
- severe tightness, pain, pressure, or heaviness in your chest, throat, neck, or jaw
- pain or discomfort in your arms, back, neck, jaw, or stomach
- shortness of breath with or without chest discomfort
- breaking out in a cold sweat
- nausea or vomiting
- feeling lightheaded
- weakness in one part or on one side of your body
- slurred speech

### **5. Blood clots**

Blood clots in the veins of your legs (deep vein thrombosis, DVT), lungs (pulmonary embolism, PE), or eyes can happen in some people taking LITFULO. This may be life-threatening. Blood clots in the veins of the legs (deep vein thrombosis, DVT) and lungs (pulmonary embolism, PE) have happened more often in people who are 50 years of age and older with at least 1 heart disease (cardiovascular) risk factor taking a medicine in the class of medicines called JAK inhibitors.

- Tell your healthcare provider if you have had blood clots in the past.
- Stop taking LITFULO and get medical help right away if you have any signs and symptoms of blood clots during treatment with LITFULO, including:
  - o swelling, pain or tenderness in one or both legs
  - o sudden, unexplained chest or upper back pain
  - o shortness of breath or difficulty breathing
  - o changes in vision, especially in one eye only

## 6. Allergic reactions

Symptoms that may mean you are having an allergic reaction have been seen during treatment with LITFULO. Some of these reactions were serious. Stop taking LITFULO and get emergency medical help right away if you have symptoms of allergic reaction, including:

- hives
- rash
- trouble breathing
- feeling faint or dizzy
- swelling of your lips, tongue, or throat

## 7. Changes in certain laboratory test results

Your healthcare provider should do blood tests before you start taking LITFULO and during treatment to check for the following:

- **low lymphocyte count.** Lymphocytes are white blood cells that help the body fight off infections.
- **low platelet count.** Platelets help form clots and stop or prevent bleeding.
- **elevated liver enzymes.** Liver enzymes help to tell if your liver is functioning normally. Elevated liver enzymes may indicate that your healthcare provider needs to do additional tests on your liver.
- **increased creatine phosphokinase (CPK).** Increased CPK levels in the blood are common with LITFULO and can also be severe.

You should not take LITFULO if your lymphocyte counts or platelet counts are too low or your liver tests are too high. Your healthcare provider may stop your LITFULO treatment for a period of time if needed because of changes in these blood test results. See "**What are the possible side effects of LITFULO?**" for more information about side effects.

## What is LITFULO?

LITFULO is a prescription medicine that is a kinase inhibitor. LITFULO is used to treat an immune system problem that causes severe hair loss (alopecia areata) in adults and children 12 years and older.

It is not known if LITFULO is safe and effective in children under 12 years of age.

**Before taking LITFULO, tell your healthcare provider about all of your medical conditions, including if you:**

- See "**What is the most important information I should know about LITFULO?**"
- have an infection
- are a current or past smoker
- have had a heart attack, other heart problems, or stroke
- have liver problems
- have low platelet counts or white blood cell counts
- have recently received or are scheduled to receive an immunization (vaccine). People who take LITFULO should not receive live vaccines during treatment or right before starting treatment with LITFULO.
- are pregnant or plan to become pregnant. It is not known if LITFULO will harm your unborn baby.

**Females who are able to become pregnant:**

- o Tell your healthcare provider if you are pregnant or plan to become pregnant during treatment with LITFULO.
- o There is a pregnancy registry for people who take LITFULO during pregnancy. Report pregnancies to Pfizer Inc. at 1-877-390-2940.
- are breastfeeding or plan to breastfeed. It is not known if LITFULO passes into your breast milk. Do not breastfeed during treatment with LITFULO and for 14 hours after your last dose of LITFULO. Talk to your healthcare provider about the best way to feed your baby during treatment with LITFULO.

**Tell your healthcare provider about all the medicines you take**, including prescription and over-the-counter medicines, vitamins, and herbal supplements. LITFULO and other medicines may affect each other causing side effects. Know the medicines you take. Keep a list of them to show your healthcare provider and pharmacist whenever you get a new medicine.

**How should I take LITFULO?**

- Take LITFULO exactly as your healthcare provider tells you to take it.
- Take LITFULO 1 time each day, with or without food.
- Swallow LITFULO capsules whole. Do not crush, split, or chew the capsules.
- If you miss a dose of LITFULO, take the missed dose as soon as you remember. If it is less than 8 hours before your next scheduled dose of LITFULO, skip the missed dose and take the next dose at your usual time.

If you take too much LITFULO, call the Poison Control Center at 1-800-222-1222 or go to the nearest hospital emergency room right away.

**What are the possible side effects of LITFULO?**

**LITFULO may cause serious side effects, including:**

See "**What is the most important information I should know about LITFULO?**"

**The most common side effects of LITFULO include:**

- |            |                                      |                                   |
|------------|--------------------------------------|-----------------------------------|
| • headache | • hives                              | • dizziness                       |
| • diarrhea | • inflamed hair pores (folliculitis) | • shingles                        |
| • acne     | • fever                              | • decreased red blood cell counts |
| • rash     |                                      |                                   |

- eczema
- mouth sores, redness and swelling of the lining of your mouth

These are not all the possible side effects of LITFULO.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

You may also report side effects to Pfizer at 1-800-438-1985.

### **How should I store LITFULO?**

- Store LITFULO at room temperature between 68°F to 77°F (20°C to 25°C).
- Keep LITFULO in the original package.
- The LITFULO bottle has a child resistant closure and contains a cannister with a drying agent (desiccant). Do not eat the desiccant.

### **Keep LITFULO and all medicines out of the reach of children.**

#### **General information about the safe and effective use of LITFULO.**

Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. Do not use LITFULO for a condition for which it was not prescribed. Do not give LITFULO to other people, even if they have the same symptoms you have. It may harm them. You can ask your pharmacist or healthcare provider for information about LITFULO that is written for health professionals.

#### **What are the ingredients in LITFULO?**

**Active ingredient:** ritlecitinib

**Inactive ingredients:** crospovidone, glyceryl dibehenate, lactose monohydrate, microcrystalline cellulose, and hypromellose (HPMC) capsule shells. The yellow/blue, opaque capsule shells contain Brilliant blue FCF - FD&C Blue, hypromellose, titanium dioxide, and yellow iron oxide.



Distributed by  
**Pfizer Labs**  
Division of Pfizer Inc.  
New York, NY 10001

LAB-1525-1.0

This Medication Guide has been approved by the U.S. Food and Drug Administration.

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## **PRINCIPAL DISPLAY PANEL - 50 mg Capsule Bottle Label**

ALWAYS DISPENSE WITH MEDICATION GUIDE

Pfizer  
NDC 0069-0334-28

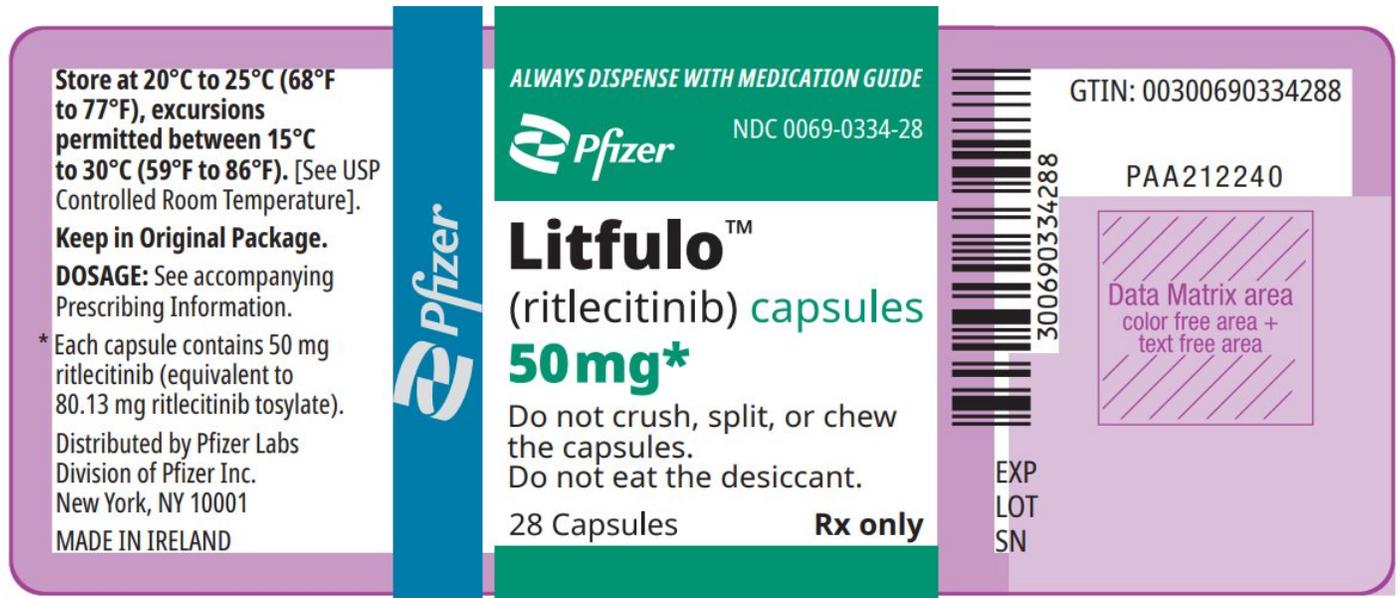
Litfulo™  
(ritlecitinib) capsules

50 mg\*

Do not crush, split, or chew the capsules.

Do not eat the desiccant.

28 Capsules Rx only



## LITFULO

ritlecitinib capsule

### Product Information

<b>Product Type</b>	HUMAN PRESCRIPTION DRUG	<b>Item Code (Source)</b>	NDC:0069-0334
<b>Route of Administration</b>	ORAL		

### Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
RITLECITINIB TOSYLATE (UNII: EAG4T1459K) (RITLECITINIB - UNII: 2OYE00PC25)	RITLECITINIB	50 mg

### Inactive Ingredients

Ingredient Name	Strength
CROSPVIDONE, UNSPECIFIED (UNII: 2S7830E561)	
GLYCERYL DIBEHENATE (UNII: R8WTH25YS2)	
LACTOSE MONOHYDRATE (UNII: EWQ57Q8I5X)	
MICROCRYSTALLINE CELLULOSE (UNII: OP1R32D61U)	
HYPROMELLOSE, UNSPECIFIED (UNII: 3NXW29V3WO)	
FD&C BLUE NO. 1 (UNII: H3R47K3TBD)	
TITANIUM DIOXIDE (UNII: 15FIX9V2JP)	
FERRIC OXIDE YELLOW (UNII: EX438O2MRT)	

## Product Characteristics

<b>Color</b>	YELLOW (body) , BLUE (cap)	<b>Score</b>	no score
<b>Shape</b>	CAPSULE	<b>Size</b>	16mm
<b>Flavor</b>		<b>Imprint Code</b>	RCB;50;Pfizer
<b>Contains</b>			

## Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:0069-0334-28	28 in 1 BOTTLE; Type 0: Not a Combination Product	07/06/2023	

## Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
NDA	NDA215830	07/06/2023	

**Labeler** - Pfizer Laboratories Div Pfizer Inc (134489525)

**Registrant** - Pfizer Inc (113480771)

## Establishment

Name	Address	ID/FEI	Business Operations
Pfizer Ireland Pharmaceuticals Unlimited Company		985052076	ANALYSIS(0069-0334) , API MANUFACTURE(0069-0334)

## Establishment

Name	Address	ID/FEI	Business Operations
Pfizer Manufacturing Deutschland GmbH		341970073	ANALYSIS(0069-0334) , MANUFACTURE(0069-0334) , PACK(0069-0334) , LABEL(0069-0334)

## Establishment

Name	Address	ID/FEI	Business Operations
Pfizer Inc		943955690	ANALYSIS(0069-0334)

Revised: 5/2025

Pfizer Laboratories Div Pfizer Inc