Supplementary Table 2. Secondary Outcomes

| Variables                  | Injection group |        |        |       | Eye drop group |        |       |       | Between treatment |        |       |
|----------------------------|-----------------|--------|--------|-------|----------------|--------|-------|-------|-------------------|--------|-------|
|                            | Mean ± SD       | Mean change (95% CI) | p-value | Mean ± SD | Mean change (95% CI) | p-value | Mean difference (95% CI) | p-value |
| Corneal staining (0–5)     |                 |        |        |       |                 |        |       |       |                   |        |       |
| Baseline                  | 1.47 ± 1.27     | Reference | 1     | 0.87 ± 1.09 | Reference | 1     | Reference | 1     |
| 1 week                    | 0.83 ± 0.86     | -0.68 (-1.08, -0.28) | 0.001* | 0.83 ± 0.65 | -0.17 (-0.49, 0.15) | 0.306 | -0.52 (-1.03, -0.01) | 0.048* |
| 1 month                   | 0.93 ± 1.16     | -0.63 (-1.03, -0.23) | 0.002* | 0.77 ± 0.78 | 0.02 (-0.3, 0.34) | 0.918 | -0.65 (-1.16, -0.14) | 0.013* |
| 2 months                  | 0.57 ± 0.65     | -0.83 (-1.23, -0.43) | <0.001* | 0.97 ± 0.85 | -0.05 (-0.37, 0.27) | 0.759 | -0.78 (-1.29, -0.27) | 0.003* |
| 3 months                  | 1.14 ± 1.39     | -0.49 (-0.89, -0.08) | 0.02* | 0.57 ± 0.59 | -0.38 (-0.69, -0.06) | 0.021* | -0.11 (-0.63, 0.41) | 0.675 |
| Meibum quality (0–24)     |                 |        |        |       |                 |        |       |       |                   |        |       |
| Baseline                  | 19.02 ± 3.82    | Reference | 1     | 18.79 ± 3.74 | Reference | 1     | Reference | 1     |
| 1 week                    | 16.21 ± 2.51    | -2.81 (-4.47, -1.15) | 0.001* | 17.93 ± 3.58 | -0.86 (-3.12, 1.4) | 0.456 | -1.95 (-4.75, 0.85) | 0.173 |
| 1 month                   | 16.68 ± 4.95    | -2.34 (-4, -0.68) | 0.006* | 15.67 ± 6.61 | -3.12 (-5.38, -0.87) | 0.007* | 0.79 (-2.02, 3.59) | 0.583 |
| 2 months                  | 16.93 ± 3.82    | -2.09 (-3.75, -0.43) | 0.014* | 15.9 ± 5.72 | -2.89 (-5.15, -0.64) | 0.012* | 0.81 (-2, 3.61) | 0.573 |
| 3 months                  | 17.43 ± 3.18    | -1.49 (-3.18, 0.2) | 0.084 | 13.95 ± 4.64 | -4.84 (-7.09, -2.58) | <0.001* | 3.34 (0.51, 6.17) | 0.021* |
| Variables                        | Injection group |                                                                 | Eye drop group |                                                                 | Between treatment |
|---------------------------------|-----------------|-----------------------------------------------------------------|---------------|-----------------------------------------------------------------|-------------------|
|                                 | Mean ± SD       | Mean change (95% CI)                                            | Mean ± SD     | Mean change (95% CI)                                            | Mean difference (95% CI) |
|                                 |                 | p-value                                                         |               | p-value                                                         | p-value           |
| Meiboscore (0–6)                | Methotrexate    | 2.21 ± 1.42                                                     | 1.68 ± 1.11   | Reference                                                       | Reference         |
|                                 | Eye drop group  | 2 ± 1.31                                                        | 1.63 ± 1.15   | -0.05 (-0.17, 0.07)                                            | -0.07 (-0.22, 0.09) |
|                                 | 1 week          | -0.12 (-0.21, -0.02)                                           | 0.017*        | 1.63 ± 1.15                                                     | 0.404             |
|                                 | 1 month         | 1.87 ± 1.25                                                    | -0.24 (-0.33, -0.15) | <0.001*                                               | -0.09 (-0.24, 0.06) | 0.254 |
|                                 | 2 months        | 1.75 ± 1.24                                                    | -0.35 (-0.45, -0.26) | <0.001*                                               | -0.2 (-0.35, -0.04) | 0.012* |
|                                 | 3 months        | 1.59 ± 1.28                                                    | -0.5 (-0.6, -0.41) | <0.001*                                               | -0.14 (-0.26, -0.02) | 0.01* |
|                                 | Conjunctival redness (0–4) | 0.77 ± 0.78                                                   | Reference     | 0.73 ± 0.7                                                     | Reference         |
|                                 | Methotrexate    | 0.6 ± 0.63                                                     | 0.57 ± 0.42   | -0.17 (-0.43, 0.09)                                            | -0.05 (-0.42, 0.32) |
|                                 | Eye drop group  | -0.22 (-0.48, 0.05)                                            | 0.107         | 0.57 ± 0.42                                                     | 0.208             |
|                                 | 1 week          | -0.47 (-0.73, -0.2)                                            | 0.001*        | 0.63 ± 0.69                                                     | 0.45              |
|                                 | 1 month         | -0.3 (-0.56, -0.04)                                            | 0.001*        | 0.63 ± 0.69                                                     | 0.45              |
|                                 | 2 months        | -0.49 (-0.75, -0.22)                                           | <0.001*       | 0.4 ± 0.71                                                      | 0.017*            |
|                                 | 3 months        | -0.32 (-0.58, -0.06)                                           | <0.001*       | 0.4 ± 0.71                                                      | 0.375             |
| Variables | Injection group | | | | | | Eye drop group | | | | Between treatment | |
|-----------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|           | Mean ± SD      | Mean change (95% CI) | p-value | Mean ± SD | Mean change (95% CI) | p-value | Mean ± SD | Mean change (95% CI) | p-value | Mean difference (95% CI) | p-value |
| FBUT (s)  | Baseline       | 3.64 ± 1.52 | Reference | 1 | 4.88 ± 1.64 | Reference | 1 | Reference | 1 | 0.62 (-0.43, 1.66) | 0.247 |
|           | 1 week         | 4.8 ± 1.57  | 0.66 (-0.18, 1.51) | 0.124 | 4.82 ± 2.01 | 0.05 (-0.56, 0.66) | 0.873 | 0.62 (-0.43, 1.66) | 0.247 |
|           | 1 month        | 4.67 ± 2.04 | 0.81 (-0.04, 1.66) | 0.061 | 4.31 ± 0.93 | -0.44 (-1.05, 0.17) | 0.156 | 1.25 (0.21, 2.29) | 0.019* |
|           | 2 months       | 4.96 ± 1.91 | 0.96 (0.11, 1.8) | 0.027* | 4.64 ± 1.39 | 0.01 (-0.6, 0.62) | 0.974 | 0.95 (-0.1, 1.99) | 0.075 |
|           | 3 months       | 5.12 ± 2.21 | 0.77 (-0.1, 1.63) | 0.082 | 4.29 ± 1.97 | -0.11 (-0.72, 0.5) | 0.73 | 0.89 (-0.16, 1.94) | 0.098 |
| LLT (nm)  | Baseline       | 64 ± 26.24  | Reference | 1 | 72.33 ± 27.17 | Reference | 1 | Reference | 1 | -3.07 (-18.4, 12.27) | 0.695 |
|           | 1 week         | 62.33 ± 31.38 | -2.63 (-14.16, 8.89) | 0.654 | 69.67 ± 27.24 | 0.43 (-9.69, 10.55) | 0.933 | -3.07 (-18.4, 12.27) | 0.695 |
|           | 1 month        | 60.6 ± 30.96 | -4.07 (-15.59, 7.46) | 0.489 | 59.27 ± 26.66 | -3.4 (-13.52, 6.72) | 0.51 | -0.67 (-16, 14.67) | 0.932 |
|           | 2 months       | 56.07 ± 34.66 | -4.4 (-15.93, 7.13) | 0.454 | 65.33 ± 27.49 | -0.07 (-10.19, 10.05) | 0.99 | -4.33 (-19.67, 11) | 0.58 |
|           | 3 months       | 56.14 ± 32.9 | -8.51 (-20.28, 3.25) | 0.156 | 56.67 ± 27.92 | -9.13 (-19.25, 0.99) | 0.077 | 0.64 (-14.86, 16.13) | 0.936 |

Clinician subjective and objective outcomes
FBUT, fluorescein break-up time; s, second; LLT, lipid layer thickness; nm, nanometer, *p<0.05