# **Approved Professional Information for Medicines for Human Use:**

### **AUSTELL LOSARTAN**

### **SCHEDULING STATUS**



#### 1. NAME OF THE MEDICINE

AUSTELL LOSARTAN 25 25 mg TABLETS

AUSTELL LOSARTAN 50 50 mg TABLETS

AUSTELL LOSARTAN 100 100 mg TABLETS

### 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

AUSTELL LOSARTAN 25: Each film-coated tablet contains losartan potassium 25 mg.

AUSTELL LOSARTAN 50: Each film-coated tablet contains losartan potassium 50 mg.

AUSTELL LOSARTAN 100: Each film-coated tablet contains losartan potassium 100 mg.

Sugar free

For the full list of excipients, see section 6.1.

### 3. PHARMACEUTICAL FORM

Film-coated tablets

AUSTELL LOSARTAN 25: White to off white, oval, biconvex film-coated tablets with "25" debossing on one side and "BL" on the other side.

AUSTELL LOSARTAN 50: White to off white, oval, biconvex film-coated tablets with "50" debossing on one side and "BL" on the other side.

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AUSTELL LOSARTAN 100: White to off white, almond shaped, biconvex film-coated tablets with "100" debossing on one side and "BL" on the other side.

### 4. CLINICAL PARTICULARS

### 4.1 Therapeutic indications

AUSTELL LOSARTAN is indicated for:

- The treatment of hypertension
- Renal protection in type 2 diabetic patients with hypertension and proteinuria

### 4.2 Posology and method of administration

## **Posology**

### **Hypertension**

The usual starting and maintenance dose is 50 mg once daily for most patients. The maximum antihypertensive effect is achieved 3-6 weeks after initiation of therapy. The dose may be increased to 100 mg once daily.

## Renal protection in type 2 diabetic patients with hypertension and proteinuria

The usual starting dose is 50 mg once daily. The dose may be increased to 100 mg once daily based on blood pressure response.

### Special populations

## Patients with intravascular volume-depletion

For patients with intravascular volume-depletion (e.g. those treated with high-dose diuretics), a starting dose of 25 mg once daily should be considered (see section 4.4).

## Renal impairment

No initial dosage adjustment is necessary for patients with renal impairment, including

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Austell Pharmaceuticals, 41/1.3/0496-8; Austell Losartan, Tablets, 25, 50, 100 mg patients on dialysis.

## Hepatic impairment

A lower dose should be considered for patients with a history of hepatic impairment (see section 4.4).

## Elderly population

No initial dosage adjustment is necessary for the elderly patients.

## Paediatric population

The safety and efficacy of AUSTELL LOSARTAN in children have not yet been established.

### **Method of administration**

AUSTELL LOSARTAN is indicated for oral administration.

AUSTELL LOSARTAN may be administered with or without food.

AUSTELL LOSARTAN may be administered with other antihypertensive medicines of a different class.

### 4.3 Contraindications

- Hypersensitivity to the losartan potassium or to any of the excipients listed in section 6.1
- In patients with a history of angio-oedema related to ACE-inhibitors or angiotensin receptor antagonists such as AUSTELL LOSARTAN
- Hypertrophic obstructive cardiomyopathy
- AUSTELL LOSARTAN is not recommended for patients with severe renal impairment or for patients with hepatic impairment
- Aortic stenosis, left ventricular outflow track obstruction
- Bilateral renal artery stenosis

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Austell Pharmaceuticals, 41/1.3/0496-8; Austell Losartan, Tablets, 25, 50, 100 mg

- Renal artery stenosis in patients with a single kidney
- Concomitant therapy with potassium sparing diuretics such as spironolactone,
   triamterene and amiloride
- Pregnancy and lactation (see section 4.6)
- Concomitant use of fluoroquinolones in patients with moderate to severe renal impairment.

## 4.4 Special warnings and precautions for use

## **Pregnancy**

Women of childbearing age should ensure adequate contraception (see sections 4.3 and 4.6).

### **Renal function impairment**

AUSTELL LOSARTAN should be used with caution in patients with bilateral renal artery stenosis or stenosis of an artery to a single kidney, aortic valve stenosis or hypertrophic obstructive cardiomyopathy.

When impaired renal function is present, changes in renal function as a consequence of inhibiting the renin-angiotensin system including renal failure have been reported in susceptible individuals. These changes in renal function may be reversible upon discontinuation of AUSTELL LOSARTAN therapy, in some patients.

In patients whose renal function may depend on the activity of the renin-angiotensinaldosterone system (e.g. patients with severe congestive heart failure), treatment with angiotensin converting enzyme inhibitors has been associated with oliguria and/or progressive azotemia and (less frequently) with acute renal failure and/or death. Similar outcomes are likely with AUSTELL LOSARTAN therapy.

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Austell Pharmaceuticals, 41/1.3/0496-8; Austell Losartan, Tablets, 25, 50, 100 mg

Medicines affecting the renin-angiotensin system may increase blood urea and serum

creatinine in patients with bilateral renal artery stenosis or stenosis of the artery to a solitary

kidney. These changes in renal function may be reversible upon discontinuation of AUSTELL

LOSARTAN therapy.

### **Symptomatic hypotension**

Symptomatic hypotension may occur after initiation of AUSTELL LOSARTAN.

## **Hepatic impairment**

Reduced doses must be considered in patients with hepatic impairment.

Based on reported pharmacokinetic data which demonstrate significantly increased plasma concentrations of losartan in cirrhotic patients, a dose of 25 mg should be considered for patients with a history of hepatic impairment (see section 4.2).

## **Volume-depletion**

Patients with volume-depletion (e.g. those treated with high-dose diuretics) may experience hypotension, which may be minimised by initiating treatment with a low dose of AUSTELL LOSARTAN. Halving of the dose should also be considered for patients with a history of hepatic impairment (see section 4.2).

## Electrolyte imbalance

Since hyperkalaemia may occur, serum-potassium concentrations should be monitored, especially in the elderly and patients with renal impairment and the concomitant use of potassium-sparing diuretics should generally be avoided (see section 4.5).

## Fluoroquinolones

Concomitant use of fluoroquinolones with ACE inhibitors, such as AUSTELL LOSARTAN, may precipitate acute kidney injury in patients, especially those with moderate to severe

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Austell Pharmaceuticals, 41/1.3/0496-8; Austell Losartan, Tablets, 25, 50, 100 mg renal impairment and elderly patients (see section 4.3 and 4.5). Renal function should be assessed before initiating treatment and monitored during treatment with AUSTELL LOSARTAN.

## 4.5 Interaction with other medicines and other forms of interaction

Combinations containing any of the following medications, depending on the amount present, may also interact with AUSTELL LOSARTAN:

## Non-steroidal anti-inflammatory drugs (NSAIDs)

NSAIDs may antagonise the antihypertensive effect of AUSTELL LOSARTAN.

## Sympathomimetic medicines

Concurrent use with sympathomimetics may reduce the antihypertensive effects of AUSTELL LOSARTAN.

#### **Potassium**

Potassium-sparing diuretics, potassium containing medication or potassium supplements used concurrently with AUSTELL LOSARTAN may result in hyperkalaemia since reduction of aldosterone production induced by AUSTELL LOSARTAN may lead to elevation of serum potassium.

## Fluoroquinolones

Concomitant use of fluoroquinolones and ACE inhibitors, such as AUSTELL LOSARTAN, may precipitate acute kidney injury (see sections 4.3 and 4.4).

#### Lithium

As with other medicines which affect the elimination of sodium, lithium excretion may be reduced. Therefore, serum lithium levels should be monitored carefully if lithium salts are to be co-administered with angiotensin II receptor antagonists.

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## 4.6 Fertility, pregnancy and lactation

## Women of childbearing potential / Contraception in males and females

Women of childbearing age should ensure adequate contraception.

## **Pregnancy**

AUSTELL LOSARTAN is contraindicated for use during pregnancy (see section 4.3)

When pregnancy is detected, AUSTELL LOSARTAN should be discontinued as soon as possible. Not to be used in pregnancy as teratogenicity has been shown in experimental animals (see section 4.3).

## **Breastfeeding**

Safety has not been established.

## **Fertility**

There are no fertility data.

## 4.7 Effects on ability to drive and use machines

Dizziness or hypotension may occur when taking AUSTELL LOSARTAN, in particular during initiation of treatment or when the dose is increased. Patients should see how AUSTELL LOSARTAN affects them before driving or operating machinery.

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## 4.8 Undesirable effects

# b) Tabulated list of adverse reactions

The table below shows all adverse drug reactions (ADRs) observed during clinical trials and postmarket spontaneous reports with losartan.

System Organ	Frequency		
Class	Frequent	Less Frequent	Not known
Infections and	Upper respiratory		
infestations	infection		
Blood and		Thrombocytopenia	Symptomatic
lymphatic system			anaemia,
disorders			decreased
			haemoglobin
			concentrations,
			neutropenia,
			anaemia
Immune system		Angioedema (involving	
disorders		swelling of the face, lips,	
		and/or tongue) has been	
		reported in patients	
		treated with AUSTELL	
		LOSARTAN.	
Psychiatric	Insomnia		
disorders			
Nervous system	Headache, dizziness,		Migraine
disorders	vertigo		
Cardiac	Palpitations,		Hypotension,
disorders	tachycardia,		chest pain

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Vascular		Orthostatic hypotension	Oedema
disorders			/swelling,
			vasculitis,
			including
			Henoch-
			Schönlein
			purpura
Respiratory,	Cough, nasal		
thoracic and	congestion,		
mediastinal	pharyngitis, sinus		
disorders	disorder		
Gastrointestinal		Diarrhoea, dyspepsia,	taste
disorders		nausea, abdominal pain	disturbances,
			complete taste
			loss, vomiting
Hepatobiliary			Severe acute
disorders			hepatotoxicity,
			cholestasis,
			acute
			pancreatitis,
			hepatitis
Skin and		Urticaria, rash	Atypical
subcutaneous			cutaneous
tissue disorders			lymphoid
			infiltrates,
			pruritus,
			erythroderma,
			photosensitivity

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Musculoskeletal	Back pain, muscle	Arthralgia
and connective	cramps, leg pain,	
tissue disorders	myalgia	
Renal and		Impaired renal
urinary disorders		function
Reproductive		Erectile
system and		dysfunction/
breast disorders		impotence
General	Asthenia/fatigue	Malaise
disorders and		
administration		
site conditions		
Investigations	Hyperkalaemia,	Liver function
	elevations of ALT	abnormalities

## 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. Healthcare professionals are asked to report any suspected adverse reactions to SAHPRA via the "6.04 Adverse Drug Reaction Reporting Form", found online under SAHPRA's publications: https://www.sahpra.org.za/Publications/Index/8

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#### 4.9 Overdose

The symptoms of an overdosage of AUSTELL LOSARTAN would be hypotension and tachycardia. Bradycardia could occur from parasympathetic (vagal) stimulation. If symptomatic hypotension should occur, supportive treatment should be instituted. Neither AUSTELL LOSARTAN nor the active metabolite can be removed by haemodialysis.

#### 5. PHARMACOLOGICAL PROPERTIES

## 5.1 Pharmacodynamic properties

Category and Class: A7.1.3 Other hypotensives

Pharmacotherapeutic group: Angiotensin II antagonists, plain, ATC code: C09CA01

Losartan is a nonpeptide angiotensin II receptor antagonist with high affinity and selectivity for the AT1 receptor, without binding to or blocking other hormone receptors or ion channels important in cardiovascular regulation. Angiotensin II is a potent vasoconstrictor, a primary active hormone of the renin-angiotensin system, and a major determinant of the pathophysiology of hypertension. Losartan blocks the vasoconstrictor and aldosteronesecreting effects of angiotensin II by inhibiting the binding of angiotensin II to the AT1 receptor.

Losartan is a specific antagonist of the angiotensin II receptor type AT1; it does not inhibit ACE (kininase II), the enzyme that degrades bradykinin. Removal of angiotensin II negative feedback on renin secretion leads to increased plasma renin activity during losartan administration. A 2-3-fold increase in angiotensin II in plasma, comes as a result of increases in plasma renin activity. However, antihypertensive activity and suppression of plasma aldosterone concentration are apparent, indicating effective angiotensin II receptor blockade. After discontinuation of losartan, plasma renin activity and angiotensin levels declined.

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## **5.2 Pharmacokinetic properties**

### **Absorption**

Following oral administration, bioavailability is approximately 33 %.

The mean peak concentrations of losartan and its active metabolite are reached in 1 hour and 3-4 hours, respectively.

#### Distribution

Both losartan and the carboxylic acid metabolite are greater than, or equal to 99 % bound to plasma proteins. The distribution volume of losartan is 34 litres.

#### **Biotransformation**

It undergoes first-pass metabolism to form an active carboxylic acid metabolite, (which has greater pharmacological activity than losartan) and some inactive metabolites. About 14 % of an intravenously or orally administered dose is converted to its active metabolite.

#### Elimination

The terminal half-life of losartan is 2 hours and of its active metabolite is 6-9 hours.

Losartan is excreted in the urine, and in the faeces, as unchanged drug and metabolites.

Following oral dosing, about 35 % of the dose is excreted in the urine and about 60 % in the faeces. Neither losartan nor the active metabolite can be removed by haemodialysis.

Plasma concentrations of losartan are not altered in patients with impaired renal function and a creatinine clearance above 10 mL/min. Compared to patients with normal renal function, the AUC for losartan is approximately 2-fold greater in patients on haemodialysis.

### **6. PHARMACEUTICAL PARTICULARS**

### 6.1 List of excipients

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Tablet core

Colloidal anhydrous silica (Aerosil 200),
magnesium stearate,
maize starch (dried),
microcrystalline cellulose (Avicel PH 200),
purified talc,
sodium starch glycollate (Type A).

Film coating
hypromellose (15 cps),
macrogol 600,
purified talc,
titanium dioxide (C.I No 77891).
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## 6.2 Incompatibilities

Not applicable

### 6.3 Shelf life

36 months

## 6.4 Special precautions for storage

Store in a dry place at or below 25 °C. Protect from light, heat and moisture.

Keep blister packs in carton until required for use.

KEEP OUT OF THE REACH OF CHILDREN

## 6.5 Nature and contents of container

**AUSTELL LOSARTAN 25:** 

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Blister pack (White Opaque PVC film and Aluminium foil) of 2 x 14 and 3 x 10 tablets.

**AUSTELL LOSARTAN 50:** 

Blister pack (White Opaque PVC film and Aluminium foil) of 2 x 14 and 3 x 10 tablets.

**AUSTELL LOSARTAN 100:** 

Blister pack (White Opaque PVC film and Aluminium foil) of 2 x 14 and 3 x 10 tablets.

Not all pack sizes may be marketed.

## 6.6 Special precautions for disposal

No special requirements.

#### 7. HOLDER OF CERTIFICATE OF REGISTRATION

Austell Pharmaceuticals (Pty) Ltd

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www.austell.co.za

## 8. REGISTRATION NUMBER(S)

AUSTELL LOSARTAN 25 mg: 41/7.1.3/0496

AUSTELL LOSARTAN 50 mg: 41/7.1.3/0497

AUSTELL LOSARTAN 100 mg: 41/7.1.3/0498

## 9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

04 December 2009

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# 10. DATE OF REVISION OF THE TEXT

09 November 2022

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