

Table S5: Performance of GFR estimating equations including vs. not including age, sex and race in the development dataset

Equation/Covariates	Group	N	Bias (95% CI)	RMSE (95% CI)	
BTP equation, No ASR	All	2380	0.61 (0.17, 1.06)	0.289 (0.279, 0.299)	
	Female	953	-1.90 (-2.86, -0.89)	0.301 (0.285, 0.319)	
	Male	1427	2.39 (1.61, 3.10)	0.281 (0.269, 0.294)	
	Black	1308	0.58 (0.04, 1.41)	0.297 (0.284, 0.311)	
	Non-black	1072	0.62 (0.02, 1.29)	0.279 (0.265, 0.294)	
	Age<40	307	2.82 (1.03, 4.98)	0.287 (0.265, 0.309)	
	Age 40-65	1603	0.53 (0.11, 1.09)	0.294 (0.282, 0.307)	
	Age>65	470	-0.42 (-1.80, 0.78)	0.272 (0.250, 0.297)	
	BTP equation, AS	All	2380	0.44 (-0.12, 1.11)	0.283 (0.273, 0.292)
		Female	953	0.51 (-0.38, 1.65)	0.291 (0.275, 0.307)
Male		1427	0.40 (-0.18, 1.31)	0.277 (0.264, 0.291)	
Black		1308	0.46 (-0.28, 1.54)	0.292 (0.280, 0.306)	
Non-black		1072	0.41 (-0.21, 1.29)	0.271 (0.257, 0.285)	
Age<40		307	0.31 (-0.88, 2.27)	0.280 (0.259, 0.302)	
Age 40-65		1603	0.29 (-0.25, 1.10)	0.289 (0.277, 0.302)	
Age>65		470	0.91 (-0.44, 2.44)	0.262 (0.242, 0.286)	
B2M equation, No ASR		All	2380	-0.18 (-0.60, 0.28)	0.253 (0.239, 0.269)
		Female	953	-0.91 (-1.69, -0.12)	0.269 (0.248, 0.296)
	Male	1427	0.22 (-0.30, 0.81)	0.242 (0.225, 0.261)	
	Black	1308	0.97 (0.10, 1.67)	0.258 (0.237, 0.284)	

	Non-black	1072	-1.18 (-1.74, -0.60)	0.246 (0.232, 0.262)
	Age<40	307	0.28 (-0.68, 1.55)	0.234 (0.215, 0.252)
	Age 40-65	1603	0.21 (-0.43, 0.77)	0.262 (0.243, 0.283)
	Age>65	470	-1.65 (-2.29, -0.44)	0.234 (0.210, 0.261)
B2M equation, ASR	All	2380	-0.12 (-0.57, 0.40)	0.250 (0.237, 0.266)
	Female	953	0.23 (-0.57, 0.80)	0.265 (0.243, 0.291)
	Male	1427	-0.35 (-0.82, 0.31)	0.241 (0.225, 0.260)
	Black	1308	-0.14 (-0.91, 0.64)	0.256 (0.235, 0.281)
	Non-black	1072	-0.12 (-0.70, 0.49)	0.244 (0.230, 0.259)
	Age<40	307	-0.57 (-1.88, 0.57)	0.236 (0.217, 0.255)
	Age 40-65	1603	0.22 (-0.36, 0.73)	0.259 (0.240, 0.280)
	Age>65	470	-0.92 (-1.54, 0.23)	0.233 (0.210, 0.259)
BTP+B2M equation,	All	2380	0.19 (-0.30, 0.64)	0.237 (0.226, 0.248)
No ASR	Female	953	-1.45 (-1.96, -0.70)	0.251 (0.233, 0.270)
	Male	1427	1.11 (0.66, 1.58)	0.227 (0.213, 0.242)
	Black	1308	0.52 (-0.19, 1.04)	0.240 (0.225, 0.257)
	Non-black	1072	-0.16 (-0.74, 0.58)	0.232 (0.218, 0.248)
	Age<40	307	1.10 (0.38, 2.79)	0.216 (0.198, 0.233)
	Age 40-65	1603	0.46 (-0.13, 0.84)	0.244 (0.230, 0.258)
	Age>65	470	-1.45 (-2.03, -0.58)	0.226 (0.203, 0.254)
BTP+B2M equation,	All	2380	0.27 (-0.16, 0.64)	0.234 (0.223, 0.245)
ASR	Female	953	0.40 (-0.31, 0.95)	0.246 (0.229, 0.265)
	Male	1427	0.18 (-0.33, 0.73)	0.225 (0.212, 0.240)

Black	1308	0.41 (-0.30, 0.94)	0.239 (0.223, 0.256)
Non-black	1072	0.17 (-0.35, 0.63)	0.228 (0.215, 0.243)
Age<40	307	-0.21 (-1.34, 1.10)	0.216 (0.198, 0.233)
Age 40-65	1603	0.40 (-0.12, 0.87)	0.241 (0.227, 0.255)
Age>65	470	0.11 (-0.89, 1.03)	0.222 (0.200, 0.249)

Bold indicates differences comparing complex to simpler models that meet our criteria for improved performance (lower absolute bias by greater than 2 ml/min per 1.73 m² and reduced root mean square error (RMSE) greater than 3% in either the total population or in the subgroups)