

Applicant/PHCR: DR REDDY'S LABORATORIES (PTY) LTD
Product proprietary name: PHINMO 0,5
Dosage form: Capsules
Strength: Each capsule contains 0,5 mg fingolimod (as hydrochloride).

APPROVED PROFESSIONAL INFORMATION

PHINMO should be used only by neurologists experienced in the treatment of multiple sclerosis. PHINMO induces a reduction in heart rate upon treatment initiation, which can lead to bradydysrhythmia. The effect is usually maximal on Day 1, within the first 6 hours and heart rate usually normalises by 1 month. However, these events may occur at any time. Hourly monitoring for at least 6 hours (ECG, heart rate and blood pressure) on Day 1 is mandatory for all patients, in order to determine individual response to treatment initiation.

Patients who experience these events or patients with risk factors (see section 4.4) should have extended monitoring (at least overnight). If patients develop signs or symptoms related to heart rate reduction, the monitoring should be extended until resolution of the event.

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SCHEDULING STATUS

S4

1 NAME OF THE MEDICINE

PHINMO 0,5, capsules

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

PHINMO 0,5

Each capsule contains 0,5 mg fingolimod (as hydrochloride).

Sugar free.

For the full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Capsules.

PHINMO 0,5

White to off-white powder filled in size '3' hard gelatin capsules with dark yellow opaque colored cap imprinted 'FGM' with black ink and white opaque colored body imprinted '0.5 mg' with black ink.

4 CLINICAL PARTICULARS

4.1 Therapeutic indications

PHINMO is indicated as a disease modifying therapy for the treatment of patients with relapsing multiple sclerosis to reduce the frequency of relapses and to delay the progression of disability.

4.2 Posology and method of administration

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Posology

Do not exceed the recommended dosage

The recommended dose of PHINMO is one 0,5 mg capsule taken orally once daily, which can be taken with or without food. If a dose is missed treatment should be continued with the next dose as planned.

On initiation of PHINMO treatment, after the first dose, all patients should be observed, with hourly pulse and blood pressure measurement, for a period of at least 6 hours for signs and symptoms of bradycardia. All patients should have an electrocardiogram performed prior to dosing and at the end of 6-hour monitoring period (see section 4.4).

For recommendations related to switching patients from other disease modifying therapies to PHINMO, see section 4.4: Prior treatment with immunosuppressive or immune-modulating therapies.

Dosing in special populations

Renal impairment

No PHINMO dose adjustments are needed in patients with renal impairment (see section 5.2).

Hepatic impairment

No PHINMO dose adjustments are needed in patients with mild or moderate hepatic impairment. PHINMO should be used with caution in patients with severe hepatic impairment (Child-Pugh class C) (see section 5.2).

Elderly patients

PHINMO should be used with caution in patients aged 65 years and over (see section 5.2).

Diabetic patients

PHINMO should be used with caution in patients with diabetes mellitus due to a

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potential increased risk of macular oedema (see section 4.4).

Paediatric population

PHINMO is not indicated for use in paediatric patients (see section 5.2).

Method of administration

Oral use.

4.3 Contraindications

- Hypersensitivity to fingolimod or any of the ingredients of PHINMO (see section 6.1).
- Pregnancy and lactation.
- Concomitant administration with anti-dysrhythmic medicines; Class 1a (e.g. quinidine, procainamide), Class III (e.g. amiodarone, sotalol) (see section 4.4).
- Patients who in the last 6 months had myocardial infarction, unstable angina pectoris, stroke/ transient ischemic attack, decompensated heart failure (requiring inpatient treatment), or New York Heart Association Class III/IV heart failure.
- Patients with severe cardiac dysrhythmias requiring antidysrhythmic treatment with Class Ia or Class III antidysrhythmic medicines (see section 4.4).
- Patients with second-degree Mobitz type II atrioventricular (AV) block or third-degree AV block, or sick-sinus syndrome, if they do not have a pacemaker (see section 4.4).
- Patients with a baseline QTc interval ≥ 500 msec (see section 4.4).
- Women of childbearing potential not using effective contraception (see section 4.6).

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4.4 Special warnings and precautions for use

Bradydysrhythmia

Initiation of PHINMO treatment results in a decrease in heart rate. After the first dose, the heart rate decrease starts within an hour and the Day 1 decline is usually maximal within 6 hours and usually normalises by one month (see sections 4.4 and 4.3).

With continued dosing, heart rate usually returns to baseline within one month of chronic treatment (see section 5.1). In patients receiving PHINMO 0,5 mg this decrease in heart rate, as measured by pulse, averages approximately 8 beats per minute (bpm). Heart rates below 40 bpm have been observed (see section 4.8). Patients who experienced bradycardia were generally asymptomatic but some patients experienced mild to moderate symptoms, including hypotension, dizziness, fatigue and/or palpitations, which usually resolved within the first 24 hours of treatment.

Initiation of PHINMO treatment is associated with atrioventricular conduction delays, usually first-degree atrioventricular blocks (prolonged PR interval on electrocardiogram). Second-degree atrioventricular blocks, usually Mobitz type I (Wenckebach) have been observed less frequently in patients receiving fingolimod 0,5 mg. The conduction abnormalities typically were transient, asymptomatic, usually did not require treatment and usually resolved within the first 24-hours on treatment (see section 4.8).

Cases of transient, complete AV block have been reported during post-marketing use of fingolimod (see section 4.8).

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Therefore, on initiation of PHINMO treatment, it is recommended that all patients be observed, with hourly pulse and blood pressure measurement, for a period of 6 hours for signs and symptoms of bradycardia. All patients should have an electrocardiogram performed prior to dosing and at the end of the 6-hour monitoring period.

Should post-dose bradydysrhythmia-related symptoms occur, appropriate management should be initiated as necessary and the patient should be observed until the symptoms have resolved.

Should a patient require pharmacological intervention during the first dose observation period, overnight monitoring in a medical facility should be instituted and the first dose monitoring strategy should be repeated after the second dose of PHINMO.

Additional observation until the finding has resolved is also required:

- if the heart rate at 6 hours post-dose is < 45 bpm or is the lowest value post-dose (suggesting that the maximum pharmacodynamic effect on the heart is not yet manifest)
- or if the ECG at 6 hours after the first dose shows new onset second degree or higher AV block

If the ECG at 6 hours after the first dose shows a QTc interval ≥ 500 msec, patients should be monitored overnight.

Due to the risk of serious cardiac rhythm disturbances, PHINMO should not be used in patients with a history of symptomatic bradycardia, recurrent syncope or sino-atrial heart block. Since initiation of PHINMO treatment results in decreased heart rate and therefore a prolongation of the QT interval, PHINMO should not be used in patients with significant QT prolongation (QTc > 470 msec [adult females], QTc > 460 msec [paediatric females] or > 450 msec [adult and

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paediatric males]] (see section 4.3). PHINMO is best avoided in patients with relevant risk factors for QT prolongation, for example, hypokalemia, hypomagnesemia or congenital QT prolongation. Since significant bradycardia may be poorly tolerated in patients with a history of cardiac arrest, uncontrolled hypertension, history of recurrent syncope, or severe untreated sleep apnoea, PHINMO should not be used in these patients. If treatment is considered in patients for whom PHINMO is not contraindicated, advice from a cardiologist should be sought prior to initiation of treatment in order to determine the most appropriate monitoring strategy, which should last overnight.

Fingolimod has not been studied in patients with dysrhythmias requiring treatment with Class Ia (e.g. quinidine, procainamide) or Class III anti-dysrhythmic medicines (e.g., amiodarone, sotalol). Class Ia and Class III antidysrhythmic medicines have been associated with cases of Torsades de Pointes in patients with bradycardia.

Since initiation of PHINMO treatment results in decreased heart rate, PHINMO should not be co-administered with these medicines.

Experience with fingolimod is limited in patients receiving concurrent therapy with beta blockers, heart rate lowering calcium channel blockers (such as verapamil or diltiazem), or other substances that may decrease heart rate (e.g. ivabradine or digoxin). Since the initiation of PHINMO treatment is also associated with slowing of the heart rate (see "Bradydysrhythmia"), concomitant use of these substances during PHINMO initiation may be associated with severe bradycardia and heart block. Because of the potential additive effect on heart rate, treatment with PHINMO should not be used in patients who are concurrently treated with these substances. If treatment with PHINMO is considered, advice from a cardiologist

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should be sought regarding the switch to non heart-rate lowering medicines or appropriate monitoring for treatment initiation, which should last overnight (see section 4.5).

If PHINMO therapy is discontinued for more than 2 weeks after the first month of treatment the effects on heart rate and atrioventricular conduction may recur on reintroduction of PHINMO treatment and the same precautions as for the first dose should apply. Within the first two weeks of treatment, first dose procedures are recommended after an interruption of one day or more. During weeks 3 and 4 of treatment first dose procedures are recommended after treatment interruption of more than seven days.

Immunosuppressive effects

Fingolimod has an immunosuppressive effect that predisposes patients to an infection risk, including opportunistic infections that can be fatal, and increases the risk of developing lymphomas and other malignancies, particularly those of the skin. Physicians should carefully monitor patients, especially those with concurrent conditions or known factors, such as previous immunosuppressive therapy. If this risk is suspected, discontinuation of treatment should be considered by the physician on a case-by-case basis (see also section 4.4 "Infections" and "Basal cell carcinoma and other cutaneous neoplasms" and section 4.8 "Lymphomas").

Infections

Fingolimod causes a dose dependent reduction of peripheral lymphocyte count. This is due to the reversible sequestration of lymphocytes in lymphoid tissues (see section 5.1).

The immune system effects (see section 5.1) of fingolimod may increase the risk of infections including opportunistic infections (see section 4.8).

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Before initiating treatment with PHINMO, a recent complete blood count (CBC) (i.e. within 6 months or after discontinuation of prior therapy) should be available.

Initiation of treatment with PHINMO should be delayed in patients with severe active infection until resolution. Effective diagnostic and therapeutic strategies should be employed in patients with symptoms of infection while on therapy. Because the elimination of fingolimod after discontinuation may take up to two months, vigilance for infection should be continued throughout this period (see below subsection: Stopping PHINMO therapy).

Cases of progressive multifocal leukoencephalopathy (PML) have been reported in the post-marketing setting (see section 4.8). PML is an opportunistic infection caused by JC virus, which may be fatal or result in severe disability. Cases of PML have occurred after approximately 2-3 years of treatment, although the estimated risk appears to increase with cumulative exposure over time, an exact relationship with the duration of treatment is unknown. The incidence rate for PML appears to be higher for patients in Japan; the reasons are currently unknown. Additional PML cases have occurred in patients who had been treated previously with natalizumab, which has a known association with PML. During routine MRI (in accordance with national and local recommendations), medical practitioners should be vigilant for clinical symptoms or MRI findings that may be suggestive of PML. If PML is suspected, PHINMO treatment should be suspended until PML has been excluded. MRI findings suggestive of PML may be apparent before clinical signs or symptoms. Cases of PML, diagnosed based on MRI findings and the detection of JVC DNA in the cerebrospinal fluid in the absence of clinical signs or symptoms specific to PML, have been reported in patients treated with MS medications associated with PML, including fingolimod.

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Cases of cryptococcal meningitis have been reported in the post-marketing setting after approximately 2-3 years of treatment, although an exact relationship with the duration of treatment is unknown (see section 4.8). Cryptococcal meningitis may be fatal. For this reason patients with symptoms and signs consistent with cryptococcal meningitis should undergo prompt diagnostic evaluation. If cryptococcal meningitis is diagnosed, appropriate treatment should be initiated and PHINMO should be discontinued until the patient has fully recovered.

Anti-neoplastic, immune-modulating or immunosuppressive therapies (including corticosteroids) should be co-administered with caution due to the risk of additive immunosuppressive effects (see section 4.5).

Specific decisions as to the dosage and duration of treatment with corticosteroids should be based on clinical judgment. Co-administration of a short course of corticosteroids (up to 5 days as per study protocols) did not increase the overall rate of infection in patients treated with fingolimod in the Phase III clinical trials, compared to placebo. Based on these data, short courses of corticosteroids (up to 5 days) can be used in combination with PHINMO (see sections 4.8 and 4.5). Patients receiving PHINMO should be instructed to report symptoms of infections to their medical practitioner.

Suspension of dosing with PHINMO should be considered if a patient develops a serious infection and consideration of benefit-risk should be undertaken prior to re-initiation of therapy.

Patients need to be assessed for their immunity to varicella (chickenpox) prior to PHINMO treatment. It is recommended that patients without a health care professional confirmed history of chickenpox or documentation of a full course of vaccination with varicella vaccine undergo antibody testing to varicella zoster

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virus (VZV) before initiating PHINMO therapy. A full course of vaccination for antibody-negative patients with varicella vaccine is recommended prior to commencing treatment with PHINMO (see section 4.8).

Initiation of treatment with PHINMO should be postponed for 1 month to allow full effect of vaccination to occur.

Human Papilloma Virus (HPV) infection, including papilloma, dysplasia, warts and HPV-related cancer, has been reported under treatment with PHINMO in the post-marketing setting (see section 4.8). Due to the immunosuppressive properties of fingolimod, vaccination against HPV should be considered prior to treatment initiation with PHINMO taking into account vaccination recommendations. Cancer screening, including Pap test, is recommended as per standard of care.

Vaccination

Vaccination may be less effective during and for up to two months after stopping treatment with PHINMO (see below subsection: Stopping PHINMO therapy). The use of live attenuated vaccines should be avoided (see section 4.5).

Macular Oedema

Macular oedema (see section 4.8) with or without visual symptoms has been reported in patients treated with fingolimod 0,5 mg, occurring predominantly in the first 3 to 4 months of therapy. An ophthalmic evaluation is therefore recommended at 3 to 4 months after treatment initiation. If patients report visual disturbances at any time while on PHINMO therapy, evaluation of the fundus, including the macula, should be carried out.

Patients with history of uveitis and patients with diabetes mellitus are at increased risk of macular oedema (see section 4.8). PHINMO has not been studied in multiple sclerosis patients with concomitant diabetes mellitus. It is recommended

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that multiple sclerosis patients with diabetes mellitus or a history of uveitis undergo an ophthalmic evaluation prior to initiating PHINMO therapy and have follow-up evaluations while receiving PHINMO therapy.

Continuation of PHINMO in patients with macular oedema has not been evaluated. A decision on whether or not PHINMO therapy should be discontinued needs to take into account the potential benefits and risks for the individual patient.

Liver function

Increased hepatic enzymes, mostly alanine aminotransaminase (ALT) elevation, but also gamma glutamyl transferase (GGT) and aspartate transaminase have been reported in multiple sclerosis patients treated with fingolimod. In clinical trials, an elevation in ALT occurred in patients treated with fingolimod 0,5 mg and the medicine was discontinued if the elevation exceeded a 5-fold increase.

Recurrence of ALT elevations occurred upon re-challenge in some patients, supporting a relationship to the medicine. Recent (i.e. within last 6 months) transaminase and bilirubin levels should be available before initiation of treatment with PHINMO. Patients who develop symptoms suggestive of hepatic dysfunction, such as unexplained nausea, vomiting, abdominal pain, fatigue, anorexia, or jaundice and/or dark urine during treatment, should have liver enzymes checked and PHINMO should be discontinued if significant liver injury is confirmed (see section 4.8).

Although it is not known whether patients with preexisting liver disease are at increased risk to develop elevated liver function test (LFT) values when taking PHINMO, caution should be exercised when using PHINMO in patients with a history of liver disease.

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Blood pressure effects

Patients with hypertension uncontrolled by medication were excluded from participation in premarketing clinical trials and special care is indicated if patients with uncontrolled hypertension are treated with fingolimod.

In MS clinical trials, patients treated with fingolimod 0,5 mg had an average increase of approximately 3 mmHg in systolic pressure, and approximately 1 mmHg in diastolic pressure, first detected approximately 1 month after treatment initiation, and persisting with continued treatment. In the two-year placebo-controlled study, hypertension was reported as an adverse event in patients on fingolimod 0,5 mg at a higher incidence than in patients on placebo.

Therefore, blood pressure should be regularly monitored during treatment with PHINMO.

Respiratory effects

Minor dose-dependent reductions in values for forced expiratory volume (FEV₁) and diffusion capacity for carbon monoxide (DLCO) were observed with fingolimod treatment starting at month 1 and remaining stable thereafter.

PHINMO should be used with caution in patients with severe respiratory disease, pulmonary fibrosis and chronic obstructive pulmonary disease (see section 4.8).

Posterior reversible encephalopathy syndrome

Cases of posterior reversible encephalopathy syndrome (PRES) have been reported at 0,5 mg dose in clinical trials and in the post-marketing setting (see section 4.8). Symptoms reported included sudden onset of severe headache, nausea, vomiting, altered mental status, visual disturbances and seizure.

Symptoms of PRES are usually reversible but may evolve into ischaemic stroke or cerebral haemorrhage. Delay in diagnosis and treatment may lead to permanent neurological sequelae. If PRES is suspected, PHINMO should be

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discontinued.

Prior treatment with immunosuppressive or immune-modulating therapies.

When switching from other disease modifying therapies, the half-life and mode of action of the other therapy must be considered in order to avoid an additive immune effect whilst at the same time minimising risk of disease reactivation.

Before initiating treatment with PHINMO, a recent complete blood cell count (i.e. after discontinuation of prior therapy) should be available to ensure any immune effects of such therapies (e.g. cytopenia) have resolved.

Beta interferon, glatiramer acetate or dimethyl fumarate

PHINMO can generally be started immediately after discontinuation of beta interferon, glatiramer acetate or dimethyl fumarate.

Natalizumab or teriflunomide

Due to the long half-life of natalizumab or teriflunomide, caution regarding potential additive immune effects is required when switching patients from these therapies to PHINMO. A careful case-by-case assessment regarding the timing of the initiation of PHINMO treatment is recommended.

Elimination of natalizumab usually takes up to 2-3 months following discontinuation.

Teriflunomide is also eliminated slowly from the plasma. Without an accelerated elimination procedure, clearance of teriflunomide from plasma can take several months to up to 2-years. An accelerated elimination procedure is described in the teriflunomide product information.

Accelerated Elimination Procedure: Cholestyramine and activated charcoal:

The elimination of teriflunomide from the circulation can be accelerated by administration of cholestyramine or activated charcoal, presumably by interrupting

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the reabsorption processes at the intestinal level.

Teriflunomide concentrations measured during an 11-day procedure to accelerate teriflunomide elimination with either 8 g cholestyramine three times a day, 4 g cholestyramine three times a day or 50 g activated charcoal twice a day following cessation of teriflunomide treatment have shown that these regimens were effective in accelerating teriflunomide elimination, leading to more than 98 % decrease in teriflunomide plasma concentrations, with cholestyramine being faster than charcoal. Following discontinuation of teriflunomide and the administration of cholestyramine 8 g three times a day, the plasma concentration of teriflunomide is reduced 52 % at the end of day 1, 91 % at the end of day 3, 99.2 % at the end of day 7, and 99.9 % at the completion of day 11. The choice between the 3 elimination procedures should depend on the patient's tolerability. If cholestyramine 8 g three times a day is not well tolerated, cholestyramine 4 g three times a day can be used. Alternatively, activated charcoal may also be used (the 11 days do not need to be consecutive unless there is a need to lower teriflunomide plasma concentration rapidly).

Alemtuzumab

Due to the characteristics and duration of alemtuzumab immune suppressive effects described in its product information, initiating treatment with PHINMO after alemtuzumab is not recommended.

Return of disease activity (rebound) after PHINMO discontinuation

Cases of severe exacerbation of disease have been reported after stopping fingolimod in the post-marketing setting. This was generally observed within 12 weeks after stopping fingolimod, but was also reported up to and beyond 24 weeks after fingolimod discontinuation. Therefore, caution is indicated when stopping PHINMO therapy.

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If discontinuation of PHINMO is deemed necessary, patients should be monitored for relevant signs and symptoms and appropriate treatment should be initiated as required.

Co-administration with potent CYP450 inducers

The combination of PHINMO with potent CYP450 inducers should be used with caution. Concomitant administration with St John's wort is not recommended (see section 4.5).

Basal cell carcinoma and other cutaneous neoplasms

Basal cell carcinoma (BCC) and other cutaneous neoplasms including malignant melanoma, squamous cell carcinoma, Kaposi's sarcoma and Merkel cell carcinoma have been reported in patients receiving fingolimod (see section 4.8). Vigilance for BCC and other cutaneous neoplasms is warranted. Periodic skin examination is recommended for all patients, particularly those with risk factors for skin cancer. Since there is, a potential risk of malignant skin growths, patients treated with PHINMO should be cautioned against exposure to sunlight without protection.

Lymphomas

There have been cases of lymphoma in clinical studies and the post-marketing setting (see section 4.8). The cases reported were heterogeneous in nature, mainly non-Hodgkin's lymphoma, including B-cell and T-cell lymphomas. Cases of cutaneous T-cell lymphoma (mycosis fungoides) have been observed (see section 4.8). A fatal case of Epstein-Barr virus (EBV) positive B-cell lymphoma has also been observed. If lymphoma is suspected, PHINMO should be discontinued.

Tumefactive lesions

Rare cases of tumefactive lesions associated with MS relapse were reported in

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the post- marketing setting. In case of severe relapses, MRI should be performed to exclude tumefactive lesions. Discontinuation of PHINMO should be considered by the medical practitioner on a case- by-case basis, taking into account individual benefits and risks.

Stopping therapy

If a decision is made to stop treatment with PHINMO, the medical practitioner needs to be aware that fingolimod remains in the blood and has pharmacodynamic effects, such as decreased lymphocyte counts, for up to two months following the last dose. Lymphocyte counts typically return to normal range within 1-2 months of stopping therapy (see section 5.1). Starting other therapies during this interval will result in a concomitant exposure to PHINMO. Use of immunosuppressants soon after the discontinuation of PHINMO may lead to an additive effect on the immune system and therefore caution should be applied.

(See above subsection Return of disease activity (rebound) after PHINMO discontinuation)

4.5 Interaction with other medicines and other forms of interaction

Pharmacodynamic interactions

Anti-neoplastic, immunomodulatory or immunosuppressive therapies

Other anti-neoplastic, immunosuppressive or immune modulating therapies should be co-administered with caution due to the risk of additive immune system effects. Specific decisions as to the dosage and duration of concomitant treatment with corticosteroids should be based on clinical judgment (see sections 4.4 and 4.8).

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Caution should also be applied when switching patients from other long-acting therapies with immune effects such as natalizumab, teriflunomide or mitoxantrone (see section 4.4: Prior treatment with immunosuppressive or immune-modulating therapies). In multiple sclerosis clinical studies the concomitant treatment of relapses with a short course of corticosteroids was not associated with an increased rate of infection.

Bradycardia-inducing substances

When fingolimod as in PHINMO is used with beta blockers, there is an additional 15 % reduction in heart rate upon PHINMO initiation, an effect not seen with calcium channel blockers. Treatment with PHINMO should not be initiated in patients receiving beta blockers, heart rate lowering calcium channel blockers (such as verapamil or diltiazem), or other substances which may decrease heart rate (e.g. ivabradine or digoxin) because of the potential additive effects on heart rate. If treatment with PHINMO is considered, advice from a cardiologist should be sought regarding the switch to non heart-rate lowering medicines or appropriate monitoring for treatment initiation, which should last overnight (see section 4.4).

Vaccination

During and for at least two months after treatment with fingolimod vaccination may be less effective. The use of live attenuated vaccines may carry the risk of infection and should therefore be avoided (see sections 4.8 and 4.4).

Pharmacokinetic interactions

Fingolimod is primarily cleared *via* cytochrome P450 4F2 (CYP4F2) and possibly other CYP4F isoenzymes.

In vitro studies in hepatocytes indicated that CYP3A4 may contribute to fingolimod metabolism in the case of strong induction of CYP3A4. Caution should

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be exercised with substances that may inhibit CYP3A4 (protease inhibitors,azole antifungals, some macrolides such as clarithromycin or telithromycin).

Potential of PHINMO and fingolimod-phosphate to inhibit the metabolism of co-medications

In vitro inhibition studies using pooled human liver microsomes and specific metabolic probe substrates demonstrated that fingolimod and fingolimod-phosphate have little or no capacity to inhibit the activity of CYP enzymes (CYP1A2, CYP2A6, CYP2B6, CYP2C8, CYP2C9 CYP2C19, CYP2D6, CYP2E1, CYP3A4/5 or CYP4A9/11 (fingolimod only)). Therefore, fingolimod as in PHINMO and fingolimod-phosphate are unlikely to reduce the clearance of medicines that are mainly cleared through metabolism by the major cytochrome P isoenzymes.

Potential of PHINMO and fingolimod-phosphate to induce its own and/or the metabolism of comedications

Fingolimod as in PHINMO was examined for its potential to induce human CYP3A4, CYP1A2, CYP4F2 and ABCB1 (P-gp) mRNA and CYP3A, CYP1A2, CYP2B6, CYP2C8, CYP2C9, CYP2C19 and CYP4F2 activity in primary human hepatocytes. Fingolimod did not induce mRNA or activity of the different CYP enzymes and ABCB1 with respect to the vehicle control. Therefore, no clinically relevant induction of the tested CYP enzymes or ABCB1 (P-gp) by fingolimod are expected at therapeutic concentrations.

In vitro experiments did not provide an indication of CYP induction by fingolimod-phosphate.

Potential of PHINMO and fingolimod-phosphate to inhibit the active transport of co-medications

Based on *in vitro* data, fingolimod as in PHINMO as well as fingolimod-phosphate are not expected to inhibit the uptake of co-medications and/or biologics

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transported by the organic anion transporting polypeptides 1B1 and 1B3 (OATP1B1, OATP1B3) or the sodium taurocholate co-transporting polypeptide (NTCP). Similarly, they are not expected to inhibit the efflux of co-medications and/or biologics transported by the breast cancer resistance protein (BCRP), the bile salt export pump (BSEP), the multi-medicine resistance-associated protein 2 (MRP2) or P-glycoprotein (P-gp) at therapeutic concentrations.

Oral contraceptives

The co-administration of fingolimod as in PHINMO with oral contraceptives (ethinylestradiol 30 micrograms and levonorgestrel 150 micrograms) did not elicit any change in oral contraceptive exposure. Fingolimod and fingolimod-phosphate exposure were consistent with those from previous studies. No interaction studies have been performed with oral contraceptives containing other progestogens. No studies with implanted or injected contraceptives have been performed.

Ciclosporin

The pharmacokinetics of single-dose fingolimod as in PHINMO were not altered during co-administration with ciclosporin at steady-state, nor were ciclosporin steady-state pharmacokinetics altered by single-dose or multi-dose (28 days) fingolimod administration. These data indicate that fingolimod is unlikely to reduce or increase the clearance of medicines mainly cleared by CYP3A4 and that inhibition of CYP3A4 is unlikely to reduce the clearance of fingolimod. Potent inhibition of transporters P-gp, MRP2 and OATP1B1 does not influence fingolimod disposition.

Ketoconazole

The co-administration of ketoconazole 200 mg twice daily at steady-state and a single dose of fingolimod 5 mg led to a modest increase in the AUC of fingolimod and fingolimod-phosphate by inhibition of CYP4F2.

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Isoproterenol, atropine, atenolol and diltiazem

Single-dose fingolimod and fingolimod-phosphate exposure was not altered by co-administered isoproterenol, or atropine. Likewise, the single-dose pharmacokinetics of fingolimod and fingolimod-phosphate and the steady-state pharmacokinetics of both atenolol and diltiazem were unchanged during the co-administration of the latter two medicines with fingolimod.

Carbamazepine

The co-administration of carbamazepine 600 mg twice daily at steady-state and a single dose of fingolimod 2 mg reduced the AUC of fingolimod and fingolimod-phosphate, by approximately 40 %. The clinical relevance of this decrease is unknown.

St. John's Wort and other strong CYP3A4 enzyme inducers

Other strong CYP3A4 enzyme inducers, for example rifampicin, phenobarbital, phenytoin, efavirenz and St. John's Wort, may reduce the AUC of fingolimod and its metabolite at least to the same extent as carbamazepine. As this could potentially impair the efficacy, their co-administration should be used with caution.

Concomitant administration with St. John's Wort is however not recommended (see section 4.4).

Population pharmacokinetics analysis of potential medicine-medicine interactions

A population pharmacokinetics evaluation, performed in multiple sclerosis patients, did not provide evidence for a significant effect of fluoxetine and paroxetine (strong CYP2D6 inhibitors) on fingolimod or fingolimod-phosphate concentrations. In addition, the following, commonly prescribed substances had no clinically relevant effect on fingolimod or fingolimod-phosphate concentrations:

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baclofen, gabapentin, oxybutynin, amantadine, modafinil, amitriptyline, pregabalin, corticosteroids and oral contraceptives.

Laboratory tests

Since fingolimod reduces blood lymphocyte counts via re-distribution in secondary lymphoid organs, peripheral blood lymphocyte counts cannot be utilised to evaluate the lymphocyte subset status of a patient treated with PHINMO.

Laboratory tests requiring the use of circulating mononuclear cells require larger blood volumes due to reduction in the number of circulating lymphocytes.

4.6 Fertility, pregnancy and lactation

Fingolimod should not be used in pregnancy and lactation (see section 4.3).

Safety in pregnancy and lactation has not been established. Fingolimod is teratogenic in animals.

Women of childbearing potential

Fingolimod is contraindicated in women of childbearing potential not using effective contraception (see section 4.3).

Before initiation of fingolimod treatment in women of childbearing potential, a negative pregnancy result must be available and patient should be counselled on the potential for serious risk to the foetus and the need for effective contraception during treatment with fingolimod. Women of childbearing potential must use effective contraception during treatment. Since it will take approximately 2 months to eliminate the compound from the body upon stopping treatment (see section 4.4) potential risk to the foetus may persist and contraception should be pursued during that period. When stopping fingolimod therapy for planning a pregnancy the possible return of disease activity should be considered (see section 4.4).

Male reproductive toxicity

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Fingolimod is present in seminal ejaculate.

Safety regarding an increased risk of male mediated foetal toxicity has not been demonstrated.

Pregnancy

Based on human experience, post-marketing data suggest that the use of fingolimod is associated with a 2-fold increased risk of major congenital malformation when administered during pregnancy compared with the general population. The following major malformations were most frequently reported:

- Congenital heart disease such as atrial and ventricular septal defects, tetralogy of Fallot
- Renal abnormalities
- Musculoskeletal abnormalities.

Breastfeeding

PHINMO is contraindicated in breastfeeding (see section 4.3). Fingolimod is excreted in the milk of treated animals during lactation. Due to the potential for serious adverse reactions to fingolimod in nursing infants, women receiving PHINMO should not breastfeed.

Fertility

Data from preclinical studies do not suggest that fingolimod would be associated with an increased risk of reduced fertility.

4.7 Effects on ability to drive and use machines

Fingolimod has no or negligible influence on the ability to drive and use machines. However, dizziness or drowsiness may occasionally occur when initiating treatment.

The clinical status of the patient and adverse event profile of fingolimod should be

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borne in mind when considering the patients ability to perform tasks that require judgement, motor and cognitive skills. Driving may be impaired by such adverse events.

4.8 Undesirable effects

Summary of the safety profile

In the pooled data from studies the most serious adverse reactions (ADRs) for the 0,5 mg recommended therapeutic dose of fingolimod were infections, macular oedema and transient atrio-ventricular blocks on treatment initiation.

The most frequent ADRs at the 0,5 mg dose were headache, influenza, diarrhoea, sinusitis, back pain, hepatic enzyme increased and cough. The most frequent adverse event reported for fingolimod 0,5 mg leading to treatment interruption was ALT elevations.

Tabulated summary of adverse drug reactions

The table below presents the frequency of ADRs reported in the pooled analysis of placebo-controlled studies.

ADRs are listed according to MedDRA system organ class.

Primary system organ class	Frequent	Less frequent
Infections and infestations	Influenza Sinusitis Bronchitis Herpes zoster Tinea versicolour	Pneumonia

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Neoplasms benign, malignant and unspecified (incl cysts and polyps)	Basal cell carcinoma	Melanoma Kaposi's sarcoma**
Cardiac Disorders	Bradycardia	
Nervous system disorders	Headache Dizziness Migraine	Posterior reversible encephalopathy syndrome (PRES)
Gastrointestinal Disorders	Diarrhoea	
General disorders and administration site conditions	Asthenia	
Musculoskeletal and connective tissue disorders	Back pain	
Skin and subcutaneous tissue disorders	Eczema Pruritus	
Investigations	Hepatic enzyme increased (increased ALT, GGT, AST) Blood triglycerides increased	

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Respiratory, thoracic and mediastinal disorders	Cough Dyspnoea	
Eye disorders	Vision blurred	Macular oedema
Vascular disorders	Hypertension	
Blood and lymphatic system disorders	Leucopenia Lymphopenia	

**The frequency category and risk assessment were based on an estimated exposure of more than 24,000 patients to fingolimod 0.5 mg in all clinical trials.

Adverse drug reactions from spontaneous reports and literature cases (frequency not known)

The following adverse drug reactions have been derived from post-marketing experience with fingolimod via spontaneous case reports and literature cases. Because these reactions are reported voluntarily from a population of uncertain size, it is not possible to reliably estimate their frequency which is therefore categorised as not known. Adverse drug reactions are listed according to system organ classes.

Immune system disorders

Hypersensitivity reactions, including rash, urticaria and angioedema upon treatment initiation. Autoimmune haemolytic anaemia.

Nervous system disorders

Severe exacerbation of disease after fingolimod discontinuation (see section 4.4).

Gastrointestinal disorders

Nausea

Musculoskeletal and connective tissue disorders

Myalgia, arthralgia

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Investigations

Weight decreased

Description of selected adverse reactions

Infections

In multiple sclerosis clinical trials, the rates of bronchitis, herpes zoster and pneumonia were more common in fingolimod treated patients, than in placebo treated patients.

Serious infections occurred at a higher rate in the fingolimod 0,5 mg group versus the placebo group.

There have been fatal cases of varicella zoster infections mostly in the context of prolonged concomitant corticosteroid use (more than 5 days) for treatment of multiple sclerosis relapses, however, a causal relationship between the concomitant treatment and fatal outcome has not been established.

Co-administration of a short course of corticosteroids (up to 5 days as per study protocols) did not increase the overall rate of infection in patients treated with fingolimod in the Phase III clinical trials, compared to placebo (see sections 4.4 and 4.5).

There have been cases of other herpes viral infections with fatal outcome.

However, a causal relationship with fingolimod has not been established.

Cryptococcal infections, including isolated cases of cryptococcal meningitis, have been reported in the postmarketing setting (see section 4.4).

Human papilloma virus (HPV) infection, including papilloma, dysplasia, warts and HPV-related cancer, has been reported under treatment with fingolimod in the post-marketing setting (see section 4.4).

In the post-marketing setting cases of infections with opportunistic pathogens, such as viral (e.g. VZV, John Cunningham virus (JCV) causing progressive

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multifocal leukoencephalopathy (PML), HSV), fungal (e.g. cryptococci including cryptococcal meningitis) or bacterial (e.g. atypical mycobacterium), have been reported, some of which have been fatal (see section 4.4).

Macular Oedema

In clinical trials, macular oedema occurred in patients treated with the recommended fingolimod dose of 0,5 mg and in patients treated with the higher 1,25 mg dose at a higher incidence.

The majority of cases in multiple sclerosis clinical trials occurred within the first 3 to 4 months of therapy. Some patients presented with blurred vision or decreased visual acuity, but others were asymptomatic and diagnosed on routine ophthalmic examination. The macular oedema generally improved or resolved spontaneously after fingolimod discontinuation. The risk of recurrence after re-challenge has not been evaluated.

Fingolimod has not been tested in multiple sclerosis patients with diabetes mellitus. In renal transplant clinical studies where patients with diabetes mellitus were included, therapy with fingolimod 2,5 mg and 5 mg resulted in a 2-fold increase in the incidence of macular oedema. Multiple sclerosis patients with diabetes mellitus are therefore expected to be at a higher risk for macular oedema (see section 4.4).

Bradydysrhythmia

Initiation of fingolimod treatment results in a transient decrease in heart rate and may also be associated with atrio-ventricular conduction delays (see section 4.4).

In multiple sclerosis clinical trials the mean maximal decrease in heart rate after the first dose intake was seen 4 to 5 hours post-dose, with declines in mean heart rate, as measured by pulse, of 8 beats per minute for fingolimod 0,5 mg. The second dose may result in a slight further decrease. Heart rates below 40 beats

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per minute have been observed in patients on fingolimod 0,5 mg. Heart rate returned to baseline within 1 month of chronic dosing.

In the multiple sclerosis clinical program first-degree atrio-ventricular block (prolonged PR interval on electrocardiogram) was detected following medicine initiation. Second degree atrioventricular block were detected less frequently in patients on fingolimod 0,5 mg.

The conduction abnormalities were typically transient, asymptomatic and resolved within 24 hours on treatment. Although most patients did not require medical intervention one patient on the 0,5 mg dose received isoprenaline for an asymptomatic second degree atrio-ventricular block.

In the post-marketing setting, reports of transient, complete AV block have been observed during the six hour observation period following the first dose of fingolimod.

In the post-marketing setting, delayed onset events, including transient asystole and unexplained death, have occurred within 24 hours of the first dose. These cases have been confounded by concomitant medications and/or pre-existing disease. The relationship of such events to fingolimod is uncertain.

Blood pressure

In multiple sclerosis clinical trials fingolimod 0,5 mg was associated with a mild increase of approximately 1 mmHg on average in mean arterial pressure manifesting after approximately 1 month of treatment initiation. This increase persisted with continued treatment. Hypertension was reported at a higher incidence in patients on fingolimod than those on placebo.

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Liver function

Increased hepatic enzymes (mostly ALT elevation) have been reported in multiple sclerosis patients treated with fingolimod. In clinical trials patients treated with fingolimod 0,5 mg experienced an asymptomatic elevation in serum levels of ALT more frequently when compared with the placebo group. The majority of elevations occurred within 6 to 9 months. ALT levels returned to normal within approximately 2 months after discontinuation of fingolimod. In the few patients who experienced ALT elevations of $\geq 5x$ ULN and who continued on fingolimod therapy, the ALT levels returned to normal within approximately 5 months (see section 4.4).

Respiratory System

Minor dose-dependent reductions in forced expiratory volume in 1 second (FEV₁) and in the diffusing capacity of the lung for carbon monoxide (DLCO) values were observed with fingolimod treatment starting at month 1 and remaining stable thereafter. At month 24, the reduction from baseline values of predicted FEV₁ was higher for fingolimod 0,5 mg than for placebo, a difference that resolved after treatment discontinuation.

For DLCO the reductions at month 24 were higher for fingolimod 0,5 mg than for placebo.

Vascular events

Cases of ischaemic and haemorrhagic strokes have been reported at the 0,5 mg dose in clinical trials and in the post-marketing setting.

In Phase III clinical trials, cases of peripheral arterial occlusive disease occurred in patients treated with fingolimod at higher doses (1,25 or 5,0 mg).

Lymphomas

There have been cases of lymphoma in clinical studies and the post-marketing

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setting. The cases reported were heterogeneous in nature, including B-cell and T-cell lymphomas. Cases of cutaneous T cell lymphoma (mycosis fungoides) have been observed.

Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicine is important. It allows continued monitoring of the benefit/risk balance of the medicine. Health care providers are asked to report any suspected adverse reactions to SAHPRA via the “**6.04 Adverse Drug Reactions Reporting Form**”, found online under SAHPRA's publications:

<https://www.sahpra.org.za/Publications/Index/8>

4.9 Overdose

At 40 mg (i.e. 80-fold above the recommended dose) administered to healthy volunteers, 5 of 6 subjects reported mild chest tightness or discomfort which was clinically consistent with bronchoconstriction.

Fingolimod can induce bradycardia. The decline in heart rate usually starts within one hour of the first dose, and is maximal within 6 hours. The negative chronotropic effect of fingolimod persists beyond 6 hours and progressively attenuates over subsequent days of treatment (see section 4.4 for details). There have been reports of slow atrioventricular conduction with isolated reports of transient, spontaneously resolving complete AV block (see sections 4.4 and 4.8).

If the overdose constitutes first exposure to fingolimod it is important to observe for signs and symptoms of bradycardia, which could include overnight monitoring.

Regular measurements of pulse rate and blood pressure are required and electrocardiograms should be performed (see sections 4.2 and 4.4).

Neither dialysis nor plasma exchange would result in meaningful removal of fingolimod from the body.

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5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

A 34 Other: selective immunosuppressive agents

Pharmacotherapeutic group: Immunosuppressants, selective
immunosuppressants, ATC code: L04AA27

Fingolimod is a sphingosine-1-phosphate receptor modulator. Fingolimod is metabolised by sphingosine kinase to the active metabolite fingolimod-phosphate.

Fingolimod-phosphate, binds at low nanomolar concentrations to sphingosine-1-phosphate (S1P) receptors 1, 3, and 4 located on lymphocytes, and readily crosses the blood brain barrier to bind to S1P receptors 1, 3, and 5 located on neural cells in the central nervous system.

By acting as a functional antagonist of S1PR on lymphocytes, fingolimod-phosphate blocks the capacity of lymphocytes to egress from lymph nodes, causing a redistribution, rather than depletion, of lymphocytes.

This redistribution reduces the infiltration of lymphocytes, including pro-inflammatory Th17 cells, into the central nervous system where they would be involved in nerve inflammation and nervous tissue damage.

Animal studies and *in vitro* experiments indicate that fingolimod may also exert beneficial effects in multiple sclerosis via interaction with S1P receptors on neural cells. Fingolimod penetrates the CNS, and has been shown in animals, to reduce astrogliosis, demyelination and neuronal loss. Further, fingolimod treatment increases the levels of brain derived neurotropic factor (BDNF) in the cortex, hippocampus and striatum of the brain of mice to support neuronal survival and improve motor functions.

Immune system

Effects on immune cell numbers in the blood. Within 4 to 6 hours after the first

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dose of fingolimod 0,5 mg, the lymphocyte count decreases to approximately 75 % of baseline. With continued daily dosing, the lymphocyte count continues to decrease over a two week period, reaching a nadir count of approximately 500 cells/ μ L or approximately 30 % of baseline. Eighteen percent of patients reached a nadir of < 200 cells/ μ L on at least one occasion. Low lymphocyte counts are maintained with chronic daily dosing. Peripheral lymphocyte count increases are evident within days of stopping fingolimod treatment and typically normal counts are reached within one to two months. Chronic fingolimod dosing leads to a decrease in the neutrophil count to approximately 80 % of baseline. Monocytes are unaffected by fingolimod.

Heart rate and rhythm

Fingolimod causes an initial reduction in heart rate and atrioventricular conduction at treatment initiation (see section 4.8). The maximal decline of heart rate is seen in the first 6 hours post dose (Mean -7,86; SD 8,048; Min -43,7; Median -7,67; Max 24,0), with 70 % of the negative chronotropic effect achieved on the first day. Heart rate progressively returns to baseline values within one month of chronic treatment.

With initiation of fingolimod treatment there is an increase in atrial premature contractions, but there is no increased rate of atrial fibrillation/flutter or ventricular dysrhythmias or ectopy.

Fingolimod treatment is not associated with a decrease in cardiac output.

The decrease in heart rate induced by fingolimod can be reversed by atropine, isoprenaline or salmeterol.

Potential to prolong the QT interval

In a QT interval study of doses of 1,25 or 2,5 mg fingolimod at steady-state, when a negative chronotropic effect of fingolimod was still present, fingolimod treatment

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resulted in a mean prolongation of QTcI, with the upper boundary of the 90 % CI $\leq 13,0$ msec. There is no dose or exposure - response relationship of fingolimod and QTcI prolongation. There is no consistent signal of increased incidence of QTcI outliers, either absolute or change from baseline, associated with fingolimod treatment. In the multiple sclerosis studies, there was no clinically relevant prolongation of the QT interval.

Pulmonary function

Fingolimod treatment with single or multiple doses of 0,5 and 1,25 mg for two weeks is not associated with a detectable increase in airway resistance as measured by FEV₁ and forced expiratory flow during expiration of 25 to 75 % of the forced vital capacity (FEF₂₅₋₇₅). However, single fingolimod doses ≥ 5 mg (10-fold the recommended dose) are associated with a dose-dependent increase in airway resistance. Fingolimod treatment with multiple doses of 0,5; 1,25 or 5 mg is not associated with impaired oxygenation or oxygen desaturation with exercise or an increase in airway responsiveness to methacholine.

Subjects on fingolimod treatment have a normal bronchodilator response to inhaled β -agonists.

5.2 Pharmacokinetic properties

Absorption

Fingolimod absorption is slow ($t_{\max}$ of 12-16 hours) and extensive (≥ 85 %, based on the amount of radioactivity excreted in urine and the amount of metabolites in faeces extrapolated to infinity). The apparent absolute oral bioavailability is high (93 %).

Food intake does not alter $C_{\max}$ or exposure (AUC) of fingolimod or fingolimod-phosphate.

Steady-state-blood concentrations are reached within 1 to 2 months of once-daily

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administration and steady-state levels are approximately 10-fold greater than with the initial dose.

Distribution

Fingolimod highly distributes in red blood cells, with the fraction in blood cells of 86 %. Fingolimod-phosphate has a smaller uptake in blood cells of < 17 %.

Fingolimod and fingolimod-phosphate are highly protein bound (> 99,7 %).

Fingolimod and fingolimod-phosphate protein binding is not altered by renal or hepatic impairment. Fingolimod is extensively distributed to body tissues with a volume of distribution of about $1\,200 \pm 260$ L.

Fingolimod readily distributes into the brain and low levels are detected in seminal ejaculate.

Metabolism

The biotransformation of fingolimod in humans occurs by three main pathways; by reversible stereoselective phosphorylation to the pharmacologically active (S)-enantiomer of fingolimod-phosphate, by oxidative biotransformation catalysed mainly by CYP4F2 and possibly other CYP4F isoenzymes and subsequent fatty acid-like degradation to inactive metabolites, and by formation of pharmacologically inactive non-polar ceramide analogs of fingolimod.

Following single oral administration of [^{14}C] fingolimod, the major fingolimod-related components in blood, as judged from their contribution to the AUC up to 816 hours post dose of total radiolabelled components, are fingolimod itself (23,3 %), fingolimod-phosphate (10,3 %), and inactive metabolites (M3 carboxylic acid metabolite (8,3 %), M29 ceramide metabolite (8,9 %) and M30 ceramide metabolite (7,3 %)).

Elimination

Fingolimod blood clearance is $6,3 \pm 2,3$ L/h, and the average apparent terminal

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half-life ($t_{1/2}$) is 6 to 9 days.

Blood levels of fingolimod-phosphate decline in parallel with fingolimod in the terminal phase yielding similar half-lives for both.

After an oral administration, about 81 % of the dose is slowly excreted in the urine as inactive metabolites.

Fingolimod and fingolimod-phosphate are not excreted intact in urine but are the major components in the faeces with amounts representing less than 2,5 % of the dose each. After 34 days, the recovery of the administered dose is 89 %.

Linearity

Fingolimod and fingolimod-phosphate concentrations increase in an apparent dose proportional manner after multiple once daily doses of fingolimod 0,5 mg or 1,25 mg.

Special Populations

Renal Dysfunction

Severe renal impairment increases fingolimod C_{max} and AUC by 32 % and 43 %, respectively, and fingolimod-phosphate C_{max} and AUC by 25 % and 14 %, respectively. The apparent elimination half-life is unchanged for both analytes.

Hepatic Dysfunction

The pharmacokinetics of single-dose fingolimod (1 or 5 mg), when assessed in subjects with mild, moderate and severe hepatic impairments, (Child-Pugh class A, B, and C), showed no change on fingolimod C_{max} , but an increase in AUC by 12 %, 44 % and 103 %, respectively. The apparent elimination half-life is unchanged in mild hepatic impairment but is prolonged by 49 to 50 % in moderate and severe hepatic impairment.

In patients with severe hepatic impairment (Child-Pugh class C), fingolimod-

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phosphate C_{max} was decreased by 22 % and AUC increased by 28 %. The pharmacokinetics of fingolimod-phosphate were not evaluated in patients with mild or moderate hepatic impairment.

Although hepatic impairment elicited changes in the disposition of fingolimod and fingolimod-phosphate, the magnitude of these changes suggests that the fingolimod dose does not need to be adjusted in mild or moderate hepatic impaired patients (Child-Pugh class A and B). Fingolimod should be used with caution in patients with severe hepatic impairment (Child-Pugh class C).

Elderly

The mechanism for elimination and results from population pharmacokinetics suggest that dose adjustment would not be necessary in elderly patients. However, clinical experience in patients aged above 65 years is limited.

Paediatrics

Safety and efficacy of fingolimod in paediatric patients below the age of 18 have not been studied. PHINMO is not indicated for use in paediatric patients.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Capsule contents

Betacyclodextrin (Betadex)

Magnesium stearate

Capsule shell

Iron oxide yellow (E172)

Titanium dioxide (E171)

Gelatin

Sodium lauryl sulphate

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Water

Printing ink

Shellac

Dehydrated alcohol

Isopropyl alcohol

Butyl alcohol

Propylene glycol

Strong ammonia solution

Black iron oxide

Potassium hydroxide

Purified water

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

2 years.

6.4 Special precautions for storage

Store at or below 25 °C, protect from moisture.

PHINMO 0,5 capsules must always be stored in the blister to protect from moisture and only removed immediately before use. The blisters should be kept in the carton until required for use.

6.5 Nature and contents of container

7 or 10 capsules per blister made of PVC/Aclar film and aluminium foil. The aluminium foil is silver and the PVC/Aclar film is clear and transparent. The outer container is a printed cardboard box.

Pack sizes are 7, 10, 14, 28 or 98. Not all pack sizes might be marketed.

6.6 Special precautions for disposal and other handling

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Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

7 HOLDER OF CERTIFICATE OF REGISTRATION

Dr. Reddy's Laboratories (Pty) Ltd

Block B, 204 Rivonia Road

Morningside

Sandton

2057

8 REGISTRATION NUMBER

55/34/0851

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

13 June 2023

10 DATE OF REVISION OF TEXT

To be allocated.