

Contact Lens Update

CLINICAL INSIGHTS BASED IN CURRENT RESEARCH

Characterization of patients who report compliant and non-compliant overnight wear of soft contact lenses

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It has been reported that soft contact lens wearers under the age of 25 are at a higher risk of developing more severe inflammatory complications such as infiltrative keratitis, microbial keratitis and contact lens-associated red eye.^{1, 2} To prevent such complications, eye care practitioners need to better understand age-related risk factors. With patient safety in mind, effective and methodical patient counseling may improve overall contact lens compliance and minimize risks of complications. The following summary highlights the risk factors and prevalence of non-compliant overnight wear of contact lenses, as reported by members of the Contact Lens Assessment in Youth (CLAY) study group.

Jansen ME, Chalmers R, Mitchell GL, et al. Characterization of patients who report compliant and non-compliant overnight wear of soft contact lenses. Cont Lens Anterior Eye 2011;34:229-35.

Defining extended wear

The data analyzed for this report were based on patient reported overnight wear and included a conservative range of overnight wear periods, spanning from occasional overnight wear reported at even one clinical visit to a regular schedule of nightly extended wear.

Non-compliant extended wear was defined by identifying whether a patient's prescribed lenses were classified for overnight wear by the United States Federal Drug Administration.

Methods

The article reports secondary analysis of a retrospective, observational clinical chart review conducted at six sites across North America. It included data from 3211 soft contact lens wearers over 10,516 clinical visits conducted between 2006 and 2009. Demographic characteristics such as gender, race, student status and smoking were collected and analyzed for their effect on the likelihood of patients reporting overnight wear, compliant or non-compliant.

Results

One quarter of the patients (808) reported wearing their lenses overnight at least once, on at least one clinical visit. These wearers were more likely to be male college students, smokers, and on average between the ages of 18 and 25. The majority wore silicone hydrogel lenses.

Twenty-five percent of those patients reporting at least some overnight wear were identified as non-compliant—wearing lenses that have not been approved for extended wear. Most of these patients were between the ages of 13 and 18, and 18% were daily disposable wearers—although on a whole, daily disposable wearers tended to report less extended wear overall.

The factors associated with overnight wear did not necessarily apply to non-compliant overnight wear: males, college students and smokers were not more likely to wear unapproved lenses for overnight wear.

Conclusions

This study draws attention to the high prevalence of college-aged lens wearers—one quarter of the eye care patients included in the study—who sleep in their lenses, with or without supervision by an eye care provider. The CLAY group has reported similar numbers elsewhere: 14-31% of subjects reporting wearing their contact lenses overnight “at least sometimes” while only 8% reported that their eye care provider had actually prescribed their lenses for extended wear.³ This was particularly true for teenagers and young adults, who also reported overnight wear of lenses when traveling, sleeping away from home and after drinking alcohol.

These numbers are higher than that reported in surveys based on practitioner reports.⁴ The authors acknowledge that this observation may be skewed by the young age range (8-33) of their study population, but even so these results highlight a trend among young adults that should be taken into account by eye care providers, particularly considering that the numbers reported in these studies are conservative in that some patients may not accurately report occasional overnight wear.

Eye care practitioners need to take into consideration patients’ intended lens wear schedule when prescribing an appropriate contact lens product and vision correction. In particular, it may be wise to consider fitting highly oxygen permeable lenses for patients who are likely to be noncompliant in this regard. It is also wise to counsel young patients in particular about what to do with their lenses when sleeping away from home and/or after consuming alcohol.

Download Contact Lens Update’s patient handout, which was developed to help you start this conversation!

REFERENCES

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3. Wagner H, Richdale K, Mitchell GL, et al. Age, behavior, environment, and health factors in the soft contact lens risk survey. *Optom Vis Sci* 2014;91(3): 252-61.
4. Morgan PB, Efron N. Patterns of prescribing extended wear contact lenses. *Cont Lens Anterior Eye* 2008;31: 167-169.