**ADDITIONAL FILE**

**Table S1** Univariate analysis of all-cause mortality and cardiovascular events

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| Variables | All-cause mortality HR (95%CI)　　 *p-*value | CV events HR (95%CI) 　*p-*value |
| 　Age, year | 1.09 (1.05–1.12) | <0.001 | 1.05 (1.01–1.09) | 0.008 |
| 　Male | 0.79 (0.36–1.57) | 0.51 | 0.60 (0.22–1.62) | 0.29 |
| 　Hemoglobin, g/dL | 0.83 (0.62–1.11) | 0.20 | 1.02 (0.71–1.50) | 0.91 |
| 　Serum iron, μg/dL | 0.98 (0.97–1.00) | 0.009 | 1.00 (0.98–1.01) | 0.57 |
| 　TIBC, μg/dL | 0.99 (0.99–1.00) | 0.04 | 1.00 (0.99–1.00) | 0.28 |
| 　T-SAT, % | 0.97 (0.94–1.00) | 0.10 | 1.00 (0.96–1.00) | 0.82 |
| 　Iron dose, mg/month | 1.00 (1.00-1.00) | 0.63 | 0.99 (0.98-1.00) | 0.03 |
| 　ESA dose, μg/week | 1.01 (1.00-1.02) | 0.046 | 1.00 (0.98-1.02) | 0.97 |
| 　HD vintage, month | 1.00 (0.99–1.00) | 0.08 | 1.00 (0.99–1.00) | 0.29 |
| 　Kt/V (single pool) | 0.78 (0.69–0.87) | 0.96 | 0.95 (0.38–3.27) | 0.92 |
| 　Serum creatinine, mg/dL | 0.98 (0.44–2.71) | <0.001 | 0.90 (0.79–1.04) | 0.15 |
| 　BUN, mg/dL | 0.98 (0.96–1.00) | 0.062 | 0.98 (0.96–1.01) | 0.22 |
| 　Serum calcium\*, mg/dL | 0.89 (0.55–1.44) | 0.62 | 1.54 (0.84–2.83) | 0.16 |
| 　Serum phosphate, mg/dL | 1.19 (0.91–1.53) | 0.20 | 1.31 (0.94–1.79) | 0.11 |
| 　BMI, kg/m2 | 0.92 (0.82–1.02) | 0.13 | 0.95 (0.82–1.08) | 0.43 |
| 　Serum albumin, g/dL | 0.14 (0.07–0.28) | <0.001 | 0.47 (0.17–1.47) | 0.18 |
| 　LDL-cholesterol, mg/dL | 0.99 (0.98–1.00) | 0.27 | 0.99 (0.97–1.01) | 0.24 |
| 　CRP, mg/dl | 1.19 (1.04–1.30) | 0.016 | 1.13 (0.92–1.28) | 0.19 |
| 　History of CAD | 1.55 (0.77–2.98) | 0.21 | 1.06 (0.42–2.68) | 0.91 |
| 　History of atrial fibrillation | 2.40 (1.07–4.89) | 0.035 | 0.67 (0.16–2.87) | 0.57 |
| 　History of diabetes mellitus | 1.07 (0.53–2.06) | 0.84 | 1.18 (0.50–2.79) | 0.70 |
| 　History of hypertension | 0.62 (0.29–1.53) | 0.27 | 1.04 (0.31–3.50) | 0.95 |
| 　History of dyslipidemia | 0.87 (0.37–1.81) | 0.73 | 0.91 (0.34–2.46) | 0.86 |
| 　History of CV events | 3.00 (1.57–5.96) | <0.001 | 1.92 (0.84–4.35) | 0.12 |
| 　History of gastrectomy | 4.11 (1.40–9.73) | 0.014 | 1.04 (0.14–7.73) | 0.97 |
| 　History of malignancy | 2.23 (1.15–4.23) | 0.018 | 2.03 (0.88–4.69) | 0.11 |
| 　Positive fecal occult blood | 2.27 (0.95–4.89) | 0.064 | 1.50 (0.50–4.46) | 0.49 |
| 　History of liver disorders | 2.54 (1.08–5.31) | 0.034 | 3.83 (1.49–9.86) | 0.01 |
| 　Recent hospitalization | 3.79 (1.46–9.79) | 0.019 | 3.38 (1.00–11.4) | 0.09 |

*CV*, cardiovascular; *TIBC*, total iron binding capacity; *T-SAT*, total iron binding capacity; *ESA* erythropoietin-stimulating agent; *HD*, hemodialysis; *BMI*, body mass index; *CRP*, C-reactive protein; *CAD*, coronary artery disease;

\* Corrected using the following formula: Corrected calcium = serum calcium + (4 − serum albumin) (g/dL) when the albumin level is <4 g/dL