Conversion from Paricalcitol to Doxercalciferol Does Not Affect Bone and Mineral Markers

Tracy Mayne, PhD*[1]; Mahesh Krishnan, MD, MBA, MPH, FASN [1]
(1) DaVita Clinical Research, Minneapolis, MN

INTRODUCTION

With the implementation of Medicare payment changes, comparative effectiveness research (CER) of drugs, a national healthcare priority, assumes immediate importance in dialysis. Although a variety of retrospective research designs can be useful, prospective studies provide a higher and stronger level of evidence.

In order to assess the comparative effectiveness of different formulations of intravenous activated vitamin D used in dialysis, we conducted a prospective, single-arm conversion from paricalcitol to doxercalciferol, monitoring pre/post changes in bone and mineral markers at the clinic level.

METHODOLOGY

- We conducted a single arm, prospective study of 7 dialysis centers in which patients were initially exclusively prescribed paricalcitol.
- Patients were converted over a 2-month period to doxercalciferol. Patient demographics are shown in Table 1.
- Calcium, phosphorus and parathyroid hormone (PTH) were monitored monthly.
- Clinic level means were computed for each outcome.
- General Linear Models were used to test for changes in outcomes.
- All 7 clinics were located in AZ and NV.

RESULTS

Table 1. Clinic and Patient Characteristics

	Mean ± SD
N	1,862
Age (yr)	60.2 ± 14.6
% Male	62.8%
Race and Ethnicity	
% African American	24.8%
% Hispanic	15.3%
% Asian, Pacific Islander	16.6%
% Native American	1.1%
% Unknown	0.1%
% Diabetic	67.0%
Vintage (yr)	3.8 ± 3.6
BMI	27.4 ± 6.6
Clinic Size	
Average	129 ± 52.4
Range (low, high)	36, 247

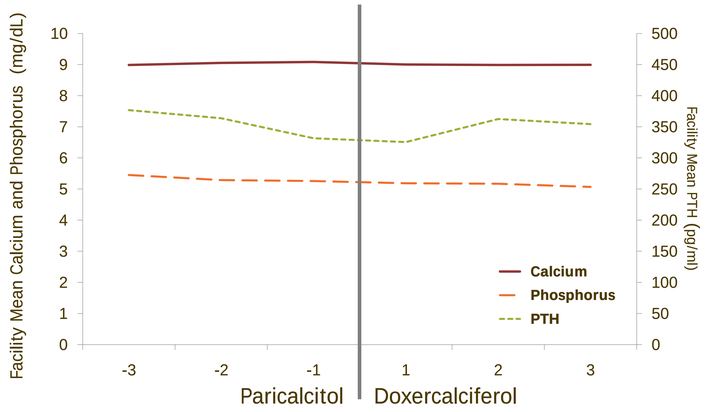

Figure 1. Lab Outcomes Before and After Conversion from Paricalcitol to Doxercalciferol

SUMMARY of RESULTS

- Conversion was successful: clinics showed 100% paricalcitol utilization three months before conversion and 100% doxercalciferol use three months after.
- Average paricalcitol clinic dose pre-conversion was 10.7 ± 1.8 mcg. Average doxercalciferol clinic dose post-conversion was 5.7 ± 1.2 mcg.
- As shown, though there was a numerical trend towards better phosphorus and PTH measures post-conversion, the effects were not statistically significant (Figure 1).

KEY LEARNINGS

- ✓ In this small prospective study, clinics successfully converted from paricalcitol to doxercalciferol with non-significant improvements in bone and mineral measures.
- ✓ In this time period, dose conversion was 1.9 mcg paricalcitol to 1.0 mcg doxercalciferol.
- ✓ There was no evidence of superiority of either agent over the other.

We express our sincere appreciation to the teammates in our nearly 1600 clinics who work every day, not only to take care of patients but also to ensure the extensive data collection on which our work is based. We thank DaVita Clinical Research® for support in preparing this poster. DCR is committed to advancing the knowledge and practice of kidney care.

*Correspondence: tracy.mayne@davita.com
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