### Appendix 1: Post-Surgical Complications Requiring Data Censorship

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| --- | --- | --- | --- |
|  | **Trabeculectomy Group**Number of patients (%) | **GDD Group** Number of patients (%) | **P-Value** **a** |
| Procedures requiring total data censorship b |  |  |  |
|  Diode Cyclophotocoagulation (CPC) procedure  | 0 | 6 (9%) |  |
|  Pars Plana Vitrectomy (PPV) | 1 (2%) | 0 | 0.3 |
|  Additional GDD Surgery | 1 (2%) | 1 (2%) |  |
|  Censorship not required | 51 (96%) | 58 (89%) |  |
| Procedures requiring vision data censorship b |  |  |  |
|  YAG capsulotomy  | 3 (6%) | 1 (1%) |  |
|  Corneal transplant (PKP or DSEK) c | 3 (6%) | 5 (8%) | 0.9 |
|  Corneal chelation  | 0 | 3 (5%) |  |
|  Censorship not required  | 47 (88%) | 56 (86%) |  |

##### a P-values were found by performing a chi-squared test comparing the combined number of all censorship categories with the number of those who required no censorship.

##### b All censorship events in both groups occurred at least 10 months after the initial Glaucoma surgery.

##### c PKP= Penetrating Keratoplasty; DSEK= Descemet’s Stripping Endothelial Keratoplasty

### Appendix 2: Average IOP in Trabeculectomy and GDD Patients by Age at Time of Surgery

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| --- | --- | --- | --- |
|  | **Trabeculectomy Group a**Mean ± SD | **GDD Group a**Mean ± SD | **P-value b** |
| Baseline IOP (mmHg) |  |  |  |
|  Age < 75 years | 20.0 ± 6.1 | 24.6 ± 7.1 | 0.009 |
|  N | 35 | 29 |  |
|  Age ≥ 75 years | 22.8 ± 8.8 | 26.6 ± 8.7 | 0.1 |
|  N | 18 | 36 |  |
| IOP at 1 year Post-op (mmHg) |  |  |  |
|  Age < 75 years | 8.4 ± 4.9 | 11.0 ± 4.2 | 0.03 |
|  N | 34 | 29 |  |
|  Age ≥ 75 years | 6.7 ± 3.3 | 11.7 ± 4.2 | <0.0001 |
|  N | 18 | 35 |  |
| IOP at 2 years Post-op (mmHg) |  |  |  |
|  Age < 75 years | 8.0 ± 4.7 | 10.7 ± 3.5 | 0.02 |
|  N | 30 | 27 |  |
|  Age ≥ 75 years | 6.7 ± 3.3 | 12.1 ± 5.3 | 0.0001 |
|  N | 16 | 30 |  |
| IOP at 3 year Post-op (mmHg) |  |  |  |
|  Age < 75 years | 8.2 ± 4.2 | 13.0 ± 5.2 | 0.001 |
|  N | 24 | 22 |  |
|  Age ≥ 75 years | 4.8 ± 2.4 | 10.5 ± 4.2 | <0.0001 |
|  N | 14 | 21 |  |
| IOP at 4 years Post-op (mmHg) |  |  |  |
|  Age < 75 years | 8.1 ± 5.5 | 10.8 ± 4.6 | 0.1 |
|  N | 18 | 13 |  |
|  Age ≥ 75 years | 5.8 ± 3.5 | 13.3 ± 5.6 | 0.001 |
|  N | 10 | 14 |  |
| IOP at 5 year Post-op (mmHg) |  |  |  |
|  Age < 75 years | 8.3 ± 5.7 | 11.1 ± 5.5 | 0.2 |
|  N | 14 | 11 |  |
|  Age ≥ 75 years | 4.9 ± 2.8 | 12.2 ± 3.6 | 0.0001 |
|  N | 9 | 12 |  |

##### a When comparing the mean IOP of the Trabeculectomy and GDD patients within the subgroup Age < 75 Years at Time of Surgery, there was a significant difference at baseline and at post-op years 1-3 (P-value < 0.05). When comparing within the Age ≥ 75 Years subgroup, there was a significant difference at post-op years 1-5 (P-value < 0.05).

##### b Two sample t-test.

### Appendix 3: Average IOP in Trabeculectomy and GDD Patients by Baseline IOP

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| --- | --- | --- | --- |
|  | **Trabeculectomy Group a**Mean ± SD | **GDD Group a**Mean ± SD | **P-value b** |
| Baseline IOP (mmHg) |  |  |  |
|  Baseline IOP ≤ 21 mmHg | 16.1 ± 3.3 | 18.3 ± 2.4 | 0.009 |
|  N | 30 | 23 |  |
|  Baseline IOP > 21 mmHg | 27.3 ± 5.7 | 29.8 ± 7.1 | 0.1 |
|  N | 23 | 42 |  |
| IOP at 1 year Post-op (mmHg) |  |  |  |
|  Baseline IOP ≤ 21 mmHg | 7.2 ± 3.9 | 11.8 ± 4.1 | 0.0002 |
|  N | 29 | 23 |  |
|  Baseline IOP > 21 mmHg | 8.6 ± 5.1 | 11.1 ± 4.3 | 0.046 |
|  N | 23 | 41 |  |
| IOP at 2 years Post-op (mmHg) |  |  |  |
|  Baseline IOP ≤ 21 mmHg | 6.8 ± 4.0 | 10.7 ± 4.2 | 0.006 |
|  N | 27 | 16 |  |
|  Baseline IOP > 21 mmHg | 8.7 ± 4.4 | 11.7 ± 4.7 | 0.02 |
|  N | 19 | 41 |  |
| IOP at 3 year Post-op (mmHg) |  |  |  |
|  Baseline IOP ≤ 21 mmHg | 6.0 ± 3.2 | 12.0 ± 3.7 | <0.0001 |
|  N | 22 | 13 |  |
|  Baseline IOP > 21 mmHg | 8.2 ± 4.6 | 11.6 ± 5.3 | 0.03 |
|  N | 16 | 30 |  |
| IOP at 4 year Post-op (mmHg) |  |  |  |
|  Baseline IOP ≤ 21 mmHg | 6.8 ± 4.2 | 11.0 ± 4.4 | 0.02 |
|  N | 16 | 11 |  |
|  Baseline IOP > 21 mmHg | 7.9 ± 5.9 | 12.8 ± 5.7 | 0.04 |
|  N | 12 | 16 |  |
| IOP at 5 year Post-op (mmHg) |  |  |  |
|  Baseline IOP ≤ 21 mmHg | 6.2 ± 4.0 | 11.0 ± 3.8 | 0.01 |
|  N | 12 | 9 |  |
|  Baseline IOP > 21 mmHg | 7.8 ± 6.0 | 12.1 ± 5.0 | 0.1 |
|  N | 11 | 14 |  |

##### a When comparing the mean IOP in the two surgical groups (Trabeculectomy vs GDD) within the Baseline IOP subgroup IOP ≤ 21 mmHg, there was a significant difference at baseline and at post-op years 1-5 (P-value < 0.05). When comparing within the IOP > 21 mmHg Group, there was a significant difference only at post-op years 1-4 (P-value < 0.05).

##### b Two sample t-test.

### Appendix 4: Average IOP in eyes with a Baseline IOP ≤ 21 mmHg versus a Baseline IOP > 21 mmHg

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| --- | --- | --- | --- |
|  | **Baseline IOP ≤ 21 mmHga**Mean ± SD | **Baseline IOP > 21 mmHga**Mean ± SD | **P-value b** |
| Baseline IOP (mmHg) |  |  |  |
|  Trabeculectomy Group | 16.1 ± 3.3 | 27.3 ± 5.7 | <0.001 |
|  N | 30 | 23 |  |
|  GDD Group | 18.3 ± 2.4 | 29.8 ± 7.1 | <0.001 |
|  N | 23 | 42 |  |
| IOP at 1 year Post-op (mmHg) |  |  |  |
|  Trabeculectomy Group | 7.2 ± 3.9 | 8.6 ± 5.1 | 0.3 |
|  N | 29 | 23 |  |
|  GDD Group | 11.8 ± 4.1 | 11.1 ± 4.3 | 0.6 |
|  N | 23 | 41 |  |
| IOP at 2 years Post-op (mmHg) |  |  |  |
|  Trabeculectomy Group | 6.8 ± 4.0 | 8.7 ± 4.4 | 0.1 |
|  N | 27 | 19 |  |
|  GDD Group | 10.7 ± 4.2 | 11.7 ± 4.7 | 0.4 |
|  N | 16 | 41 |  |
| IOP at 3 year Post-op (mmHg) |  |  |  |
|  Trabeculectomy Group | 6.0 ± 3.2 | 8.2 ± 4.6 | 0.1 |
|  N | 22 | 16 |  |
|  GDD Group | 12.0 ± 3.7 | 11.6 ± 5.3 | 0.8 |
|  N | 13 | 30 |  |
| IOP at 4 year Post-op (mmHg) |  |  |  |
|  Trabeculectomy Group | 6.8 ± 4.2 | 7.9 ± 5.9 | 0.6 |
|  N | 16 | 12 |  |
|  GDD Group | 11.0 ± 4.4 | 12.8 ± 5.7 | 0.4 |
|  N | 11 | 16 |  |
| IOP at 5 year Post-op (mmHg) |  |  |  |
|  Trabeculectomy Group | 6.2 ± 4.0 | 7.8 ± 6.0 | 0.5 |
|  N | 12 | 11 |  |
|  GDD Group | 11.0 ± 3.8 | 12.1 ± 5.0 | 0.6 |
|  N | 9 | 14 |  |

##### a When comparing the mean IOP in the two Baseline IOP Groups (IOP ≤ 21 or > 21 mmHg) within the Trabeculectomy Group, there was no significant difference at any post-op time-point (P-value > 0.05). The same was found when comparing within the GDD Group (P-value > 0.05).

##### b Two sample t-test.