



**Consider using preservative-free topical medication in patients with ocular surface disease**

***The Science behind the Tip***

Many glaucoma drops contain a preservative agent to minimise the risk of microbial contamination. Benzalconium chloride, a cationic surfactant, is the most widely used preservative, but even in doses of 0.002% to 0.004% can result in toxic effects on the surface of the eye and ocular inflammation<sup>1</sup>.

Symptoms and signs of ocular surface disease (OSD) are found in 48-60% of patients on topical glaucoma medication<sup>2,3</sup>. This is a multifactorial condition which leads to adverse local reactions, reduced visual acuity, reduced quality of life and reduced compliance with prescribed therapy<sup>1</sup>. Risk factors associated with OSD include the number of preserved drops used and duration of therapy<sup>4</sup>. An improvement of symptoms is found if these patients are switched to preservative-free topical medication<sup>1</sup>.

***References***

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3. Fechtner RD, Godfrey DG, Budenz D et al. Prevalence of ocular surface complaints in patients with glaucoma using topical intraocular pressure lowering medications. *Cornea* 2010; 29: 618-621.
4. Rossi GC, Pasinetti GM, Scudeller L et al. Risk factors to develop ocular surface disease in treated glaucoma or ocular hypertension patients. *Eur J Ophthalmol* 2013; 23 (3) 296-302.