

## **DIAZIDE**

Hydrochlorthiazide 12.5/25 mg Tablets

**GENERIC NAME:** Hydrochlorthiazide

**PHARMACOLOGICAL CLASS:** Thiazide Diuretics

**THERAPEUTIC CLASS:** Diuretics

### **COMPOSITION AND PRESENTATION:**

#### **Diazide 12.5**

##### **Composition**

Each Tablet contains Hydrochlorthiazide 12.5 mg

##### **Presentation**

30 Tablets x 5 Blisters

#### **Diazide 25**

##### **Composition**

Each Tablet contains Hydrochlorthiazide 25 mg

##### **Presentation**

30 Tablets x 5 Blisters

### **MOLECULAR INTRODUCTION**

DIAZIDE (hydrochlorothiazide) promote water loss from the body (diuretics). They inhibit  $\text{Na}^+/\text{Cl}^-$  reabsorption from the distal convoluted tubules in the kidneys. Hydrochlorthiazide also cause loss of potassium and an increase in serum uric acid. Hydrochlorthiazide are often used to treat hypertension, but their hypotensive effects are not necessarily due to their diuretic activity. Hydrochlorthiazide have been shown to prevent hypertension-related morbidity and mortality although the mechanism is not fully understood. Hydrochlorthiazide cause vasodilation by activating calcium-activated potassium channels (large conductance) in vascular smooth muscles and inhibiting various carbonic anhydrases in vascular tissue.

### **MECHANISM OF ACTION**

Hydrochlorothiazide belongs to the thiazide class of diuretics, acting on the kidneys to reduce sodium (Na) reabsorption in the distal convoluted tubule. The major site of action in the nephron appears on an electroneutral  $\text{Na}^+ \text{Cl}^-$  co-transporter by competing for the chloride site on the transporter. By impairing  $\text{Na}^+$  transport in the distal convoluted tubule, hydrochlorothiazide induces a natriuresis and concomitant water loss. Thiazides increase the reabsorption of calcium in this segment in a manner unrelated to sodium transport.

## **INDICATIONS & DOSAGE:**

- **Hypertension**  
The recommended starting dose of hydrochlorothiazide for treating high blood pressure is hydrochlorothiazide 25 mg once daily. Based on the initial blood pressure response and/or side effects of hydrochlorothiazide, the dosage may be increased up to 50 mg per day
- **Symptomatic edema**  
The recommended dose of hydrochlorothiazide for fluid retention (edema) can vary between 25 mg and 100 mg daily (taken as a single dose or divided and taken more frequently). Some people will only need to take hydrochlorothiazide when they need it (when they are experiencing water retention), while others may need to take hydrochlorothiazide on a daily basis.
- **Congestive Heart failure**
- **Diabetes Insipidus**
- **Renal Tubular Acidosis**
- **Prevention of Kidney Stones**

## **ADVERSE EFFECTS**

Cough, dizziness, hypotension, myalgia, dyspepsia, musculoskeletal pain, hypokalemia, hyperkalemia, hyperuricemia.

## **PHARMACOKINETICS**

### **Absorption:**

Hydrochlorothiazide is rapidly absorbed from the gastrointestinal tract. The bioavailability is approximately 60 to 80%.

### **Distribution:**

Hydrochlorothiazide crosses the placental but not the blood-brain barrier and is excreted in breast milk.

### **Metabolism:**

Hydrochlorothiazide is not metabolized.

### **Excretion:**

Hydrochlorothiazide is eliminated rapidly by the kidney. At least 61% of the oral dose is eliminated unchanged within 24 hours. The plasma half life has been observed to vary from 3.7-9 hrs.

## **CONTRAINDICATIONS**

- Anuria,
- Hypersensitivity to sulfonamide-derived drugs.
- Pregnancy

For further information, please contact:

**Market Planning Department**

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