

## MARKET PERFORMANCE AND SALES ANALYSIS OF CAPTOPRIL IN VIKASNAGAR REGION

Manisha Tomar<sup>\*1</sup>, Pranshu Tangri<sup>\*2</sup>, Sushil Singhal<sup>\*3</sup>, NG Raghvendra Rao<sup>\*4</sup>

<sup>\*1,2,3,4</sup>GRD(PG)IMT, Dept. of Pharmaceutics, 214, Rajpur Road, Dehradun, India.

### ABSTRACT

Successful treatment of hypertension is possible with limited side effects given the availability of multiple antihypertensive drug classes. This review describes the various pharmacological classes of antihypertensive drugs, under two major aspects: their mechanisms of action and side effects. The mechanism of action is analyzed through a pharmacological approach, i.e. the molecular receptor targets, the various sites along the arterial system, and the extra-arterial sites of action, in order to better understand in which type of hypertension a given pharmacological class of antihypertensive drug is most indicated. In addition, side effects are described and explained through their pharmacological mechanisms, in order to better understand their mechanism of occurrence and in which patients drugs are contra-indicated. this study shows the analysis and market performance of various different brands of captopril tablets available in the local market of Vikas Nagar, Dehradun, Uttarakhand.

**KEYWORDS:** Captopril, Sales, Forecast, Marketing, Antihypertensive.

### I. INTRODUCTION

The term hypertension literally means an abnormally raised arterial blood pressure. There are many conditions which elevate arterial pressure, including primary renal disease pheochromocytoma hyperthyroidism ,hyperaldosesteronism and coarctation of aorta, leading to secondary hypertension. About 80-85% of patients of hypertension, no specific cause is evident, and such a condition , is labelled as primary or essential hypertension. In these patients although the cause is not completely understood, heredity, emotional factors, and various physiological parameters play a major role in raising blood pressure. If this condition is not treated , complication like left heart failure , congestive heart failure cerebrovascular disease ,kidney damage and kidney damage and atherosclerosis may develop.[ 1-2]

Captopril is an ACE inhibitor. ACE stands for angiotensin converting enzyme. Captopril is used to treat high blood pressure (hypertension), congestive heart failure, kidney problems caused by diabetes, and improve survival after a heart attack. Captopril, sold under the brand name Capoten among others, is an angiotensin- converting enzyme (ACE) inhibitor used for the treatment of hypertension and some type of congestive heart failure. Captopril blocks the conversion of angiotensin 1 to angiotensin 2 and prevents the degradation of vasodilatory prostaglandins, thereby inhibiting vasoconstriction and promoting systemic vasodilation. [3-5]

#### 1.1 Uses

Captopril main uses are based on its vasodilators and inhibition of renal function activitie.-

- ❖ Hypertension
- ❖ Cardiac conditions such as congestive heart failure and after myocardial infraction
- ❖ Preservation of kidney function in dia betic nephropathy
- ❖ It has also been investigated for use in the treatment of cancer
- ❖ Captopril stereoisomers were also reported to inhibit some metallo - $\beta$  -lactamases
- ❖ These agents are also used as adjuncts in the treatment of refractory congestive heart failure with digoxin and a diuretic.

## 1.2 Pharmacokinetics

After oral administration of therapeutic doses of Captopril Tablets, rapid absorption occurs with peak blood levels at about one hour. The presence of food in the gastrointestinal tract reduces absorption by about 30 to 40 percent; captopril therefore should be given one hour before meals. Based on carbon-14 labeling, average minimal absorption is approximately 75 percent. In a 24-hour period, over 95 percent of the absorbed dose is eliminated in the urine; 40 to 50 percent is unchanged drug; most of the remainder is the disulfide dimer of captopril and captopril-cysteine disulfide.

## II. MATERIALS AND MEHTODS

### 2.1 Study Design:

This was an open, survey based study with the aim to study the market share of various brands of captopril in market. It also aimed at analysis of prescription patterns, patient orientation and sales strategy along with patient compliance. A well structured questionnaire was prepared through which information was collected from patients, doctors and chemists.

### 2.2 Study location:

The study was carried out on subjects of different parts of Vikas Nagar, Dehradun, Uttarakhand.

### 2.3 Market Survey:

The market survey was done in the following areas of Vikas Nagar, Dehradun, Uttarakhand;

**Table-1: Details of Survey Area**

Area: Mandichowk, Vikas Nagar

S.No.	Chemist Owner Name	Medical Store Name	Code
1	Neelam Kapoti	Jagnath Medical Store	A
2	Dilbhar Singh	Sai Medicose	B
3	Urmi Chauhan	Indresh Medical Store	C

**Table-2: Details of Survey Area**

Area: Hospital Road, Vikas Nagar

S.No.	Chemist Owner Name	Medical Store Name	Code
1	Akash	Vikas Medical Store	D
2	Yogesh	Baluni Medicose	E
3	Sunil Rawal	Kohli Medicose.	F

**Table-3: Details of Survey Area**

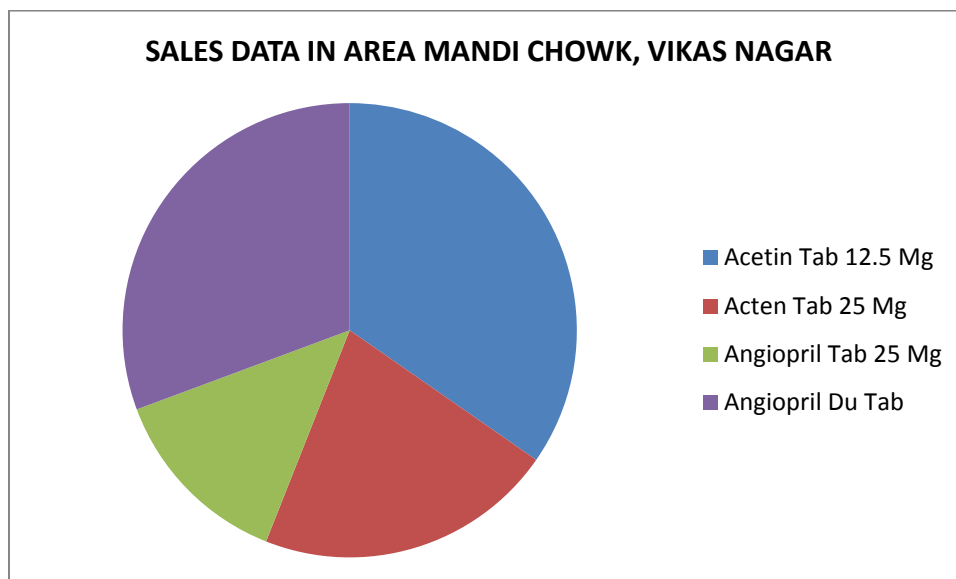
Area: Rasolpur Road, Vikas Nagar

Sr.No	Chemist Name	Medical Store Name	Code
1	Pooja	Rai Medicose	G
2	Deepak	Praveen Medical Store	H
3	Kavita	Negi Medical	I

- Sales data of Captopril tablet in Vikas Nagar per week :

**Table-4: Sales Data In Area Mandi Chowk, Vikas Nagar**

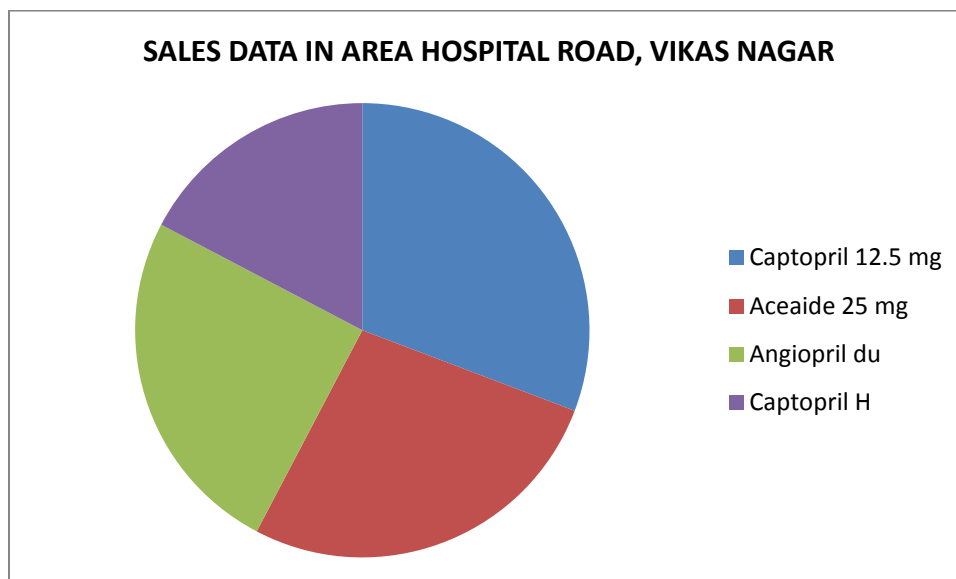
Brand name	Company	Chemist shop	No. of strips sale/week	Total strips sale/week
Acetin Tab 12.5 Mg	Wockhardt	A	7	26
		B	9	
		C	10	
Acten Tab 25 Mg	Wockhardt	A	5	16
		B	6	
		C	5	
Angiopril Tab 25 Mg	Torrent	A	5	10
		B	4	
		C	1	
Angiopril Du Tab	Torrent	A	9	23
		B	6	
		C	8	



**Fig-1:** Sales Data In Area Mandi Chowk, Vikas Nagar

**Table-5:** Sales Data In Area Hospital Road, Vikas Nagar

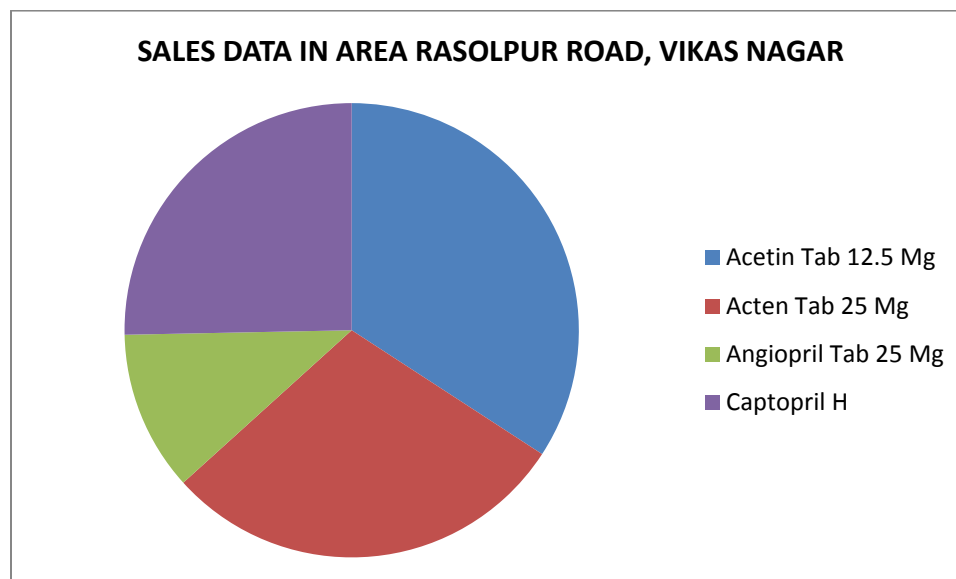
Brand name	Company	Chemist shop	No. of strips sale/week	Total strips sale/week
Captopril 12.5 mg	Lupin	D	10	32
		E	12	
		F	10	
Aceaide 25 mg	Wockhardt	D	11	28
		E	10	
		F	7	
Angiotensin du	Torrent	D	8	16
		E	5	
		F	3	
Captopril H	Lupin	D	7	18
		E	4	
		F	4	



**Fig-2:** Sales Data In Hospital Road, Vikas Nagar

**Table-6:** Sales Data In Area Rasolpur Road , Vikas Nagar

Brand name	Company	Chemist shop	No. of strips sale/week	Total strips sale/week
Acten 12.5 mg	Wockhardt	G	12	27
		H	8	
		I	7	
Acten Tab 25 Mg	Wockhardt	G	12	23
		H	6	
		I	5	
Angiopril Tab 25 Mg	Torrent	G	4	9
		H	0	
		I	5	
Captopril H	Lupin	G	9	20
		H	8	
		I	3	



**Fig-3:** Sales Data In Rasolpur Road, Vikas Nagar

### III. CONCLUSION

The market survey of captopril was performed which gives a brief knowledge about the different brands of captopril in market also prescription habits of different physicians and sales estimates of the same. A questionnaire is prepared and observations of various chemist, patients and doctor were recorded. The overall market survey on captopril was be helpful in understanding the prescription patterns, patient orientation and marketing trends along with estimation of sales forecast and market needs.

### IV. REFERENCES

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