Unscaled: Difference vs average

BSA scaled: Difference vs average

W-A scaled: Difference vs average
Supplemental Digital Content 1: Statistical analysis for patients with a difference of gGFR and pGFR lower than 30ml/min

Of the enrolled patients, 12 (5 males and 7 females) had a difference of gGFR and pGFR higher than 30ml/min. There were 9, 1 and 2 patients in the stratum A, B and C, respectively. Patient characteristics of the remaining patients (n=287) were similar to Table 1.

After excluding these patients, there was no significant difference (t=0.799, p=0.425) between gGFR (45.3±25.7 ml/min) and pGFR (45.9±28.9 ml/min). The Bland-Altman plots (Figure 1S) indicated that both W-A and BSA normalization could enlarge the 95% limits of agreement without obviously modifying mean difference.

The indices for evaluating normalization ability are plotted on Figure 2S, and the results are similar to those of Figure 2. In the stratum B, both BSA and W-A normalization were not obviously better than unscaled GFRs. The Passing&Bablok regression indicated that the systematic differences between gGFR and pGFR of stratum B was higher (-11.34 ml/min) than that of the stratum A or C (-1.79 and -0.15 ml/min, respectively).

Supplemental Digital Content 2: Statistical analysis for patients in gGFR stage 4.

Of the patients analyzed in Supplemental Digital Content 1, 96 (47 males and 49 females) patients were in gGFR stage 4 (<30ml/min). There were 60, 21 and 15 patients in the stratum A, B and C, respectively. Patient characteristics of the remaining patients (n=190) were also similar to Table 1.

After excluding these patients, there was no significant difference (t=0.876, p=0.382) between gGFR (59.1±19.7 ml/min) and pGFR (60.0±24.8 ml/min). The Figure 3S indicates that both W-A and BSA normalization could enlarge the 95% limits of agreement without obviously modifying mean difference. However, the difference between W-A scaled GFRs was slightly lower than that of BSA scaled or unscaled GFRs.

The results for evaluating normalization ability are plotted on Figure 4S, and the results are similar to those of Figure 2 and Figure 2S. In the stratum B, both BSA and
W-A normalization were not obviously better than unscaled GFRs. The Passing&Bablok regression indicated that the systematic differences between gGFR and pGFR of stratum B was higher (-18.91 ml/min) than that of the stratum A or C (-10.59 and -14.10 ml/min, respectively).
Supplemental Digital Content 3: Figure

Figure 1S: Bland-Altman plots for paired GFRs (ml/min) in the 2nd population. From the top to the bottom, the plots are for unscaled, BSA and W-A scaled GFRs, respectively. The x-axis and y-axis represent the mean and difference between paired GFRs, respectively. The full line is the mean difference, and the area between the broken lines is the 95% confidence interval.

Figure 2S: Evaluation of normalization ability in the 2nd population. The indices for BMI strata are plotted as estimated values with 95% CI.

Figure 3S: Bland-Altman plots for paired GFRs (ml/min) in the 3rd population. From the top to the bottom, the plots are for unscaled, BSA and W-A scaled GFRs, respectively. The x-axis and y-axis represent the mean and difference between paired GFRs, respectively. The full line is the mean difference, and the area between the broken lines is the 95% confidence interval.

Figure 4S: Evaluation of normalization ability in the 3rd population. The indices for BMI strata are plotted as estimated values with 95% CI.