



Final Outcomes Report

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*Winner of the 2018 CME
Collaboration of the Year,
Colorado Association for
Continuing Medical Education*

Improving Assessment, Referral and Treatment of RA: Streamlining Processes for Better Patient Care Within our Community: A Sustainable, Interdisciplinary PI & QI Initiative



Lead Investigator: September, 2016 - June, 2017
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Background: National Jewish Health (NJH) led an 18-month Performance Improvement (PI)/Quality Improvement (QI) project to improve the process of referral, diagnosis of new RA patients from surrounding community practices. By educating the primary care community of Denver, CO on screening and documenting RA symptoms, we reduced the time between symptom onset and receiving appropriate therapy, ultimately improving patient care.


Additional Team Members

Emilie Minarcik, NP – Patient Case Manager
Naomi Birdsong – Clinical Operations Supervisor
Samantha Maxwell – Patient Navigator
Pearlanne Zelarney, MS – Director, Research Informatics
Stephanie Corder, ND, RN – Program Manager
Matthew Stern – Project Coordinator

PRIMARY GOAL

To reduce the time from referral to initial rheumatology consult and initiation of appropriate DMARD therapy.

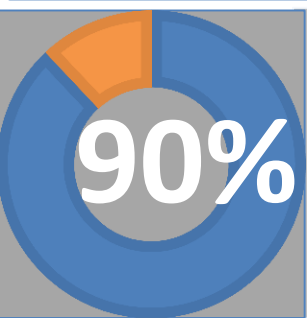
- 1759 Total Rheumatology Referrals to NJH
- 106 Referrals for RA
- 65 Early RA Referrals



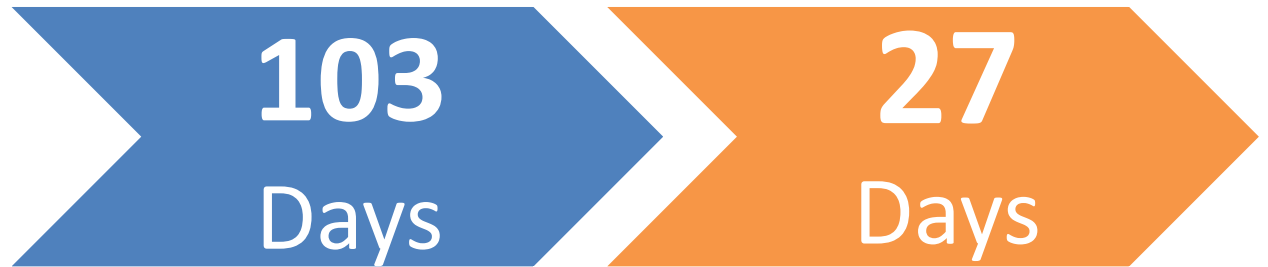
- ✓ 160 Total Learners/Participants
- ✓ 83 Physicians/ 77 NPs, PAs, RNs, MAs
CNA's, Residents, PharmDs, Patient Navigators



100% of NJH Rheumatology providers report the clinical process redesign is sustainable for the future AND positively impacted patient care.



Of participating PCPs report increased communication with the NJH Rheumatology Division improved their ability to care for RA patients.



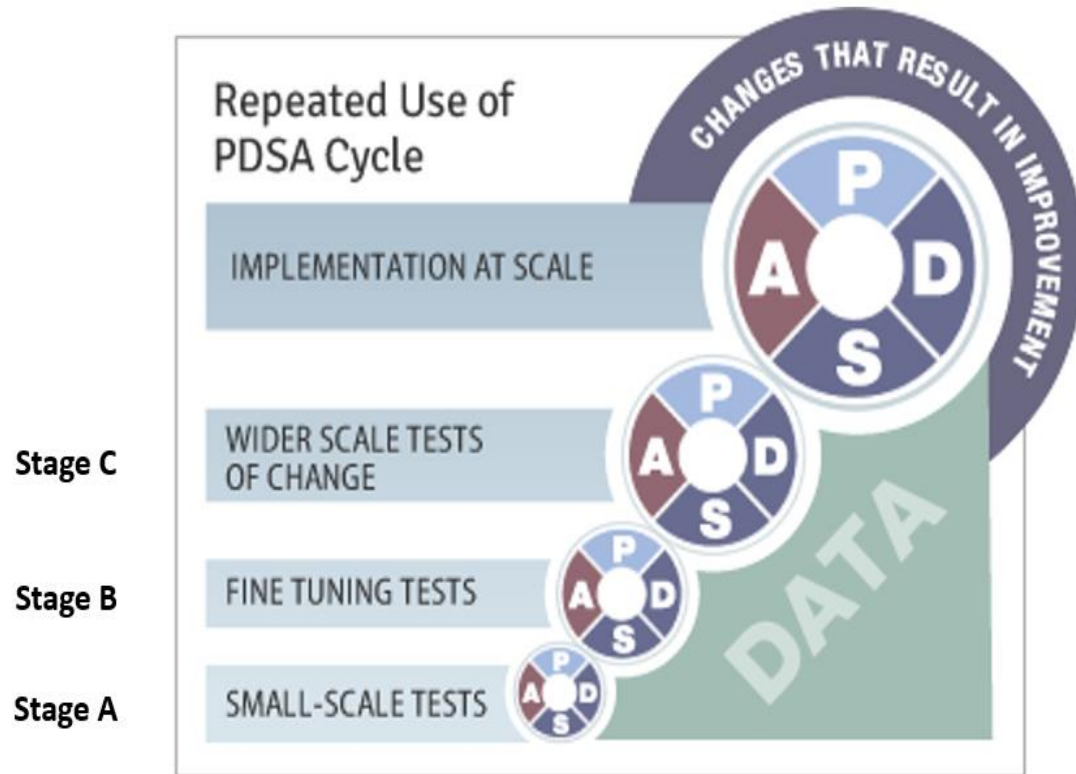
Reduction in time from primary care referral of suspected RA patients to appointment date at NJH Rheumatology Division by an average **76 days**.

51% of early RA patients were prescribed DMARD therapy on their first visit date.

85% of early RA patients were prescribed DMARD therapy > 1 month from visit date.

100% of early RA patients were prescribed DMARD therapy > 3 month from visit date.

Key Aims and Repeated Plan, Do, Study, Act Cycle



The key aims of the project were successfully addressed:

- 1) Educate local primary care providers on diagnosis, treatment and management of new RA patients
- 2) Enhance collaboration between NJH Rheumatology Division and participating primary care clinics
- 3) Create/disseminate unique referral model to partner clinics for rheumatologists to effectively identify high priority RA consultations
- 4) Develop/ implement scheduling overflow mechanism to decrease wait time for high priority new RA consultations
- 5) Reduce time to initiation of DMARD treatment
- 6) Bolster collaborative multidisciplinary patient care and
- 7) Improve NJH Rheumatologist performance on five patient metrics (TB screening, RAPID 3, MDHAQ and CDAI).

The recurring PDSA project management cycle was broken down into three stages reflected in the timeline on the next slide. As you can see, the re-structuring of interventions and enhanced communication patterns in stages B and C drastically reduced time from primary care referral to appointment date at NJH Rheumatology for early RA patients by an average of 74% or 76 days and as well as time to treatment.

Improving Assessment, Referral and Treatment of RA

Project Intervention Timeline

Interventions and Qualitative Achievements

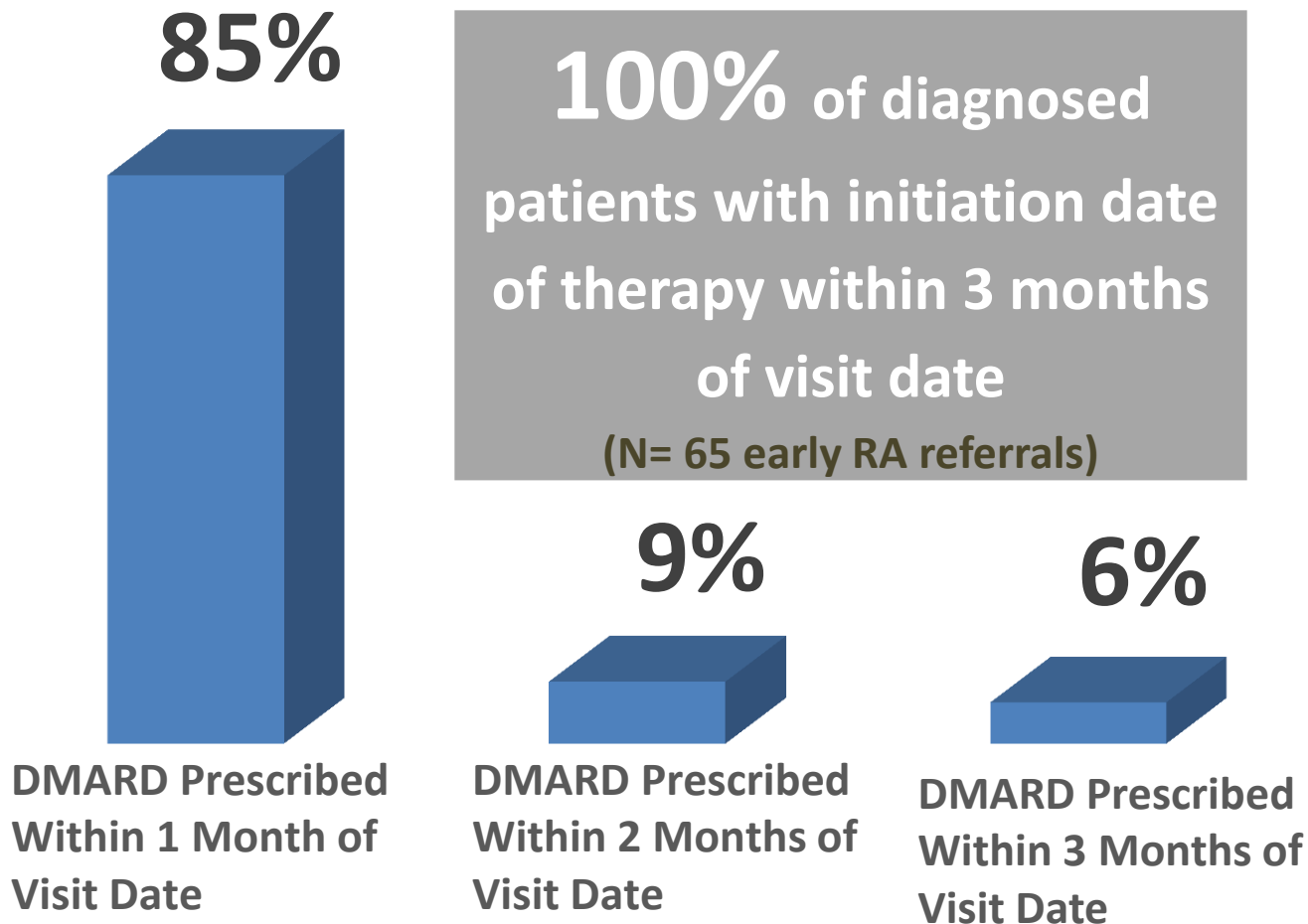
Strategies	September 2016 – March 2017* Stage A	April – August 2017* Stage B	September 2017 – June 2018* Stage C
Partner Relationships	<ul style="list-style-type: none"> • Introductory meetings • RA referral checklist • Clinical team roles and buy-in • Patient Case Manager (PCM) role 	<ul style="list-style-type: none"> • Evaluation of checklist utilization • Outreach to navigators at partner clinics 	<ul style="list-style-type: none"> • Patient navigator role created to coordinate care • Collaborative discussion about coordination of care transitions
Internal Provider Metrics	<ul style="list-style-type: none"> • Baseline metrics disseminated • Input and buy-in from providers 	<ul style="list-style-type: none"> • Mid-point metrics distributed with self-assessment 	<ul style="list-style-type: none"> • Final metrics dissemination with self-assessment of goal attainment
Clinical Process Redesign	<ul style="list-style-type: none"> • Dedicated fax line explored • EMR fields added - select metrics • Designated appointments added for early RA patients 	<ul style="list-style-type: none"> • PCM reviewing all referrals for suitability • Checklist adapted into referral guide 	<ul style="list-style-type: none"> • Streamlined referral review and appointment scheduling • Secure email created for provider to provider communication • Secure referral portal created
Partner Clinic Education	<ul style="list-style-type: none"> • Educational needs assessment • Initial education developed 	<ul style="list-style-type: none"> • Educational sessions continued at partner clinics 	<ul style="list-style-type: none"> • Treatment algorithm adapted from ACR guidelines
Access to Care/Time to Treatment	<ul style="list-style-type: none"> • Educated partners on referral process • Incorporation of tracking measures for time to first visit and time to initiation of DMARD 	<ul style="list-style-type: none"> • Copies of referral guide disseminated to partner clinics • Evaluation of time to treatment data 	<ul style="list-style-type: none"> • Active use of secure email and electronic referral portal • Ongoing informal education of clinical team and partner clinics

**Timeline adjusted secondary to change of scope.*

NJH Systems Level Process Change Measurements	NJH Baseline	Program Goal	Program Outcomes Achieved
% of RA patients offered date/ scheduled for rheum consult within 2 weeks of referral date (N= 106 RA referrals)	0%	25%	30%
% of RA patients offered date/ scheduled for rheum consult within 3 weeks of referral date (N= 106 RA referrals)	0%	(Not Proposed)	43%
% of RA patients offered date/ scheduled for rheum consult within 4 weeks of referral date (N= 106 RA referrals)	0%	75%	60%
% of diagnosed patients with initiation date of therapy at first visit date (N= 65 early RA referrals)	0%	(Not Proposed)	51%
% of diagnosed patients with initiation date of therapy within 1 month of visit date (N= 65 early RA referrals)	0%	25%	85%
% of diagnosed patients with initiation date of therapy within 3 months of visit date (N= 65 early RA referrals)	0%	75%	100%

TIME TO TREATMENT

Initiation of DMARD Treatment from Referral Date



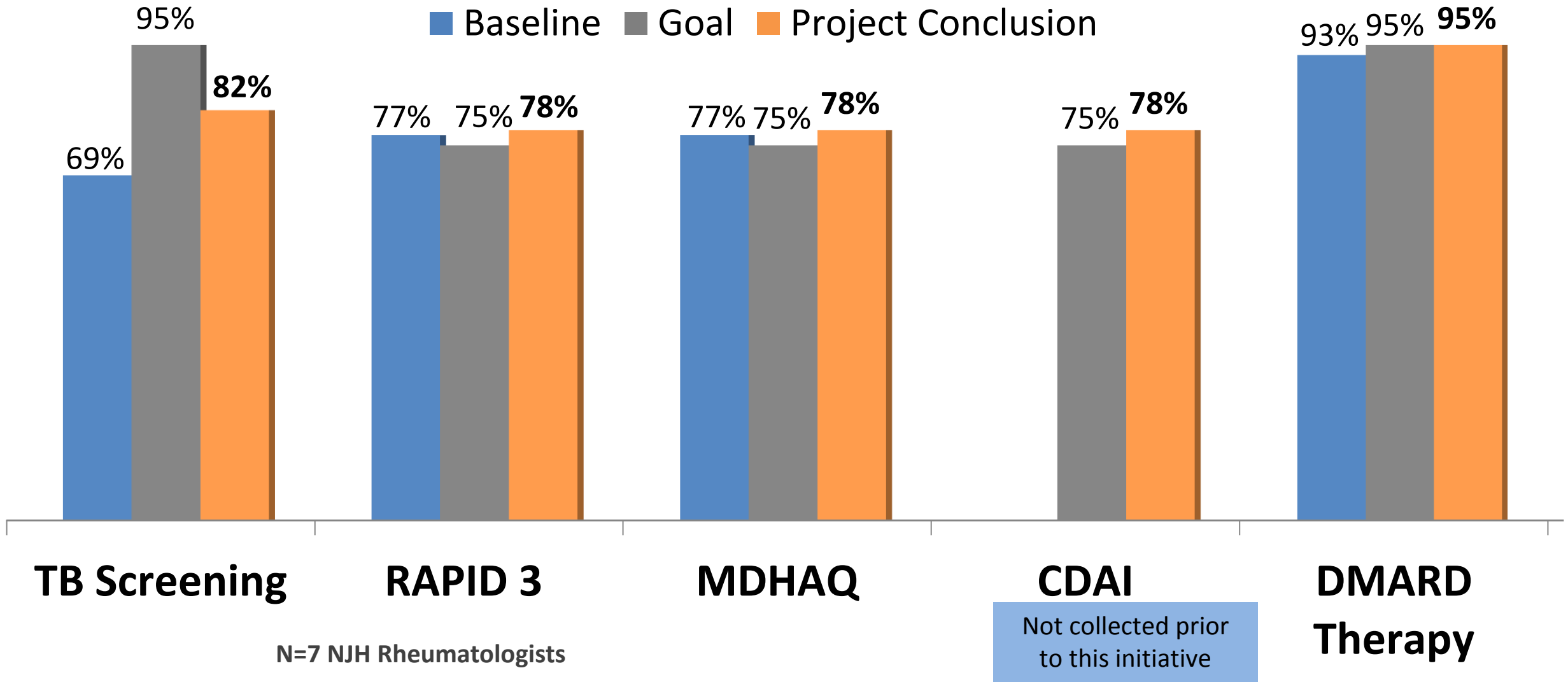
N=65

106 overall suspected RA referrals

- 41 (of the 106) patients not classified as “early RA” reported being prescribed a DMARD prior. NJH Rheumatologists focused on assessment and treatment selection (step-up therapy) with this group to achieve minimal disease activity.
- 65 (of the 106) were classified as “early RA”
 - ✓ 51% of early RA patients seen received an initial prescription after the first visit.
 - ✓ 85% of early RA patients were prescribed within 1 month from visit date.

Improving Assessment, Referral and Treatment of RA

NJH Rheumatology Providers Performance (Aggregate)



National Jewish Health Rheumatology Provider Results

100% of providers reported they are **very motivated to incorporate the process to complete and document CDAI assessment for all patients to track disease progression.**

100% of providers agree that **this project bolstered collaborative multidisciplinary patient care**

100% of providers agreed that the extra time spent **tracking disease progression metrics was worth the additional work.**

100% of providers are **using documented data to track disease progression from first appointment to follow-up visit.**

100% of providers reported that the **project interventions contributed to improved diagnosis and treatment of RA patients**

100% of providers felt that the addition of a **referral screening by the Nurse Practitioner positively impacted the clinical performance and patient outcomes.**

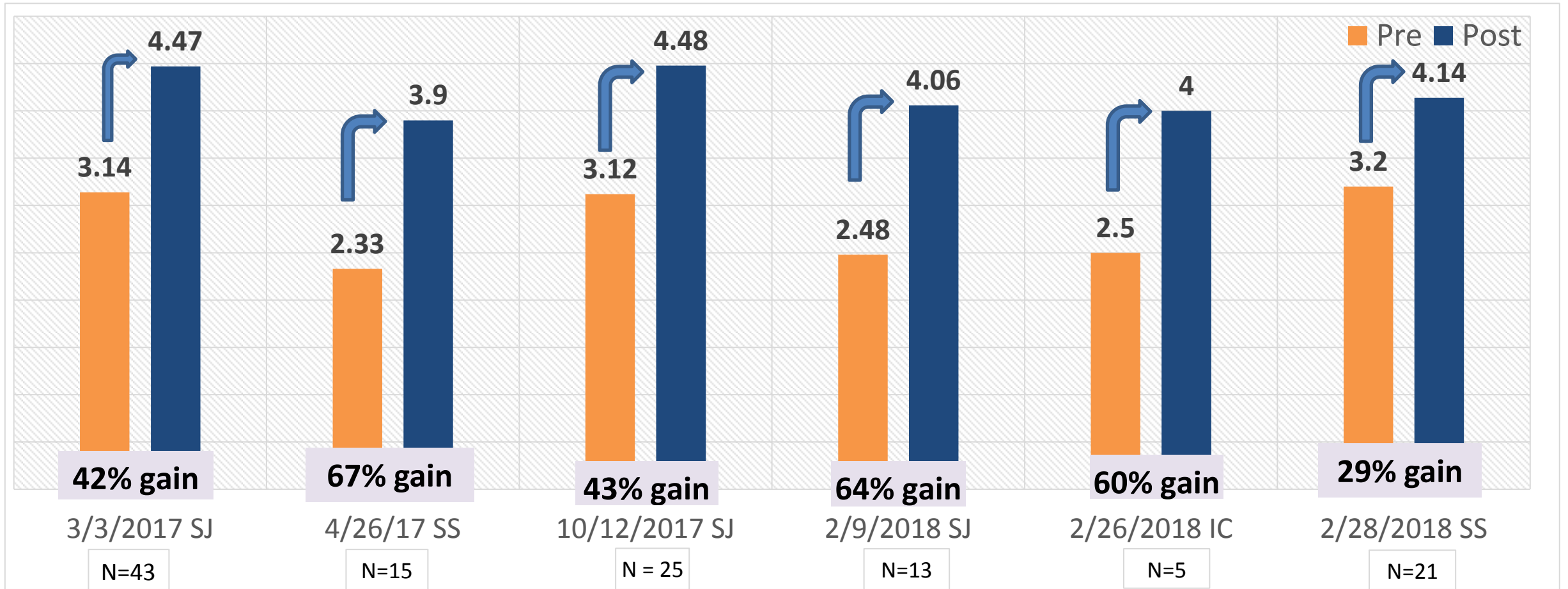
NJH Provider Feedback

- ✓ Multiple rheumatology providers noted their patients began asking to see their documented CDAI scoring over time to track their own disease activity regression/progression.

“The streamlined process created a significantly shorter duration between the time patients were referred from the PCP’s office to the time they are seen in our rheumatology practice for early diagnosis and treatment, preventing further damage and complication. This is the first and most important step for our patients to regain and retain a normal life.”

- Isabelle Amigues, MD Lead Investigator

CME Educational Sessions at Community Clinics



Participants demonstrated an overall **51% relative gain in knowledge and competence** as a result of these activities. (n= 122) 3 additional educational independent live sessions were conducted (Total n of 9 activities: 145)

Community Primary Care Provider Results

100% of community providers report that **they are more aware of the requirements for a complete RA referral to a specialty clinic.**

100% of community providers agree or strongly agree that **they have an improved knowledge base of the diagnosis and treatment of early Rheumatoid Arthritis**

90% of community providers noted that **enhanced communication methods with a specialty clinic improved their ability to care for RA patients.**

97% of community providers noted **the knowledge gained during this project helped overcome barriers to care.**

Participating Primary Care Provider Feedback

“These were some of the best lectures/learning experiences that I have attended recently!”

“It was really awesome and one of the best lectures we've had this year!”



Patient Factors were cited by participating primary care physicians in the educational sessions as the most common barriers in reducing time to treatment. **Financial Factors** and **Provider Factors** were also cited as common barriers in reducing time to treatment.

Patient Factors

- Adherence
- Poor Follow-up
- Access to Care
- Transportation

Financial Factors

- Cost of medication
- Lack of insurance
- Undocumented status

Provider Factors

- Referral Process
- Ability to diagnose
- Coordination of care

PDSA Insights and Project Evolution

Referral Checklist



**Referral Guide/ Information Sheet
Resource for Referring PCPs**

The referral checklist was a key part of the proposed design to require tests and imaging from referring PCP, but found to be a large barrier to early referral. Instead, the referral requirements were abandoned for a referral guide/ information sheet participating PCPs could use to guide sound referrals for suspected RA. More quality referrals were received and prioritized.

Patient Case Manager



Patient Navigator Added

It was determined that a patient navigator role would be added to the project team. This role facilitated peer to peer communication between referring provider and specialty clinic to ensure timely coordination of care. The Patient Case Manager's role was adapted to emphasize the skills of the nurse practitioner in that role. The patient navigator assumed more of a liaison role with partner clinics and the PCM role shifted to patient triage, prioritization, evaluation, and treatment.

Education on DMARDs



**Treatment Algorithm
Guided RA Work up for participating PCPs**

The educational approach was adapted in Stage B according to provider feedback to emphasize the treatment of patients with advanced disease who had not achieved Minimal Disease Activity (MDA) to help PCPs select step-up therapy and to know how and when to refer to a rheumatologist. A treatment algorithm was developed based upon American College of Rheumatology guidelines and disseminated and reviewed by a focus group of peers.

PDSA Insights and Project Evolution

Faxed Referral



Secured Electronic Referral/ Clinical Process Redesign

In the early stages of the project, a dedicated fax line was explored but deemed not to be possible. Practice re-design in this initiative included the development of a secure electronic email for direct communication, known as “RheumLine” with a rheumatologist or nurse practitioner and a secure portal for streamlined referrals from community partners. Once the referral was received in the NJH clinic and evaluated by the MA (patient navigator), patients were evaluated by a nurse practitioner serving as the Patient Case Manager (PCM). Once the referred patient had been screened, appropriate patients were prioritized to be scheduled into designated appointments and seen for an initial evaluation by the nurse practitioner. Clinical process re-design not only resulted in enhanced clinic team performance with clearly delineated roles but the adoption of a streamlined referral process, prioritization of high need patients and enhanced communication with partner clinics.

Provider Metrics in EMR



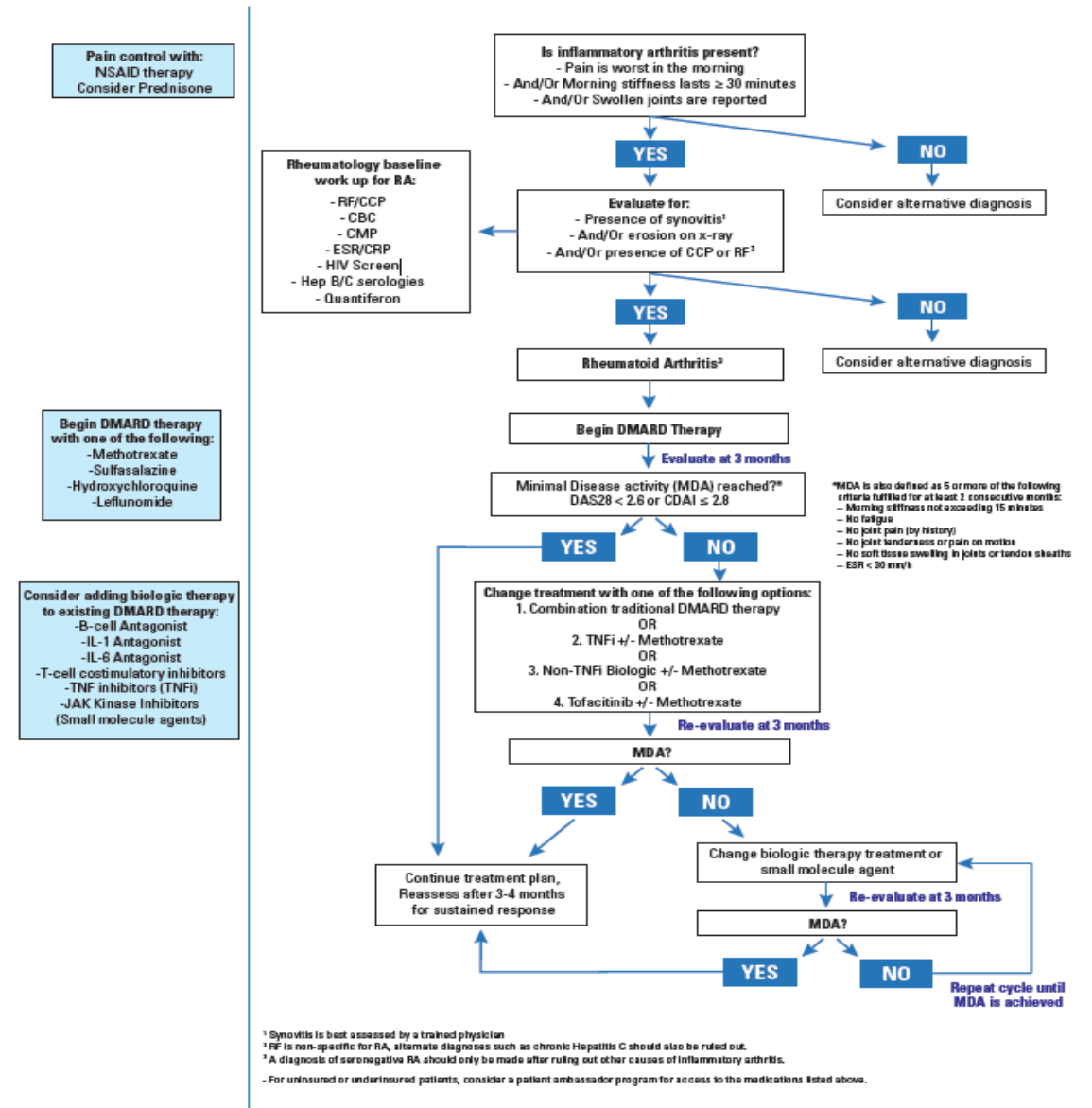
CDAI Completion/Documentation Goal Achieved

The Clinical Disease Activity Index (CDAI) was a new measure entered into EMR for documentation at NJH. Seven rheumatologists from the Rheumatology Division at National Jewish Health analyzed their performance toward established goals on select metrics from baseline through project completion and PI CME was offered to those providers that reviewed their individual data through each stage of the project and completed a self-assessment. As a consequence of this project, the Rheumatology Division has decided to adopt the Rapid 3, MDHAQ and CDAI as indicators of disease activity.

Rheumatoid Arthritis Treatment Algorithm

- ✓ Feedback from the community providers led to the creation of an algorithm and flowchart to refer to after suspecting RA
- ✓ The American College of Rheumatology's version was created for Rheumatologists, not the primary care community.
- ✓ Reviewed by a focus group of rheumatology providers.
- ✓ These workflows were disseminated to the partner clinics and have been a powerful tool for their providers.

Stepwise Approach to Managing Rheumatoid Arthritis (RA)



*MDA is also defined as 5 or more of the following criteria fulfilled for at least 2 consecutive months:
- Morning stiffness not exceeding 15 minutes
- No fatigue
- No joint pain (by history)
- No joint tenderness or pain on motion
- No soft tissue swelling in joints or tendon sheaths
- ESR < 30 mm/h

¹ Synovitis is best assessed by a trained physician
² RF is non-specific for RA, alternate diagnoses such as chronic Hepatitis C should also be ruled out.
³ A diagnosis of seronegative RA should only be made after ruling out other causes of inflammatory arthritis.
- For uninsured or underinsured patients, consider a patient ambassador program for access to the medications listed above.

Bidirectional Communication and Scheduling Model

- ✓ NJH Patient Navigator communication to partner clinic Patient Navigators communication is ongoing. Efforts to make the NJH Patient Navigator a permanent position in the NJH Rheumatology Division are underway.
- ✓ The dedicated email address created and monitored by members of the rheumatology clinic is still in use. This secure method of communication links the Patient Navigators at partner clinics with NJH's Rheumatology Division.
- ✓ The secure referral portal created and distributed to the partner clinics, screening by the NJH Patient Case Manager, and prioritized patient appointment slots are still utilized to reduce the time between referral and specialty visit.

The diagnosis & treatment algorithm created for PCPs

- ✓ This algorithm is being used by existing St. Joseph hospital residents and the next cohort will receive them upon arrival.
- ✓ NJH clinicians are using the algorithm to show their patients the treatment plan and where they fall within the disease progression.

EMR/Documentation Changes

- ✓ NJH Rheumatology providers continue to document the Clinical Disease Activity Index (CDAI) scoring to track RA patients' disease progression/regression from visit to visit in support of shared decision making.

Education

- ✓ The education sessions at the partner clinics led to increased and sound early RA patient referrals which continues 90 days post-project conclusion.

- ✓ Requiring all tests are completed prior to rheumatology referral was found to be a major barrier and can increase instead of reduce time to specialty visit and subsequent treatment.
- ✓ Dedicated Patient Navigators are the key to bidirectional communication between community primary clinics and a specialty center.
- ✓ Creating a process to screen early and suspected RA referrals by an MA and NP and creating designated appointment times for referrals that meet the criteria is critical to reducing time to specialty visit and subsequent treatment.
- ✓ The primary care community largely comprehends the primary diagnosis and treatment plan of RA, but further education on disease management and additional therapies is needed.

Poster Session at the 2018 ACR/ARHP Annual Meeting

The ACR/ARHP Abstract Selection Committee accepted the abstract based on this initiative entitled "*Reducing Time to Treatment in Patients with Early and Uncontrolled RA: Implementation of a Collaborative and Systems-Based Approach to Improve Access to Care.*"

Poster presentation will take place at the 2018 ACR/ARHP Annual Meeting, to be held in Chicago, IL, October 19-24. Please see the specific details below.

Poster Session Title: *Rheumatoid Arthritis – Diagnosis, Manifestations, and Outcomes Poster III: Complications of Therapy, Outcomes, and Measures*

Session Date: **Tuesday, October 23, 2018**

Time: **9:00 AM - 11:00 AM**

Colorado Alliance for Continuing Medical Education (CACME) Annual Conference

The NJH Office of Professional Education received an award for work on this initiative at the Annual CACME Conference in Beaver Creek, Colorado on July 26, 2018.

Outstanding CME/CPD Collaboration

Presented to

National Jewish Health

for

**Improving Assessment, Referral and Treatment of RA:
Streamlining Processes for Better Patient Care within our
Community: A Sustainable, Interdisciplinary Performance
Improvement & Quality Improvement Initiative**

In recognition of innovative quality, creativity, and significance of stakeholder collaboration within the continuing medical education and continuing professional development profession.



July 27, 2018

Articles on the outcomes of this initiative are currently under National Jewish Health internal review prior to submission to the following journals for publications:

- **Arthritis Care & Research**
- **The Journal of Continuing Education in the Health Professions (JCEHP)**



National Jewish Health is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians and by the California Board of Registered Nursing to provide nursing contact hours for nurses.



Accreditation Details: NJH designated six live educational activities for 1 AMA PRA Category 1 Credit™.

This Certified 18 Month Performance Improvement CME (PI CME) Initiative approved for 20 AMA PRA Category 1 Credits™.

**Thank you for supporting this valuable
educational initiative!**