
From: gerard cignarella <gcignarella@yahoo.com>
Sent: Monday, June 01, 2009 7:31 AM
To: Nathalie Leitch
Subject: Fw: Adheris Deck
Attachments: Kadian Persistence and Case Study.ppt

Hi,
FYI.
G

----- Forwarded Message -----

From: "Hiro, Joseph M." <Joseph.Hiro@adheris.com>
To: "gcignarella@yahoo.com" <gcignarella@yahoo.com>
Sent: Thursday, May 28, 2009 3:10:48 PM
Subject: Deck

Thanks, Gerard.

Joseph Hiro
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Helping patients stay on therapy



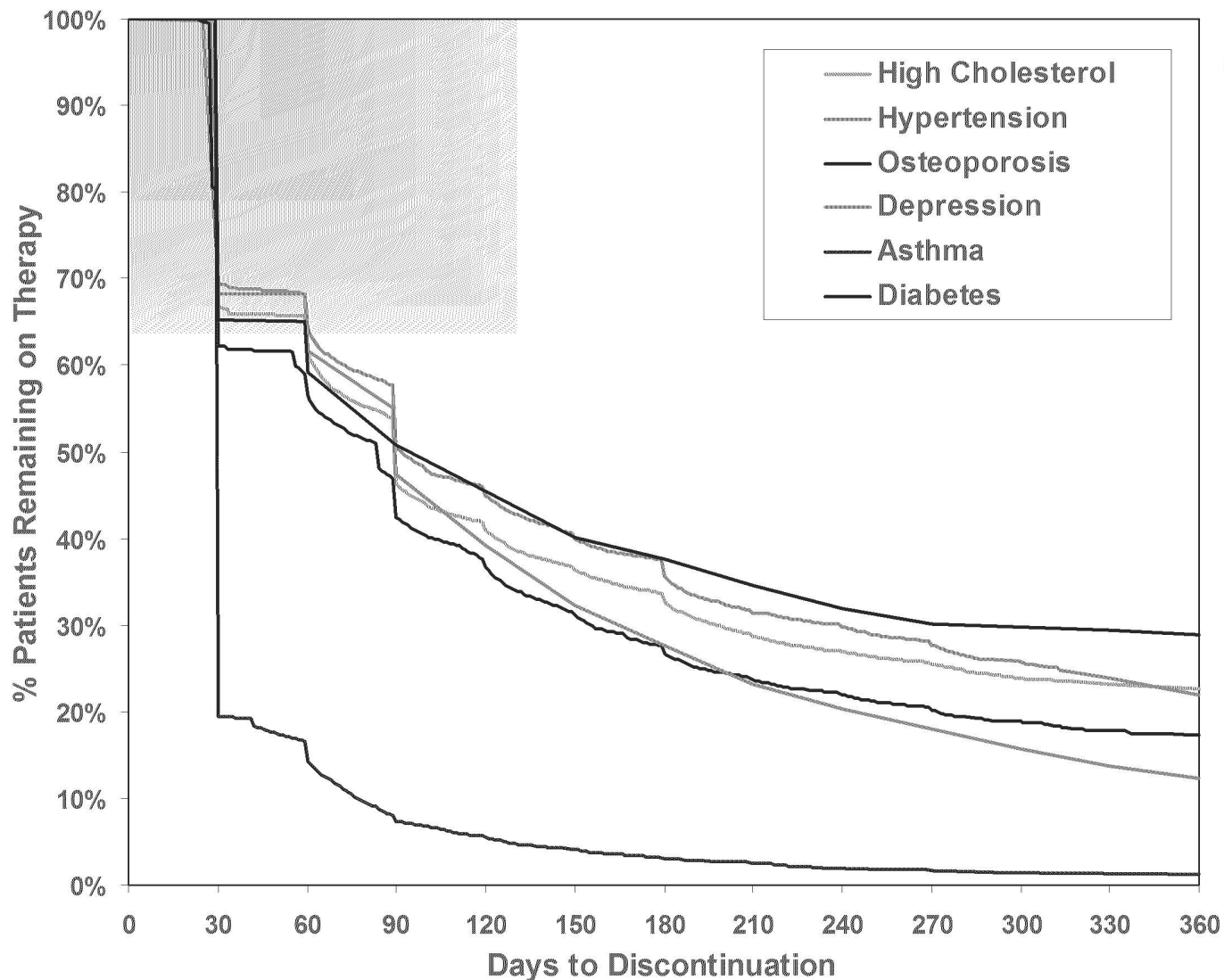
Kadian Patient Persistency and In-Class Case Study

05.27.2009



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Poor Persistency Exists across Therapeutic Categories



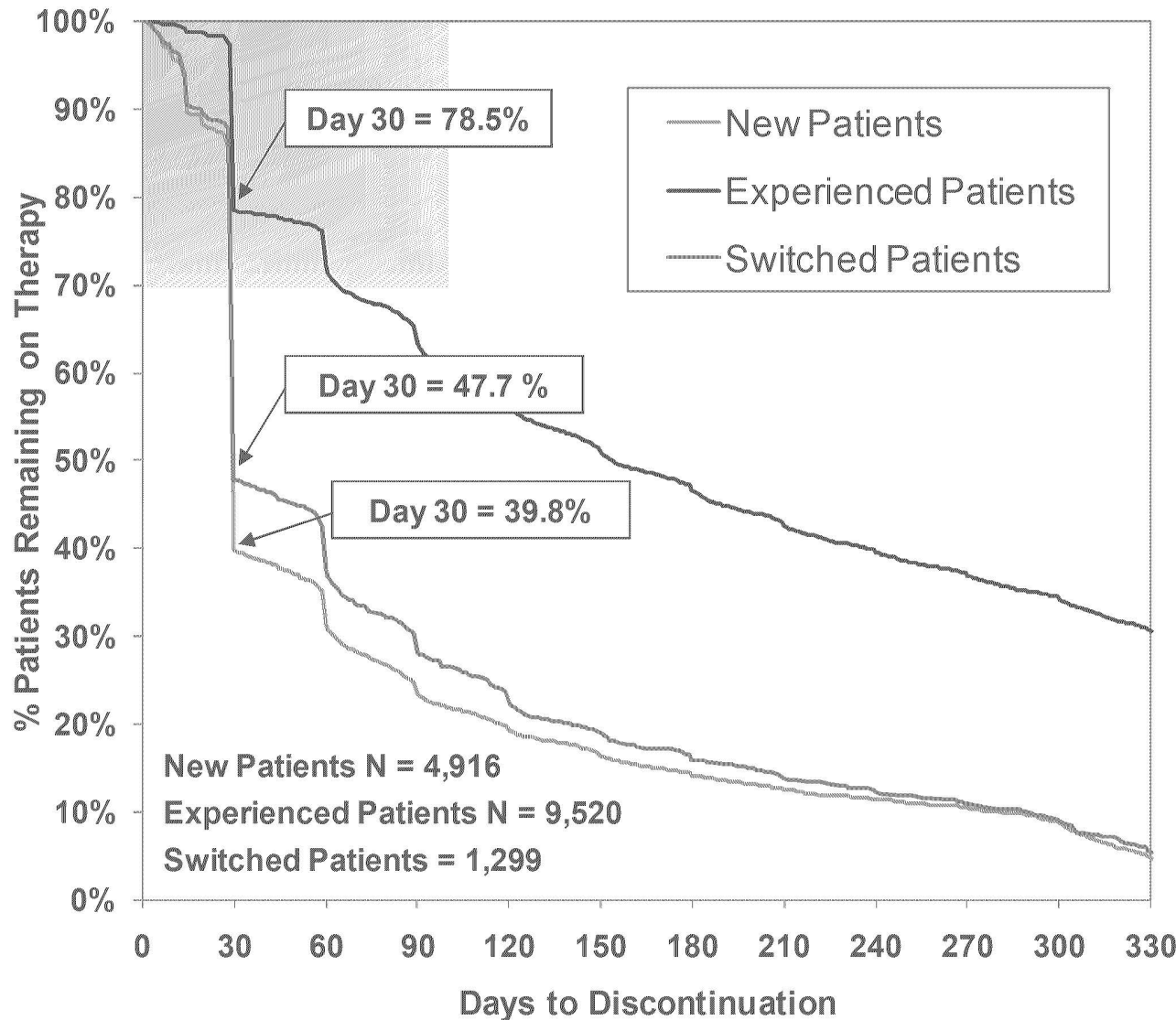
• Annual Cost of Poor Persistence per 1MM Patients by Drug Class:

- High Cholesterol...\$288MM
- Hypertension.....\$228MM
- Osteoporosis.....\$324MM
- Depression.....\$528MM
- Asthma.....\$468MM
- Diabetes.....\$562MM

Source: Adheris, Inc. Braun Analysis

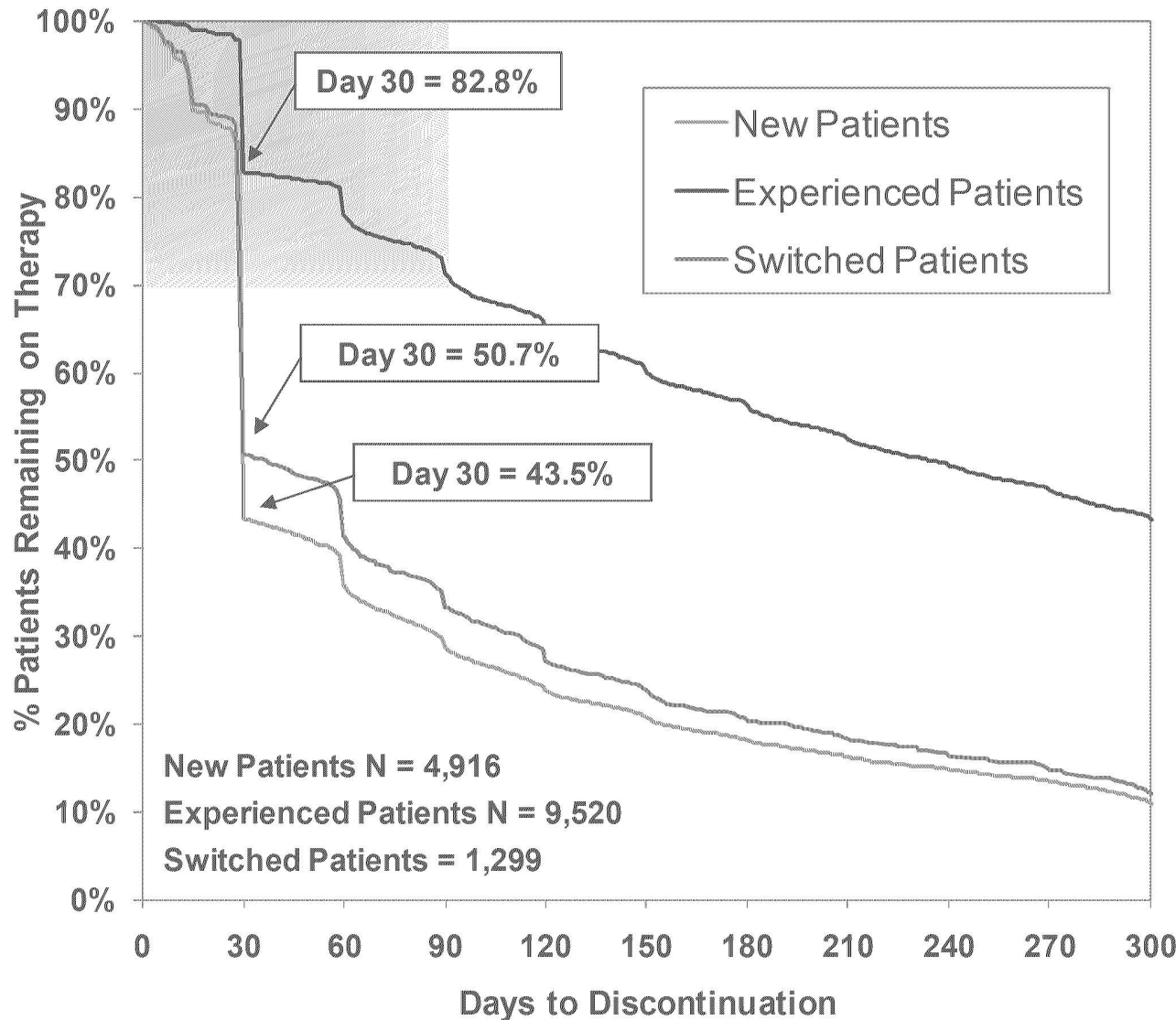
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Kadian Persistency – 30 Day Grace Period



- ~22%-60% patients drop off therapy by day 30
- Values at 30 days:
 - New Patients = 39.8%
 - Experienced Patients = 78.5%
 - Switched Patients = 47.7%
- Analysis shown utilizes Kaplan-Meier “time-to-discontinuation” methodology
 - Patients defined as having discontinued therapy if they exhibit a 30-day gap in treatment

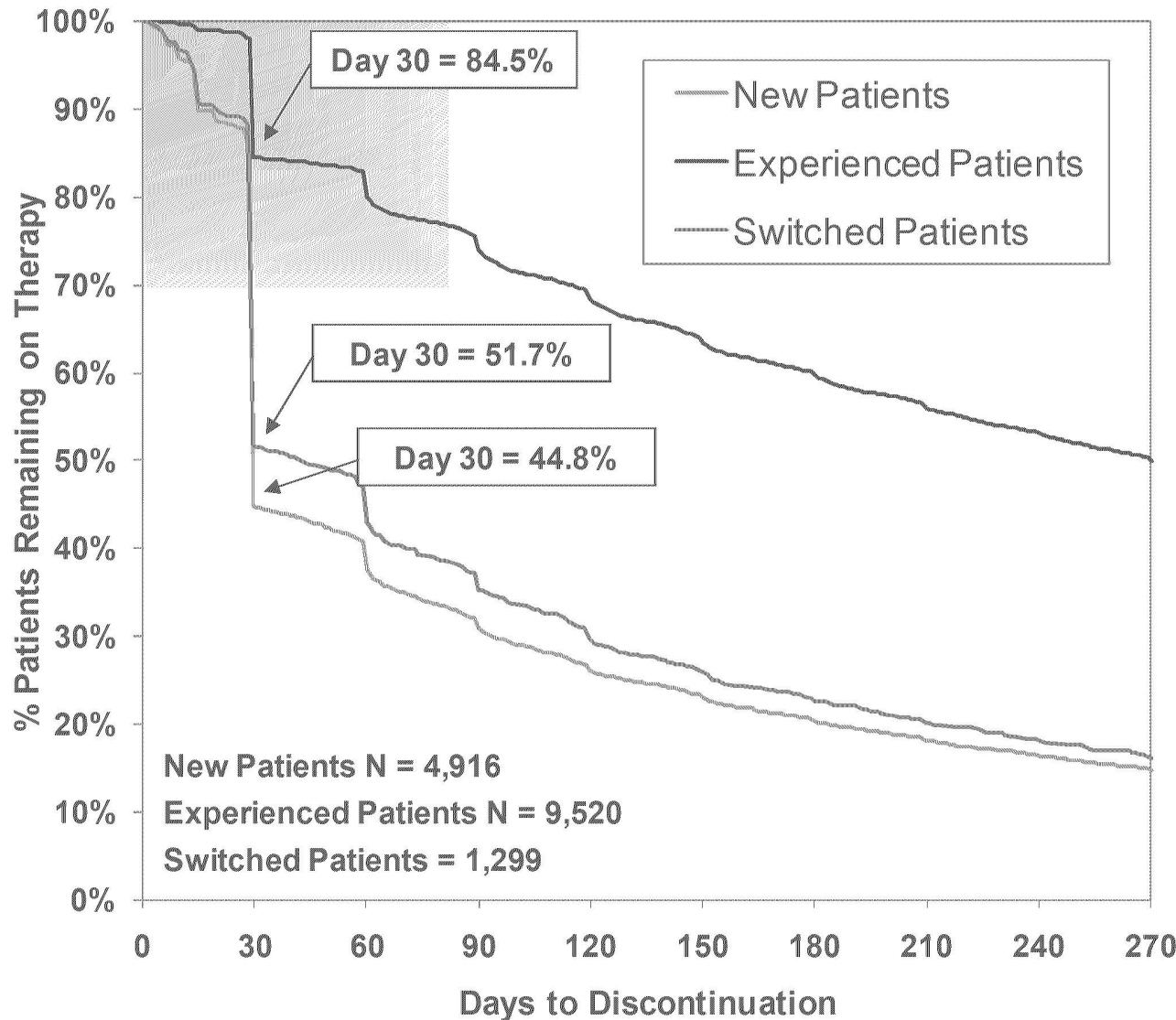
Kadian Persistency – 60 Day Grace Period



- ~17%-57% patients drop off therapy by day 30
- Values at 30 days:
 - New Patients = 43.5%
 - Experienced Patients = 82.8%
 - Switched Patients = 50.7%
- Analysis shown utilizes Kaplan-Meier “time-to-discontinuation” methodology
 - Patients defined as having discontinued therapy if they exhibit a 60-day gap in treatment

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Kadian Persistency – 90 Day Grace Period



- ~15%-55% patients drop off therapy by day 30
- Values at 30 days:
 - New Patients = 44.8%
 - Experienced Patients = 84.5%
 - Switched Patients = 51.7%
- Analysis shown utilizes Kaplan-Meier “time-to-discontinuation” methodology
 - Patients defined as having discontinued therapy if they exhibit a 90-day gap in treatment

Opioid Pain Medication Results Presentation

05.2009

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an inVentiv health company

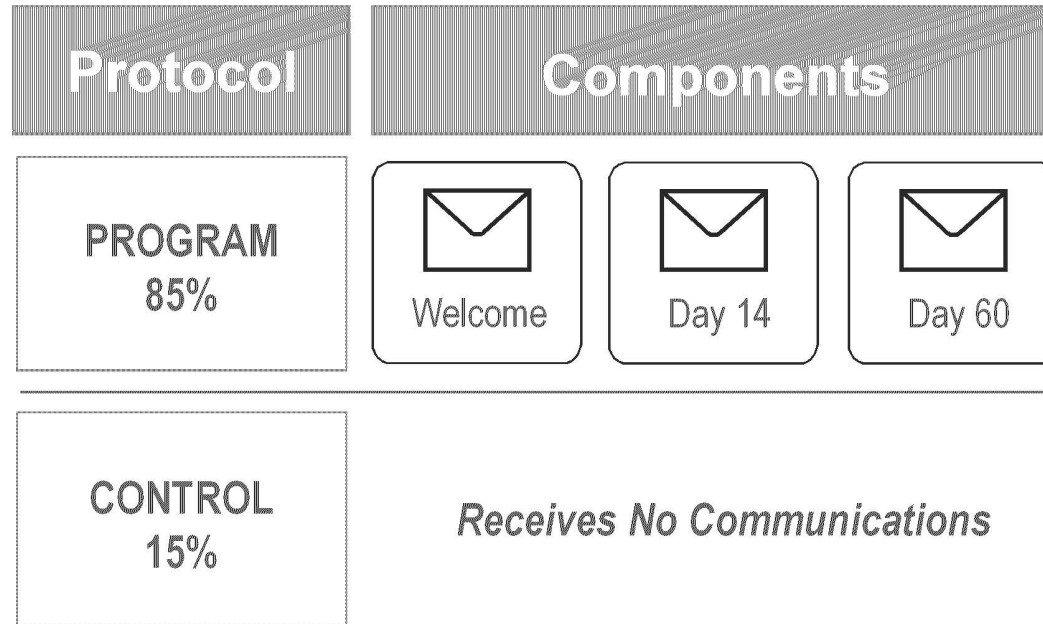
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Executive Summary

- This analysis includes patients enrolled from September 2008 through February 2009 and followed through March 2009
- This six month analysis shows strong adherence improvements compared to control patients
 - **7.6** incremental pills obtained per program patient
 - **6.1%** more likely to remain on therapy
- Based on these two behavioral improvements, and applying the WAC/pill for Kadian, program is projected to generate very strong ROI = **19.9:1**

Protocol Design



Key Performance Indicators

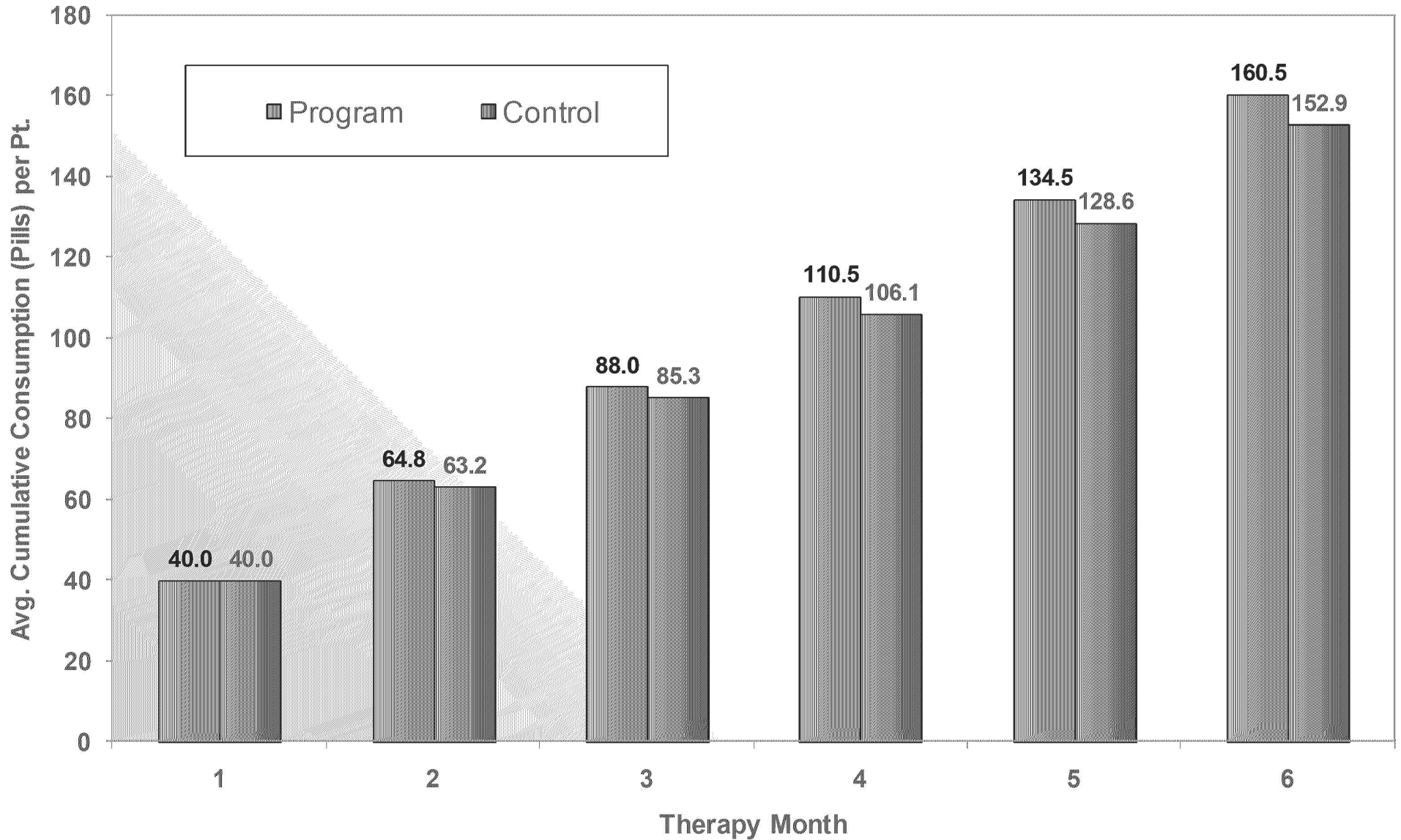
Key Data	Values
Number of Program Months	6
Number of Program Patients Analyzed	5,777
Incremental Pills Obtained per Patient	7.6
Increased Probability of Persistence	6.1%
Realized Revenue from Incremental Pills per Patient	\$67.49
6-Month Realized ROI	9.8 : 1
Projected Program Revenue from Incremental Pills and Persistence Lift	\$136.66
Projected Program ROI	19.9 : 1

Note: Revenue assumes \$8.88 Kadian WAC per pill

Patient Demographics & Randomization Check

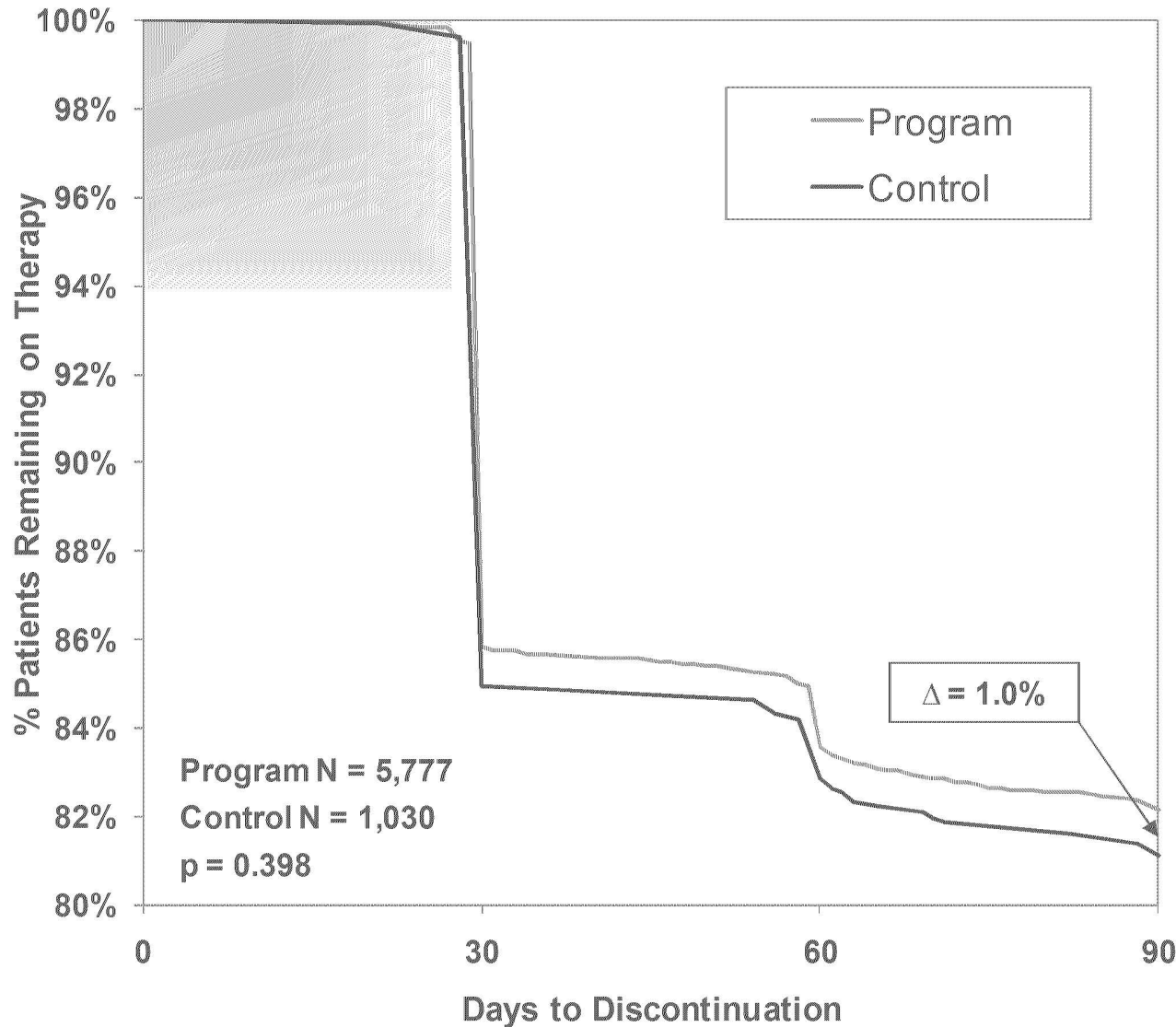
Variable	Value	Control	Program
Number of Patients	N	1,030	5,777
Gender	Female	56.41%	57.84%
	Male	43.59%	42.16%
Age Group	≤50	40.68%	43.76%
	51-60	33.11%	31.33%
	61-70	15.83%	15.51%
	71+	10.39%	9.40%
Geographic Region	Northeast	15.21%	14.89%
	Midwest	26.30%	28.73%
	South	42.59%	41.68%
	West	15.90%	14.70%
Population Density (people per sq mile)	<20	5.83%	4.50%
	20-250	36.12%	35.21%
	251-1000	23.01%	25.46%
	>1000	35.05%	34.83%
Quantity Dispensed with Intial Rx	≤30	93.88%	94.08%
	31+	6.12%	5.92%

Program Drives 7.6 Incremental Pills at Month 6



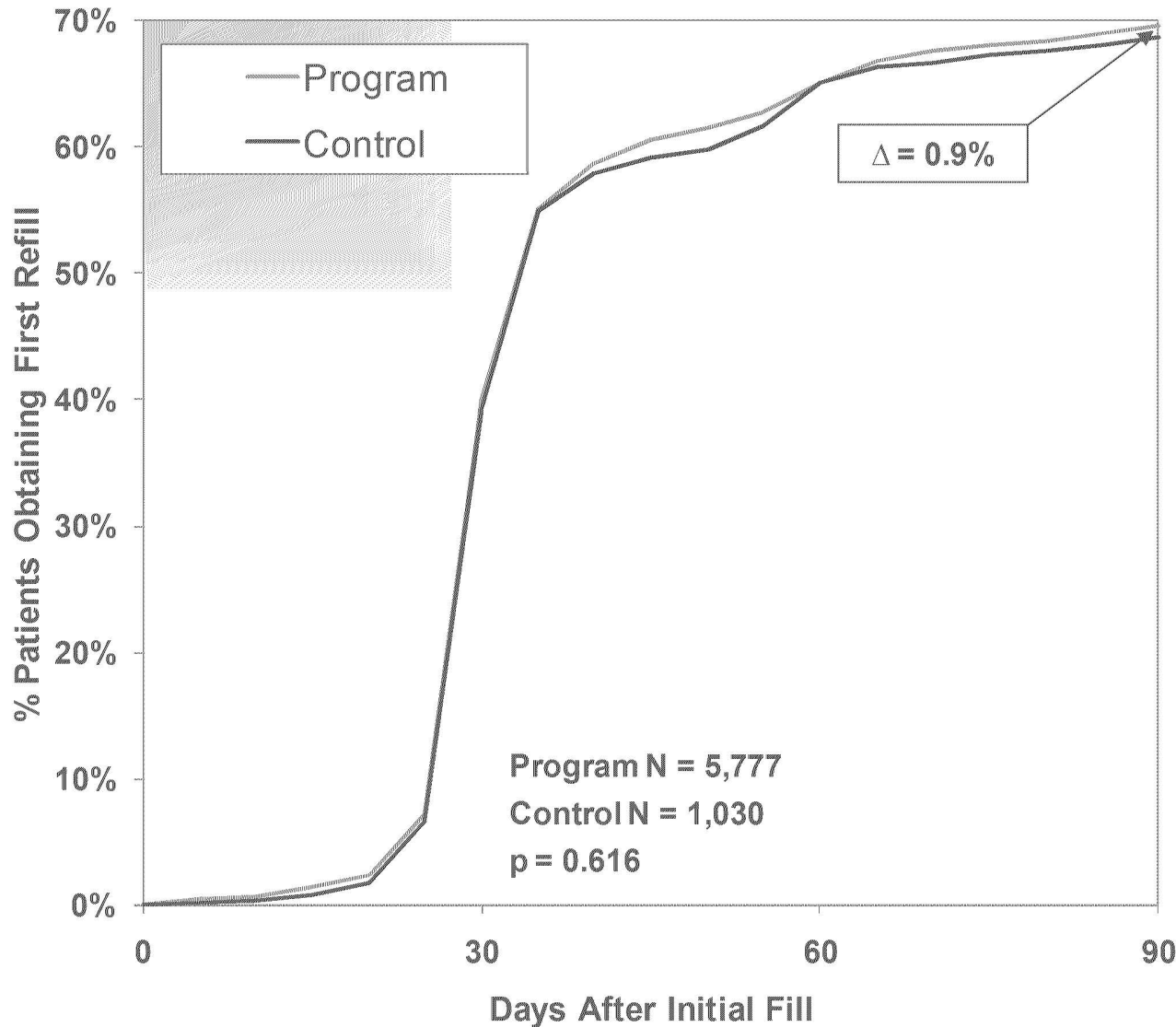
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Program Patients 6.1% More Likely Persistent



- Endpoint values at 90 days:
 - Program = 82.1%
 - Control = 81.1%
- Incremental persistent patients add retention value by consuming additional pills beyond the program period
- Analysis shown utilizes Kaplan-Meier “time-to-discontinuation” methodology
 - Patients defined as having discontinued therapy if they exhibit a 90-day gap in treatment

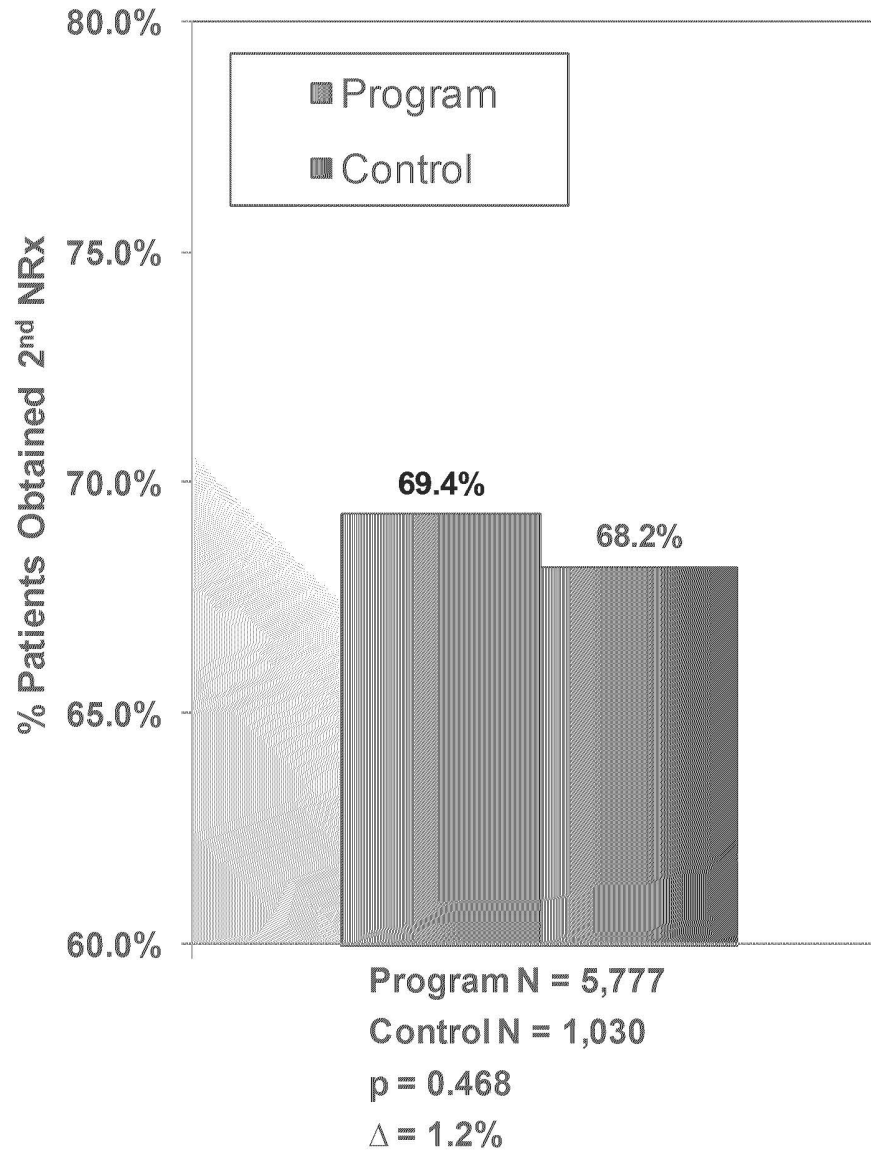
Program Patients 2.0% More Likely To Return w/NRx



- Results depict percentage of patients returning with NRx following date of enrollment
 - Program: 69.6%
 - Control: 68.7%
- At day 90, 0.9% more program patients returned with NRx vs. control patients

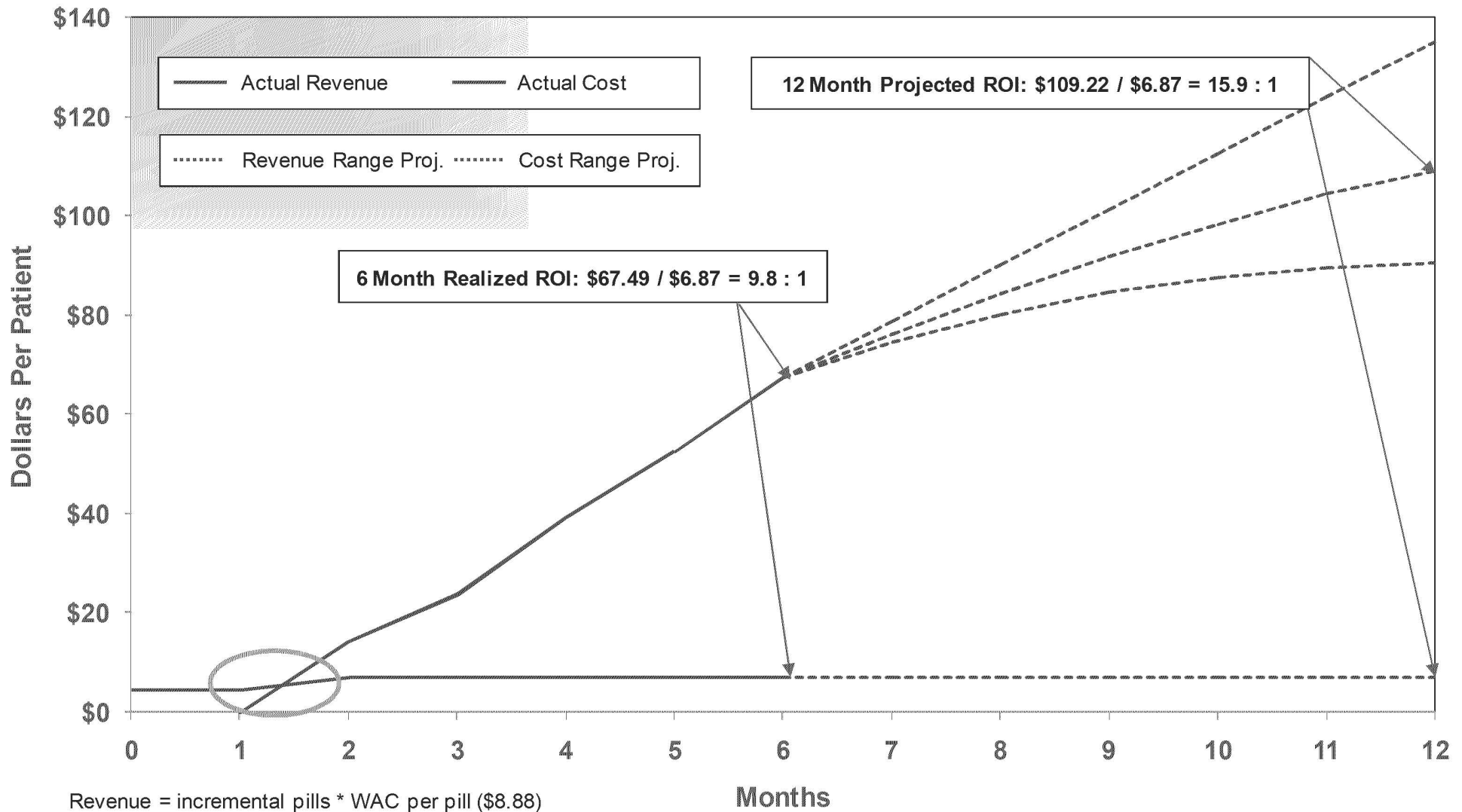
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More Program Patients Obtain Follow-on NRx



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Projected Revenue & Cost



Revenue = incremental pills * WAC per pill (\$8.88)

Cost = letters per patient * \$2.29 per letter

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Projected Program ROI

Incremental Pills per Pt.	WAC/Pill	Projected Revenue
12.3	\$8.88	\$109.22

Persistency Lift	Avg. Next Year Cons.	Retention Revenue
1.0%	309.0	\$27.44

Letters Per Patient	Cost Per Letter	Projected Cost
3.0	\$2.29	\$6.87

Revenue	ROI
\$136.66	
Cost	19.9:1
\$6.87	

Retention Value Calculation Methodology



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Retention Value

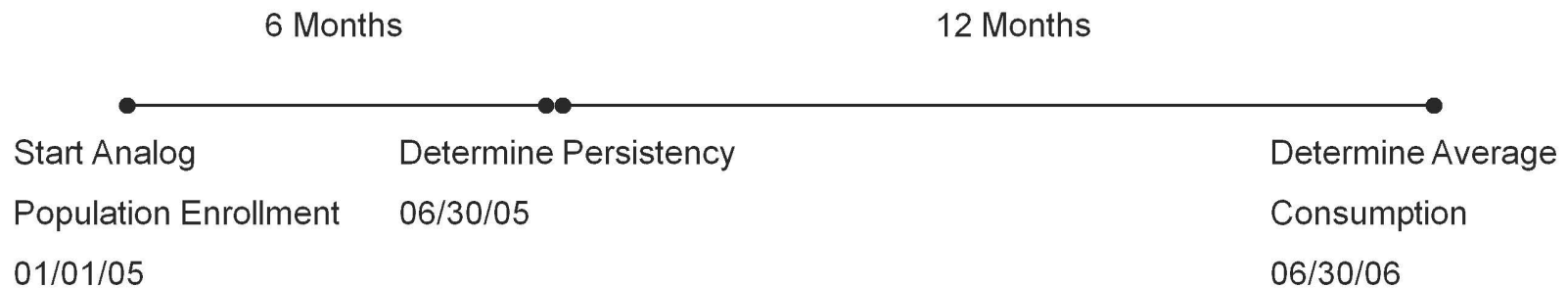
- In addition to increased consumption, adherence programs also generate more persistent patients at later stages of therapy
- These additional patients generate revenue for the brand well beyond the program's duration
- To measure this retention value, we use the following method:
 1. Gather non-program patients on given medicine from Adheris Pharmacy Database who have persisted for the same duration as our program patients
 2. Analyze these patients' consumption for the twelve months following the original program duration, and calculate the average
 3. Apply this average to the percentage of patients remaining on therapy due to program
 4. Multiply the result by the price per day to arrive at retention value (revenue) per patient

Retention Value (sample graphic)

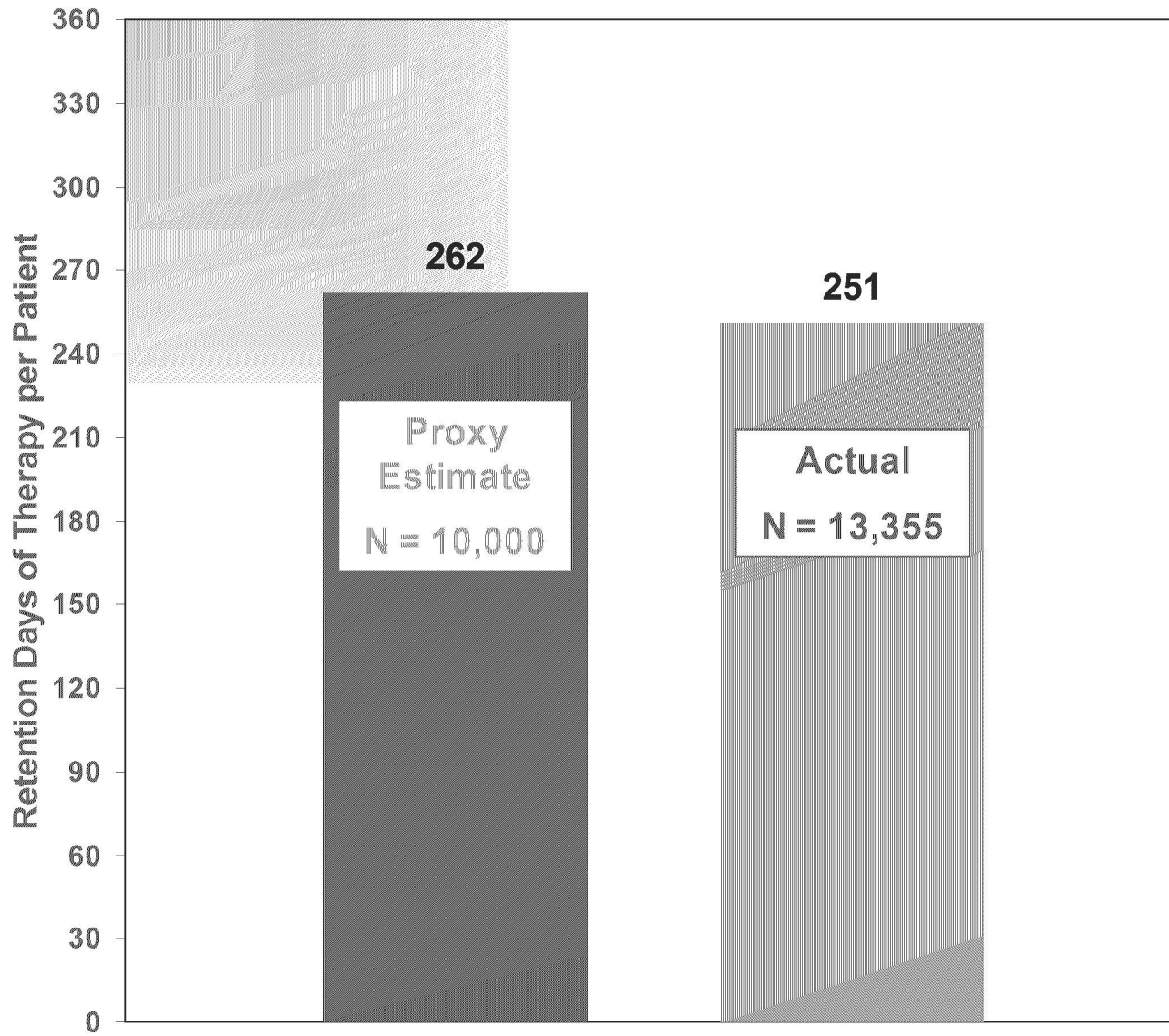
Active Adherence Program



Look Back Period



Actual 2nd Year Consumption ~96% of Estimated Value



- Actual program patient consumption in year 2 very similar to projected retention value
 - Estimated: **262 days**
 - Actual: **251 days**
- Observed 4% difference would not typically change ROI projection calculated to one decimal place (ie 3.0:1)

Appendix



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Adheris Advantages

Truly Unique Patients

- The quality of patient-level longitudinal analysis critically depends on the ability to create a unique identifier for each patient
- Most data/analytics providers use DOB, ZIP, and gender to create their patient ID
- Adheris also captures full patient names and addresses, allowing us to incorporate this information to create a much more reliable identifier, ensuring patients are truly unique

Data Availability

- Many providers combine data from disparate sources, which may encompass time spans of three months to more than one year old
- The Adheris database includes three years of true patient-level, longitudinal data, including records as recent as one week old from the date of analysis

Data Quantity

- While most providers will quote high market coverage rates, their many different sources of data may each only contribute for small periods of time and/or may be very dated
- Adheris maintains complete, systematic data for all pharmacy transactions of roughly 140 million patients (~1 billion prescriptions) annually at 40 pharmacy chains; this covers approximately 45% of the U.S. retail pharmacy market

Data Quality

- Other providers merge many data sources, each of which may supply different pieces of information; the result is a mix of data with varying levels of quality and completeness
- Adheris captures the same data in the same format from all 40 chains, and because data records are actual financial transactions, there are virtually no missing observations

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Adheris Pharmacy Database

- The de-identified patient-level data we receive represents ~45% of all U.S. retail prescriptions, creating significant opportunities to:
 - Examine behavior across a broad population of brand users
 - Focus analyses on a well-defined, targeted subgroup of patients
 - Receive results that are both representative and actionable

- The prescription data we receive includes:

Patient Level Data

Age, gender, geographic region, median household income, population density in patient ZIP

Disease Profile Data

Concomitant medications, co-morbidities, prior drug/class experience, duration of therapy

Prescription Level Data

Quantity Dispensed, # refills prescribed, days supplied, starting daily dose, co-pay amount

Physician Profile (via appended external data)

Specialty, year of graduation, size of practice, age, gender, geographic location, Rx volume

- The data is longitudinal, enabling assessment of longer-term patient behaviors, including: patient C&P, switching, titration, and the impact of variables on behavior such as concomitancy, prior drug use, and physician specialty

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Adheris Data Solutions – Common Projects

1. Multivariate Predictive Models
 - Compliance and persistence
 - Titration
 - Brand switching/migration
2. CRM Database Matching and Analysis
3. Patient Lifetime Value Segmentation
4. Medicare Part D Coverage Gap Analysis & Intervention
5. Patient Surveys

Produced as Natives

Produced as Natives