

SWITCHING AND CYCLING AMONG PATIENTS WITH RHEUMATOID ARTHRITIS AT AN INTEGRATED HEALTH SYSTEM SPECIALTY PHARMACY

Autumn Zuckerman PharmD, BCPS, AAHIVP, CSP¹; Cameron James, PharmD²; Jeannie Choi, PharmD²; Megan Peter, PhD¹; Michael A. Nadler³; Kamala M. Nola, PharmD, MS³; April Jones, PharmD, CSP¹; Katrina Cooper, PharmD, CSP¹; Josh DeClercq, MS⁴; Leena Choi, PhD⁴; S. Bobo Tanner, MD⁵

¹Specialty Pharmacy, Vanderbilt University Medical Center, Nashville TN; ²Formerly Sanofi, Bridgewater NJ; ³College of Pharmacy, Lipscomb University, Nashville TN; ⁴Department of Biostatistics, Vanderbilt University Medical Center, Nashville TN; ⁵Department of Medicine, Vanderbilt University Medical Center, Nashville TN.

INTRODUCTION

- Rheumatoid arthritis (RA) “treat to target” guidelines prompt a change in treatment selection after initial biologic disease modifying antirheumatic drug (bDMARD) failure, with options to either switch mechanism of action (MOA) or cycle to a different medication with the same MOA¹
- Medication changes may impact adherence and persistence to treatment due to clinical, financial, logistical and other factors²



OBJECTIVES

- Assess rates of switching and cycling among patients using an integrated specialty pharmacy
- Evaluate rates of adherence and persistence in patients with versus without a change in therapy

METHODS

DESIGN	Single center, retrospective review of medical and pharmacy claims from 07/2013 to 06/2017
SAMPLE	<ul style="list-style-type: none"> bDMARD treatment-naïve RA adult patients Prescribed a bDMARD by a Vanderbilt Rheumatology provider Filled 2+ prescriptions from Vanderbilt Specialty Pharmacy within 12 months of index date
OUTCOMES	<ul style="list-style-type: none"> Rate of switching/cycling within 12 months of index date Adherence measured by proportion of days covered (PDC) from index to last fill date Persistence defined as absence of 60-day treatment gap
ANALYSIS	Data were summarized and presented using descriptive statistics.

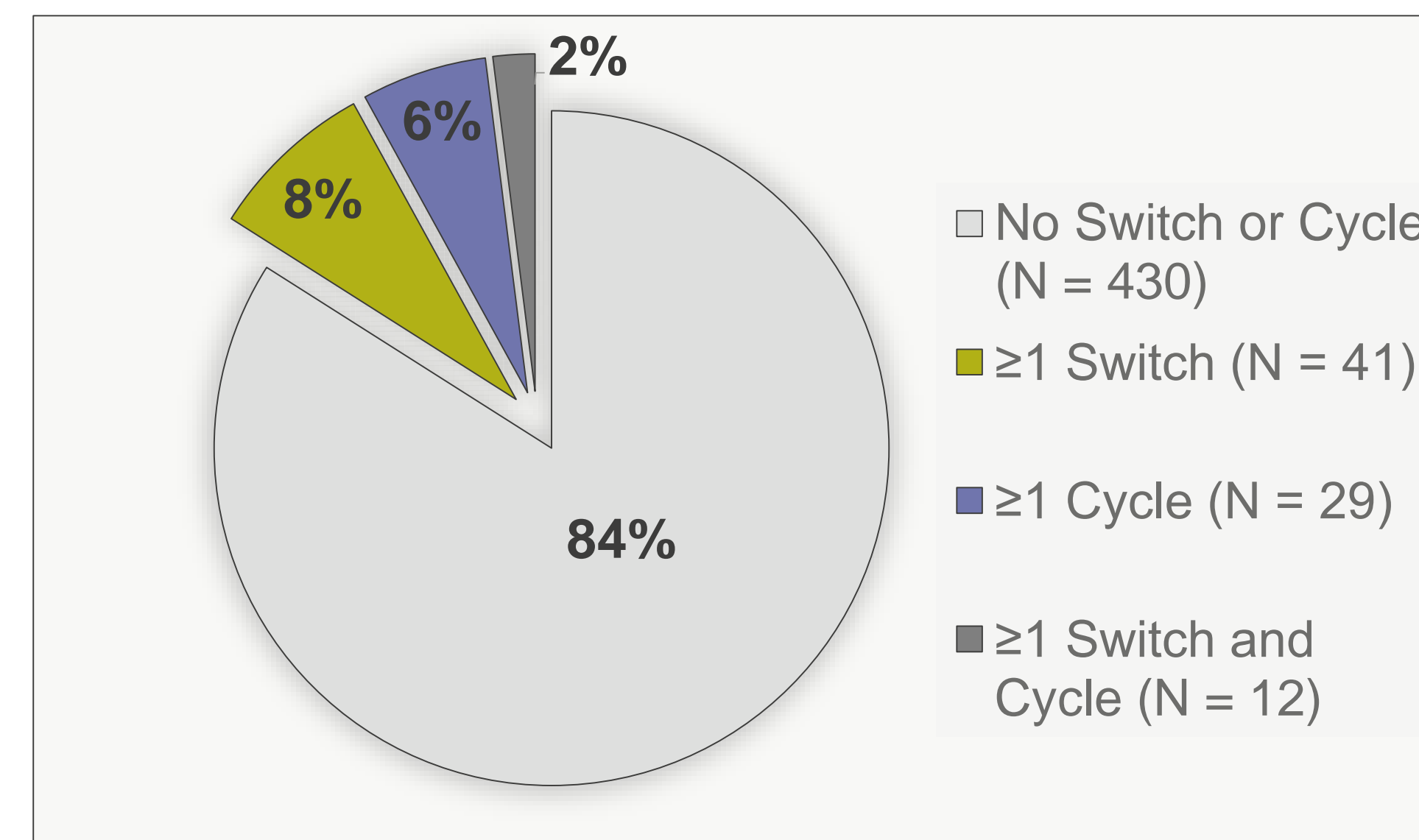
Table 1: Sample Demographics (N = 512)

Characteristic	M [SD] or % (N)	
	No Switch or Cycle (N = 430)	Any Switch or Cycle (N = 82)
Age, years	55 (12)	54 (12)
Gender (Female)	78% (337)	87% (71)
Race		
White	90% (387)	90% (74)
Black/ African American	8% (33)	7% (6)
Other	2% (10)	2% (2)

80% of patients' initial bDMARD prescriptions were a Tumor Necrosis Factor inhibitor (TNFi)

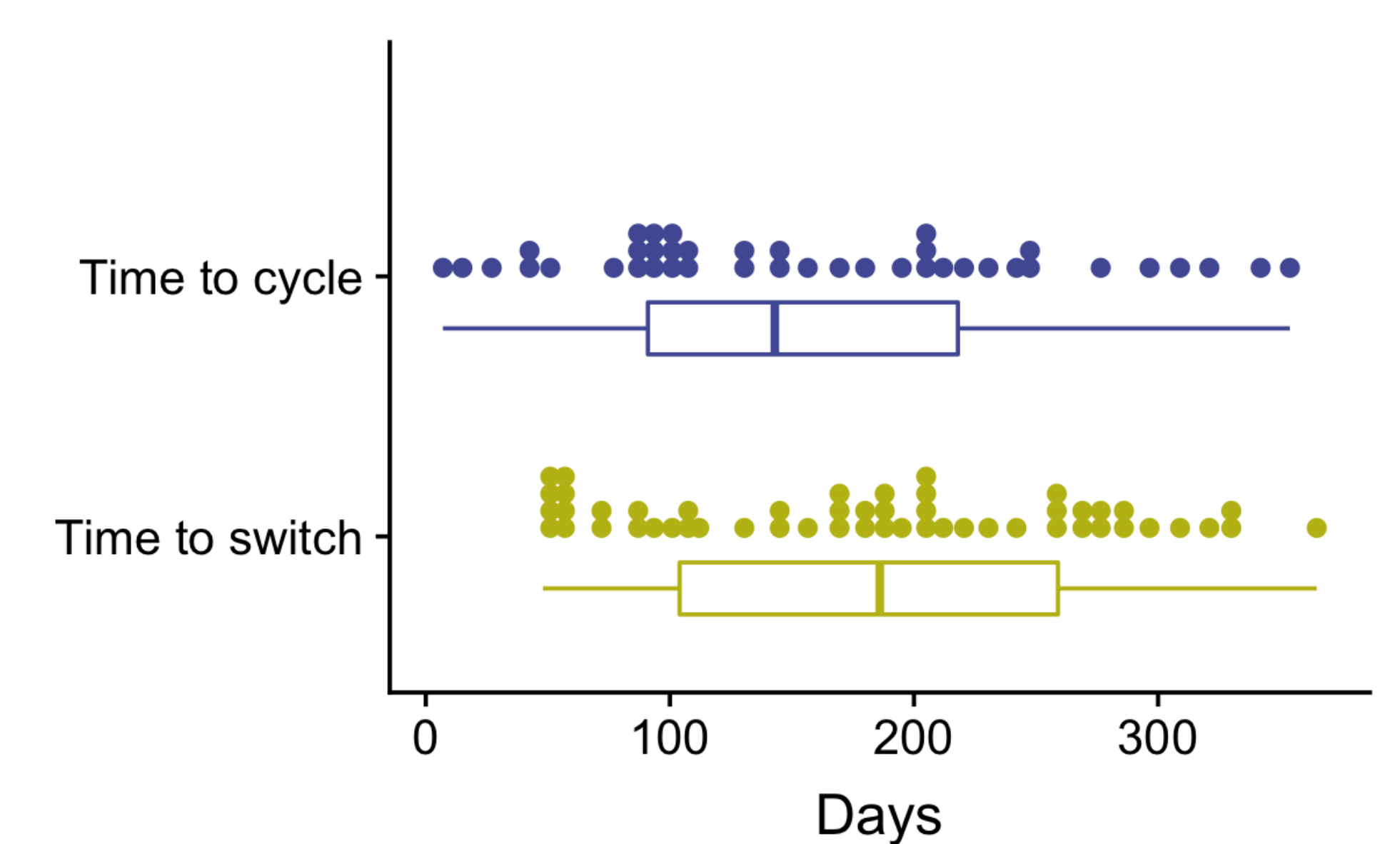
RESULTS

Figure 1: Rates of Cycling and/or Switching



- Most patients remained on the primary bDMARD prescribed in the first 12 months
- Rates of switching and cycling were similar
- Few patients had both a switch and cycle

Figure 2: Time to First Switch or Cycle (N= 82)



- Median time to first cycle was 143 days (IQR 91-218)
- Median time to first switch was 186 days (IQR 104-259)

CONCLUSION

- Rates of bDMARD discontinuation in the first 12 months were lower than previous reports estimating one-third of patients discontinue initial treatment³
- Despite requirements for a new medication, patients who switched or cycled achieved high adherence and persistence
- Specialty pharmacy support enabled streamlined medication changes with minimal gaps in therapy and treatment discontinuation
- Limitations include small sample size from a single center high touch specialty pharmacy program and unknown reasons for medication change

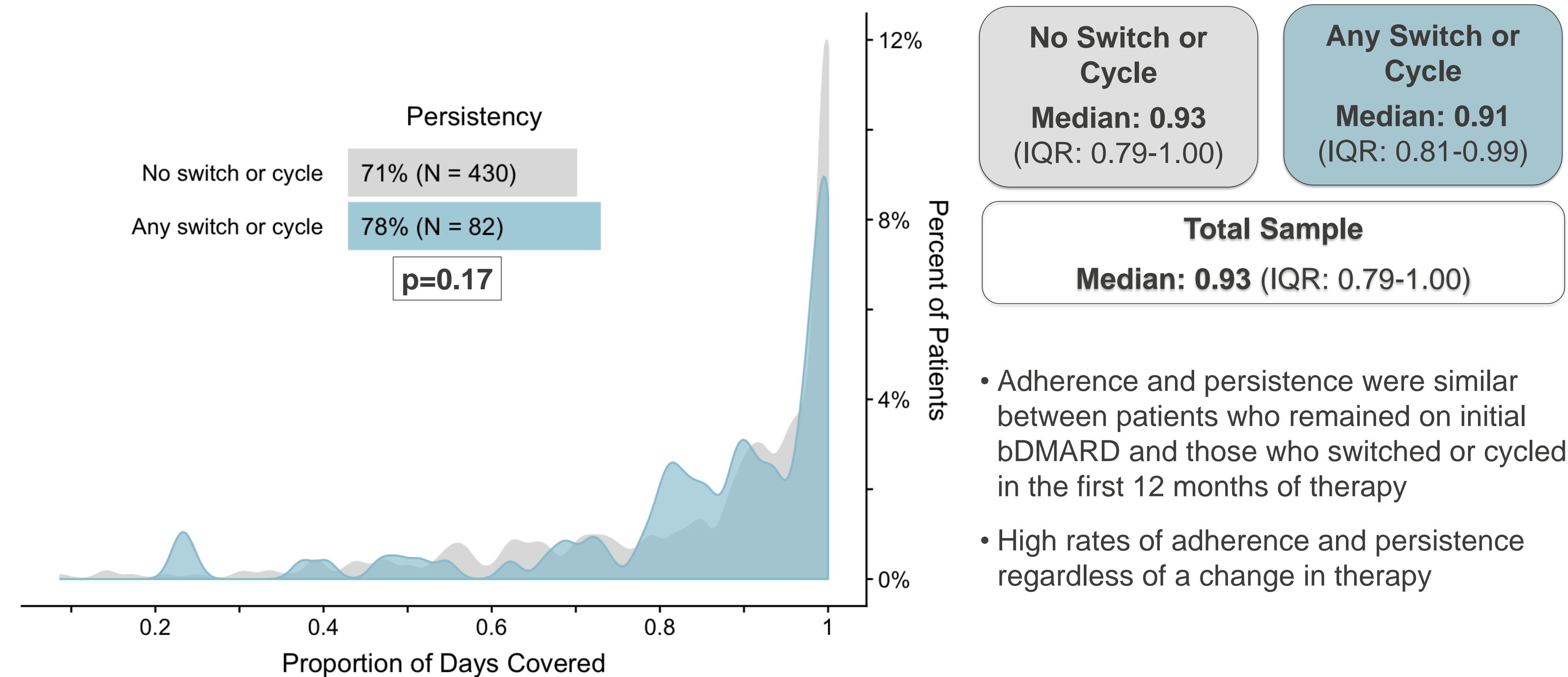
REFERENCES

- Singh JA, Saag KG, Bridges Jr. SL, et al. 2015 American College of Rheumatology Guideline for the Treatment of Rheumatoid Arthritis. *Arthritis Care & Research*. 2015.
- Bagwell A, Kelley T, Carver A, et al. Advancing Patient Care Through Specialty Pharmacy Services in an Academic Health System. *J Manag Care Spec Pharm*. 2017; 23(8):815-20
- Strand V, Miller P, William SA, et al. Discontinuation of Biologic Therapy in Rheumatoid Arthritis: Analysis from the Corrona RA Registry. *Rheumatol Ther*. 2017;4:489-502

ACKNOWLEDGEMENTS

The study was funded by Sanofi and Regeneron Pharmaceuticals, Inc

Figure 3: Adherence and Persistence



- Adherence and persistence were similar between patients who remained on initial bDMARD and those who switched or cycled in the first 12 months of therapy
- High rates of adherence and persistence regardless of a change in therapy