Lyrinel® – Once-daily oxybutynin

Lyrinel® is a new oral delivery system of oxybutynin, a muscarinic receptor antagonist used in the treatment of overactive bladder (OAB). Overactive bladder is a common condition characterised by symptoms of urgency (a strong desire to urinate) and frequent urination with or without urge incontinence.2

Approved indication

Lyrinel® is indicated for the management of urinary urgency, incontinence and frequency in patients with unstable bladder conditions.3

Mode of action

Oxybutynin is a tertiary amine, one of a group of compounds known as acetylenic amino esters which have anticholinergic, smooth muscle relaxant and local anaesthetic effects.4 Oxybutynin has a short half-life which necessitates the taking of multiple daily doses, a requirement that substantially limits long-term compliance.2,4

Oxybutynin in the OROS® (ORal OSmotic) delivery system allows controlled release over 24 hours, resulting in a smoother plasma concentration-time profile and a lower maximum plasma concentration than seen with oxybutynin immediate-release.1 The formulation was developed with the aims of improving the tolerability of oxybutynin and facilitating once-daily administration.1

Dosage

OROS® Oxybutynin offers greater flexibility in dosing than other available treatment options.1 The recommended doses for adults (including the elderly) are as follows:5

- Initial dose: 5 mg once daily for at least a week
- Dosage adjustment: The dose may be increased by 5 mg each week to a maximum of 20 mg once daily.
- Maintenance dose: The recommended maintenance dose is 10 mg once daily for most patients

The dosage is adjusted based on patient response and tolerability.

Evidence of efficacy

- OROS® Oxybutynin was significantly more effective than placebo in reducing the weekly urinary urge incontinence (UUI) episodes in patients with OAB in a randomised, double-blind study.1
- OROS® Oxybutynin (5–30 mg/day) was as effective as oxybutynin immediate-release (5–20 mg/day) in relieving UUI and other symptoms of OAB. UUI episodes decreased by 83–92% in patients receiving oxybutynin OROS and by 72–88% in patients receiving oxybutynin immediate-release.1
- OROS® Oxybutynin 10 mg/day was as effective as tolterodine 4 mg once daily in the OPERA trial in relieving weekly UUI episodes. In this trial oxybutynin OROS was more effective than tolterodine 4 mg in reducing weekly total incontinence episodes.2 Patients receiving OROS® oxybutynin also had significantly greater reductions in micturition frequency.

Precautions o General

Oxybutynin is contraindicated in patients hypersensitive to the active ingredient or to any of the components of the formulation. It is contraindicated, due to its anticholinergic effects, in patients with narrow-angled glaucoma, myasthenia gravis, bladder outflow obstruction where urinary retention may be precipitated and gastrointestinal disorders such as paralytic ileus, toxic megacolon and severe ulcerative colitis. Oxybutynin should also not be used in patients with severely impaired renal or hepatic function.3 Oxybutynin should be used with caution in the frail elderly and in patients with renal or hepatic function impairment. Safety and efficacy have not been established in children younger than 18 years of age.3

- Pregnancy and lactation: Oxybutynin is not recommended for use during pregnancy or lactation.3

Major adverse effects

OROS® Oxybutynin was generally well-tolerated in clinical trials.1 In direct comparisons, OROS® oxybutynin was better tolerated than oxybutynin immediate-release.1 OROS® oxybutynin produces 57% less side effects and 21% less dry mouth vs. oxybutynin IR formulation.1

Adverse effects reported in more than 5% of patients in clinical trials included dry mouth, constipation, somnolence, diarrhoea, nausea, headache, dizziness, blurred vision and dry eyes.1

Drug interactions

Potentiation of anticholinergic effects may occur if oxybutynin is administered with other medicines which have anticholinergic effects.3

Cost: SEP (Excl VAT)

Lyrinel® 5 mg: R174.99/30
Lyrinel® 10 mg: R174.99/30
Lyrinel® is manufactured by Janssen-Cilag.

Patient information

Oxybutynin may cause drowsiness or blurred vision. This may interfere with activities such as driving, operating machinery or performing any activities that may be potentially hazardous under these circumstances.

Dry mouth may be relieved by sucking ice or chewing sugarless gum.

Conclusion

Oxybutynin has been well-established as an effective treatment option for symptoms of OAB.1 The advantages of the OROS® formulation of oxybutynin over the immediate-release formulation are its ease of use due to once daily administration and an improved tolerability profile.1

References:
3. Lyrinel approved package insert.