

Reduction of Drop Out

Reduction of Hospitalizations

# Evidence Series: Poster

## **Trends in Outcomes for an Automated Peritoneal Dialysis Program** with and without Remote Management in Colombia

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Remote Patient Monitoring Program in Automated  
Peritoneal Dialysis: Impact on Hospitalizations  
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# BACKGROUND

Remote Home Management of patients treated with Automated Peritoneal Dialysis (APD) is a technology that could positively impact the results of this therapy.

**Figure 1. Remote home management in APD**



# OBJECTIVES

To explore differences in outcomes for APD patients using Remote Home Management versus those with the conventional standard of care.



# ENDPOINTS

- Hospitalization rate
- Drop out to Hemodialysis



## METHODS

This retrospective study included three cohorts of patients treated with APD. Data were obtained from the first 90 days of therapy:

- 2017 patient cohort: APD with remote home management (Homechoice Claria with Sharesource)
- 2014 and 2015 cohorts: APD without remote home management
- comparisons were made with historical APD Controls (Cohorts 2014 and 2015) without remote management.

## STUDY POPULATION

A total of  
**947**  
**PATIENTS**  
were included

Number of patients in the three years cohorts:

- 2014 (483)
- 2015 (405)
- 2017 (59)

These patients were enrolled at Renal Therapy Services in Columbia.






## RESULTS

- The rates of APD drop out to HD were 11.1; 10.7 and 9.7 therapy switches per 100 patient-years at risk for the three cohorts respectively.
- The incidence rate ratios between the cohorts were:
  - o 2017 vs 2014 cohorts was 0.8 (CI 95% 0.22 – 2.4), p=0.421
  - o 2017 vs 2015 cohorts was 0.89 (CI 95% 0.22 – 2.5), p=0.443. See table 1.

**Table 1. Comparison of APD Drop Out Rates to Hemodialysis**

Year	Incidence Rate Ratio	95% CI	p
2017 vs 2014	0.87	0.22 - 2.4	0.421(ns)
2017 vs 2015	0.89	0.22 - 2.5	0.443(ns)

Trend in Reduction of PD Drop Outs to HD:

**PATIENTS USING APD DEVICES WITH SHARESOURCE SHOWED TRENDS SUGGESTING**  
 **LOWER INCIDENCE OF DROP OUT**  
 **VERSUS PATIENTS USING**  
 **DEVICES WITHOUT**  
**REMOTE MANAGEMENT CAPABILITIES.**

Disclaimer: The cohort of patients using APD with SHARESOURCE was a smaller group (n=59) than the comparative cohorts (n=485) and (n=405).



## RESULTS (CONT.)

- Hospitalization rates for the above cohorts were 0.78; 0.61 and 0.56 admissions per patient-year at risk for the 2014, 2015 and 2017 cohorts respectively.

The incidence rate ratio for hospitalization:

- for the 2017 vs 2014 cohorts was 0.71(CI 95% 0.44–1.1),  $p=0.055$
- for 2017 vs 2015 cohorts was 0.91 (CI 95% 0.56–1.4),  $p=0.359$ .

Reduction in Hospitalizations:

**PATIENTS USING APD DEVICES WITH SHARESOURCE SHOWED TRENDS FROM 2017 VS 2014 INDICATING**

✓ **FEWER HOSPITALIZATIONS THAN PATIENTS USING APD DEVICES WITHOUT SHARESOURCE**

**Table 2. Comparison of Hospitalization Rates**

Year	Incidence Rate Ratio	95% CI	p
2017 vs 2014	0.71	0.44 - 1.1	0.055
2017 vs 2015	0.91	0.56 - 1.4	0.359

Disclaimer: The cohort of patients using APD with SHARESOURCE was a smaller group (n=59) than the comparative cohorts (n=485) and (n=405).



## CONCLUSIONS

- The patient cohort treated with the APD-embedded two-way remote patient management platform showed a trend towards improvement in rates of APD drop out to HD and hospitalization
- This could be a valuable tool for enhancing the results of APD therapy

**PATIENTS USING APD DEVICES WITH SHARESOURCE SHOWED TRENDS SUGGESTING**  
 ✓ **LOWER INCIDENCE OF DROP OUT VERSUS PATIENTS USING DEVICES WITHOUT REMOTE MANAGEMENT CAPABILITIES.**

**PATIENTS USING APD DEVICES WITH SHARESOURCE SHOWED TRENDS FROM 2017 VS 2014 INDICATING**  
 ✓ **FEWER HOSPITALIZATIONS THAN PATIENTS USING APD DEVICES WITHOUT SHARESOURCE**

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