**Appendix**

Table 1: All visits to the ophthalmology emergency room of the Soroka University Medical Center between the years 2009 and 2014

|  |  |  |  |
| --- | --- | --- | --- |
| Season | Conjunctivitis N=6,001 | Other ophthalmological disorder\*  N=13,263 | p value |
| Summer %(n) | 36.4% (2,184) | 32.8% (4,345) | <0.001 |
| Autumn % (n) | 22.1% (1,329) | 22.3% (2,962) | 0.773 |
| Winter % (n) | 26% (1,561) | 28.6% (3,794) | <0.001 |
| Spring % (n) | 15.4% (927) | 16.3% (2,162) | 0.135 |

\*All visits to the ophthalmology emergency room not due to conjunctivitis

Table 2: Demographic characteristics of the 6001 patients with conjunctivitis.

|  |  |
| --- | --- |
| **Demographic**  **Characteristic** | **Conjunctivitis N=6001** |
| Age (Mean±SD)  years | 34.62±21.8 |
| 0-18  years n (%) | 1,346 (22.4%) |
| 19-65  years n (%) | 4,064 (67.7%) |
| =>66  years n (%) | 590 (9.8%) |
| Male n (%) | 3,263 (54.4%) |

# Table 3: Odds ratios and 95% confidence intervals for emergency room visits for conjunctivitis associated with increase in 10 units of PM2.5, PM10 and temperature

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | OR | 95%CI | p value |
| LAG 0 | PM2.5 | 0.995 | 0.939;1.055 | 0.880 |
| Mean Temperature | 1.028 | 1.011;1.045 | <0.001 |
| LAG 1 | PM2.5 | 0.971 | 0.914;1.032 | 0.346 |
| Mean Temperature | 1.023 | 1.006;1.041 | 0.006 |
| LAG 2 | PM2.5 | 0.970 | 0.913;1.031 | 0.327 |
| Mean Temperature | 1.019 | 1.002;1.037 | 0.025 |
| LAG 3 | PM2.5 | 0.971 | 0.914;1.033 | 0.361 |
| Mean Temperature | 1.019 | 1.003;1.036 | 0.019 |
| LAG 4 | PM2.5 | 1.016 | 0.956;1.080 | 0.599 |
| Mean Temperature | 1.014 | 0.997;1.030 | 0.096 |
| LAG 5 | PM2.5 | 0.984 | 0.925;1.047 | 0.619 |
| Mean Temperature | 1.023 | 1.007;1.040 | 0.004 |
| LAG 6 | PM2.5 | 0.922 | 0.866;0.982 | 0.011 |
| Mean Temperature | 1.029 | 1.013;1.046 | <0.001 |
| LAG 0 | PM10 | 0.985 | 0.970;1.001 | 0.112 |
| Mean Temperature | 1.032 | 1.015;1.049 | <0.001 |
| LAG 1 | PM10 | 0.987 | 0.971;1.003 | 0.112 |
| Mean Temperature | 1.025 | 1.008;1.042 | 0.003 |
| LAG 2 | PM10 | 0.994 | 0.979;1.009 | 0.446 |
| Mean Temperature | 1.018 | 1.003;1.035 | 0.017 |
| LAG 3 | PM10 | 0.989 | 0.973;1.006 | 0.221 |
| Mean Temperature | 1.020 | 1.003;1.037 | 0.015 |
| LAG 4 | PM10 | 1.007 | 0.990;1.023 | 0.423 |
| Mean Temperature | 1.013 | 0.997;1.030 | 0.109 |
| LAG 5 | PM10 | 1.004 | 0.988;1.020 | 0.612 |
| Mean Temperature | 1.021 | 1.004;1.038 | 0.010 |
| LAG 6 | PM10 | 0.976 | 0.959;0.992 | 0.004 |
| Mean Temperature | 1.031 | 1.013;1.047 | <0.001 |

Table 4: Emergency room visits for conjunctivitis according to season and age

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| p value | 66-100 years  (n=590) | 19-65 years  (n=4,064) | 0-18 years  (n=1,346) |  |
| <0.001 | 44.2% (261) | 54.1% (2,200) | 59.5% (801) | Male %(n) |
| 0.004 | 35.4% (209) | 35.3% (1,433) | 40.3% (542) | Summer %(n) |
| 0.501 | 20.7% (122) | 22.5% (916) | 21.5% (290) | Fall %(n) |
| 0.102 | 26.9% (159) | 26.6% (1,082) | 23.8% (320) | Winter %(n) |
| 0.338 | 16.9% (100) | 15.6% (633) | 14.4% (194) | Spring %(n) |

# Table 5: Odds ratios and 95% confidence intervals for ED visits due to conjunctivitis associated with temperature by gender

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Mean Temperature** | **Male** | | | **Female** | | |
| **OR** | **95%CI** | **p.value** | **OR** | **95%CI** | **p.value** |
| **LAG 0** | 1.029 | 1.007;1.053 | 0.010 | 1.035 | 1.010;1.061 | <0.001 |
| **LAG 1** | 1.010 | 0.997;1.004 | 0.078 | 1.030 | 1.005;1.056 | 0.016 |
| **LAG 2** | 1.013 | 0.990;1.036 | 0.259 | 1.025 | 1.001;1.051 | 0.040 |
| **LAG 3** | 1.010 | 0.987;1.033 | 0.382 | 1.031 | 1.006;1.056 | 0.011 |
| **LAG 4** | 1.003 | 0.981;1.025 | 0.760 | 1.026 | 1.001;1.051 | 0.038 |
| **LAG 5** | 1.018 | 1.995;1.040 | 0.114 | 1.025 | 1.001;1.051 | 0.040 |
| **LAG 6** | 1.031 | 1.008;1.054 | <0.001 | 1.030 | 1.006;1.056 | 0.013 |

\*Odds ratios and 95% confidence intervals were estimated from conditional logistic regression analysis of association between temperature and ED visits due to conjunctivitis. Models were adjusted for humidity and PM10.

Figure 1: A. Rate of conjunctivitis by season according to age. B. Rate of conjunctivitis by month according to age