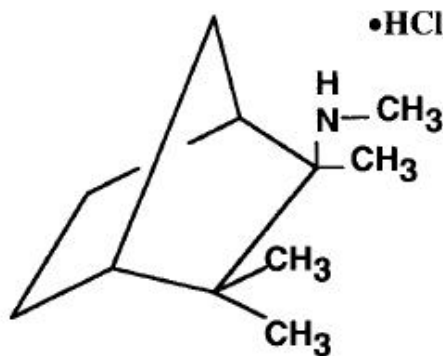


**INVERSINE- inversine tablet**  
**Targacept, Inc.**

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**TABLETS**  
**INVERSINE®**  
**(MECAMYLAMINE HCl)**

**DESCRIPTION**

INVERSINE®<sup>1</sup> (Mecamylamine HCl) is a potent, oral antihypertension agent and ganglion blocker, and is a secondary amine. It is N,2,3,3-tetramethyl-bicyclo [2.2.1] heptan- 2 -amine hydrochloride. Its empirical formula is C<sub>11</sub>H<sub>21</sub>N • HCl and its structural formula is:



It is a white, odorless, or practically odorless, crystalline powder, is highly stable, soluble in water and has a molecular weight of 203.75.

INVERSINE<sup>1</sup> is supplied as tablets for oral use, each containing 2.5 mg mecamylamine HCl. Inactive ingredients are acacia, calcium phosphate, D&C Yellow 10, FD&C Yellow 6, lactose, magnesium stearate, starch, and talc.

**CLINICAL PHARMACOLOGY**

Mecamylamine reduces blood pressure in both normotensive and hypertensive individuals. It has a gradual onset of action (1/2 to 2 hours) and a longlasting effect (usually 6 to 12 hours or more). A small oral dosage often produces a smooth and predictable reduction of blood pressure. Although this antihypertensive effect is predominantly orthostatic, the supine blood pressure is also significantly reduced.

**Pharmacokinetics and Metabolism**

Mecamylamine is almost completely absorbed from the gastrointestinal tract, resulting in consistent lowering of blood pressure in most patients with hypertensive cardiovascular disease. Mecamylamine is excreted slowly in the urine in the unchanged form. The rate of its renal elimination is influenced markedly by urinary pH. Alkalinization of the urine reduces, and acidification promotes, renal excretion of mecamylamine.

Mecamylamine crosses the blood-brain and placental barriers.

**INDICATIONS AND USAGE**

For the management of moderately severe to severe essential hypertension and in uncomplicated cases of malignant hypertension.

**CONTRAINDICATIONS**

INVERSINE<sup>1</sup> should not be used in mild, moderate, labile hypertension and may prove unsuitable in

uncooperative patients. It is contraindicated in coronary insufficiency or recent myocardial infarction.

INVERSINE<sup>1</sup> should be given with great discretion, if at all, when renal insufficiency is manifested by a rising or elevated BUN. The drug is contraindicated in uremia. Patients receiving antibiotics and sulfonamides should generally not be treated with ganglion blockers. Other contraindications are glaucoma, organic pyloric stenosis or hypersensitivity to the product.

## **WARNINGS**

Mecamylamine, a secondary amine, readily penetrates into the brain and thus may produce central nervous system effects. Tremor, choreiform movements, mental aberrations, and convulsions may occur rarely. These have occurred most often when large doses of INVERSINE<sup>1</sup> were used, especially in patients with cerebral or renal insufficiency.

When ganglion blockers or other potent antihypertensive drugs are discontinued suddenly, hypertensive levels return. In patients with malignant hypertension and others, this may occur abruptly and may cause fatal cerebral vascular accidents or acute congestive heart failure. When INVERSINE<sup>1</sup> is withdrawn, this should be done gradually and other antihypertensive therapy usually must be substituted. On the other hand, the effects of INVERSINE<sup>1</sup> sometimes may last from hours to days after therapy is discontinued.

## **PRECAUTIONS**

### **General**

The patient's condition should be evaluated carefully, particularly as to renal and cardiovascular function. When renal, cerebral, or coronary blood flow is deficient, any additional impairment, which might result from added hypotension, must be avoided. The use of INVERSINE<sup>1</sup> in patients with marked cerebral and coronary arteriosclerosis or after a recent cerebral accident requires caution.

The action of INVERSINE<sup>1</sup> may be potentiated by excessive heat, fever, infection, hemorrhage, pregnancy, anesthesia, surgery, vigorous exercise, other antihypertensive drugs, alcohol, and salt depletion as a result of diminished intake or increased excretion due to diarrhea, vomiting, excessive sweating, or diuretics.

During therapy with INVERSINE<sup>1</sup>, sodium intake should not be restricted but, if necessary, the dosage of the ganglion blocker must be adjusted.

Since urinary retention may occur in patients on ganglion blockers, caution is required in patients with prostatic hypertrophy, bladder neck obstruction, and urethral stricture.

Frequent loose bowel movements with abdominal distention and decreased borborygmi may be the first signs of paralytic ileus. If these are present, INVERSINE<sup>1</sup> should be discontinued immediately and remedial steps taken.

### **Information for patients**

INVERSINE<sup>1</sup> may cause dizziness, lightheadedness, or fainting, especially when rising from a lying or sitting position. This effect may be increased by alcoholic beverages, exercise, or during hot weather. Getting up slowly may help alleviate such a reaction.

### **Drug Interactions**

Patients receiving antibiotics and sulfonamides generally should not be treated with ganglion blockers. The action of INVERSINE<sup>1</sup> may be potentiated by anesthesia, other antihypertensive drugs and alcohol.

### **Carcinogenesis, Mutagenesis, Impairment of Fertility**

Long-term studies in animals have not been performed to evaluate the effects upon fertility, mutagenic or carcinogenic potential of INVERSINE<sup>1</sup>.

### **Pregnancy**

*Pregnancy Category C.* Animal reproduction studies have not been conducted with INVERSINE<sup>1</sup>. It is

not known whether INVERSINE<sup>1</sup> can cause fetal harm when given to a pregnant woman or can affect reproductive capacity. INVERSINE<sup>1</sup> should be given to a pregnant woman only if clearly needed.

### **Nursing Mothers**

Because of the potential for serious adverse reactions in nursing infants from INVERSINE<sup>1</sup>, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

### **Pediatric Use**

Safety and effectiveness in pediatric patients have not been established.

### **ADVERSE REACTIONS**

The following adverse reactions have been reported and within each category are listed in order of decreasing severity.

*Gastrointestinal:* Ileus, constipation (sometimes preceded by small, frequent liquid stools), vomiting, nausea, anorexia, glossitis and dryness of mouth.

*Cardiovascular:* Orthostatic dizziness and syncope, postural hypotension.

*Nervous System/Psychiatric:* Convulsions, choreiform movements, mental aberrations, tremor, and paresthesias (see WARNINGS).

*Respiratory:* Interstitial pulmonary edema and fibrosis.

*Urogenital:* Urinary retention, impotence, decreased libido.

*Special Senses:* Blurred vision, dilated pupils.

*Miscellaneous:* Weakness, fatigue, sedation.

### **OVERDOSAGE**

Signs of overdosage include: hypotension (which may progress to peripheral vascular collapse), postural hypotension, nausea, vomiting, diarrhea, constipation, paralytic ileus, urinary retention, dizziness, anxiety, dry mouth, mydriasis, blurred vision, or palpitations. A rise in intraocular pressure may occur.

Pressor amines may be used to counteract excessive hypotension. Since patients being treated with ganglion blockers are more than normally reactive to pressor amines, small doses of the latter are recommended to avoid excessive response.

The oral LD<sub>50</sub> of mecamylamine in the mouse is 92 mg/kg.

### **DOSAGE AND ADMINISTRATION**

Therapy is usually started with one 2.5 mg tablet of INVERSINE<sup>1</sup> twice a day. This initial dosage should be modified by increments of one 2.5 mg tablet at intervals of not less than 2 days until the desired blood pressure response occurs (the criterion being a dosage just under that which causes signs of mild postural hypotension).

The average total daily dosage of INVERSINE<sup>1</sup> is 25 mg, usually in three divided doses. However, as little as 2.5 mg daily may be sufficient to control hypertension in some patients. A range of two to four or even more doses may be required in severe cases when smooth control is difficult to obtain. In severe or urgent cases, larger increments at smaller intervals may be needed. Partial tolerance may develop in certain patients, requiring an increase in the daily dosage of INVERSINE<sup>1</sup>.

Administration of INVERSINE<sup>1</sup> after meals may cause a more gradual absorption and smoother control of excessively high blood pressure. The timing of doses in relation to meals should be consistent. Since the blood pressure response to antihypertensive drugs is increased in the early morning, the larger dose should be given at noontime and perhaps in the evening. The morning dose, as a rule, should be relatively small and in some instances may even be omitted.

The *initial regulation of dosage* should be determined by blood pressure readings in the erect position at

the time of maximal effect of the drug, as well as by other signs and symptoms of orthostatic hypotension.

The *effective maintenance dosage* should be regulated by blood pressure readings in the erect position and by limitation of dosage to that which causes slight faintness or dizziness in this position. If the patient or a relative can use a sphygmomanometer, instructions may be given to reduce or omit a dose if readings fall below a designated level or if faintness or lightheadedness occurs. *However, no change should be instituted without the knowledge of the physician.*

Close supervision and education of the patient, as well as critical adjustment of dosage, are essential to successful therapy.

#### *Other Antihypertensive Agents*

When INVERSINE<sup>1</sup> is given with other antihypertensive drugs, the dosage of these other agents, as well as that of INVERSINE<sup>1</sup>, should be reduced to avoid excessive hypotension. However, thiazides should be continued in their usual dosage, while that of INVERSINE<sup>1</sup> is decreased by at least 50 percent.

### HOW SUPPLIED

Tablets INVERSINE<sup>1</sup>, 2.5 mg, are slightly yellow, round, compressed tablets, coded LBS01. They are supplied as follows:

NDC 17205-0626-1 in bottles of 100.

### STORAGE CONDITION

Store at 25°C (77°F); excursions permitted to 15-30°C (59-86°F)  
[see USP Controlled Room [Temperature]]

Manufactured by: Siegfried CMS Ltd., Zofingen, Switzerland for Targacept, Inc.  
Winston-Salem, NC 27101

Rev.7/02

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<sup>1</sup> Inversine<sup>®</sup> is a registered trademark of Targacept, Inc.  
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INVERSINE			
inversine tablet			
<b>Product Information</b>			
<b>Product Type</b>	HUMAN PRESCRIPTION DRUG	<b>Item Code (Source)</b>	NDC:17205-0626
<b>Route of Administration</b>	ORAL		
<b>Active Ingredient/Active Moiety</b>			
<b>Ingredient Name</b>		<b>Basis of Strength</b>	<b>Strength</b>
Mecamylamine Hydrochloride (UNII: 4956DJR58O) (Mecamylamine - UNII:6EE945D3OK)			2.5 mg
<b>Inactive Ingredients</b>			
<b>Ingredient Name</b>		<b>Strength</b>	
Acacia Powder ( )		1.78 mg	
Lactose Powder ( )		54.4 mg	
Cornstarch Powder ( )		10.62 mg	
Calcium Phosphate Dihydrate ( )		23.3 mg	
Yellow Lake Blend, LB-282 ( )		0.043 mg	

<b>Talc</b> (UNII: 7SEV7J4R1U)		1.13 mg		
<b>Magnesium Sterate</b> ()		0.382 mg		
<b>Water</b> (UNII: 059QF0KO0R)				
<b>Product Characteristics</b>				
<b>Color</b>	yellow (YELLOW)	<b>Score</b>	no score	
<b>Shape</b>	ROUND (ROUND)	<b>Size</b>	6mm	
<b>Flavor</b>		<b>Imprint Code</b>	LBS01	
<b>Contains</b>				
<b>Coating</b>	false	<b>Symbol</b>	false	
<b>Packaging</b>				
<b>#</b>	<b>Item Code</b>	<b>Package Description</b>	<b>Marketing Start Date</b>	<b>Marketing End Date</b>
1	NDC:17205-0626-1	100 in 1 BOTTLE		

**Labeler** - Targacept, Inc.

Revised: 6/2008

Targacept, Inc.