

Supplementary Table 1. Changes in HbA1c by subgroup according to baseline characteristics

| Characteristic | GLIM | ALO | ALO-PIO | P value | | | |
|---|------------|------------|------------|---------|--------------|------------------|-----------------|
| | | | | Total | GLIM vs. ALO | GLIM vs. ALO-PIO | ALO vs. ALO-PIO |
| Age < 55 yr | | | | | | | |
| Number | 16 | 17 | 14 | | | | |
| Baseline | 8.13±0.53 | 8.52±0.76 | 8.12±0.75 | | | | |
| Adjusted mean change from baseline at week 24 | -0.57±0.29 | -0.23±0.29 | -0.92±0.31 | 0.287 | 1.000 | 1.000 | 0.348 |
| Age ≥ 55 yr | | | | | | | |
| Number | 19 | 14 | 19 | | | | |
| Baseline | 8.17±0.64 | 8.09±0.65 | 8.01±0.55 | | | | |
| Adjusted mean change from baseline at week 24 | -0.72±0.24 | -0.17±0.28 | -1.27±0.24 | 0.015 | 0.419 | 0.329 | 0.012 |
| Male | | | | | | | |
| Number | 19 | 14 | 19 | | | | |
| Baseline | 7.97±0.47 | 8.51±0.72 | 8.27±0.76 | | | | |
| Adjusted mean change from baseline at week 24 | -0.81±0.23 | -0.34±0.27 | -1.06±0.23 | 0.132 | 0.627 | 1.000 | 0.136 |
| Female | | | | | | | |
| Number | 16 | 17 | 14 | | | | |
| Baseline | 8.36±0.65 | 8.17±0.73 | 7.76±0.22 | | | | |
| Adjusted mean change from baseline at week 24 | -0.46±0.32 | -0.04±0.30 | -1.27±0.34 | 0.036 | 1.000 | 0.308 | 0.031 |
| BMI < 25 kg/m² | | | | | | | |
| Number | 14 | 16 | 13 | | | | |
| Baseline | 8.34±0.53 | 8.36±0.85 | 8.00±0.52 | | | | |
| Adjusted mean change from baseline at week 24 | -0.83±0.31 | -0.37±0.29 | -1.25±0.32 | 0.147 | 0.853 | 1.000 | 0.158 |
| BMI ≥ 25 kg/m² | | | | | | | |
| N | 21 | 15 | 20 | | | | |
| Baseline | 8.03±0.60 | 8.29±0.62 | 8.09±0.71 | | | | |
| Adjusted mean change from baseline at week 24 | -0.52±0.23 | 0.01±0.28 | -1.08±0.24 | 0.016 | 0.461 | 0.291 | 0.013 |
| DM duration < 5 yr | | | | | | | |
| N | 19 | 19 | 17 | | | | |
| Baseline | 8.08±0.67 | 8.41±0.71 | 8.02±0.55 | | | | |
| Adjusted mean change from baseline at week 24 | -0.88±0.26 | -0.32±0.26 | -1.30±0.27 | 0.047 | 0.425 | 0.788 | 0.042 |
| DM duration ≥ 5 yr | | | | | | | |
| Number | 16 | 12 | 16 | | | | |
| Baseline | 8.23±0.47 | 8.20±0.79 | 8.09±0.74 | | | | |
| Adjusted mean change from baseline at week 24 | -0.47±0.25 | 0.14±0.29 | -0.96±0.25 | 0.024 | 0.363 | 0.521 | 0.020 |
| Baseline HbA1c < 8% | | | | | | | |
| Number | 17 | 13 | 18 | | | | |
| Baseline | 7.69±0.14 | 7.68±0.14 | 7.60±0.12 | | | | |
| Adjusted mean change from baseline at week 24 | -0.57±0.24 | -0.13±0.27 | -0.55±0.23 | 0.407 | 0.673 | 1.000 | 0.774 |

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Supplementary Table 1. Continued

| Characteristic | GLIM | ALO | ALO-PIO | P value | | | |
|---|------------------|------------------|------------------|---------|--------------|------------------|-----------------|
| | | | | Total | GLIM vs. ALO | GLIM vs. ALO-PIO | ALO vs. ALO-PIO |
| Baseline HbA1c \geq 8% | | | | | | | |
| Number | 18 | 18 | 15 | | | | |
| Baseline | 8.59 \pm 0.49 | 8.79 \pm 0.62 | 8.60 \pm 0.57 | | | | |
| Adjusted mean change from baseline at week 24 | -0.81 \pm 0.28 | -0.28 \pm 0.28 | -1.68 \pm 0.31 | 0.006 | 0.574 | 0.119 | 0.005 |
| HOMA-IR <3.8 | | | | | | | |
| Number | 15 | 16 | 18 | | | | |
| Baseline | 8.25 \pm 0.59 | 8.33 \pm 0.73 | 8.06 \pm 0.68 | | | | |
| Adjusted mean change from baseline at week 24 | -0.83 \pm 0.28 | -0.21 \pm 0.28 | -1.02 \pm 0.26 | 0.100 | 0.364 | 1.000 | 0.118 |
| HOMA-IR \geq 3.8 | | | | | | | |
| Number | 19 | 15 | 15 | | | | |
| Baseline | 8.03 \pm 0.56 | 8.33 \pm 0.76 | 8.05 \pm 0.61 | | | | |
| Adjusted mean change from baseline at week 24 | -0.55 \pm 0.25 | -0.16 \pm 0.29 | -1.27 \pm 0.28 | 0.027 | 0.928 | 0.193 | 0.026 |
| HOMA- β <33.31 | | | | | | | |
| Number | 14 | 15 | 20 | | | | |
| Baseline | 8.31 \pm 0.59 | 8.62 \pm 0.80 | 8.26 \pm 0.74 | | | | |
| Adjusted mean change from baseline at week 24 | -0.85 \pm 0.31 | -0.17 \pm 0.3 | -1.32 \pm 0.26 | 0.023 | 0.376 | 0.731 | 0.019 |
| HOMA- β \geq 33.31 | | | | | | | |
| Number | 20 | 16 | 13 | | | | |
| Baseline | 8.01 \pm 0.55 | 8.05 \pm 0.56 | 7.74 \pm 0.20 | | | | |
| Adjusted mean change from baseline at week 24 | -0.58 \pm 0.23 | -0.16 \pm 0.26 | -0.83 \pm 0.29 | 0.228 | 0.690 | 1.000 | 0.292 |

Values are presented as mean \pm standard deviation in baseline, and change at week 24 data are adjusted mean \pm standard error. P values were applied by analysis of covariance (ANCOVA; adjusted variable: baseline HbA1c) with Bonferroni for adjusted mean change at week 24.

HbA1c, glycosylated hemoglobin; GLIM, glimepiride; ALO, alogliptin; ALO-PIO, alogliptin-pioglitazone; BMI, body mass index; DM, diabetes mellitus; HOMA-IR, homeostasis model assessment of insulin resistance; HOMA- β , homeostasis model assessment of β -cell function.