

Supplement

Text S1. Recalculation of Creatinine

Estimated glomerular filtration rate (eGFR, ml/min/1.73m²) values at ULMC are calculated on the basis of the CKI-EPI equations [17] (using SCr in µmol/L) for a predominantly non-black cohort thus:

Sex-specific knot mg/dL (µmol/L)	Equation
Females ≤ 0.7 (62)	$\text{eGFR} = 144 \times (\text{SCr}/0.7)^{-0.329} \times (0.993)^{\text{Age}}$
Females > 0.7 (62)	$\text{eGFR} = 144 \times (\text{SCr}/0.7)^{-1.209} \times (0.993)^{\text{Age}}$
Males ≤ 0.9 (80)	$\text{eGFR} = 141 \times (\text{SCr}/0.9)^{-0.411} \times (0.993)^{\text{Age}}$
Males > 0.9 (80)	$\text{eGFR} = 141 \times (\text{SCr}/0.9)^{-1.209} \times (0.993)^{\text{Age}}$

For the reverse action, the inference of serum creatinine (SCr) from eGFR, we rearranged the equations to the following while retaining the original grouping below and at/above the sex-specific knot, respectively. The factors 0.9 (instead of 0.7), 141 (instead of 144), and -0.411 (instead of -0.329) are needed to transform a “female” SCr into “male” SCr via the original eGFR. The recalculation of males into younger individuals was achieved by setting the variable Age to 30.

Below/at sex-specific knot	$\text{SCr} = e^{\left(\ln \left(\text{eGFR}/141/0.993 \right)^{\text{Age}} / (-0.411) \right)} \times 0.9 \times 88.42$
above sex-specific knot	$\text{SCr} = e^{\left(\ln \left(\text{eGFR}/141/0.993 \right)^{\text{Age}} / (-1.209) \right)} \times 0.9 \times 88.42$

Table S1. Comparison of progressive and non-progressive cases at first AKI detection during hospitalization in females and males. Variables are given as medians [interquartile range] or percentages. Significant *p*-Values (< 0.05) highlighted as bold.

	Female			Male		
	Progressive AKI	Non-progressive AKI	<i>p</i> -Value	Progressive AKI	Non-progressive AKI	<i>p</i> -Value
Incidence proportion, n, %	554, 22.0	2514, 78.0		904, 25.0	3620, 75.0	
Basic patient characteristics						
Age (years)	70.7 [59.0–79.5]	72.4 [60.7–81.1]	0.013	66.0 [57.0–75.9]	68.0 [58.2–78.1]	0.003
Total length of hospitalization (days)	24.7 [14.2–43.1]	15.1 [8.3–27.1]	< 0.001	26.3 [14.9–42.6]	16.0 [8.2–28.3]	< 0.001
First eGFR	58.0 [36.1–85.1]	60.2 [36.0–85.5]	0.696	61.9 [37.7–88.1]	63.7 [39.7–88.2]	0.371
Last eGFR	44.9 [25.2–74.4]	54.9 [34.4–83.6]	< 0.001	58.1 [38.1–85.7]	46.0 [25.7–75.7]	< 0.001
Time to first AKI during hospitalization (days)	4.9 [1.9–11.9]	4.6 [1.9–10.6]	0.242	4.5 [1.8–9.4]	4.5 [1.9–10.0]	0.336
In-hospital mortality	45.5	16.8	< 0.001	45.0	17.5	< 0.001
Comorbidities						
I10.- Hypertension	47.7	48.3	0.823	46.9	46.2	0.750
E11.- Diabetes mellitus	31.4	31.9	0.847	35.2	34.2	0.607
E86.- Exsiccosis	6.0	4.5	0.176	3.4	4.6	0.143
R57.- Shock	37.9	12.6	< 0.001	44.3	16.8	< 0.001
I25.- Coronary heart disease	11.2	14.0	0.097	23.5	23.3	0.980
I21.- Myocardial infarction	3.4	3.2	0.869	6.2	4.5	0.046
I50.- Cardiac insufficiency	33.9	27.8	0.004	34.6	26.4	< 0.001
A41.- Sepsis	38.8	15.6	< 0.001	41.9	20.7	< 0.001
K74.- Liver cirrhosis	8.7	4.3	< 0.001	9.0	4.1	< 0.001

Table S2. Comparison of age groups with regard to AKI stages and sex. Based on common AKI cases for females and females as male.

Age group		First AKI stage during hospitalization, %, (n)			Maximum AKI stage during hospitalization, %, (n)		
		AKIN1	AKIN2	AKIN3	AKIN1	AKIN2	AKIN3
[18–41)	Female	78.2 (140)	15.1 (27)	6.7 (12)	62.6 (112)	20.1 (36)	17.3 (31)
	Female as male	74.3 (133)	14.0 (25)	11.7 (21)	59.8 (107)	13.4 (24)	26.8 (48)
[41–61)	Female	81.3 (443)	12.1 (66)	6.6 (36)	61.3 (334)	22.6 (123)	16.1 (88)
	Female as male	83.1 (453)	10.8 (59)	6.1 (33)	62.2 (339)	20.7 (113)	17.1 (93)
[61–81)	Female	82.8 (1207)	11.5 (167)	5.7 (83)	65.5 (955)	20.9 (305)	13.5 (197)
	Female as male	83.1 (1211)	10.3 (150)	6.7 (97)	65.4 (953)	18.1 (264)	16.5 (241)
[81–max]	Female	86.2 (631)	10.5 (77)	3.3 (24)	71.7 (525)	20.1 (147)	8.2 (60)
	Female as male	85.1 (622)	9.4 (69)	5.5 (40)	69.4 (507)	17.1 (125)	13.5 (99)

Table S3. Comparison of age groups regarding AKI stages and sex. Based on common AKI cases for males and males as young.

Age group		First AKI stage during hospitalization, %, (n)			Maximum AKI stage during hospitalization, %, (n)		
		AKIN1	AKIN2	AKIN3	AKIN1	AKIN2	AKIN3
[18–41)	Male	74.2 (187)	17.9 (45)	7.9 (20)	57.5 (145)	23.8 (60)	18.7 (47)
	Male as young	76.6 (193)	15.1 (38)	8.3 (21)	59.5 (150)	20.2 (51)	20.2 (51)
[41–61)	Male	79.2 (795)	12.6 (127)	8.2 (82)	56.1 (563)	21.9 (220)	22.0 (221)
	Male as young	83.7 (840)	8.5 (59)	7.9 (79)	62.1 (623)	17.1 (172)	20.8 (209)
[61–81)	Male	82.7 (1827)	10.5 (232)	6.8 (150)	64.1 (1417)	18.4 (407)	17.4 (385)
	Male as young	83.7 (1848)	5.6 (123)	10.8 (238)	66.8 (1476)	10.7 (236)	22.5 (497)
[81–max]	Male	87.0 (578)	7.5 (50)	5.4 (36)	70.0 (465)	15.5 (103)	14.5 (96)
	Male as young	82.1 (545)	2.7 (18)	15.2 (101)	64.5 (428)	7.8 (52)	27.7 (184)