Supplemental data 1.

Multicollinearity analysis in multiple regression analysis for PhA, ECW/TBW and SMI

PhA

	Total Subjects (n=371)		Males (n=209)		Females (n=162)	
Variable	VIF	R^2 with other variables	VIF	R^2 with other variables	VIF	R^2 with other variables
Male	1.461	0.315				
Age	1.742	0.426	1.876	0.467	1.747	0.428
BMI	1.325	0.245	1.503	0.335	1.219	0.180
Alb	1.267	0.211	1.383	0.277	1.173	0.148
Cr	1.253	0.202	1.186	0.157	1.123	0.109
Current Smoking	1.178	0.151	1.139	0.122	1.045	0.043
ARB/ACEi	1.126	0.111	1.076	0.071	1.233	0.189
SGLT2i	1.023	0.022	1.047	0.045	1.056	0.052
PhA	1.873	0.466	1.786	0.434	1.670	0.401

ECW/TBW

	Total Subjects (n=371)		Males (n=209)		Females (n=162)	
Variable	VIF	R^2 with other variables	VIF	R^2 with other variables	VIF	R^2 with other variables
Male	1.322	0.244				
Age	1.713	0.416	1.861	0.463	1.696	0.410
BMI	1.304	0.233	1.456	0.313	1.222	0.181
Alb	1.283	0.221	1.381	0.276	1.225	0.183
Cr	1.253	0.202	1.188	0.158	1.123	0.109
Current Smoking	1.177	0.150	1.139	0.122	1.043	0.041
ARB/ACEi	1.119	0.106	1.076	0.071	1.201	0.168
SGLT2i	1.023	0.022	1.050	0.047	1.060	0.056
ECW/TBW	1.615	0.381	1.606	0.377	1.630	0.387

SMI

Variable	Total Subjects (n=371)		Males (n=209)		Females (n=162)	
	VIF	R^2 with other variables	VIF	R^2 with other variables	VIF	R^2 with other variables
Male	2.621	0.619				
Age	1.673	0.402	1.915	0.478	1.519	0.342
BMI	2.722	0.633	2.644	0.622	3.024	0.669
Alb	1.134	0.118	1.257	0.205	1.042	0.041
Cr	1.272	0.214	1.204	0.169	1.131	0.116
Current Smoking	1.175	0.149	1.136	0.120	1.046	0.044
ARB/ACEi	1.139	0.122	1.100	0.091	1.214	0.176
SGLT2i	1.022	0.022	1.032	0.031	1.042	0.041
SMI	4.606	0.783	3.202	0.688	3.383	0.704

VIF: variance inflation factor

Supplemental data 2.

Multiple linear regression analysis with ECW/ICW for determinants of Hgb and Hct levels in the cross-sectional study

	Total Subjects (n=371)				Males (n=209)				Females (n=162)			
	Hgb (R^2=0.469)		Hct (R^2=0.473)		Hgb (R^2=0.421)		Hct (R^2=0.418)		Hgb (R^2=0.440)		Hct (R^2=0.510)	
Variable	t value	p value	t value	p value	t value	p value	t value	p value	t value	p value	t value	p value
Male	6.526	<0.001	5.408	<0.001								
Age	-2.151	0.032	-1.731	0.084	-1.943	0.053	-1.508	0.133	-0.224	0.823	-0.130	0.897
BMI	3.504	0.001	3.538	<0.001	2.144	0.033	1.835	0.068	2.616	0.010	3.030	0.003
Alb	2.577	0.010	1.825	0.069	2.109	0.036	1.315	0.190	1.934	0.055	1.888	0.061
Cr	-3.752	<0.001	-4.336	<0.001	-1.821	0.070	-2.031	0.044	-4.548	<0.001	-5.324	<0.001
Current Smoking	2.212	0.028	2.162	0.031	1.417	0.158	1.491	0.138	2.771	0.006	2.456	0.015
ARB/ACEi	-2.040	0.042	-2.653	0.008	-0.569	0.570	-0.908	0.365	-2.310	0.022	-2.926	0.004
SGLT2i	5.579	<0.001	7.723	<0.001	3.841	<0.001	4.982	<0.001	3.680	<0.001	5.611	<0.001
ECW/ICW	-5.883	<0.001	-6.034	<0.001	-4.717	<0.001	-4.964	<0.001	-3.502	0.001	-3.514	0.001

Supplemental data 3.

Multiple linear regression analysis for determinants of SMI in the cross-sectional study

	Total Subjects (n=371) (R^2=0.783)		Males (n=209) (R^2=0.688)		Females (n=162) (R^2=0.704)	
Variable	t value	p value	t value	p value	t value	p value
Male	19.392	<0.001				
Age	-8.499	<0.001	-6.677	<0.001	-4.733	<0.001
BMI	19.850	<0.001	12.809	<0.001	15.146	<0.001
Alb	-1.305	0.193	-1.572	0.118	-0.015	0.988
Cr	2.394	0.017	1.739	0.084	1.107	0.270
Current Smoking	0.394	0.694	0.040	0.968	0.674	0.501
ARB/ACEi	2.611	0.009	2.104	0.037	1.468	0.144
SGLT2i	-0.379	0.705	-1.092	0.276	0.795	0.428

Supplemental data 4.

Multiple linear regression analysis with diabetic factors for determinants of PhA, ECW/TBW and SMI in the cross-sectional study

	PhA (n=371) (R^2=0.433)			ECW/TBW (n=371) (R^2=0.329)			SMI (n=371) (R^2=0.519)		
Variable	t value	VIF	p value	t value	VIF	p value	t value	VIF	p value
Male	8.165	1.014	<0.001	-3.686	1.014	<0.001	15.240	1.014	<0.001
Age	-11.440	1.276	<0.001	9.980	1.276	<0.001	-9.866	1.276	<0.001
HbA1c	-0.798	1.313	0.426	0.764	1.313	0.445	1.299	1.313	0.195
Duration of DM	-2.244	1.526	0.026	2.098	1.526	0.037	1.239	1.526	0.216
SU or Glinide	-0.129	1.290	0.898	-0.035	1.290	0.972	-1.582	1.290	0.115
BG	1.686	1.236	0.093	-1.575	1.236	0.116	0.495	1.236	0.621
DPP-4i	-0.126	1.498	0.900	0.824	1.498	0.410	0.550	1.498	0.583
SGLT2i	1.720	1.180	0.086	-1.403	1.180	0.162	1.331	1.180	0.184
αGI	0.944	1.201	0.346	-0.290	1.201	0.772	1.655	1.201	0.099
Pioglitazone	-1.039	1.081	0.300	0.742	1.081	0.458	0.505	1.081	0.614
Insulin	-2.557	1.472	0.011	1.864	1.472	0.063	-3.196	1.472	0.002
GLP-1RA	-0.830	1.406	0.407	1.407	1.406	0.160	2.079	1.406	0.038