AMGA

Advancing High Performance Health

AMGA Foundation

Best Practices in Managing Patients with Rheumatoid Arthritis

DaVita HealthCare Partners Medical Group and the HealthCare Partners Institute for Applied Research and Education

Improving RA Data in the Patient Registry

Organizational Profile

DaVita HealthCare Partners Medical Group (DHCP) is one of the nation's largest, most well-established and -developed integrated and coordinated healthcare delivery systems serving both capitated and fee-for-service patients. DHCP's wide geographic presence, as well as its extensive clinical and administrative capabilities, patient pool, and industry leadership make it an ideal "learning laboratory" to improve care and wellness, and lower costs for a variety of patients by promoting care engagement and independence within their chosen residence.

Within Southern California, DHCP is comprised of approximately 70 group/staff model sites, made up of approximately 750 employed full-time primary and specialty care physicians. Moreover, DHCP has an independent physicians association (IPA), which represents a network of about 4,900 independent primary care and specialty physicians, and extends DHCP's group model sites to offer patients more care access and provider choice in the surrounding communities. As a result of this outreach, DHCP serves a diverse population with a wide array of cultural and socioeconomic backgrounds in varying ranges of health and age.

HealthCare Partners Institute for Applied Research and Education is a not-for-profit foundation whose mission is to design, evaluate, refine, and broadly share patient-centered innovations and lessons learned to enhance primary care delivery systems to diverse patient populations. Its aims are to better align the intersection of patient needs, quality of care, and cost by examining ways to better engage patients and staff, promote vulnerable individual independence, and yield sustainable, enhanced outcomes while reducing costs.

The Institute partners with healthcare organizations, academic institutions, and policy experts to study and document clinical innovations, conduct translational research, and implement promising ideas that aim to disseminate best practices of equitable, efficient, and high-quality care.

Project Summary

Early on in the RA Collaborative, it was identified that CDAI data was not captured in a reportable field. Therefore, in a separate process, the RA team is working to establish a consistent place for documenting the CDAI results, where those results could be exported and matched to other patient care data. As a consequence of this Collaborative, CDAI is now integrated into the EHR through an eCalc tab in TouchWorks.

The RA registry is nearing completion. The registry will be available "on demand" and help support team workflows with appropriate data "flags" for patient follow-up to further enhance care quality.

Refinements with the RA registry included: achieving appropriate identification, monitoring, and management of RA patients. Moreover, continued efforts to get the tool "embedded" into EHR were undertaken with focused efforts to correct diagnostic codes.

Program Goals and Measures of Success

DHCP identified several goals as part of its overall strategy and work with the RA Collaborative:

- To review and refine best practices for patient management and care, and then identify and share them among DHCP's rheumatology communities.

- To examine the tools used to assess RA activity and patient function.
- Develop a patient disease registry to review RA patients and identify care gaps, including patients who have not been seen recently and have not had a functional assessment on an annual basis. The registry would serve as a tool for future care management strategies and targeting appropriate patients.
- To implement a code correction process for patients who are identified incorrectly as having RA, and facilitate the correction in our systems and electronic patient records.

Initial practice management group meetings with the rheumatologists formed the basis for DHCP's improved patient care. The practice management group confirmed that a disease activity assessment should be completed at every visit and would be useful to direct patient care and treatment changes. Evaluation tools were reviewed and it was determined by this Collaborative to move forward with the consistent use of the CDAI as a marker for disease activity.

The DAS tool is currently in DHCP's electronic medical record, but to complete the DAS, a recent lab result must be available, which is impractical for many patients who have labs drawn at the time of their visit with their rheumatologist. The RAPID 3 test is a completely patient-driven assessment and the Collaborative felt it neglected the objective assessment that the CDAI provided. The rheumatologists may still continue their use of the DAS and RAPID3 tools, as they may provide additional value to the rheumatologist for disease progression; however, it is generally agreed-upon that the CDAI was the best tool for disease activity assessment, should be used at each visit, and that overall functional status using a more detailed tool such as the PAS should be collected annually. The practice group and RA Collaborative team are presently evaluating whether these assessments could be provided via a secure tablet computer system to the patient in the waiting room and then incorporated directly into the EHR.

The collaboration determined that disease registry would be useful for "capturing" patients coded with a rheumatologist, the coding physician, dates of service, provider (including their primary care physician or specialist), other chronic or comorbid conditions, CDAI scores and other clinical markers (DAS and RAPID 3), functional status (PAS), PHQ-9 depression screenings, laboratory results, and all medications (prescriptions filled). Disease registries at our organization are intended to be actionable. Establishing the RA registry included plans for follow-up intervention activity, including the ability to identify those patients who have not been seen regularly, and to review workflows for patient pursuit by the rheumatologists' support teams. Those pursuit activities would target patients who have not been seen in the past year, as well as those who have not had an updated functional assessment, or completed a PHQ-9 for assessment of comorbid depression. There would also be targeting of patients whom the physician has incorrectly coded as having rheumatoid arthritis. The practice management group also began scrutinizing treatment regimens, which led to further analysis of treatment changes. Moreover, DHCP reviewed the use of the CDAI and/or functional assessment and to correlate that information with treatment changes by the rheumatologist.

Population Identification

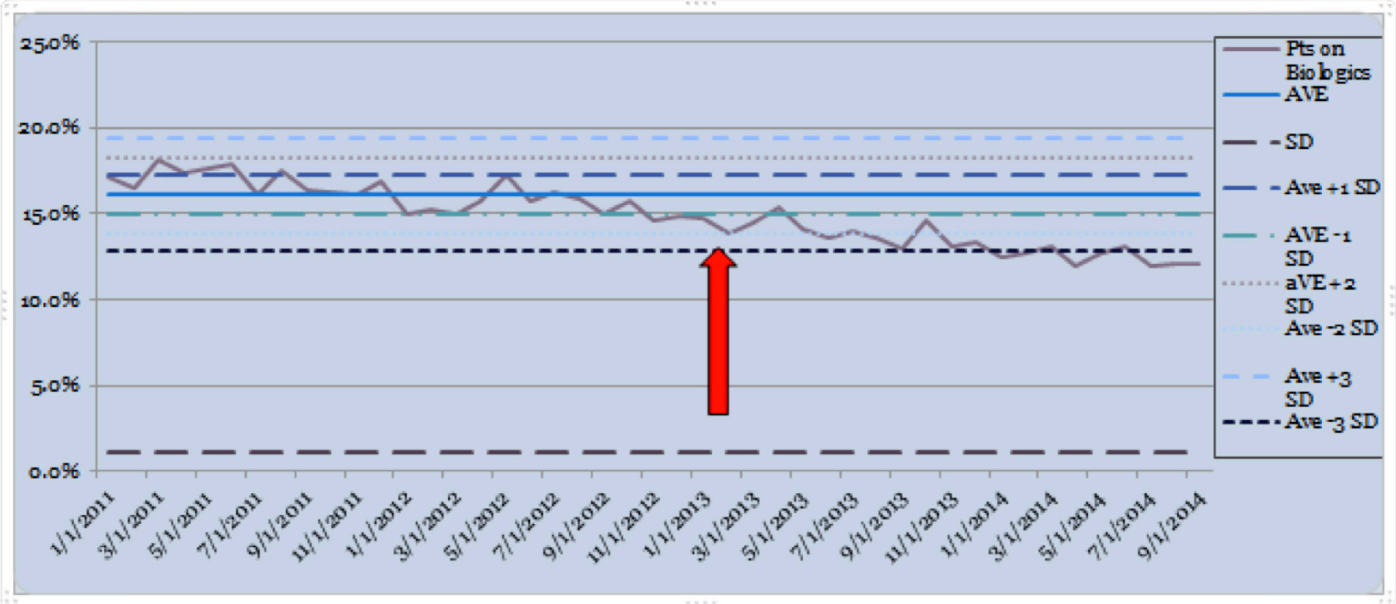
DHCP has approximately seven FTE rheumatologists on staff at 10 sites. Generally, each rheumatologist is located at one or more clinical sites. There are also three NPs who care for patients with rheumatic disease. The primary goals are to help these individuals live well and enhance their quality of life.

Diagnoses are entered automatically by the EHR into the active problem list whenever they are assessed and coded using the charge module; this data are available to any subsequent provider, all of whom can view the problem list. DHCP identified RA population as follows: the patient had to have two visits with a rheumatologist in a calendar year with a diagnosis code for RA. Moreover, DHCP currently uses EHR to track CDAI and erythrocyte sedimentation rate (ESR), or C-reactive protein (CRP). It also uses the EHR to help identify potential candidates for clinical trials and applied health services research.

Patients who are diagnosed with RA have claims data that allows the team to determine the patient population.

During this educational Collaborative, the team shared data on DMARD prescriptions. DHCP recognized that within its data, there were patients incorrectly identified with RA. DHCP discussed plans to address this further once the registry was completed. Preliminary discussions with the practice management group led to a novel area of review.

Figure 1



An analysis of biologic medications was shared with the RA Collaborative.

The practice group discussed the implementation of a new treatment algorithm for RA based on emerging published research regarding the "Treat to Target" approach. The research showed that patients who were consistently evaluated using a standard disease activity tool and who received therapeutic doses of DMARDs had better outcomes. As a corollary, the Collaborative felt a cost savings could be realized since DMARDs would be utilized at more effective doses, thereby mitigating the use of more expensive biologics. Figure 1 demonstrated that there was a decrease in biologic usage after implementation of the algorithm.

To further review, the Collaborative team completed chart extractions to analyze the use of the CDAI and treatment changes in a representative rheumatologist (and participant of the RA Collaborative team).

The following was used to categorize the patients:

- Remission: CDAI ≤2.8
- Low Disease Activity: CDAI >2.8 and ≤10
- Moderate Disease Activity: CDAI > 10 and ≤22
- High Disease Activity: CDAI >22

Preliminary results of 48 patients from one clinician's practice were examined and shared with the Collaborative. The analysis was expanded to include two additional providers in the Rheumatology Department (MD or NP degree providers are labelled, "X, Y, and Z" herein for anonymity). Charts were examined, identifying patients seen by the clinicians over the past three months. The following counts of patients were identified with a CDAI score for further analysis (Figure 2).

Chart analysis further identified patients with "normal" or elevated laboratory findings, using either a sedimentation rate (ESR) or a C-reactive protein (CRP) laboratory result, and compared those findings with the disease assessment (CDAI) previously performed as part of the overall patient evaluation.

Standard evaluation values of ESR and CRP apply. If both tests were performed, an elevated value was captured even if the other test reflected a normal value (Figure 3).

Finally, these results were reviewed with identified practice patterns to determine when treatment changes were applied, as well as if best practices could be identified and shared among the rheumatology practice group (Figure 4).

Outcomes

Across all three clinicians using the CDAI functional assessment, the CDAI assessment for remission, low activity,

Figure 2: Patients Identified with a CDAI Score

	CDAI				
Provider	Remission	Low activity	Moderate Activity	High Activity	Totals
X	2	10	14	6	32
Y	5	14	4	1	24
Z	16	25	6	1	48
Totals	23	49	24	8	104

Figure 3: Patient Evaluation

ESR and/or CRP Marker	**CDAI**				
Provider X	Remission 2	Low activity - 10	Moderate Activity – 14	High Activity - 6	Totals
Normal	1	8	10	1	20
Elevated	1		4	5	10
No ESR or CRP		2			2
Totals	2	10	14	6	32

ESR and CRP Marker	**CDAI**				
Provider Z	Remission - 16	Low activity - 25	Moderate Activity – 6	High Activity - 1	Totals
Normal	14	18	2	1	35
Elevated	1	6	4		11
No ESR or CRP	1	1			2
Totals	16	25	6	1	48

ESR and CRP Marker	**CDAI**				
Provider Y	Remission - 5	Low activity - 14	Moderate Activity – 4	High Activity - 1	Totals
Normal	5	11	2	1	19
Elevated		3	2		5
Totals					
Totals	5	14	4	1	24

Figure 4: Treatment Changes

CDAI and ESR/CRP – Provider X	Total	# Medication Change	% with Medication Change
Remission and Normal Marker	1	1	100%
Remission and High Marker	1	0	0%
Low Activity and Normal Marker	9	2	22%
Low Activity and High Marker	0	0	0%
Low Activity and No Marker	2	0	0%
Moderate Activity and Normal Marker	9	5	56%
Moderate Activity and High Marker	4	3	75%
High Activity and Normal Marker	1	0	0%
High Activity and High Marker	5	4	80%

CDAI and ESR/CRP –Provider Z	Total	# Medication Change	% with Medication Change
Remission and Normal Marker	14	2	14%
Remission and High Marker	1	0	0%
Remission and No Marker	1	0	0%
Low Activity and Normal Marker	18	1	6%
Low Activity and High Marker	6	0	0%
Low Activity and No Marker	1	0	0%
Moderate Activity and Normal Marker	3	1	33%
Moderate Activity and High Marker	3	0	0%
High Activity and Normal Marker	1	1	100%
High Activity and High Marker	0	0	0%

Figure 4 : Treatment Changes (continued)

CDAI and ESR/CRP – Provider Y	Total	# Medication Change	% with Medication Change
Remission and Normal Marker	5	0	0%
Remission and High Marker	0	0	0%
Low Activity and Normal Marker	11	2	18%
Low Activity and High Marker	3	0	0%
Moderate Activity and Normal Marker	2	0	0%
Moderate Activity and High Marker	2	1	50%
High Activity and Normal Marker	1	1	100%
High Activity and High Marker	0	0	

moderate activity, and high activity correlated more closely with clinician medication treatment changes than laboratory markers for disease progression: ESR and CRP.

Patients with normal markers, but still presenting with moderate or high CDAI activity scores, were more likely to see treatment changes.

- Dr. X: 56% of patients with moderate activity and normal marker had a medication treatment change
- Dr. Z: 33% of patients with moderate activity and normal marker; and 100% of high activity and normal marker* had a medication treatment change
- Ms. Y: 100% with high activity and normal marker saw a treatment change*

**Few patient populations represented in these groups.*

The practice group will further examine these findings for additional best practices including corresponding treatment changes to determine if there are lessons to be shared in treating this population.

Intervention

The interventions implemented as a result of this Collaborative saw the construction and refinement of DHCP's disease registry. Medical assistants have also begun treating patients who have not been seen by their rheumatologist and who did not have a functional assessment in the past year. Finally, new documentation standards for capturing the CDAI score were created.

Leadership Involvement & Support

Leadership support at DHCP was robust for the RA Collaborative. Early in the process, the HealthCare Partners Institute for Applied Research and Education supported the Collaborative with applied health research resources. Development of practice management groups for the purpose of identifying and disseminating best practices among specialists and between the primary care physician community remains paramount. The team gratefully acknowledges the clinicians, support staff, and administrative personnel for their valuable input.

Lessons Learned and Ongoing Activities

At the conclusion of the Collaborative, the RA registry is nearing completion. Once finalized, the registry will be available "on demand" and help support team workflows. As discussed earlier, the registry will be modified to incorporate a periodic review of patients and "flags" to target patients for follow-up.

DHCP's data appears comprehensive and includes claim data, pharmacy data, laboratory data, and data documented in the EHR of employed physicians and specialists. Identified early in the Collaborative is that CDAI data is not captured in a reportable field, so in a separate process, the team has been working to establish a consistent place for documenting the CDAI result, where that result could be exported and matched to other patient care data.

Shifting resources did not permit the Collaborative team to complete their development of the registry, but additional work has presented the potentially high value in having this information easily accessible to help drive best practices, and sharing lessons learned.

The future goal is to achieve appropriate identification, monitoring, and management of RA patients. Barriers toward this goal included rheumatologists' suboptimal use of disease activity tools, continued challenges to getting the tool "embedded" into the EHR, and rolling out the process to all rheumatology practices. While the CDAI is now integrated in EHR through eCalc tab in TouchWorks, there remains work to refine the dashboards and its use for patient pursuit, as well as continued work to correct diagnostic codes.

Acronym Legend

CDAI: Clinical Disease Activity Index
DMARD: Disease-Modifying Anti-Rheumatic Drug
HAQ: Health Assessment Questionnaire
MDHAQ: Multi-Dimensional Health Assessment Questionnaire
PQRS: Physician Quality Reporting System
RAPID 3: Routine Assessment of Patient Index Data 3
SDAI: Simple Disease Activity Index

RA Team

Christine Castano, MD
Medical Director, Utilization Management

Janelle Howe
Senior Director, Health Enhancement

Wesley Mizutani, MD
Clinical Lead, Rheumatology

Jeremy Rich, DPM
Director, HealthCare Partners Institute for Applied Research and Education

AMGA Foundation

One Prince Street
Alexandria, VA 22314-3318

amga.org/foundation

abbvie