Unmet Needs of Glycemic Control and Risk Factors of Residual Hyperglycaemia in Chinese Population with Type 2 Diabetes Initiating Basal Insulin: A Post-hoc Analysis Of FPG GOAL Study

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| Characteristics                      | Residual hyperglycemia (N=202) | Without residual hyperglycemia (N=661) | P-value |
|-------------------------------------|---------------------------------|----------------------------------------|---------|
| Age, years                          | 56.0 (51.0-61.0)                | 54.0 (49.0-60.0)                       | 0.0174  |
| Men, n (%)                          | 108 (53.5)                      | 376 (56.9)                             | 0.3916  |
| Body weight, kg                     | 70.0 (61.0-76.6)                | 69.5 (62.4-77.5)                       | 0.4081  |
| BMI, kg/m²                          | 25.3 (23.5-27.0)                | 25.2 (23.5-27.6)                       | 0.5074  |
| Duration of diabetes, years         | 8.0 (5.0-11.0)                  | 7.0 (4.0-10.0)                         | 0.0992  |
| Medical history, n (%)              | 37 (18.3)                       | 110 (16.6)                             | 0.5793  |
| OAD count, n (%)                    |                                 |                                        | 0.2969  |
| 1                                   | 28 (13.9)                       | 97 (14.7)                              |         |
| 2                                   | 139 (68.8)                      | 417 (63.3)                             |         |
| 3                                   | 35 (17.3)                       | 145 (22.0)                             |         |
| AGI use, n (%)                      | 72 (35.6)                       | 255 (38.6)                             | 0.4518  |
| Biguanides use, n (%)               | 162 (80.2)                      | 533 (80.6)                             | 0.8907  |
| DPP-4 inhibitors use, n (%)         | 7 (3.5)                         | 49 (7.4)                               | 0.0462  |
| Sulfonylureas use, n (%)            | 130 (64.4)                      | 407 (61.6)                             | 0.4752  |
| Thiazolidinediones use, n (%)       | 13 (6.4)                        | 46 (7.0)                               | 0.7964  |
| Glinides use, n (%)                 | 26 (12.9)                       | 76 (11.5)                              | 0.5967  |
| HbA1c, %                            | 8.6 (7.9-9.4)                   | 8.5 (7.8-9.4)                          | 0.2224  |
| FPG, mmol/L                         | 10.0 (8.5-11.7)                 | 10.2 (8.9-11.9)                        | 0.0487  |
| PPG, mmol/L                         | 13.8 (11.5-15.8)                | 13.4 (11.0-16.3)                       | 0.7396  |
| PPG excursion, mmol/L               | 4.5 (2.4-6.3)                   | 3.9 (2.0-6.0)                          | 0.0506  |

All values are given as median (interquartile range) unless otherwise stated. Categorical variables were compared between groups using chi-square test and continuous variables were compared using Mann-Whiney U test due to the skew distributions.

a Residual hyperglycaemia n=202, without residual hyperglycaemia n=659.
b Residual hyperglycaemia n=192, without residual hyperglycaemia n=626.
c Residual hyperglycaemia n=189, without residual hyperglycaemia n=609.

AGI, alpha glucosidase inhibitors; BMI, body mass index; DDP-4, dipeptidyl peptidase 4; FPG, fasting plasma glucose; HbA1c, glycated haemoglobin; OAD, oral anti-hyperglycaemic drugs; PPG, postprandial glucose
Supplementary Figure 1. Proportions of participants by glycaemic control categories at week 12 and week 24 among individuals randomised to a fasting blood glucose (FBG) target of (A) >3.9 to ≤5.6 mmol/L; (B) >3.9 to ≤6.1 mmol/L; or (C) >3.9 to ≤7.0 mmol/L. At week 12 and 24, the proportions did not add up to 100% as data were not available for some participants (6 [4.8%] and 7 [5.6%] participants randomised to a FBG >3.9 to ≤5.6 mmol/L, respectively; 25 [6.4%] and 26 [6.6%] participants randomised to a FBG >3.9 to ≤6.1 mmol/L, respectively; and 21 [5.3%] and 18 [4.6%] participants randomised to a FBG >3.9 to ≤7.0 mmol/L, respectively).
(C) FBG target >3.9 to ≤7.0 mmol/L

- Hyperglycaemia
- Residual hyperglycaemia
- At target
- Discordant

Proportion of participants (%)

| Week 12 | Week 24 |
|---------|---------|
| n=142   | n=150   |
| 35.9%   | 38.0%   |
| n=101   | n=84    |
| 25.6%   | 21.3%   |
| n=92    | n=95    |
| 23.3%   | 24.1%   |
| n=39    | n=48    |
| 9.9%    | 12.2%   |
|         |         |

- Discordant: 12.2% at Week 24