# Assessing Patient-Reported Outcomes and Pharmacist Interventions in Rheumatology Specialty Disease States within an Integrated Care Center



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#### **BACKGROUND**

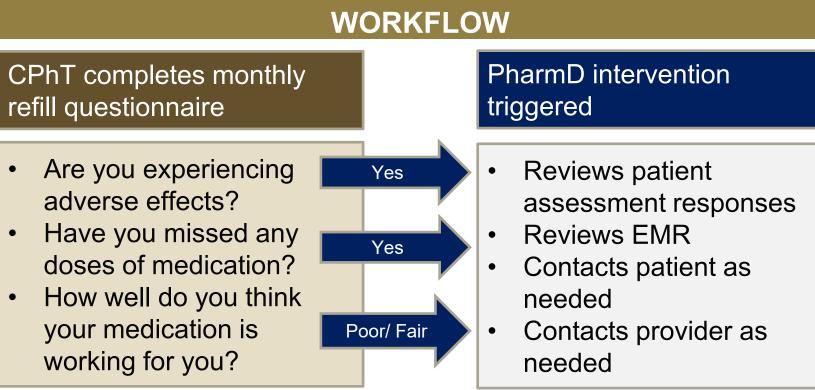
- Patient reported outcomes (PROs) are used to assess response to medication and the need for therapeutic adjustments in patients with rheumatologic disease states.<sup>1,2</sup>
- Vanderbilt Specialty Pharmacy, an integrated health-system specialty pharmacy, assesses PROs through monthly refill questionnaires (MRQs) to guide specialty pharmacist interventions and improve patient care.

## **OBJECTIVE**

To assess PROs and pharmacist interventions in patients prescribed specialty rheumatology medications at a health-system specialty pharmacy.

METHODS			
DESIGN	Single-center retrospective analysis		
PATIENT	Patients prescribed a specialty medication by		
POPULATION	center's outpatient rheumatology clinic provider		
with:			
	• 2+ fills through the center's specialty pharmacy,		
	AND		
	2+ monthly refill questionnaire responses		
TIMEFRAME	January – March 2020		

# FIGURE 1. MONTHLY REFILL QUESTIONNAIRE AND WORKELOW



## TABLE 1. DEMOGRAPHICS (n=809)

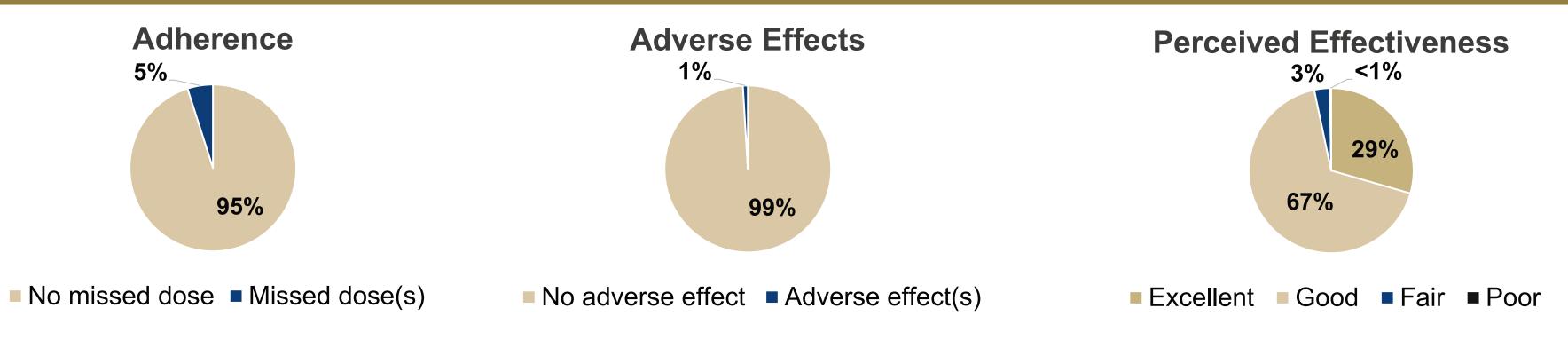
	n (%)
Age, years- median [IQR]	57 [43-64]
Gender, female	562 (69)
Race, white	731 (90)
Insurance type	
Commercial	510 (63)
Medicare	259 (32)
Medicaid	40 (5)

# TABLE 2. RA CLINICAL INFORMATION (n=809)

	n (%)
Indication	
Seropositive rheumatoid arthritis	330 (41)
Psoriatic arthritis	168 (21)
Seronegative rheumatoid arthritis	123 (15)
Ankylosing spondylitis	71 (9)
Juvenile idiopathic arthritis	69 (9)
Other	49 (6)
Specialty medication	
Adalimumab	259 (32)
Etanercept	221 (27)
Tofacitinib (IR/XR)	107 (13)
Abatacept	55 (7)
Secukinumab	42 (5)
Other	125 (15)

### RESULTS

# FIGURE 2. PATIENT-REPORTED RESPONSES (n=2306)

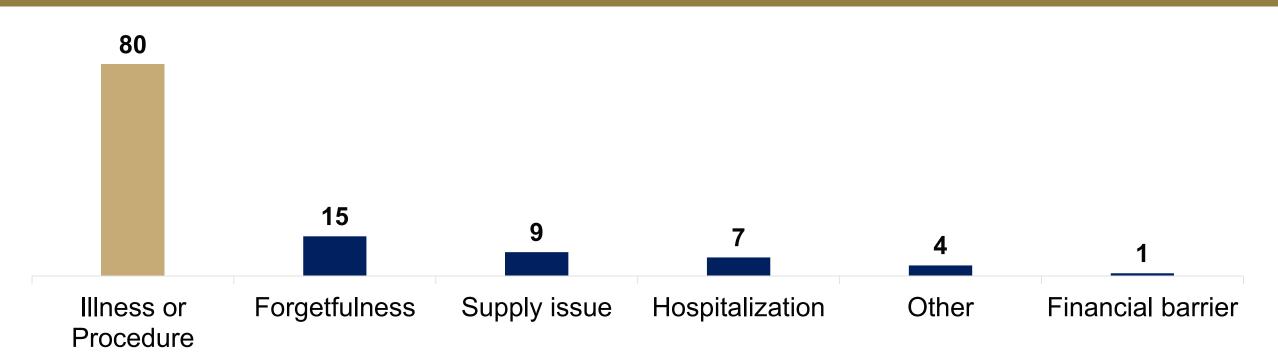


# FIGURE 3. PATIENT-REPORTED REASONS FOR MISSED DOSES (n=116)

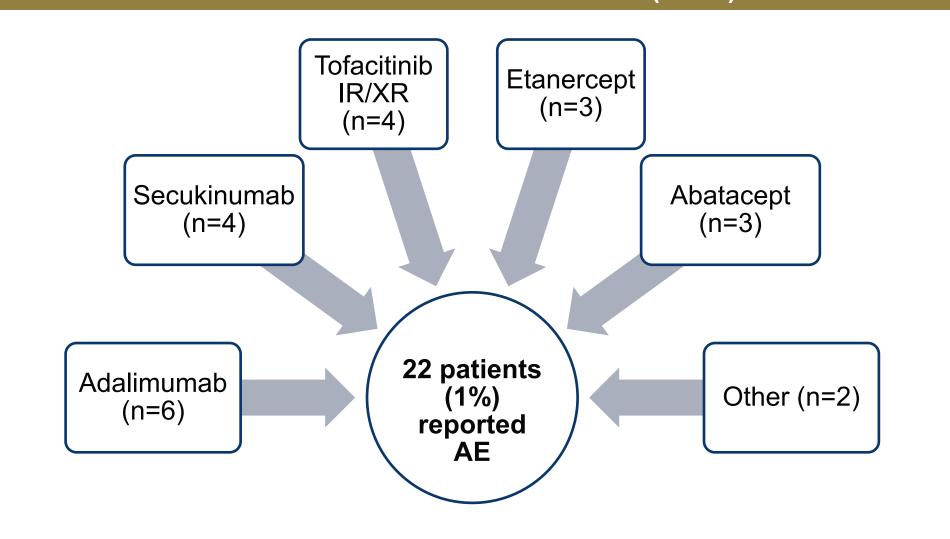
# 95% of MRQ responses reported NO missed doses.

The most common reason for a missed dose was intentional holding for illness or procedure (n=80, 69%).

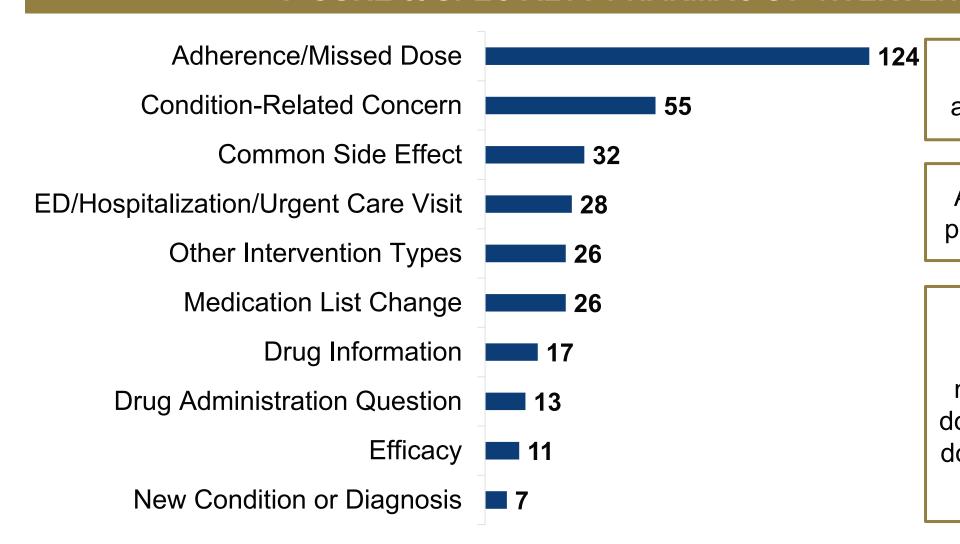
Missed doses can be common in biologic therapies which typically require intentional holding for infection, surgery or hospitalization.



## FIGURE 4. ADVERSE EFFECTS (n=22)



# FIGURE 5. SPECIALTY PHARMACIST INTERVENTION ALERTS (n=339)



Interventions were commonly related to adherence, exacerbations or adverse effects.

Adherence interventions most often included patient counseling and chart review or update.

Other interventions included: new condition/diagnosis, coordination of care, medication interaction, change in medication dose/frequency, financial/insurance issue, drug dosing, storage, safety, adverse event, inability to perform typical activities.

#### CONCLUSIONS

- Rheumatology patients receiving medication through an integrated health-system specialty pharmacy reported low rates of missed doses (5%) and adverse effects (1%), and most rated high perceived effectiveness of their medication (96%).
- Specialty pharmacists integrated into rheumatology clinics perform targeted interventions to ensure safe and effective medication use.
- PROs can be used to direct a patient's future course of therapy with the assistance of specialty pharmacist interventions.