

# Higher Doses of Administered Paricalcitol is Associated with Greater 5-Year Survival in African American Hemodialysis Patients Compared to other Races

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## INTRODUCTION

African American maintenance hemodialysis (MHD) patients have greater survival than White patients.

Paricalcitol is associated with greater survival in MHD patients and may be an potential explanation for the survival advantage of African American.

We hypothesized that higher doses of paricalcitol confer greater survival in African American MHD patients.

## METHODOLOGY

- We examined the 5-year (7/2001-6/2006) survival of 75,945 MHD patients who received any dose of paricalcitol during all 20 calendar quarters in DaVita dialysis clinics.
- We divided the clinics into those who received up to an average dose of 10 mg/wk (n=32,231) and those who received higher doses of paricalcitol in each calendar quarter (n= 43,724).
- Death risk of African American patients compared to other races were examined within the 2 paricalcitol dose strata using time-dependent Cox model adjusted for case-mix.

## RESULTS

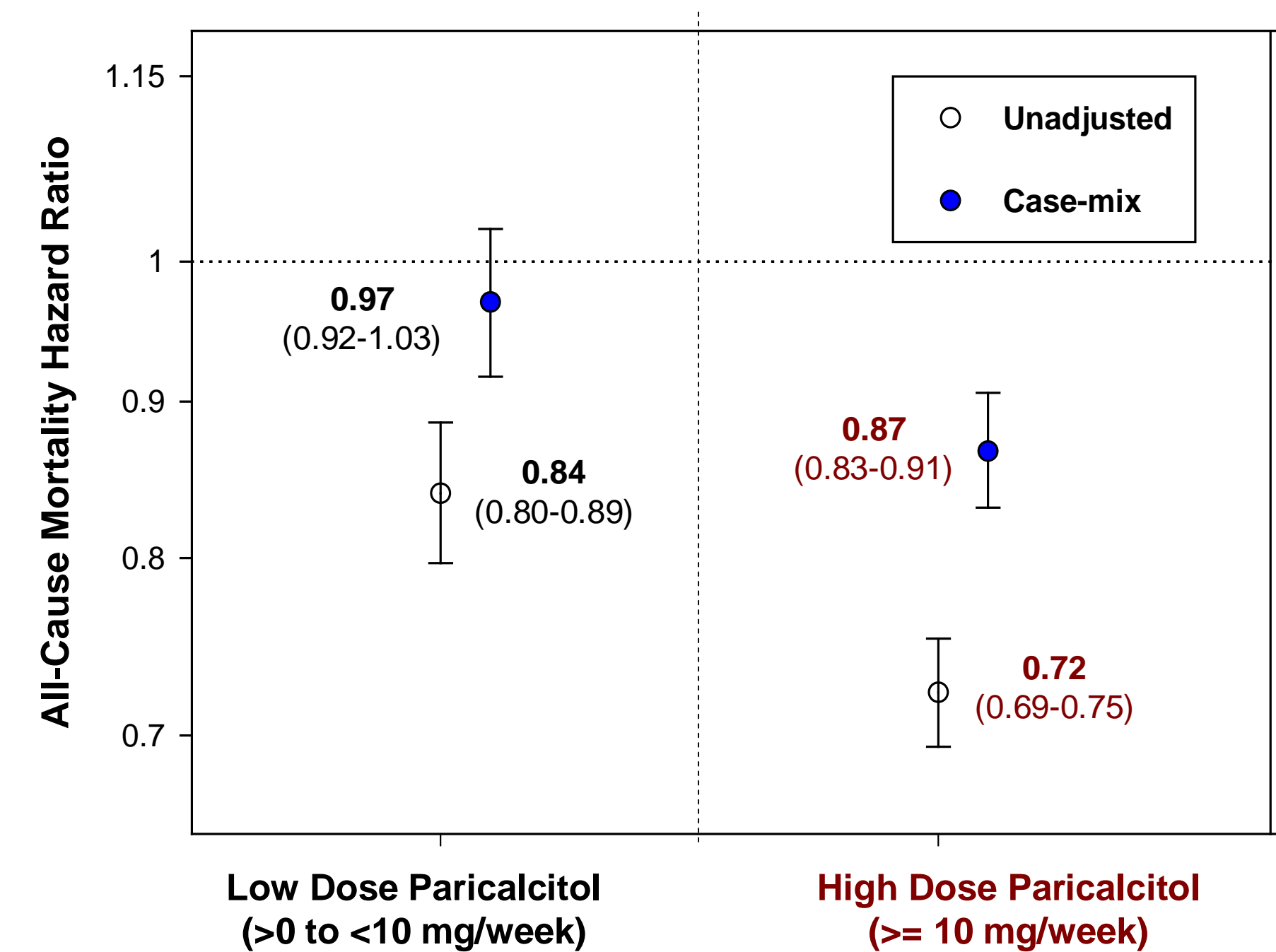


Figure 1. Death hazard ratios of African Americans vs. non-African-American HD patients according to paricalcitol dose among those who had received this medication across two mutually exclusive strata of high ( $\geq 10$  mcg/wk, n=32,327) and low ( $>0$  and  $<10$  mcg/wk, n=17,347) paricalcitol dose.

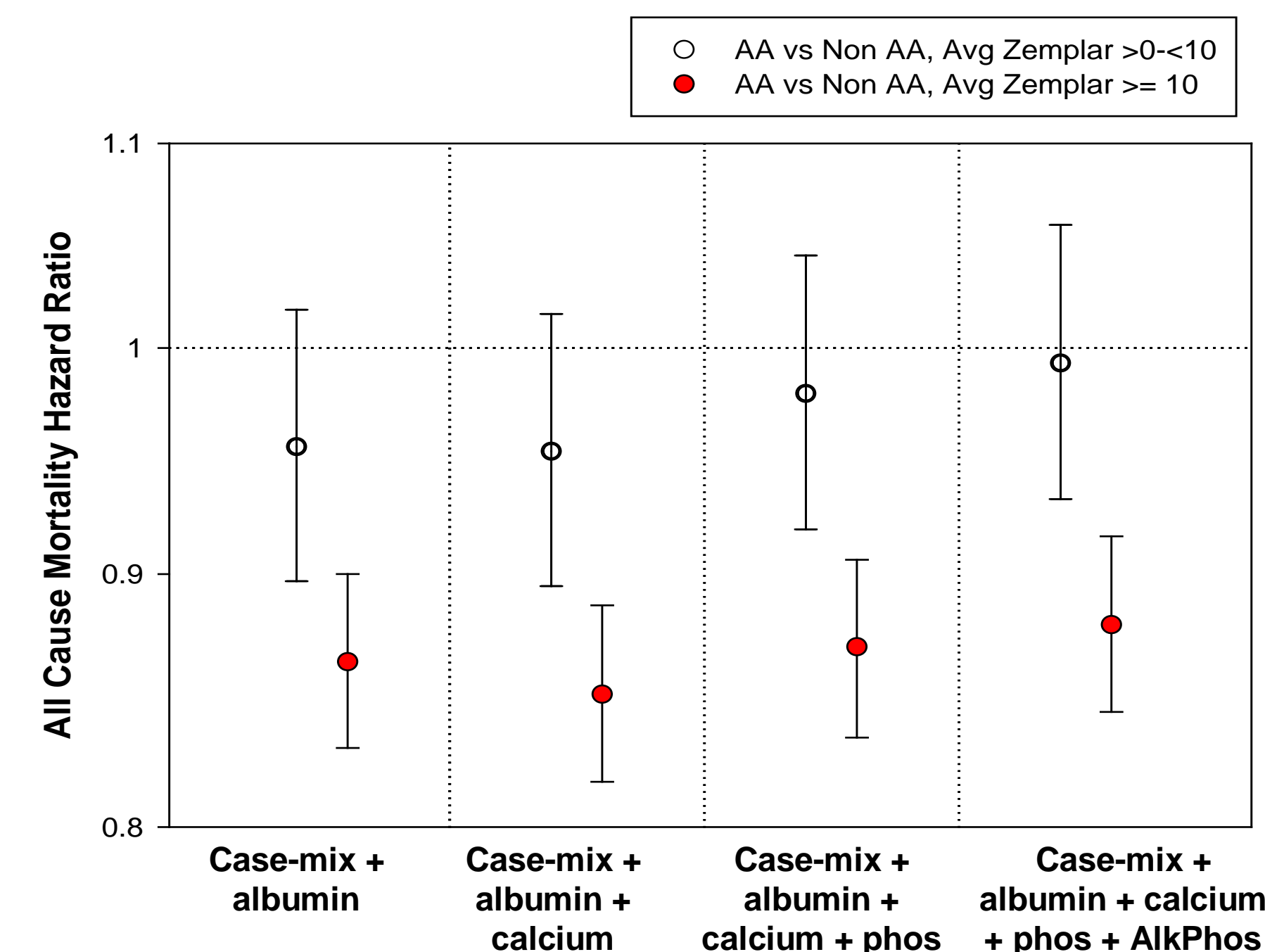


Figure 2. Sensitivity analyses to examine the robustness of the survival advantage of AA vs. non-AA patients in case-mix survival models after inclusion of additional adjustors in the Cox regression model.

## CONCLUSIONS

- African American and non-African-American MHD patients were  $57.8 \pm 14.9$  and  $63.4 \pm 15.3$  yrs old and included 49% and 43% women and 42% and 44% diabetics, respectively.
- Case-mix hazard ratio of death (and 95% confidence interval) of African American compared to others was 1.07 (1.02-1.11) among low paricalcitol dose group and 0.95 (0.91-0.98) among high paricalcitol dose group (see Figures 1 and 2).

## KEY LEARNINGS

- Among all MHD patients who received any dose of paricalcitol in each calendar quarter over 5 yrs, African American patients who received higher than 10 mg/wk had greater survival than other races.
- Among those with lower administered paricalcitol dose, African American patients had higher mortality risk compared to non-African American MHD patents.

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