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Tolterodine

Updated: July 7, 2017.

OVERVIEW

Introduction

Tolterodine is an anticholinergic agent used to treat urinary incontinence and hyperactive bladder syndrome. Tolterodine has not been implicated in causing liver enzyme elevations or clinically apparent acute liver injury.

Background

Tolterodine (tol ter' oh deen) is a synthetic anticholinergic and antispasmotic agent that inhibits muscarinic actions of acetylcholine on autonomic nerve endings, decreasing secretions and inhibiting gastrointestinal and bladder motility. Tolterodine increases bladder capacity and decreases bladder contractions and the urgency of urination. Tolterodine was approved for use in the United States in 1998 and indications include urge incontinence and overactive bladder syndrome, including symptoms of urinary urgency and frequency. Tolterodine is available in tablets of 1 and 2 mg and as extended release capsules of 2 and 4 mg in generic forms and under the brand name Detrol. The recommended adult oral dose is 2 to 4 mg 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, restlessness, confusion and hallucinations. Anticholinergic agents can precipitate acute narrow angle glaucoma and acute urinary retention.

Hepatotoxicity

Like other anticholinergic agents, tolterodine 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. Tolterodine is metabolized in the liver via the cytochrome P450 system (CYP 2D6).

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

Tolterodine – Generic, Detrol®

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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
Tolterodine	124937-51-5	C22-H31-N-O