



**Vilerm®**

## TABLET

### VILERM® (200 MG TABLET)

Each tablet contains Acyclovir 200 mg

### VILERM® (400 MG TABLET)

Each tablet contains Acyclovir 400 mg

### VILERM® (800 MG TABLET)

Each tablet contains Acyclovir 800 mg

(INN name : Aciclovir)

### Product Description:-

#### VILERM® (200 MG TABLET)

Light blue, hexagonal and flat tablet with logo "▲" one side and "VILERM 200" on the other

#### VILERM® (400 MG TABLET)

Yellow, hexagonal and flat tablet with logo "▲" one side and "VILERM 400" on the other

#### VILERM® (800 MG TABLET)

Light blue, oblong and biconvex tablet with "VILERM" one side and "800" on the other

### Properties :-

#### Pharmacodynamics :-

##### Mechanism of Action

Acyclovir is a synthetic purine nucleoside analogue with inhibitory activity against human herpes viruses, including Herpes simplex virus (HSV) types 1 and 2, Varicella zoster virus (VZV), Epstein Barr virus (EBV) and Cytomegalovirus (CMV). The enzyme thymidine kinase (TK) of normal, non-infected cells does not use acyclovir effectively as a substrate, hence toxicity to mammalian host cells is low; however, TK encoded by HSV, VZV and EBV converts acyclovir to acyclovir monophosphate, a nucleoside analogue, which is further converted to the diphosphate and finally to the triphosphate by cellular enzymes. Acyclovir triphosphate interferes with the viral DNA polymerase and inhibits viral DNA replication with the resultant chain termination following its incorporation into the viral DNA.

##### Pharmacodynamic Effects

Prolonged or repeated course of acyclovir in severely immunocompromised individuals may result in the selection of virus strains with reduced sensitivity, which may not respond to be continued acyclovir treatment. All patients should be cautioned to ensure they avoid the potential of virus transmission, particularly when active lesions are present.

##### Pharmacokinetics :-

Acyclovir is only partially absorbed from the gut. Mean steady state peak plasma concentrations ( $C_{max}$ ) following doses of 200 mg administered four-hourly were 3.1  $\mu$ Mol (0.7  $\mu$ g/mL) and equivalent trough plasma levels ( $C_{min}$ ) were 1.8  $\mu$ Mol (0.4  $\mu$ g/mL). Corresponding  $C_{max}$  levels following doses of 400 mg and 800 mg administered four-hourly were 5.3  $\mu$ Mol (1.2  $\mu$ g/mL) and 8  $\mu$ Mol (1.8  $\mu$ g/mL) respectively, and equivalent  $C_{min}$  levels were 2.7  $\mu$ Mol (0.6  $\mu$ g/mL) and 4  $\mu$ Mol (0.9  $\mu$ g/mL).

In adults the terminal plasma half life of acyclovir after administration of intravenous acyclovir is about 2.9 hours. Most of the drug is excreted unchanged by the kidney. Renal clearance of acyclovir is substantially greater than creatinine clearance, indicating that tubular secretion in addition to glomerular filtration contributes to the renal elimination of the drug.

9- carboxymethoxy-methyguanine is the only significant metabolite of acyclovir and accounts for approximately 10-15% of the administered dose recovered from the urine. When acyclovir is given one hour after 1 gram of probenecid the terminal half life and the area under the plasma concentration-time curve is extended by 18% or 40% respectively.

##### Indications :-

- For the treatment of Herpes simplex virus infections of the skin and mucous membranes, including initial and recurrent genital herpes.
- For treatment of Varicella (Chickenpox) and Herpes zoster (Shingles) infections.
- For the suppression (prevention of recurrence) of recurrent Herpes simplex infections in immune-competent patients.
- For the prophylaxis of Herpes simplex infections in immune-compromised patients.

### Dosage and administration:-

#### Dosage for treatment of Herpes simplex

##### Adults

**VILERM®** 200 mg should be taken five times daily at approximately four-hourly intervals omitting the night time dose. Treatment should continue for five days but in severe initial infections may have to be extended.

In severely immune-compromised patients (e.g., after marrow transplant) or in patients with impaired absorption from the gut the dose can be doubled to 400 mg or, alternatively, intravenous dosing could be considered.

Dosing should begin as early as possible after the start of an infection; for recurrent episodes this should preferably be during the prodromal period or when lesions first appear.

##### Infants and children

Children aged two years and older should be given adult dosage.

Infants and children below the age of two years should be given half the adult dosage.

#### Dosage for suppression of Herpes simplex in immune-competent patients

##### Adults

**VILERM®** 200mg should be taken four times daily at approximately six-hourly intervals. Many patients may be conveniently managed on a regimen of 400 mg **VILERM®** taken twice daily at approximately twelve-hourly intervals.

Dosage titration down to 200 mg **VILERM®** taken three times daily at approximately eight-hourly intervals or even twice daily at approximately twelve-hourly intervals, may prove effective.

Some patients may experience breakthrough infections on total daily doses of 800 mg **VILERM®**.

Therapy should be interrupted periodically at intervals of six to twelve months in order to observe possible changes in the natural history of the disease.

##### Children

No specific data are available on the suppression of Herpes simplex infections or the treatment of Herpes zoster infections in immune-competent children.

#### Dosage for prophylaxis of Herpes simplex in immune-compromised patients

##### Adult

**VILERM®** 200 mg should be taken four times daily at approximately six-hourly intervals. In severely immunocompromised patients (e.g. after marrow transplant) or in patients with impaired absorption from the gut, the dose can be doubled to 400 mg **VILERM®** four times daily at approximately six hourly intervals or, alternatively, intravenous dosing could be considered. The duration of prophylactic administration is determined by the duration of the period at risk.

##### Infants and children

Children aged two years and older should be given adult dosage.

Infants and children below the age of two years should be given half the adult dosage.

#### Dosage for treatment of Varicella and Herpes zoster

##### Adult

**VILERM®** 800 mg should be taken five times daily at approximately four-hourly intervals, omitting the night time dose. Treatment should continue for seven days. In severely immunocompromised patients (e.g. marrow transplant) or in patients with impaired absorption from the gut, consideration should be given to intravenous dosing.

Dosing should begin as early as possible after the start of an infection; treatment yields better result if initiated as soon as possible after onset of the rash.

##### Children

6 years and over : 800 mg **VILERM®** four times daily

2 - < 6 years : 400 mg **VILERM®** four times daily

Under 2 years : 200 mg **VILERM®** four times daily

Dosing may be more accurately calculated as 20 mg **VILERM®**/kg bodyweight (not to exceed 800 mg) four times daily.

Treatment should continue for five days.

##### Dosage in elderly

In the elderly, total acyclovir body clearance declines in parallel with creatinine clearance. Adequate hydration of elderly patients taking high oral doses of **VILERM®** should be maintained. Special attention should be given to dosage reduction in elderly patients with impaired renal function.

**Actual Size 100 %**

#### **Dosage in renal impairment**

Caution is advised when administering **VILERM**<sup>®</sup> oral formulations to patients with impaired renal function. Adequate hydration should be maintained. In the management of Herpes simplex infections in patients with impaired renal function, the recommended oral doses will not lead to accumulation of acyclovir above levels that have been established safe by intravenous infusion. However for patients with severe renal impairment (creatinine clearance less than 10mL/minute) an adjustment of dosage to 200 mg twice daily at approximately twelve-hourly intervals is recommended.

In the treatment of Varicella and Herpes zoster infections, it is recommended to adjust the dosage to 800 mg twice daily at approximately twelve-hourly intervals, for patients with severe renal impairment (creatinine clearance less than 10mL/minute), and to 800 mg three times daily, at intervals of approximately eight hours, for patients with moderate renal impairment (creatinine clearance in the range 10 to 25mL/minute).

#### **Contraindication :-**

**VILERM**<sup>®</sup> tablets is contraindicated in patients known to be hypersensitive to acyclovir or valacyclovir.

#### **Warnings and Precautions :-**

Acyclovir is eliminated by renal clearance, therefore the dose must be reduced in patients with renal impairment. Elderly patients are likely to have reduced renal function and therefore the need for dose reduction must be considered in this group of patients. Both elderly patients and patients with renal impairment are at increased risk of developing neurological side effects and should be closely monitored for evidence of these effects. In the reported cases, these reactions were generally reversible on discontinuation of treatment.

Prolonged or repeated courses of acyclovir in severely immunocompromised individuals may result in the selection of virus strains with reduced sensitivity, which may not respond to continued acyclovir treatment.

Hydration status: Care should be taken to maintain adequate hydration in patients receiving high oral doses of acyclovir.

The data currently available from clinical studies is not sufficient to conclude that treatment with acyclovir reduces the incidence of chickenpox-associated complications in immunocompetent patients.

#### **Interactions with Other Medicines :-**

No clinically significant interactions have been identified.

Acyclovir is eliminated primarily unchanged in the urine via active renal tubular secretion. Any drugs administered concurrently that compete with this mechanism may increase acyclovir plasma concentrations. Probenecid and Cimetidine increase the AUC of acyclovir by this mechanism, and reduce acyclovir renal clearance. Similarly increases in plasma AUCs of acyclovir and of the inactive metabolite of mycophenolate mofetil, an immunosuppressant agent used in transplant patients have been shown when the drugs are coadministered. However no dosage adjustment is necessary because of the wide therapeutic index of acyclovir.

#### **Pregnancy and Lactation :-**

##### Pregnancy

The use of acyclovir should be considered only when the potential benefits outweigh the possibility of unknown risk.

##### Lactation

Caution is advised if **VILERM**<sup>®</sup> is to be administered to a nursing woman.

#### **Undesirable Effects :-**

The frequency categories associated with the adverse events below are estimates. For most events, suitable data for estimating incidence were not available. In addition, adverse events may vary in their incidence depending on the indication. The following convention has been used for the classification of undesirable effects in terms of frequency:- Very common  $\geq 1/10$ , common  $\geq 1/100$  and  $< 1/10$ , uncommon  $\geq 1/1000$  and  $< 1/100$ , rare  $\geq 1/10,000$  and  $< 1/1000$ , very rare  $< 1/10,000$ .

#### **Blood and lymphatic system disorders**

Very rare: Anaemia, leukopenia, thrombocytopenia.

#### **Immune system disorders**

Rare: Anaphylaxis.

#### **Psychiatric and nervous system disorders**

Common: Headache, dizziness.

Very rare: Agitation, confusion, tremor, ataxia, dysarthria, hallucinations, psychotic symptoms, convulsions, somnolence, encephalopathy, coma. The above events are generally reversible and usually reported in patients with renal impairment, or with other predisposing factors.

#### **Respiratory, thoracic and mediastinal disorders**

Rare: Dyspnoea.

#### **Gastrointestinal disorders**

Common: Nausea, vomiting, diarrhoea, abdominal pains.

#### **Hepato-biliary disorders**

Rare: Reversible rises in bilirubin and liver-related enzymes.

Very rare: Hepatitis, jaundice.

#### **Skin and subcutaneous tissue disorders**

Common: Pruritus, rashes (including photosensitivity)

Uncommon: Urticaria. Accelerated diffuse hair loss.

Accelerated diffuse hair loss has been associated with a wide variety of disease processes and medicines, the relationship of the event to Acyclovir therapy is uncertain.

Rare: Angioedema.

#### **Renal and urinary disorders**

Rare: Increases in blood urea and creatinine.

Very rare: Acute renal failure, renal pain.

Renal pain may be associated with renal failure.

#### **General disorders and administration site conditions**

Common: Fatigue, fever.

#### **Overdose and Treatment :-**

Acyclovir is only partly absorbed in the gastrointestinal tract. Patients have ingested overdoses of up to 20 g acyclovir on a single occasion, usually without toxic effects. Accidental, repeated overdoses of oral acyclovir over several days have been associated with gastrointestinal effects (such as nausea and vomiting) and neurological effects (headache and confusion).

Patients should be observed closely for signs of toxicity. Haemodialysis significantly enhances the removal of acyclovir from the blood and may therefore, be considered a management option in the event of symptomatic overdose.

#### **Storage :-**

Store below 30°C

#### **Shelf-life :-**

4 years

#### **Dosage Forms and Packaging Available :-**

**VILERM**<sup>®</sup> (200 MG TABLET) : PVC/Aluminium Blister (Box of 5x5 tablets)

**VILERM**<sup>®</sup> (400 MG TABLET) : PVC/Aluminium Blister (Box of 14x5 tablets)

**VILERM**<sup>®</sup> (800 MG TABLET) : PVC/Aluminium Blister (Box of 7x5 tablets)

#### **Registration number :-**

**VILERM**<sup>®</sup> (200 MG TABLET) : SIN09451P

**VILERM**<sup>®</sup> (400 MG TABLET) : SIN09298P

**VILERM**<sup>®</sup> (800 MG TABLET) : SIN09297P

**Date of Revision of Package Insert :-** 19/08/2020

#### **Manufacturer :-**

**Siam Bheasach Co., Ltd.**

123 Soi Chokechairummitr, Vibhavadi-Rangsit Road, Chomphon, Chatuchak, Bangkok 10900 and 9 Soi Chokechairummitr 3, Vibhavadi-Rangsit Road, Dindang, Dindang, Bangkok 10400, Thailand

#### **Importer & Distributor :-**

**Joyson Pte Ltd.**

1 Upper Aljunied Link, Block A #05-06, Joo Seng Warehouse, Singapore 367901

VIL-200-400-800-02-L-ENG-SG-A0001

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**Actual Size 100 %**

Drawing No. VIL-200-400-800-02-L-ENG-SG-A0001

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