Figure S19. Odds ratios of laboratory abnormalities in CKD (top panels) and general population and high risk cohorts (bottom panels)

Chronic Kidney Disease

Anemia

eGFR	A1	A2	A3
>90			
75-89			
60-74	0.66 (0.58, 0.74)	0.76 (0.59, 0.98)	1.03 (0.82, 1.29)
45-59	1.00 (Ref)	1.11 (0.99, 1.25)	1.43 (1.17, 1.76)
20-44	2.10 (1.98, 2.23)	2.08 (1.85, 2.35)	2.36 (2.13, 2.62)
15-29	5.09 (4.41, 5.87)	4.94 (4.18, 5.83)	6.34 (5.49, 7.31)

Hyperkalemia

eGFR	A1	A2	A3
>90			
75-89			
60-74	0.61 (0.58, 0.64)	0.84 (0.69, 1.03)	1.01 (0.73, 1.39)
45-59	1.00 (Ref)	1.12 (1.00, 1.26)	1.30 (1.07, 1.58)
20-44	1.82 (1.60, 2.09)	2.31 (1.94, 2.75)	2.32 (2.04, 2.63)
15-29	3.49 (2.99, 4.07)	3.49 (2.83, 4.31)	3.69 (3.01, 4.52)

Acidosis

eGFR	A1	A2	A3
>90			
75-89			
60-74	0.72 (0.67, 0.77)	1.20 (0.98, 1.47)	1.07 (0.76, 1.51)
45-59	1.00 (Ref)	1.53 (1.16, 2.01)	1.73 (1.24, 2.41)
20-44	2.11 (1.97, 2.27)	3.25 (2.76, 3.84)	2.94 (2.36, 3.67)
15-29	5.78 (4.46, 7.50)	8.09 (5.83, 11.21)	8.37 (6.48, 10.83)

Hyperparathyroidism

eGFR	A1	A2	A3
>90			
75-89			
60-74	0.62 (0.50, 0.77)	0.81 (0.66, 0.99)	0.63 (0.52, 0.78)
45-59	1.00 (Ref)	1.11 (0.99, 1.24)	1.26 (0.98, 1.62)
20-44	2.44 (2.06, 2.88)	2.90 (2.27, 3.71)	3.23 (2.67, 3.92)
15-29	4.39 (3.35, 5.75)	6.44 (4.92, 8.43)	10.15 (7.67, 13.45)

Hyperphosphatemia

eGFR	A1	A2	A3
>90			
75-89			
60-74	0.80 (0.69, 0.93)	1.04 (0.55, 1.95)	1.24 (0.91, 1.69)
45-59	1.00 (Ref)	1.06 (0.99, 1.13)	1.64 (1.14, 2.36)
20-44	1.72 (1.48, 2.01)	1.78 (1.48, 2.13)	2.40 (2.05, 2.80)
15-29	8.46 (6.83, 10.49)	7.61 (5.44, 10.65)	10.89 (8.10, 14.65)

Hypocalcemia

eGFR	A1	A2	A3
>90			
75-89			
60-74	0.95 (0.73, 1.23)	1.00 (0.62, 1.63)	0.83 (0.63, 1.08)
45-59	1.00 (Ref)	1.14 (0.88, 1.46)	0.87 (0.68, 1.10)
20-44	1.40 (1.22, 1.60)	1.58 (1.11, 2.26)	1.12 (0.81, 1.54)
15-29	3.34 (2.72, 4.10)	3.86 (2.79, 5.34)	3.16 (2.31, 4.32)

General Population and High Risk

Anemia

eGFR	A1	A2	A3
>90	0.47 (0.38, 0.57)	0.57 (0.47, 0.69)	0.80 (0.69, 0.92)
75-89	0.43 (0.37, 0.51)	0.62 (0.54, 0.71)	0.88 (0.74, 1.04)
60-74	0.55 (0.51, 0.61)	0.83 (0.75, 0.92)	1.12 (0.97, 1.29)
45-59	1.00 (Ref)	1.34 (1.23, 1.47)	1.93 (1.66, 2.26)
20-44	2.26 (1.99, 2.57)	2.74 (2.31, 3.25)	4.00 (3.21, 4.99)
15-29	6.94 (4.83, 9.98)	8.22 (5.61, 12.04)	12.54 (8.29, 18.99)

Hyperkalemia

eGFR	A1	A2	A3
>90	0.26 (0.17, 0.38)	0.36 (0.26, 0.50)	0.35 (0.23, 0.53)
75-89	0.34 (0.24, 0.47)	0.48 (0.38, 0.61)	0.43 (0.31, 0.59)
60-74	0.51 (0.41, 0.65)	0.68 (0.50, 0.91)	0.81 (0.65, 1.01)
45-59	1.00 (Ref)	1.09 (0.92, 1.28)	1.38 (1.04, 1.83)
20-44	1.94 (1.46, 2.58)	2.30 (1.85, 2.86)	2.46 (1.91, 3.16)
15-29	3.91 (2.46, 6.20)	4.33 (3.17, 5.92)	5.42 (3.75, 7.82)

Acidosis

eGFR	A1	A2	A3
>90	0.46 (0.33, 0.65)	0.58 (0.38, 0.89)	0.34 (0.20, 0.58)
75-89	0.55 (0.44, 0.68)	0.62 (0.33, 1.17)	0.56 (0.36, 0.88)
60-74	0.66 (0.56, 0.77)	0.79 (0.62, 0.99)	1.09 (0.79, 1.49)
45-59	1.00 (Ref)	1.44 (1.15, 1.81)	1.82 (1.45, 2.27)
20-44	2.15 (1.83, 2.52)	3.43 (2.78, 4.25)	3.12 (2.59, 3.75)
15-29	4.11 (3.26, 5.18)	7.05 (4.64, 10.72)	7.13 (5.16, 9.86)

Hyperparathyroidism

eGFR	A1	A2	A3
>90	0.47 (0.32, 0.71)	0.68 (0.57, 0.80)	0.76 (0.39, 1.48)
75-89	0.46 (0.32, 0.67)	0.66 (0.46, 0.94)	0.59 (0.31, 1.10)
60-74	0.62 (0.46, 0.84)	0.95 (0.67, 1.35)	0.88 (0.68, 1.14)
45-59	1.00 (Ref)	1.46 (1.11, 1.92)	1.83 (1.48, 2.26)
20-44	2.11 (1.79, 2.49)	3.07 (1.64, 5.75)	4.80 (3.87, 5.95)
15-29	5.04 (2.95, 8.62)	11.16 (7.81, 15.96)	21.27 (15.74, 28.74)

Hyperphosphatemia

eGFR	A1	A2	A3
>90	0.56 (0.42, 0.75)	0.55 (0.47, 0.64)	0.68 (0.53, 0.87)
75-89	0.66 (0.53, 0.81)	0.69 (0.59, 0.80)	0.75 (0.52, 1.09)
60-74	0.82 (0.70, 0.95)	0.87 (0.74, 1.02)	0.87 (0.56, 1.33)
45-59	1.00 (Ref)	1.04 (0.86, 1.26)	1.12 (0.81, 1.55)
20-44	1.81 (1.54, 2.12)	1.31 (0.95, 1.82)	1.68 (1.09, 2.60)
15-29	6.76 (5.42, 8.42)	4.52 (2.55, 8.00)	6.43 (3.70, 11.18)

Hypocalcemia

eGFR	A1	A2	A3
>90	1.99 (1.10, 3.59)	1.79 (1.04, 3.07)	1.80 (0.88, 3.66)
75-89	1.45 (1.03, 2.04)	1.22 (0.90, 1.64)	1.11 (0.75, 1.65)
60-74	1.17 (0.96, 1.43)	1.21 (0.88, 1.67)	0.88 (0.67, 1.15)
45-59	1.00 (Ref)	1.00 (0.80, 1.25)	0.77 (0.60, 0.99)
20-44	1.05 (0.68, 1.62)	1.48 (0.79, 2.78)	1.12 (0.46, 2.72)
15-29	2.31 (1.37, 3.92)	3.09 (1.47, 6.47)	2.91 (1.17, 7.25)

Adjustment was to 60 years old, half male, non-black, 30% diabetes, 20% history of CVD, 40% ever smoker, SPB 130 mmHg, BMI 30kg/m^2, stage A1, eGFR 50

Bold font indicates statistical significance (p<0.05). Color coding is based on odds ratio quartile within each abnormality.

Definitions of each abnormality are as follows: Anemia: Hgb: male<13 g/dL, female<12 g/dL; Hct: male<39%, female<36%. Hyperkalemia: potassium >5 mmol/L. Acidosis: bicarbonate <22 mmol/L. Hyperparathyroidism: intact PTH >65 pg/mL. Hyperphosphatemia: phosphorus >4.5 mg/dL. Hypocalcemia: corrected calcium <8.5 mg/dL.