

Peritoneal Dialysis Technique Failure Rate Is Decreasing Due to Fewer Deaths and Infections

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Introduction

- Peritoneal dialysis (PD) enables patients to continue to live full and meaningful lives.
- Reducing the PD technique failure rate is an important component to maintaining access to PD.
- Peritonitis is the leading cause of PD technique failure.
- We determined PD technique failure rates between June 2010 and June 2011 to elucidate any recent trends.

Methods

- In a retrospective analysis, we calculated the overall technique failure rate in a large dialysis organization between July 2010 and June 2011.
- Technique failure rate was calculated on a rolling 12 month basis.
- Dialysis units reported reasons for PD patient losses monthly at quality improvement facility management meetings.
- Technique failure rates were calculated on a rolling 12 month basis as:

Technique Failure Rate = Total losses in the past 12 months

Average census of month 1 and month 12

• Technique failure rate excluded losses due to transplants and divestitures.

Results

Table 1. Alcavis 50® Use Reduced Peritonitis*

	Months Between Episodes (Avg)
Protocol initiation (March 2010)**	30.2
9 Months After Initiation (December 2010)	36.8

*Work presented by Moran et al. Annual Dialysis Conference (ADC) 2012

Figure 1. Technique Failure Rates Decreased

Technique failure rates were calculated on a rolling 12 month basis as described in the Methods section and excluded losses to transplants and divestitures.

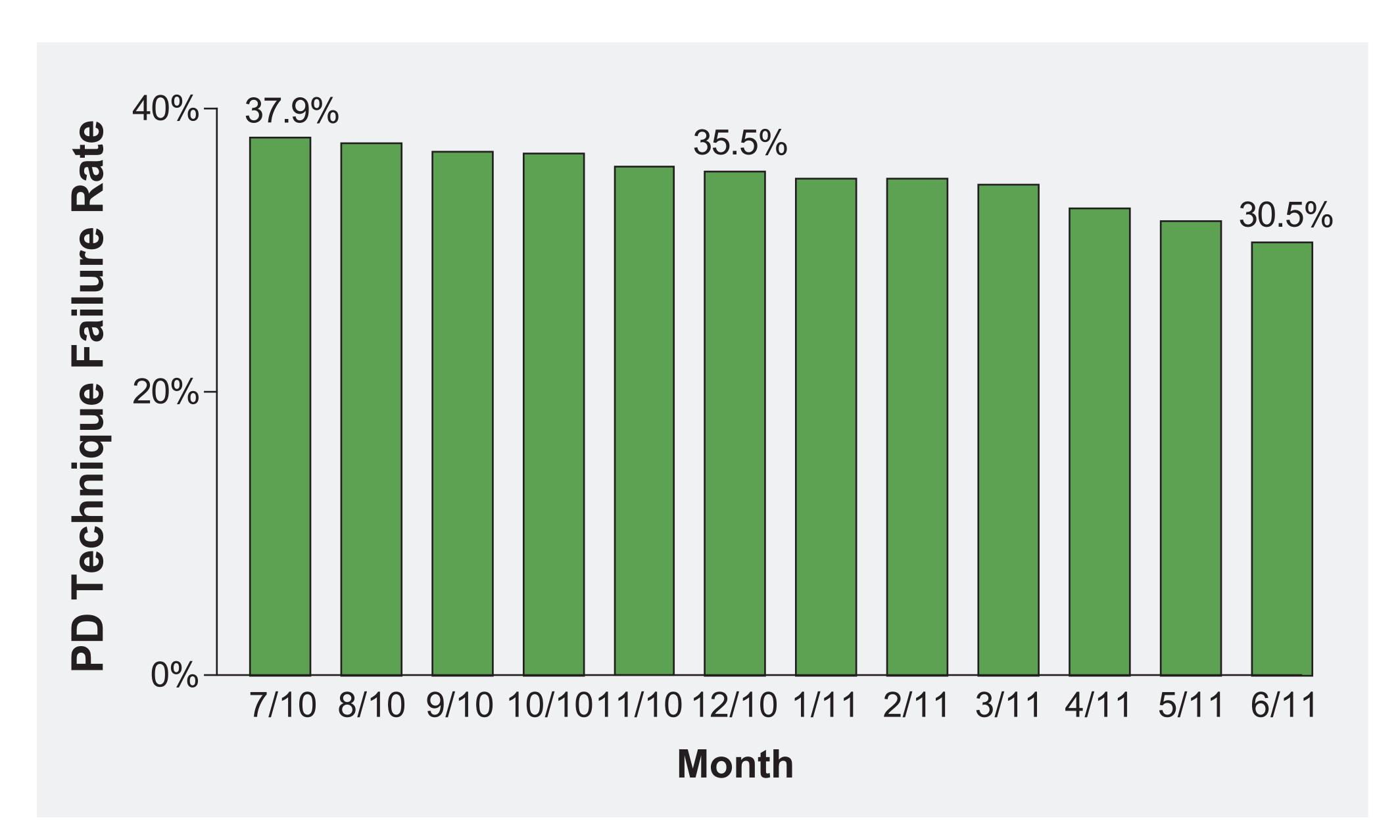
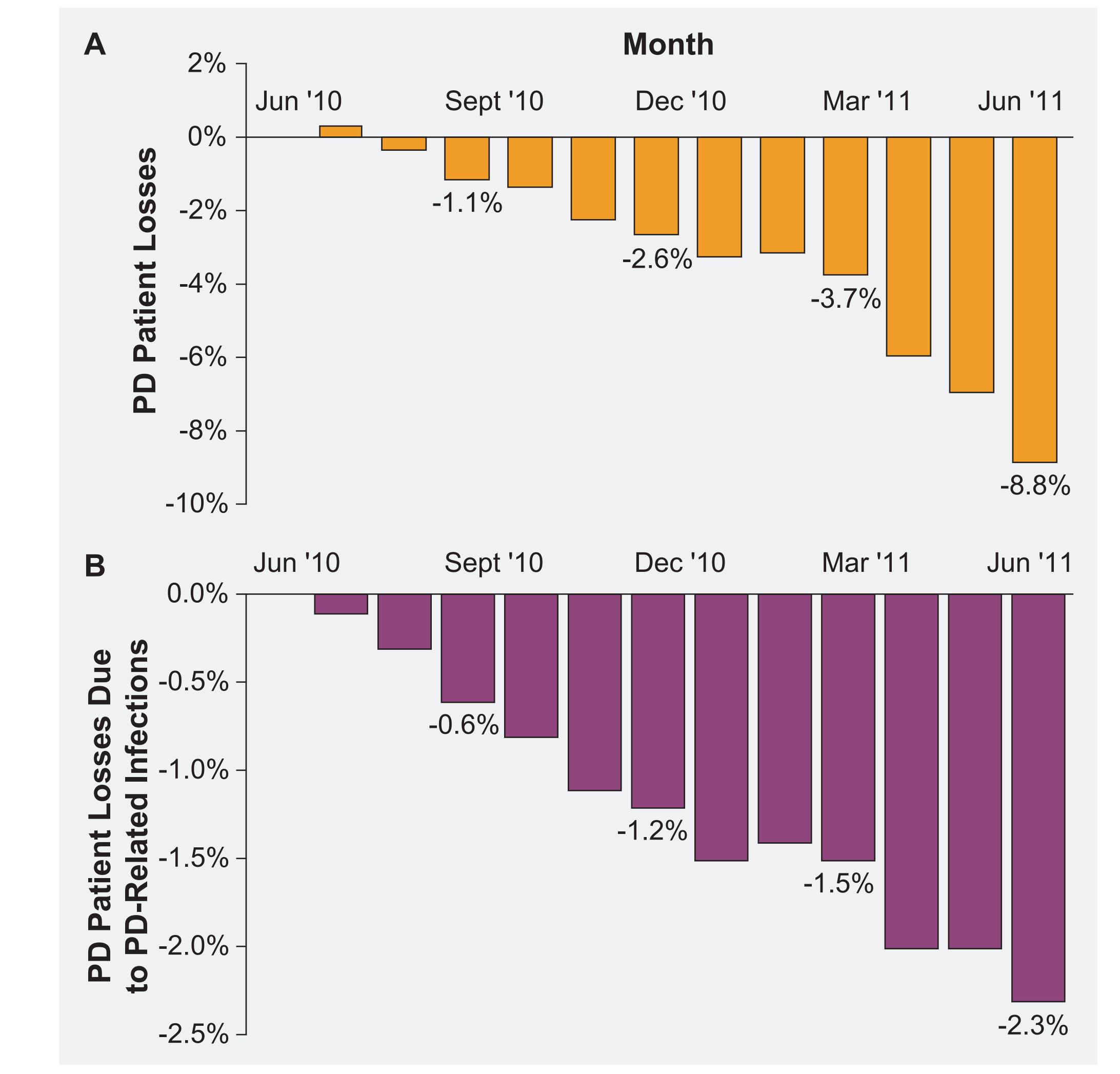


Table 2. Top Reasons for Stopping Peritoneal Dialysis

Reasons for Stopping PD*	Percent of Patients**
Death	23.6%
PD-Related Infections	17.6%
Transplant	16.6%

*As of June 2011

Figure 2. (A) Overall PD Patient Loss Decreased (B) Due to Fewer PD-Related Infections



- Between 2010 and 2011, the overall PD technique failure rate has decreased steadily (Figure 1).
- The PD patient losses due to PD-related infection decreased 26.1% between June 2010 and June 2011 (Figure 2A and B).

Conclusions

- Peritonitis rates became less frequent after the implementation of the Alcavis 50 protocol.
- The use of Alcavis 50 is a simple, cost-effective strategy to decrease frequency of peritonitis episodes.
- Decreases in PD-related infection were the main reasons for the lower technique failure rate.

Acknowledgements

Our sincere appreciation to the peritoneal dialysis nurses 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® (DCR®), and specifically acknowledge Karen Spach, PhD of DCR for editorial contributions in preparing the poster. DCR is committed to advancing the knowledge and practice of kidney care.

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American Nephrology Nurses' Association 43rd National Symposium, April 29–May 2, 2012; Orlando, FL

^{**}Electrolytically-produced sodium hypochlorite (Alcavis 50) used to scrub transfer set connections before and after PD system connect/disconnect according to the technique described by Funes et al. (ADC, 2009).

^{**}Calculated as a percentage of all PD patient losses based on a 12-month rolling average