

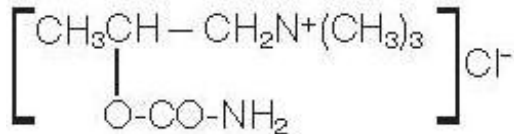
BETHANECHOL CHLORIDE- bethanechol chloride tablet
NCS HealthCare of KY, Inc dba Vanguard Labs

Bethanechol Chloride

DESCRIPTION

Bethanechol chloride, a cholinergic agent, is a synthetic ester which is structurally and pharmacologically related to acetylcholine.

It is designated chemically as 2-[(aminocarbonyl)oxy]- -trimethyl-1-propanaminium chloride. Its molecular formula is C₁₁H₁₉ClN₂O₂ and its structural formula is:



It is a white, hygroscopic crystalline powder having a slight amine-like odor, freely soluble in water, and has a molecular weight of 196.68.

Each tablet for oral administration contains 5 mg, 10 mg, 25 mg or 50 mg bethanechol chloride, USP. Tablets also contain the following inactive ingredients: anhydrous lactose, colloidal silicon dioxide, magnesium stearate, microcrystalline cellulose, sodium starch glycolate, (10 mg) FD&C Red # 40 and (25 mg and 50 mg) D&C Yellow # 10 and FD&C Yellow # 6.

CLINICAL PHARMACOLOGY

Bethanechol chloride acts principally by producing the effects of stimulation of the parasympathetic nervous system. It increases the tone of the detrusor urinae muscle, usually producing a contraction sufficiently strong to initiate micturition and empty the bladder. It stimulates gastric motility, increases gastric tone and often restores impaired rhythmic peristalsis.

Stimulation of the parasympathetic nervous system releases acetylcholine at the nerve endings. When spontaneous stimulation is reduced and therapeutic intervention is required, acetylcholine can be given, but it is rapidly hydrolyzed by cholinesterase and its effects are transient. Bethanechol chloride is not destroyed by cholinesterase and its effects are more prolonged than those of acetylcholine.

Effects on the GI and urinary tracts sometimes appear within 30 minutes after oral administration of bethanechol chloride, but more often 60 to 90 minutes are required to reach maximum effectiveness. Following oral administration, the usual duration of action of bethanechol is one hour, although large doses (300 to 400 mg) have been reported to produce effects for up to six hours. Subcutaneous injection produces a more intense action on bladder muscle than does oral administration of the drug.

Because of the selective action of bethanechol, nicotinic symptoms of cholinergic stimulation are usually absent or minimal when orally or subcutaneously administered in therapeutic doses, while muscarinic effects are prominent. Muscarinic effects usually occur within 5 to 15 minutes after subcutaneous injection, reach a maximum in 15 to 30 minutes, and disappear within two hours. Doses that stimulate micturition and defecation and increase peristalsis do not ordinarily stimulate ganglia or voluntary muscles. Therapeutic test doses in normal human subjects have little effect on heart rate, blood pressure or peripheral circulation.

Bethanechol chloride does not cross the blood-brain barrier because of its charged quaternary amine moiety. The metabolic rate and mode of excretion of the drug have not been elucidated.

A clinical study (Diokno, AC.; Lapidis, J.; : 23-24, July 1977) was conducted on the relative

effectiveness of oral and subcutaneous doses of bethanechol chloride on the stretch response of bladder muscle in patients with urinary retention. Results showed that 5 mg of the drug given subcutaneously stimulated a response that was more rapid in onset and of larger magnitude than an oral dose of 50 mg, 100 mg, or 200 mg. All the oral doses, however, had a longer duration of effect than the subcutaneous dose. Although the 50 mg oral dose caused little change in intravesical pressure in this study, this dose has been found in other studies to be clinically effective in the rehabilitation of patients with decompensated bladders.

INDICATIONS AND USAGE

Bethanechol chloride is indicated for the treatment of acute postoperative and postpartum nonobstructive (functional) urinary retention and for neurogenic atony of the urinary bladder with retention.

CONTRAINDICATIONS

Hypersensitivity to bethanechol chloride tablets, hyperthyroidism, peptic ulcer, latent or active bronchial asthma, pronounced bradycardia or hypotension, vasomotor instability, coronary artery disease, epilepsy and parkinsonism.

Bethanechol chloride should not be employed when the strength or integrity of the gastrointestinal or bladder wall is in question, or in the presence of mechanical obstruction; when increased muscular activity of the gastrointestinal tract or urinary bladder might prove harmful, as following recent urinary bladder surgery, gastrointestinal resection and anastomosis, or when there is possible gastrointestinal obstruction; in bladder neck obstruction, spastic gastrointestinal disturbances, acute inflammatory lesions of the gastrointestinal tract, or proctitis; or in marked vagotonia.

PRECAUTIONS

General

In urinary retention, if the sphincter fails to relax as bethanechol contracts the bladder, urine may be forced up the ureter into the kidney pelvis. If there is bacteriuria, this may cause reflux infection.

Information for Patients

Bethanechol chloride tablets should preferably be taken one hour before or two hours after meals to avoid nausea or vomiting. Dizziness, lightheadedness or fainting may occur, especially when getting up from a lying or sitting position.

Drug Interactions

Special care is required if this drug is given to patients receiving ganglion blocking compounds because a critical fall in blood pressure may occur. Usually, severe abdominal symptoms appear before there is such a fall in the blood pressure.

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 bethanechol chloride.

Pregnancy

Teratogenic Effects: Pregnancy Category C. Animal reproduction studies have not been conducted with bethanechol chloride. It is also not known whether bethanechol chloride can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Bethanechol chloride should be

given to a pregnant woman only if clearly needed.

Nursing Mothers

It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk and because of the potential for serious adverse reactions from bethanechol chloride in nursing infants, 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

Adverse reactions are rare following oral administration of bethanechol, but are more common following subcutaneous injection. Adverse reactions are more likely to occur when dosage is increased.

The following adverse reactions have been observed: Body as a Whole: malaise; Digestive: abdominal cramps or discomfort, colicky pain, nausea and belching, diarrhea, borborygmi, salivation; Renal: urinary urgency; Nervous System: headache; Cardiovascular: a fall in blood pressure with reflex tachycardia, vasomotor response; Skin: flushing producing a feeling of warmth, sensation of heat about the face, sweating; Respiratory: bronchial constriction, asthmatic attacks; Special Senses: lacrimation, miosis.

Causal Relationship Unknown

The following adverse reactions have been reported, and a causal relationship to therapy with bethanechol has not been established: Body as a Whole: malaise; Nervous System: seizures.

OVERDOSAGE

Early signs of overdosage are abdominal discomfort, salivation, flushing of the skin ('hot feeling'), sweating, nausea, and vomiting.

Atropine Sulfate is a specific antidote. The recommended dose for adults is 0.6 mg. Repeat doses can be given every two hours, according to clinical response. The recommended dosage in infants and children up to 12 years of age is 0.01 mg/kg (to a maximum single dose of 0.4 mg) repeated every two hours as needed until the desired effect is obtained or adverse effects of atropine preclude further usage. Subcutaneous injection of atropine is preferred except in emergencies when the intravenous route may be employed.

The oral LD₅₀ of bethanechol chloride is 1510 mg/kg in the mouse.

DOSAGE AND ADMINISTRATION

Dosage must be individualized, depending on the type and severity of the condition to be treated.

Preferably give the drug when the stomach is empty. If taken soon after eating, nausea and vomiting may occur.

The usual adult oral dose ranges from 10 to 50 mg three or four times a day. The minimum effective dose is determined by giving 5 to 10 mg initially and repeating the same amount at hourly intervals until satisfactory response occurs, or until a maximum of 50 mg has been given. The effects of the drug sometimes appear within 30 minutes and are usually maximal within 60 to 90 minutes. The drug's effects persist for about one hour.

If necessary, the effects of the drug can be abolished promptly by atropine (see **OVERDOSAGE**).

HOW SUPPLIED

Bethanechol Chloride Tablets USP

Strength	NDC#	Pack	Description
5 mg			White, oval shaped tablets debossed with W965 on one side and breakline on the other side.
10 mg	NDC 0615-2557-39	Blistercards of 30's	Pink, oval shaped tablets debossed with W966 on one side and breakline on the other side.
25 mg	NDC 0615-2558-39	Blistercards of 30's	Light yellow, oval shaped tablets debossed with W967 on one side and breakline on the other side.
50 mg			Yellow, oval shaped tablets debossed with W968 on one side and breakline on the other side.

Dispense in a tight container as defined in the USP.

Store at 20°-25°C (68°-77°F).

REFERENCES

Manufactured by:

Wockhardt Limited

Mumbai, India.

Distributed by:

Wockhardt USA LLC.

20 Waterview Blvd.

Parsippany, NJ 07054

USA.

Rev.050810

PRINCIPAL DISPLAY PANEL

Bethanechol Chloride Tabs,

USP 10mg

VLNDC 2615-2557-39
BETHANECHOL CHLORIDE
TABS, USP 10 mg
 LOT 2557
 640796001
 10481 31
 Rx Only

(WOCKHARDT NDC 64679-966-01)

Bethanechol Chloride

Tabs, USP 10 mg

QTY
30
 MFG BY WOCKHARDT
 PKG BY VANGARD
 GLASSBORO, NY 02131

16	8
30	23
29	22
28	21
27	20
26	19
25	18
24	17
17	9
1	1

Omnicare The overall configuration of this package is a trademark of Omnicare, Inc.

STORE AT 20°-25°C (68°-77°F)
 (SEE USP CONTROLLED ROOM TEMPERATURE)
 Dispense in a tight container.

Received: _____

24	16	8	_____
31	23	14	_____
30	22	13	_____
29	21	12	_____
28	20	11	_____
27	19	10	_____
26	18	9	_____
25	17	8	_____

START DATE _____ START TIME _____

See Package Insert Binder for Dosage Information
FOR INSTITUTIONAL USE ONLY

Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001
Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001
Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001
Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001
Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001
Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001
Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001	Pkg By Vanguard, Glasgow, NY 02131 BETHANECHOL CHLORIDE TABLET, USP 10 mg LOT 2557 640796001

PRINCIPAL DISPLAY PANEL

Bethanechol Chloride Tablets, USP 25mg

VLI NDC 0615-2558-39

BETHANECHOL CHLORIDE

TABS, USP 25 mg

 LOT 2558

 EXP

 *0326-39

Rx Only

QTY
30

MFG BY WOCKHARDT
(WOCKHARDT NDC
64679-967-01)

PKG BY VANGARD
GLASGOW, KY 42141

Bethanechol Chloride
Tab, USP 25 mg

Received: _____

31	24	16	8
30	23	15	7
29	22	14	6
28	21	13	5
27	20	12	4
26	19	11	3
25	18	10	2
	17	9	1

START DATE _____ START TIME _____

STORE AT 20°-25°C (68°-77°F)
(SEE USP CONTROLLED ROOM TEMPERATURE)
Dispense in a tight container.

See Package Insert Binder for Dosage Information
FOR INSTITUTIONAL USE ONLY

	16		8
30	23	15	7
29	22	14	6
28	21	13	5
27	20	12	4
26	19	11	3
25	18	10	2
24	17	9	1

 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Vanguard Lulu Glasgow, KY 42141 6467996701
 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Vanguard Lulu Glasgow, KY 42141 6467996701
 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Vanguard Lulu Glasgow, KY 42141 6467996701
 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Vanguard Lulu Glasgow, KY 42141 6467996701
 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Vanguard Lulu Glasgow, KY 42141 6467996701
 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Vanguard Lulu Glasgow, KY 42141 6467996701
 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Vanguard Lulu Glasgow, KY 42141 6467996701
 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Fig B) Vanguard, Glasgow, KY 42141 BETHANECHOL CHLORIDE TABLET, USP 25 mg LOT 2558	 Vanguard Lulu Glasgow, KY 42141 6467996701

Omnicare The overall configuration of this package is a trademark of Omnicare, Inc.

BETHANECHOL CHLORIDE
bethanechol chloride tablet

Product Information			
Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:0615-2558(NDC:64679-967)
Route of Administration	ORAL		
Active Ingredient/Active Moiety			
Ingredient Name	Basis of Strength	Strength	
BETHANECHOL CHLORIDE (UNII: H4QBZ2LO84) (BETHANECHOL - UNII:004F72P8F4)	BETHANECHOL CHLORIDE	25 mg	
Inactive Ingredients			
Ingredient Name	Strength		
ANHYDROUS LACTOSE (UNII: 3S Y5LH9 PMK)			
CELLULOSE, MICROCRYSTALLINE (UNII: OP1R32D61U)			
D&C YELLOW NO. 10 (UNII: 35SW5USQ3G)			
FD&C YELLOW NO. 6 (UNII: H77VEI93A8)			
MAGNESIUM STEARATE (UNII: 70097M6I30)			

SILICON DIOXIDE (UNII: ETJ7Z6XBU4)

SODIUM STARCH GLYCOLATE TYPE A POTATO (UNII: 5856J3G2A2)

Product Characteristics

Color	YELLOW (light yellow)	Score	2 pieces
Shape	OVAL (oval)	Size	7mm
Flavor		Imprint Code	W;967
Contains			

Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:0615-2558-39	30 in 1 BLISTER PACK		

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA040533	09/29/2003	

BETHANECHOL CHLORIDE

bethanechol chloride tablet

Product Information

Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:0615-2557(NDC:64679-966)
Route of Administration	ORAL		

Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
BETHANECHOL CHLORIDE (UNII: H4QBZ2LO84) (BETHANECHOL - UNII:004F72P8F4)	BETHANECHOL CHLORIDE	10 mg

Inactive Ingredients

Ingredient Name	Strength
ANHYDROUS LACTOSE (UNII: 3SY5LH9PMK)	
SILICON DIOXIDE (UNII: ETJ7Z6XBU4)	
MAGNESIUM STEARATE (UNII: 70097M6I30)	
CELLULOSE, MICROCRYSTALLINE (UNII: OP1R32D61U)	
SODIUM STARCH GLYCOLATE TYPE A POTATO (UNII: 5856J3G2A2)	
FD&C RED NO. 40 (UNII: WZB9127XOA)	

Product Characteristics

Color	PINK	Score	2 pieces
-------	------	-------	----------

Shape	OVAL	Size	7mm
Flavor		Imprint Code	W;966
Contains			

Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:06 15-2557-39	30 in 1 BLISTER PACK		

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA040533	09/29/2003	

Labeler - NCS HealthCare of KY, Inc dba Vanguard Labs (050052943)

Establishment

Name	Address	ID/FEI	Business Operations
NCS HealthCare of KY, Inc dba Vanguard Labs		050052943	RELABEL(06 15-2557, 06 15-2558) , REPACK(06 15-2557, 06 15-2558)

Revised: 10/2012

NCS HealthCare of KY, Inc dba Vanguard Labs