

## Supplementary Figures to

### **Association of changes in bone-mineral parameters with mortality in hemodialysis patients: insights from the European AROii-cohort**

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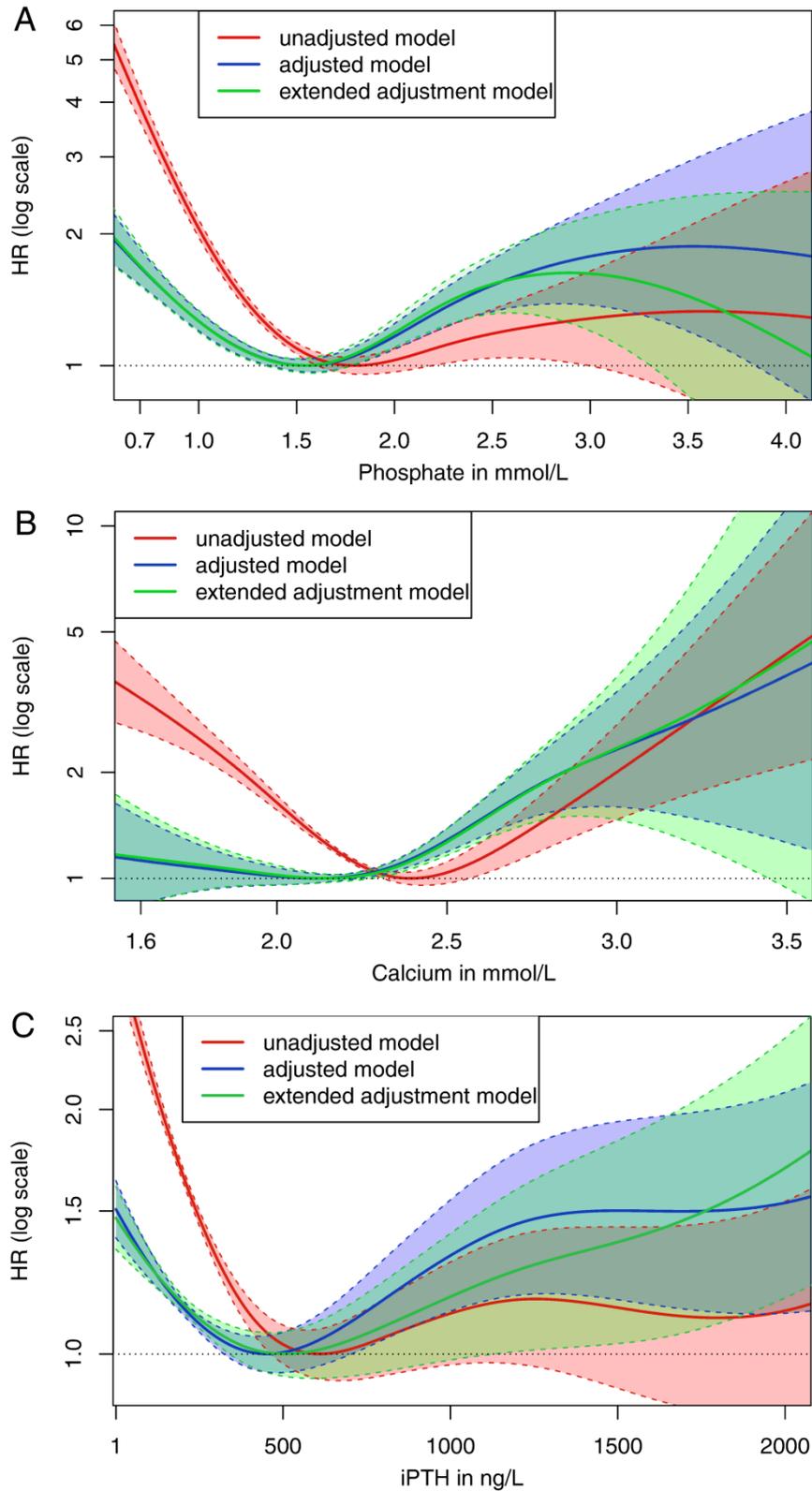
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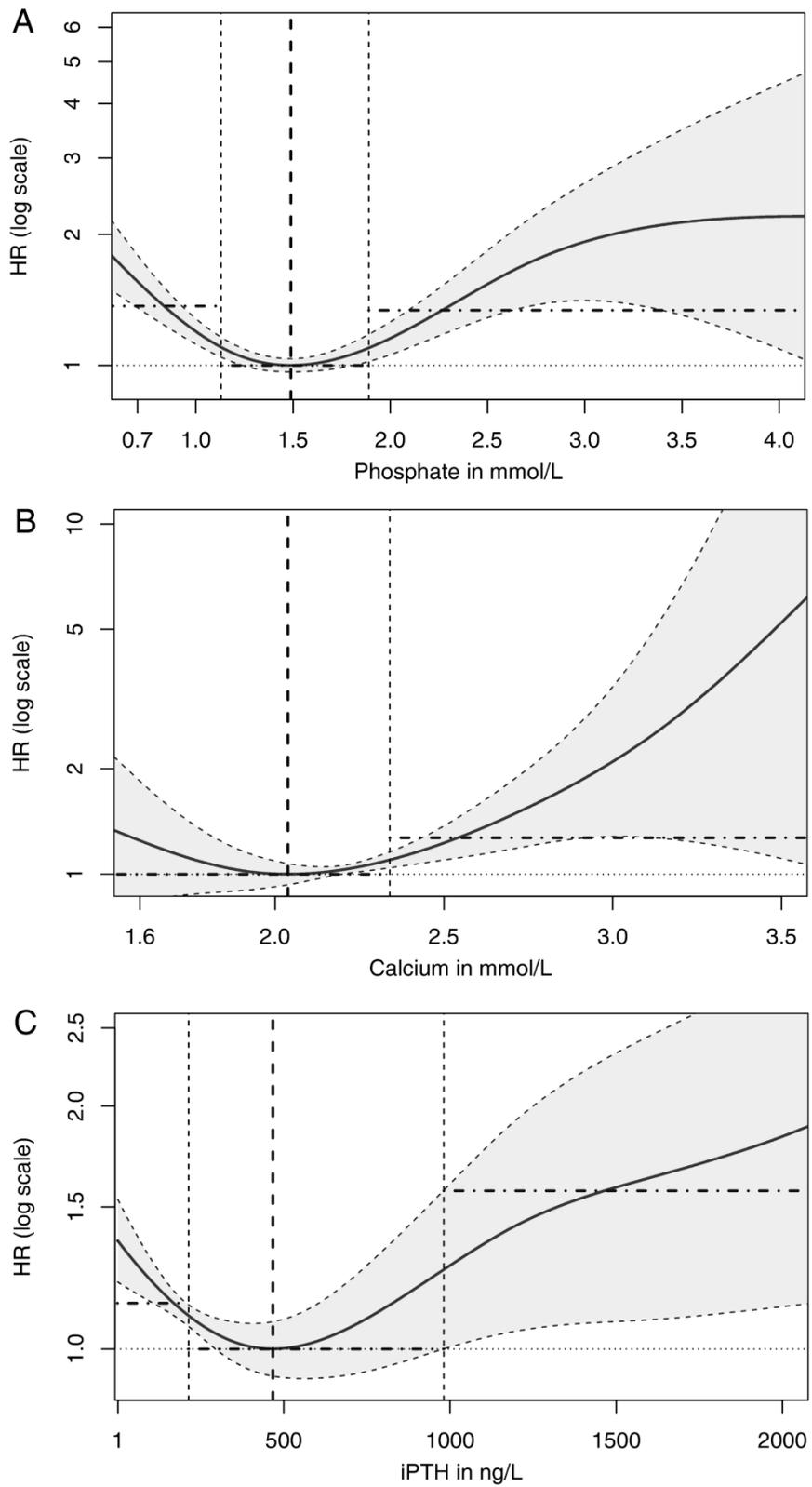
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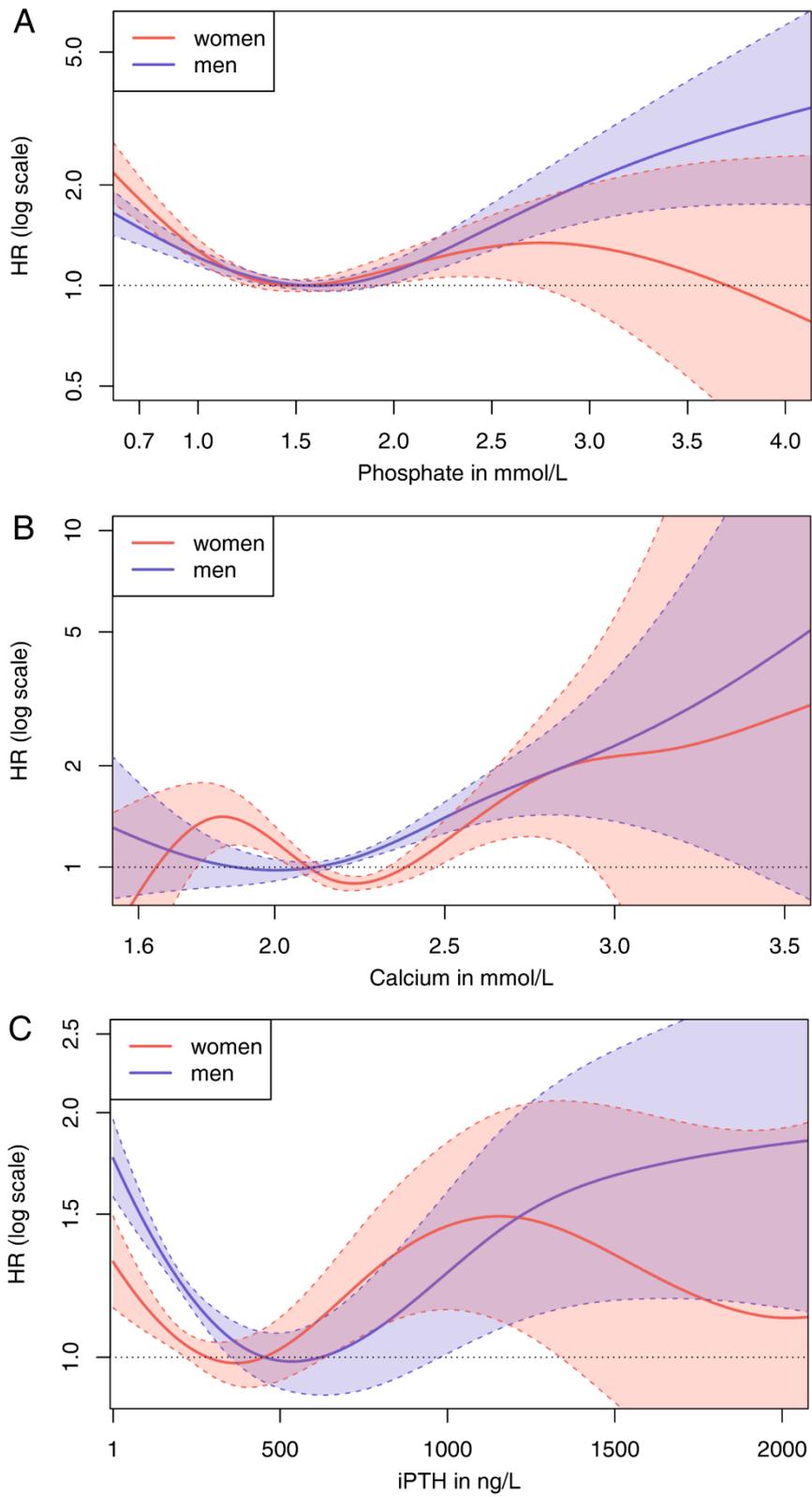
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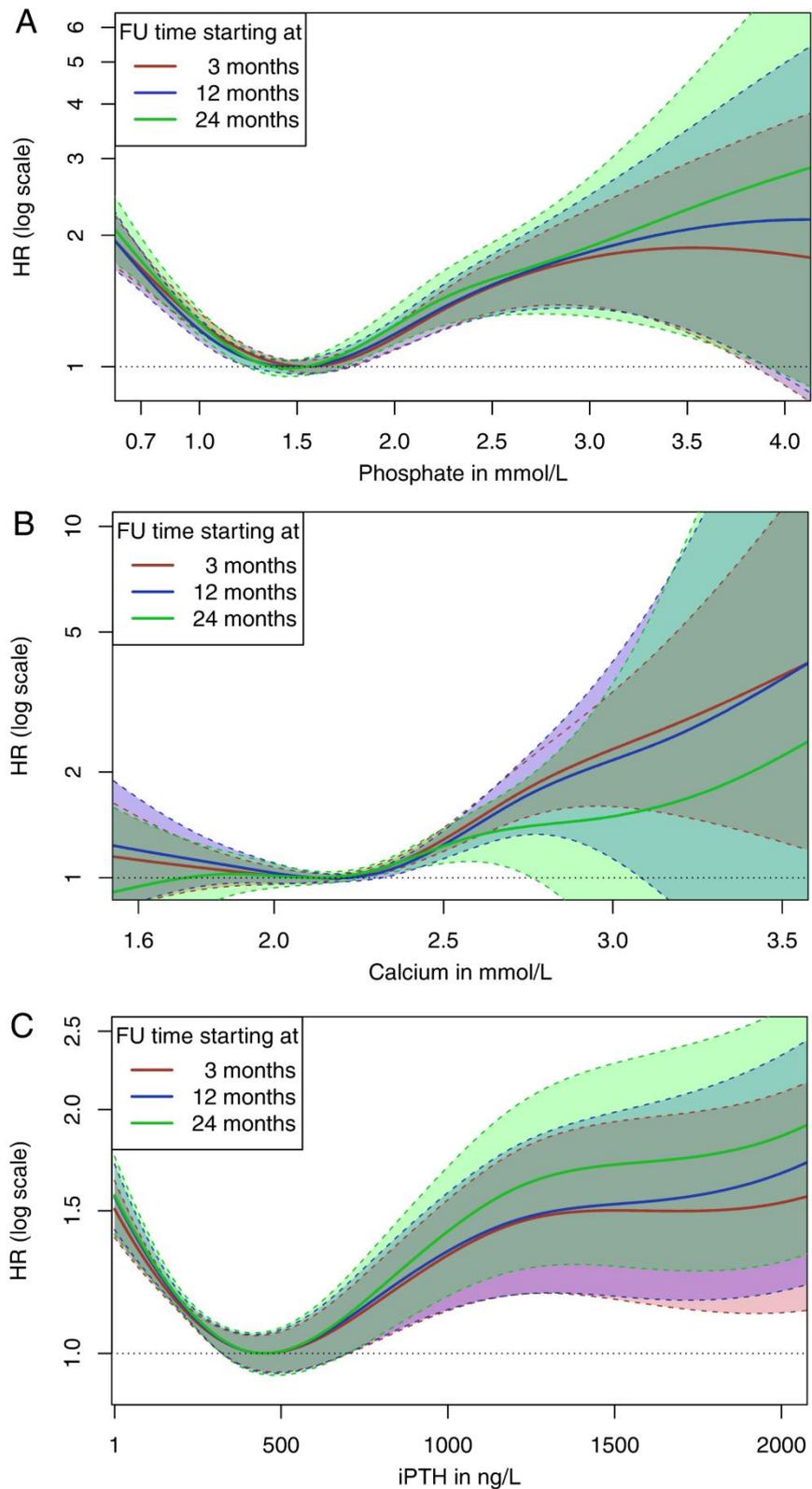
**Figure S1:** Relative risk of all-cause mortality for time-updated values of (A) phosphate, (B) calcium and (C) iPTH, using (1) an unadjusted model, (2) the main adjustment model (adjusting for age, gender, renal diagnosis, diabetes history, CVD history, phosphate, calcium, iPTH, Hb, albumin, ferritin, white blood cell count and eKt/V) and (3) an extended adjustment model (main adjustment model + smoking, BMI, CRP and total cholesterol). For each of the nonlinear splines, the value with the lowest risk is set to HR=1



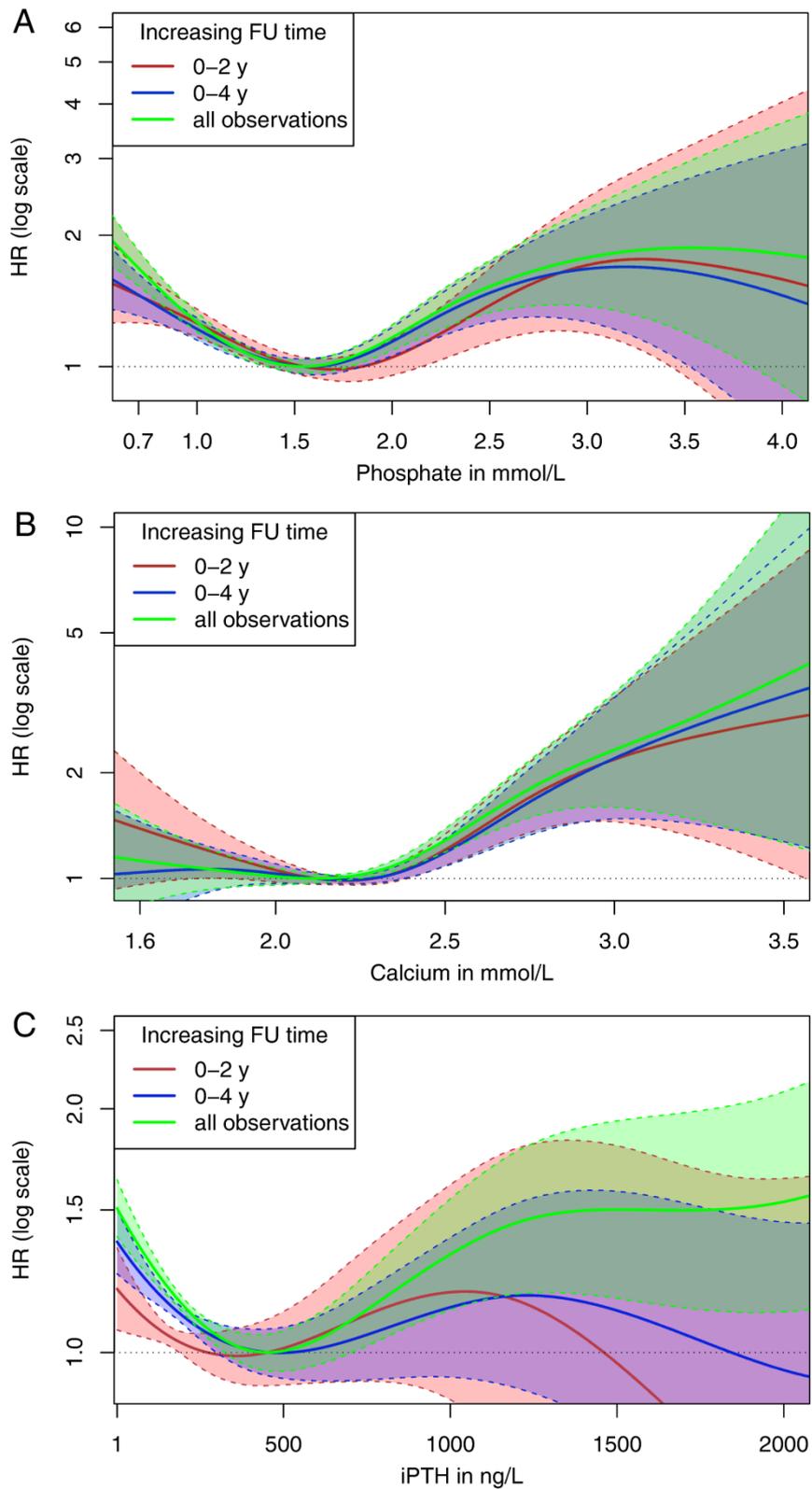
**Figure S2:** Relative risk of cardiovascular mortality for time-updated values of (A) phosphate, (B) calcium and (C) using the main adjustment model. The minimal risk range ( $HR \leq 1.1$ ) is indicated with vertical dashed lines. HR below and above the minimal risk range in comparison to the minimal risk range as the reference ( $HR=1$ ), are shown with horizontal red dashed lines.



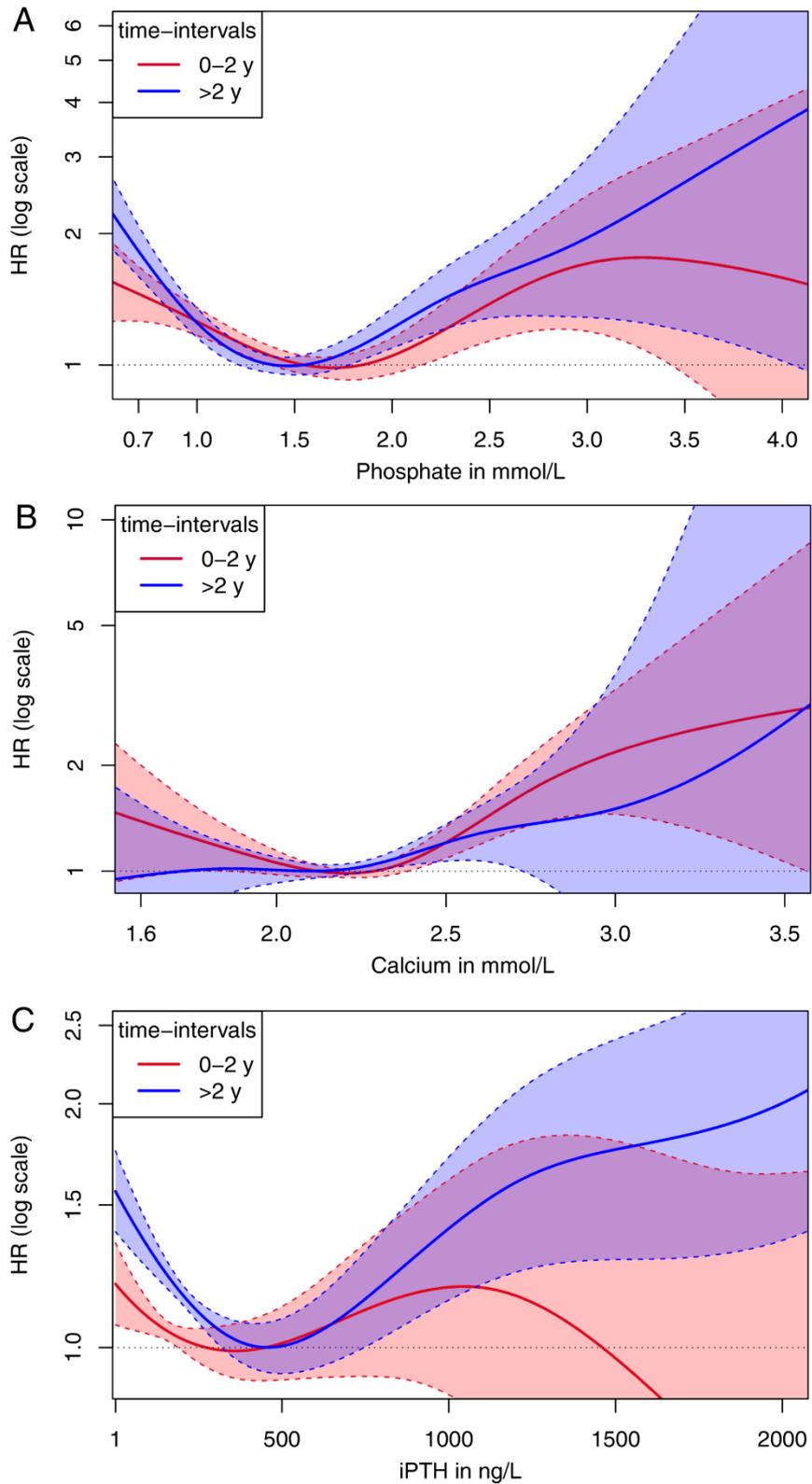
**Figure S3:** Relative risk of all-cause mortality for time-updated values of (A) phosphate, (B) calcium and (C) iPTH, separated for men and women, using the main adjustment model. The value associated with the minimal risk in the main model in all participants (dashed vertical line in Figure 1) is set as the reference with HR=1 for all parameters.



**Figure S4:** Relative risk of all-cause mortality for time-updated values of (A) phosphate, (B) calcium and (C) iPTH, using the main adjustment model. The baseline was set to 3 months (= main model), 12 months and 24 months after FU start. The value associated with the minimal risk in the main model (3 months) in all participants (dashed vertical line in Figure 1) is set as the reference with HR=1 for all parameters.



**Figure S5:** Relative risk of all-cause mortality for time-updated values of (A) phosphate, (B) calcium and (C) iPTH, using the main adjustment model. The follow-up time was increased from 2 years over 4 years to the complete observation period (main model). The value associated with the minimal risk in the main model (dashed vertical line in Figure 1) is set as the reference with HR=1 for all parameters.



**Figure S6:** Relative risk of all-cause mortality for time-updated values of (A) phosphate, (B) calcium and (C) iPTH, using the main adjustment model. In red, the association of the incident cohort with mortality risk is shown, spanning a follow-up time of 2 years, in blue the association of a prevalent cohort is shown, which have already been under observation for 2 years, till the end of the complete observation period. The value associated with the minimal risk in the main model in all participants (dashed vertical line in Figure 1) is set as the reference with HR=1 for all parameters.