**Appendix**

Supplemental Tables

Table 1: Baseline characteristics of SPRINT participants with CKD by quartile of urinary IL-18

Table 2: Baseline characteristics of SPRINT participants with CKD by CVD status during follow-up

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Table 4: Spearman correlations of urinary markers, urine creatinine, and eGFR

Table 5: Associations of urinary biomarker-creatinine ratios with CVD events among SPRINT participants with CKD

Table 6: Associations of urinary biomarker-creatinine ratios with all-cause mortality among SPRINT participants with CKD

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| **Supplemental Table 1. Baseline Characteristics of SPRINT Participants with CKD by Quartile of Urinary IL-18** |
|  |  |  |  |  |
|  |  | **Q1** | **Q2** | **Q3** | **Q4** |
| **Range of IL-18 (pg/mL)** | < 16.3 | 16.3 - 30.5 | 30.6 - 56.8 | > 56.8 |
| **N** | 596 | 593 | 594 | 594 |
|  |  |  |  |  |
|  |  |  |  |  |
| Age at randomization | 73.5 (9.0) | 74.1 (9.1) | 72.9 (8.9) | 71.9 (9.3) |
| Female | 239 (40.1) | 207 (34.9) | 215 (36.2) | 298 (50.2) |
| Race |  |  |  |  |
|  Non-Hispanic white | 418 (70.1) | 395 (66.6) | 390 (65.7) | 363 (61.1) |
|  Non-Hispanic black | 131 (22.0) | 135 (22.8) | 151 (25.4) | 193 (32.5) |
|  Hispanic and other | 47 (7.9) | 63 (10.6) | 53 (8.9) | 38 (6.4) |
| History of cardiovascular disease or heart failure1 | 140 (23.5) | 153 (25.8) | 177 (29.8) | 129 (21.7) |
| Smoking Status |  |  |  |  |
|  Never | 263 (44.1) | 254 (42.8) | 280 (47.1) | 274 (46.1) |
|  Former | 286 (48.0) | 285 (48.1) | 264 (44.4) | 260 (43.8) |
|  Current | 47 (7.9) | 54 (9.1) | 50 (8.4) | 60 (10.1) |
| Systolic blood pressure (mm Hg) | 139.2 (16.7) | 139.7 (15.9) | 139.5 (16.0) | 139.6 (17.0) |
| Diastolic blood pressure (mm Hg) | 72.8 (11.6) | 73.5 (12.0) | 74.4 (12.1) | 76.3 (13.1) |
| Number of antihypertensive medications  | 2.2 (1.0) | 2.1 (1.0) | 2.2 (1.0) | 2.1 (1.0) |
|  ACE inhibitor use | 217 (36.4) | 230 (38.8) | 245 (41.2) | 241 (40.6) |
|  ARB use  | 163 (27.3) | 136 (22.9) | 141 (23.7) | 122 (20.5) |
|  Calcium channel blocker use  | 237 (39.8) | 236 (39.8) | 249 (41.9) | 243 (40.9) |
|  Diuretic use | 361 (60.6) | 336 (56.7) | 315 (53.0) | 291 (49.0) |
|  Beta blocker use  | 271 (45.5) | 266 (44.9) | 280 (47.1) | 305 (51.3) |
|  Alpha blocker use  | 51 (8.6) | 50 (8.4) | 42 (7.1) | 30 (5.1) |
| Intensive blood pressure arm | 328 (55.0) | 303 (51.1) | 302 (50.8) | 289 (48.7) |
| Body mass index (kg/m2) | 28.7 (5.5) | 29.1 (5.6) | 29.6 (5.9) | 30.7 (6.3) |
| Statin use | 299 (50.2) | 325 (54.8) | 324 (54.5) | 291 (49.0) |
| Total cholesterol (mg/dL) | 182.8 (38.4) | 183.4 (40.4) | 182.3 (42.0) | 186.9 (42.8) |
| Low-density lipoprotein (mg/dL) | 105.0 (33.1) | 105.3 (33.8) | 105.3 (35.4) | 108.2 (35.4) |
| High-density lipoprotein (mg/dL) | 54.2 (14.0) | 52.4 (14.1) | 51.2 (14.4) | 51.4 (15.1) |
| Triglycerides (mg/dL) | 106.0 [76.0, 141.0] | 110.0 [78.0, 153.0] | 112.0 [83.0, 158.0] | 119.0 [87.0, 159.0] |
| Serum creatinine (mg/dL) | 1.5 (0.4) | 1.5 (0.4) | 1.4 (0.4) | 1.4 (0.4) |
| Serum cystatin C (mg/L) | 1.6 (0.4) | 1.5 (0.4) | 1.5 (0.4) | 1.5 (0.4) |
| eGFR (ml/min/1.73m2) | 46.9 [36.7, 53.9] | 47.5 [38.3, 54.2] | 49.2 [39.1, 55.6] | 49.0 [40.7, 55.1] |
| Urine creatinine | 68.6 (41.1) | 108.5 (50.0) | 140.0 (59.9) | 180.2 (87.6) |
| Albumin/creatinine ratio (mg/g) | 15.4 [6.5, 44.7] | 12.7 [6.4, 41.9] | 13.0 [7.0, 43.9] | 16.8 [8.4, 59.3] |
|  |  |  |  |  |

Data are presented as median (interquartile range), mean ± standard deviation, or numbers (percent).

Abbreviations: ACE inhibitor, angiotensin converting enzyme inhibitor; ARB, angiotensin receptor blocker; eGFR, estimated glomerular filtration rate by combined CKD-EPI equation for serum creatinine and cystatin C; YKL-40, chitinase-3-like protein-1.

1Includes any one of the following: Previous myocardial infarction, percutaneous coronary intervention, coronary artery bypass surgery,

carotid endarterectomy, carotid stenting, peripheral artery disease with revascularization, acute coronary syndrome with or without resting

ECG change, ECG change on graded exercise test, or positive cardiac imaging study, at least a 50% diameter stenosis of a coronary, carotid,

or lower extremity artery, abdominal aortic aneurysm >=5cm with or without repair, or self-reported heart failure.

|  |
| --- |
| **Supplemental Table 2. Baseline Characteristics of SPRINT Participants with CKD by CVD status during follow-up** |
|  |  |  |
|  | **CVD events1**  | **No CVD events** |
| **N** | 305 | 2072 |
|  |  |  |
|  |  |  |
| Age at randomization | 76.0 (9.1) | 72.7 (9.0) |
| Female | 98 (32.1) | 861 (41.6) |
| Race |  |  |
|  Non-Hispanic white | 216 (70.8) | 1350 (65.2) |
|  Non-Hispanic black | 68 (22.3) | 542 (26.2) |
|  Hispanic and other | 21 (6.9) | 180 (8.7) |
| History of cardiovascular disease or heart failure2 | 126 (41.3) | 473 (22.8) |
| Smoking Status |  |  |
|  Never | 124 (40.7) | 947 (45.7) |
|  Former | 148 (48.5) | 947 (45.7) |
|  Current | 33 (10.8) | 178 (8.6) |
| Systolic blood pressure (mm Hg) | 140.5 (17.7) | 139.4 (16.2) |
| Diastolic blood pressure (mm Hg) | 71.7 (12.8) | 74.6 (12.2) |
| Number of antihypertensive medications  | 2.3 (1.0) | 2.1 (1.0) |
|  ACE inhibitor use | 117 (38.4) | 816 (39.4) |
|  ARB use  | 75 (24.6) | 487 (23.5) |
|  Calcium channel blocker use  | 135 (44.3) | 830 (40.1) |
|  Diuretic use | 173 (56.7) | 1130 (54.5) |
|  Beta blocker use  | 181 (59.3) | 941 (45.4) |
|  Alpha blocker use  | 30 (9.8) | 143 (6.9) |
| Intensive blood pressure arm | 142 (46.6) | 1080 (52.1) |
| Body mass index (kg/m2) | 28.9 (5.6) | 29.6 (5.9) |
| Statin use | 172 (56.4) | 1067 (51.5) |
| Total cholesterol (mg/dL) | 179.7 (44.8) | 184.5 (40.3) |
| Low-density lipoprotein (mg/dL) | 101.8 (36.3) | 106.6 (34.1) |
| High-density lipoprotein (mg/dL) | 50.3 (13.9) | 52.6 (14.5) |
| Triglycerides (mg/dL) | 118.0 [85.0, 159.0] | 110.5 [81.0, 153.0] |
| Serum creatinine (mg/dL) | 1.5 (0.5) | 1.4 (0.4) |
| Serum cystatin C (mg/L) | 1.6 (0.5) | 1.5 (0.4) |
| eGFR (ml/min/1.73m2) | 44.3 [34.1, 53.0] | 48.8 [39.4, 54.9] |
| Urine creatinine | 117.2 (77.3) | 125.3 (74.0) |
| Albumin/creatinine ratio (mg/g) | 28.6 [10.4, 96.0] | 13.0 [6.5, 40.7] |
|  |  |  |

Data are presented as median (interquartile range), mean ± standard deviation, or numbers (percent).

Abbreviations: ACE inhibitor, angiotensin converting enzyme inhibitor; ARB, angiotensin receptor blocker; eGFR, estimated glomerular filtration rate by combined CKD-EPI equation for serum creatinine and cystatin C.

1CVD events defined as the composite of non-fatal myocardial infarction, acute coronary syndrome, non-fatal acute decompensated heart failure, non-fatal stroke, and death from CVD causes

2Includes any one of the following: Previous myocardial infarction, percutaneous coronary intervention, coronary artery bypass surgery, carotid endarterectomy, carotid stenting, peripheral artery disease with revascularization, acute coronary syndrome with or without resting ECG change, ECG change on graded exercise test, or positive cardiac imaging study, at least a 50% diameter stenosis of a coronary, carotid, or lower extremity artery, abdominal aortic aneurysm >=5cm with or without repair, or self-reported heart failure.

|  |
| --- |
| **Supplemental Table 3. Baseline Characteristics of SPRINT Participants with CKD by mortality status during follow-up** |
|  |  |  |
|  | **Death** | **No death** |
| **N** | 233 | 2144 |
|  |  |  |
|  |  |  |
| Age at randomization | 77.6 (9.2) | 72.6 (9.0) |
| Female | 75 (32.2) | 884 (41.2) |
| Race |  |  |
|  Non-Hispanic white | 165 (70.8) | 1401 (65.3) |
|  Non-Hispanic black | 49 (21.0) | 561 (26.2) |
|  Hispanic and other | 19 (8.2) | 182 (8.5) |
| History of cardiovascular disease or heart failure1 | 91 (39.1) | 508 (23.7) |
| Smoking Status |  |  |
|  Never | 88 (37.8) | 983 (45.8) |
|  Former | 119 (51.1) | 976 (45.5) |
|  Current | 26 (11.2) | 185 (8.6) |
| Systolic blood pressure (mm Hg) | 142.5 (17.9) | 139.2 (16.2) |
| Diastolic blood pressure (mm Hg) | 71.7 (13.0) | 74.5 (12.2) |
| Number of antihypertensive medications  | 2.2 (1.0) | 2.2 (1.0) |
|  ACE inhibitor use | 81 (34.8) | 852 (39.7) |
|  ARB use  | 57 (24.5) | 505 (23.6) |
|  Calcium channel blocker use  | 98 (42.1) | 867 (40.4) |
|  Diuretic use | 118 (50.6) | 1185 (55.3) |
|  Beta blocker use  | 127 (54.5) | 995 (46.4) |
|  Alpha blocker use  | 25 (10.7) | 148 (6.9) |
| Intensive blood pressure arm | 106 (45.5) | 1116 (52.1) |
| Body mass index (kg/m2) | 28.4 (6.0) | 29.6 (5.8) |
| Statin use | 121 (51.9) | 1118 (52.1) |
| Total cholesterol (mg/dL) | 178.2 (43.6) | 184.5 (40.6) |
| Low-density lipoprotein (mg/dL) | 100.5 (33.5) | 106.5 (34.5) |
| High-density lipoprotein (mg/dL) | 51.5 (14.1) | 52.4 (14.5) |
| Triglycerides (mg/dL) | 113.0 [77.0, 150.0] | 112.0 [82.0, 154.0] |
| Serum creatinine (mg/dL) | 1.6 (0.5) | 1.4 (0.4) |
| Serum cystatin C (mg/L) | 1.7 (0.5) | 1.5 (0.4) |
| eGFR (ml/min/1.73m2) | 40.3 [32.0, 50.3] | 48.9 [39.8, 55.0] |
| Urine creatinine | 118.6 (71.7) | 124.9 (74.7) |
| Albumin/creatinine ratio (mg/g) | 33.3 [11.0, 128.6] | 13.3 [6.5, 40.0] |
|  |  |  |

Data are presented as median (interquartile range), mean ± standard deviation, or numbers (percent).

Abbreviations: ACE inhibitor, angiotensin converting enzyme inhibitor; ARB, angiotensin receptor blocker; eGFR, estimated glomerular filtration rate by combined CKD-EPI equation for serum creatinine and cystatin C.

1Includes any one of the following: Previous myocardial infarction, percutaneous coronary intervention, coronary artery bypass surgery, carotid endarterectomy, carotid stenting, peripheral artery disease with revascularization, acute coronary syndrome with or without resting ECG change, ECG change on graded exercise test, or positive cardiac imaging study, at least a 50% diameter stenosis of a coronary, carotid, or lower extremity artery, abdominal aortic aneurysm >=5cm with or without repair, or self-reported heart failure.

**Supplemental Table 4: Spearman correlations of urinary markers, urine creatinine, and eGFR**

1. **Urinary biomarker concentrations**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | IL-18 | KIM-1 | NGAL | MCP-1 | YKL-40 | Albumin | Urine creatinine | eGFR |
| IL-18 | --- |  |  |  |  |  |  |  |
| KIM-1 | 0.61\* | --- |  |  |  |  |  |  |
| NGAL | 0.48\* | 0.38\* | --- |  |  |  |  |  |
| MCP-1 | 0.59\* | 0.75\* | 0.41\* | --- |  |  |  |  |
| YKL-40 | 0.48\* | 0.43\* | 0.56\* | 0.43\* | --- |  |  |  |
| Urine albumin | 0.36\* | 0.39\* | 0.29\* | 0.35\* | 0.28\* | --- |  |  |
| Urine creatinine | 0.62\* | 0.73\* | 0.33\* | 0.75\* | 0.41\* | 0.30\* | --- |  |
| eGFR | 0.08\* | 0.00 | -0.04 | 0.07\* | 0.09\* | -0.23\* | 0.14\* | --- |

\*p<0.05
Abbreviations: eGFR, estimated glomerular filtration rate by combined CKD-EPI equation for serum creatinine and cystatin C; IL-18, interleukin-18; KIM-1, kidney injury molecule-1; MCP-1, monocyte chemoattractant protein-1; NGAL, neutrophil gelatinase-associated lipocalin; YKL-40, chitinase-3-like protein-1.

1. **Urinary biomarker/creatinine ratios**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | IL-18 | KIM-1 | NGAL | MCP-1 | YKL-40 | ACR | eGFR |
| IL-18/Cr | --- |  |  |  |  |  |  |
| KIM-1/Cr | 0.27\* | --- |  |  |  |  |  |
| NGAL/Cr | 0.36\* | 0.14\* | --- |  |  |  |  |
| MCP-1/Cr | 0.24\* | 0.50\* | 0.18\* | --- |  |  |  |
| YKL-40/Cr | 0.31\* | 0.18\* | 0.47\* | 0.19\* | --- |  |  |
| ACR | 0.23\* | 0.21\* | 0.22\* | 0.17\* | 0.18\* | --- |  |
| eGFR | 0.00 | -0.11\* | -0.11\* | -0.03 | 0.03 | -0.29\* | --- |

\*p<0.05
Abbreviations: ACR, albumin/creatinine ratio; Cr, creatinine; eGFR, estimated glomerular filtration rate by combined CKD-EPI equation for serum creatinine and cystatin C; IL-18, interleukin-18; KIM-1, kidney injury molecule-1; MCP-1, monocyte chemoattractant protein-1; NGAL, neutrophil gelatinase-associated lipocalin; YKL-40, chitinase-3-like protein-1.

|  |
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| **Supplemental Table 5. Associations of urinary biomarker-creatinine ratios with CVD events among SPRINT participants with CKD (N = 2,377)** |
|  | **Demographic-adjusted1****HR (95% CI)** | **Multivariable-adjusted2****HR (95% CI)** |  |
|  |  |  |  |
| **Urine IL-18** |  |  |  |
|  **Continuous** |  |  |  |
|  | Per doubling | 1.21 (1.09, 1.34) | 1.10 (0.99, 1.23) |  |
|  **Ordinal**  |  |  |  |
|  | Quartile 1 | 1.00 (ref) | 1.00 (ref) |  |
|  | Quartile 2 | 1.07 (0.76, 1.51) | 1.02 (0.72, 1.44) |  |
|  | Quartile 3 | 1.41 (1.02, 1.96) | 1.26 (0.90, 1.76) |  |
|  | Quartile 4 | 1.81 (1.30, 2.52) | 1.38 (0.97, 1.95) |  |
|  |  |  |  |  |
| **Urine KIM-1** |  |  |  |
|  **Continuous** |  |  |  |
|  | Per doubling | 1.09 (0.99, 1.19) | 0.95 (0.86, 1.04) |  |
|  **Ordinal** |  |  |  |
|  | Quartile 1 | 1.00 (ref) | 1.00 (ref) |  |
|  | Quartile 2 | 0.91 (0.64, 1.29) | 0.81 (0.57, 1.16) |  |
|  | Quartile 3 | 1.15 (0.82, 1.60) | 0.88 (0.63, 1.24) |  |
|  | Quartile 4 | 1.48 (1.07, 2.04) | 0.94 (0.67, 1.32) |  |
|  |  |  |  |
| **Urine NGAL** |  |  |  |
|  **Continuous** |  |  |  |
|  | Per doubling | 1.12 (1.05, 1.20) | 1.04 (0.97, 1.12) |  |
|  **Ordinal** |  |  |  |
|  | Quartile 1 | 1.00 (ref) | 1.00 (ref) |  |
|  | Quartile 2 | 1.28 (0.92, 1.79) | 1.19 (0.85, 1.67) |  |
|  | Quartile 3 | 1.31 (0.93, 1.84) | 1.09 (0.77, 1.54) |  |
|  | Quartile 4 | 1.91 (1.35, 2.70) | 1.32 (0.92, 1.90) |  |
|  |  |  |  |  |  |
| **Urine MCP-1** |  |  |  |
|  **Continuous** |  |  |  |
|  | Per doubling | 1.19 (1.07, 1.32) | 1.09 (0.97, 1.22) |  |
|  **Ordinal** |  |  |  |
|  | Quartile 1 | 1.00 (ref) | 1.00 (ref) |  |
|  | Quartile 2 | 0.99 (0.70, 1.41) | 0.83 (0.58, 1.19) |  |
|  | Quartile 3 | 1.14 (0.81, 1.60) | 0.86 (0.61, 1.22) |  |
|  | Quartile 4 | 1.53 (1.11, 2.12) | 1.13 (0.81, 1.58) |  |
|  |  |  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| **Urine YKL-40** |  |  |  |
|  **Continuous** |  |  |  |
|  | Per doubling | 1.09 (1.03, 1.15) | 1.05 (0.99, 1.10) |  |
|  **Ordinal** |  |  |  |
|  | Quartile 1 | 1.00 (ref) | 1.00 (ref) |  |
|  | Quartile 2 | 0.93 (0.66, 1.31) | 1.07 (0.75, 1.52) |  |
|  | Quartile 3 | 1.19 (0.85, 1.65) | 1.32 (0.94, 1.85) |  |
|  | Quartile 4 | 1.65 (1.18, 2.31) | 1.41 (1.01, 1.99) |  |
|  |  |  |  |

Abbreviations: CVD, cardiovascular disease; CI, confidence interval; HR, hazard ratio; IL-18, interleukin-18; KIM-1, kidney injury molecule-1; MCP-1, monocyte chemoattractant protein-1; NGAL, neutrophil gelatinase-associated lipocalin; YKL-40, chitinase-3-like protein-1.

1Adjusted for age, sex, race, and intervention arm.

2Adjusted for age, sex, race, intervention arm, baseline eGFR by combined CKD-EPI equation for serum creatinine and cystatin C, urine albumin/creatinine ratio, smoking status, history of cardiovascular disease or heart failure, number of antihypertensive medications, statin use, systolic blood pressure, diastolic blood pressure, body mass index, high-density lipoprotein, total cholesterol, and triglycerides.

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| --- |
| **Supplemental Table 6. Associations of urinary biomarker-creatinine ratios with all-cause mortality among SPRINT participants with CKD (N = 2,377)** |
|  | **Demographic-adjusted1****HR (95% CI)** | **Multivariable-adjusted2****HR (95% CI)** |  |
|  |  |  |  |
| **Urine IL-18** |  |  |  |
|  **Continuous** |  |  |  |
|  | Per doubling | 1.26 (1.12, 1.42) | 1.20 (1.05, 1.36) |  |
|  **Ordinal**  |  |  |  |
|  | Quartile 1 | 1.00 (ref) | 1.00 (ref) |  |
|  | Quartile 2 | 1.06 (0.71, 1.57) | 1.11 (0.74, 1.66) |  |
|  | Quartile 3 | 1.25 (0.86, 1.84) | 1.22 (0.82, 1.81) |  |
|  | Quartile 4 | 1.93 (1.33, 2.81) | 1.71 (1.15, 2.53) |  |
|  |  |  |  |  |
| **Urine KIM-1** |  |  |  |
|  **Continuous** |  |  |  |
|  | Per doubling | 1.18 (1.05, 1.33) | 1.01 (0.90, 1.13) |  |
|  **Ordinal** |  |  |  |
|  | Quartile 1 | 1.00 (ref) | 1.00 (ref) |  |
|  | Quartile 2 | 0.85 (0.56, 1.29) | 0.75 (0.49, 1.15) |  |
|  | Quartile 3 | 1.17 (0.79, 1.73) | 0.94 (0.63, 1.39) |  |
|  | Quartile 4 | 1.58 (1.09, 2.29) | 0.94 (0.63, 1.39) |  |
|  |  |  |  |
| **Urine NGAL** |  |  |  |
|  **Continuous** |  |  |  |
|  | Per doubling | 1.12 (1.04, 1.21) | 1.02 (0.94, 1.11) |  |
|  **Ordinal** |  |  |  |
|  | Quartile 1 | 1.00 (ref) | 1.00 (ref) |  |
|  | Quartile 2 | 1.12 (0.76, 1.64) | 0.94 (0.64, 1.39) |  |
|  | Quartile 3 | 1.15 (0.78, 1.70) | 0.85 (0.57, 1.27) |  |
|  | Quartile 4 | 1.64 (1.11, 2.42) | 0.98 (0.65, 1.48) |  |
|  |  |  |  |  |  |
| **Urine MCP-1** |  |  |  |
|  **Continuous** |  |  |  |
|  | Per doubling | 1.18 (1.04, 1.34) | 1.10 (0.96, 1.25) |  |
|  **Ordinal** |  |  |  |
|  | Quartile 1 | 1.00 (ref) | 1.00 (ref) |  |
|  | Quartile 2 | 0.92 (0.59, 1.42) | 0.76 (0.49, 1.18) |  |
|  | Quartile 3 | 1.42 (0.95, 2.10) | 1.11 (0.74, 1.68) |  |
|  | Quartile 4 | 1.77 (1.20, 2.61) | 1.31 (0.87, 1.96) |  |
|  |  |  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| **Urine YKL-40** |  |  |  |
|  **Continuous** |  |  |  |
|  | Per doubling | 1.12 (1.05, 1.19) | 1.08 (1.02, 1.14) |  |
|  **Ordinal** |  |  |  |
|  | Quartile 1 | 1.00 (ref) | 1.00 (ref) |  |
|  | Quartile 2 | 1.36 (0.89, 2.06) | 1.63 (1.06, 2.50) |  |
|  | Quartile 3 | 1.74 (1.16, 2.61) | 2.08 (1.37, 3.16) |  |
|  | Quartile 4 | 2.22 (1.47, 3.36) | 1.92 (1.27, 2.92) |  |
|  |  |  |  |

Abbreviations: CVD, cardiovascular disease; CI, confidence interval; HR, hazard ratio; IL-18, interleukin-18; KIM-1, kidney injury molecule-1; MCP-1, monocyte chemoattractant protein-1; NGAL, neutrophil gelatinase-associated lipocalin; YKL-40, chitinase-3-like protein-1.

1Adjusted for age, sex, race, and intervention arm.

2Adjusted for age, sex, race, intervention arm, baseline eGFR by combined CKD-EPI equation for serum creatinine and cystatin C, urine albumin/creatinine ratio, smoking status, history of cardiovascular disease or heart failure, number of antihypertensive medications, statin use, systolic blood pressure, diastolic blood pressure, body mass index, high-density lipoprotein, total cholesterol, and triglycerides.