APPROVED PROFESSIONAL INFORMATION

SCHEDULING STATUS:

S3

1 NAME OF THE MEDICINE

FUROSEMIDE 40 UNIMED Tablets

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains 40 mg furosemide.

Contains sugar: lactose monohydrate (Pharmatose): 76 mg/tablet

For the full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Tablets.

White, round, flat beveled edged tablet with breakline on one side.

4 CLINICAL PARTICULARS

4.1 Therapeutic indications

- Cardiac oedema: Cardiac oedema in conjunction with adequate digoxin therapy.
- Ascites due to cirrhosis of the liver, mechanical obstruction or cardiac failure.
- Renal oedema in nephrotic syndrome.
- Hypertension of mild to moderate degree.

4.2 Posology and method of administration

Posology

The usual dose is 20 mg to 80 mg per day given as a single dose, preferable in the morning.

This dose may, however, be increased depending on the response of the patient. Six hours after a 40 mg dose, 80 mg may be administered and, if necessary, after another six hours, 120 mg.

After the oedema is controlled, maintenance therapy is continued at 20 mg to 40 mg daily. Daily doses exceeding 120 mg should preferably be distributed over two to three individual doses.

For the treatment of hypertension of mild or moderate degree, a daily dosage of 40 mg to 80 mg is taken orally. In combination with other hypotensive medication, lower doses will often suffice.

Paediatric population

Safety and efficacy of FUROSEMIDE 40 UNIMED in children has not been established.

Method of administration

For oral administration.

4.3 Contraindications

FUROSEMIDE 40 UNIMED is contraindicated in:

- Patients who are hypersensitive to furosemide or any of the excipients of FUROSEMIDE 40 UNIMED (see section 6.1). Patients allergic to sulphonamides may show cross-sensitivity to furosemide.
- FUROSEMIDE 40 UNIMED is contraindicated if increasing uraemia and oliguria occur during treatment of severe progressive renal disease, anuria, hypokalaemia, hyponatraemia, hypovolaemia with or without hypotension, dehydration. Also contraindicated in complete renal shutdown.

- In hepatic coma and in states of electrolyte depletion, therapy with FUROSEMIDE 40 UNIMED should not be instituted until the basic condition is corrected or improved.
- In patients with pre-comatose and comatose states associated with hepatic encephalopathy.
- FUROSEMIDE 40 UNIMED should not be given to lactating or pregnant women (see section 4.6).
- FUROSEMIDE 40 UNIMED should be avoided by postmenopausal osteopenic women, as increased calcium excretion may have negative effects on bone metabolism.

4.4 Special warnings and precautions for use

Urinary outflow

Urinary outflow must be secured. In patients with a partial obstruction of urinary outflow, such as patients with prostatic hyperplasia, increased production of urine may provoke or aggravate complaints. Thus, these patients require careful monitoring. Treatment with FUROSEMIDE 40 UNIMED necessitates regular medical supervision. Symptoms of obstructed micturition may appear or become enhanced due to the action of diuretics.

Electrolyte imbalances

Regular monitoring of serum sodium, and potassium is recommended during furosemide therapy; particularly close monitoring is required in patients at high risk of developing electrolyte imbalances or in case of significant additional fluid loss due to vomiting, diarrhoea or intense sweating. Hypovolaemia or dehydration as well as any significant electrolyte and acid-base disturbances must be corrected.

FUROSEMIDE 40 UNIMED administration may lead to hypokalaemia, a potassium rich diet (lean meat, potatoes, bananas, tomatoes, cauliflower, spinach, dried fruit, etc.) is always

advisable. Alternatively, a potassium supplement can be taken. Diseases such as liver cirrhosis may cause a predisposition to potassium deficiency states. Monitoring and replacement therapy may become necessary. The serum calcium level may be reduced under FUROSEMIDE 40 UNIMED therapy. Tetany has been observed but only in very rare cases. When digoxin is administered concurrently, potassium deficiency increases the sensitivity of the myocardium to digoxin. Excessive loss of potassium in patients receiving digoxin may precipitate toxicity.

The patient must be informed not to change their diet on their own. This is more important if the patient is already on a special diet (as for diabetes), or if the patient is taking a potassium supplement.

Electrolyte and water balance may be disturbed as a result of diuresis after prolonged therapy. Excessive diuresis (especially in the elderly) may give rise to circulatory disturbances, such as an embolism, vertigo or visual impairment. Hypovolaemia, dehydration, dryness of mouth, circulatory collapse and blood coagulation disorders may also occur. With patient specific dosage, acute haemodynamic reactions are generally rare although diuresis sets in quickly. If salt intake is too restricted, sodium deficiency may cause a fall in blood pressure, calf muscle cramps, anorexia, weakness, dizziness, drowsiness, vomiting and confusion.

Pre-existing metabolic alkalosis may be aggravated by furosemide treatment. Any acid-base disturbances should be corrected before furosemide is started.

Hypotension and/or hypovolaemia (see also section 4.3)

Hypotension and/or hypovolaemia should be corrected before furosemide is started. Symptomatic hypotension leading to dizziness, fainting or loss of consciousness can occur in patients treated with furosemide, particularly in the elderly, patients on other medications

which can cause hypotension and patients with other medical conditions that are risks for hypotension.

Caution required

- in patients who would be at particular risk from a pronounced fall in blood pressure,
- in patients with gout (increased risk of hyperuricaemia),
- impaired hepatic function (see section 4.3 and below),
- impaired renal function and hepato-renal syndrome (see section 4.3),
- diabetes mellitus (latent diabetes may become overt: insulin requirements in established diabetes may increase),
- elderly patients,
- when administering curare to patients taking furosemide.

Concomitant use with risperidone

In risperidone placebo-controlled trials in elderly patients with dementia, a higher incidence of mortality was observed in patients treated with furosemide plus risperidone when compared to patients treated with risperidone alone. Caution should be exercised and the risks and benefits of this combination or co-treatment should be considered prior to the decision to use. Dehydration should be avoided.

Dose titration/adjustment

Patients with hypoproteinaemia (such as that associated with the nephrotic syndrome) require careful dose titration (reduced furosemide effect: increased risk of ototoxicity).
In moderate liver congestion dosage adjustment may be needed.

Pancreatitis

A few cases of acute pancreatitis have been reported following therapy with furosemide.

Hearing disorders

Hearing disorders after furosemide are rare and mostly reversible.

Hepatic impairment

FUROSEMIDE 40 UNIMED treatment should be avoided in patients with severe hepatic impairment, in whom encephalopathy may be precipitated. Patients with hepatic cirrhosis are also more likely to develop hypokalaemia. In patients with hepatic cirrhosis and ascites, initiation of therapy with FUROSEMIDE 40 UNIMED should be done in hospital, due to the risk of hepatic coma.

Although FUROSEMIDE 40 UNIMED is used in high doses for oliguria due to chronic or acute renal impairment it should not be given in anuria or in renal failure caused by nephrotic or hepatotoxic medicines nor in renal failure associated with hepatic coma.

Clinical monitoring requirements

Regular monitoring for:

- blood dyscrasias. If these occur, stop furosemide immediately,
- liver damage,
- idiosyncratic reactions.

In premature infants there is a risk of development of nephrocalcinosis/nephrolithiasis.

Renal function must be monitored and renal ultrasonography performed.

Laboratory monitoring requirements

- Frequent blood urea nitrogen (BUN) in first few months of treatment, periodically thereafter.
- Serum electrolytes with replacement as appropriate.

Other alterations in lab values

- Serum creatinine and urea levels tend to rise during treatment.

- Serum cholesterol and triglycerides may rise but usually return to normal within 6 months of starting furosemide.
- Furosemide should be discontinued before a glucose tolerance test.

Systemic lupus erythematosus

The possibility exists of exacerbation or activation of systemic lupus erythematosus.

Concomitant use with cephaloridine

Concomitant therapy with cephaloridine may result in nephrotoxicity.

Excipient lactose

FUROSEMIDE 40 UNIMED contains lactose. Patients with rare hereditary problems of galactose intolerance, total lactase deficiency or glucose-galactose malabsorption should not take this medicine.

4.5 Interaction with other medicines and other forms of interaction

ACE Inhibitors

Enhanced hypotensive effect when given with diuretics. A marked fall in blood pressure and deterioration in renal function, including renal failure, may be seen when ACE inhibitors are added to furosemide therapy or when the dose is first increased. The dose of FUROSEMIDE 40 UNIMED should be reduced for at least three days, or FUROSEMIDE 40 UNIMED stopped, before initiating the ACE inhibitor or increasing the dose of an ACE inhibitor.

Alpha-blockers

Enhanced hypotensive effect when diuretics such as furosemide as in FUROSEMIDE 40 UNIMED, are given with alpha-blockers, also increased risk of first dose hypotension with post-synaptic alpha-blockers such as prazosin.

Antipsychotics

Hypokalaemia caused by diuretics such as furosemide as in FUROSEMIDE 40 UNIMED, increase the risk of ventricular dysrhythmias with amisulpride or sertindole. An enhanced hypotensive effect may be seen when diuretics are given with phenothiazines. Hypokalaemia caused by diuretics increases risk of ventricular dysrhythmias with pimozide (avoid concomitant use).

Antidepressants

Possible increase of hypokalaemia when loop diuretics, such as furosemide as in FUROSEMIDE 40 UNIMED are given with reboxetine. There is an enhanced hypotensive effect when diuretics such as furosemide as in FUROSEMIDE 40 UNIMED are given with monoamine oxide inhibitors (MAOIs). There is an increased risk of postural hypotension when diuretics such as furosemide as in FUROSEMIDE 40 UNIMED are given with tricyclic antidepressants.

Anti-dysrhythmics

Hypokalaemia caused by loop diuretics such as furosemide as in FUROSEMIDE 40 UNIMED increases cardiac toxicity with amiodarone, disopyramide, flecainide. FUROSEMIDE 40 UNIMED may antagonise the action of lidocaine and mexiletine.

Analgesics

Diuretics such as furosemide as in FUROSEMIDE 40 UNIMED can increase the risk of nephrotoxicity of nonsteroidal anti-inflammatory drugs (NSAIDs) and in patients with dehydration or hypovolaemia, NSAIDs may cause acute renal failure.

Concomitant administration of NSAIDs, including aspirin (acetylsalicylic acid) and especially indomethacin and ketorolac, with FUROSEMIDE 40 UNIMED may cause antagonism of

diuretic effect. Salicylic toxicity may be increased by furosemide as in FUROSEMIDE 40 UNIMED.

Angiotensin–II Receptor Antagonists

Enhanced hypotensive effect when diuretics given with angiotensin-II receptor antagonists. Patients who are receiving diuretics, such as FUROSEMIDE 40 UNIMED, may suffer severe hypotension and deterioration in renal function, including renal failure, especially when an angiotensin II receptor antagonist is given for the first time or for the first time in an increased dose. Consideration must be given to interrupting the administration of FUROSEMIDE 40 UNIMED temporarily or at least reducing the dose of FUROSEMIDE 40 UNIMED for three days before starting treatment with, or increasing the dose of, an angiotensin II receptor antagonist.

Antibacterials

Avoid the use of diuretics such as furosemide as in FUROSEMIDE 40 UNIMED in lymecycline treatment. There is an increased risk of ototoxicity when loop diuretics, such as furosemide as in FUROSEMIDE 40 UNIMED are given with aminoglycosides, polymyxins or vancomycin. Since this may lead to irreversible damage, these medicines must only be used with furosemide if there are compelling medical reasons. Impairment of renal function may develop in patients receiving concurrent treatment with FUROSEMIDE 40 UNIMED and high doses of certain cephalosporins such as cefalotin. FUROSEMIDE 40 UNIMED should be used with caution in patients with antibiotic-induced renal impairment and in patients on tetracyclines.

Antiepileptics

There is an increased risk of hyponatraemia when diuretics such as furosemide as in FUROSEMIDE 40 UNIMED, are given with carbamazepine. The effects of furosemide are antagonised by phenytoin.

Anticonvulsants may decrease the response to furosemide.

Furosemide activity is greatly reduced by use of mixed antiepileptic therapy.

Antifungals

There is an increased risk of hypokalaemia when loop diuretics such as furosemide as in FUROSEMIDE 40 UNIMED, are given with amphotericin.

Antivirals

Plasma concentration of diuretics such as furosemide as in FUROSEMIDE 40 UNIMED, may be increased by nelfinavir, ritonavir or saquinavir.

Atomoxetine

Hypokalaemia caused by diuretics such as furosemide as in FUROSEMIDE 40 UNIMED, increases the risk of ventricular dysrhythmias with atomoxetine.

Barbiturates

Plasma concentrations of diuretics, such as furosemide as in FUROSEMIDE 40 UNIMED, may be decreased. There may be an increased risk of osteomalacia when diuretics are taken in combination with phenobarbital.

Beta-blockers

There is an enhanced hypotensive effect when diuretics such as furosemide as in FUROSEMIDE 40 UNIMED, are given with beta- blockers. Hypokalaemia caused by loop diuretics increases the risk of ventricular dysrhythmias with sotalol.

Cardiac glycosides

Hypokalaemia caused by loop diuretics, such as furosemide as in FUROSEMIDE 40 UNIMED increases cardiac toxicity with cardiac glycosides.

Ciclosporin

There is an increased risk of nephrotoxicity and possibly hypermagnesaemia when diuretics, such as furosemide as in FUROSEMIDE 40 UNIMED are given with ciclosporin. Concomitant use of ciclosporin and FUROSEMIDE 40 UNIMED is associated with increased risk of gouty arthritis secondary to furosemide-induced hyperuricaemia and ciclosporin impairment of renal urate excretion.

Cisplatin

There is a risk of increased ototoxic effects if cisplatin and furosemide as in FUROSEMIDE 40 UNIMED are given concomitantly. In addition, nephrotoxicity of cisplatin may be enhanced if FUROSEMIDE 40 UNIMED is not given in low doses (e.g. 40 mg in patients with normal renal function) and with positive fluid balance when used to achieve forced diuresis during cisplatin treatment.

Corticosteroids

The diuretic effect of diuretics such as furosemide as in FUROSEMIDE 40 UNIMED, is antagonized by corticosteroids. There is an increased risk of hypokalaemia when loop diuretics are given with corticosteroids.

Other Diuretics

There is an increased risk of hypokalaemia when loop diuretics such as furosemide as in FUROSEMIDE 40 UNIMED, are given with acetazolamide. Profound diuresis is possible when metolazone is given with furosemide as in FUROSEMIDE 40 UNIMED. There is an increased risk of hypokalaemia when loop diuretics such as furosemide as in FUROSEMIDE 40 UNIMED, are given with thiazides and related diuretics.
Furosemide should not be used concomitantly with ethacrynic acid.

Lithium

Loop diuretics, such as furosemide as in FUROSEMIDE 40 UNIMED, reduce the excretion of lithium, which may lead to increased plasma concentrations and a risk of cardiotoxicity and neurotoxicity. Therefore, it is recommended that lithium levels are carefully monitored and where necessary the lithium dosage is adjusted in patients receiving this combination.

Potassium salts

There is an increased risk of hyperkalaemia when furosemide, as in FUROSEMIDE 40 UNIMED, is given with potassium salts.

Sucralfate

FUROSEMIDE 40 UNIMED and sucralfate must not be taken within 2 hours of each other as sucralfate decreases the absorption of furosemide from the intestine and so reduces its effect.

Sympathomimetics, Beta$_2$

There is an increased risk of hypokalaemia when loop diuretics such as furosemide as in FUROSEMIDE 40 UNIMED, are given with high doses of beta$_2$ sympathomimetics.

Tacrolimus

There is an increased risk of hypokalaemia when FUROSEMIDE 40 UNIMED given with tacrolimus.

Theophylline

There is an increased risk of hypokalaemia when loop diuretics such as furosemide as in FUROSEMIDE 40 UNIMED, are given with theophylline. FUROSEMIDE 40 UNIMED can potentiate the effect of theophylline.

Levothyroxine

Furosemide as in FUROSEMIDE 40 UNIMED may inhibit binding of thyroid hormones to carrier proteins and thereby lead to an initial transient increase in free thyroid hormones, followed by an overall decrease in total hormone levels. Thyroid levels should be monitored.

Carbenoxolone, prolonged use of laxatives, liquorice

May increase the risk of developing hypokalaemia.

Warfarin and clofibrate

Warfarin and clofibrate compete with furosemide, as in FUROSEMIDE 40 UNIMED, in the binding to serum albumin. This may have clinical significance in patients with low serum albumin levels (e.g. in nephrotic syndrome). Furosemide does not change the pharmacokinetics of warfarin to a significant extent, but a strong diuresis with associated dehydration may weaken the antithrombotic effect of warfarin.

Renal tubular secretion

Probenecid, methotrexate and other medicines which, like furosemide, undergo significant renal tubular secretion may reduce the effect of furosemide, as in FUROSEMIDE 40 UNIMED. Conversely, furosemide may decrease renal elimination of these medicines. In case of high-dose treatment (in particular, of both furosemide and the other medicines), this may lead to increased serum levels and an increased risk of adverse effects due to furosemide or the concomitant medication.

Risperidone

When administering risperidone, caution should be exercised and the risks and benefits of the combination or co-treatment with FUROSEMIDE 40 UNIMED or with other potent diuretics should be considered prior to the decision to use. See section 4.4 regarding increased mortality in elderly patients with dementia concomitantly receiving risperidone.

Aliskiren

Aliskiren reduces the plasma concentration of furosemide given orally. Reduced effect of furosemide might be observed in patients treated with both aliskiren and oral furosemide as in FUROSEMIDE 40 UNIMED, and it is recommended to monitor for reduced diuretic effect and adjust the dose accordingly.

Medicines that prolong the QT-interval

Diuretic-induced hypokalaemia and may also increase the risk of dysrhythmias with medicines that prolong the QT interval, such as astemizole and halofantrine.

Curaremimetic Muscle relaxants

FUROSEMIDE 40 UNIMED can potentiate the effect of curaremimetic muscle relaxants.

Radiocontrast

Patients who were at high risk for radiocontrast nephropathy treated with furosemide experienced a higher incidence of deterioration in renal function after receiving radiocontrast, compared to high-risk patients who received only intravenous hydration prior to receiving radiocontrast.

Other interactions

- Tobacco, nicotine diminishes the diuretic effect of furosemide.
- Care should also be taken with concomitant administration of FUROSEMIDE 40 UNIMED with allopurinol.
- FUROSEMIDE 40 UNIMED may diminish the potency of other medicines (e.g. the effect of anti-diabetics and pressor amines).
- The harmful effects of nephrotoxic medicines on the kidney may be increased.

- Furosemide should not be taken concomitantly with chloral hydrate.
- Corticotrophin, which enhances the potassium loss due to FUROSEMIDE 40 UNIMED.

4.6 Fertility, pregnancy and lactation

Pregnancy

Furosemide crosses the placental barrier.

Safety in pregnancy has not been established and FUROSEMIDE 40 UNIMED should not be used during pregnancy.

Breastfeeding

Furosemide passes into breast milk and may inhibit lactation. The use of FUROSEMIDE 40 UNIMED is contraindicated during lactation (see section 4.3).

Fertility

No human data on the effect of furosemide on fertility are available.

4.7 Effects on ability to drive and use machines

The ability to drive and operate machinery may be impaired in some patients, especially at the commencement of treatment, changing over from other medicine or when consuming alcohol with FUROSEMIDE 40 UNIMED

4.8 Undesirable effects

a) Tabulated list of adverse events

System Organ Class	**Frequency**		
	Frequent	**Less frequent**	**Not known**

Blood and lymphatic system disorders	Haemoconcentration	Leukopenia, agranulocytosis, haemolytic anaemia, thrombocytopenia, coagulation disorders, unusual bleeding or bruising, aplastic anaemia, bone marrow depression (necessitates withdrawal of treatment), eosinophilia	Blood coagulation disorders
Immune system disorders		Severe anaphylactic or anaphylactoid reactions (e.g. shock)	Exacerbation or activation of systemic lupus erythematosus
Metabolism and nutrition disorders	Dehydration, hyponatraemia, hypochloremic metabolic	Impaired glucose tolerance (by hypokalaemia),	Glucose intolerance, aggravated pre-existing

	alkalosis, hypocalcaemia, hypomagnesemia (incidences of the last three are reduced by triamterene), hypovolaemia, hypochloraemia, symptomatic electrolyte disturbances, increase in cholesterol and triglyceride serum levels, hyperuricaemia, gout, hypokalaemia	reduction of serum HDL-cholesterol, hyperglycaemia, diabetes mellitus (latent becoming manifest; and aggravation of manifest)	metabolic alkalosis (in decompensated cirrhosis of the liver), pseudo-Bartter's syndrome
Psychiatric disorders		Psychiatric disorder	
Nervous system disorders	Hepatic encephalopathy in patients with hepatocellular insufficiency	Headache, paraesthesia, hyperosmolar coma, confusion, dizziness	Fainting or loss of consciousness

Eye disorders		Yellow vision, blurred vision, visual disturbance	
Ear and labyrinth disorders		Tinnitus and reversible or irreversible loss of hearing (although usually transitory, particularly in patients with renal failure, and hypoproteinaemia (e.g. in nephritic syndrome), vertigo, deafness (sometimes irreversible), hearing disorders	
Cardiac disorders		Irregular heartbeat, weak	

		pulse, orthostatic intolerance, cardiac dysrhythmias, increased risk or persistence of patent ductus arteriosus in premature infants	
Vascular disorders	Hypotension including orthostatic hypotension, decreased blood pressure, (which, if pronounced may cause signs and symptoms such as impairment of concentration and reactions, light-headedness,	Circulatory collapse, thrombosis, shock, vasculitis	Tendency for thromboses, circulatory collapse, circulatory disorders (vertigo, feeling pressure in head, visual impairment), embolism

	sensations of pressure in the head, headache, dizziness, drowsiness, weakness, disorders of vision, dry mouth, orthostatic intolerance)		
Respiratory, thoracic and mediastinal disorders		Cough or hoarseness.	
Gastrointestinal disorders		Severe stomach pain with nausea and vomiting, diarrhoea, loss of appetite, anorexia, black, tarry stools, blood in stools, dryness of the mouth,	

		increased thirst, dehydration, acute pancreatitis, nausea, bowel motility disturbances, vomiting, constipation	
Hepatobiliary disorders		Pure intrahepatic cholestasis (jaundice), hepatic function abnormal	
Skin and subcutaneous tissue disorders		Skin rash, erythema multiforme, drug rash with eosinophilia and systemic symptoms, pruritus, urticaria, other rashes or bullous lesions;	Exfoliative dermatitis, allergic reactions, such as skin rashes, various forms of dermatitis including urticaria, bullous lesions. (when these

		bullous pemphigoid, photosensitivity, purpura, toxic epidermal necrolysis	occur treatment should be withdrawn), acute generalised exanthematous pustulosis (AGEP), Stevens-Johnson syndrome, toxic epidermal necrolysis, vesicular cutaneous eruptions, and DRESS (drug rash with eosinophilia and systemic symptoms), lichenoid reactions
Musculoskeletal and connective tissue disorders		Joint pain, lower back or side pain, calf muscle cramps,	Tetany, cases of rhabdomyolysis often in the

		muscle weakness	context of hypokalaemia
Renal and urinary disorders	Increased urine volume	Blood in urine, painful or difficult urination, obstructed micturition (e.g. hydronephrosis, prostatic hypertrophy, uretherostenosis, bladder inability to empty, urethral stricture unspecified), tubulointerstitial nephritis, acute renal failure, nephrocalcinosis (in pre-term infants treated with furosemide), reduced	Increased urine sodium, increased urine chloride

		diuresis, urinary incontinence	
Congenital, familial and genetic disorders:		Patent ductus arteriosus	
General disorders and administration site conditions		Fever or chills, unusual tiredness or weakness, fatigue, malaise	
Investigations:	Creatinine increased, blood urea increased	Increase in liver transaminases	

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 requested to report any suspected adverse drug reactions to SAHPRA via the Med Safety APP (Medsafety X SAHPRA) and eReporting platform (who-umc.org) found on SAHPRA website.

4.9 Overdose

Signs and symptoms

The clinical picture in acute or chronic overdose depends primarily on the extent and consequences of electrolyte and fluid loss, e.g. hypovolaemia, dehydration,

haemoconcentration, cardiac dysrhythmias (including AV-block and ventricular fibrillation). Symptoms of these disturbances include severe hypotension (progressing to shock), acute renal failure, thrombosis, delirious states, flaccid paralysis, apathy and confusion.

Treatment

No specific antidote to furosemide is known.

If oral ingestion has taken place, attempts may be made to limit further systemic absorption of furosemide by measures such as those designed to reduce absorption (e.g. activated charcoal).

Clinically relevant disturbances in electrolyte and fluid balance must be corrected. Together with the prevention and treatment of serious complications resulting from such disturbances and of other effects on the body, this may necessitate general and specific intensive medical monitoring and therapeutic measures.

If difficulty in micturition is suspected, a free outflow of urine from the bladder must be ensured.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Category and Class: A 18.1 Diuretics

Pharmacotherapeutic group: High-ceiling diuretics, sulfonamides, plain; ATC code: C03CA01

Furosemide is a diuretic with a fairly rapid action. Furosemide is an inhibitor of Na^+-K^+-$2Cl^-$ symport in the thick ascending limb of the loop of Henle where it inhibits the re-absorption of sodium and water.

5.2 Pharmacokinetic properties

Absorption

Although the average oral availability of furosemide is approximately 60 %, oral availability of furosemide varies from 10 % to 100 %.

Distribution

The half-life is about 1,5 hours. Furosemide is up to 99 % bound to plasma albumin.

Elimination

Approximately 65 % of furosemide is excreted unchanged in the urine, and the remainder is conjugated to glucuronic acid in the kidney. Accordingly, in patients with renal, but not liver, disease, the elimination half-life of furosemide is prolonged.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Colloidal anhydrous silica (Aerosil 200).

Lactose monohydrate (Pharmatose)

Magnesium stearate

Maize starch

Pregelatinised starch

Stearic acid

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

24 months.

6.4 Special precautions for storage

Store at or below 30 °C.

Protect from light. Exposure to light may produce a yellowish discolouration.

The blisters should be kept in the carton until when required for use.

The HDPE containers must be kept tightly closed.

6.5 Nature and contents of container

FUROSEMIDE 40 UNIMED is available in either of the following:

1. Clear PVC/PVDC and plain Aluminium blister (with vinyl acetate maleic acid vinyl chloride, VMCH, copolymer heat seal coating) strips containing 14 tablets each.

   The blisters are packed in a carton.

   Pack sizes: 28, 56 and 84 tablets.
2. White, round HDPE container with white HDPE cap in pack sizes of 250, 1000 or 5000 tablets.
3. Patient-ready packs (LDPE bag) in pack sizes of 56 tablets.

6.6 Special precautions for disposal

Not applicable.

7 HOLDER OF CERTIFICATE OF REGISTRATION

UNIMED HEALTHCARE (PTY) LTD

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8 REGISTRATION NUMBER

46/18.1/0017

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

28 July 2020

10 DATE OF REVISION OF THE TEXT

21 May 2026