**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  ≥ 25  Per 1 mEq/L higher  P-value\* | 1  6  11  5 | 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  ≥ 25  Per 1 mEq/L higher  P-value\* | 3  10  24  9 | 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  ≥ 25  Per 1 mEq/L higher  P-value\* | 1  6  13  5 | 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  ≥ 25  Per 1 mEq/L higher  P-value\* | 3  17  24  11 | 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