Tandem Patient Reported Outcomes (PROs)

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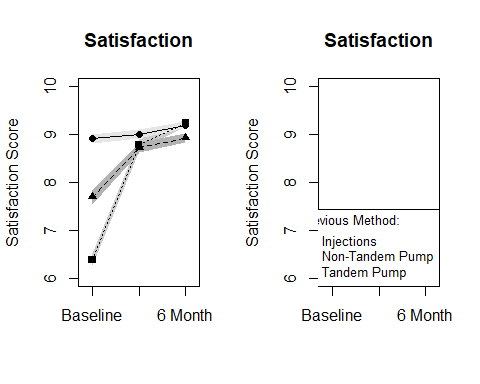
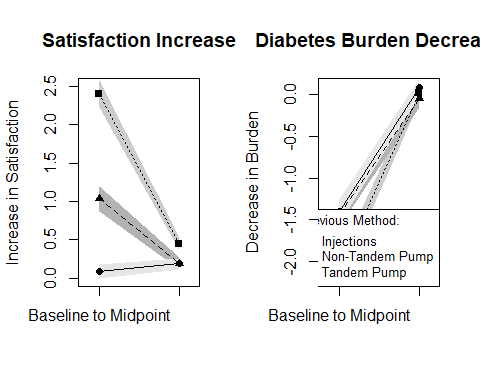
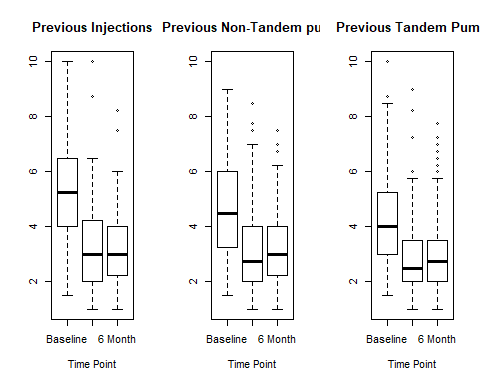
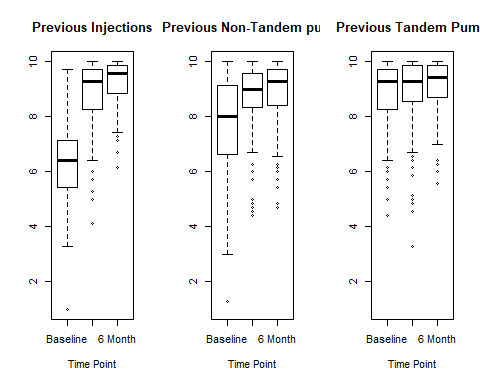
##Summary Stats **Table 1: Patient Demographics - By Method**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Characteristic | Injections (n=82) | Non-Tandem Pump (n=159) | Tandem Pump (n=300) | P Value |
| **Gender** |  |  |  | 0.1261 |
| Female | 41 (50%) | 98 (62%) | 159 (53%) |  |
| Male | 41 (50%) | 61 (38%) | 141 (47%) |  |
| **Respondent Type** |  |  |  | 1e-04 |
| A Parent/Guardian/Caregiver of someone with Diabetes | 28 (34%) | 20 (13%) | 50 (17%) |  |
| Person with Diabetes | 54 (66%) | 139 (87%) | 250 (83%) |  |
| \*\*\*\* | 31.12Â±18.85 | 38.09Â±15.16 | 37.56Â±16.96 | 0.0044 |
| **Duration of diabetes at baseline (years)** | 10.55Â±13.34 | 22.91Â±12.9 | 19.87Â±14.37 | <0.0001 |
| **HbA1c at baseline** | 7.51Â±1.49 | 7.18Â±1.01 | 7.03Â±1.02 | 0.0021 |
| **Any previous CGM use?**\*\* |  |  |  | <0.0001 |
| No | 13 (16%) | 9 (6%) | 5 (2%) |  |
| Yes | 69 (84%) | 150 (94%) | 295 (98%) |  |

##Missing Data **Table 2a: Survey Missing Data**

|  |  |
| --- | --- |
| Characteristic | All (n=1061) |
| **Baseline fully completed** | 985 (93%) |
| **2mo fully completed** | 446 (42%) |
| **4mo fully completed** | 547 (52%) |
| **6mo fully completed** | 658 (62%) |
| **All time points Complete** | 384 (36%) |
| **In Cohort - baseline, mid-point, and 6 month complete** | 541 (51%) |

There are 541 patients that met the final inclusion criteria for the analysis. Of those 541 patients, 384 (70.98%) finished a 2 month survey, so that time point was used as the mid-point. 157 (29.02%) did not have a 2 month survey, but did have a 4 month survey, so this was used as the mid-point.

##Survey Data - plots  ##Survey Data - results **Table 4: Satisfaction changes, by previous method**

|  |  |  |
| --- | --- | --- |
| Previous Method | Change from Baseline to Mid-Point | Change from Mid-Point to 6 Month |
| Injections | 1.03 (Adj CI: 0.63,1.44); p=<0.001 | 0.28 (Adj CI: 0.03,0.54); p=0.024 |
| Non-Tandem Pump | 0.77 (Adj CI: 0.41,1.13); p=<0.001 | 0 (Adj CI: -0.24,0.24); p=1 |
| Tandem Pump | 0.76 (Adj CI: 0.42,1.1); p=<0.001 | 0.14 (Adj CI: -0.08,0.36); p=0.406 |

**Table 5: Diabetes Burden changes, by previous method**

|  |  |  |
| --- | --- | --- |
| Previous Method | Change from Baseline to Mid-Point | Change from Mid-Point to 6 Month |
| Injections | -1.3 (Adj CI: -1.72,-0.88); p=<0.001 | 0.06 (Adj CI: -0.32,0.44); p=1 |
| Non-Tandem Pump | -1.05 (Adj CI: -1.44,-0.65); p=<0.001 | -0.03 (Adj CI: -0.38,0.33); p=1 |
| Tandem Pump | -1.26 (Adj CI: -1.63,-0.89); p=<0.001 | -0.05 (Adj CI: -0.38,0.28); p=1 |

**Table 6: Factor summary stats, by previous method**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Characteristic | All (n=541) | Injections (n=82) | Non-Tandem Pump (n=159) | Tandem Pump (n=300) | P Value |
| **Baseline: Factor 1 Benefit** | 8.57 (7.14, 9.57) | 6.43 (5.46, 7.14) | 8 (6.64, 9.14) | 9.29 (8.29, 9.71) | <0.0001 |
| **Mid: Factor 1 Benefit** | 9.14 (8.57, 9.71) | 9.29 (8.32, 9.71) | 9 (8.36, 9.57) | 9.29 (8.57, 9.86) | 0.0437 |
| **Post 2m: Factor 1 Benefit** | 9.14 (8.46, 9.71) | 9.29 (8.32, 9.71) | 9 (8.57, 9.57) | 9.29 (8.57, 9.86) | 0.3449 |
| **Post 4m: Factor 1 Benefit** | 9.29 (8.57, 9.71) | 9.43 (8.57, 9.86) | 9 (8.39, 9.71) | 9.29 (8.57, 9.86) | 0.1961 |
| **6 month: Factor 1 Benefit** | 9.43 (8.57, 9.86) | 9.57 (8.89, 9.86) | 9.29 (8.43, 9.71) | 9.43 (8.71, 9.86) | 0.0381 |
| **Baseline: Factor 2 Burden** | 4.25 (3.25, 5.75) | 5.25 (4, 6.44) | 4.5 (3.25, 6) | 4 (3, 5.25) | <0.0001 |
| **Mid: Factor 2 Burden** | 2.75 (2, 3.75) | 3 (2, 4.25) | 2.75 (2, 4) | 2.5 (2, 3.5) | 0.1184 |
| **Post 2m: Factor 2 Burden** | 2.75 (2, 3.5) | 2.75 (1.75, 3.75) | 2.75 (2, 3.5) | 2.5 (2, 3.5) | 0.8998 |
| **Post 4m: Factor 2 Burden** | 2.75 (2, 4) | 3.25 (2, 4.38) | 3 (2.5, 4.19) | 2.75 (2, 3.5) | 0.0218 |
| **6 month: Factor 2 Burden** | 2.75 (2, 3.75) | 3 (2.25, 3.94) | 3 (2.25, 4) | 2.75 (2, 3.5) | 0.1088 |

##Supplement: **Table S1: Satisfaction changes, by previous method - DIABETICS ONLY**

|  |  |  |
| --- | --- | --- |
| Previous Method | Change from Baseline to Midpoint | Change from Midpoint to 6 Months |
| Injections | 1.01 (Adj CI: 0.56,1.46); p=<0.001 | 0.34 (Adj CI: 0.04,0.63); p=0.019 |
| Non-Tandem Pump | 0.57 (Adj CI: 0.22,0.93); p=<0.001 | -0.01 (Adj CI: -0.26,0.23); p=1 |
| Tandem Pump | 0.52 (Adj CI: 0.19,0.85); p=0.001 | 0.17 (Adj CI: -0.07,0.4); p=0.256 |

**Table S2: Diabetes Burden changes, by previous method - DIABETICS ONLY**

|  |  |  |
| --- | --- | --- |
| Previous Method | Change from Baseline to Mid-Point | Change from Midpoint to 6 months |
| Injections | -1.65 (Adj CI: -2.11,-1.18); p=<0.001 | 0.18 (Adj CI: -0.25,0.62); p=0.936 |
| Non-Tandem Pump | -1.24 (Adj CI: -1.62,-0.85); p=<0.001 | 0.1 (Adj CI: -0.27,0.46); p=1 |
| Tandem Pump | -1.46 (Adj CI: -1.83,-1.09); p=<0.001 | 0.03 (Adj CI: -0.31,0.37); p=1 |

**Table S3: Patient Demographics - Inclusion/Exclusion**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Characteristic | All (n=1061) | 0 (n=520) | 1 (n=541) | P Value |
| **Which.of.the.options.below.do.you.identify.with….Selected.Choice**\*\* |  |  |  | 2e-04 |
| A Parent/Guardian/Caregiver of someone with Diabetes | 240 (23%) | 142 (28%) | 98 (18%) |  |
| Other (Please Specify) | 0 (0%) | 0 (0%) | 0 (0%) |  |
| Person with Diabetes | 809 (77%) | 366 (72%) | 443 (82%) |  |
| \*\*\*\* | 35.52Â±17.45 | 34.24Â±17.93 | 36.74Â±16.9 | 0.0199 |
| **Duration of diabetes at baseline (years)** | 18.25Â±14.27 | 17.16Â±14.14 | 19.28Â±14.34 | 0.0223 |
| **What.was.your.HbA1c.value.from.your.last.HbA1c.test.** | 7.26Â±1.31 | 7.41Â±1.52 | 7.15Â±1.11 | 0.0029 |
| **Any previous CGM use?** |  |  |  | 0.0834 |
| No | 66 (6%) | 39 (8%) | 27 (5%) |  |
| Yes | 975 (94%) | 461 (92%) | 514 (95%) |  |
| **Previous insulin method**\*\* |  |  |  | 0.0177 |
| Injections | 184 (18%) | 102 (21%) | 82 (15%) |  |
| Non-Tandem Pump | 274 (26%) | 115 (23%) | 159 (29%) |  |
| Other | 0 (0%) | 0 (0%) | 0 (0%) |  |
| Tandem Pump | 579 (56%) | 279 (56%) | 300 (55%) |  |

**Table S4: Individual Survey Items:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Characteristic | All (n=541) | Injections (n=82) | Non-Tandem Pump (n=159) | Tandem Pump (n=300) | P Value |
| **very.satisfied.veryunsatisfied…Satisfaction** | 8 (7, 10) | 5 (4, 7) | 8 (5, 9) | 9 (8, 10) | <0.0001 |
| **alot.none…Trust** | 9 (8, 10) | 7 (6, 9) | 9 (7, 10) | 10 (9, 10) | <0.0001 |
| **agree.disagree…Is.easy.to.use.** | 9 (8, 10) | 8 (7, 10) | 9 (7, 10) | 10 (9, 10) | <0.0001 |
| **agree.disagree…Helps.me.have.good.blood.glucose.control.** | 8 (7, 10) | 7 (5, 8) | 8 (6, 9) | 9 (8, 10) | <0.0001 |
| **agree.disagree…Is.a.hassle.to.use.** | 9 (6, 10) | 5 (3, 6.75) | 8 (6, 10) | 9 (8, 10) | <0.0001 |
| **agree.disagree…Helps.me.feel.more.in.control.of.my.diabetes.** | 9 (7, 10) | 6 (4, 7.75) | 8 (6.5, 9) | 10 (8, 10) | <0.0001 |
| **agree.disagree…Is.too.complicated.** | 9 (8, 10) | 8 (6, 9) | 9 (8, 10) | 10 (9, 10) | <0.0001 |
| **frequency…Have.a.bad.night.s.sleep.because.of.diabetes.** | 5 (3, 7) | 6 (4, 7) | 5 (3, 7) | 5 (3, 6) | 0.0058 |
| **frequency…Wake.up.at.night.to.treat.low.blood.glucose.** | 5 (3, 7) | 5.5 (3, 7) | 5 (3, 6.5) | 4 (3, 6) | 0.0302 |
| **frequency…Miss.work..school..household.chores..or.other.responsibilities.due.to.diabetes.** | 2 (1, 3) | 2 (1, 5) | 2 (1, 3) | 2 (1, 3) | 0.0071 |
| **frequency…Worry.about.going.low.** | 6 (4, 8) | 7 (6, 9.75) | 6 (4, 8.5) | 5.5 (3, 8) | <0.0001 |
| **frequency…Treat.low.blood.glucose.by.eating.snacks.** | 8 (6, 10) | 8.5 (7, 10) | 8 (6, 10) | 8 (6, 10) | 0.0282 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Characteristic | All (n=541) | Injections (n=82) | Non-Tandem Pump (n=159) | Tandem Pump (n=300) | P Value |
| \*\*\*\* | 9 (8, 10) | 10 (8, 10) | 9 (8, 10) | 9 (8, 10) | 0.7234 |
| \*\*\*\* | 9 (8, 10) | 9 (8, 10) | 9 (8, 10) | 9.5 (8, 10) | 0.0587 |
| \*\*\*\* | 10 (9, 10) | 10 (8, 10) | 10 (9, 10) | 10 (9, 10) | 0.0961 |
| \*\*\*\* | 9 (8, 10) | 9 (8, 10) | 9 (7, 10) | 9 (8, 10) | 0.0245 |
| \*\*\*\* | 10 (9, 10) | 10 (8, 10) | 10 (8, 10) | 10 (9, 10) | 0.0732 |
| \*\*\*\* | 9 (8, 10) | 9 (8, 10) | 9 (7, 10) | 9 (8, 10) | 0.0427 |
| \*\*\*\*\* | 10 (9, 10) | 10 (9, 10) | 10 (9, 10) | 10 (9, 10) | 0.1493 |
| \*\*\*\* | 3 (2, 5) | 3 (2, 5) | 3 (2, 5) | 3 (2, 4.25) | 0.6834 |
| \*\*\*\* | 3 (2, 4) | 3 (2, 4) | 3 (2, 5) | 3 (2, 4) | 0.057 |
| \*\*\*\* | 1 (1, 2) | 2 (1, 3) | 1 (1, 2) | 1 (1, 2) | 0.0061 |
| \*\*\*\* | 3 (2, 5) | 3 (2, 5) | 3 (2, 5) | 3 (2, 4) | 0.0695 |
| \*\*\*\* | 5 (3, 7) | 5 (4, 8) | 6 (3, 8) | 5 (3, 7) | 0.0569 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Characteristic | All (n=541) | Injections (n=82) | Non-Tandem Pump (n=159) | Tandem Pump (n=300) | P Value |
| **very.satisfied.veryunsatisfied…Satisfaction.1** | 10 (8, 10) | 10 (8, 10) | 10 (8, 10) | 10 (8, 10) | 0.9686 |
| **alot.none…Trust.1** | 9 (8, 10) | 9 (8, 10) | 9 (8, 10) | 10 (8, 10) | 0.2 |
| **agree.disagree…Is.easy.to.use..1** | 10 (9, 10) | 10 (8.25, 10) | 10 (9, 10) | 10 (9, 10) | 0.4945 |
| **agree.disagree…Helps.me.have.good.blood.glucose.control..1** | 9 (8, 10) | 9 (8, 10) | 9 (8, 10) | 9 (8, 10) | 0.5069 |
| **agree.disagree…Is.a.hassle.to.use..1** | 10 (8, 10) | 10 (8, 10) | 10 (8, 10) | 10 (9, 10) | 0.285 |
| **agree.disagree…Helps.me.feel.more.in.control.of.my.diabetes..1** | 9 (8, 10) | 9 (8, 10) | 9 (8, 10) | 9 (8, 10) | 0.4234 |
| **agree.disagree…Is.too.complicated..1**\* | 10 (9, 10) | 10 (9, 10) | 10 (9, 10) | 10 (9, 10) | 0.7677 |
| **frequency…Have.a.bad.night.s.sleep.because.of.diabetes..1** | 3 (2, 4) | 3 (2, 5) | 3 (2, 5) | 3 (2, 4) | 0.884 |
| **frequency…Wake.up.at.night.to.treat.low.blood.glucose..1** | 3 (2, 4) | 2 (2, 4) | 3 (2, 4) | 2 (2, 4) | 0.4859 |
| **frequency…Miss.work..school..household.chores..or.other.responsibilities.due.to.diabetes..1** | 1 (1, 2) | 1 (1, 3) | 1 (1, 2) | 1 (1, 2) | 0.0695 |
| **frequency…Worry.about.going.low..1** | 3 (2, 5) | 3 (2, 5) | 3 (2, 5) | 3 (2, 5) | 0.5196 |
| **frequency…Treat.low.blood.glucose.by.eating.snacks..1** | 5 (3, 7) | 5 (3, 7) | 6 (3, 8) | 5 (3, 7) | 0.3494 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Characteristic | All (n=541) | Injections (n=82) | Non-Tandem Pump (n=159) | Tandem Pump (n=300) | P Value |
| **very.satisfied.veryunsatisfied…Satisfaction.2** | 9 (8, 10) | 10 (8, 10) | 9 (8, 10) | 9 (8, 10) | 0.5107 |
| **alot.none…Trust.2** | 9 (8, 10) | 9 (8, 10) | 9 (8, 10) | 9 (8, 10) | 0.3803 |
| **agree.disagree…Is.easy.to.use..2**\* | 10 (9, 10) | 10 (9, 10) | 10 (9, 10) | 10 (9, 10) | 0.1936 |
| **agree.disagree…Helps.me.have.good.blood.glucose.control..2** | 9 (8, 10) | 9 (8, 10) | 9 (7, 10) | 9 (8, 10) | 0.0084 |
| **agree.disagree…Is.a.hassle.to.use..2** | 10 (9, 10) | 10 (9, 10) | 10 (8.25, 10) | 10 (9, 10) | 0.4066 |
| **agree.disagree…Helps.me.feel.more.in.control.of.my.diabetes..2** | 9 (8, 10) | 10 (8, 10) | 9 (7, 10) | 10 (8, 10) | 0.0018 |
| **agree.disagree…Is.too.complicated..2**\* | 10 (9, 10) | 10 (9, 10) | 10 (9, 10) | 10 (9, 10) | 0.0917 |
| **frequency…Have.a.bad.night.s.sleep.because.of.diabetes..2** | 3 (2, 5) | 3 (2, 5) | 3 (2, 6) | 3 (2, 5) | 0.045 |
| **frequency…Wake.up.at.night.to.treat.low.blood.glucose..2** | 3 (2, 4) | 3 (2, 5) | 3 (2, 5) | 3 (2, 4) | 0.0015 |
| **frequency…Miss.work..school..household.chores..or.other.responsibilities.due.to.diabetes..2** | 1 (1, 2) | 2 (1, 3) | 1 (1, 2) | 1 (1, 2) | 0.0014 |
| **frequency…Worry.about.going.low..2** | 3 (2, 5) | 3 (2, 5) | 4 (2, 5) | 3 (2, 5) | 0.0853 |
| **frequency…Treat.low.blood.glucose.by.eating.snacks..2** | 5 (3, 7) | 6 (3, 7.5) | 5 (4, 7.75) | 5 (3, 7) | 0.1481 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Characteristic | All (n=541) | Injections (n=82) | Non-Tandem Pump (n=159) | Tandem Pump (n=300) | P Value |
| **very.satisfied.veryunsatisfied…Satisfaction.3** | 9 (8, 10) | 10 (8, 10) | 9 (8, 10) | 10 (8, 10) | 0.081 |
| **alot.none…Trust.3** | 10 (8, 10) | 10 (9, 10) | 9 (8, 10) | 10 (9, 10) | 0.0193 |
| **agree.disagree…Is.easy.to.use..3**\* | 10 (9, 10) | 10 (10, 10) | 10 (9.5, 10) | 10 (9, 10) | 0.9904 |
| **agree.disagree…Helps.me.have.good.blood.glucose.control..3** | 10 (8, 10) | 10 (9, 10) | 9 (8, 10) | 10 (8, 10) | 0.0884 |
| **agree.disagree…Is.a.hassle.to.use..3** | 10 (9, 10) | 10 (9, 10) | 10 (9, 10) | 10 (9, 10) | 0.4827 |
| **agree.disagree…Helps.me.feel.more.in.control.of.my.diabetes..3** | 10 (8, 10) | 10 (9, 10) | 9 (8, 10) | 10 (8, 10) | 0.0088 |
| **agree.disagree…Is.too.complicated..3**\* | 10 (9, 10) | 10 (10, 10) | 10 (9, 10) | 10 (9, 10) | 0.3434 |
| **frequency…Have.a.bad.night.s.sleep.because.of.diabetes..3** | 3 (2, 5) | 4 (2, 5) | 3 (2, 5) | 3 (2, 4) | 0.4696 |
| **frequency…Wake.up.at.night.to.treat.low.blood.glucose..3** | 3 (2, 4) | 3 (2, 4.75) | 3 (2, 5) | 3 (2, 4) | 0.2231 |
| **frequency…Miss.work..school..household.chores..or.other.responsibilities.due.to.diabetes..3** | 1 (1, 2) | 2 (1, 3.75) | 1 (1, 2) | 1 (1, 2) | 0.0015 |
| **frequency…Worry.about.going.low..3** | 3 (2, 5) | 3 (2, 4) | 4 (2, 5) | 3 (2, 5) | 0.176 |
| **frequency…Treat.low.blood.glucose.by.eating.snacks..3** | 5 (3, 7) | 5 (3, 8) | 6 (3, 8) | 5 (3, 7) | 0.1545 |