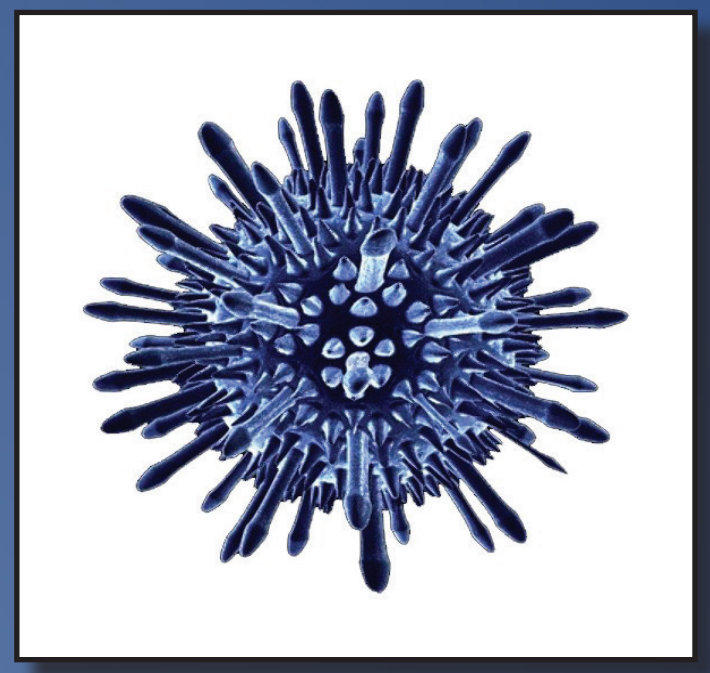


Economic Burden of Conjunctivitis: Reducing Adenoviral Patient Infected Days (RAPID) Study



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Introduction

- Adenoviral conjunctivitis (Ad-Cs) is a highly contagious eye infection that can quickly spread through homes, schools and workplaces and has a considerable economic impact on society.
- In the US, an estimated \$800 million per year is spent on conjunctivitis treatment. This does not include the indirect costs from loss of productivity due to days missed from work, school, and visits to the doctor. Nor does it include costs related to antibiotic resistance and disease spread.^{1,2}

Purpose

- The Reducing Adenoviral Patient Infected Days (RAPID) study is a double-masked randomized pilot study examining the safety and efficacy of a single administration of ophthalmic 5% Povidone-Iodine (PVP-I) for the treatment of Ad-Cs.
- Here, we report patient days missed from work/school, as well as patient exposures to others with "pink eye" and upper respiratory infection symptoms.

Methods

- 56 patients with red eye symptoms ≤ 4 days and a positive point-of-care adenoviral immunoassay were randomized to treatment with 5% PVP-I or artificial tears.
- Demographics and self-reported exposures to others with symptoms consistent with Ad-Cs were recorded.
- Work excuse requests and the number of days missed from work/school were recorded for participants with at least 7 days of follow up.

Results

Figure 1: Percentage of participants that missed work or school due to conjunctivitis

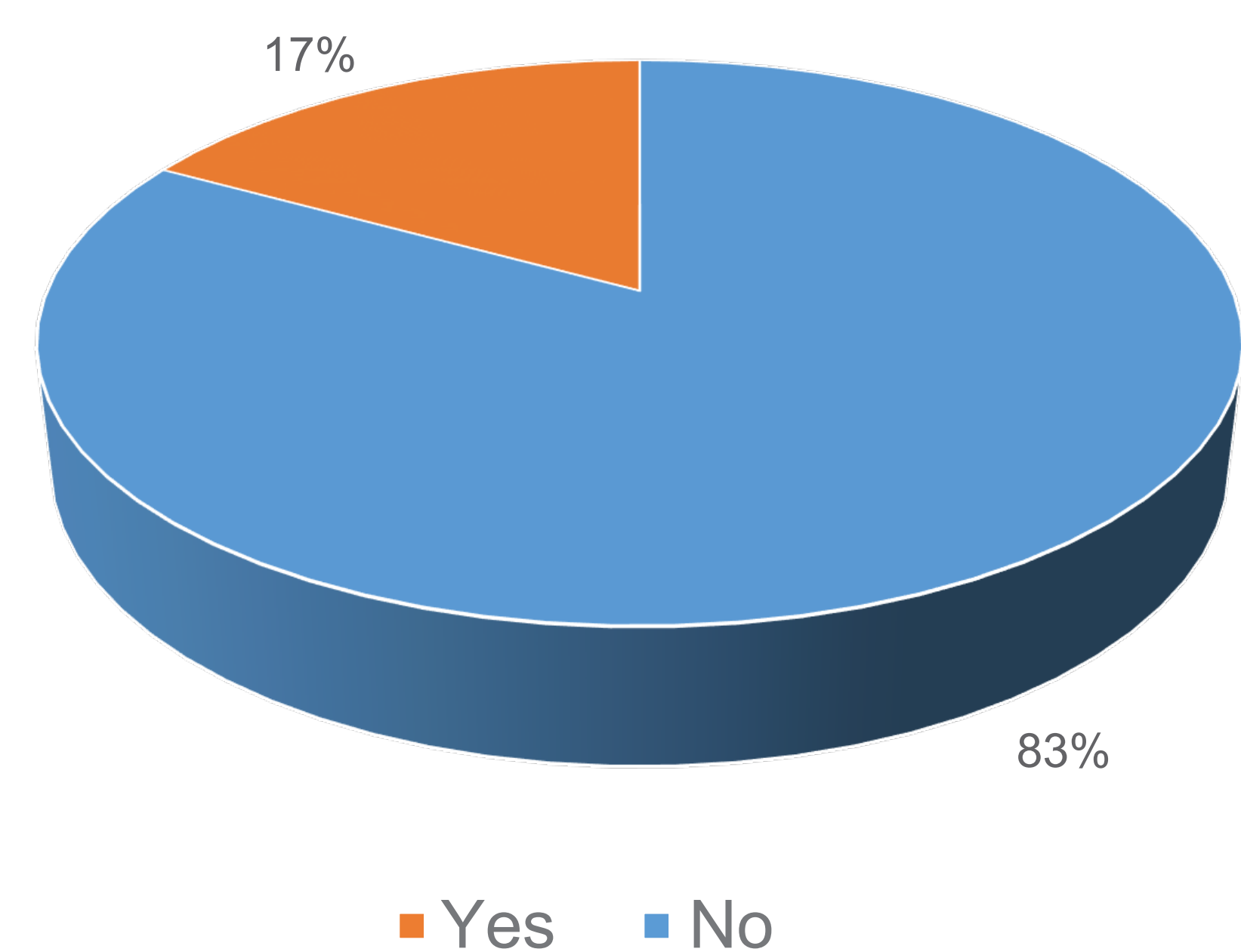


Figure 2: Percentage of participants that requested written work excuse

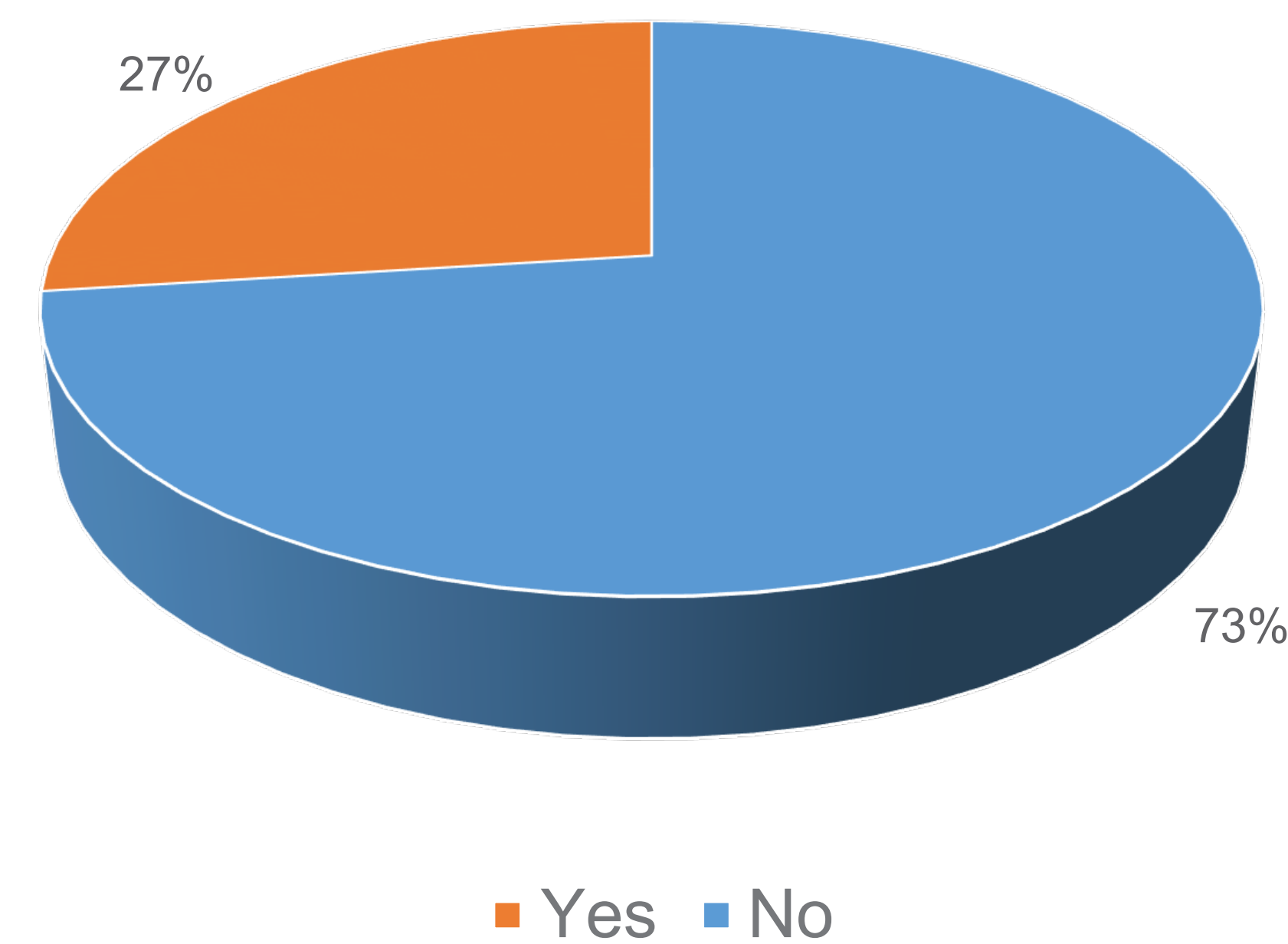
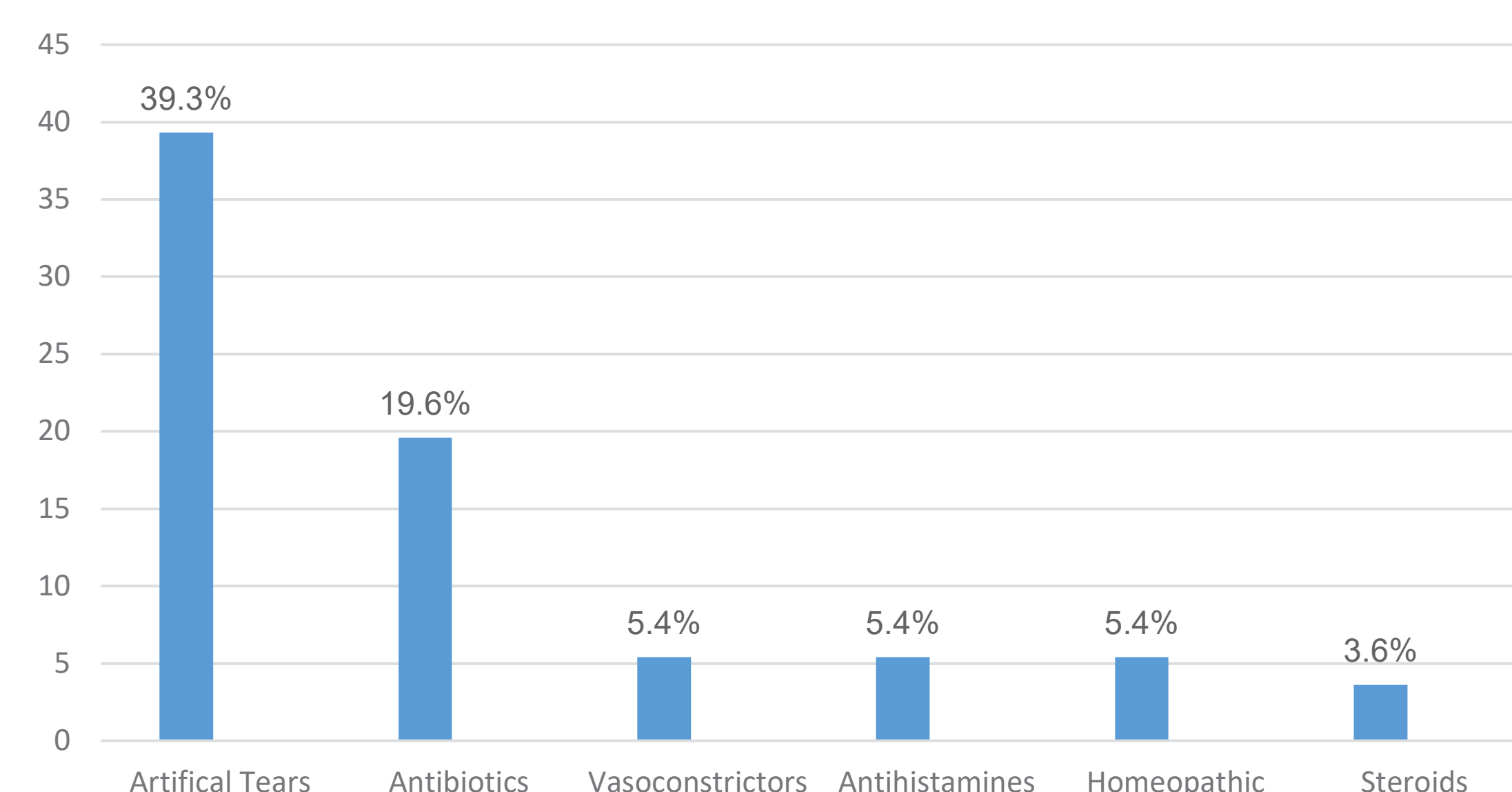


Figure 3: Eyedrops used at the initial visit



- Participants missed an average of 3.3 ± 3.8 days of work/school.
- Other individuals in the patient's residence missed a reported 1.3 ± 2.8 days of work/school due to the patient's conjunctivitis.
- The average work excuse was 5 days; the length of work excuse ranged from 1 to 14 days (n=28).
- Individuals who requested a written work excuse (n=28) reported missing significantly ($p < 0.001$) more days (5.0 ± 3.9) days versus that reported (0.6 ± 1.0) by individuals who did not request that documentation (n=18).
- 52% of patients reported exposure to another individual with cough, fever, sore throat or runny nose in their place of residence in the prior 2 weeks.
- 43% percent of patients reported exposure to another individual with suspected 'pink eye' in the previous month.
- At initial study visit, 75.0% of patients presented using at least one ophthalmic medication and 19.6% reported using more than one ophthalmic medication (Figure 3).

Conclusions

- The number of missed school/work days, along with the frequency of excused work absence requests, illustrates the substantial economic burden associated with Ad-Cs.
- In this study, 83% of participants reported missing school or work and 73% of participants requested a work excuse.
- Most participants in this study received a work excuse for 5 days, although most participants returned to work/school sooner.
- Despite the self-limiting nature of Ad-Cs, its socio-economic burden is compounded by rapid spread of this highly contagious pathogen demonstrated by the high proportion of patients exposed to others with pink eye or upper respiratory infection symptoms.

References

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Financial Support

This work was supported by a National Eye Institute Center R34 Grant (EY023633-01A1), a National Eye Institute Center Core Grant (P30EY002687) and an unrestricted grant to the Department of Ophthalmology and Visual Sciences from Research to Prevent Blindness.

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