

## **Supplemental Material**

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Supplemental Table 1. Patient characteristics and comparisons for all groups (2 risk allele, 1 risk allele, 0 risk alleles and non-Black patients).

	Black Patients with MN			Non-Black Patients
	2 <i>APOL1</i> Risk Alleles	1 <i>APOL1</i> Risk Alleles	0 <i>APOL1</i> Risk Alleles	
	n=16	n=49	n=53	n=573
Age at diagnosis (years), Median(IQR)	41(34, 51)	52(37, 58)	44(34, 57)	50(37, 62)
Female Sex n(%)	9(56%)	30(61%)	28(53%)	211(37%)
Follow-up time(mo), Median(IQR)	44(27, 121)	54(31, 82)	48(25, 78)	52(32, 79)
eGFR at diagnosis, mL/min/1.73m <sup>2</sup> , Median(IQR)	83.2(59.3, 100.4)	78(60.1, 100.2)	82 (51.8, 115.8)	84.5(59.4, 103.7)
Kidney Failure n(%)	5(31.25%)	5(10.2%)	6(11.32%)	31(5.41%)
Dialysis	4(25%)	4(8.16%)	5(9.43%)	22(3.84%)
Transplant	2(12.5%)	0(0.00%)	2(3.77%)	7(1.22%)
GFR<15	0(0.00%)	1(2.04%)	0(0.00%)	4(0.7%)
Death (n, %)	1(6.25%)	1(2.04%)	1(1.89%)	10(1.75%)
*comparing Black patients with 2, 1 or 0 <i>APOL1</i> Risk Alleles				
**comparing non-black patients, 2, 1, 0 <i>APOL1</i> Risk Alleles				

Supplemental Table 2. Kidney Biopsy Findings

	<b>2 APOL1 Risk Alleles (n=7)</b>	<b>1 APOL1 Risk Alleles (n=23)</b>	<b>0 APOL1 Risk Alleles (n=16)</b>
<b>Total number of glomeruli per sample (median, IQR)</b>	8(6.0, 22.0)	18(13.0, 24.0)	24(18.5, 34.5)
<b>Cases with global glomerular sclerosis, n (%)</b>	5(71%)	16(70%)	10(63%)
<b>Mean degree of global sclerosis (0-4+)</b>	1.6	0.9	0.9
<b>Cases with capillary wall changes seen with arterionephrosclerosis, n (%)</b>	4 (57%)	12 (52%)	8 (50%)
<b>Cases with Segmental glomerular sclerosis lesions present, n (%)</b>	5(71%)	11(48%)	6 (38%)
<b>Cases with diagnostic FSGS lesions present, n (%)</b>	5(71%)	11(48%)	5(31%)
NOS = all others	3(43%)	5(22%)	1(6%)
Perihilar = ≥50% of segmental lesions perihilar	1(14%)	1(4%)	0(0.0%)
Tip = tip lesion with no collapsing or perihilar lesions	0(0.0%)	5(22%)	4(25%)
Collapsing	1(14%)	0(0.0%)	0(0.0%)
<b>Cases with Interstitial fibrosis &amp; tubular atrophy (IFTA) present, n (%)</b>	7(100%)	16(70%)	11(69%)
<b>Mean degree of IFTA (0-4+)</b>	2.0	0.9	1.1
<b>Arteriosclerosis, n (%)</b>			
Intima with fibrosis <25% the thickness of the media	1(14%)	13(57%)	10(63%)
Intima with fibrosis ≥25% the thickness of the media	4(57%)	8(35%)	5(31%)
Not technically adequate for scoring	2(29%)	2(9%)	1(6%)
<b>Mean degree of arteriosclerosis (0-4+)</b>	2.0	1.1	1.1
<b>Arteriolar hyalinosis or arteriolosclerosis, n (%)</b>			
No arteriolar hyalinosis	2(29%)	16(70%)	8(50%)
Intima with fibrosis <25% the thickness of the media	3(43%)	3(13%)	5(31%)
Intima with fibrosis ≥25 - 50% the thickness of the media	1(14%)	3(13%)	2(13%)
Not technically adequate for scoring	1(14%)	1(4%)	1(6%)
<b>Mean degree of arteriolar hyalinosis (0-4+)</b>	0.8	0.4	0.7

Supplemental Table 3. eGFR slope comparisons in over follow up years

Groups comparisons		Time since disease onset (years)	Estimate	Standard error	95% CI		P value
Group1	Group2				Lower	Upper	
0 APOL1 Risk Alleles	1 APOL1 Risk Alleles	0.1	-0.9	3.8	-8.3	6.6	0.8
0 APOL1 Risk Alleles	2 APOL1 Risk Alleles	0.1	5.5	5.8	-5.9	16.9	0.3
0 APOL1 Risk Alleles	Non-Black Patients	0.1	4.1	2.8	-1.4	9.6	0.1
1 APOL1 Risk Alleles	2 APOL1 Risk Alleles	0.1	6.4	5.8	-5.1	17.8	0.3
1 APOL1 Risk Alleles	Non-Black Patients	0.1	5.0	2.9	-0.7	10.6	0.1
2 APOL1 Risk Alleles	Non-Black Patients	0.1	-1.4	5.3	-11.7	8.8	0.8
0 APOL1 Risk Alleles	1 APOL1 Risk Alleles	0.3	-1.0	3.8	-8.4	6.4	0.8
0 APOL1 Risk Alleles	2 APOL1 Risk Alleles	0.3	6.9	5.7	-4.3	18.2	0.2
0 APOL1 Risk Alleles	Non-Black Patients	0.3	3.8	2.8	-1.6	9.3	0.2
1 APOL1 Risk Alleles	2 APOL1 Risk Alleles	0.3	7.9	5.8	-3.4	19.2	0.2
1 APOL1 Risk Alleles	Non-Black Patients	0.3	4.8	2.9	-0.8	10.4	0.1
2 APOL1 Risk Alleles	Non-Black Patients	0.3	-3.1	5.2	-13.3	7.1	0.5
0 APOL1 Risk Alleles	1 APOL1 Risk Alleles	0.5	-1.3	3.7	-8.6	6.0	0.7
0 APOL1 Risk Alleles	2 APOL1 Risk Alleles	0.5	9.8	5.6	-1.2	20.9	0.1
0 APOL1 Risk Alleles	Non-Black Patients	0.5	3.3	2.7	-2.1	8.7	0.2
1 APOL1 Risk Alleles	2 APOL1 Risk Alleles	0.5	11.1	5.7	0.0	22.3	0.1
1 APOL1 Risk Alleles	Non-Black Patients	0.5	4.6	2.8	-0.9	10.1	0.1
2 APOL1 Risk Alleles	Non-Black Patients	0.5	-6.5	5.1	-16.5	3.4	0.2
0 APOL1 Risk Alleles	1 APOL1 Risk Alleles	1.0	-1.8	3.8	-9.2	5.5	0.6
0 APOL1 Risk Alleles	2 APOL1 Risk Alleles	1.0	15.7	5.7	4.6	26.9	0.0
0 APOL1 Risk Alleles	Non-Black Patients	1.0	2.3	2.8	-3.1	7.7	0.4
1 APOL1 Risk Alleles	2 APOL1 Risk Alleles	1.0	17.5	5.7	6.3	28.8	0.0
1 APOL1 Risk Alleles	Non-Black Patients	1.0	4.1	2.8	-1.5	9.7	0.1
2 APOL1 Risk Alleles	Non-Black Patients	1.0	-13.4	5.1	-23.5	-3.4	0.0
0 APOL1 Risk Alleles	1 APOL1 Risk Alleles	2.0	-2.9	4.3	-11.4	5.6	0.5
0 APOL1 Risk Alleles	2 APOL1 Risk Alleles	2.0	27.4	6.7	14.3	40.5	<.0001
0 APOL1 Risk Alleles	Non-Black Patients	2.0	0.2	3.2	-6.0	6.5	0.9
1 APOL1 Risk Alleles	2 APOL1 Risk Alleles	2.0	30.3	6.7	17.2	43.5	<.0001
1 APOL1 Risk Alleles	Non-Black Patients	2.0	3.1	3.3	-3.2	9.5	0.3
2 APOL1 Risk Alleles	Non-Black Patients	2.0	-27.2	6.0	-39.0	-15.4	<.0001
0 APOL1 Risk Alleles	1 APOL1 Risk Alleles	4.0	-5.1	6.6	-18.1	7.9	0.4
0 APOL1 Risk Alleles	2 APOL1 Risk Alleles	4.0	50.9	10.6	30.0	71.7	<.0001
0 APOL1 Risk Alleles	Non-Black Patients	4.0	-3.9	4.9	-13.6	5.8	0.4
1 APOL1 Risk Alleles	2 APOL1 Risk Alleles	4.0	56.0	10.6	35.2	76.8	<.0001
1 APOL1 Risk Alleles	Non-Black Patients	4.0	1.2	4.9	-8.5	10.9	0.8
2 APOL1 Risk Alleles	Non-Black Patients	4.0	-54.8	9.6	-73.7	-35.9	<.0001
0 APOL1 Risk Alleles	1 APOL1 Risk Alleles	8.0	-9.5	12.6	-34.2	15.3	0.5
0 APOL1 Risk Alleles	Non-Black Patients	8.0	-12.1	9.5	-30.7	6.4	0.2
1 APOL1 Risk Alleles	Non-Black Patients	8.0	-2.7	9.3	-20.9	15.6	0.8
0 APOL1 Risk Alleles	1 APOL1 Risk Alleles	16.0	-18.2	25.4	-68.0	31.6	0.5
0 APOL1 Risk Alleles	Non-Black Patients	16.0	-28.6	19.1	-66.0	8.8	0.1
1 APOL1 Risk Alleles	Non-Black Patients	16.0	-10.4	18.8	-47.2	26.4	0.6

Supplemental Table 4. Unadjusted and adjusted eGFR slopes.

	Model 0:	Model 1:	Model 2:	Model 3:	Model 4:
Risk Groups	unadjusted	adjusted by age*	adjusted by sex	adjusted by baseline eGFR*	adjusted by age*, sex & eGFR*
2 APOL1 Risk alleles (n=16)	-15.9(2.5)	-15.9(2.5)	-15.9(2.5)	-15.8(2.4)	-15.6 (2.4)
1 APOL1 Risk alleles (n=53)	-2.8(1.2)	-2.8(1.2)	-2.8(1.2)	-3.0(1.1)	-3.0(1.1)
0 APOL1 Risk alleles (n=49)	-4.2(1.2)	-4.2(1.2)	-4.2(1.2)	-4.1(1.2)	-4.0(1.2)
Non-Black MN (n=572)	-2.0(0.4)	-2.0(0.4)	-2.0(0.4)	-2.0(0.4)	-2.0(0.4)

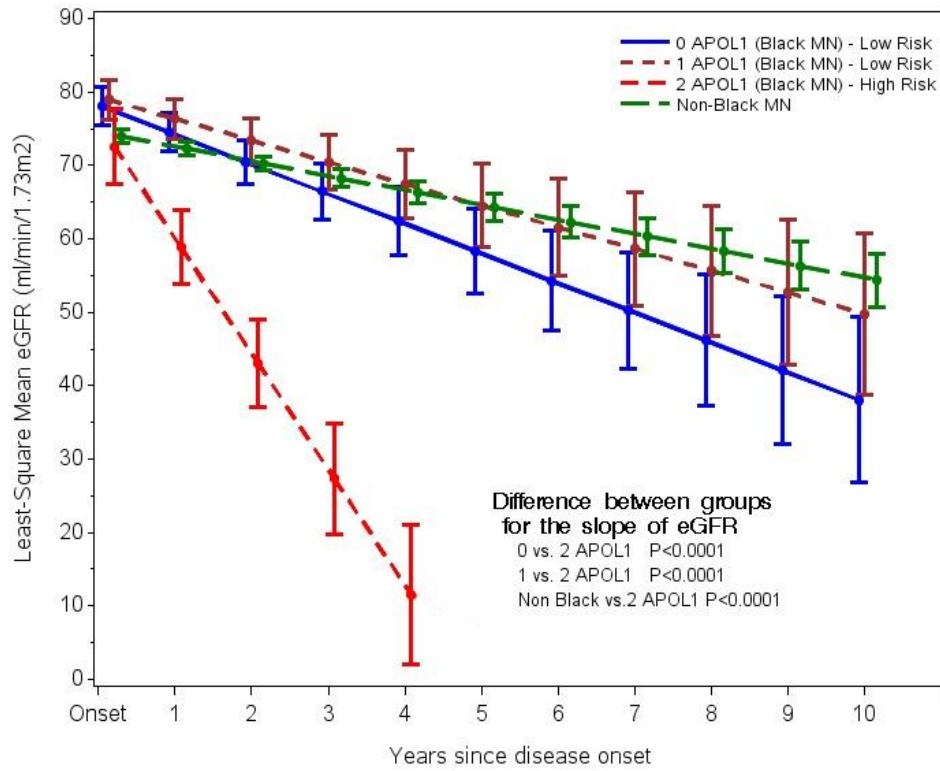
Supplemental Table 5. Hazard ratio for risk of kidney failure.

	Model 0:	Model 1:	Model 2:	Model 3:	Model 4:
HR for ESKD	Unadjusted	Adjusted by age*	Adjusted by sex	Adjusted by eGFR*	Adjusted by age*, sex & eGFR*
APOL1 2 vs 0	1.7(0.5, 6.0)	1.7(0.5, 6.2)	1.8 (0.5, 6.3)	2.8(0.7, 11.8)	3.4(0.8, 14.6)
APOL1 2 vs 1	1.9(0.5, 7.3)	2.0(0.5, 7.7)	1.9(0.5, 7.2)	3.0(0.7, 12.5)	3.5(0.8, 14.9)
APOL1 2 vs Non Black	3.8 (1.4, 10.8)	4.0(1.4, 11.4)	4.2(1.5, 12.0)	7.2(2.1, 24.8)	8.1(2.3, 27.8)
APOL1 0 vs Non Black	2.3(0.9, 5.4)	2.3 (1.0, 5.6)	2.4(1.0, 5.7)	2.6 (1.0, 6.9)	2.4(0.9, 6.5)
APOL1 1 vs Non Black	2.0(0.8, 5.1)	2.0 (0.8, 5.1)	2.2 (0.8, 5.8)	2.5(0.9, 6.6)	2.3(0.9, 6.3)
APOL1 1 vs 0	1.1(0.4, 3.8)	1.2(0.4, 3.8)	0.6(0.2 2.0)	11(0.3, 3.7)	1.0(0.3, 3.5)

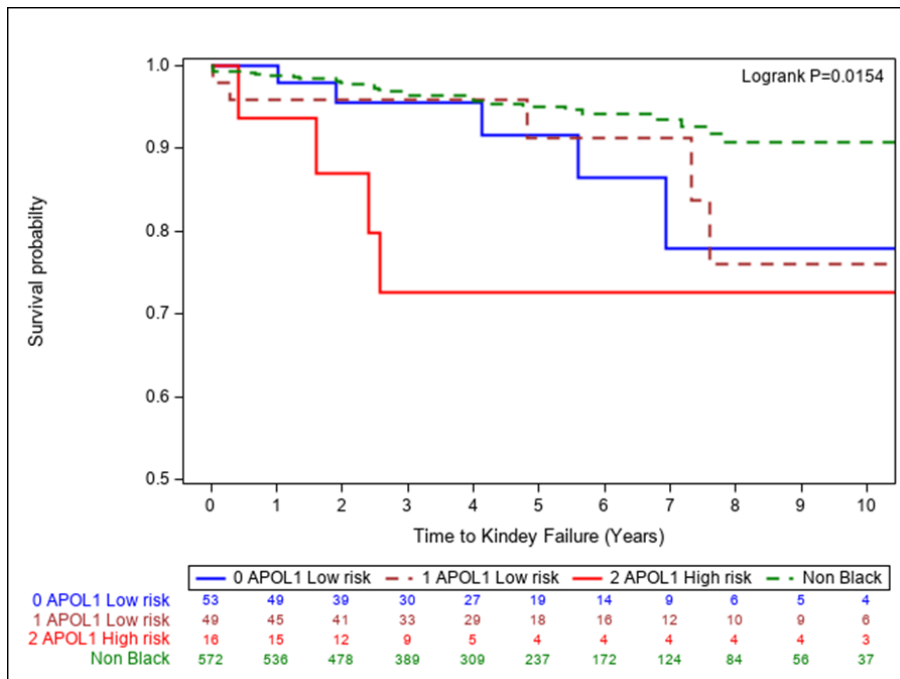
Supplemental Table 6. Clinical characteristics of CureGN and GDCN Cohorts.

	CureGN Cohort	GDCN Cohort
Total n	N=525	N=165
Age at disease Onset, median (IQR)	51(36, 62)	47.3(37, 56)
Sex, female (n, %)	208(40%)	70(42%)
Black race (n, %)	68(13%)	50(31%)

Supplemental Figure 1. eGFR slope for all groups (LS mean and SE shown)



Supplemental Figure 2. Kidney Survival in patients with MN by all groups (2 risk allele, 1 risk allele, 0 risk alleles and 3 (non- Black patients))



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