Evaluating Patient-Reported Adherence and Outcomes in Specialty Disease States: A Dual Site Initiative

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Purpose

Examine the association between patient characteristics, patient-reported missed doses, medication tolerance, patient perceived effectiveness, and HCRU, defined as emergency room visits or hospitalizations, for patients prescribed specialty medications in two HSSPs

Setting and Patient Sample

Dual-center, retrospective review of monthly assessments completed by University of Illinois Hospital and Health Sciences System (UI Health) Specialty Pharmacy and Vanderbilt Specialty Pharmacy (VSP)

Patients were included if they were prescribed specialty medications from rheumatology or MS clinics and received at least three fills from October 2019 – March 2022, excluding patients with >30-day supply at any individual medication refill

Figure 1. Study Methods

Specialty pharmacy teams proactively engage the patient monthly to perform clinical assessments prior to refilling a specialty medication that includes the following questions used as study outcome measures

Adherence
Patient-reported missed doses

Site 1: Have you missed doses of your medication? If yes, how many?
Site 2: How many doses have you missed since your last refill?

Tolerability
Patient-reported medication tolerance

Site 1: As you experiencing any side effects?
Site 2: Have you had any problems tolerating the medication?

Effectiveness
Patient-perceived medication effectiveness

Site 1: How well do you think your medications are working for you?
Site 2: How well do you think your medication is working for you?

Healthcare Resource Utilization
Patient-reported ER visit or hospitalization

Site 1: Since we last spoke for your refill, have you been hospitalized or had to visit the ER for any reason?
Site 2: Have you had any hospitalizations or ER visits since your last refill?

Table 1. Patient Demographics

Characteristic	Site 1 (n=3,346) n (%)	Site 2 (n=331) n (%)	Overall (n=3,677) n (%)
Age at time of first assessment, years – median (IQR)	50 (37-61)	50 (40-61)	50 (37-61)
Gender, female	2,374 (71)	264 (80)	2,638 (72)
Race			
White	2,719 (81)	61 (18)	2,780 (76)
Black	304 (9)	167 (51)	471 (13)
Specialty clinic			
Rheumatology	2,546 (76)	249 (75)	2,795 (76)
Multiple Sclerosis	798 (24)	82 (25)	880 (24)
Both	2 (<1)	0 (0)	2 (<1)

Conclusion

Patients filling rheumatology or MS specialty medications within HSSPs reported high rates of medication effectiveness and low rates of missed doses, issues with tolerability, and HCRU.

Patients reporting tolerability issues or lower perceived effectiveness were more likely to report a missed dose.

Results

Table 2. Patient Medications Assessed by Clinic

Medication	Overall, n (%)
Rheumatology Clinics (n=45,420)	
Adalimumab	16,643 (37)
Etanercept	11,060 (24)
Tofacitinib	4,408 (10)
Multiple Sclerosis Clinics (n=16,506)	
Dimethyl fumarate	3,373 (20)
Fingolimod	3,065 (19)
Glatiramer acetate	3,021 (18)

Figure 2. Patient-Reported Outcomes

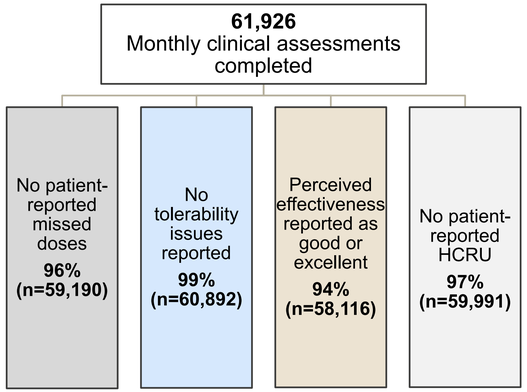
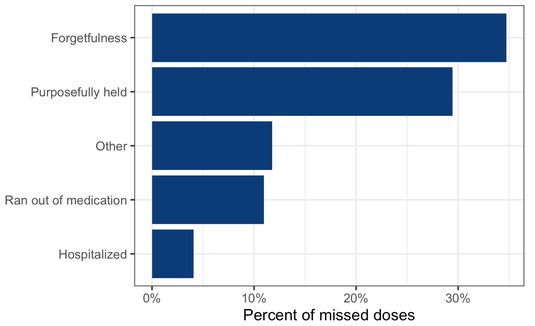
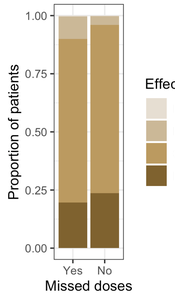


Figure 3. Most Common Reasons for Patient-Reported Missed Doses[a]

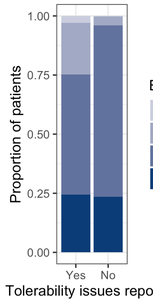


[a]For an exhaustive list of patient-reported reasons for missed dose, please see the detailed statistics report linked in the QR code.

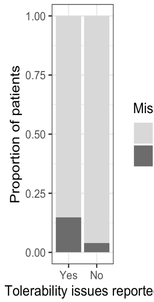
Figure 4. Association Among Patient-Reported Outcomes



An effectiveness rating of fair was associated with a 1.6-fold increase in the odds of a missed dose compared to a rating of good/excellent (95% CI 1.3-1.9)



Patients who reported an effectiveness rating of fair were 5.4 times more likely to report tolerability issues (95% CI 4.2-7.0)



Patients who reported tolerability issues were 2.5 times more likely to report a missed dose (95% CI 1.9-3.2)

Abbreviations: HCRU = healthcare resource utilization; HSSP = health system specialty pharmacy; PRO = patient-reported outcomes; MS = multiple sclerosis; ER = emergency room