

INTRODUCTION

There are clear disparities in access and delivery of care to racial and ethnic minorities with CKD (Norris K, Nissenson AR: *CJASN* 2008) which may also extend to those with ESRD. Achieving access to medications is a challenge for many ESRD patients who on average are taking 7-9 different medications each day.

We developed an innovative program, DaVita Rx, which delivers prescribed medications to dialysis patient at dialysis centers. We postulated that use of DaVita Rx would improve medication adherence, particularly for subsets of patients for whom access to medications was suboptimal. We hypothesized that access to and use of medications may be a significant area of disparity that impacts clinical outcomes.

METHODOLOGY

- Retrospective analysis of serum phosphorus for 8,120 DaVita patients across 373 centers
- A subgroup analysis was performed on 1094 patients to analyze phosphorus results by race and ethnicity
- Mean serum phosphorus levels were analyzed over 2 time period
- 9-months prior to enrollment in DaVita Rx and 1 year post-enrollment
- A mixed-model analysis was performed so that all available data would be used for the estimates of mean values at each quarterly time point
- The mean values for phosphorus were calculated as least squares estimates to allow for the inclusion of all patients

RESULTS

Table 1. Racial and Ethnic Break Down of DaVita Rx Compared to All DaVita Patients

Demographic Group	DaVita Rx Pts	DaVita Pts	Difference (%)
Other	5%	6%	-1
Asian	3%	4%	-1
Caucasian	20%	40%	-20
Hispanic	29%	16%	13
African-American	43%	34%	9

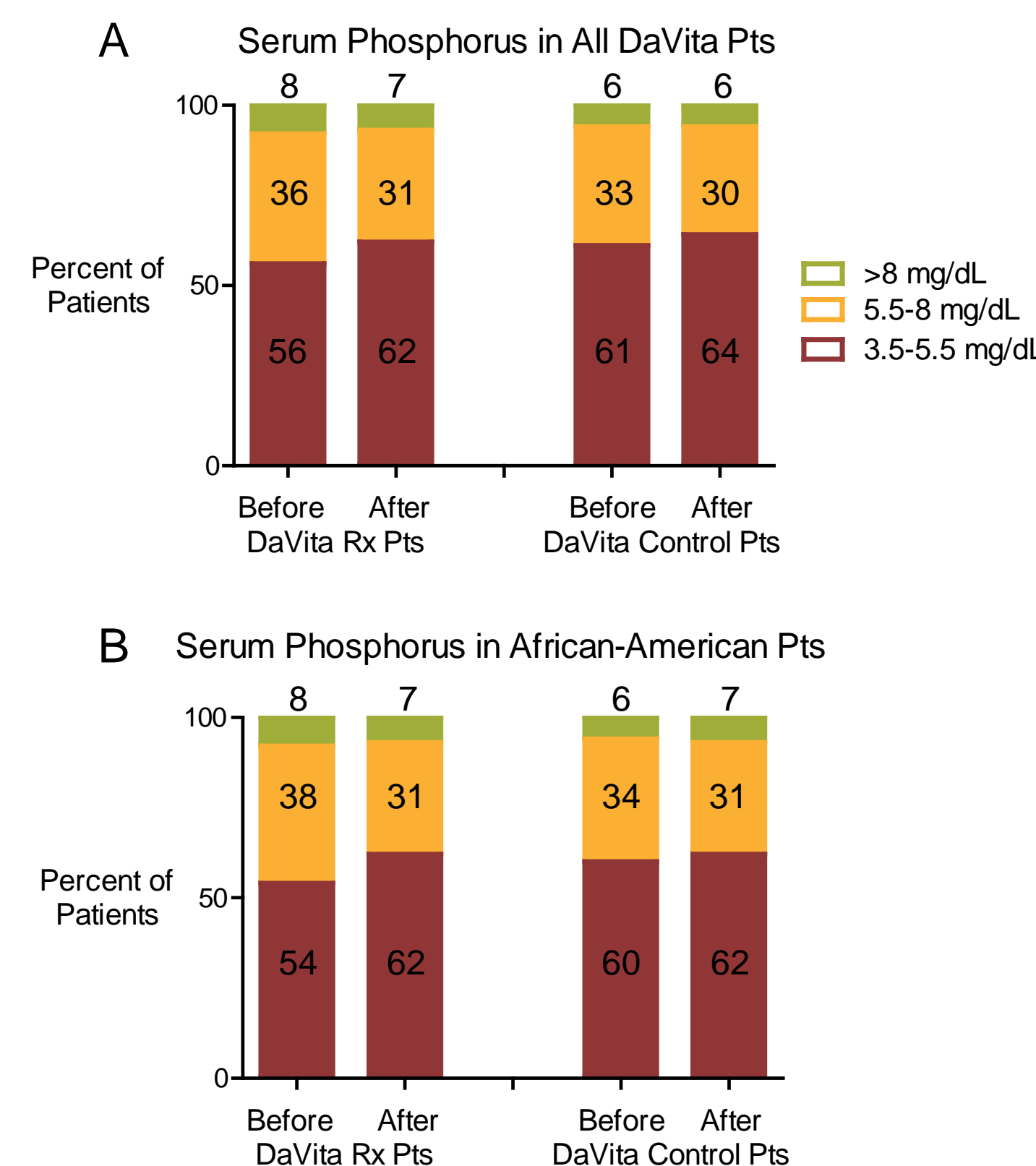


Figure 2. Percent of Patients within Phosphorus Ranges for DaVita Rx Pts Compared to Controls

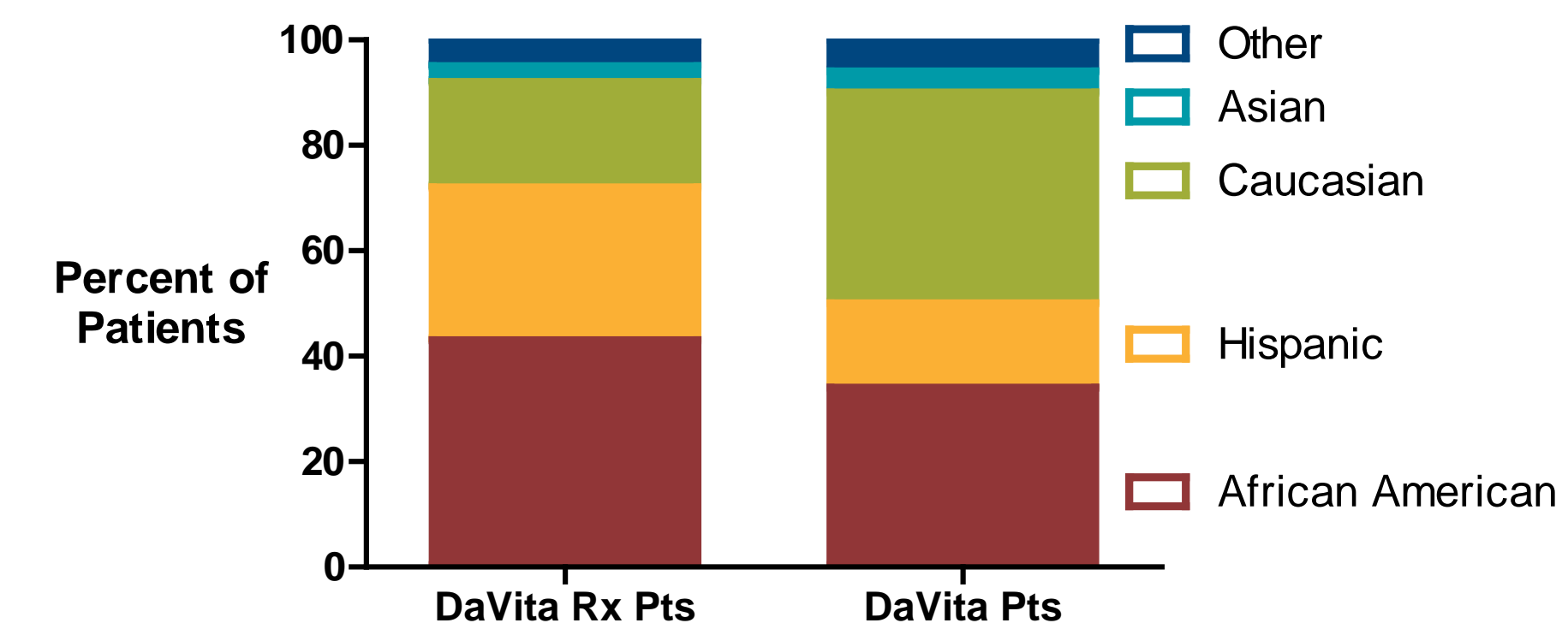


Figure 1. Racial and Ethnic Break Down of DaVita Rx Compared to All DaVita Patients

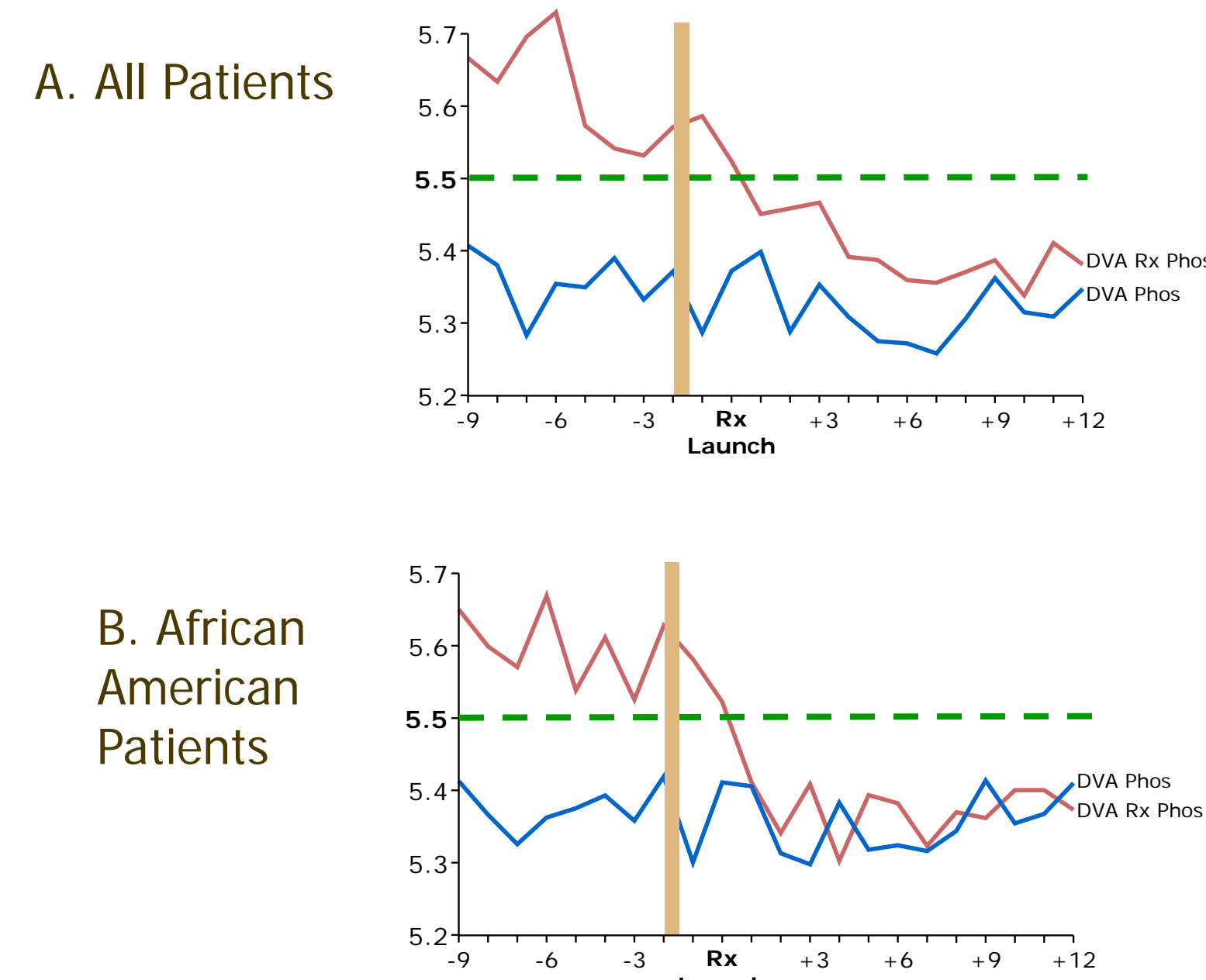


Figure 3. Serum Phosphorus Levels Prior to and After Launch of DaVita Rx Program

CONCLUSIONS

- As of January 2009, African American and Hispanic populations were over represented in the DaVita Rx population (Figure 1 and Table 1).
- After 1 year of using DaVita Rx, patients were more likely to move from suboptimal (>5.5 mg/dl) to optimal (< 5.5 mg/dl) serum phosphorus levels compared to non-DaVita Rx users (6% vs. 3%; Figures 2A and 3A).
- This effect was even more pronounced in African Americans (8% DaVita Rx vs. 2% non-DaVita Rx; Figures 2B and 3B).
- These results indicate that improved medication management through a program like DaVita Rx can improve biochemical outcomes in minority populations.

KEY LEARNINGS

- Significant improvements in phosphorus control, particularly in African American patients using DaVita Rx, illustrates that timely access to needed medications can improve clinical outcomes in this group, and thus fills an important gap in care.
- Differences in clinical outcomes among various ethnic/racial groups may be overcome with improved care processes.

We thank the patients who participated in this study and DaVita Clinical Research® for support in preparing this poster. DCR is committed to advancing the knowledge and practice of kidney care.

Correspondence: allen.nissenson@davita.com
National Kidney Foundation Spring Meeting,
April 13-17, 2010, Orlando, FL