

S2 Table: Studies among CKD patients

Study ID	Year Country Region	N	Population Characteristic	biopsy	causes of CKD
El Khayat S ³¹	2013, Morocco, North	134	Age(years): 54.4±18.1 Male gender: 58.65%	no	DN: 44.02% H.scl: 11.2% Tub.int: 9.7% SLE: 5% Ch.GN: 3.7% Undetermined: 26.11%
Seck S ³²	2013, Senegal, West	60	Age (years): 70.5±54.6 Male gender: 52% Hypertension: 20% SBP (mmHg): 167 ± 78 DBP (mmHg): 95 ± 55 DM: 18%	no	H.scl: 30% DN: 25%
Seck S ³³	2008, Senegal, West	118	Age (years): 39.28±16.4 Male gender: 56% SBP (mmHg): 160±15 DBP (mmHg): 90±15	yes	Ch.GN: 35% Vascular nephropathy: 20.2% Tub.int: 12% DN: 10.5% PKD: 4.2% Autoimmune: 4.2% Neoplasm: 1.6% H.scl: 0.8% Undetermined: 11.5%
Bourquia A ³⁴	2002, Morocco, North	420	Age (years): 46±3 Male gender: 52%	no	PKD: 6.5%
Ouattara B ³⁵	2011, Ivory Coast, West	301	Age (years): 44±10 Male gender: 56% Hypertension: 33.5% DM: 12.3%	no	Nephroangiosclerosis:25.2% HIV nephropathy:17% Interstitial nephritis: 10.3% DN: 9.6% Ch.GN: 6.6% PKD:2.3% Undetermined: 29.2%
Lengani A ³⁶	1997, Burkina Faso, West	174	Age (years): 36±15 Male gender: 63% Hypertension: 64.9%	no	Ch.GN: 42.5% Vascular nephropathy: 23.6% Tub.int: 16.1% PKD: 1% Undetermined: 16.8%
Afifi A ³⁷	2005, Egypt, North	220	Not known	no	DN: 28.2% H.scl: 25.5% Obstructive uropathy: 13.5% Cystitis: 6.8% Simple cyst: 4.5% Undetermined: 29.5%
Diouf B ³⁸	2000, Senegal, West	261	Age (years): 44(range:15-88) Male gender: 46%	no	Nephroangiosclerosis: 25% DN: 20.5% Ch.GN: 15% Undetermined : 34%
Niang A ³⁹	2008, Senegal, West	258	Age (years): 28 (range:15-79) Male gender: 75% Hypertension: 12.2%	yes	FSGS: 52% MGN: 12% Minimal change diseases: 7.7%
Sabi K ⁴⁰	2011, Togo, West	398	Age (years): mean: 42.6	not	Ch.GN: 40.2%

			Male gender: 57%	known	Tub.int: 20.9% Nephroangiosclerosis: 17.6%
Ulasi I ⁴¹	2010, Nigeria, West	1538	Age (years): 42.55±15.43 Male gender: 65% Hypertension: 17.2% DM: 11.8%	yes	H.scl: 17.2% Ch.GN:14.6% DN:11.8% Undetermined:51.6% Others: 4.6%
AbdErrahim E ⁴²	2001, Tunis, North	1471	Age (years): 38.3±14.6 Male gender: 69%	no	DN: 20.3%
Abdou N ⁴³	2003, Senegal, West	115	Age (years): 28 (IQR:5-60) Male gender: 56%	yes	FSGS: 46.9% MGN:8.7% Minimal change disease:6.1% Endocapillary GN: 2.6% Mesangioproliferative: 1.7% Extracapillary GN:1.7% IgA nephropathy:1.7% SLE: 13% H.scl: 2% Undetermined: 7% Others:11%
Afifi A ⁴⁴	2004, Egypt, North	3172	Age (years): 56.5±29.2	yes	DN: 14.5%
Afifi A ⁴⁵	1999, Egypt, North	4905	Age (years): 45.6±14.2 Male gender: 62.4%	yes	H.scl: 28% Ch.GN: 16.2% Obstructive uropathy: 15% DN: 8.9% PKD: 3% Undetermined: 16.2%
Agaba E ⁴⁶	2009, Nigeria, West	130	Age (years): 41±16 Male gender: 68%	no	Ch.GN: 39% H.scl: 34.6% DN: 11.8% PKD: 6.9% Undetermined: 7.7%
Alashek W ⁴⁷	2012, Libya, North	2417	Age (years): 49 (range: 36-61) Male gender: 58%	no	DN: 26.5% Ch.GN: 21.2% H.scl: 14.6% Congenital and hereditary: 12.3% PKD: 6.3% Obstructive uropathy: 5% Chronic pyelonephritis: 2% Interstitial nephritis: 1.2% Autoimmune disease: 0.7% Other: 2.9% undetermined: 7.3%
Alasia D ⁴⁸	2012, Nigeria, West	320	Age (years): 46.2±17.6 Male gender: 63% SBP (mmHg): 171.2±31.9 DBP(mmHg): 102.5±27.4	yes	Ch.GN: 45.7% H.scl: 29.8% DN: 17.5% PKD: 3% Obstructive uropathy: 2% Undetermined: 2%
Alebiosu C ⁴⁹	2006, Nigeria, West	153	Age (years): 39.6±14.8 Male gender: 59% Hypertension: 38.5% SBP (mmHg): 167.3±15.5 DBP (mmHg): 106±28.9 DM: 13.1%	no	Ch.GN: 41.2% H.scl: 26.1% DN: 13.1%

Amira C ⁵⁰	2012, Nigeria, West	201	Age (years): 47.5±15.7 Male gender: 56.2 Hypertension: 42.8% DM: 13.4%	no	H.scl: 42.8% Ch.GN: 15.9% Obstructive uropathy: 14.9% DN: 13.4% PKD: 1% SLE: 1% Sickle cell nephropathy: 1% Analgesic nephropathy:0.5% Undetermined : 9.5%
Arogundade F ⁵¹	2011, Nigeria, West	760	Age(years): 36 (range:15-90) Male gender: 70.3% Hypertension: 72.4% SBP (mmHg): 160 (range:120 – 270) DBP (mmHg): 100 (range:50 – 209)	no	Ch. GN: 43.7% H.scl: 31.1% Obstructive uropathy: 6.7% DN: 3.7% Tub.int: 2.2% PKD: 0.7% Undetermined : 12%
Counil É ⁵²	2008, Tunis, North	6397	Age (years): 51.4±18.0 Male gender: 56.5%	no	DN: 35% H.scl: 25.3% Tub.int: 19.7% Ch.GN: 13% PKD: 2.2% Undetermined:52.8%
Chijioke A ⁵³	2012 , Nigeria ,West	116	Age (years): Male: 50.89±13.43 and Female: 48.22±14.70 Male gender: 61.2% SBP(mmHg): 153.41±27.12 DBP (mmHg): 93.92±17.19	no	H.scl:52.58% Ch.GN: 17.2% Tub.int: 17.1% PKD: 4.3% DN: 2.6% Chronic pyelonephritis: 2.6% Obstructive uropathy:1.7% Undetermined: 1.9%
Madala N ⁵⁴	2014, South Africa, South	302	Age (years): 47.1±17.0 Male gender: 45% SBP (mmHg): (male) 144.6 ± 28.3. (female)141.1 ± 25.5 DBP(mmHg): (male)84.2 ± 18.1. (female)81.0 ± 19.0	yes	H.scl: 75.2% DN: 29.8% HIV nephropathy: 28.6% Ch.GN: 7% Tub.int:6% Undetermined: 6%
Okpechi I ⁵⁵	2013, South Africa, South	111	Age (years): 66.3 ± 5.7 Male gender: 47.7% Hypertension: 71% DM: 19.8%	yes	MGN: 14.4% Mesangioproliferative GN:8.1% Crescentic GN: 7.2% Mesangiocapillary GN: 3.6% Post infectious GN: 2.7% FSGS:1.8% IgAN nephropathy: 0.9% DN:12.6% Ch.GN: 5.4% SLE: 4.5% H.scl: 3.6% Amyloidosis: 2.7% Myeloma: 2.7% Crescentic GN: 1.8% HIV nephropathy:0.9% Thrombocytopenic purpura:0.9% Hemolytic uremic: 0.9% Tub.int: 17.2% Miscellaneous: 8.1%

Laleye A ⁵⁶	2012, Benin, West	3783	Age (years): 47.2 (range:29 - 70) Male gender: 24% Hypertension: 59%	no	PKD: 1.8%
Okunola Y ⁵⁷	2013, Nigeria, West	300	Age (years): 49 ±16.25 Male gender: 68%	no	H.Scl: 38.8% Ch.GN: 28.8% DN:22.5% PKD:2.7% SLE: 1.1% Undetermined: 6.1%
Bello B ⁵⁸	2013, Nigeria, West	120	Age (years): 47 + 14 Male gender: 60% SBP(mmHg): 162 ± 32 DBP(mmHg): 94.9 ± 19.6	yes	H.scl: 45% Ch.GN: 15.8% DN: 12.5% Obstructive uropathy : 12.5% PKD: 3.3% Ch. Pyelonephritis: 2.5% SLE: 1.7% Analgesic nephropathy: 1.7% Sickle cell nephropathy: 1.7% Toxic nephropathy: 0.8% Undetermined: 2.5%
El-Minshawy O ⁵⁹	2011, Egypt, North	800	Age(years): 46 ± 13 Male gender: 65%	no	H.scl: 20% Obstructive uropathy: 15% Ch.GN: 11% SLE: 9% DN: 8% Analgesic nephropathy: 5% Chronic pyelonephritis: 5% Undetermined: 27%
Okpechi I ⁶⁰	2010, South Africa, South	294	Age (years): 33.9 ± 12.0 Male gender: 45.2% Hypertension:39.8%	yes	Crescentic GN: 5% Ch GN: 15.7% FSGS: 15.7% IgA nephropathy: 1.7% Minimal change disease: 6.6% Mesangiocapillary GN: 19% MGN: 14.9% Mesangial proliferative GN: 12.4% Postinfectious GN : 9% HIV nephropathy: 42.8% SLE: 13.3% DN: 9.2% MGN: 6.9% Ch.GN: 5.85% Mesnagiocapillary: 4.6% Others: 17.4%
Madala N ⁶¹	2012, South Africa, South	148	Age(years): 41.4 ± 13.1 Male gender: 37.2% SBP (mmHg): African (133.6 ± 20.2). Indian (130.1 ± 20.6) DBP (mmHg): African:(133.6 ± 20.2). Indian (130.1 ± 20.6)	no	Ch.GN: 39.2% H.scl: 34.4% DN: 7.4% PKD:6.8% Undetermined: 3.4%
El Farouki M ⁶²	2013, Morocco, North	207	Age (years): 52.43 ± 15.48 Male gender: 64.3% Hypertension: 73.9% DM:41.5%	no	DN: 41.5% Ch.GN: 16% Tub.int: 14% H.scl: 12%

					PKD: 1% Undetermined: 15.5%
Okpechi I ⁶³	2011, South Africa, South	1284	Age (years): 36.8 ±14.0 Male gender: 45.2%	yes	Mesangiocapillary: 20.4% Mesangioproliferative: 19.2% MGN: 18.5% Crescentic GN: 11.4% FSGS: 10.5% Post infectious: 8.2% Minimal change: 6% IgA nephropathy: 5.8% SLE: 19% Infection related: 15% Vascular causes: 9% Hereditary: 6% Undetermined: 3.5%
Niang A ⁶⁴	2014, Senegal, West	62	Age (years): 47 ± 13 Male gender: 55%	no	Nephrosclerosis: 40.3% Ch.GN: 21% DN: 19.4% PKD: 3.2% Tub.int: 1.6% Undetermined: 14.5%
Buargub M ⁶⁵	2008, Libya, North	124	Age (years): 47.4±15 Male gender: 62%	no	DN: 27.4% H.scl: 10.5% Ch.GN: 8% Nephrolithiasis: 7.3% Amyloidosis: 6.8% Chronic interstitial nephritis: 6.4% PKD: 4% Ischemic : 3.2% SLE: 0.8% Familial: 0.8% Undetermined: 30.6%
Chijioke A ⁶⁶	2010, Nigeria, West	436	Age (years): 47.4 ± 16.2 Male gender: 57%	no	PKD: 15.4%
Elsharif M ⁶⁷	2011, Sudan, East	224	Age (years): 45.78± 17.16 Male gender: 67.8%	yes	H.sclerosis: 14.29% Obstructive uropathy: 11.61% Ch.GN: 9.8% DN: 8.04% Anaglesic nephropathy: 1.34% Renovascular: 0.45% PKD: 0.9% Undetermined: 53.57%
Elkhatib M ⁶⁸	2012, Egypt, North	437	Age (years): 89% <50 years. 8.5% 50–60 years and 3% > 50 years Male gender: 52%	yes	SLE: 24.7% MGN: 10.9% FSGS: 6.8% Mesangiocapillary GN: 6.7% Acute interstitial nephritis: 6.25% Membranous nephropathy: 5.4% Crescentic GN: 5.4% Chronic interstitial nephritis: 4.5% Minimal change disease: 3.8% focal proliferative GN: 3.6% Amyloidosis: 2.7% Nephrosclerosis: 1.13% Undetermined: 3.6%

Ibrahim S ⁶⁹	2012, Egypt, North	924	Age (years): 26.5 ± 14.6 years Male gender: 47%	yes	FSGS: 28.57% mesangioproliferative GN: 20.02% MGN : 14% Minimal change disease: 8.55% Amyloidosis: 5.52% Diffuse proliferative GN: 5.20% Focal proliferative GN: 3.68% DN:0.22%
Ayach G ⁷⁰	2011, Morocco, North	386	Age (years): 19 (IQR:12-25) Male gender: 61%	yes	MGN :79.20% FSGS: 9.10% Extramembranous glomerulonephritis:9.10% Renal amyloidosis: 2.6%.
Ramilitiana B ⁷¹	2016, Madagascar, East	239	Age (years): 45.5(range: 16-82) Male gender: 40% Diabetes mellitus: 12.6%	No	Ch.GN: 40.1% H.Scl: 35.6% DN:12.6% Tub.int: 10.46%
Zajjari Y ⁷²	2012, Morocco, North	16	Age (years): 60 (47-79) Male gender: 81.3% Hypertension: 56.3%	Yes	DN: 25%

Tub. Int: tubulo-interstitial, DN: diabetic nephropathy, H. Scl: hypertensive sclerosis, Ch. GN: chronic glomerulonephritis, PKD: polycystic kidney disease, DM: diabetes mellitus, SLE: sytemic lupus erthmatosus , FSGS: focal segemental glomerulosclerosis, MGN: membaronus gloemrulonephritis