

Video Education Increases Patient Attainment of Target Phosphorus Levels

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INTRODUCTION

The value of video education in the dialysis setting is unknown. We assessed the acceptance of a video education project and its effectiveness in improving the percent of patients with phosphorus levels at or below the recommended target (≤ 5.5 mg/dL).

METHODOLOGY

- Eleven of 13 dialysis centers (n=13 to 141) in one region of a large dialysis organization (LDO) participated in the video education project.
- Lab results for patients were compared for the 6 months before the intervention (8/09-1/10) to the 3 months after the intervention (4/10-6/10).
- A mixed linear model (PROC MIXED, SAS 9.2) was employed with a repeated measure by center over the 3 time periods (before, during, and after intervention). The first and third periods were contrasted.
- The analysis was weighted by the number of patients at each center due to the wide range of center sizes (13 to 141 patients per center).
- The 2 non-participating centers are provided for reference only and cannot be used for direct comparison.

RESULTS

Video Education Project

- One video was shown for eight consecutive weeks beginning February 1, 2010 to in-center hemodialysis patients while the patients were receiving their treatments.
- Patients were given a hand-out summarizing the main topic of each video.
- Watching the videos was encouraged but voluntary.
- Videos offered (by week):
 - The Dialysis Experience: Parts 1 & 2
 - Sharon's Place
 - Adequate Dialysis
 - Living Well on Dialysis
 - Diet and Dialysis
 - Delicate Balance
 - DaVita Kitchen
 - Go Fistula: A Patient's CathAway

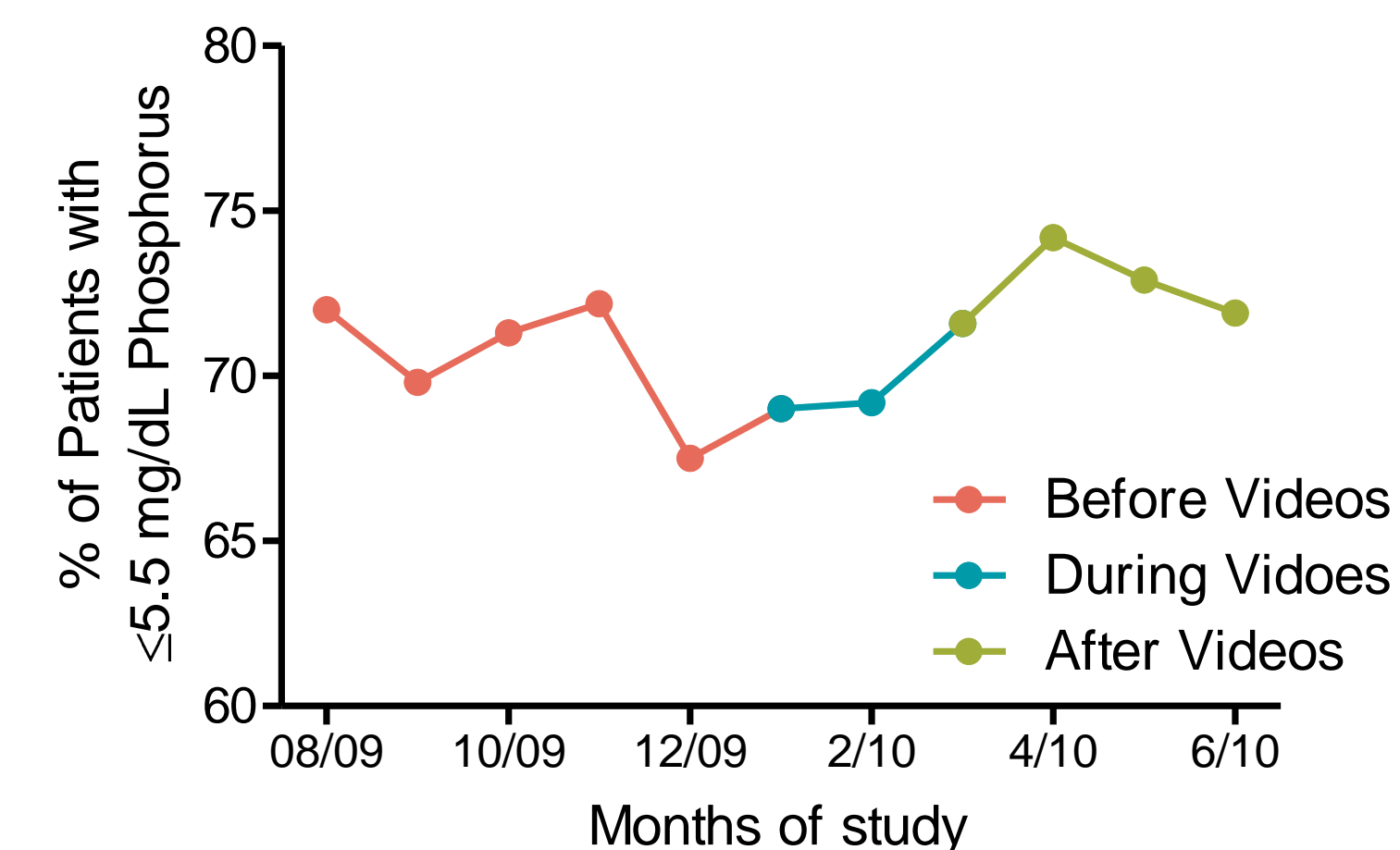


Figure 1. Percentage of Patients Achieving ≤ 5.5 mg/dL Phosphorus at Participating Centers

Table 1. Percent of Patients Achieving ≤ 5.5 mg/dL Phosphorus

Participating Center	Mean # of pts with monthly P result	Percent of patients achieving ≤ 5.5 mg/dL P			
		Before program (8/09-1/10)	During program (2/10-3/10)	After program (4/10-6/10)	Change (After-Before)
A	141	65.7	68.4	72.5	6.8
B	57	74.4	76.1	72.2	-2.2
C	79	75.9	77.7	77.6	1.7
D	13	55.8	62.5	82.1	26.2
E	33	68.5	58.0	61.4	-7.2
F	24	67.5	64.0	76.4	9.0
G	21	75.7	71.9	66.7	-9.1
H	38	75.0	73.0	72.3	-2.8
I	40	65.9	72.8	73.5	7.6
J	53	71.8	69.3	76.0	4.2
K	36	72.9	67.1	70.3	-2.7
Center-level mean	49	69.9	69.2	72.8	2.9
Patient-level mean		70.3	70.4	73.0	2.7
Non-participating Center					
Non-A	13	79.6	88.7	70.3	-9.3
Non-B	72	82.7	77.9	81.7	-1.0
Center-level mean	42	81.2	83.3	76.0	-5.2
Patient-level mean		82.4	79.6	80.1	-2.3

SUMMARY of RESULTS

- The percentage of patients achieving target levels for phosphorous (≤ 5.5 mg/dL) was higher after participation in a video education program intended to improve patient phosphorus levels (Table 1 and Figure 1).
- Of the over 300 patients who completed a post-video questionnaire:
 - 79% indicated that videos increased their overall knowledge of dialysis
 - 80% wanted more video education in the future
 - 87% reported the video handouts reinforced what they had learned

KEY LEARNINGS

- ✓ The percentage of patients achieving ≤ 5.5 mg/dL phosphorus after a video education program increased 2.9%, which was marginally significant (p=0.059).
- ✓ The use of video education appears to be an effective way to improve phosphorus levels in dialysis patients.
- ✓ Due to resources requirements for such programs, corroboration of effectiveness with more rigorous study designs would be desirable.

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