Voclosporin (Lupkynis®)

Voclosporin is a calcineurin-inhibitor immunosuppressant indicated in combination with a background immunosuppressive therapy regimen for the treatment of adult patients with active lupus nephritis (LN).

Resources from Manufacturer

Patient Medication Guide

Full Prescribing Information

LUPKYNIS® Start Form

LUPKYNIS® Start Form Guide

Indications and Dosing in Rheumatology

Indications:

- Voclosporin is indicated in combination with a background immunosuppressive therapy regimen for the treatment of adult patients with active lupus nephritis (LN).
  - ❏ Limitations of Use: Safety and efficacy of voclosporin have not been established in combination with cyclophosphamide. Use of voclosporin is not recommended in this situation.

Dosing:

- Before initiating voclosporin, establish an accurate baseline estimated glomerular filtration rate (eGFR) and check blood pressure (BP).
  - ❏ Use of voclosporin is not recommended in patients with a baseline eGFR ≤45 mL/min/1.73 m2 unless the benefit exceeds the risk; these patients may be at increased risk for acute and/or chronic nephrotoxicity.
  - ❏ Do not initiate voclosporin in patients with baseline BP >165/105 mmHg or with hypertensive emergency.
- Use voclosporin in combination with mycophenolate mofetil (MMF) and corticosteroids
- Recommended starting dose: 23.7 mg orally, twice a day.
- Modify the voclosporin dose based on eGFR:
  - ❏ Assess eGFR every two weeks for the first month, every four weeks through the first year, and quarterly thereafter.
  - ❏ If eGFR <60 mL/min/1.73 m2 and reduced from baseline by >20% and <30%, reduce the dose by 7.9 mg twice a day. Re- assess eGFR within two weeks; if eGFR is still reduced from baseline by >20%, reduce the dose again by 7.9 mg twice a day.
  - ❏ If eGFR <60 mL/min/1.73 m2 and reduced from baseline by ≥30%, discontinue voclosporin. Re-assess eGFR within two weeks; consider re-initiating voclosporin at a lower dose (7.9 mg twice a day) only if eGFR has returned to ≥80% of baseline.
  - ❏ For patients that had a decrease in dose due to eGFR, consider increasing the dose by 7.9 mg twice a day for each eGFR measurement that is ≥80% of baseline; do not exceed the starting dose.
- Monitor BP every two weeks for the first month after initiating voclosporin, and as clinically indicated thereafter. For patients with BP >165/105 mmHg or with hypertensive emergency, discontinue voclosporin and initiate antihypertensive therapy.
- If the patient has not experienced therapeutic benefit by 24weeks, consider discontinuation of voclosporin.

Indications and Dosing in Rheumatology *continued*

Dosage Adjustments:

- Patients with severe renal impairment: the recommended dose is 15.8 mg twice daily.
- Patients with mild and moderate hepatic impairment: the recommended dose is 15.8 mg twice daily.

Contraindications

- Patients concomitantly using strong CYP3A4 inhibitors (e.g., ketoconazole, itraconazole, clarithromycin),
- Known serious or severe hypersensitivity reaction to voclosporin or any of its excipients.

Black Box Warnings

- Malignancies and serious infections: increased risk for developing serious infections and malignancies with voclosporin or other immunosuppressants that may lead to hospitalization or death.

Warnings and Precautions

- Lymphoma and other malignancies: Immunosuppressants, including voclosporin, increase the risk of developing lymphomas and other malignancies, particularly of the skin. The risk appears to be related to the intensity and duration of immunosuppression rather than to the use of any specific agent. Examine patients for skin changes and advise to avoid or limit sun exposure and to avoid artificial UV light (tanning beds, sun lamps) by wearing protective clothing and using a broad spectrum sunscreen with a high protection factor (SPF 30 or higher).
- Serious infections: Immunosuppressants, including voclosporin, increase the risk of developing bacterial, viral, fungal, and protozoal infections, including opportunistic infections. These infections may lead to serious, including fatal, outcomes. Viral infections reported include cytomegalovirus and herpes zoster infections. Monitor for the development of infection. Consider the benefits and risks for the individual patient; use the lowest effective dose needed to maintain response.
- Nephrotoxicity (acute and/or chronic): May occur due to voclosporin or concomitant nephrotoxic drugs. Monitor renal function; consider dosage reduction.
- Hypertension: May require antihypertensive therapy; monitor relevant drug interactions.
- Neurotoxicity: Including risk of posterior reversible encephalopathy syndrome (PRES); monitor for neurologic abnormalities; reduce dosage or discontinue voclosporin.
- Hyperkalemia: Risk may be increased with other agents associated with hyperkalemia; monitor serum potassium levels
- QT Prolongation: Consider obtaining electrocardiograms and monitoring electrolytes in patients at high risk.
- Immunizations: Avoid live vaccines
- Pure Red Cell Aplasia: Consider discontinuation.

Adverse Reactions (>10%)

The most commonly reported adverse reactions (≥3%) were: glomerular filtration rate decreased, hypertension, diarrhea, headache, anemia, cough, urinary tract infection, abdominal pain upper, dyspepsia, alopecia, renal impairment, abdominal pain, mouth ulceration, fatigue, tremor, acute kidney injury, and decreased appetite.

ACR/ARP Medication Guide

American College of Rheumatology
Empowering Rheumatology Professionals

Association of Rheumatology Professionals
The Interprofessional Division of the American College of Rheumatology

Other Considerations

- Pregnancy: May cause fetal harm.
- Renal Impairment: Use of voclosporin is not recommended in patients with a baseline eGFR ≤45 mL/min/1.73 m2 unless the benefit exceeds the risk. If used in patients with severe renal impairment at baseline, voclosporin should be used at a reduced dose.
- Hepatic Impairment:
  - ❏ Mild and moderate hepatic impairment: Dose reduction is required.
  - ❏ Severe hepatic impairment: Avoid voclosporin use.

Medication Strength and Preparations

Voclosporin capsules are each 7.9 mg. Four individual 3 × 5 blister strips are assembled into a cardboard wallet.

Medication Administration and Storage

Administration:

- Voclosporin must be swallowed whole on an empty stomach.
- Administer consistently as close to a 12-hour schedule as possible, and with at least 8 hours between doses.
- If a dose is missed, instruct the patient to take it as soon as possible within 4 hours after missing the dose. Beyond the 4-hour time frame, instruct the patient to wait until the usual scheduled time to take the next regular dose. Instruct the patient not to double the next dose.
- Instruct patients to avoid eating grapefruit or drinking grapefruit juice while taking voclosporin.

Storage

- Store at controlled room temperature 20°C to 25°C (68°F to 77°F); excursions permitted to 15°C to 30°C (59°F to 86°F).
- Do not put voclosporin in another container. Keep capsules in their original packaging until ready to be taken.

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