BACKGROUND AND PURPOSE

The Contact Lens Assessment in Youth (CLAY) study group recently developed the Contact Lens Risk Survey (CLRS) to study known and potential risk factors associated with soft CL wear. 1, 2

We hypothesized that soft CL wearers with active serious and significant CL-related events (IK, CLPU, CLARE, MK, WKS, UKS, MKM, WKS) would report different CL wear and care behaviors, hygiene or environmental factors than those experiencing other "red eye" events (allergic or bacterial conjunctivitis, etc.).

The purpose of this study was to demonstrate the ability of the CLRS to discriminate factors associated with serious and significant events among subjects as they presented for care.

METHODS

The CLRS was fielded by 171 soft CL wearers presenting with complaints of a red or painful eye at 11 sites in the US and Canada. After consent procedures, self-administered surveys were completed prior to any education on the diagnosis or possible associations to self-administered sites in the US and Canada.

In this pilot study, 8 of the 30+ CLRS items were associated with increased risk of having a serious and significant event in a univariate analysis (see Table 2). Three of the factors were retained in a multivariate model that included age, gender and number of days of CL wear per week:

- 1-2 weekly CL replacement
- Sleeping in CLs
- Purchasing CLs on the internet

Distribution of responses for these factors are shown (Figures 1-3).

RESULTS

In this pilot study, the CLRS was able to discriminate factors associated with serious and significant events versus more benign CL-related events. For DD lenses, our study concurs with Chalmers' previous work in showing that they are protective to inflammatory events. On the other hand, 1-2 week replacement has not been shown before and needs further consideration. This study also agrees with others concerning overnight wear and increased risk of S&S events. 4, 5 Finally, internet purchase of CLs has also been considered as a risk for events recently, where Young's 6 in a literature review found that unregulated and internet purchase may be linked to cases of MK.

Some items in the current version of the CLRS could likely be removed to help streamline the instrument for broader clinical use.

DISCUSSION

The CLRS is a survey tool designed to identify risk factors for CL complications. It can also be used to document patient-reported contact lens practices in wearers without an active complication as a starting point for individualized training on proper use of CLs.

REFERENCES


CONCLUSIONS

Finally, internet purchase of CLs has also been considered as a risk for events recently, where Young's 6 in a literature review found that unregulated and internet purchase may be linked to cases of MK. Some items in the current version of the CLRS could likely be removed to help streamline the instrument for broader clinical use.