NEXTSTEPS IN DERM | GW School of Medicine & Health Sciences

Ritlecitinib Therapeutic Cheat Sheet

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TRADE NAME[1]

- Litfulo

MECHANISM OF ACTION

- Janus kinases (JAKs) phosphorylate signal transducers and activators of transcription (STATs), leading to downstream expression of proinflammatory cytokines, such as interferon (IFN)-γ and interleukin (IL)-15.[2]
- Tyrosine kinase expressed in hepatocellular carcinoma (TEC) family kinases, such as interleukin-2-inducible T-cell kinase (ITK), are involved in downstream signaling of T cell receptors, which can be inappropriately activated by autoreactive CD8 T cells.
- Ritlecitinib selectively inhibits JAK3 and ITK of the TEC family.[1]

FDA-APPROVED FOR[1]

- Alopecia areata with a Severity of Alopecia Tool (SALT) Score of ≥ 50, in patients ≥ 12 years of age

OFF-LABEL DERMATOLOGIC USES

- Vitiligo[3,4]

ORAL DOSING[1]

- 50 mg once daily

ADMINISTRATION CONSIDERATIONS

- Avoid live vaccines immediately preceding and after treatment[1]
- Administer prophylactic herpes zoster vaccine
- Treatment regimen interruption less than 6 weeks has not been associated with loss of scalp hair regrowth[1]
- In addition to SALT score, document quality of life and psychosocial morbidity with the Alopecia Areata Severity and Morbidity Index (ASAMI)[5]

SIDE EFFECTS

- **Black box warnings:** In patients with rheumatoid arthritis (RA), treated with a separate JAK inhibitor, increased rate of sudden cardiovascular death, myocardial infarction, stroke, lymphoma, and lung cancer, along with increased incidence of pulmonary embolism, venous and arterial thrombosis, were observed when compared to patients with RA treated with TNF blockers.1 Notably, the patients in that study were 50 years of age and older, had used methotrexate for RA, and had at least 1 cardiovascular risk factor.
- From the 3 placebo-controlled RCTs and 1 long-term trial for alopecia areata specifically (n = 1628), 15 cases of serious infections (appendicitis, COVID-19, multi-dermatomal herpes zoster), 8 cases of malignancies, 1 case of pulmonary embolism, 1 case of retinal artery occlusion, and 1 case of acute myocardial infarction were reported.[6-8]
- Most common: headache, diarrhea, acne, urticaria, folliculitis, herpes zoster.[6-8]

DRUG INTERACTIONS[1]

- As ritlecitinib is a CYP3A inducer, avoid concomitant use with moderate and strong CYP3A inducers, such as carbamazepine, phenobarbital, phenytoin, rifampin, rifabutin, efavirenz, and St. John's Wort.
- Systemic medications metabolized by CYP3A include, but are not limited to, alprazolam, amlodipine, apixaban, atorvastatin, bexarotene, bupropion, carbamazepine, clopidogrel, cyclosporine, diltiazem, dutasteride, finasteride, lovastatin, midazolam, oxybutynin, pimozide, simvastatin, tacrolimus, tamsulosin, and zolpidem.

CONTRAINDICATIONS[1]

- Absolute contraindication of known hypersensitivity to ritlecitinib
- Discontinue if platelet count is <50,000/mm^3
- Discontinue if absolute lymphocyte count is <500/mm^3

PREGNANCY AND BREASTFEEDING[1]

- Fetotoxic and teratogenic in rat and rabbit models at 49 times the maximum human dose.
- Patients of reproductive potential: recommend effective contraception during treatment.
- Avoid breastfeeding during treatment + at least 14 hours after last dose
- Report any pregnancies within these parameters to Pfizer, Inc. at 1-877-390-2940.

MONITORING

- Baseline Labs:[1]
  - b-HCG if with reproductive potential, with counseling to use effective contraception during treatment
  - Hep B and C screening
  - QuantiFERON-TB Gold+
  - CBC for platelets and absolute lymphocyte count
  - Liver enzymes, lipid panel
  - CPK elevated in the RCTs, without muscle aches or spasms as a frequently reported side effect
- Periodic monitoring:
  - Repeat CBC for platelets and absolute neutrophil count 1 month after initiation[1]
  - Repeat liver enzymes, lipid panel 3 months after initiation, then as needed
  - Annual QuantiFERON-TB Gold+

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