



VALSARTAN

BALSARTEC-80 / BALSARTEC-160

80 mg and 160 mg Film-Coated Tablets
Angiotensin II Antagonists Drug

PRODUCT NAME:
BALSARTEC 80/160

DOSAGE FORM AND STRENGTH:
Film-coated Tablets 80/160 mg

PHARMACOLOGIC CATEGORY:
Angiotensin II Antagonists Drug

PRODUCT DESCRIPTION:

Balsartec-80: Pink coloured, circular shaped, biconvex, film coated tablet with breakline on one surface and plain on other surface. Breakline is to facilitate breaking for ease of swallowing and not for dividing into equal doses.
Balsartec-160: Pink coloured, oval shaped, biconvex, film coated tablet plain on both surface.

FORMULATION/COMPOSITION:

Balsartec-80:
Each film-coated tablet contains:
Valsartan USP 80 mg

Balsartec-160:
Each film-coated tablet contains:
Valsartan USP 160 mg

PHARMACODYNAMICS/PHARMACOKINETICS:

Pharmacodynamics:

Pharmacotherapeutic group: Angiotensin II Antagonists, plain, ATC code: C09CA03
Valsartan is an orally active, potent, and specific angiotensin II (Ang II) receptor antagonist. It acts selectively on the AT₁ receptor subtype, which is responsible for the known actions of angiotensin II. The increased plasma levels of Ang II following AT₁ receptor blockade with valsartan may stimulate the unblocked AT₂ receptor, which appears to counterbalance the effect of the AT₁ receptor. Valsartan does not exhibit any partial agonist activity at the AT₁ receptor and has much (about 20,000 fold) greater affinity for the AT₁ receptor than for the AT₂ receptor. Valsartan is not known to bind to or block other hormone receptors or ion channels known to be important in cardiovascular regulation.

Valsartan does not inhibit ACE (also known as kinase II) which converts Ang I to Ang II and degrades bradykinin. Since there is no effect on ACE and no potentiation of bradykinin or substance P, angiotensin II antagonists are unlikely to be associated with coughing. In clinical trials where valsartan was compared with an ACE inhibitor, the incidence of dry cough was significantly ($p<0.05$) less in patients treated with valsartan than in those treated with an ACE inhibitor (2.6% versus 7.9% respectively). In a clinical trial of patients with a history of dry cough during ACE inhibitor therapy, 19.5% of trial subjects receiving valsartan and 19.0% of those receiving a thiazide diuretic experienced cough compared to 68.5% of those treated with an ACE inhibitor ($p<0.05$).

Pharmacokinetics:

Absorption:

Following oral administration of valsartan alone, peak plasma concentrations of valsartan are reached in 2–4 hours with tablets and 1–2 hours with solution formulation. Mean absolute bioavailability is 23% and 39% with tablets and solution formulation, respectively. The systemic exposure and peak plasma concentration of valsartan is about 1.7-fold and 2.2-fold higher with the solution compared to the tablets.

Food decreases exposure (as measured by AUC) to valsartan by about 40% and peak plasma concentration (C_{max}) by about 50%, although from about 8 h post dosing plasma valsartan concentrations are similar for the fed and fasted groups. This reduction in AUC is not, however, accompanied by a clinically significant reduction in the therapeutic effect, and valsartan can therefore be given either with or without food.

Distribution:

The steady-state volume of distribution of valsartan after intravenous administration is about 17 litres, indicating that valsartan does not distribute into tissues extensively. Valsartan is highly bound to serum proteins (94–97%), mainly serum albumin.

Biotransformation:

Valsartan is not bio-transformed to a high extent as only about 20% of dose is recovered as metabolites. A hydroxy metabolite has been identified in plasma at low concentrations (less than 10% of the valsartan AUC). This metabolite is pharmacologically inactive.

Elimination:

Valsartan shows multiexponential decay kinetics ($t_{1/2} < 1$ h and $t_{1/2} > 9$ h). Valsartan is primarily eliminated by biliary excretion in faeces (about 83% of dose) and renally in urine (about 13% of dose), mainly as unchanged drug. Following intravenous administration, plasma clearance of valsartan is about 2 l/h and its renal clearance is 0.62 l/h (about 30% of total clearance). The half-life of valsartan is 6 hours.

In heart failure patients:

The average time to peak concentration and elimination half-life of valsartan in heart failure patients are similar to that observed in healthy volunteers. AUC and C_{max} values of valsartan are almost proportional with increasing dose over the clinical dosing range (40 to 160 mg twice a day). The average accumulation factor is about 1.7. The apparent clearance of valsartan following oral administration is approximately 4.5 l/h. Age does not affect the apparent clearance in heart failure patients.

Special populations

Older people

A somewhat higher systemic exposure to valsartan was observed in some elderly subjects than in young subjects; however, this has not been shown to have any clinical significance.

Impaired renal function

As expected for a compound where renal clearance accounts for only 30% of total plasma clearance, no correlation was seen between renal function and systemic exposure to valsartan. Dose adjustment is therefore not required in patients with renal impairment (creatinine clearance >10 ml/min). There is currently no experience on the safe use in patients with a creatinine clearance <10 ml/min and patients undergoing dialysis, therefore valsartan should be used with caution in these patients. Valsartan is highly bound to plasma protein and is unlikely to be removed by dialysis.

Hepatic impairment

Approximately 70% of the dose absorbed is eliminated in the bile, essentially in the unchanged form. Valsartan does not undergo any noteworthy biotransformation. A doubling of exposure (AUC) was observed in patients with mild to moderate hepatic impairment compared to healthy subjects. However, no correlation was observed between plasma valsartan concentrations versus degree of hepatic dysfunction. Valsartan has not been studied in patients with severe hepatic dysfunction.

In a study of 26 paediatric hypertensive patients (aged 1 to 16 years) given a single dose of a suspension of valsartan (mean: 0.9 to 2 mg/kg, with a maximum dose of 80 mg), the clearance (litres/h/kg) of valsartan was comparable across the age range of 1 to 16 years and similar to that of adults receiving the same formulation (see Absorption section).

Impaired renal function

Use in paediatric patients with a creatinine clearance <30 ml/min and paediatric patients undergoing dialysis has not been studied, therefore valsartan is not recommended in these patients. No dose adjustment is required for paediatric patients with a creatinine clearance >30 ml/min. Renal function and serum potassium should be closely monitored.

INDICATION(s):

Hypertension

Treatment of essential hypertension in adults, and hypertension in children and adolescents 6 to less than 18 years of age.

Recent myocardial infarction

Treatment of clinically stable adult patients with symptomatic heart failure or asymptomatic left ventricular systolic dysfunction after a recent (12 hours–10 days) myocardial infarction.

Heart failure

Treatment of adult patients with symptomatic heart failure when Angiotensin Converting Enzyme (ACE) inhibitors are not tolerated or in beta-blocker intolerant patients as add-on therapy to ACE inhibitors when mineralocorticoid receptor antagonists cannot be used.

DOSAGE AND MODE/ROUTE OF ADMINISTRATION:

Posology

Hypertension

The recommended starting dose of Valsartan is 80 mg once daily. The antihypertensive effect is substantially present within 2 weeks, and maximal effects are attained within 4 weeks. In some patients whose blood pressure is not adequately controlled, the dose can be increased to 160 mg and to a maximum of 320 mg.

Valsartan may also be administered with other antihypertensive agents. The addition of a diuretic such as hydrochlorothiazide will decrease blood pressure even further in these patients.

Recent myocardial infarction

In clinically stable patients, therapy may be initiated as early as 12 hours after a myocardial infarction. After an initial dose of 20 mg twice daily, valsartan should be titrated to 40 mg, 80 mg, and 160 mg twice daily over the next few weeks. The starting dose is provided by the 40 mg divisible tablet.

The target maximum dose is 160 mg twice daily. In general, it is recommended that patients achieve a dose level of 80 mg daily by two weeks after treatment initiation and that the target maximum dose, 160 mg twice daily, be achieved by three months, based on the patient's tolerability. If symptomatic hypotension or renal dysfunction occurs, consideration should be given to a dose reduction.

Valsartan may be used in patients treated with other post-myocardial infarction therapies, e.g. thrombolytics, acetylsalicylic acid, beta blockers, statins, and diuretics. The combination with ACE inhibitors is not recommended.

Evaluation of post-myocardial infarction patients should always include assessment of renal function.

Heart failure

The recommended starting dose of Valsartan is 40 mg twice daily. Up titration to 80 mg and 160 mg twice daily should be done at intervals of at least two weeks to the highest dose, as tolerated by the patient. Consideration should be given to reducing the dose of concomitant diuretics. The maximum daily dose administered in clinical trials is 320 mg in divided doses.

Valsartan may be administered with other heart failure therapies. However, the triple combination of an ACE inhibitor, valsartan and a beta blocker or a potassium-sparing diuretic is not recommended.

Evaluation of patients with heart failure should always include assessment of renal function.

Additional information on special populations

Older people

No dose adjustment is required in elderly patients.

Patients with Renal impairment

No dose adjustment is required for adult patients with a creatinine clearance >10 ml/min.

Patients with Hepatic impairment

Valsartan is contraindicated in patients with severe hepatic impairment, biliary cirrhosis and in patients with cholestasis. In patients with mild to moderate hepatic impairment without cholestasis, the dose of valsartan should not exceed 80 mg.

Paediatric population

Paediatric hypertension

For children and adolescents who are unable to swallow tablets, the use of the Valsartan oral solution is recommended. The systemic exposure and peak plasma concentration of valsartan is about 1.7-fold and 2.2-fold higher with the solution compared to the tablets.

Children and adolescents 6 to less than 18 years of age

For Valsartan tablets, the initial dose is 40 mg once daily for children weighing below 35 kg and 80 mg once daily for those weighing 35 kg or more. The dose should be adjusted based on blood pressure response and tolerability. For maximum doses studied in clinical trials please refer to the table below.

Doses higher than those listed have not been studied and are therefore not recommended.

Weight	Maximum dose of tablet studied in clinical trials
≥18 kg to <35 kg	80 mg
≥35 kg to <80 kg	160 mg
≥80 kg to ≤160 kg	320 mg

For children already started on valsartan prior to the age of six years, please refer to the posology for Valsartan oral solution (Children 1 to less than 6 years of age).

Children less than 6 years of age

For children aged 1 to 5 years and for those having difficulties in swallowing the tablet, Valsartan oral solution is recommended. The safety and efficacy of Valsartan in children below 1 year of age have not been established.

Switching from Valsartan oral solution to Valsartan tablets

If switching from Valsartan oral solution to Valsartan tablets is considered clinically essential, initially the same dose in milligrams should be given. Subsequently, frequent blood pressure monitoring should be performed taking into account potential under-dosing and the dose should be titrated further based on blood pressure response and tolerability.

Use in paediatric patients aged 6 to less than 18 years with renal impairment

As in paediatric patients with a creatinine clearance <30 ml/min and paediatric patients undergoing dialysis has not been studied, therefore valsartan is not recommended in these patients. No dose adjustment is required for paediatric patients with a creatinine clearance >30 ml/min. Renal function and serum potassium should be closely monitored.

Use in paediatric patients aged 6 to less than 18 years with hepatic impairment

As in adults, Valsartan is contraindicated in paediatric patients with severe hepatic impairment, biliary cirrhosis and in patients with cholestasis. There is limited clinical experience with Valsartan in paediatric patients with mild to moderate hepatic impairment. The dose of valsartan should not exceed 80 mg in these patients.

Paediatric heart failure and recent myocardial infarction

Valsartan is not recommended for the treatment of heart failure or recent myocardial infarction in children and adolescents below the age of 18 years due to the lack of data on safety and efficacy.

Method of administration

Valsartan may be taken independently of a meal and should be administered with water.

CONTRAINDICATIONS & PRECAUTION(S), WARNING(S):

Hyperkalaemia

Concomitant use with potassium supplements, potassium-sparing diuretics, salt substitutes containing potassium, or other agents that may increase potassium levels (heparin, etc.) is not recommended. Monitoring of potassium should be undertaken as appropriate.

Impaired renal function

There is currently no experience on the safe use in patients with a creatinine clearance <10 ml/min and patients undergoing dialysis, therefore valsartan should be used with caution in these patients. No dose adjustment is required for adult patients with creatinine clearance >10 ml/min.

Hepatic impairment

In patients with mild to moderate hepatic impairment without cholestasis, Valsartan should be used with caution.

Sodium- and/or volume-depleted patients

In severely sodium-depleted and/or volume-depleted patients, such as those receiving high doses of diuretics, symptomatic hypotension may occur in rare cases after initiation of therapy with Valsartan. Sodium and/or volume depletion should be corrected before starting treatment with Valsartan, for example by reducing the diuretic dose.

Renal artery stenosis

In patients with bilateral renal artery stenosis or stenosis to a solitary kidney, the safe use of Valsartan has not been established.

Short-term administration of Valsartan to twelve patients with renovascular hypertension secondary to unilateral renal artery stenosis did not induce any significant changes in renal haemodynamics, serum creatinine, or blood urea nitrogen (BUN). However, other agents that affect the renin-angiotensin system may increase blood urea and serum creatinine in patients with unilateral renal artery stenosis, therefore monitoring of renal function is recommended when patients are treated with valsartan.

Kidney transplantation

There is currently no experience on the safe use of Valsartan in patients who have recently undergone kidney transplantation.

Primary hyperaldosteronism

Patients with primary hyperaldosteronism should not be treated with Valsartan as their renin-angiotensin system is not activated.

Aortic and mitral valve stenosis, obstructive hypertrophic cardiomyopathy

As with all other vasodilators, special caution is indicated in patients suffering from aortic or mitral stenosis, or hypertrophic obstructive cardiomyopathy (HOCM).

Pregnancy

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of the RAAS through the combined use of ACE inhibitors, angiotensin II receptor blockers or aliskiren is therefore not recommended.

If dual blockade therapy is considered absolutely necessary, this should only occur under specialist supervision and subject to frequent close monitoring of renal function, electrolytes and blood pressure.

ACE inhibitors and angiotensin II receptor blockers should not be used concomitantly in patients with diabetic nephropathy.

Paediatric population

Impaired renal function

Use in paediatric patients with a creatinine clearance <30 ml/min and paediatric patients undergoing dialysis has not been studied, therefore valsartan is not recommended in these patients. No dose adjustment is required for paediatric patients with a creatinine clearance >30 ml/min. Renal function and serum potassium should be closely monitored during treatment with valsartan. This applies particularly when valsartan is given in the presence of other conditions (fever, dehydration) likely to impair renal function.

Impaired hepatic function

As in adults, Valsartan is contraindicated in paediatric patients with severe hepatic impairment, biliary cirrhosis and in patients with cholestasis. There is limited clinical experience with Valsartan in paediatric patients with mild to moderate hepatic impairment. The dose of valsartan should not exceed 80 mg in these patients.

Effects on ability to drive and use machines

No studies on the effects on the ability to drive have been performed. When driving vehicles or operating machines it should be taken into account that dizziness or weariness may occur.

Lactose: This medicinal product contains lactose. Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine.

PREGNANCY AND LACTATION:

Pregnancy

The use of Angiotensin II Receptor Antagonists (AIIAs) is not recommended during the first trimester of pregnancy. The use of AIIAs is contra-indicated during the second and third trimester of pregnancy.

Epidemiological evidence regarding the risk of teratogenicity following exposure to ACE inhibitors during the first trimester of pregnancy has not been conclusive; however, a small increase in risk cannot be excluded. Whilst there is no controlled epidemiological data on the risk with AIIAs, similar risks may exist for this class of drugs. Unless continued AIIA therapy is considered essential, patients planning pregnancy should be changed to alternative anti-hypertensive treatments which have an established safety profile for use in pregnancy. When pregnancy is diagnosed, treatment with AIIAs should be stopped immediately, and, if appropriate, alternative therapy should be started.

AIIAs therapy exposure during the second and third trimesters is known to induce human fetotoxicity (decreased renal function, oligohydramnios, skull ossification retardation) and neonatal toxicity (renal failure, hypotension, hyperkalaemia);

Should exposure to AIIAs have occurred from the second trimester of pregnancy, ultrasound check of renal function and skull is recommended.

Infants whose mothers have taken AIIAs should be closely observed for hypotension.

Breast-feeding

Because no information is available regarding the use of valsartan during breastfeeding, Valsartan is not recommended and alternative treatments with better established safety profiles during breast-feeding are preferable, especially while nursing a newborn or preterm infant.

Fertility

Valsartan had no adverse effects on the reproductive performance of male or female rats at oral doses up to 200 mg/kg/day. This dose is 6 times the maximum recommended human dose on a mg/m² basis (calculations assume an oral dose of 320 mg/day and a 60-kg patient).

INTERACTION(S):

Dual blockade of the Renin-Angiotensin-Aldosterone System (RAAS) with ARBs, ACEIs, or aliskiren

Clinical trial data has shown that dual blockade of the renin-angiotensin-aldosterone-system (RAAS) through the combined use of ACE inhibitors, angiotensin II receptor blockers or aliskiren is associated with a higher frequency of adverse events such as hypotension, hyperkalaemia and decreased renal function (including acute renal failure) compared to the use of a single RAAS-acting agent.

Concomitant use not recommended

Lithium

Reversible increases in serum lithium concentrations and toxicity have been reported during concomitant administration of lithium with angiotensin converting enzyme inhibitors or angiotensin II receptor antagonists including with Valsartan. If the combination proves necessary, a careful monitoring of serum lithium levels is recommended. If a diuretic is also used, the risk of lithium toxicity may presumably be increased further.

Potassium-sparing diuretics, potassium supplements, salt substitutes containing potassium and other substances that may increase potassium levels

If a medicinal product that affects potassium levels is considered necessary in combination with valsartan, monitoring of potassium plasma levels is advised.

Caution required with concomitant use

Non-steroidal anti-inflammatory medicines (NSAIDs), including selective COX-2 inhibitors, acetylsalicylic acid >3 g/day, and non-selective NSAIDs

When angiotensin II antagonists are administered simultaneously with NSAIDs, attenuation of the antihypertensive effect may occur. Furthermore, concomitant use of angiotensin II antagonists and NSAIDs may lead to an increased risk of worsening of renal function and an increase in serum potassium. Therefore, monitoring of renal function at the beginning of the treatment is recommended, as well as adequate hydration of the patient.

Transporters In vitro data indicates that valsartan is a substrate of the hepatic uptake transporter OATP1B1/OATP1B3 and the hepatic efflux transporter MRP2. The clinical relevance of this finding is unknown. Co-administration of inhibitors of the uptake transporter (e.g. rifampin, cyclosporin) or efflux transporter (e.g. ritonavir) may increase the systemic exposure to valsartan. Exercise appropriate care when initiating or ending concomitant treatment with such drugs.

Others

In drug interaction studies with valsartan, no interactions of clinical significance have been found with valsartan or any of the following substances: cimetidine, warfarin, furosemide, digoxin, atenolol, indometacin, hydrochlorothiazide, amiodipine, glibenclamide.

Paediatric population

In hypertension in children and adolescents, where underlying renal abnormalities are common, caution is recommended with the concomitant use of valsartan and other substances that inhibit the renin angiotensin aldosterone system which may increase serum potassium. Renal function and serum potassium should be closely monitored.

ADVERSE DRUG REACTION(S):

In controlled clinical studies in adult patients with hypertension, the overall incidence of adverse drug reactions (ADRs) was comparable with placebo and is consistent with the pharmacology of valsartan. The incidence of ADRs did not appear to be related to dose or treatment duration and also showed no association with gender, age or race. The ADRs reported from clinical studies, post-marketing experience and laboratory findings are listed below according to system organ class.

Adverse Drug Reactions

Adverse drug reactions are ranked by frequency, the most frequent first, using the following convention: very common (> 1/10); common (> 1/100 to < 1/10); uncommon (> 1/1,000 to < 1/100); rare (> 1/10,000 to < 1/1,000) very rare (< 1/10,000), not known (frequency cannot be estimated from the available data). Within each frequency grouping, adverse drug reactions are ranked in order of decreasing seriousness.

For all the ADRs reported from post-marketing experience and laboratory findings, it is not possible to apply any ADR frequency and therefore they are mentioned with a "not known" frequency.

Hypertension

Blood and lymphatic system disorders	
Not known	Decrease in haemoglobin, Decrease in haematocrit, Thrombocytopenia Neutropenia,
Immune system disorders	
Not known	Hypersensitivity including serum sickness
Metabolism and nutrition disorders	
Not known	Increase of serum potassium, hyponatraemia
Ear and labyrinth disorders	
Uncommon	Vertigo
Vascular disorders	
Not known	Vasculitis
Respiratory, thoracic and mediastinal disorders	
Uncommon	Cough
Gastrointestinal disorders	
Uncommon	Nausea, Diarrhoea
Hepato-biliary disorders	
Not known	Elevation of liver function values
Skin and subcutaneous tissue disorders	
Uncommon	Angioedema
Not known	Dermatitis bullous, Rash, Pruritis
Musculoskeletal and connective tissue disorders	
Not known	Myalgia
Renal and urinary disorders	
Common	Renal failure and impairment
Uncommon	Acute renal failure, Elevation of serum creatinine
Not known	Increase in Blood Urea Nitrogen
General disorders and administration site conditions	
Uncommon	Asthenia, Fatigue

Paediatric population

Hypertension

The antihypertensive effect of valsartan has been evaluated in two randomised, double-blind clinical studies (each followed by an extension period or study) and one open-label study. These studies included 711 paediatric patients

from 6 to less than 18 years of age with and without chronic kidney disease (CKD), of which 560 patients received valsartan. With the exception of isolated gastrointestinal disorders (such as abdominal pain, nausea, vomiting) and dizziness, no relevant differences in terms of type, frequency and severity of adverse reactions were identified between the safety profile for paediatric patients aged 6 to less than 18 years and that previously reported for adult patients.

Neurocognitive and developmental assessment of paediatric patients aged 6 to 16 years of age revealed no overall clinically relevant adverse impact after treatment with Valsartan for up to one year.

A pooled analysis of 560 paediatric hypertensive patients (aged 6-17 years) receiving either valsartan monotherapy [n=483] or combination antihypertensive therapy including valsartan [n=77] was conducted. Of the 560 patients, 85 (15.2%) had CKD (baseline GFR <90 mL/min/1.73m²). Overall, 45 (8.0%) patients discontinued a study due to adverse events. Overall 111 (19.8%) patients experienced an adverse drug reaction (ADR), with headache (5.4%), dizziness (2.3%), and hyperkalaemia (2.3%) being the most frequent. In patients with CKD, the most frequent ADRs were hyperkalaemia (12.9%), headache (7.1%), blood creatinine increased (5.9%), and hypotension (4.7%). In patients without CKD, the most frequent ADRs were headache (5.1%) and dizziness (2.7%). ADRs were observed more frequently in patients receiving valsartan in combination with other antihypertensive medications than valsartan alone.

The antihypertensive effect of valsartan in children 1 to less than 6 years of age has been evaluated in three randomised, double-blind clinical studies (each followed by an extension period). In the first study in 90 children aged 1 to less than 6 years, two deaths and isolated cases of marked liver transaminases elevations were observed. These cases occurred in a population who had significant comorbidities. A causal relationship to Valsartan has not been established. In the two subsequent studies in which 202 children aged 1 to less than 6 years were randomised, no significant liver transaminase elevations or death occurred with valsartan treatment.

In a pooled analysis of the two subsequent studies in 202 hypertensive children (aged 1 to less than 6 years), all patients received valsartan monotherapy in the double blind periods (excluding the placebo withdrawal period). Of these, 186 patients continued in either extension study or open label period. Of the 202 patients, 33 (16.3%) had CKD (baseline eGFR <90 mL/min). In the double blind period, two patients (1%) discontinued due to an adverse event and in the open label or extension period four patients (2.1%) discontinued due to an adverse event. In the double blind period, 13 (7.0%) patients experienced at least one ADR. The most frequent ADRs were vomiting n=3 (1.6%) and diarrhoea n=2 (1.1%). There was one ADR (diarrhoea) in the CKD group. In the open label period, 5.4% patients (10/186) had at least one ADR. The most frequent ADR was decreased appetite which was reported by two patients (1.1%). In both the double blind period and the open label periods, hyperkalaemia was reported for one patient in each period. There were no cases of hypotension or dizziness in either double blind or open label periods. Hyperkalaemia was more frequently observed in children and adolescents aged 1 to less than 18 years with underlying chronic kidney disease (CKD). The risk of hyperkalaemia may be higher in children aged 1 to 5 years compared to children aged 6 to less than 18 years.

The safety profile seen in controlled-clinical studies in adult patients with post-myocardial infarction and/or heart failure varies from the overall safety profile seen in hypertensive patients. This may relate to the patients underlying disease. ADRs that occurred in adult patients with post-myocardial infarction and/or heart failure patients are listed below.

- Post-myocardial infarction and/or heart failure (studied in adult patients only)

Blood and lymphatic system disorders	
Not known	Thrombocytopenia
Immune system disorders	
Not known	Hypersensitivity including serum sickness
Metabolism and nutrition disorders	
Uncommon	Hyperkalaemia
Not known	Increase of serum potassium, hyponatraemia
Nervous system disorders	
Common	Dizziness, Postural dizziness
Uncommon	Syncopal, Headache
Ear and labyrinth disorders	
Uncommon	Vertigo
Cardiac disorders	
Uncommon	Cardiac failure
Vascular disorders	
Common	Hypotension, Orthostatic hypotension
Not known	Vasculitis
Respiratory, thoracic and mediastinal disorders	
Uncommon	Cough
Gastrointestinal disorders	
Uncommon	Nausea, Diarrhoea
Hepato-biliary disorders	
Not known	Elevation of liver function values
Skin and subcutaneous tissue disorders	
Uncommon	Angioedema
Not known	Dermatitis bullous, Rash, Pruritis
Musculoskeletal and connective tissue disorders	
Not known	Myalgia
Renal and urinary disorders	
Common	Renal failure and impairment
Uncommon	Acute renal failure, Elevation of serum creatinine
Not known	Increase in Blood Urea Nitrogen
General disorders and administration site conditions	
Uncommon	Asthenia, Fatigue

OVERDOSEAGE AND TREATMENT:

Overdose with Valsartan may result in marked hypotension, which could lead to depressed level of consciousness, circulatory collapse and/or shock.

Treatment

The therapeutic measures depend on the time of ingestion and the type and severity of the symptoms; stabilization of the circulatory condition is of prime importance.

If hypotension occurs, the patient should be placed in a supine position and blood volume correction should be undertaken.

Valsartan is unlikely to be removed by haemodialysis.

STORAGE CONDITION:

Store at temperatures not exceeding 30°C.

DOSAGE FORMS AND PACKAGING AVAILABLE:

Valsartan (Balsartec-80) Tablet 80 mg packed in Alu/Alu Blister pack of 3x10's (Box of 30's)

Valsartan (Balsartec-160) Tablet 160 mg packed in Alu/Alu Blister pack of 3x10's (Box of 30's)

INSTRUCTIONS AND SPECIAL PRECAUTIONS

MICRO LABS LIMITED, BANGALORE, INDIA

1	Product Name	Balsartec-80/160	Colours Used <input checked="" type="checkbox"/> BLACK		
2	Strength	80 mg & 160 mg			
3	Component	Leaflet			
4	Category	Export - Philippines			
5	Dimension	260 (L) x 420 (H) mm			
6	Artwork Code	EXG-ML01I-1428/A			
7	Pharma Code	N/A			
8	Reason for Change	Size and New Regulation			
	Prepared by (DTP)	Checked by (PD)	Approved by		
			Head CQA	Head Production/ Packing (Site)	Head QC (Site)
Sign	Kanthalraju L.				
Date	20-09-2022				