

SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE PRODUCT



2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Rolac® 100mg Capsules
Each capsule contains:
Itraconazole Immediate Release Coated
Pellets MS Eq. to Itraconazole.....100mg

3. PHARMACEUTICAL FORM

Appearance: Light brown opaque cap printed "Rolac 100" and off white colored body printed "" three times on them.

- 4. CLINICAL PARTICULARS
 4.1. THERAPEUTIC INDICATIONS:

 Vulvovaginal candidosis

 Pityriasis versicolor

 Dermatophytoses caused by organisms susceptible to itraconazole

 Oral candidosis

 Fungal keratitis

 Systemic mycoses

 Onychomycosis

4.2. POSOLOGY AND METHOD OF ADMINISTRATION:

Posology: Treatment schedules in adults for each indication are as follows:

Short-term usage:

Indications	Dose	
Vulvovaginal candidosis	200mg twice daily for 1 day or 200mg once daily for 3 days	
Pityriasis versicolor	200mg once daily for 7 days	
Tinea corporis, tinea cruris	100mg once daily for 2 weeks or 200mg once daily for 7 days	
Tinea pedis, tinea manuum	100mg once daily for 4 weeks	
Oral candidosis	100mg once daily for 2 weeks	
Fungal keratitis	200mg once daily for 3 weeks Treatment should not exceed 4 weeks	

Long-term usage:
Dosage recommendations vary according to the infection treated

Indication	Dose	Median duration
Onychomycosis	200mg od	3 months
Aspergillosis	200mg od	2-5 months
Candidosis	100-200mg od	3 weeks-7 months
Non-meningeal cryptococcosis	200mg od	1-6 months
Cryptococcal meningitis	200mg bid	2 months- 1 year
Histoplasmosis	200mg od -200mg bid	8 months
Sporotrichosis	100mg od	3 months
Paracoccidioidomycosis	100mg od	6 months
Chromomycosis	100-200mg od	6 months
Blastomycosis	100mg od – 200mg bid	6 months

Use in Children (below 12 years): Clinical data on the use of Itraconazole capsules in paediatric patients are limited. Itraconazole capsules should not be used in children use in climater (verw itz years). Climat data on the use of traconazole capsules in paediatric patients are limited, traconazole capsules should not be used in children unless the potential benefit outweights the potential risks.

Use in Etiderly: As for use in children.

Use in patients with renal impairment. Limited data are available on the use of oral itraconazole in patients with renal impairment. Caution should be exercised when this

drug is administrated in this patient population.

Use in patients with hepatic impairment: Limited data are available on the use of oral itraconazole in patients with hepatic impairment. Caution should be exercised when this drug is administrated in this patient population.

Method of administration:

- 4.3. CONTRAINDICATIONS:
 Itraconazole is also contraindicated in patients who have shown hypersensitivity to the drug or to any of its excipients. Co-administration of the following drugs is contraindicated with Itraconazole capsules.

 C YP34A metabolised substrates that can prolong the OT-interval e.g. astemizole, bepridit, cisapride, dofetilide, levacety/methadol (levomethadyl), mizolastine, primozide, quinidine, sertindole and terfanadine are contraindicated with Itraconazole capsules. Co-administration may result in increased plasma concentrations of these substrates, which can lead to OT prolongation and rare occurrences of lorsades de pointes.

 C YP34A metabolised HMC-CoA reductase inhibitors such as lovastatin and simvastatin.

 Eirgot alkaloids such as dihydroergotamine, ergometrine (ergonovine), ergotamine and methylergometrine (methylergonovine).

 Eletiptan.

 Nisoldipine.

■ reasoluptile.

If acconaziole capsules should not be administered to patients with evidence of ventricular dysfunction such as congestive heart failure (CHF) or a history of CHF except for the treatment of life-threatening or other serious infectious lines in the used during pregnancy (except for life-threatening cases). Women of childbearing potential taking litanoanzele should use contraceptive precontaceptive precontaceptive precontaceptions. Effective contraceptions about due continued until the menistrual period following the end of threaconaziole therapy.

4.4. SPECIAL WARNINGS AND PRECAUTIONS FOR USE:

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Cardiac effects: In a healthy volunteer study with Itraconazole IV, a transient asymptomatic decrease of the left ventricular ejection fraction was observed; this resolved before the next infusion. The clinical relevance of these findings to the oral formulations is unknown. Itraconazole has been shown to have a negative inotropic effect and Itraconazole has been associated with reports of CHF. Heart failure was more frequently reported among spontaneous reports of 400mg total daily dose than among those of lower total daily doses, gugesting that the risk of heart failure might increase with the total daily doses of intonazole. Itraconazole should not be used in patients with CHF or with a history of CHF unless the benefit clearly outweighs the risk. This individual benefitirisk assessment should take into consideration factors such as the severity of the indication, the dosing regimen (e.g., total daily dose), and individual risk factors for CHF. These risk factors include cardiac disease, such a sichaemic and valvual resisease; significant pulmonary disease, such as characteristic and valvual resisease; significant pulmonary disease, such as characteristic and valvual resisease; significant pulmonary disease, such as characteristic and valvual resisease; significant pulmonary disease, such as characteristic and valvual resisease; significant pulmonary disease, should be discontinued. Calcium channel blockers can have negative inchropic effects which may be additive to those of traconazole. In addition, itaconazole should be discontinued. Calcium channel blockers can have negative inchropic effects which may be additive to those of traconazole. In addition, itaconazole and inhibit the metabolism of calcium channel blockers. Therefore, caution should be used when o-administering traconazole and calcium channel blockers due to an increased risk of CHF.

Interaction potential: Itraconazole has a potential for clinically important drug interactions.

Reduced gastric a

potential benefit outweighs the potential risks



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Hepatic effects: Liver function monitoring should be considered in patients receiving Itraconazole treatment. Very rare cases of serious hepatoloxicity, including some cases of fatal acute liver failure, have occurred with the use of Itraconazole. Most of these cases involved patients who had pre-existing liver disease, were treated for systemic indications, had significant other medical conditions and/or were taking other hepatotoxic drugs. Some patients had no obvious risk factors for liver disease. Some of these cases have been observed within the first month of treatment, including some within the first week. Patients should be instructed to promptly report to their physician signs and symptoms suggestive of hepatitis such as anorexia, nausea, vomiting, fatigue, abdominal pain or dark urine. In these patients, treatment should be stopped immediately and liver function testing should be conducted. In patients with risated liver enzymes or active liver disease, or who have perienced liver toxicity with other drugs, treatment should not be started unless the expected benefit exceeds the risk of hepatic injury. In such cases liver enzyme monitoring is necessary.

Hepatic impairment: Limited data are available on the use of oral traconazole in patients with hepatic impairment. Caution should be exercised when the drug is administered in this patient population.

Immunocompromised patients: In some immunocompromised patients (e.g. neutropenic, AIDS or organ transplant patients), the oral bioavailability of traconazole capsules may be decreased.

Immulrocompromised patients. In Sorial Immunicompromised patients, and sold interest in the patients with immediately life-threatening systemic fungal infections: Due to the pharmacokinetic properties, Itraconazole capsules are not recommended for initiation of treatment with immediately life-threatening systemic fungal infections.

Patients with AIDS: In patients with AIDS having received treatment for a systemic fungal infection such as sportorichosis, blastomycosis, histoplasmosis or cryptococcosis (meningeal and non-meningeal) and who are considered at risk for relapse, the treating physician should evaluate the need for a maintenance treatment.

Neuropathy: In neuropathy occurs that may be attributable to Itraconazole, treatment should be discontinued.

Renal impairment: Limited data are available on the use of oral itraconazole in patients with renal impairment. Caution should be exercised when this drug is administered in this patient population.

interpreter protections. There is no information regarding cross hypersensitivity between itraconazole and other azole antifungal agents. Caution should be used in prescribing Itraconazole to patients with hypersensitivity to other azoles. Patients with rare hereditary problems of fructose intolerance, glucose-galactose malabsorption or sucrase-isomatises insufficiency should not take this medicine.

Hearing Loss: Transient or permanent hearing loss has been reported in patients receiving treatment with itraconazole. Several of these reports included concurrent administration of quinidine which is contraindicated. The hearing loss usually resolves when treatment is stopped, but can persist in some patients.

4.5. INTERACTION WITH OTHER MEDICINAL PRODUCTS AND OTHER FORMS OF INTERACTION:

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Drugs affecting the absorption of itraconazole: Drugs that reduce the gastric acidity impair the absorption of itraconazole capsules.

Drugs affecting the metabolism of itraconazole: Itraconazole is mainly metaboliside through cyclorome CYP3A4. Interaction studies have been performed with rifampicin, rifabutin and phenytoin, which are potent enzyme inducers of CYP3A4. Since the bioavailability of itraconazole and hydroxy-itraconazole was decreased in these studies to such an extent that efficacy may be largely reduced, the combination of itraconazole with these potent enzyme inducers is not recommended. No formal study data are available for other enzyme inducers, such as carbanazepine, Hypericum perforatum (SI Juhn's WOrft), phenodebriblial and isoniazid, but similar effects should be anticipated. Potent inhibitors of this enzyme such as ritonavir, indinavir, clarithromycin and erythromycin may increase the bioavailability of tiraconazole. Potent inhibitors of this enzyme such as ritonavir, indinavir, clarithromycin and erythromycin may increase the bioavailability of tiraconazole. Potent inhibitors of this enzyme such as ritonavir, indinavir, clarithromycin and erythromycin may increase the bioavailability of tiraconazole. Potent inhibitors of this enzyme such as ritonazole on inchibit the metabolism of other drugs: Itraconazole on an increase and/or a prolongation of their effects, including side effects. When using concomitant medication, the corresponding label should be consulted for information on the route of metabolism. After stoping treatment, itraconazole on co-administered drugs is considered.

Examples are: The following druging treatment, itraconazole on co-administered drugs is considered.

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- Oscentzure, ueprusi, cisapnde, dotettiide, levamethadol (levomethadyl), mizolastine, pim since co-administration may result in increased plasma concentrations of these substrate
 CYP3A4 metabolised HMG-CoA reductase inhibitors such as lovastatin and simvastatin.
 Triazolam and oral midazolam

- Ergot alkaloids such as dihydroergotamine, ergometrine (ergonovine), ergotmaine and methylergometrine (methylergonovine)
- Nisoldipine.

Caution should be used when co-administering itraconazole with calcium channel blockers due to an increased risk of congestive heart failure. In addition to possible pharmacokinetic interactions involving the drug metabolizing enzyme CYP3A4, calcium channel blockers can have inotropic effects which may be additive to those of itraconazole. The following drugs should be used with caution, and their plasma concentrations, effects or side effects should be monitored. Their dosage, if co-administered with itraconazole, should be reduced if necessary:

- Oral anticoagulants;
- HIV protease inhibitors such as ritonavir, indinavir, saquinavir

- HIV protease inhibitors such as ritonavir, indinavir, saquinavir,
 Certain antineoplastic agents such as vinca alkaloids, busulphan, docetaxel and trimetrexate;
 CYP3AM metabolised calcium channel blockers such as dihydropyridines and verapamit;
 Certain immunosuppressive agents: ciclosporin, facrolimus, rapamycin (also known as sirolimus);
 Certain immunosuppressive agents: ciclosporin, facrolimus, rapamycin (also known as sirolimus);
 Certain gluccortricosteroids such as budesonide, dexamethasone, methylprednisolone and fluticasone;
 Digoxin (via inhibition of P-glycoprotein);
 Others: carbamzezipine, cilostazol, buspirone, alfentanil, alprazolam, brotizolam, midazolam IV, disopyramide, eletriptan, fentanyl, halofantrine, rifabutin, repaglinide, ebastine, reboxetine. No interaction of irraconazole with zidovudine (AZT) and fluvastatin has been observed. No inducing effects of itraconazole on the metabolism of ethinyloestradiol and norethisterone were observed.

 Tect on protein binding: In vitro studies have shown that there are no interactions on the plasma protein binding between itraconazole and imipramine, propranolol, azepam, cimetidine, indomethacin, tolbutamide or sulfamethazine.

4.6. FERTILITY, PREGNANCY AND LACTATION:

Fertility: Women of childbearing potential taking itraconazole capsules should use contraceptive precautions. Effective contraception should be continued until the menstrual

period following the end of itraconazole therapy.

Pregnancy: Itraconazole must not be used during pregnancy except for life-threatening cases where the potential benefit to the mother outweighs the potential harm to the Fregitative, inaconazone must not use design up repetition in emergency and assess where are placement between the mointer downeying its potential main to the foetus. In animal studies irraconazole has shown reproductive toxicity. There is limited information on the use of irraconazole during pregnancy. During post-marketing experience, cases of congenital abnormalities have been reported. These cases included skeletal, genitourinary tract, cardiovascular and ophthalmic malformations as well as chromosomal and multiple matformations. A causal relationship with irraconazole has not been established. Epidemiological data on exposure to itraconazole during the first trimester of pregnancy — mostly in patients receiving short-term treatment for vulvovaginal candidosis – did not show an increased risk for malformations as compared to control subjects no exposed to any known teratogens.

Breast-feeding: A very small amount of tiraconazole is excreted in human milk. The expected benefits of itraconazole therapy should be weighed against the risks of breast-feeding. In case of doubt, the patient should not breast feed.

4.7. EFFECTS ON ABILITY TO DRIVE AND USE MACHINES:

ve and use machines have been performed. When driving vehicles and operating machinery the possibility of adverse reactions such as dizziness, visual disturbances and hearing loss, which may occur in some instances, must be taken into accour

4.8. UNDESIRABLE EFFECTS

Adverse drug reactions from spontaneous reports during worldwide postmarketing experience with Itraconazole (all formulations). The adverse drug reactions are ranked by frequency, using the following convention: Very common ≥1/100, Common ≥1/100, and < 1/100, Uncommon ≥1/1000, and < 1/1000, Rare ≥1/10000 and < 1/1000, Rare ≥1/10000 and < 1/1000, Very rare </td>

4.10000 including isolated reports. The frequencies below reflect reporting rates for adverse drug reactions from spontaneous reports, and do not represent more precise estimates of incidence that might be obtained in clinical or epidemiological studies.

Blood and lymphatic system disorders: Very Rare: Evenum sickness angioneurotic oedema anaphylactic, anaphylactic, anaphylactic anaphylactic anaphylactic anaphylactic anaphylactic supports.

Metabolism and nutrition disorders: Very Rare: Peripheral neuropathy, paraesthesia, hypoaesthesia, headache, dizziness.

Eye disorders: Very Rare: Peripheral neuropathy, paraesthesia, hypoaesthesia, headache, dizziness.

Eye disorders: Very Rare: Congestive heart failure.

Respiratory, thoracic and mediastinal disorders: Very Rare: Peripheral failure.

Respiratory, thoracic and mediastinal disorders: Very Rare: Serious hepatotoxicity (including some cases of fatal acute liver failure), hepatitis, reversible increases in hepatic enzymes.

Skin and subcutaneous tissue disorders: Very Rare: Toxic epidermal necrolysis, Stevens-Johnson syndrome, erythema multiforme, exfoliative dermatitis, leukocytoclastic vasculiis, uricaria, alopecia, photosensitivity, rash, pruntus.

General disorders and administration site conditions: Very Rare: Odedma.

Musculoskeletal and connective tissue disorder: Very Rare: Myalgia, arthralgia.

Reproductive system and disorders: Very Rare: Menstrual disorders, erectile dysfunction.

4.9. OVERDOSE:

No data are available. In the event of an overdose, supportive measures should be employed. Within the first hour after ingestion gastric lavage may be performed. Activated charcoal may be given if considered appropriate. Itraconazole cannot be removed by haemodialysis. No specific antidote is available.

5. PHARMACOLOGICAL PROPERTIES 5.1. PHARMACODYNAMIC PROPERTIES:

acotherapeutic group: Antimycotic for systemic use, triazole derivatives. ATC code: J02A C02



SUMMARY OF PRODUCT CHARACTERISTICS

Mechanism of action: Itraconazole, a triazole derivative, has a broad spectrum of activity. In vitro studies have demonstrated that itraconazole impairs the synthesis of ergosterol in fungal cells. Ergosterol is a vital cell membrane component in fungi, limpairment of its synthesis ultimately results in an antifungal effect. For itraconazole, breakpoints have not been established for EUCAST methodology). The CLSI breakpoints are as follows: susceptible flogiful. Interpretive breakpoints have not been established for EUCAST methodology). The CLSI breakpoints are as follows: susceptible flogiful. Interpretive breakpoints have not been established for EUCAST methodology). The CLSI breakpoints are as follows: susceptible flogiful. Interpretive breakpoints have not been established for entities demonstrate that itraconazole inhibits the growth of a broad range of fruin jettlogenic for humans at concentrations usually fugini. These include: demonstrate that itraconazole inhibits the growth of a broad range of fruin jettlogenic for humans at concentrations usually fugini. These include: demonstrate that itraconazole inhibits the growth of a broad range of fruin jettlogenic for humans at concentrations usually fugini. These include: demonstrate that itraconazole in promote and traconazole in promote and

5.2. PHARMACOKINETICS:

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General pharmacokinetic characteristics: The pharmacokinetics of itraconazole has been investigated in healthy subjects, special populations and patients after single and multiple dosing. In general, traconazole is well absorbed. Peak plasma concentrations are reached within 2 to 5 hours following administration of the oral solution. Itraconazole undergoes extensive hepatic metabolism to give numerous metabolisms to give numerous metabolisms of the wind produce that the unchanged drug. The terminal half-life of itraconazole is about 40 hours after repeated dosing. The pharmacokinetics of itraconazole is characterized by non-linearity and, consequently, shows accumulation in plasma after multiple dose administration. Steady-state concentrations are recentrations are recentrations are recentrations are calculated within 15 days, with Car-values of about 2.gyml after oral administration of 200mg once daily. Itraconazole clearance decreases at higher doses due to a saturable mechanism of its hepatic metabolism. Itraconazole is excreted as inactive metabolities in unit er darbinistration of the oral solution. Peak plasma concentrations of the unchanged drug are reached within 2 to 5 hours following an oral dose. The observed absolute bioavailability of itraconazole under fed conditions is about 55% Oral bioavailability is maximal when the capsules are taken immediately after a full meal.

Distribution: Nost of the itraconazole in plasma is bound to protein (99.8%) with albumin being the main binding component (99.6% for the hydroxy-metabolitie). It has also a marked affinity for lipids. Only 0.2% of the itraconazole in plasma is present as free drug. Itraconazole is distributed in a large apparent volume in the body (> 700L), suggesting its extensive distribution into issues: Concentrations in lung, kidney, liver, bone, stomach, spleen and muscle were found to be two to three times higher than corresponding concentrations in plasma. Brain to plasma ratios were about 1. The uptake into keratin General pharmacokinetic characteristics: The pharmacokinetics of itraconazole has been investigated in healthy subjects, special populations and patients after single and

- for at least six months after the end of a 3-month treatment period

5.3. PRECLINICAL SAFETY DATA:

5.3. PRECLINICAL SAFETY DATA:

Itraconazole: Itraconazole has been tested in a standard battery of non-clinical safety studies. Acute toxicity studies with itraconazole in mice, rats, guinea pigs and dogs indicate a wide safety margin. Sub (chronic) oral toxicity studies in rats and dogs revealed several target organs or tissues: adrenal cortex, liver and mononuclear phagocyte system as well as disorders of the lipid metabolism presenting as xanthoma cells in various organs. At high doses, histological investigations of adrenal cortex showed a reversible swelling with cellular hypertorphy of the zona reflexularia and fasciculata, which was sometimes associated in a thinning of the zona oftenucloses. Reversible hepatic changes were found at high doses. Slight changes were observed in the sinusoidal cells and vacuolation of the hepatocytes, the latter indicating cellular dysfunction, but without visible hepatitis or hepatocellular necrosis. Histological changes of the mononuclear phagosystem were mainly arteracterized by macrophages with increased proteinacous material in various parenchymal tissues. There are no indications of a mutagenic potential of tiraconazole. Itraconazole is not a primary carcinogen in rats or mice. In male rats, however, there was a higher incidence of soft-tissue sarcoma, which is attributed to the increase in non-neoplastic, chronic inflammatory reactions of the connective tissue as a consequence of raised ortholesterol levels and cholesterosis in connective tissue. There is no evene of a primary influence on fertility under treatment with itraconazole. Itraconazole was found to cause a dose-related increase in male rate toxicity, embryotoxicity, and teratogenicity in rats and mice at high doses. In rats, the teratogenicity consisted of maging solelated effects, in mice, it consisted of encephaloceles and macroglossis ad global lower bone mineral density was observed in juvenile dogs after chronic itraconazole administration. In three toxicology studies using rats, itraconazole induced

6. PHARMACEUTICAL PARTICULARS

6.1. LIST OF EXCIPIENTS:

■ Sucrose

■ Maize starch

■ Hypermellose

■ Polyethylene glycol

■ Talcum powder

6.2. INCOMPATIBILITIES:

6.3. SHELF LIFE:

6.4. SPECIAL PRECAUTIONS FOR STORAGE: Do not store over 30°C, and protect from heat, light and moisture. Improper storage may deteriorate the medicine Keep out of reach of children.

6.5. NATURE AND CONTENTS OF CONTAINER:

6.6. SPECIAL PRECAUTIONS FOR DISPOSAL OF A USED PRODUCT:

No special requirements.

6.7. DRUG PRODUCT SPECIFICATIONS:

7. MARKETING AUTHORISATION HOLDER

Manufactured by: SAMI Pharmaceuticals (Pvt.) Ltd. F-140/A, S.I.T.E., Karachi-Pakistan www.samipharmapk.com Mfg Lic. No. 000938

8. MARKETING AUTHORISATION NUMBER(S)

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

10. DATE OF REVISION OF THE TEXT

رولیک (اٹراکونازول)

خوراک ڈاکٹر کی ہدایت کےمطابق استعمال کریں۔ صرف رجیٹر ڈ ڈاکٹر کے نسخے کےمطابق فروخت کریں۔ بچوں کی پہنچ سے دورر کھیں ۔ ، دواکو،۳ ڈگری سنٹی گریڈے زیادہ درجہ حرارت پر نہر کھیں، گرمی،روشنی اورنمی سے محفوظ رکھیں ور نہ دواخراب ہوجائیگی۔