

ADHERENCE TO SPECIALTY MEDICATIONS: ASSESSING RATES AND CORRELATES OF NONADHERENCE AT AN INTEGRATED SPECIALTY PHARMACY

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INTRODUCTION

- Nonadherence to specialty medications leads to worse patient health outcomes and higher financial burden on the healthcare system.
- Integrated specialty pharmacy models are designed to improve patient access, adherence, and outcomes of specialty treatments.

Figure 1: Vanderbilt Specialty Pharmacy Practice Model

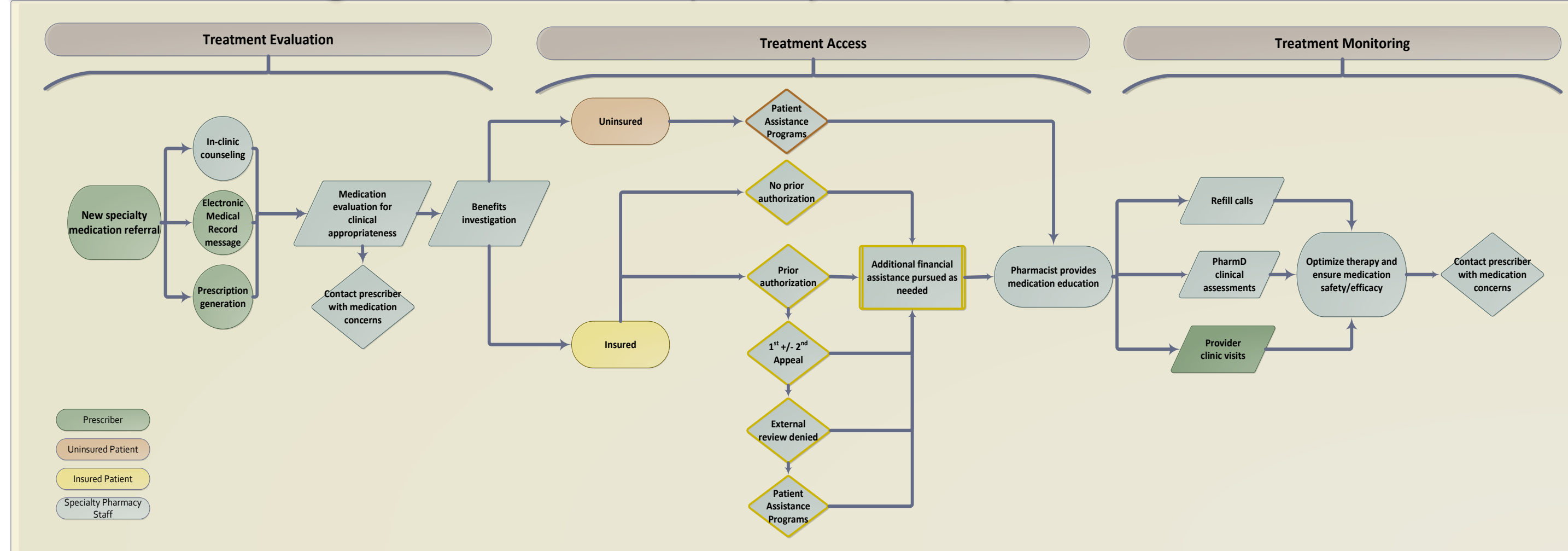


Figure 2: Vanderbilt Specialty Pharmacy Interventions to Improve Adherence

Pre-Treatment	On-Treatment
Evaluate risks for non-adherence <ul style="list-style-type: none"> Disease-specific Patient-specific Social/Economic Includes risk factors for missing required follow-up 	Engagement in Care <ul style="list-style-type: none"> Ensure follow-up appointments/labs completed Address social needs if possible
Eliminate access barriers <ul style="list-style-type: none"> Third party approval Copay assistance Evaluation for upcoming insurance changes 	Ensure ongoing affordability <ul style="list-style-type: none"> Assist with sample medication affordability Coordinate gaps in insurance coverage Address copay costs throughout the year Timely prior authorization renewal Financial counselor if needed
Counsel and Educate Patients <ul style="list-style-type: none"> Goals of therapy Side effect mitigation Appropriate administration/dosing Consequences of non-adherence Adherence action plan and tools Medication shipping logistics Follow-up and monitoring plan 	Clinical Monitoring <ul style="list-style-type: none"> Side effect mitigation Appropriate clinical benefit achieved Review administration technique Address therapy changes Update medication list and address new drug interactions REMS program management
	Shipping Logistics <ul style="list-style-type: none"> Maintain updated contact information Confirm shipment locations Address travel concerns

Objective: Analyze rates and correlates of medication nonadherence in patients prescribed specialty medication at an integrated specialty pharmacy in an academic health center.

METHODS

Design and Sample Retrospective chart review of patients with 3+ medication fills from Vanderbilt Specialty Pharmacy between November 2016 and December 2017

Exclusion Patients whose medications had disparate administration schedule and days' supply claim submission

Outcome¹ Medication adherence measured by Proportion of Days Covered (PDC)

$$PDC = \frac{\text{Number of days in a period "covered" by medication}}{\text{Number of days in a period}}$$

RESULTS

7297 Prescriptions
20 Specialty Clinics

Demographics	
Female	56%
White	86%
Average Age	51 yrs

Figure 3: Proportion of Prescriptions by Clinic

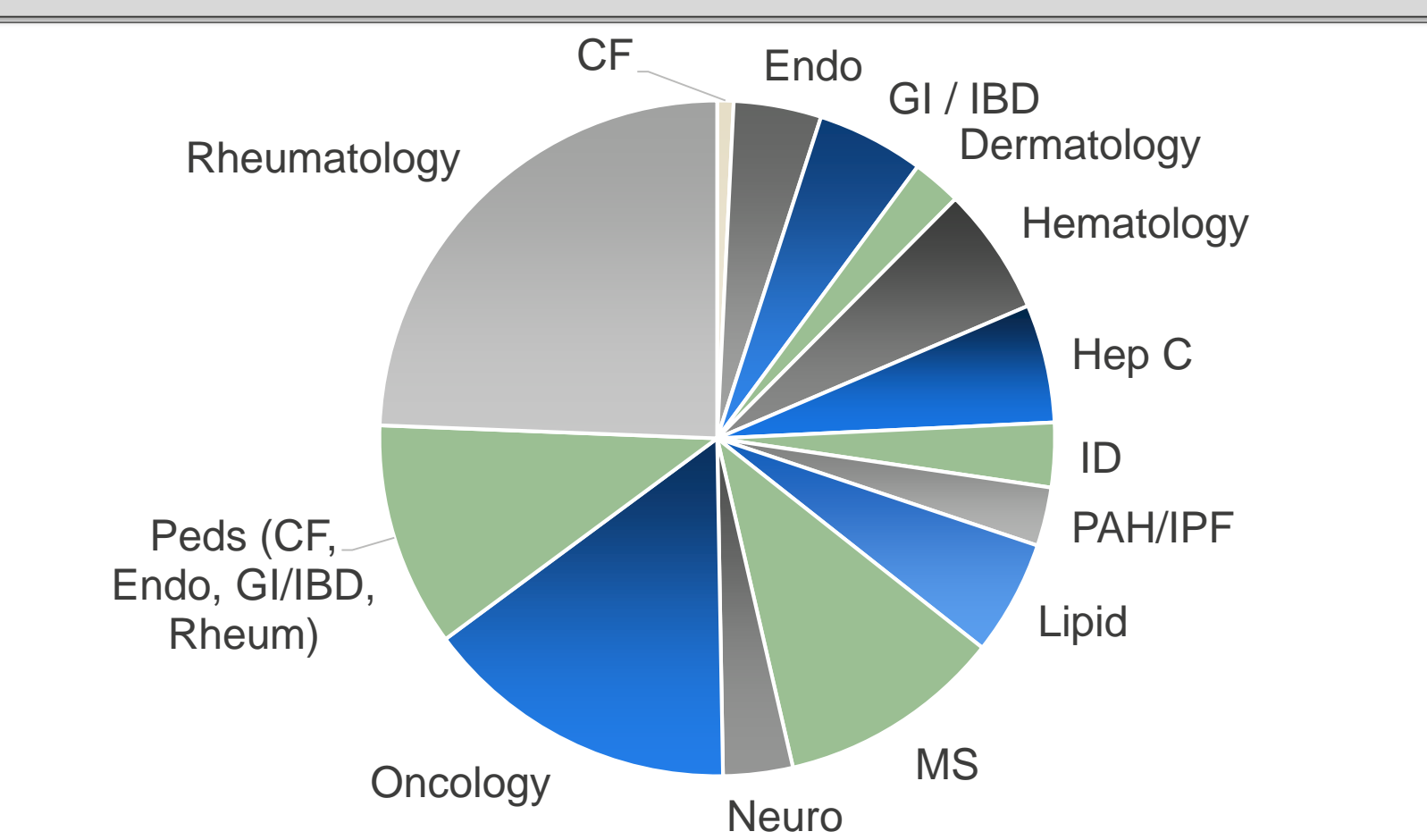
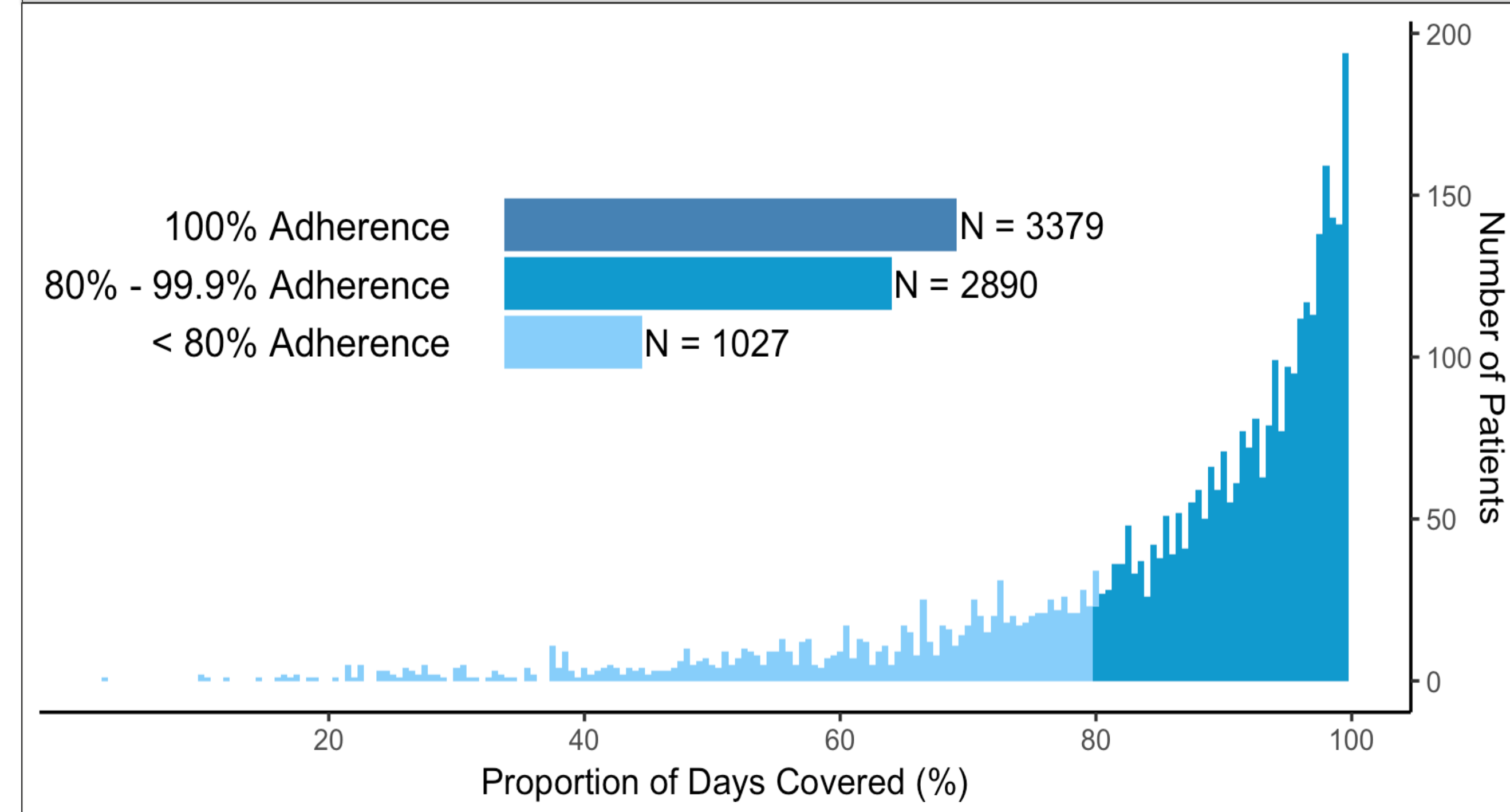
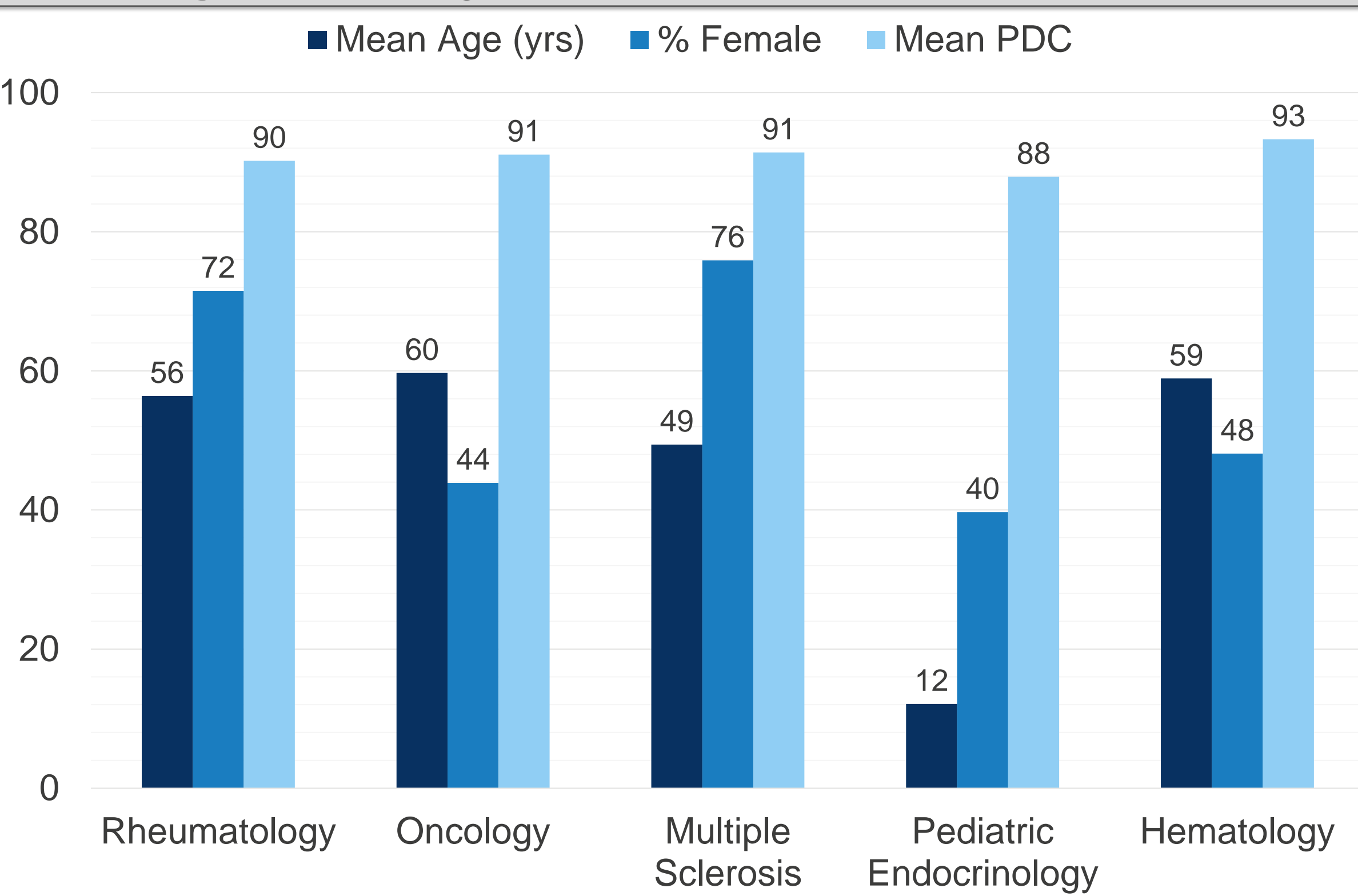


Figure 5: Adherence Distribution



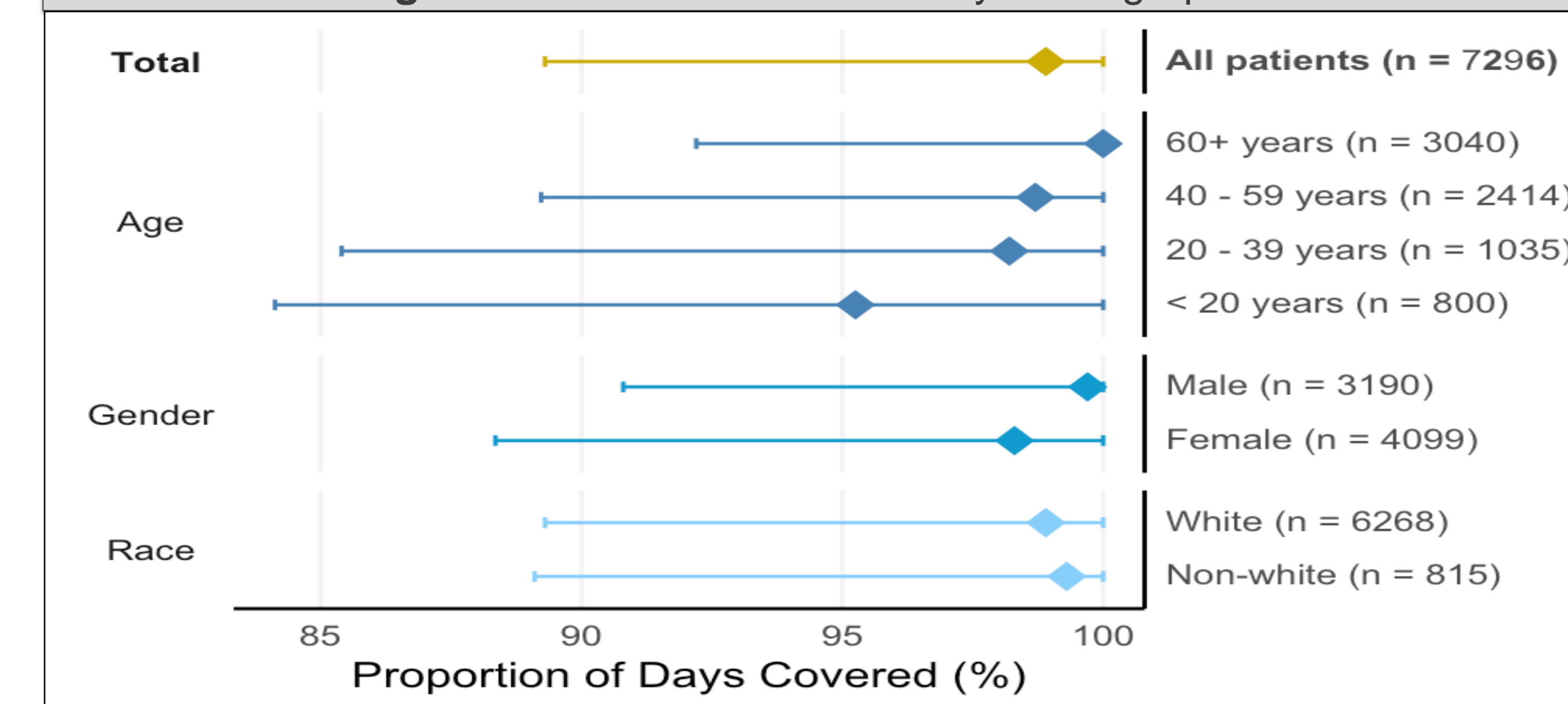
Primary Outcome:
Median PDC: 99%
46% with 100% PDC
14% nonadherent (PDC<80%)

Figure 4: Demographics of the 5 Most Populated Clinics



Risk factors for nonadherence varied among the top five most populated clinics.

Figure 6: Whisker Plot of PDC by Demographics



Bivariate Associations between PDC and Demographics:

- Adherent patients (compared with nonadherent patients) were:
- Older age (52 vs. 46 years, $t=9.36$, $p<0.001$)
 - More likely male gender (15.1% vs. 12.8%, $\chi^2=7.54$, $p=0.006$)
 - No difference between White and non-White patients

CONCLUSIONS

- Data suggest younger patients and female patients are at a higher risk for nonadherence.
- We found a low rate of nonadherence among patients using an integrated specialty pharmacy but highlight potential to improve.
- PDC does not capture reasons for non-adherence, which could explain differences between clinics.

REFERENCES AND ACKNOWLEDGEMENTS

¹PQA Adherence Measures. Pharmacy Quality Alliance website. <https://www.pqaalliance.org/adherence-measures>. Accessed March 15, 2019

We would like to acknowledge Jacob Bell and Aaron Pavlik for their assistance with data extraction, and Joshua DeClerq for his assistance with figure development.