AMGA

Advancing High Performance Health

AMGA Foundation

Best Practices in Managing Patients with Rheumatoid Arthritis

Wilmington Health

Using RAPID 3 Assessments to Improve Patient Care

Organizational Profile

Wilmington Health is structured as a multispecialty clinic with primary care providers integrated into the system. In this way, the clinics are able to provide a comprehensive and coordinated approach to the care of all their patients. In 2013 Wilmington Health became an accountable care organization (ACO) and strives for high-quality, efficient care of its patients. The group was honored by the AMGA as an Acclaim Award Honoree in 2013.

The care given at Wilmington Health facilities is organized around a state-of-the-art EMR. This allows its physicians and nurses to remain in close communication with each other, which is critical in today's complex medical system.

Wilmington Health specialties include cardiology, electrophysiology, pulmonology, gastroenterology, infectious diseases, rheumatology, neurology, and dermatology. General, vascular, endovascular, colorectal, obstetrics and gynecology, ear nose and throat, and robotics are among the surgical procedures it offers. Wilmington Health's primary care services are family medicine, internal medicine, and pediatrics. Although many physicians tend to their patients at the hospital, Wilmington Health also has a highly trained group of internists specializing in hospital-based medicine. The facility also offers medical services such as sleep evaluations, physical therapy, travel clinic, neurodiagnostic testing, general radiology, as well as Computed Tomography and Magnetic Resonance Imaging. Wilmington Health is able to perform a variety of cardiologic services: nuclear medicine, echocardiography, pacemaker evaluations, catheterizations, and HeartScore cardiac calcium scoring. It also has a fully integrated vascular laboratory for the evaluation of circulatory problems.

All of Wilmington Health's providers, staff, and members of leadership are committed to the welfare of our community for patients of all ages and issues of all complexities, and is continually evolving its approach to ensure that the needs of its patients are met in as friendly an atmosphere as possible. The organization strives to be the center of medical and surgical excellence in its community and its community members' healthcare destination of choice. Wilmington Health continues to grow and currently consist of 130 physicians, two of which are rheumatologists. In 2014 there were 99,820 unique patients, with 567,739 total visits.

Project Summary

At the inception of this project, Wilmington Health followed the American College of Rheumatology (ACR) 2012 updated practice guidelines for the treatment of RA. Each patient received a RAPID 3 and a MDHAQ at every visit. Patients were monitored using several modalities, including: morning stiffness, erythrocyte sedimentation rate (ESR), and Vectra DA kits, which include the C-reactive protein (CRP). Patients were seen at three- and four-month intervals. Initial data gathering relied on scanned documents and their presence in the EMR. No discrete data fields were available.

Wilmington Health's practice transitioned to NextGen several months into the project, making enhanced data collection possible. To standardize care across our patients we identified them at the initial visit and introduced them to Wilmington Health's best practice system. The patients were tracked using the group's EMR, which allowed the staff to anticipate upcoming appointments, lab evaluation timing, and track RAPID 3 scores. Vectra DA scores are currently limited to a bi-annual use and provide additional information to the RAPID 3 assessment.

As patients were identified and tracked in the EMR, Wilmington Health ensured that the 2012 ACR update for the management of RA was followed.[1] In this scheme, patients followed algorithms based on disease activity. At each decision

point the RAPID 3 and Vectra DA score allowed the clinician to proceed in the algorithm by making a choice: change medication, maintain the patient's current regimen, or reduce medications. Cutoffs for advancing a patient's care would be moderate disease activity on the Vectra DA score and a moderate severity RAPID 3 score. Algorithms were taken from the 2012 update (Appendix 1). Appendix 2 contains the algorithm for disease activity measurements currently recommended by the ACR. Both algorithms for early and established RA were placed on Wilmington Health's computer desktops for easy access and reference.

Program Goals and Measures of Success

The project centered on the PQRS guidelines for RA. These guidelines looked at several variables: the number of patients on a DMARD, a disease activity assessment, and a functional assessment. The RAPID 3 form used in this project provided both a disease activity and functional assessment. The Vectra DA biomarker kit provided an additional disease activity assessment. This project had several aims: first, to improve the care of Wilmington Health's patients through education and data-driven care; second, to obtain a RAPID 3, MDHAQ, and Vectra DA score on all patients; third, to utilize NextGen EHR discrete data fields for RAPID 3 and Vectra DA, allowing simple reports to be generated for all RA patients; and fourth, to identify outliers and focus care toward these individuals. While several of these aims were successful, the last aim is still being developed.

Results for the project are based on PQRS guidelines that were reported quarterly. For Q2 of 2014 32.5% of patients were on DMARD therapy. That number increased to 92.4%, 92.9% and 95.5% in the following three quarters extending into 2015. The second project goal encompassed patients who completed a RAPID 3 score. The RAPID 3 includes the MDHAQ score as part of the RAPID 3 assessment, representing our data for both a functional and objective measure of disease activity. In Q2 of 2014 there was no data available. Q3 showed an increase to 65.8% and then to 68.2% and 91.3% percent for the following three quarters respectively.

Population Identification

Wilmington Health currently has 1.5 full time employees (FTEs). During the course of the project two mid-level providers and a Licensed Practical Nurse (LPN) were added. All staff participated on Wilmington Health's best practice team. Care for the group's rheumatic patients occurred at a single location. The practice averaged 750 patients per month in October of 2015. Currently Wilmington Health patient population is best and briefly described by its payer distribution. To date it cares for 50% Medicare, 5% Medicaid, and 4% TRICARE. The remaining 30% have private insurance. Charity care is provided by the group itself and the percentage is less than 2%. Inpatient care is provided at its county hospital. Wilmington Health is the only group involved in the hospital care of rheumatologic patients.

Intervention

Utilization of RAPID 3 assessments at every patient visit and the integration of RAPID 3 scores into Wilmington Health's EMR by the IT department was an essential approach to improving patient care. This intervention allowed for tracking of patient's individual information, giving Wilmington Health the ability to identify outliers and create initiatives for improved patient care. The rheumatology staff continuously held meetings to discuss RAPID 3 assessments and proper provider-patient communication.

Leadership Involvement & Support

Wilmington Health as an ACO has a team of individuals focused on quality. This team of analysts provided EMR support for reporting and data analysis. The IT department was also integral to the development of discrete data fields for the RAPID 3 score and more recently a full electronic MDHAQ and RAPID 3 with calculator. Additionally the Vectra DA lab test was integrated into the lab system and is now reporting as a standard lab value.

Lessons Learned and Ongoing Activities

The Rheumatology division at Wilmington Health has an integrated approach for treating RA. A RAPID 3 has been part of its practice since the division was opened in 2012. This measure provides a MDHAQ for all patients and is served as a functional assessment for disease states where the RAPID 3 has been validated. Participating in this project has provided insight into what quality means for Wilmington Health patients. This organization learned how to integrate the objective measures into the care of the patients and how to educate them as well. Patients are now accustomed to these measures and are looking for improvement in their scores. They are holding the providers accountable for their care. These measures are now part of the daily care of RA patients. The sense of accountability has heightened the group's awareness of disease activity, treatment choices and improved communication with patients.

Wilmington Health's division faced several challenges as the project developed. The EMR transition proved to be the most difficult as the demands of this group-wide event prevented both the data analyst and IT team from focusing on this project. Day-to-day activities and PQRS reporting to CMS had to take precedent. Once the transition was complete, data analysis began and the team had to surmount the task of ensuring its data was representative of the patients in its division. Eliminating patients with RA who had not been seen in the practice for over a year and addressing duplicate encounters allowed Wilmington Health to develop a data set that was interpretable. From this data results became consistent with a hard copy chart review. The team continued to strive to improve the efficiency of the project. Initially the RAPID 3 score sheets were scanned in and there was no discrete data field. With the transition to NextGen these scores were entered electronically and the Collaborative was able to trend each score for each patient over time. However, the scores still needed to be entered manually and this proved to be a time consuming step for the staff. Currently, this has been rectified with the addition of an electronic RAPID 3 form whose score is automatically entered into a discrete data field. The lab section of our EMR now contains each patient's RAPID 3 scores. The Vectra DA score was also an obstacle and was not a successful aim until the end of the project. Like the RAPID 3, it is now easily ordered in the EMR and the values are returned in the lab section of the EMR. Moving forward, Wilmington Health now has both the RAPID 3 and Vectra DA scores in data fields that allow trending of individual scores, the identification of missing scores, and the ability to identify outliers.

The next step for this project is to focus reporting software on our population of RA patients, allowing the identification of elevated Vectra DA and RAPID 3 scores. Wilmington Health believes this is the ultimate goal of any quality project. While it is appropriate to show that its population of RA patients is being treated according to current guidelines, this represents a single data point and is descriptive only of those patients at a single point in time. This is the same for the number of patients who complete a MDHAQ. Wilmington Health believes it is important to use these data points to intervene in the care of our population and focus that care on those who will benefit the most as part of a best practice plan.

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

References

1. Singh JA, Furst DE, et al., 2012. Update of the 2008 American College of Rheumatology Recommendations for the Use of Disease-Modifying Antirheumatic Drugs and Biologic Agents in the treatment of Rheumatoid Arthritis. *Arthritis Care & Research*. Vol. 64, No. 5. May 2012, pp 625-639.

Appendix 1

Early RA and Established RA Algorithm

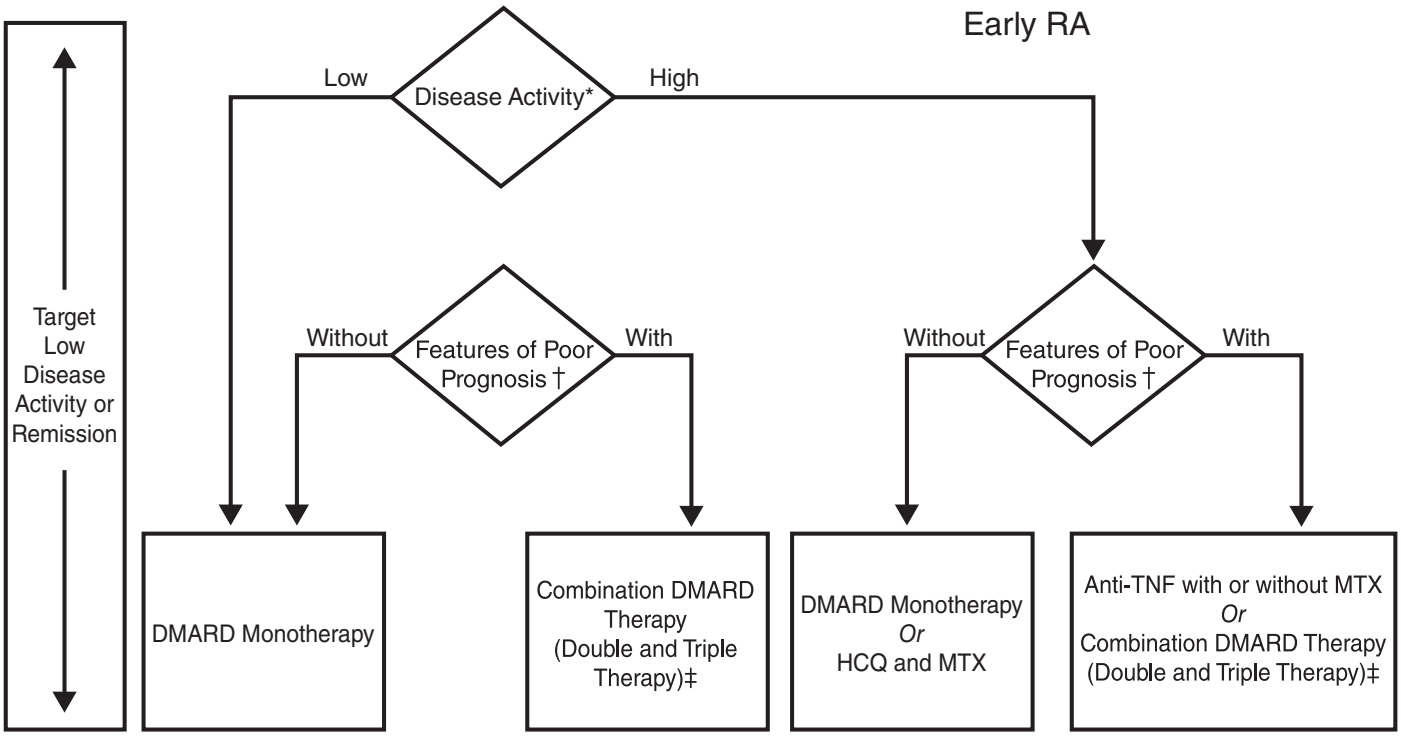

Figure 1. 2012 American College of Rheumatology recommendations update for the treatment of early rheumatoid arthritis (RA), defined as a disease duration <6 months. For the level of evidence supporting each recommendation, please see Supplementary Appendix 7 (available in the online version of this article at http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)2151-4658). DMARD = disease-modifying antirheumatic drug (includes hydroxychloroquine [HCQ], leflunomide [LEF], methotrexate [MTX], minocycline, and sulfasalazine); anti-TNF = anti–tumor necrosis factor.

* Definitions of disease activity are discussed in Tables 2 and 3 and Supplementary Appendix 4 (available in the online version of this article at http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)2151-4658) and were categorized as low, moderate, or high.

† Patients were categorized based on the presence or absence of 1 or more of the following poor prognostic features: functional limitation (e.g., Health Assessment Questionnaire score or similar valid tools), extraarticular disease (e.g., presence of rheumatoid nodules, RA vasculitis, Felty's syndrome), positive rheumatoid factor or anti–cyclic citrullinated peptide antibodies (33–37), and bony erosions by radiograph (38).

‡ Combination DMARD therapy with 2 DMARDs, which is most commonly MTX based, with some exceptions (e.g., MTX + HCQ, MTX + LEF, MTX + sulfasalazine, and sulfasalazine + HCQ), and triple therapy (MTX + HCQ + sulfasalazine) as defined in Table 2.

Appendix 1

Early RA and Established RA Algorithm

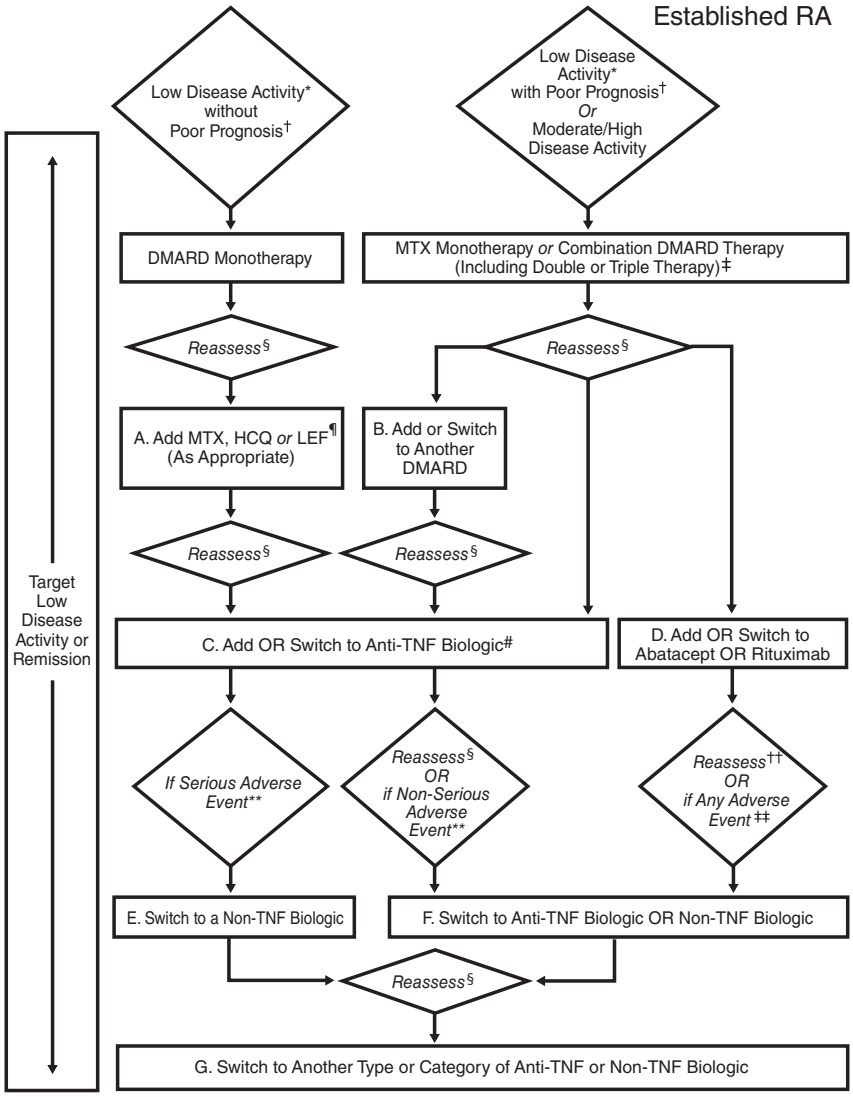

Figure 2. 2012 American College of Rheumatology (ACR) recommendations update for the treatment of established rheumatoid arthritis (RA), defined as a disease duration ≥6 months or meeting the 1987 ACR classification criteria. Depending on a patient's current medication regimen, the management algorithm may begin at an appropriate rectangle in the figure, rather than only at the top of the figure. Disease-modifying antirheumatic drugs (DMARDs) include hydroxychloroquine (HCQ), leflunomide (LEF), methotrexate (MTX), minocycline, and sulfasalazine (therapies are listed alphabetically; azathioprine and cyclosporine were considered but not included). DMARD monotherapy refers to treatment in most instances with HCQ, LEF, MTX, or sulfasalazine; in few instances, where appropriate, minocycline may also be used. Anti–tumor necrosis factor (anti-TNF) biologics include adalimumab, certolizumab pegol, etanercept, infliximab, and golimumab. Non-TNF biologics include abatacept, rituximab, or tocilizumab (therapies are listed alphabetically). For the level of evidence supporting each recommendation, please see Supplementary Appendix 7 (available in the online version of this article at http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)2151-4658).

* Definitions of disease activity are discussed in Tables 2 and 3 and Supplementary Appendix 4 (available in the online version of this article at http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)2151-4658) and were categorized as low, moderate, or high.

† Features of poor prognosis included the presence of 1 or more of the following: functional limitation (e.g., Health Assessment Questionnaire score or similar valid tools), extraarticular disease (e.g., presence of rheumatoid nodules, RA vasculitis, Felty's syndrome), positive rheumatoid factor or anti–cyclic citrullinated peptide antibodies (33–37), and bony erosions by radiograph (38).

‡ Combination DMARD therapy with 2 DMARDs, which is most commonly MTX based, with few exceptions (e.g., MTX + HCQ, MTX + LEF, MTX + sulfasalazine, sulfasalazine + HCQ), and triple therapy (MTX + HCQ + sulfasalazine).

§ Reassess after 3 months and proceed with escalating therapy if moderate or high disease activity in all instances except after treatment with a non-TNF biologic (rectangle D), where reassessment is recommended at 6 months due to a longer anticipated time for peak effect.

¶ LEF can be added in patients with low disease activity after 3–6 months of minocycline, HCQ, MTX, or sulfasalazine.

If after 3 months of intensified DMARD combination therapy or after a second DMARD has failed, the option is to add or switch to an anti-TNF biologic.

** Serious adverse events were defined per the US Food and Drug Administration (FDA; see below); all other adverse events were considered nonserious adverse events.

†† Reassessment after treatment with a non-TNF biologic is recommended at 6 months due to anticipation that a longer time to peak effect is needed for non-TNF compared to anti-TNF biologics.

‡‡ Any adverse event was defined as per the US FDA as any undesirable experience associated with the use of a medical product in a patient. The FDA definition of serious adverse event includes death, life-threatening event, initial or prolonged hospitalization, disability, congenital anomaly, or an adverse event requiring intervention to prevent permanent impairment or damage.

Appendix 2

Disease Activity Measurements

Table 3. Instruments to measure rheumatoid arthritis disease activity and to define remission

Instrument	Thresholds of disease activity levels
Patient Activity Scale (PAS) or PAS-II (range 0-10) (31)	Remission: 0–0.25 Low activity: 0.26–3.7 Moderate activity: 3.71 to <8.0 High activity: ≥8.0
Routine Assessment of Patient Index Data 3 (range 0-10) (42)	Remission 0–1.0 Low activity: >1.0 to 2.0 Moderate activity: >2.0 to 4.0 High activity: >4.0 to 10
Clinic Disease Activity Index (range 0-76.0) (43)	Remission: ≤2.8 Low activity: >2.8 to 10.0 Moderate activity: >10.0 to 22.0 High activity: >22
Disease Activity Score in 28 joints (range 0-9.4) (44)	Remission: <2.6 Low activity: ≥2.6 to ≤3.2 Moderate activity: ≥3.2 to ≤5.1 High activity: >5.1
Simplified Disease Activity Index (range 0-86.0) (45)	Remission: ≤3.3 Low activity: >3.3 to ≤11.0 Moderate activity: >11.0 to ≤26 High activity: >26

RA Team

Ronald L. George Jr., MD, PhD
Rheumatologist
Wilmington Health

Austin Thompson
Clinical Outcomes Analyst
Wilmington Health

AMGA
Advancing High Performance Health

AMGA Foundation

One Prince Street
Alexandria, VA 22314-3318
amga.org/foundation

abbvie

Provided as an educational resource by AMGA Foundation. AMGA Foundation retained editorial control over the case studies.
AbbVie provided financial support.