Summary of Product Characteristics

1. Name of the medicinal product:

GLOVIRAX Ophthalmic Gel 0.15% w/w

2. Qualitative and Quantitative composition:

Each collapsible tube contains:
Ganciclovir USP .....0.15% w/w

Excipients with known effect:
Benzalkonium Chloride USP 0.01% w/w
For a full list of excipients, see section 6.1.

3. Pharmaceutical Form

Ophthalmic Gel

Clear, colourless gel filled in an aluminium collapsible tube.

4. Clinical Particulars:

4.1 Therapeutic Indications

Treatment of acute herpetic keratitis (dendritic and geographic ulcers).

4.2 Posology and method of administration

Apply a film of gel in the inferior conjunctival sac of the eye to be treated, 5 times a day until complete corneal re-epithelialisation. Then 3 instillations a day for 7 days after healing. The treatment does not usually exceed 21 days.

Use in the elderly:
The dosage in the elderly is the same as in adults (see above). There is no need to adjust the dosage in the elderly as in clinical trials patients up to the age of 85 years have been treated and no specific health concerns were observed.

Use in children:
Use of this product in children under 18 years is not recommended since no specific studies have been conducted.

Method of administration

Ocular instillation.

4.3 Contraindications

Hypersensitivity to ganciclovir or acyclovir or to any of the excipients.

4.4 Special warnings and precautions for use

This medicinal product is not indicated in the treatment of cytomegalovirus (CMV) retina infections.
Efficacy in other viral types of keratoconjunctivitis has not been demonstrated. No specific clinical studies were performed in

immunodepressed subjects.
This medicine contains benzalkonium chloride.
Benzalkonium chloride may also cause eye irritation, especially in dry eyes or disorders of the cornea. Benzalkonium chloride may be absorbed by soft contact lenses and may change the colour of the contact lenses. Remove contact lenses prior to application and wait at least 15 min before reinsertion.

4.5 Interaction with other medicinal products and other forms of interaction
If more than one topical ophthalmic drug is being used, the drugs should be administered at least fifteen minutes apart. GLOVIRAX should be instilled last.

Although the quantities of ganciclovir passing into the general circulation after ophthalmic use are small, the risk of drug interactions cannot be ruled out. Interactions with ganciclovir administered systemically have been observed:

Binding of ganciclovir to plasma proteins is only about 1-2% and drug interactions involving binding site displacement are not anticipated.

It is possible that drugs which inhibit replication of rapidly dividing cell populations such as bone marrow, spermatogonia and germinal layers of skin and gastrointestinal mucosa might have combined additive toxic effects when used concomitantly with, before or after ganciclovir. Because of the possibility of additive toxicity with co-administration of drugs such as dapsone, pentamidine, flucystosine, vincristine, vinblastine, adriamycin, amphotericin B, trimethoprim/sulpha combinations or other nucleoside analogues, combination with ganciclovir therapy should be used only if the potential benefits outweigh the risks.

Since both zidovudine and ganciclovir can result in neutropenia, it is recommended that these two drugs should not be given concomitantly during induction treatment with ganciclovir. Maintenance ganciclovir treatment plus zidovudine at the recommended dose resulted in severe neutropenia in most patients studied to date.

Generalised seizures have been reported in patients taking ganciclovir and imipenem-cilastatin concomitantly.

It is also possible that probenecid, as well as other drugs which inhibit renal tubular secretion or resorption, may reduce renal clearance of ganciclovir and could increase the plasma half-life of ganciclovir.

4.6 Pregnancy and Lactation
Administration during pregnancy or lactation is not recommended.

4.7 Effects on the ability to drive and use machines
Patients should refrain from driving a vehicle or operating machines on the occurrence of any visual disturbance or other visual symptomatology.

4.8 Undesirable effects
The following adverse reactions were reported during four clinical trials with VIRGAN 0.15% w/w eye gel (three phase IIB trials and one Phase III trial)

Adverse events are categorised by frequency as follows: very common (≥ 1/10), common (≥ 1/100 to <1/10), uncommon (≥ 1/1,000 to <1/100), rare (≥

1/10,000 to <1/1,000) and very rare (<1/10,000). Not known (cannot be estimated from the available data).

Eye disorders

- Very common: Transient burning or stinging sensations, eye irritation, blurred vision.

- Common: Superficial punctate keratitis, conjunctival hyperaemia.

Reporting of suspected adverse reactions: Healthcare professionals are asked to report any suspected adverse reactions via pharmacy and poisons board, Pharmacovigilance Electronic Reporting System (PvERS) https://pv.pharmacyboardkenya.org

4.9 Overdose

There is practically no risk of adverse events due to accidental oral ingestion since a tube of 5g contains 7.5mg ganciclovir compared to the daily adult i.v. dose of 500-1000mg.

In the unlikely event of overdose, dialysis and hydration may be of benefit in reducing drug plasma levels.

5. Pharmacological Particulars:

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Anti-infectives
ATC code: S01AD09

Ganciclovir, 9-(1,3-dihydroxy-2-propoxymethyl)guanine or DHPG, is a broadspectrum virustatic agent which inhibits the replication of viruses, including viruses of the herpes group, both *in vivo* and *in vitro*: herpes simplex types 1 and 2 (HSV), cytomegalovirus (CMV), Epstein-Barr virus (EBV), herpes zoster (HZV).

Herpetic viruses induce one or more cellular kinases in the host cells, which phosphorylise the ganciclovir into its triphosphate derivative. This phosphorylation is carried out mainly in infected cells, as the concentrations of ganciclovir-triphosphate in non-infected cells are 10 times lower.

Ganciclovir-triphosphate works as an antiviral agent by inhibiting the synthesis of viral DNA in two ways: competitive inhibition of viral DNA-polymerases and direct incorporation into viral DNA which has the effect of stopping its elongation.

5.2 Pharmacokinetic properties

Studies of ocular pharmacokinetics in rabbits have shown a rapid and relevant penetration of ganciclovir into the cornea and the anterior segment of the eye, allowing concentrations higher than the effective antiviral concentrations over several hours. In fact, after instillation

of one drop of ganciclovir gel, the concentrations (Cmax) of ganciclovir measured in the cornea (17µg/g), the conjunctiva (160µg/g), the aqueous humour (1µg/g) and the iris/ciliary body (4µg/g), are higher than the inhibitory concentrations for herpes simplex viruses 1 and 2 (< 0.5µg/ml) over more than 4 hours.

The repeated instillation 4 times a day for 12 days in rabbits with herpetic keratitis does not result in an accumulation of ganciclovir in the plasma.

In man, after daily ocular instillations repeated 5 times a day for 11 to 15 days in the course of treatment of superficial herpetic keratitis, plasma levels determined by means of a precise analytical method (quantification limit: 0.005µg/ml) are very low: on average 0.013µg/ml (0 - 0.037) which is 640 times lower than levels following a one hour iv infusion of 5mg/kg (Cmax = 8.0 µg/ml). The oral bioavailability of ganciclovir is approximately 6% when taken with food. Ganciclovir has a half life of 2.9 hours, the systemic clearance is 3.64 ml/min/kg and the major route of excretion of ganciclovir is via glomerular filtration of unchanged drug.

6. Pharmaceutical Particulars:

6.1 List of Excipients:

Benzalkonium chloride	USP
Mannitol	BP
Carbopol -974	BP
Sodium Hydroxide	BP
Water for Injections	BP

6.2 Incompatibilities: Not applicable.

6.3 Shelf Life:
24 months.

6.4 Special Precautions for storage:
Store below 30°C in a dry place. Protect from light.

6.5 Nature and contents of container:
Clear, colourless gel filled in a aluminium collapsible tube.

6.6 Special precautions for disposal and other handling:
No special requirements.

7. Marketing Authorization Holder:

Galaxy Pharmaceutical Ltd,
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Parklands Avenue, P.O. Box
39107-00623, Nairobi,
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8. Marketing Authorization Number

H2024/CTD8383/18494

9. Date of first Authorization /renewal of the authorization

31/07/2024

10. Date of revision of text

24 August 2026