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DTC ➡ **DETROL LA AND DITROPAN XL FOR OVERACTIVE BLADDER**

Direct-to-consumer (DTC) advertisements, particularly in magazines for women, are promoting the effectiveness of extended-release (ER) formulations of tolterodine tartrate (*Detrol LA* – Pharmacia) and oxybutynin (*Ditropan XL* – Alza) for treatment of overactive bladder.

DRUGS FOR OVERACTIVE BLADDER — Most drugs for treatment of overactive bladder, the primary cause of incontinence in the elderly, have antimuscarinic activity. Immediate-release (IR) formulations of tolterodine and oxybutynin have been the most commonly prescribed; IR oxybutynin has been more effective than IR tolterodine, but more likely to cause adverse antimuscarinic effects, particularly dry mouth (Medical Letter 1998; 40:101). Serum concentrations of ER tolterodine and ER oxybutynin fluctuate less, with lower maximums than those found with multiple doses of the IR drugs.

CLINICAL TRIALS — A 12-week double-blind study compared ER tolterodine 4 mg once daily, IR tolterodine 2 mg b.i.d. and placebo in 1529 patients (81% women) with overactive bladder. The mean number of "urge incontinence" episodes decreased from a baseline of about 23 per week to about 16 with placebo, 12 with IR tolterodine and 11 with ER tolterodine. The number of micturitions per 24 hours (about 11 at baseline) decreased by 1.2 with placebo, 1.7 with IR tolterodine and 1.8 with ER tolterodine (P Van Kerrebroeck et al, *Urology*, March 2001; 57:414). A 12-week double-blind study in 332 patients compared ER oxybutynin 10 mg once daily with IR tolterodine 2 mg b.i.d. The mean number of urge incontinence episodes decreased from 25.6 to 6.1 per week with ER oxybutynin and from 24.1 to 7.8 per week with IR tolterodine. Micturition frequency decreased from 91.8 to 67.1 per week with ER oxybutynin and from 91.6 to 71.5 per week with IR tolterodine. There was no placebo control (RA Appell et al, *Mayo Clin Proc*, April 2001; 76:358). Two trials in a total of 331 patients found ER oxybutynin as effective as IR oxybutynin, but neither study included a placebo control (RU Anderson et al, *J Urol* 1999; 161:1809; E Versi et al, *Obstet Gynecol* 2000; 95:718). No trials are available comparing the ER formulations of tolterodine and oxybutynin with each other.

ADVERSE EFFECTS — The most common adverse effects of tolterodine and oxybutynin, in addition to dry mouth, have been headache, constipation, dyspepsia and dry eyes. In controlled trials, the incidence of dry mouth was lower with the extended-release formulations than with their IR counterparts (23% vs 31% with tolterodine, and 48%-68% vs 59%-87% with oxybutynin). Cognitive impairment, tachycardia and urinary retention can occur. These drugs should not be used in patients with angle-closure glaucoma or obstructive uropathy.

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DOSAGE AND COST

	Dosage	Cost ¹
Tolterodine tartrate – <i>Detrol</i> (Pharmacia)	1-2 mg bid	\$ 81.75
<i>Detrol LA</i>	2-4 mg once/day	81.75
Oxybutynin chloride – generic price	5 mg bid or tid ²	9.90
<i>Ditropan</i> (Alza)		46.84
<i>Ditropan XL</i>	5-30 mg once/day ²	73.13

1. Cost of 30 days' treatment with the lowest recommended adult dosage according to AWP or HCFA listings in *Drug Topics Red Book Update*, March 2001.
2. Oxybutynin should be started at the lowest dosage and increased by 5 mg a week.

CONCLUSION — The extended-release formulations of tolterodine and oxybutynin may cause less dry mouth than their immediate-release counterparts. Both the tolerability and the effectiveness of these drugs are related to their antimuscarinic activity. The less dry mouth, the less effective they are likely to be. None of them are as effective as advertisements to the public have suggested.

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