

## Efficiency of Travoprost versus Fixed-Combination Latanoprost/Timolol

This letter is in relation to the article recently published in your journal by De Natale et al.,<sup>[1]</sup> as we would like to provide some comments and opinions we have regarding the findings of the authors.

After a careful analysis of the results obtained, it is our belief that there is a high possibility that some important baseline characteristics of the patients involved in this study were not homogeneous at the time of inclusion, which could therefore have led to the two analysed groups presenting different risks of experiencing treatment failure.

Although both groups were newly diagnosed patients treated for glaucoma or intraocular hypertension, and most of the co-morbidities (ocular and general) were not statistically different, the mean time period since the time the diagnosis was made was significantly shorter for the patients in the travoprost group (0.65 years) than for those receiving latanoprost/timolol (1.03 years). In addition, the authors do not provide data on the intraocular pressure (IOP) of the patients at the time of inclusion, thus preventing the reader from dismissing the possibility that the patients in the latanoprost/timolol group could actually have had higher IOP levels than those in the travoprost group.

Furthermore, first-line treatment for patients newly diagnosed with glaucoma or intraocular hypertension is normally monotherapy with a single hypotensive drug. The use of a combination of two medications as a first-line treatment option is reserved only for patients with a high risk of experiencing complications due to high IOP levels and for patients who require rapid reduction of IOP levels at the beginning of the treatment. Indeed, the approved indication for the fixed combination of latanoprost/timolol is as second-line treatment when monotherapy with

latanoprost or timolol do not achieve an adequate reduction in the IOP level. Therefore, the use of latanoprost/timolol as a first-line treatment suggests that patients enrolled in this group may have had higher baseline IOP levels than those in the travoprost group.

Both of these possible differences in these baseline variables (time since diagnosis and IOP levels) might, therefore, explain the high percentage of patients in the latanoprost/timolol group who needed to switch to other medications (61.1%) and surgery (4.2%) compared with the travoprost group (51.5% and 0.4%, respectively).

From our point of view, this study compared two groups of patients that were not comparable. For this reason, the results of this study should be assessed and interpreted with considerable caution and very conservative conclusions should be drawn.

The use of observational designs to assess databases as a means of conducting pharmacoeconomic analyses is an accepted methodology. However, it is of the greatest importance to guarantee that the groups being evaluated are homogeneous at the time of inclusion. Likewise, major biases must be controlled for (in particular the channelling bias and bias by indication). If not, the results obtained will have very low validity and credibility for the scientific community and decision makers.

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### Reference

1. De Natale R, Lafuma A, Berdeaux G. Cost effectiveness of travoprost versus a fixed combination of latanoprost/timolol in patients with ocular hypertension or glaucoma: analysis based on the UK general practitioner research database. Clin Drug Invest 2009; 29: 111-20