

Proposed Bundling System and Active Vitamin D Administration for African American Hemodialysis Patients

Kamyar Kalantar-Zadeh, MD, MPH, PhD^{1*}; Jessica E. Miller, MPH¹; Elani Streja, MD¹; Joni Ricks, MPH¹; Keith Norris, MD¹; Allen R. Nissenson, MD²; Csaba P. Kovesdy, MD³
(1)Harold Simmons Center for Chronic Disease Research & Epidemiology, Harbor-UCLA, Torrance, CA; (2)DaVita, Lakewood, CO; (3)Salem VA, Salem, VA

INTRODUCTION

Inclusion of injectable medications within a bundled dialysis payment may have adverse unintended consequences if the case-mix adjustment used does not take into account race, which may be an important determinant of vitamin D dosing requirements.

We hypothesized that African American (AA) hemodialysis (HD) patients (pts) are among the most susceptible populations for impacts of the currently proposed bundling system which does not consider race in adjusting payments.

METHODOLOGY

- We examined several variables related to active vitamin D in the 5-yr (7/2001-6/2006) cohort of 104,631 DaVita® HD pts.
- Pts included 43,974 AA and 60,657 non-AA pts.
- AA and non-AA pts were 57.8±14.9 and 63.4±15.4 yrs old, respectively.
- AA and non-AA pts included 49% and 43% women and 42% and 44% diabetics, respectively.
- Mineral and PTH levels and administered paricalcitol doses were examined.

RESULTS

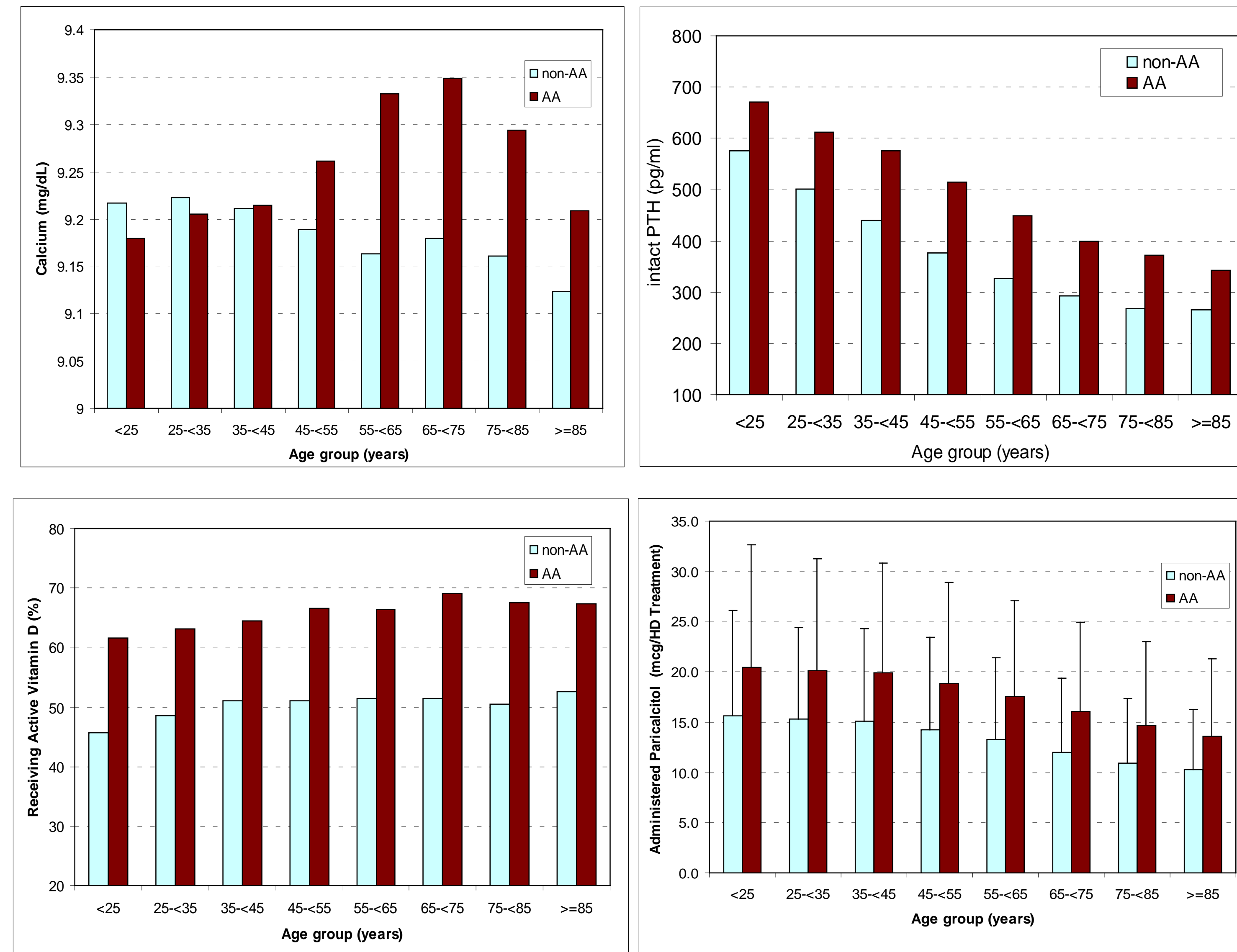


Figure 1. Comparing 3-month averaged serum calcium and intact PTH concentrations in the base calendar quarter and pattern of active vitamin D administrations in the examined calendar quarter across eight 10-year age increments in 139,328 HD patients including 43,974 African Americans (32%) and 95,354 non-African Americans (68%) from 7/2001 to 6/2001.

CONCLUSIONS

- In AA and other HD pts, the 5-yr averaged intact PTH (mean [median, interquartile]) was 471 [353, 246-554] and 328 [253, 175-379] pg/ml and alkaline phosphatase (AP) was 124±100 and 118±89 U/L, respectively.
- Across all age groups, AA pts had higher likelihood of receiving active vitamin D during each quarter (62% to 67%) compared to other races (45% to 52%).
- Among those who received paricalcitol (administered in >90% of HD pts who received any active D), the 5-yr mean averaged dose per HD treatment was higher in AA (3.8 to 5.3 mg) compared to non-AA pts (2.5 to 3.6 mcg) (see Figure).

KEY LEARNINGS

- ✓ AA HD pts have higher likelihood of receiving active vitamin D and higher doses, probably by virtue of having higher serum PTH and AP levels.
- ✓ If active vitamin D is one of the etiologies of the survival advantages of AA HD pts, the proposed bundling system that does not adjust payments for race may adversely affect AA patients' outcome more significantly than other races.

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*Correspondence: kamkal@ucla.edu