**Supplemental Table 1**

**Preserved Ejection Fraction Heart Failure (N=69)**

 **Adjusted Hazard Ratio (95% Confidence Interval)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Bicarbonate (mEq/L)** | **Number of Events** | **Model 1** | **Model 2** |
| **Diuretic Use**  < 21 21-23 23-24 ≥ 25Per 1 mEq/L higher P-value\* | 16115 | 1.28 (0.15 to 11.20)1.22 (0.46 to 3.24)1.00 (REF)0.39 (0.13 to 1.12)0.78 (0.67 to 0.92)0.003 | 0.48 (0.04 to 5.20)1.20 (0.46 to 3.14)1.00 (REF)0.40 (0.13 to 1.24)00.87 (0.73 to 1.02)0.09 |
| **No Diuretic Use**  <21 21-23 23-24 ≥ 25Per 1 mEq/L higher P-value\* | 310249 | 0.91 (0.27 to 3.06)0.65 (0.31 to 1.35)1.00 (REF)0.90 (0.42 to 1.95)1.06 (0.90 to 1.26)0.49 | 0.64 (0.19 to 2.20)0.58 (0.27 to 1.24)1.00 (REF)0.94 (0.44 to 2.03)1.11 (0.95 to 1.29)0.19 |

**Reduced Ejection Fraction Heart Failure (N=80)**

 **Adjusted Hazard Ratio (95% Confidence Interval)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Bicarbonate (mEq/L)** | **Number of Events** | **Model 1** | **Model 2** |
| **Diuretic Use**  < 21 21-23 23-24 ≥ 25Per 1 mEq/L higher P-value\* | 16135 | 0.84 (0.11 to 6.50)0.97 (0.37 to 2.58)1.00 (REF)0.33 (0.13 to 0.96)0.86 (0.72 to 1.04)0.11 | 0.50 (0.07 to 3.61)0.91 (0.32 to 2.56)1.00 (REF)0.38 (0.13 to 1.13)0.93 (0.77 to 1.11)0.42 |
| **No Diuretic Use**  <21 21-23 23-24 ≥ 25Per 1 mEq/L higher P-value\* | 3172411 | 0.70 (0.21 to 2.35)1.08 (0.58 to 2.01)1.00 (REF)1.15 (0.56 to 2.38)1.07 (0.91 to 1.25)0.44 | 0.49 (0.14 to 1.79)0.98 (0.52 to 1.86)1.00 (REF)1.21 (0.58 to 2.51)1.12 (0.96 to 1.31)0.16 |

Model 1: Adjusted for age, race/ethnicity, gender, education and MESA site

Model 2: Adjusted for covariates in model 1 plus diabetes, self-reported emphysema, body mass index, systolic blood pressure, smoking, high-density lipoprotein cholesterol, low-density lipoprotein cholesterol, triglycerides, eGFR, C-reactive protein, urine albumin to creatinine ratio, use of antihypertensive medications, use of lipid-lowering medications.

\*P-value is for continuous comparison