# ITAGUP Plus Tablets

(Sitagliptin Phosphate + Metformin HCI)

### WARNING: LACTIC ACIDOSIS

- Postmarketing cases of metformin-associated lactic acidosis have resulted in death, bypothermia, bypotension, and resistant bradyarthythmias. Symptoms included malaise, myalgis, respiratory distress, sommolence, and abdominal pain. Laboratory abnormalities included elevated blood lactate levels, anion gap acidosis, increased lactate/pynvate ratio, and metformin plasma levels generally »Smcg/ml.

  Risk factors include renal impairment, concomiliant use of certain drugs, age 65 years old, radiological studies with contrast, surgery and other procedures, hypoxic states, excessive alcohol intake, and hepatic impairment. Steps to reduce the risk of and manage metformin-associated lactic acidosis in these high risk groups are provided in WARNINGS AND PRECAUTIONS section.

  If lactic acidosis is suspected, discontinue ITAGUP® Flus and institute general supportive measures in a hospital setting. Prompt hemodialysis is recommended.

### COMPOSITION

ITAGUP® Plus 50mg/500mg Tablets: | TTAGLIP\*Plus 50mg/500mg Tablets: | TTAGLIP\*Plus 50mg/850mg Tablets: | Each film coated tablet contains: | Staglipin Phosphate USP eq. to Sitaglipin in...50mg | Mediomin HCIBP. | Stome | Stome | Stome | Staglipin | Stome | Stome | Staglipin | Stome | Stome | Staglipin | Stome | Stome

### DRUG DESCRIPTION

DRUG DEX. REFINIOR

TRAGEIP "Pulses tablets contain two oral antihypergycemic drugs; stingliptin and metformin HCL used in the management of type 2 diabetes.

Staagliptin is an orally-active hibbitor of the dipopityly peptifase-4 (DPP-4) enzyme. It is described chemically as 7+(387) a-amino-1-oxo-4-(2.4,5 trifluorophenyl) butyll-5.6.7.8 tetrahydro-3(trifluoromethyl)-1,24-triazolol-1/3-al pyrazine phosphate (1:1) monohydrate with an empirical formula of Ci-aHi-FiR-NOH-FPO-HIPO and a molecular weight of 523.32.

Metformin hydrochoirde (N, N-dimethylmido dicarbonimitic damide hydrochloride) is not chemically or pharmacologically related to any other classes of oral antihyperglycemic agents with a molecular formula of C<sub>4</sub>H<sub>11</sub>N<sub>5</sub>HCl and a molecular weight of 165.63.

# CLINICAL PHARMACOLOGY

otherapeutic group: Drugs used in diabetes, combinations of oral blood glucose lowering drugs, ATC code: A10BD07

ITAGUP\* Plus combines two anthypergycaemic medicinal products with complementary mechanisms of action to improve glycaemic control in patients with type 2 diabetes: Sitagliptin phosphate, a dipeptidyl peptidase 4 (DPP-4) inhibitor, and metformin hydrochloride, a member of the biguanide class.

THOUP 4-IIIS combines two animyterge/came mencinal products wan comparementary mecunions to action to improve gry-action, common in patients with type 2 diabetes. By inhibiting the DPP-4 enzyme, skagliptin increases the levels of two known active, potent, and highly selective inhibitor of the dipeptidyl peptidase 4 (DPP-4) enzyme for the treatment of type 2 diabetes. By inhibiting the DPP-4 enzyme, skagliptin increases the levels of two known active incretin hormones, ghreagon like peptidyl peptidase 4 (DPP-4) enzyme for the treatment of type 2 diabetes. By inhibiting the DPP-4 enzyme, skagliptin increases the levels of two known active increases and release from paneratic health active. CDP-1 also lowers glicagon secretion paneratic halpa tecks, leading to reduced hepatic glucose production. When blood glucose levels are low, insulin release is not enhanced and glucagon secretion is not suppressed. Slaggliptin is a potent and highly selective inhibitor of the enzyme DPP-4. Metfornim: It is a biquande with antilypreglycaemic effects, lowering both basal and postprandial plasma glucose a flowers not simulate insulin secretion and therefore does not produce hypogycemia. Metfornim may act via three mechanisms: By reduction of hepatic glucose production by inhibiting gluconeogenesis and glycogenolysis; 1 ln muscle, by modestly increasing insulin sensitivity. improving peripheral glucose uptake and utilization; 1 By delaying intestinal glucose absorption

PIRAMMACONSHITCS:
Slaglipin: Absorption: Rapid: Distribution: -198 L; Protein binding: 38%; Metabolism: Not extensively metabolized; minor metabolism via CYP3A4 and 2C8 to metabolites (inactive) suggested by in vins studies; Biovazabality; -87%; Half-life elimination: 12.4 hours; Time to peak, plasma: 1 to 4 hours; Excretion: Utine 87% (-79% as unchanged drug, 16% as metabolites); feces 13%; Renal function impairment: Plasma AUC levels of staggluin were increased approximately 2- and 4-fold in patients with moderate and severe renal impairment, including patients with ESEO on hemodalysis; respectively. Gefattic: Elekerly patients had -19% higher plasma concentration.
Henorial-visis: respectively. Gefattic: Catelory about 18 and -19% higher plasma concentration in the concentrates in liver, studies, and GI tract; Protein binding: Neggible: Relabolism: Not metabolism: Polar plasma: 4 to 5 hours; Biood -17.6 hours; Time to peak to 5 hours; Exercision: Utility (19% as unchanged drug; active secretion); Read intection impairment: Peak and systemic exposure 6 increased and oral and renal clearance is decreased, thall the 6 published, and Canat 6 increased.

# INDICATIONS AND DOSAGE INDICATIONS AND USAGE:

- INDICATIONS AND USAGE.

  1 It is indicated in adult patients with type 2 diabetes mellius:

  1 It is indicated as an adjunct to diet and exercise to improve glycaemic control in patients inadequately controlled on their maximal tolerated dose of metformin alone or those already being treated with the combination of stagilptin and melformin.
- 1 ITAGUP® Flus is indicated in combination with a sulphonylurea (i.e. triple combination therapy) as an adjunct to diet and exercise in patients inadequately controlled on their maximal tolerated dose of meliornin and a sulphonylurea.
- tolerated dose of metformin and a sulphonyture.

  1 TRGCUP 2-buts is indicated a stiple combination therapy with a PPAR\* agonist (i.e. a thiazolidinedione) as an adjunct to diet and exercise in patients inadequately controlled on their maximal tolerated dose of metformin and a PPAR\* agonist.
- 1 TRACIP 2018 is also indicated as add-on to insulin (i.e. triple combination therapy) as an adjunct to diet and exercise to improve glycaemic control in patients when stable dose of insulin and melformin abone do not provide adequate glycaemic control.

## DOSAGE AND ADMINISTRATION:

Method of Administration: ITAGUP® Plus should be given twice daily with meals to reduce the gastrointestinal adverse reactions associated with metformin. It must not be split or divided before snakowing.

Dosage: The dose of antihyperglycemix therapy with ITAGLIP®-Plus should be individualized while not exceeding the maximum recommended daily dose of 100mg Sitagliptin and 2000mg of

- mediomin.

  1 Patients already on medformin: Initial Staagliptin 100mg/day plus current daily dose of metformin Patients currently on metformin 1,700mg/day (e.g. 850mg twice daily) may receive an initial dose of shagliptin 100mg/metformin 2,000mg per day.

  1 Patients not on metformin: Initial Staagliptin 100mg/metformin 1,000mg per day. Gradual dose escalation is recommended to reduce gastrointestinal side effects associated with metformin.

  1 Dosage adjustment for concominant therapy: Patients receiving concomitant insulin and/or insulin secretagogues (e.g. sulfonylureas) may require dayseage adjustments of these agents. All patients should continue their recommended diet with an adequate distribution of carbohydrate intake during the day.

  Important Limitations of Use: ITAGLIP\* Pists should not be used in patients with type 1 diabetes mellitus or for the treatment of diabetic ketoacidosis. The combination has not been studied in patients with a history of pancreatitis are at increased risk for the development of pancreatitis during the second of the development of pancreatitis are at increased risk for the development of pancreatitis.

during its use.

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SPECIAL POPULATIONS:
Paediatric population: No studies are performed in paediatric population under 18 years of age.
Geriatric population: No studies are performed in paediatric population under 18 years of age.
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Geriatric population: As mediomain and staglight are excreted by the kidney. FFAGLIP® Pars should be used with caution as age increases. No dose adjustment is recommended but monitoring of renal function is necessary to add in prevention of mediomain-associated facility and the elderly.

Renal Impairment: CEFR should be assessed before institution of treatment with mediomain-containing produces and at least annually thereafter. In patients at increased risk of further progression of renal impairment and in the elderly, renal function should be assessed borne frequently, e.g. every 3 & months. The maximum daily dose of mediornia in bandle preferably be divided into 2-3 daily doses. Factors that may increase the risk of lactic acidiosis should be reviewed before considering initiation of melformin in patients with CFR - 8 float //min.

1 eCFR -5 fl

Hepatic Impairment: ITAGUP® Plus must not be used in patients with hepatic impairment.

## OVERDOSAGE:

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There is no experience with doses above 800mg in clinical studies for sitagliptin. A large overdose of metformin (or co-existing risks of lactic acidosis) may lead to lactic acidosis which is a medical emergency and must be treated in hospital. The most effective method to remove lactate and metform is haemodialysis. In chircla studies, approximately 13.5 % of the dose was removed over a 3 to 4-do not meanodialysis session. It is not known it stagiplin is dialysable by perhoneal dialysis.

In the event of an overdose, it is reasonable to employ the usual supportive measures, e.g., remove unabsorbed material from the gastrointestinal tract, employ clinical monitoring (including obtaining an electrocardiogoma), and institute supportive therapy if required.

## CONTRAINDICATIONS

Plus (Sitagliptin and metformin HCl) is contraindicated in patients with:

- 1 Severe renal impairment (eGFR below 30 ml/min/1.73 m²)
  1 History of a serious hypersensitivity reaction to stagliptin such as anaphybaxis or angioedema
  1 Diabetic pre-containation of indinated contrast agents
  1 Intravascular administration of indinated contrast agents
  1 Hepatic impairment
  1 Repatic impairment
  2 Reast-feeding
  3 Intravascular administration of indinated contrast agents
  3 Acute or chronic metabolic acidosis, including diabetic ketoacidosis. Diabetic ketoacidosis should be treated with insulin insu

1 Acute alcohol intoxication, atcoholsm

WARNINGS AND PRECAUTIONS

CONCERNS RELATED TO ADVERSE EFFECTS:

Lactic acidosis: [Boxed Warning]: Postmarketing cases of melformin-associated lactic acidosis have resulted in death, hypothemia, hypotension, and resistant bradyarnlythmias. The onset is often subtle, acompanied by nonspecific symptoms (e.g., malake, myalgias, respiratory distress, somnolence, abdominal pain): elevated blood lactate levels (>5mmo/L); anion gap acidosis (without evidence of ketomatic or ketometia): increased lactate/purvate ratit; melformin plasma levels generally > 5me/gml. Risk factors for lactic acidosis include patients with renal impairment, concomitant use of certain drugs (e.g., NSAIDS, diuretics, carbonic anhydrase inhibitors such as topiramately,\* 65 years, having a radiologic study with contrast, surgery and other procedures, hypoxic states (e.g., acute heart failure or other cardiorespiratory filters) or sepsis, excressive alrohol intake, hepatic impairment, inadequately controlled diabetes, keitsis, probaged lasting, or concomitant use of melchines causing lactic acidosis. Discontinue immediately if acidosis is suspected, prompt hemodialysis is recommended. Discontinue melformin in patients with conditions associated with delydration, hypoperfusion, sepsis, or hypoxemia. Temporaryl discontinue thereapy in patients with restricted food and fluid intake.

Acute Pancreatitis: Cases of acute pancreatitis (including hemorrhagic and necrotizing with some fatalities) have been reported with use. Monitor for signs/symptoms of pancreatitis; discontinue use immediately if jancreatitis is suspected and initiate appropriate management. If acute pancreatitis is confirmed, stagliptin should not be restricted. Caution should be exercised in patients with a history of pancreatitis.

Renal effects: Wosening renal function, including acute renal failure, sometimes requiring dialysis has been reported. When considering the use of sitagliptin in combination with another anti-diabetic medicinal product, its conditions for use in patients with renal impairment should be checked.

Vitamin B\*C concentrations: Monitor vitamin B\*V serum concentrations periodically with long-term therapy due to deficiency risk and in particular those with peripheral neuropathy or anemia. Change in clinical status of patients with previously controlled type 2 diabetes: in case of vaque change in clinical status of patients, patient should be evaluated promptly for evidence of ketoactiosis or lactic acidosis. Evaluation should include serum electrolytes and ketones, blod glucose and, if indicated, blood pfl, lactate, pyrousle, and melformin levels. If acidosis of either form occusts, treatment must be stopped lumediately and other appropriate corrective measures inhalted.

Bypoglycemia when used in combination with other anti-hyperglycemic medicinal products in chiral triads of stagliptin as monotherapy and as part of combination therapy with medicinal products not lonow to cause bypoglycemia (ac mediomin and/or a PPAR\* agonist). Hypoglycemia has been observed when sitagliptin was used in combination with insulm or a sulphonylurea. Therefore, to reduce the risk of hypoglycemia, a lower dose of sulphonylurea or insulm may be considered.

Bypersensitivity reactions: Evolution is patient has experienced anglocedeme with other parts and part of continuous control of the propersion of the propersion

server and instanting Armin Dee "a minimal use quive may be can winn one day to years are treatment manation and may reson win discommand on the days. Some patients may experience a recrumence of symptoms if the day or suggest the result of bisters or erosions. Discontinue therapy if bullous pemphigoid is suspected and consider referral to a demandogist. Surgical procedurers: Merforms should be withhold the day of surgery (all other oral hypoglycemic agents). Resume only after normal intake resumed and normal renal function is sterified. Iodinated contrast: It is recommended to temporarily discontinue metformin at the time of or before iodinated contrast imaging procedures in patients with an eGFR 30 to 60 mL/minute/1.73 m<sup>2</sup>; or with a listory of hepatic disease, alcoholism, or heart failure; or in patients who will receive intra-arterial lodinated contrast. Reevaluate eGFR 48 hours after imaging procedure; restart if renal function is stable.

### DISEASE-RELATED CONCERNS:

DESASE RELATED CONCERNS:

Heart Failure: An association between dipeptidyl peptidase-4 (DPP-4) inhibitor treatment and heart failure has been observed in cardiovascular outcomes trials for two other members of the DPP-4 inhibitor class. Consider the risks and benefits prior to initiating treatment in patients at risk for heart failure, such as those with a prior history of heart failure and a history of renal impairment, and observe these patients for sizes and symptoms of heart failure and to immediately report such symptoms. If heart failure develops, evaluate and manage according to current standards of care and consider discontinuation.

Hepatic impairment: It is recommended to generally avoid medicional use in patients with lepatic impairment due to potential for lactic acidosis. However, continued use of metformin in patients with diabetes with the ord Sharticon, including cirriosis, may be associated with a survival benefit in carefully selected patients.

want unancess wan are urysamication, manuage, carmitoss, may be associated want a survival ocenera in caretural secretar pateries. Renal Impairment: The risk of medium) accumulation and lactic acidosis, increases with degree of renal impairment. Use of concomitant medications that may affect renal function (i.e. affect tubular secretion) may also affect medium disposition. Medformis should be withheld in patients with deslydration and/or precenal azotemia.

Stress-related states: It may be necessary to discontinue mediformin and administer insulin if the patient is exposed to stress (fever, trauma, infection, surgery). Macrovascular outcomes: There have been no clinical studies establishing conclusive evidence of macrovascular risk reduction with stagilptin.

### CONCURRENT DRUG THERAPY ISSUES:

ctions: Potentially significant interactions may exist, requiring dose or frequency adjustment, additional monitoring, and/or selection of alternative therapy. Consult drug interactions section

SPECIAL POPULATIONS:
Pregnancy: Shagliptin Melformin: Pregnancy Category B
Pregnancy: Shagliptin Melformin: Pregnancy Category B
Pregnancy: Shagliptin and melformin HCI) should not be used during pregnancy. If a patient wishes to become pregnant or if a pregnancy occurs, treatment should be discontinued and the patient switched to insulin treatment as soon as possible.

Lactation: Not recommended to women who are breast feeding.

Gertatric Use: Use with caution the to increased risk of actic acidosis with melformin with increasing age.

### OTHER WARNINGS/PRECAUTIONS:

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Laboratory tests: Response to all diabetic therapies should be monitored by periodic measurements of blood glucose and A1C levels Females and Males of Reproductive Potential: Therapy with metformin may result in ovulation in some anovulatory women.

# EFFECTS ON ABILITY TO DRIVE AND USE MACHINES:

TTAGUE PLES has no or negligible influence on the ability to drive and use machines. However, it should be taken into account that dizziness and somnolence have been reported with sitagliptin. In addition, patients should be altered to the risk of hypoglycaemia when ITAGUE PLUS is used in combination with a sulphonyhrea or with insulin.

ADVERSE REACTIONS

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Serius adverse reactions including pancrealitis and hypersensitivity reactions have been reported.
>10%: Endocrine and metabolic: Hypoglycaemia (13.8% combination with sulphonyurea and 10.9% combination with insulin).
1% TO 10%: Central Nervous (System: Headache (69%), Respitatory: Upper respitatory infections (6%), Castrointestinal: Diarrhea (8%), nausea (5%), abdominal pain (3%), vomiting (2%) < 1%; postmarketing, and/or case reports: Arthralgia, back pain, constipation, hypersensitivity reaction (including anaphylaxis, angleedema, skin rash, urticaria, hypersensitivity anglitis, refolative skin conditions (including stevens-johnson syndromel), thrombor/topenia, sounnolence, increased liver enzymes, lactic acidosis, limb pain, myalga, oral mucosa uter, pancreatitis (including hemorrhagic or necrotizing), pemphigodi, pruritus, renal failure, renal insufficiency, severe arthralgia, stomatitis, interstitial lung disease, vascultis:

# CARCINOGENESIS MITTAGENESIS IMPAIRMENT OF FERTILITY:

Skagliphin was no evidence of a carcinogenic and mutagenic rotation and mutagenic rotation and mutagenic potential of metabolistic activation. Animal data do not suggest an effect of treatment with situagiptin on male and female fertility. Human data are lacking. There was no evidence of a carcinogenic and mutagenic potential of metformin found in rats/ in vitro tests, nor it affects fertility.

Internal and Continued and American State of the Medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare received and restorated and restorated

DRUG INTERACTIONS
Co-administration of sitagliptin (50mg twice daily) and metformin (1000mg twice daily) did not meaningfully alter each other's pharmacokinetics of either sitagliptin or metformin in patients with

Co-administration of stagliptin (50mg twice daily) and metformin (1000mg twice daily) did not meaningfully alter each other's pharmacokinetics of either stagliptin or metformin in patients with type 2 diabetes.

CONCOMITANT USE NOT RECOMMENDED:

Alcohol: Alcohol: Alcohol intoxication is associated with an increased risk of lactic acidosis, particularly in cases of fasting malnutrition or hepatic impairment.

Idontated contrasts agents: Stagliptin and metformin must be discontinued prior to or at the time of the imaging procedure

COMBINATIONS REQUIRMOF RECAUTIONS FOR USE:

Carbonic Anhytrase hibitions: Topiamatee or other carbonic anhydrase inhibitors (e.g., zonisamide, acetazolamide or dichlorphenamide) frequently cause a decrease in serum bicarbonate and induce non-anion gap, hyperchloremic metabolic acidosis. Concomitant use may increase the risk of lactic acidosis, Consider more frequent monitoring of these patients Medicines Affect Renal Functions: These medicinal products can adversely affect renal functions; Including selective cycle oxygenases (COX) I hibbitors, ACE inhibitors, agistensin II receptor antagonists and diuretics, especially loop diuretics. When starting or using such products in combination with metformin, close monitoring of renal function is necessary.

of renal function is necessary.

Drugs that Reduce Metformin Clearance: Drugs such as ranolazine, vandetanth, dolutegravir, and cimetidine) could increase systemic expacidosis. Consider the benefits and risks of concomitant use.

onsaire me overeins and usiss of concommand use. cretagogues or Insulin: Coadministration with an insulin secretagogue (e.g., sulfonylurea) or insulin may require lower doses of the insulin secretagogue or insulin to reduce the risk

ACE inhibitors: If necessary, the dose of the anti-hyperglycaemic medicinal product should be adjusted with ACE inhibitors due to potential risk of hypoglycemia EFFECTS OF OTHER MEDICINAL PRODUCTS ON STRACLIPTIN: Due to limited CYP344 mediated metabolosm, it is possible that potent CYP344 inhibitors (i.e. ketoconazole, ritonazole, ritonazole, ritonavir, clarithromycin) could only alter the pharmacokinetics of sitagliptin in patients with severe renal impairment or ESRD.

in panents with severe renal impairment or ESRD.

Cyclosporin, a potent inhibitor of pegycoprotein, when combine with sitagliptin may alter the pharmacokinetics of sitagliptin but that were not considered to be clinically meaningful. EFFECTS OF STRACHETM ON OTHER MEDICNAL PRODUCTS:

Digoxin: No dose adjustment of digoxin is recommended. However, patients at risk of digoxin toxicity should be monitored for this when sitagliptin and digoxin are administered concomitantly. Stagliptin did not meaningful, alter the pharmacokinetics of metformin, glyburide, sinvastatin, rosigilazone, warfarin, or oral contraceptives

USE OF METFORMIN WITH OTHER DRUGS:

USE OF METPORMIN WITH OTHER DRUGS: Certain drugs tend to produce hyperglycemia and may require close observation to maintain adequate glycemic control. These drugs include the thiazides and other disurcitics, corticosteroids, phenothiazines, thyroid products, estrogens, oral contraceptives, phenytoin, nicotinic acid, sympathomimetics, calcium channel blocking drugs, and isoniazid.

# STABILITY

on the pack.

AVAILABILITY

AVAILABILITY

TRACUP® Pluts 50mg/500mg tablets in a pack of 14's.

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## INSTRUCTIONS

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Bosage as advised by physician. To be sold on the prescription of registered medical practitioner.

Keep out of reach of children. Avoid exposure to heat, light and humidity. Store between 15 to 30°C.

Improper storage may deteriorate the medicine. Store in the original package in order to protect from moisture.

Please read the contents carefully before use. This package insert is regularly reviewed and updated.

Manufactured by: SAMI Pharmaceuticals (Pvt.) Ltd. F-95, S.I.T.E., Karachi-Pakistan www.samipharmapk.c Mfg. Lic. No. 000072

ايٹاگلپ®پلس نيب (ستا كليف فاسفيث + ميث فور من هائيلًو وكلور ائيلًا) خوراک: ڈاکٹر کی مداہت کےمطابق استعال کریں۔ صرف رجيرٌ ڈوُاکٹر کے نسخے کے مطابق فروخت کریں۔ بچوں کی پہنچ سے دور رکھیں۔ دواکودھوب، گری اورنمی ہے محفوظ ۱۵ ہے۔ ۳ ڈگری پینٹی گریڈ کے درمیان میں رکھیں

دوا کونمی ہے محفوظ رکھنے کے لیے اسکی اصل پیکنگ میں رکھیں۔

R.N-08/HA/04/19

ورنه دواخراب ہوجا ئیگی۔