

# Disease Therapy Management for Medication Adherence in Rheumatoid Arthritis

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## Background

- Rheumatoid arthritis (RA) is a systemic, inflammatory autoimmune disease that affects more than 1.5 million patients in the United States.
- Highly effective immunomodulatory therapies are now available for treatment; however, medical non-adherence is a widely acknowledged reason for patients not achieving remission on these therapies.<sup>1</sup>
- According to a recent literature review, rates of adherence to biologic-methotrexate combination therapy (a standard combination for most RA patients with moderate-to-severe disease activity) were 26 to 28% over 1 year.<sup>2</sup>
- Non-adherence has been associated with symptom exacerbation, higher disease activity, increased disability, and greater healthcare costs. Hence, programs to improve medication adherence may be pivotal to improving treatment outcomes at individual and collective levels.<sup>3</sup>

## Objective

- Describe the value of pharmacist-led interventions on medication adherence.

## Methods

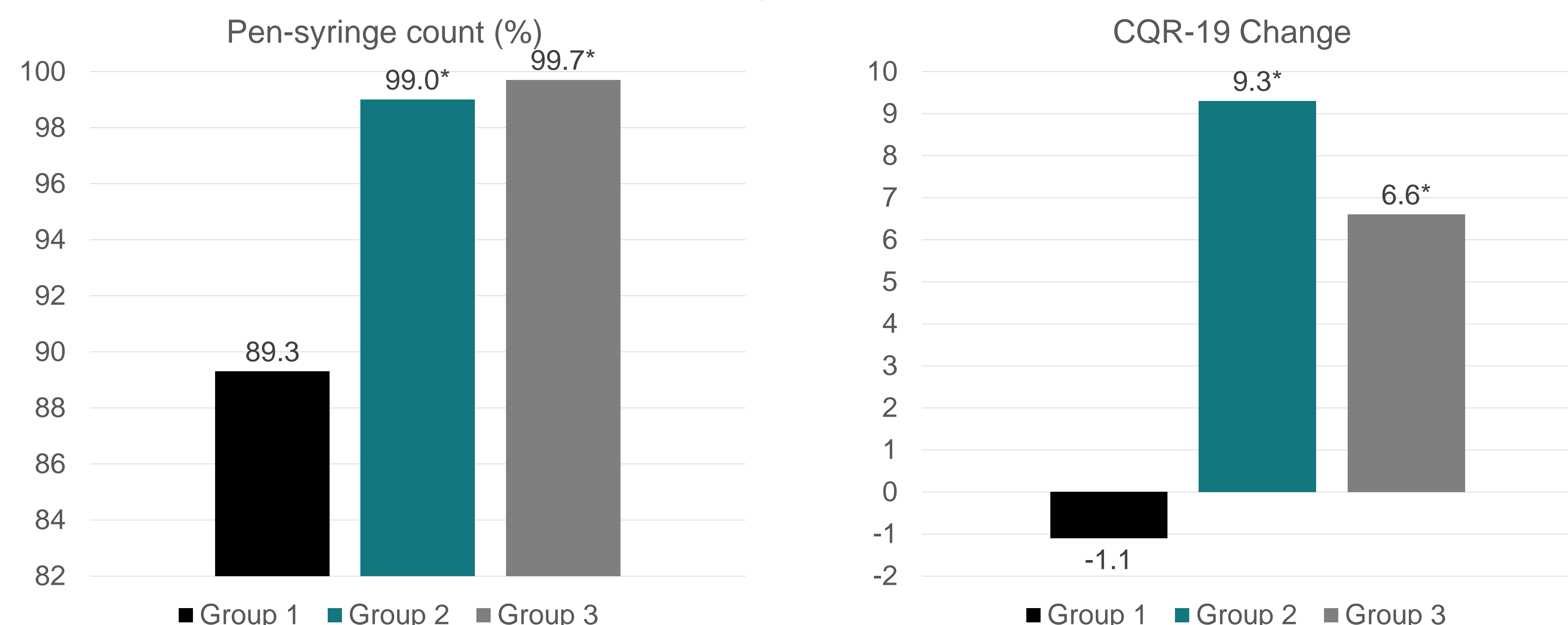
- This was a prospective, randomized controlled trial at an integrated health-system specialty pharmacy and 2 integrated rheumatology practices.
- Seventy-five patients (>18 years old with a diagnosis of RA) starting on self-injectable biologic therapy were enrolled between October 2019 and September 2022. Patients were separated into 3 groups in a 1:1:1 distribution.
- All 3 groups met face-to-face for an enrollment visit to collect demographic information; assess baseline Compliance-Questionnaire-Rheumatology (CQR19); perform validated clinical disease activity measures, including Routine Assessment of Patient Index Data 3 (RAPID3), Clinical Disease Activity Index (CDAI), and Health Assessment Questionnaire-Disability Index (HAQ-DI); and dispense a sharps container to collect used pens/syringes.
- Patients whose insurance plans required biologic dispensing through a community or outside specialty pharmacy were directed to Group 1. Patients whose insurance plans allowed biologic dispensing through our integrated specialty pharmacy were randomized to Groups 2 and 3. All groups returned after 3 months for repeat follow-up assessments and pen-syringe count.

## Standards of Care

- Group 1:** External specialty pharmacy standard of care (varies by pharmacy).
- Group 2:** Integrated health-system specialty pharmacy's standard of care (pharmacist calls for prior to therapy counseling and first refill, then pharmacy technician calls for refill at month 3).
- Group 3:** Face-to-face baseline counseling with the pharmacist and monthly phone calls (baseline counseling included medication reconciliation, address any medication-related problems, distribution of medication guide, review of expectations for efficacy and adverse effects, discussion around barriers to adherence and beliefs about medications, and injection training).

## Results

- 75 patients were enrolled in the study with no significant differences in demographic characteristics
- Primary Outcome:** Adherence assessed by pen-syringe count and CQR-19 at month 3.



Data presented as mean  
 \*Statistically significant compared to Group 1 (p<0.05)

- Secondary Outcomes:** Change in clinical indices (RAPID3, CDAI, HAQ-DI) and patient satisfaction at month 3.

Measure (Post – Pre)	Group 1	Group 2	Group 3
RAPID3 Change	- 2.5 (4.9)	- 4.7 (4.1)	- 4.7 (6.9)
CDAI Change	- 9.9 (7.6)	- 7.9 (15.5)	- 11.8 (14.1)
HAQ-DI Change	- 0.20 (0.57)	- 0.61 (0.62)	- 0.47 (0.56)
Patient Satisfaction (0-10)	8.4 (2.5)	10* (0)	10* (0)

Data presented as mean (standard deviation)  
 \*Statistically significant compared to Group 1 (p<0.05)

## Discussion

- Patients filling their injectable biologic through our integrated health-system specialty pharmacy were significantly more adherent and more satisfied with their prescription oversight compared to patients filling with an external pharmacy.
- These patients also showed numerical improvements in clinical markers of disease activity compared to external pharmacy patients.
- No differences among groups were observed in clinical indices comparisons. This could be related to the small sample size of the study.
- Groups 2 and 3 had comparable outcomes for all endpoints tested, showing similar value of a health-system specialty pharmacy, whether care is provided virtually or through face-to-face interaction.

## Conclusions

- Providing patients with additional up-front education and closer follow-up through a pharmacy-based disease therapy management program increases patient adherence to biologic therapy and patient satisfaction with pharmacy programs. These results may ultimately improve clinical outcomes of care.
- Integrated health-system specialty pharmacies are uniquely positioned to streamline patient access to medications and enhance patient care.

## Contact Info

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## Disclosures

All authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

## References

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