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5.01.022

Section:	Prescription Drugs	**Effective Date:**	January 1, 2025
Subsection:	Anti-Infective Agents	**Original Policy Date:**	May 1, 2012
Subject:	Valcyte	**Page:**	1 of 6

Last Review Date: December 13, 2024

Valcyte

Description

Valcyte (valganciclovir)

Background
Valcyte (valganciclovir) is an orally administered antiviral prodrug with no antiviral activity until converted in the body to ganciclovir. Ganciclovir is used in the treatment of Cytomegalovirus (CMV) by interfering with DNA synthesis (1).

Regulatory Status
FDA-approved indications: Valcyte is a deoxynucleoside analogue cytomegalovirus (CMV) DNA polymerase inhibitor indicated for: (1)

Adult Patients

1. Treatment of Cytomegalovirus (CMV) Retinitis in patients with acquired immunodeficiency syndrome (AIDS).

2. Prevention of CMV Disease in kidney, heart, or kidney-pancreas transplant patients at high risk (Donor CMV seropositive/Recipient CMV seronegative [D+/R-]).

Pediatric Patients

1. Prevention of CMV Disease in kidney transplant patients (4 months to 16 years of age) and heart transplant patients (1 month to 16 years of age) at high risk.

Off-Label Uses**:** (2-3).

- Treatment of cytomegalovirus (CMV) disease in symptomatic patients
- Prevention of CMV infection in post-hematopoietic stem cell transplant (HSCT)

- Prevention of CMV infection in post solid organ transplant (including liver or lung)

Adult patients should use Valcyte tablets, not Valcyte for oral solution. Both the tablets and solution are indicated in pediatric patients (1).

Cytomegalovirus (CMV) infections are among the most common infections that occur following solid organ transplantation. Organ transplant recipients at highest risk of CMV infection are those who are seronegative before transplantation and receive an organ from a seropositive donor (a combination commonly referred to as donor-positive/ recipient-negative [D^+/R^-]); in these patients, latent CMV can be transmitted with the organ and subsequently reactivate, causing *de novo* or primary infection. The incidence of CMV disease in D^-/R^- transplantations is <5% (4).

Valcyte has a boxed warning regarding hematologic toxicity, carcinogenicity, teratogenicity, and impairment of fertility. Clinical toxicity of Valcyte includes leukopenia, neutropenia, anemia, thrombocytopenia, pancytopenia, and bone marrow failure including aplastic anemia (1).

Valcyte should be avoided if the absolute neutrophil count is <500 cells/µL, the platelet count is <25,000/µL, or the hemoglobin is <8 g/dL (1).

Use with caution in patients with pre-existing cytopenias, or who have received or who are receiving myelosuppressive drugs or irradiation. Cytopenia may occur at any time during treatment and may worsen with continued dosing. Cell counts usually begin to recover within 3 to 7 days after discontinuing drug (1).

Advise female patients of reproductive potential to use effective contraception during treatment and for at least 30 days following treatment with Valcyte. Advise male patients to practice barrier contraception during and for at least 90 days following treatment with Valcyte (1).

Acute renal failure may occur in elderly patients with or without reduced renal function, patients receiving concomitant nephrotoxic drugs, or patients without adequate hydration. Monitor CBC with differential, platelets, ophthalmic, and renal function. Patients must maintain adequate hydration (1).

Maribavir may inhibit the antiviral activity of valganciclovir due to its mechanism of action, and therefore coadministration should be avoided (5).

Related policies

Livtencity, Prevymis

Policy

This policy statement applies to clinical review performed for pre-service (Prior Approval, Precertification, Advanced Benefit Determination, etc.) and/or post-service claims.

Valcyte may be considered **medically necessary** if the conditions indicated below are met.

Valcyte may be considered **investigational** for all other indications.

Prior-Approval Requirements

Patients with an HIV diagnosis (one or more anti-retroviral claims in the last 12 months) are exempt from these Prior Authorization (PA) requirements.

Diagnoses

Patient must have **ONE** of the following:

1. ***Treatment*** of Cytomegalovirus (CMV) disease in symptomatic patients

2. ***Prevention*** (either prophylaxis or preemptive therapy) of CMV disease in patients who are:

   AND ONE of the following:
   a. Post solid organ transplant (including heart, liver, lung, kidney, or kidney-pancreas)
   b. Post hematopoietic stem cell transplant (HSCT)

   AND NOT the following:
   a. CMV sero-negative recipient of solid organ transplant from a CMV sero-negative donor (R-/D-)

AND ALL of the following for **BOTH** diagnoses:
1. Absolute neutrophil count (ANC) ≥ 500 cells/µL
2. Platelet count ≥ 25,000/µL
3. Hemoglobin ≥ 8 g/dL
4. **NO** concurrent therapy with maribavir

Prior – Approval *Renewal* Requirements

Diagnoses

Patient must have **ONE** of the following:

1. ***Treatment*** of Cytomegalovirus (CMV) disease in symptomatic patients

2. ***Prevention*** (either prophylaxis or preemptive therapy) of CMV disease in patients who are:

   AND ONE of the following:
   a. Post solid organ transplant (including heart, liver, lung, kidney, or kidney-pancreas)
   b. Post hematopoietic stem cell transplant (HSCT)

AND ALL of the following for **BOTH** diagnoses:
1. Absolute neutrophil count (ANC) ≥ 500 cells/μL
2. Platelet count ≥ 25,000/μL
3. Hemoglobin ≥ 8 g/dL
4. **NO** concurrent therapy with maribavir

Policy Guidelines

Patients with an HIV diagnosis (one or more anti-retroviral claims in the last 12 months) are exempt from these Prior Authorization (PA) requirements.

Pre - PA Allowance

None

Prior - Approval Limits

Duration 12 months

Prior – Approval *Renewal* Limits

Same as above

Rationale

Summary
Valcyte (valganciclovir) is an orally administered antiviral prodrug with no antiviral activity until converted in the body to ganciclovir. Valcyte is used for the treatment of Cytomegalovirus (CMV) disease in symptomatic patients, or for the prevention of CMV disease in patients who are post solid organ transplant (including heart, liver, lung, kidney, or kidney-pancreas), or post hematopoietic cell transplant (HCT) (1-3).

Prior authorization is required to ensure the safe, clinically appropriate, and cost-effective use of Valcyte while maintaining optimal therapeutic outcomes.

References

1. Valcyte [prescribing information]. South San Francisco, CA: Genentech USA, Inc.; December 2021.
2. Personal Communication, Gerald Medoff, MD, Infectious Diseases, Washington University Hospital, March 1, 2012, for treatment of symptomatic CMV infection, and off-label use post-transplant by recipients of lung and liver transplants.
3. Ljungman, Per, Morgan Hakki, and Michael Boeckh. “Cytomegalovirus in Hematopoietic Stem Cell Transplant Recipients.” *Hematology/Oncology Clinics of North America* 25.1 (2011): 151–169. *PMC*. Web. 18 Aug. 2017.
4. Kotton CN, Kumar D, Caliendo AM, et al. International consensus guidelines on the management of cytomegalovirus in solid organ transplantation. *Transplantation*. 2010;89:779.
5. Livtencity [package insert]. Lexington, MA: Takeda Pharmaceuticals U.S.A., Inc.; November 2021.

Policy History

Date	Action	Reason
June 2012	New Addition Off-label: Added lung and liver to post solid organ transplant	
March 2013	Annual editorial review	
June 2014	Annual editorial review	
March 2015	Annual editorial review and reference update Policy code changed from 5.03.22 to 5.01.22	
December 2017	Annual editorial review and reference update Addition of the labs in the renewal section	
March 2018	Annual review	
December 2019	Annual review and reference update	

December 2020	Annual review and reference update
December 2021	Annual review and reference update
March 2022	Annual editorial review and reference update. Addition of requirement of "no concurrent therapy with maribavir"
June 2023	Annual review. Changed policy number to 5.01.022
June 2024	Annual review
August 2024	Revised requirements for ANC, platelets, and hemoglobin
December 2024	Annual review

Keywords

This policy was approved by the FEP® Pharmacy and Medical Policy Committee on December 13, 2024 and is effective on January 1, 2025.