

# Correlates of Successful Rheumatoid Arthritis Flare Management: the Role of Clinician-driven Treatment, Home-based Strategies, and Medication Change

Taysir G Mahmoud; Michelle Frits; Christine lannaccone, MPH; Vivian Bykerk, MD; Clifton Bingham, MD; Michael Weinblatt, MD; Nancy A Shadick, MD, MPH

Contact: tmahmoud@partners.org

VE RI TAS

## Introduction

- RA flares are often associated with worse clinical outcomes such as lower functional status and radiographic progression
- Many flares occur between rheumatology visits so little is known about how patients manage their flares, whether at home or with clinical consultation, and what strategies are most successful

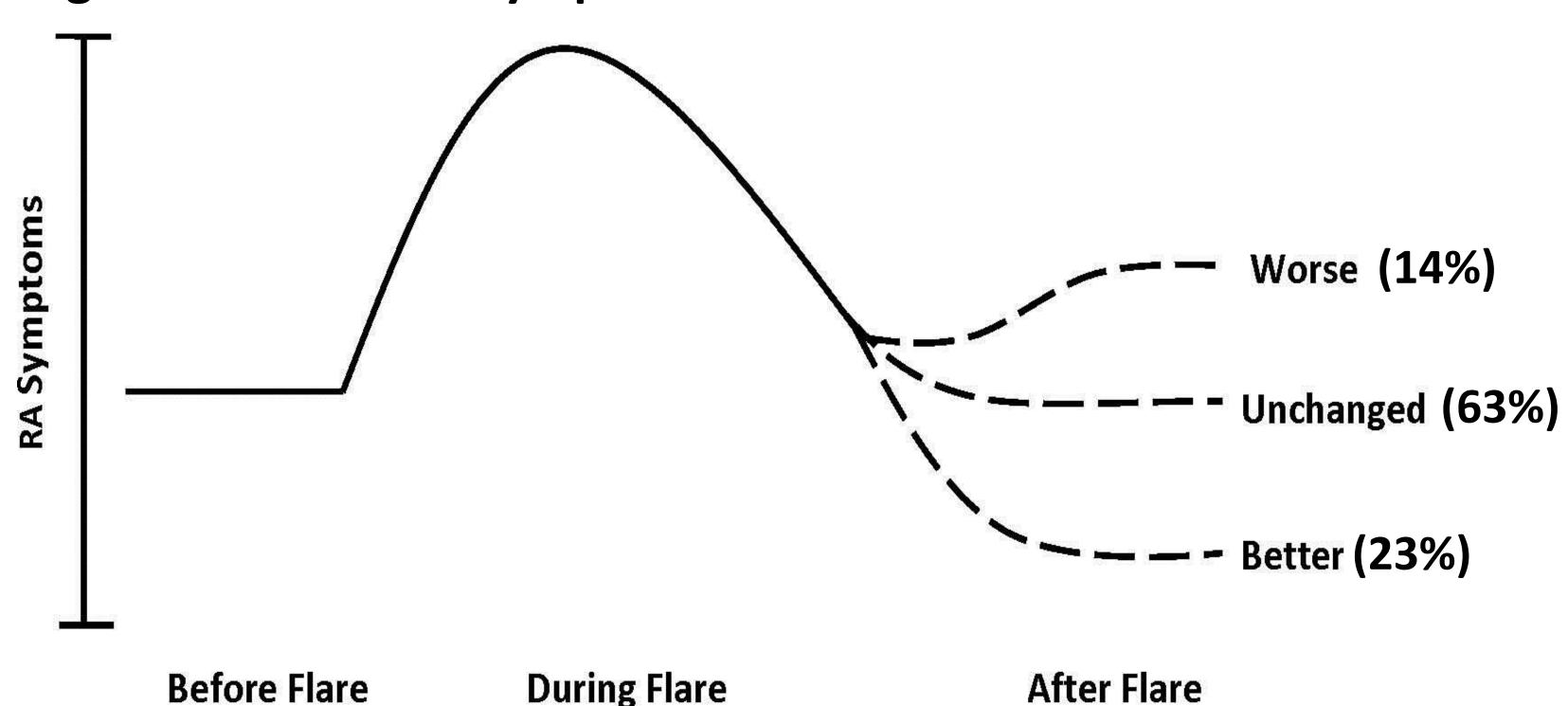
## Aims

• This study aims to determine which flare management strategies contribute to a successful post flare outcome

# Methods

- Data from 317 patients enrolled in a prospective RA registry were collected, including clinical and patient reported outcomes
- Patients completed a flare survey asking about frequency of flares, outcomes, home management (PT exercises, exercise, applying heat/cold, supplements, massage, rest, splint/brace/bandage, and other), and clinical management (rheumatologist, PCP, hospitalinpatient, OT, PT, ED, and other)
- Primary outcome was a Likert scale assessing if post flare symptoms were worse, unchanged, or better (Figure 1)

Figure 1: Post Flare Symptoms (n=114)



#### **Analysis:**

- Nonparametric tests were used to examine the relationship between RA symptoms post flare and possible covariates
- Ordinal logistic regression analysis adjusting for age, sex, number of flares in past 6 months, severity of most recent flare (0-10), home management, clinical management, and medication change was performed with symptoms post flare as the outcome

## Results

Division of Rheumatology, Immunology and Allergy, Brigham and Women's Hospital; Harvard Medical School, Boston, MA

Figure 2: Adjusted Odds Ratios Estimating Better Post Flare

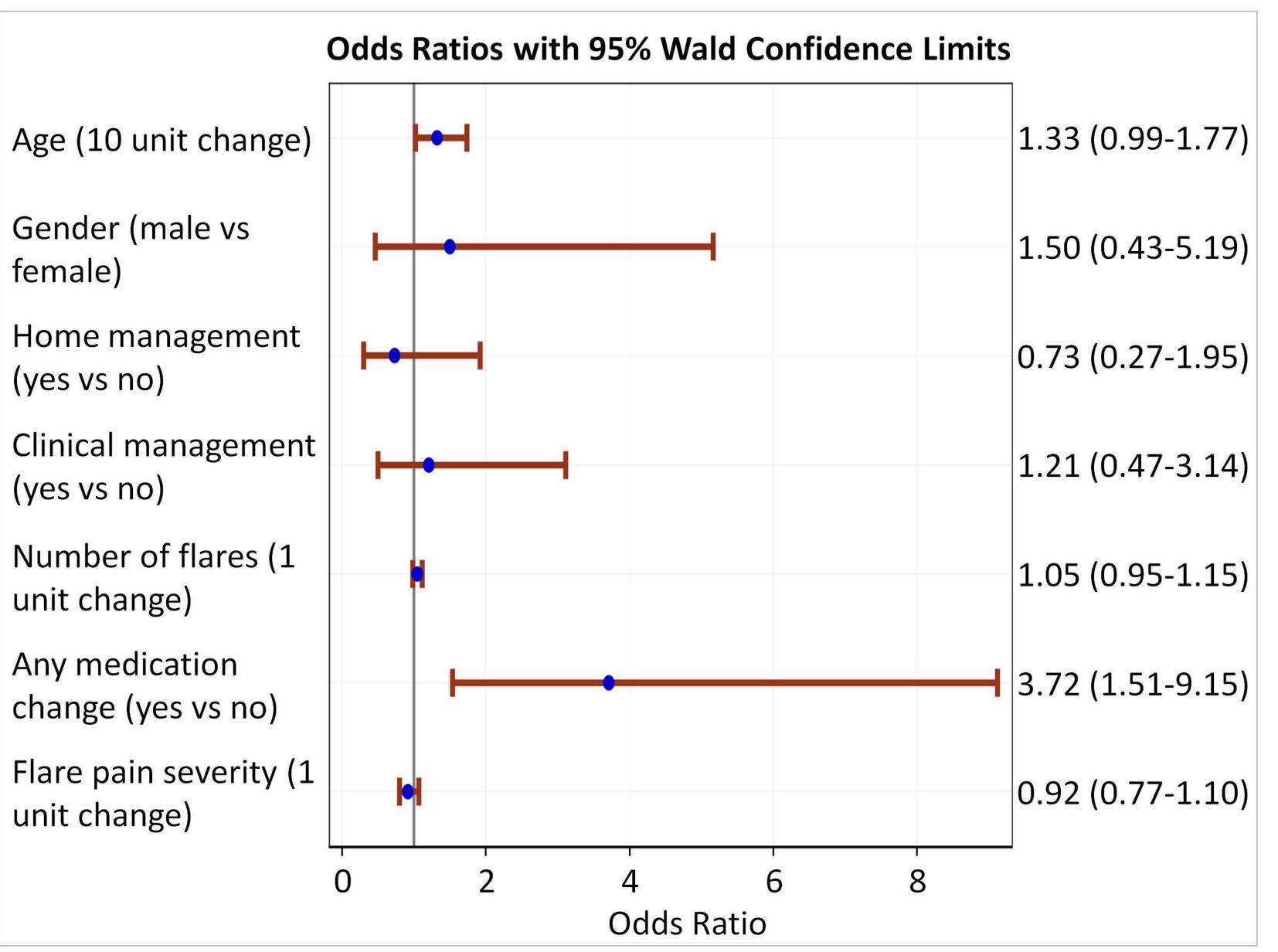


Table 1. Characteristics of Flares and Flare Management Strategies

Variables	Total Sample (n=114)
Number of flares in last 6 months (M, SD)	3.0 (±4.1)
Median severity of most recent flare (M, IQR) (0-10 scale, 10 Severe Pain)	7 (5, 8)
Duration of Most Recent Flare in days (M, SD)	5.4 (±20.2)
Medication Change (n, %)*  NSAIDS (n, %)**  Corticosteroids (n, %)**  DMARDs (n, %)**	58 (51%) 29 (50%) 19 (33%) 15 (26%)
Home Management (n, %) Applied Heat and/or Cold (n,%) <sup>†</sup> Rest (n, %) <sup>†</sup> Splint/Brace/Bandage (n, %) <sup>†</sup> Other (n,%) <sup>†</sup>	90 (79%) 48 (53%) 55 (61%) 18 (20%) 39 (43%)
Clinical Management (n, %)  Rheumatologist (n, %)****  PCP (n, %)****  Other (n,%)†	30 (26%) 26 (87%) 2 (7%) 5 (17%)

<sup>\*</sup>Participants who used any medication to treat most recent flare

## Results

- Of the 317 participants who answered the survey, 114 had a flare that resolved in the last 6 months
- Of those 114 participants, 88% were female with a mean age of 59 (±14.2) and a median disease duration of 14 (9, 24) years
- 95% were white and 71% had a college degree or higher

Table 2. Medication Changes Made with and without Consulting Clinician (n=58)

Medication Changes*	With Clinical Consult 22 (38%)	Without Clinical Consult 36 (62%)
NSAIDs (n, %)	6 (21%)	23 (79%)
Corticosteroids (n, %)	11 (58%)	8 (42%)
DMARDs (n, %)	10 (67%)	5 (33%)
Biologics (n, %)	6 (86%)	1 (14%)
Non-Biologics (n, %)	7 (64%)	4 (36%)

\*Medication categories not mutually exclusive

- The logistic regression model (Figure 2) revealed that patients who made a medication change, of any kind, to treat their flare were 3 times more likely to have improved RA symptoms post flare than patients who made no medication change (OR=3.72, p=0.004)
- Individual medication category did not influence post flare outcome
- 62% of patients who made a medication change did so without seeking clinical advice (Table 2)

# Strengths/Limitations

- Dataset includes both clinical and patient reported outcomes
- Cannot make conclusions about successful flare management over time due to cross sectional design

## Conclusions

- Independent of home based or clinically guided care, making any medication change is strongly associated with improved post flare outcomes
- This improvement was not attributable to any one category of medication and the decision to make a medication change was frequently made without seeking clinical advice





<sup>\*\*</sup>Participants may have used more than one medication to treat flare; not mutually exclusive

<sup>\*\*\*</sup>Includes visit, phone call, or email

<sup>†</sup> Not mutually exclusive