

Supplementary Table 1: Baseline Demographic, Laboratory and Clinical Variables in Individual Patient Cohorts (CKD-EPI-2009)

Characteristic	N	UNC Cohort Number (%)/Median (IQR)	N	Duke Cohort Number (%)/Median (IQR)	N	UIC Cohort Number (%)/Median (IQR)	N	Methodist Cohort Number (%)/Median (IQR)
Age	199	26.0 (20.0, 34.0)	171	25.0 (20.0, 35.0)	65	29.4 (23.6, 39.5)	71	18 (18, 18)
Sex (female)	199	106 (53.3)	171	90 (52.6)	65	39 (60.0)	71	33 (46.5)
Weight (kg)	196	64.6 (56.6, 74.6)	146	66.4 (59.2, 75.5)	56	68.0 (61.0, 72.6)	67	58.6 (53.2, 66.2)
Height (cm)	83	170.5 (163.0, 176.3)	N/A	N/A	59	170.2 (165.1, 175.3)	70	167.7 (161.3, 174.4)
Body Mass Index (kg/m ²)	83	22.0 (20.3, 24.8)	N/A	N/A	56	23.0 (21.0, 25.4)	67	20.9 (19.2, 23.1)
WBC (x10 ⁹ /L)	199	10.9 (8.5, 13.1)	133	10.5 (7.9, 13.2)	65	10.8 (8.3, 12.9)	71	9.0 (6.8, 13.6)
Hemoglobin (g/dL)	199	9.1 (8.0, 10.2)	133	8.7 (7.7, 10.0)	65	8.9 (8.1, 9.7)	71	9.5 (8.9, 10.3)
Hematocrit (%)	199	26.5 (23.2, 29.5)	133	24.7 (22.0, 28.0)	64	26.9 (23.7, 29.0)	70	27.7 (25.7, 30.0)
Reticulocyte Count (x10 ⁹ /L)	187	224.8 (161.7, 308.2)	114	295.3 (214.7, 425.5)	65	370.0 (275.0, 467.0)	6	160.9 (119.6, 226.4)
Platelet Count (x10 ⁹ /L)	193	434.0 (321.0, 546.0)	133	405.7 (299.3, 473.0)	65	473.0 (372.0, 549.0)	71	360 (263, 453)
Baseline eGFR (mL/min/1.73m ²)	199	125.5 (113.4, 137.8)	171	128.0 (115.7, 137.8)	65	122.3 (110.4, 130.7)	71	143.7 (137.4, 151.3)
Blood Urea Nitrogen (mg/dL)	190	7.0 (6.0, 9.0)	N/A	N/A	65	6.0 (6.0, 8.0)	N/A	N/A
Total Bilirubin (mg/dL)	182	2.5 (1.5, 4.3)	124	2.60 (1.6, 4.4)	63	2.60 (1.90, 4.60)	71	2.4 (1.6, 3.8)
Direct Bilirubin (mg/dL)	46	0.09 (0.09, 0.10)	N/A	N/A	61	0.40 (0.30, 0.70)	64	0.3 (0.2, 0.3)
Indirect Bilirubin (mg/dL)	46	2.31 (1.70, 3.91)	N/A	N/A	62	2.30 (1.50, 3.60)	64	2.35 (1.6, 3.6)
Ferritin (ng/mL)	85	293.0 (122, 893.0)	100	447 (178, 1154.5)	56	592 (137.5, 1267)	24	992 (607, 2815.5)
Hemoglobinuria (Yes)	104	11 (10.6)	129	12 (9.3)	62	19 (30.7)	N/A	N/A
Proteinuria* (Yes)	114	19 (16.7)	129	24 (18.6)	N/A	N/A	N/A	N/A
Hemoglobin F (%)	96	6.15 (3.4, 10.4)	88	10.7 (4.9, 18.0)	65	6.6 (3.4, 9.7)	60	9.8 (3.7, 18.4)
H/O Acute Chest Syndrome (Yes)	194	170 (87.6)	146	114 (78.1)	65	36 (55.4)	71	40 (56.3)
H/O Stroke (Yes)	185	29 (15.7)	144	33 (22.9)	65	18 (27.7)	71	6 (8.5)
H/O Leg Ulcers (Yes)	167	25 (15.0)	142	22 (15.5)	65	8 (12.3)	71	0 (0)
H/O Priapism** (Yes)	82	36 (43.9)	66	28 (42.4)	22	5 (22.7)	N/A	N/A
H/O Avascular Necrosis (Yes)	136	55 (40.4)	141	41 (29.1)	65	22 (33.9)	N/A	N/A

Systolic Blood Pressure (mm Hg)	199	117 (108, 129)	145	116 (109, 125)	65	116 (109, 124)	69	118·0 (110·0, 125·0)
Diastolic Blood Pressure (mm Hg)	199	68 (60, 74)	145	68 (63, 73)	65	69 (62, 74)	69	61·0 (57·0, 69·0)
H/O Diabetes (Yes)	199	5 (2·5)	127	0 (0)	65	1 (1·5)	71	0 (0)
Chronic RBC Transfusion (Yes)	199	7 (3·5)	145	10 (6·9)	65	7 (10·8)	71	26 (36·6)
Hydroxyurea Therapy (Yes)	197	83 (42·1)	171	92 (53·8)	65	37 (56·9)	71	60 (84·5)
RAAS Blocking Agents (Yes)	198	12 (6·1)	N/A	N/A	65	5 (7·7)	N/A	N/A

CKD-EPI-2009 - Chronic Kidney Disease Epidemiology Collaboration formula for estimated glomerular filtration rate (omitting adjustment for black race); utilizing serum creatinine

* Proteinuria – at least 1+ by dipstick urinalysis

**Male patients only

RAAS Blocking Agents – Renin-angiotensin-aldosterone system blocking agents (Angiotensin-converting enzyme inhibitors and angiotensin receptor blockers).

WBC – White blood cell count; RBC = red blood cell

N/A – Not available

Supplementary Table 2: Baseline Demographic, Laboratory and Clinical Variables in Individual Patient Cohorts (CKD-EPI-2021)

Characteristic	N	UNC Cohort Number (%) / Median (IQR)	N	Duke Cohort Number (%) / Median (IQR)	N	UIC Cohort Number (%) / Median (IQR)	N	Methodist Cohort Number (%) / Median (IQR)
Age	202	26.5 (20.0, 35.0)	172	25.5 (20.5, 35.0)	71	31.6 (24.0, 41.2)	71	18 (18, 18)
Sex (female)	202	108 (53.5)	172	90 (52.3)	71	42 (59.2)	71	33 (46.5)
Weight (kg)	199	64.7 (56.6, 74.7)	147	66.5 (59.2, 76.0)	62	68.0 (61.2, 72.6)	67	58.6 (53.2, 66.2)
Height (cm)	83	170.5 (163.0, 176.3)	N/A	N/A	65	170.2 (165.1, 175.3)	70	167.7 (161.3, 174.4)
Body Mass Index (kg/m ²)	83	22.0 (20.3, 24.8)	N/A	N/A	62	23.3 (21.0, 25.7)	67	20.9 (19.2, 23.1)
WBC (x10 ⁹ /L)	202	11.0 (8.5, 13.1)	134	10.5 (7.9, 13.2)	71	10.4 (7.9, 12.9)	71	9.0 (6.8, 13.6)
Hemoglobin (g/dL)	202	9.1 (8.0, 10.2)	134	8.7 (7.7, 10.0)	71	8.8 (7.9, 9.7)	71	9.5 (8.9, 10.3)
Hematocrit (%)	202	26.5 (23.2, 29.5)	134	24.7 (22.0, 28.0)	70	26.4 (23.3, 28.9)	70	27.7 (25.7, 30.0)
Reticulocyte Count (x10 ⁹ /L)	190	224.6 (160.1, 306.9)	115	296.3 (214.7, 429.7)	71	360.0 (271.0, 467.0)	6	160.9 (119.6, 226.4)
Platelet Count (x10 ⁹ /L)	196	434.0 (320.0, 547.0)	134	407.3 (299.3, 493.0)	71	466.0 (358.0, 562.0)	71	360 (263, 453)
Baseline eGFR (mL/min/1.73m ²)	202	126.4 (115.7, 135.9)	172	128.6 (117.5, 136.1)	71	122.3 (107.1, 130.6)	71	140.7 (136.4, 146.5)
Blood Urea Nitrogen (mg/dL)	193	7.0 (6.0, 9.0)	N/A	N/A	71	6.0 (4.0, 9.0)	N/A	N/A
Total Bilirubin (mg/dL)	185	2.5 (1.5, 4.3)	125	2.60 (1.6, 4.5)	69	2.60 (2.0, 4.30)	71	2.4 (1.6, 3.8)
Direct Bilirubin (mg/dL)	46	0.09 (0.09, 0.10)	N/A	N/A	67	0.50 (0.30, 0.70)	64	0.3 (0.2, 0.3)
Indirect Bilirubin (mg/dL)	46	2.31 (1.70, 3.91)	N/A	N/A	68	2.25 (1.60, 3.55)	64	2.35 (1.6, 3.6)
Ferritin (ng/mL)	86	293.5 (122.0, 924.0)	101	432 (172, 1127.0)	61	590 (135.0, 1258)	24	992 (607, 2815.5)
Hemoglobinuria (Yes)	105	11 (10.5)	130	13 (10.0)	68	21 (30.9)	N/A	N/A
Proteinuria* (Yes)	115	19 (16.5)	130	25 (19.2)	17	5 (29.4)	N/A	N/A
Hemoglobin F (%)	98	6.15 (3.4, 10.4)	89	10.7 (5.0, 17.9)	71	6.7 (3.4, 9.8)	60	9.8 (3.7, 18.4)
H/O Acute Chest Syndrome (Yes)	196	172 (87.8)	147	115 (78.2)	71	39 (54.9)	71	40 (56.3)
H/O Stroke (Yes)	187	29 (15.5)	145	33 (22.8)	71	20 (28.2)	71	6 (8.5)
H/O Leg Ulcers (Yes)	170	26 (15.3)	143	23 (16.1)	71	11 (15.5)	71	0 (0)
H/O Priapism** (Yes)	82	36 (43.9)	67	28 (41.8)	25	6 (24.0)	N/A	N/A

H/O Avascular Necrosis (Yes)	139	57 (41·0)	142	42 (29·6)	71	26 (36·6)	N/A	N/A
Systolic Blood Pressure (mm Hg)	202	117 (108, 129)	146	116·5 (109, 125)	71	116 (109, 125)	69	118·0 (110·0, 125·0)
Diastolic Blood Pressure (mm Hg)	202	68 (60, 75)	146	68 (63, 73)	71	69 (62, 75)	69	61·0 (57·0, 69·0)
H/O Diabetes (Yes)	202	6 (3·0)	128	0 (0)	71	1 (1·4)	71	0 (0)
Chronic RBC Transfusion (Yes)	202	7 (3·5)	146	10 (6·9)	71	7 (9·9)	71	26 (36·6)
Hydroxyurea Therapy (Yes)	200	85 (42·5)	172	92 (53·5)	71	40 (56·3)	71	60 (84·5)
RAAS Blocking Agents (Yes)	201	12 (6·0)	N/A	N/A	71	7 (9·9)	N/A	N/A

CKD-EPI-2009 - Chronic Kidney Disease Epidemiology Collaboration formula for estimated glomerular filtration rate (omitting adjustment for black race); utilizing serum creatinine

* Proteinuria – at least 1+ by dipstick urinalysis

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