ANTIVERT - meclizine hcl tablet
ANTIVERT - meclizine hcl tablet, chewable
Casper Pharma LLC

HIGHLIGHTS OF PRESCRIBING INFORMATION
These highlights do not include all the information needed to use ANTIVERT® safely and effectively. See full prescribing information for ANTIVERT®.

ANTIVERT® (meclizine HCl) tablets, for oral use
ANTIVERT® (meclizine HCl) chewable tablets, for oral use
Initial U.S. Approval: 1957

INDICATIONS AND USAGE

ANTIVERT® is indicated for the treatment of vertigo associated with diseases affecting the vestibular system in adults (1).

DOSAGE AND ADMINISTRATION

• Recommended dosage: 25 mg to 100 mg daily, in divided doses (2.1).
• Tablets: Swallow whole (2.2).
• Chewable Tablets: Must be chewed or crushed before swallowing; do not swallow whole (2.2).

DOSAGE FORMS AND STRENGTHS

• Tablets: 12.5 mg, 25 mg, and 50 mg (3).
• Chewable Tablets: 25 mg (3).

CONTRAINDICATIONS

ANTIVERT® is contraindicated in patients with hypersensitivity to meclizine or any of the inactive ingredients (4).

WARNINGS AND PRECAUTIONS

• May cause drowsiness: Use caution when driving a car or operating dangerous machinery (5.1).
• Potential anticholinergic action: this drug should be prescribed with care to patients with a history of asthma, glaucoma, or enlargement of the prostate gland (5.2).

ADVERSE REACTIONS

Common adverse reactions are anaphylactic reaction, drowsiness, dry mouth, headache, fatigue, and vomiting. On rare occasions blurred vision has been reported (6).
To report SUSPECTED ADVERSE REACTIONS, contact Casper Pharma LLC at 1-844–5–CASPER (1-844-522-7737) or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

DRUG INTERACTIONS

• Coadministration of ANTIVERT® with other CNS depressants, including alcohol, may result in increased CNS depression (7.1).
• CYP2D6 inhibitors: As meclizine is metabolized by CYP2D6, there is a potential for drug-drug interactions between ANTIVERT® and CYP2D6 inhibitors (7.2).
See 17 for PATIENT COUNSELING INFORMATION.

Revised: 10/2022

FULL PRESCRIBING INFORMATION: CONTENTS*

* Sections or subsections omitted from the full prescribing information are not listed.

FULL PRESCRIBING INFORMATION

1 INDICATIONS AND USAGE

ANTIVERT® is indicated for the treatment of vertigo associated with diseases affecting the vestibular system in adults.

2 DOSAGE AND ADMINISTRATION

2.1 Recommended Dosage

The recommended dosage is 25 mg to 100 mg daily administered orally, in divided doses, depending upon clinical response.

2.2 Administration Instructions

Tablets
ANTIVERT® tablets must be swallowed whole.

Chewable Tablets

ANTIVERT® chewable tablets must be chewed or crushed completely before swallowing. Do not swallow chewable tablets whole.

3 DOSAGE FORMS AND STRENGTHS

Tablets
• 12.5 mg: oval-shaped, biconvex, two-layered tablet, one blue to pale blue layer debossed with "34" and one white to off white layer debossed with "L".

• 25 mg: oval-shaped, biconvex, two-layered tablet, one yellow to pale yellow layer debossed with "49" and one white to off white layer debossed with "L".

• 50 mg: oval-shaped, biconvex, two-layered tablet, one blue to pale blue layer debossed with "50" and one yellow to pale yellow layer and debossed with "L".

Chewable Tablets
• 25 mg: pink colored round tablets debossed with "M 25" on one side and break line on other side.

4 CONTRAINDICATIONS

ANTIVERT® is contraindicated in patients with a hypersensitivity to meclizine or any of the inactive ingredients [*see Adverse Reactions (6) and Description (11)*].

5 WARNINGS AND PRECAUTIONS

5.1 Drowsiness

Since drowsiness may occur with use of ANTIVERT®, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Patients should avoid alcoholic beverages while taking ANTIVERT®*[see Drug Interactions (7.1)*].

5.2 Concurrent Medical Conditions

Because of its potential anticholinergic action, ANTIVERT® should be used with caution in patients with asthma, glaucoma, or enlargement of the prostate gland.

6 ADVERSE REACTIONS

The following adverse reactions associated with the use of ANTIVERT® were identified in clinical studies or postmarketing reports. Because some of these reactions were reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

Anaphylactic reaction, drowsiness, dry mouth, headache, fatigue, and vomiting. On rare occasions blurred vision has been reported.

7 DRUG INTERACTIONS

7.1 CNS Depressants

There may be increased CNS depression when ANTIVERT® is administered concurrently with other CNS depressants, including alcohol [*see Warnings and Precautions (5.1)*].

7.2 CYP2D6 Inhibitors

Based on *in-vitro* evaluation, meclizine is metabolized by CYP2D6. Therefore, there is a possibility for a drug interaction between ANTIVERT® and CYP2D6 inhibitors. Therefore, monitor for adverse reactions and clinical effect accordingly.

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Risk Summary
Data from epidemiological studies have not generally indicated a drug-associated risk of major birth defects with meclizine during pregnancy. However, in a published study, an increased incidence of fetal malformations was observed following oral administration of meclizine to pregnant rats during the period of organogenesis, at doses similar to those used clinically.

In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2-4% and 15-20%, respectively. The background risk of major birth defects and miscarriage for the indicated population is unknown.

Data
Human Data
Epidemiological studies reporting on pregnancies exposed to meclizine have not identified an association between the use of meclizine during pregnancy and an increased risk of major birth defects.

Animal Data
In a published study, oral administration of meclizine (25-250 mg/kg) to pregnant rats during the period of organogenesis resulted in a high incidence of fetal malformations. These effects occurred at doses as low as 25 mg/kg, which is approximately 2 times the maximum recommended human dose (100 mg) on a body surface area (mg/m2) basis.

8.2 Lactation

Risk Summary
There are no data on the presence of meclizine in human milk, the effects on the breastfed infant, or the effects on milk production. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for ANTIVERT® and any potential adverse effects on the breastfed infant from ANTIVERT® or from the underlying maternal condition.

8.4 Pediatric Use

Safety and effectiveness in pediatric patients have not been established.

8.5 Geriatric Use

In general, dose selection for an elderly patient should be cautious, usually starting at the low end of the dosing range, reflecting the greater frequency of decreased hepatic, renal, or cardiac function, and of concomitant disease or other drug therapy.

8.6 Hepatic Impairment

The effect of hepatic impairment on the pharmacokinetics of meclizine has not been evaluated. As ANTIVERT® undergoes metabolism, hepatic impairment may result in increased systemic exposure of meclizine. Treatment with ANTIVERT® should be administered with caution in patients with hepatic impairment.

8.7 Renal Impairment

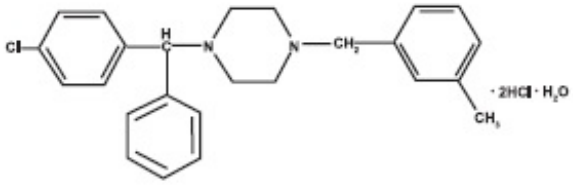
The effect of renal impairment on the pharmacokinetics of meclizine has not been evaluated. Because of a potential for drug/metabolite accumulation, ANTIVERT® should be administered with caution in patients with renal impairment and in the elderly, as renal function generally declines with age.

8.8 Genetic CYP2D6 Polymorphism

The genetic polymorphism of CYP2D6 that results in poor-, intermediate-, extensive-, and ultrarapid metabolizer phenotypes could contribute to large inter-individual variability in meclizine exposure. Therefore, when ANTIVERT® is administered to patients with CYP2D6 polymorphism, monitor for adverse reactions and clinical effect accordingly.

11 DESCRIPTION

ANTIVERT® (meclizine HCl), a histamine (H1) receptor antagonist, is a white or slightly yellowish, crystalline powder. It has the following structural formula:



Chemically, ANTIVERT® (meclizine HCl) is 1-(p-chloro-α-phenylbenzyl)-4-(m-methylbenzyl) piperazine dihydrochloride monohydrate.

Tablets
Inactive ingredients for the tablets are: corn starch; dibasic calcium phosphate; magnesium stearate; polyethylene glycol; sucrose. The 12.5 mg tablets also contain: FD&C Blue # 1. The 25 mg tablets also contain: FD&C Yellow # 6 and D&C Yellow # 10.

The 50 mg tablets also contain: FD&C Blue # 1, FD&C Yellow # 6 and D&C Yellow # 10.

Each ANTIVERT® (meclizine HCl) 12.5 mg tablet contains 12.5 mg of meclizine dihydrochloride equivalent to 10.53 mg of meclizine free base.
Each ANTIVERT® (meclizine HCl) 25 mg tablet contains 25 mg of meclizine dihydrochloride equivalent to 21.07 mg of meclizine free base.
Each ANTIVERT® (meclizine HCl) 50 mg tablet contains 50 mg of meclizine dihydrochloride equivalent to 42.14 mg of meclizine free base.

Chewable Tablets
Inactive ingredients for the chewable tablets are: corn starch, colloidal silicon dioxide, FD&C Red # 40, lactose monohydrate, magnesium stearate, raspberry flavor, saccharin sodium, and talc.

Each ANTIVERT® (meclizine HCl) 25 mg chewable tablet contains 25 mg of meclizine dihydrochloride equivalent to 21.07 mg of meclizine free base.

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

The precise mechanism by which meclizine exerts its therapeutic effect is unknown but is presumed to involve antagonism of the histamine H1 receptor.

12.2 Pharmacodynamics

There are no relevant pharmacodynamic data regarding meclizine.

12.3 Pharmacokinetics

The available pharmacokinetic information for meclizine following oral administration has been summarized from published literature.

Absorption
Meclizine is absorbed after oral administration with maximum plasma concentrations reaching at a median T_{max} value of 3 hours post-dose (range: 1.5 to 6 hours) for the tablet dosage form.

Distribution
Drug distribution characteristics for meclizine in humans are unknown.

Elimination
Meclizine has a plasma elimination half-life of about 5-6 hours in humans.

Metabolism
In an *in vitro* metabolic study using human hepatic microsome and recombinant CYP enzyme, CYP2D6 was found to be the dominant enzyme for metabolism of meclizine.

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Carcinogenesis
Animal studies to assess the carcinogenic potential of meclizine have not been conducted.

Mutagenesis
Genetic toxicology studies of meclizine have not been conducted.

Impairment of Fertility
Animal studies to assess the effects of meclizine on fertility and early embryonic development have not been conducted.

16 HOW SUPPLIED/STORAGE AND HANDLING

16.1 How Supplied

Tablets
Antivert® **12.5 mg** tablets are oval shaped, biconvex, two-layered tablet, one blue to pale blue layer debossed with "34" and one white to off white layer debossed with "L".

Bottles of 100	NDC 70199-002-01
Bottles of 500	NDC 70199-002-05

Antivert® **25 mg** tablets are oval shaped, biconvex, two-layered tablet, one yellow to pale yellow layer debossed with "49" and one white to off white layer debossed with "L".

Bottles of 100	NDC 70199-003-01
Bottles of 1000	NDC 70199-003-99

Antivert® **50 mg** tablets are oval shaped, biconvex, two-layered tablet, one blue to pale blue layer debossed with "50" and one yellow to pale yellow layer and debossed with "L".

Bottles of 100	NDC 70199-004-01
Bottles of 1000	NDC 70199-004-99

Chewable Tablets
Antivert® **25 mg** chewable tablets are pink colored round tablets debossed with "M 25" on one side and break line on other side.

Bottles of 100	NDC 70199-018-01

16.2 Storage and Handling

Store at 20**º**C to 25**º**C (68**º**F to 77**º**F) [See USP Controlled Room Temperature]. Dispense in a tight, light-resistant container (USP).

17 PATIENT COUNSELING INFORMATION

Administration Instructions
Advise patients that the tablets must be swallowed whole, but chewable tablets must be chewed or crushed completely before swallowing [*see Dosage and Administration (2.1)*].

Adverse Reactions
Advise patients that ANTIVERT® may cause anaphylactic reaction, drowsiness, dry

mouth, headache, fatigue, vomiting and, on rare occasions, blurred vision [*see Warnings and Precautions (5.1), Adverse Reactions (6)*].
Inform patients that ANTIVERT® may impair their ability to engage in potentially dangerous activities, such as operating machinery or vehicles.

Concomitant Drug Interactions
Advise patients regarding medications that should not be taken in combination with ANTIVERT® or that may necessitate increased monitoring [*see Drug Interactions (7.1, 7.2)*]. Inform patients that alcohol may increase adverse reactions.

Concurrent Medical Conditions
Advise patients to notify their healthcare provider about all of their medical conditions, including if they are pregnant or plan to become pregnant or if they are breastfeeding [*see Warnings and Precautions (5.2), Use in Specific Populations (8.1, 8.2)*].

PIB00499-08

Manufactured for:
Casper Pharma LLC
East Brunswick, NJ 08816

Revised: 07/2019

PACKAGE LABEL.PRINCIPAL DISPLAY PANEL

NDC 70199-002-01

Antivert®(meclizine HCl) 12.5 mg Tablets USP
12.5 mg
Rx Only
Container Label

NDC 70199-003-01

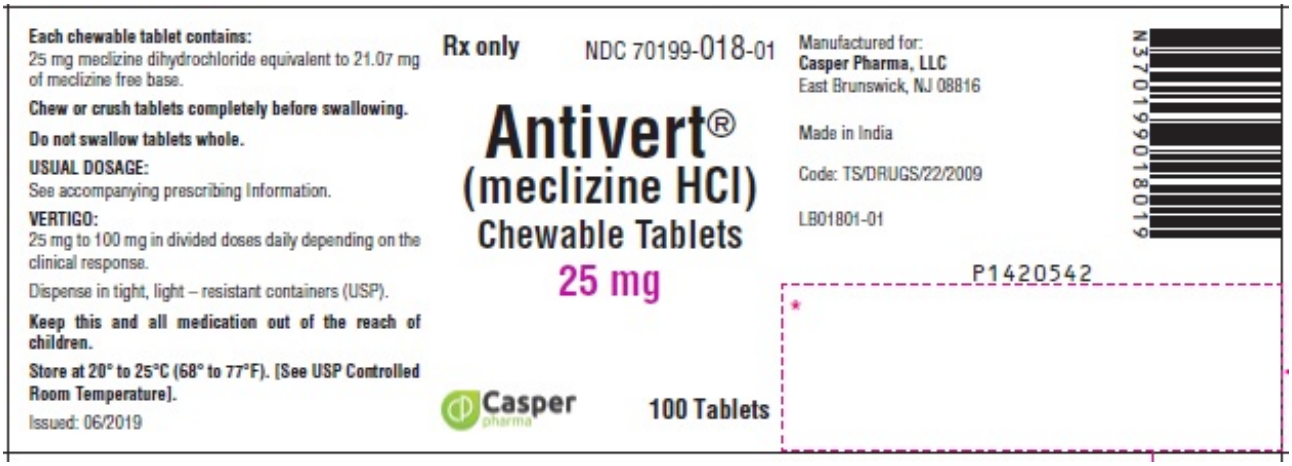
Antivert®(meclizine HCl) 25 mg Tablets USP
25 mg
Rx Only
Container Label

NDC 70199-004-01

Antivert®(meclizine HCl) 50 mg Tablets USP
50 mg
Rx Only
Container Label

NDC 70199-018-01

Antivert®(meclizine HCl) 25 mg Chewable Tablets USP
25 mg
Rx Only
Container Label



ANTIVERT

meclizine hcl tablet

Product Information

Product Type	HUMAN PRESCRIPTION DRUG	**Item Code (Source)**	NDC:70199-002
Route of Administration	ORAL		

Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
MECLIZINE HYDROCHLORIDE (UNII: HDP7W44CIO) (MECLIZINE - UNII:3L5TQ84570)	MECLIZINE HYDROCHLORIDE	12.5 mg

Inactive Ingredients

Ingredient Name	Strength
STARCH, CORN (UNII: O8232NY3SJ)	
SUCROSE (UNII: C151H8M554)	
WATER (UNII: 059QF0KO0R)	
POLYETHYLENE GLYCOL, UNSPECIFIED (UNII: 3WQ0SDW1A)	
MAGNESIUM STEARATE (UNII: 70097M6I30)	
FD&C BLUE NO. 1 (UNII: H3R47K3TBD)	
ALCOHOL (UNII: 3K9958V90M)	
ANHYDROUS DIBASIC CALCIUM PHOSPHATE (UNII: L11K75P92J)	

Product Characteristics

Color	BLUE (Pale Blue to White)	**Score**	no score
Shape	OVAL (Biconvex, two layered tablet)	**Size**	10mm
Flavor		**Imprint Code**	34;L
Contains			

Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:70199-002-01	100 in 1 BOTTLE; Type 0: Not a Combination Product	01/15/2020	
2	NDC:70199-002-05	500 in 1 BOTTLE; Type 0: Not a Combination Product	01/15/2020	

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
NDA	NDA010721	01/15/2020	

ANTIVERT

meclizine hcl tablet

Product Information

Product Type	HUMAN PRESCRIPTION DRUG	**Item Code (Source)**	NDC:70199-003
Route of Administration	ORAL		

Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
MECLIZINE HYDROCHLORIDE (UNII: HDP7W44CIO) (MECLIZINE - UNII:3L5TQ84570)	MECLIZINE HYDROCHLORIDE	25 mg

Inactive Ingredients

Ingredient Name	Strength
ANHYDROUS DIBASIC CALCIUM PHOSPHATE (UNII: L11K75P92J)	
STARCH, CORN (UNII: O8232NY3SJ)	
SUCROSE (UNII: C151H8M554)	
WATER (UNII: 059QF0KO0R)	
POLYETHYLENE GLYCOL, UNSPECIFIED (UNII: 3WQ0SDW1A)	
MAGNESIUM STEARATE (UNII: 70097M6I30)	
FD&C YELLOW NO. 6 (UNII: H77VEI93A8)	
D&C YELLOW NO. 10 (UNII: 35SW5USQ3G)	

Product Characteristics

Color	YELLOW (Pale Yellow to White)	**Score**	no score
Shape	OVAL (Biconvex, two layered tablet)	**Size**	13mm
Flavor		**Imprint Code**	49;L
Contains			

Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:70199-003-01	100 in 1 BOTTLE; Type 0: Not a Combination Product	01/15/2020	
2	NDC:70199-003-99	1000 in 1 BOTTLE; Type 0: Not a Combination Product	01/15/2020	

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
NDA	NDA010721	01/15/2020	

ANTIVERT

meclizine hcl tablet

Product Information			
Product Type	HUMAN PRESCRIPTION DRUG	**Item Code (Source)**	NDC:70199-004
Route of Administration	ORAL		

Active Ingredient/Active Moiety		
Ingredient Name	**Basis of Strength**	**Strength**
MECLIZINE HYDROCHLORIDE (UNII: HDP7W44CIO) (MECLIZINE - UNII:3L5TQ84570)	MECLIZINE HYDROCHLORIDE	50 mg

Inactive Ingredients	
Ingredient Name	**Strength**
ANHYDROUS DIBASIC CALCIUM PHOSPHATE (UNII: L11K75P92J)	
FD&C YELLOW NO. 6 (UNII: H77VEI93A8)	
D&C YELLOW NO. 10 (UNII: 35SW5USQ3G)	
STARCH, CORN (UNII: O8232NY3SJ)	
SUCROSE (UNII: C151H8M554)	
WATER (UNII: 059QF0KO0R)	
POLYETHYLENE GLYCOL, UNSPECIFIED (UNII: 3WQ0SDW1A)	
MAGNESIUM STEARATE (UNII: 70097M6I30)	
FD&C BLUE NO. 1 (UNII: H3R47K3TBD)	
ALCOHOL (UNII: 3K9958V90M)	

Product Characteristics			
Color	BLUE (Pale Blue to Yellow)	**Score**	2 pieces
Shape	OVAL (Biconvex, two layered tablet)	**Size**	16mm
Flavor		**Imprint Code**	50;L
Contains			

Packaging				
#	**Item Code**	**Package Description**	**Marketing Start Date**	**Marketing End Date**
1	NDC:70199-004-01	100 in 1 BOTTLE; Type 0: Not a Combination Product	01/15/2020	
2	NDC:70199-004-99	1000 in 1 BOTTLE; Type 0: Not a Combination Product	01/15/2020	

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
NDA	NDA010721	01/15/2020	

ANTIVERT

meclizine hcl tablet, chewable

Product Information			
Product Type	HUMAN PRESCRIPTION DRUG	**Item Code (Source)**	NDC:70199-018
Route of Administration	ORAL		

Active Ingredient/Active Moiety		
Ingredient Name	**Basis of Strength**	**Strength**
MECLIZINE HYDROCHLORIDE (UNII: HDP7W44CIO) (MECLIZINE - UNII:3L5TQ84570)	MECLIZINE HYDROCHLORIDE	25 mg

Inactive Ingredients	
Ingredient Name	**Strength**
STARCH, CORN (UNII: O8232NY3SJ)	
SILICON DIOXIDE (UNII: ETJ7Z6XBU4)	
FD&C RED NO. 40 (UNII: WZB9127XOA)	
LACTOSE MONOHYDRATE (UNII: EWQ57Q8I5X)	
MAGNESIUM STEARATE (UNII: 70097M6I30)	
RASPBERRY (UNII: 4N14V5R27W)	
SACCHARIN SODIUM (UNII: SB8ZUX40TY)	
TALC (UNII: 7SEV7J4R1U)	

Product Characteristics			
Color	PINK	**Score**	2 pieces
Shape	ROUND (Round tablets)	**Size**	8mm
Flavor	RASPBERRY	**Imprint Code**	M;25
Contains			

Packaging				
#	**Item Code**	**Package Description**	**Marketing Start Date**	**Marketing End Date**
1	NDC:70199-018-01	100 in 1 BOTTLE; Type 0: Not a Combination Product	01/15/2020	

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
NDA	NDA010721	01/15/2020	

Labeler - Casper Pharma LLC (080025838)

Establishment

Name	Address	ID/FEI	Business Operations
Aurobindo Pharma Limited		650381903	ANALYSIS(70199-002, 70199-003, 70199-004, 70199-018) , MANUFACTURE(70199-002, 70199-003, 70199-004, 70199-018)

Revised: 10/2022 Casper Pharma LLC