



Flavoxate

Updated: February 6, 2018.

OVERVIEW

Introduction

Flavoxate is a synthetic anticholinergic agent that is used for treatment of urinary incontinence and overactive bladder syndrome. Flavoxate has not been implicated in causing liver enzyme elevations or clinically apparent acute liver injury.

Background

Flavoxate (flay vox' ate) is a synthetic quaternary ammonium anticholinergic which inhibits the muscarinic actions of acetylcholine on autonomic nerve endings, decreasing the smooth muscle tone of bladder and gastrointestinal tract. Flavoxate has broad activity against muscarinic acetylcholine receptors, but its highly polar quaternary ammonium group makes it less likely to cross lipid membranes such as the blood brain barrier, which is believed to decrease the potential for central nervous system effects. Flavoxate increases bladder capacity and decreases urinary frequency and urgency. Flavoxate was approved for use in the United States in 1970 and continues to be used to treat the symptoms of cystitis and overactive bladder syndrome. Flavoxate is available in tablets of 100 mg in several generic forms and previously under the brand name Urispas. The typically recommended oral dose in adults is 100 to 200 mg three or four times daily. Common side effects are those of parasympathetic stimulation and include dryness of the mouth and eyes, decreased sweating, headache, visual blurring, constipation, urinary retention, impotence, tachycardia and palpitations, anxiety, restlessness and in some instances agitation and delusions. Anticholinergic agents can precipitate acute narrow angle glaucoma and acute urinary retention.

Hepatotoxicity

Like other anticholinergic agents, flavoxate has not been linked to episodes of liver enzyme elevations or clinically apparent liver injury. A major reason for its safety may relate to the low daily dose.

References on the safety and potential hepatotoxicity of anticholinergics are given together after the Overview section on Anticholinergic Agents.

Drug Class: [Anticholinergic Agents](#)

PRODUCT INFORMATION

REPRESENTATIVE TRADE NAMES

Flavoxate – Generic, Urispas®

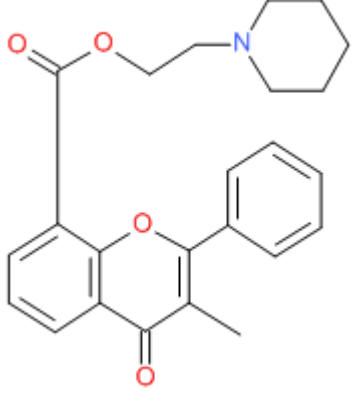
DRUG CLASS

Anticholinergic Agents

COMPLETE LABELING

Product labeling at DailyMed, National Library of Medicine, NIH

CHEMICAL FORMULA AND STRUCTURE

DRUG	CAS REGISTRY NUMBER	MOLECULAR FORMULA	STRUCTURE
Flavoxate	15301-69-6	C ₂₄ H ₂₅ N-O ₄	 The chemical structure of Flavoxate is a 4-methyl-5-phenyl-2-pyrone derivative. It features a central pyrone ring with a methyl group at the 4-position and a phenyl ring at the 5-position. A propyl chain is attached to the 3-position of the pyrone ring, with a piperidine ring connected to the terminal carbon of the propyl chain via an oxygen atom. The piperidine ring is shown in a chair conformation.