ABBVIE STANDARDS OF CARE IN RHEUMATOID ARTHRITIS (RA): A POPULATION HEALTH MANAGEMENT PROGRAM

RA PROGRAM OVERVIEW
HOW WELL IS YOUR SYSTEM ADDRESSING THE BURDEN OF RHEUMATOID ARTHRITIS?

Adopting a **POPULATION HEALTH MANAGEMENT** approach for RA may help your health system achieve the Triple Aim1:

- **REDUCING PER CAPITA COSTS**
- **IMPROVING THE HEALTH OF THIS POPULATION**
- **IMPROVING THE EXPERIENCE OF CARE**

The AbbVie *Standards of Care RA* program was developed by leading experts in best practices focused on improving engagement and outcomes of patients with rheumatoid arthritis.

- **IMPROVE PATIENT IDENTIFICATION**
- **IMPROVE SPECIALIST REFERRAL**
- **IMPROVE LONG-TERM CO-MANAGEMENT**

AbbVie *Standards of Care* is a population health management platform for chronic disease, and is not endorsed or promulgated by any medical authority, association, or governing body. These materials should not be construed to mandate any specific treatment, procedure, or clinical protocol; they are intended only as a series of recommended patient care and coordination practices compiled from the sources referenced herein.
RA is one of the most common autoimmune diseases, with total health care costs approaching $19 billion a year.2,3

Delay in diagnosis and appropriate management can lead to missed opportunities to manage pain and inflammation and slow progression of disease and structural joint damage.4

Early intervention with the use of a DMARD may slow disease progression and help prevent joint damage.5,6 The inclusion of the DMARD measure in multiple quality programs reinforces the urgent need to address gaps in RA care.7–10

DMARD=disease-modifying antirheumatic drug.
1. Rheumatoid arthritis is one of the most common autoimmune diseases, with total health care costs approaching $19 billion a year.²,³
RHEUMATOID ARTHRITIS IS A CHRONIC, SYSTEMIC DISEASE ASSOCIATED WITH PAIN, DEFORMITY, AND DISABILITY\textsuperscript{4,5}

RA IS OFTEN CONFUSED WITH OSTEOARTHRITIS (OA), A MORE COMMON TYPE OF ARTHRITIS\textsuperscript{11}

Although they are both chronic diseases associated with painful joints, RA and OA have very different causes, patterns of progression, and management options.\textsuperscript{5,12}

- RA is a \textit{systemic autoimmune} disease, affecting joints and other organ systems\textsuperscript{13}
  - RA typically causes fatigue, weight loss, and fever, and it sometimes affects other organ systems, such as the heart, eyes, skin, and lungs\textsuperscript{14}
- OA is a \textit{degenerative} disease, and symptoms are related to the joints\textsuperscript{12}

Impact on Joints

- RA is an \textit{inflammatory disease} characterized by joint swelling and destruction of the connective tissue or synovial joints,\textsuperscript{*} usually on both sides of the body\textsuperscript{5,15}
- OA is caused by \textit{mechanical wear and tear} on joints and is characterized by deterioration of the cartilage and overgrowth of bone, usually on one side of the body\textsuperscript{12,15}
- RA is generally \textit{worse in the morning}, whereas OA tends to get \textit{worse with activity throughout the day}\textsuperscript{16,17}

\begin{itemize}
  \item RA Joint
  \begin{itemize}
    \item Inflamed synovial membrane
    \item Cartilage destruction
    \item Loss of space in synovial cavity
    \item Bone erosion
  \end{itemize}
  \item OA Joint
  \begin{itemize}
    \item Severe cartilage destruction
    \item Bone spur
    \item Loose cartilage particles
  \end{itemize}
\end{itemize}

ARTHRITIS IS THE MOST COMMON CAUSE OF DISABILITY IN THE UNITED STATES.\textsuperscript{18}

Arthritis includes more than 100 different rheumatic diseases and conditions, the most common of which is osteoarthritis. Other forms of arthritis that occur often are RA, lupus, fibromyalgia, and gout.\textsuperscript{19}

\textsuperscript{*}Synovial joints=freely movable joints, such as those in the fingers, wrist, and ankles.
RHEUMATOID ARTHRITIS IS ONE OF THE MOST COMMON AUTOIMMUNE DISEASES

Estimated Prevalence of Selected Autoimmune Diseases

<table>
<thead>
<tr>
<th>Disease</th>
<th>Prevalence</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rheumatoid arthritis (RA)</td>
<td>1.3 million</td>
<td>2012</td>
</tr>
<tr>
<td>Type 1 diabetes</td>
<td>1.25 million</td>
<td>2012</td>
</tr>
<tr>
<td>Crohn’s disease</td>
<td>0.78 million</td>
<td>2014</td>
</tr>
<tr>
<td>Psoriatic arthritis (PsA)</td>
<td>0.52 million</td>
<td>2000</td>
</tr>
</tbody>
</table>

DIAGNOSIS AND MANAGEMENT WITHIN THE FIRST 3 MONTHS OF SYMPTOM ONSET CAN PROVIDE OPPORTUNITIES TO MANAGE PAIN AND INFLAMMATION AND HELP PREVENT IRREVERSIBLE JOINT DAMAGE, DEFORMITY, LONG-TERM PAIN, AND DISABILITY.
EARLY AND ACCURATE DIAGNOSIS IS KEY TO IMPROVING OUTCOMES IN RHEUMATOID ARTHRITIS

RAPID RATE OF JOINT EROSION UNDERScores THE NEED FOR EARLY DIAGNOSIS AND MANAGEMENT

• Most RA patients (80%) develop the disease between the ages of 35 and 50\(^ {26} \)
• Joint erosion (radiographic) has been shown to be \textit{fastest within the first years} of disease\(^ {27} \)
  – Early diagnosis and treatment offer the best opportunity to slow or halt disease progression in some patients\(^ {28} \)
• It is thought that initially, \textit{pain and inflammation} contribute to disability. In later stages, joint damage leads to functional disability.\(^ {29} \) Functional disability can occur within the first 2 years of the disease.\(^ {26} \) Functional limitations may include activities of daily living, such as grasping small objects, walking up steps, or bending down to pick up objects\(^ {30} \)
• Joint replacement surgery is a management option used to alleviate pain and improve mobility in patients who have severe joint damage as a result of RA\(^ {31} \)

DID YOU KNOW?

• In advanced stages of RA in patients requiring surgery, total knee replacement surgery has been shown to be the best way to alleviate pain and improve functionality\(^ {32} \)
• However, \textit{post-surgery complications may be more frequent and more severe in patients with RA vs OA} due to higher rates of infection\(^ {32} \)
  – Post-replacement infection rates have been reported to be \textbf{3x} higher in patients with RA vs OA\(^ {32} \)

HOW MANY OF YOUR PATIENTS WITH RA HAVE RECEIVED HIP OR KNEE REPLACEMENTS?

UP TO 75\% \ OF \ PATIENTS \ WITH \ EARLY \ RA \ SHOW \ SIGNS \ OF \ JOINT \ DAMAGE \ WITHIN \ 12 \ TO \ 24 \ MONTHS \ OF \ DISEASE\(^ {4} \)
RHEUMATOID ARTHRITIS COSTS EXCEED $19 BILLION IN THE UNITED STATES\(^3\)*

Direct and Indirect Costs of RA in the United States (2005 dollars)\(^3\)

\(\text{\$8.4 BILLION} \quad \text{ESTIMATED DIRECT COSTS}\)\(^2\)

\(\text{\$10.9 BILLION} \quad \text{ESTIMATED INDIRECT COSTS}\)\(^2\)

RA-related hospitalizations cost an average of $35,000 per patient (2009)\(^{28}\)

WHAT DOES YOUR SYSTEM SPEND ON RA-RELATED HOSPITALIZATIONS EVERY YEAR?

\(^*\)Based on 2005 data reported by Birnbaum et al, from administrative claims databases covering privately insured and Medicare and Medicaid beneficiaries in the United States on costs per patient with RA compared with matched non-RA controls.\(^3\)

\(^1\)Direct costs include health care costs related to medical visits and prescriptions.\(^3\)

\(^2\)Indirect costs include costs for family members, work-loss costs, formal and informal caregiving, home adaptations, and other costs related to the consequences of RA.\(^3\)
THE HIGH COST OF RHEUMATOID ARTHRITIS IS LINKED TO HIGH HEALTH CARE UTILIZATION

Annual Hospital and Ambulatory Visits Due to RA

**15,600** annual RA-related hospitalizations (2009)\(^{28}\)

**4.1 million** annual ambulatory visits for RA (2001–2005)\(^{33\S}\)

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DID YOU KNOW?

Average costs of knee and hip replacement surgeries due to all causes, in the United States (published in 2015)\(^{34}\):

- **Knee replacement:** $31,124
- **Hip replacement:** $30,124

Source: Analysis of Blue Health Intelligence® (BHI®) data.

Note: Data from a 2015 Blue Cross Blue Shield report, which analyzed 3 years of claims data (ending July 2013) for typical knee and hip replacement surgeries within the United States.

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\(^{\S}\) Data from the 2001–2005 National Ambulatory Medical Care Survey (NAMCS) and National Hospital Ambulatory Medical Care Survey (NHAMCS) on estimated annual visits for arthritis and other inflammatory polyarthropathies to ambulatory care facilities. Ambulatory visits include visits to physician offices, hospital outpatient departments, and emergency departments.\(^{33}\)
RHEUMATOID ARTHRITIS HAS A BIG IMPACT ON THE WORKPLACE

DESPITE A LOWER PREVALENCE THAN MANY MAJOR DISEASES, RA RANKS AS ONE OF THE MOST EXPENSIVE FOR EMPLOYERS

- Employer per patient costs of RA surpass

  - Chronic obstructive pulmonary disease (COPD)
  - Diabetes
  - Heart disease
  - Hypertension
  - Depression

Annual Employee Cost (Per Patient) for Disability and Absenteeism Versus Disease Prevalence Among US Population

Even after adjusting for prevalence, employers spend more on RA than on COPD or diabetes

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*Data, published in 2006, is based on estimated absenteeism and short-term disability costs for 8,502 workers with RA, from 9 US employers, over a 12-month period. Prescription costs are not included in these totals.


‡Diabetes type not specified.
EMPLOYER HEALTH BENEFIT COSTS FOR EMPLOYEES WITH RA ARE DOUBLE THE COSTS FOR EMPLOYEES WITHOUT RA

Annual Health Benefit Costs for Employees With and Without RA (2010)

<table>
<thead>
<tr>
<th>COST CATEGORY</th>
<th>EMPLOYEES WITH RA</th>
<th>EMPLOYEES WITHOUT RA</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>ADJUSTED MEAN COST (SE), $</td>
<td>n</td>
</tr>
<tr>
<td>Health care</td>
<td>2,705</td>
<td>5,350 (145)</td>
<td>338,035</td>
</tr>
<tr>
<td>Sick leave</td>
<td>1,106</td>
<td>470 (17)</td>
<td>145,354</td>
</tr>
<tr>
<td>Short-term disability</td>
<td>1,562</td>
<td>466 (43)</td>
<td>188,103</td>
</tr>
<tr>
<td>Long-term disability</td>
<td>2,153</td>
<td>55 (21)</td>
<td>247,497</td>
</tr>
<tr>
<td>Workers’ compensation</td>
<td>2,440</td>
<td>271 (35)</td>
<td>312,226</td>
</tr>
<tr>
<td>TOTAL</td>
<td>6,612</td>
<td>2,943</td>
<td></td>
</tr>
</tbody>
</table>

In addition, prescription drug costs were $2,095 for employees with RA (n=2,705) vs $553 for those without RA (n=338,035).

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5 Based on a retrospective analysis, using health insurance claims data and employer data from the Human Capital Management Services research reference database, January 2001–June 2010, which includes data from more than 900,000 employees for 20 employers dispersed throughout the United States. Costs in 2010 US dollars. Medical costs (based on plan-paid costs identified in the employee’s medical claims) and prescription costs (based on plan-paid costs identified in the employee’s prescription drug claims data).
SERIOUS COMORBIDITIES FURTHER COMPOUND THE DISEASE BURDEN AND MANAGEMENT

Up to 40% of patients develop extra-articular conditions affecting the cardiovascular system, eyes, lungs, skin, and other organ systems during the course of their disease.¹⁴,²⁶

CARDIOVASCULAR DISEASE (CVD) IS THE LEADING CAUSE OF DEATH IN PATIENTS WITH RA³⁷

- CVD-related complications are more common among patients with RA vs the general population³⁷
- Compared with the general population, people with RA have³⁸:
  - 5.9-fold higher risk of silent MI
  - 3.2-fold higher risk of MI leading to hospitalization

- Patients with RA have reduced life expectancy compared with the general population—and often die as a result of heart-related complications³⁹

DEPRESSION IS THE MOST COMMON COMORBID CONDITION IN PATIENTS WITH RA²⁴

Using patient-reported data from one study, 26.5% of 14,755 RA patients enrolled in the Consortium of Rheumatology Researchers of North America (CORRONA) Registry* reported depression in their lifetime.⁴⁰

RA populations are 2x as likely to suffer from depression as non-RA populations, yet depression remains largely undiagnosed and untreated in this population.⁴⁰,⁴¹

HEART DISEASE AND DEPRESSION ARE SERIOUS DISEASES LINKED TO ONE ANOTHER AS WELL AS TO OTHER DISEASES SUCH AS RA.³⁸,⁴⁰,⁴² PATIENTS WITH RA SHOULD BE MONITORED FOR THESE CONDITIONS

MI=myocardial infarction.

*An observational cohort.
RISK FACTORS FOR DEVELOPING RHEUMATOID ARTHRITIS

**OBESITY**
- A recent study suggests obesity may *increase the risk for developing RA* by 20% \(^{43}\).
- Obesity may *account for more than 50%* of the recent rise in the *incidence of RA* \(^{44}\).

**SMOKING**
- Smoking has been shown to *double the risk of developing RA* \(^{28,45}\).
- Number of years of smoking is associated with *increased severity of RA* \(^{45}\).

HOW WELL DOES YOUR SYSTEM ADDRESS THE MODIFIABLE RISKS ASSOCIATED WITH RA, SUCH AS OBESITY AND SMOKING?
RHEUMATOID ARTHRITIS MAY CAUSE DISABILITY EARLY IN THE COURSE OF THE DISEASE

One study of established RA patients showed half of these patients were unable to perform at least one valued life activity, such as cleaning, bathing, and getting dressed.46

**Functional disability** can occur within the first 2 years of the disease.26

In 2010, RA was one of the top 25 causes for years lived with disability in the United States. This is notable given that RA is a lower prevalence condition.47

IMPAIRED PHYSICAL FUNCTION AND PAIN ARE KEY CONTRIBUTORS TO RA PATIENTS’ POOR QUALITY OF LIFE48,49

- Patients with RA have significantly impaired health-related quality of life (QoL), particularly in terms of **physical function, pain, vitality, and emotional status**.49
- In one study comparing self-reported QoL in patients with RA to those without arthritis, patients with RA were

  - 40% more likely to report **fair or poor general health**
  - 30% more likely to need **help with personal care**
  - 2x more likely to have a **health-related QoL activity limitation**

*Based on data from a 2003 RA panel study (n=548).46
1Based on information published in 2008.
2Years lived with disability were calculated by multiplying prevalence (based on systematic reviews) by the disability weight (based on population-based surveys) for each sequela; disability refers to any short- or long-term loss of health.47
**DID YOU KNOW?**

**Improving Functional Status* Has Been Shown to Improve Quality of Life**

During a 54-week study, RA patients who experienced improvements in functional status (HAQ ≥ .25) had significant improvements in quality of life and lower health care costs when compared with patients who did not experience functional improvements. 

![Bar chart](image)

- RA patients who demonstrated < .25 improvement in HAQ
- RA patients who achieved a clinically important improvement in HAQ (≥ .25)

<table>
<thead>
<tr>
<th>Improvement in SF-36 PCS scores (% improvement)</th>
<th>Improvement in SF-36 MCS scores (% improvement)</th>
<th>Direct medical costs †</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>5</td>
<td>$10,039</td>
</tr>
<tr>
<td>53</td>
<td>14</td>
<td>$6,791</td>
</tr>
</tbody>
</table>

*HAQ=Health Assessment Questionnaire; MCS=mental component summary; PCS=physical component summary.*

*The Health Assessment Questionnaire (HAQ) was used to evaluate functional status in 428 patients being managed for RA using DMARDs.*

†Direct medical costs include physician office visits, emergency department visits, hospitalizations, home nursing, and medications, excluding DMARDs.
Delay in diagnosis and appropriate management can lead to missed opportunities to manage pain and inflammation and slow the progression of disease and structural joint damage.⁴
DELAY IN DIAGNOSIS AND APPROPRIATE MANAGEMENT MAY OCCUR AT SEVERAL POINTS ALONG THE CARE CONTINUUM

<table>
<thead>
<tr>
<th>PATIENT IDENTIFICATION</th>
<th>SPECIALIST REFERRAL</th>
<th>LONG-TERM CO-MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delay in identification and referral</td>
<td>Delay in diagnosis and appropriate management</td>
<td>Suboptimal care and care coordination</td>
</tr>
<tr>
<td>• Patient delay presenting to PCP</td>
<td>• Unavailability of timely appointments for RA patients</td>
<td>• Lack of regular assessment for RA disease activity</td>
</tr>
<tr>
<td>• PCP lack of recognition of RA</td>
<td>• Inappropriate referrals, which fill rheumatologist’s schedule</td>
<td>• Delay in assessing for comorbid conditions</td>
</tr>
<tr>
<td>• Lack of patient access to care</td>
<td>• Insufficient information from referring physician, which may lead to redundant testing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Delays in identifying patients who are not responding to management plan</td>
<td></td>
</tr>
</tbody>
</table>

RA PATIENTS WHOSE CARE WAS DELAYED BY MORE THAN 3 MONTHS HAD SIGNIFICANTLY MORE JOINT DAMAGE OVER TIME12,25*

PCP=primary care physician.

*From a large inception cohort that enrolled consecutive patients between 1993 and 2006 from the Leiden Early Arthritis Clinic (EAC) study in the Netherlands.25
DIAGNOSTIC DELAYS ARE KEY CONTRIBUTORS TO DELAY IN APPROPRIATE MANAGEMENT

CARE GAP: DELAY IN IDENTIFICATION AND REFERRAL

Potential Causes

• Patient delay presenting to PCP
• PCP lack of recognition of RA
• Lack of patient access to care

Early diagnosis is challenging for several reasons:

• Symptoms often overlap with other more common diseases, including OA
• In early disease, symptoms may be asymmetric instead of symmetric, and serologic markers may be negative
  – Nonsteroidal antiinflammatory drugs (NSAIDs) may mask RA progression
• PCPs may lack awareness of the American College of Rheumatology (ACR)/European League Against Rheumatism (EULAR) criteria for diagnosing RA and the risks of not referring patients early

Lack of Recognition of Early Signs of RA May Impact Diagnosis

• At an early arthritis clinic, several factors contributed to diagnostic delays, including when patients presented with gradual onset of symptoms or involvement of small joints
• In the PCP office, gradual onset, as well as low prevalence of RA, resulted in referral delays due to use of palliative therapies (such as NSAIDs) and time-consuming testing to distinguish RA from other diseases, such as OA

PATIENT IDENTIFICATION AND REFERRAL

• Increasing PCP awareness of guidelines and the need for early diagnosis and management may lead to earlier referrals of appropriate patients
• Assessment by a rheumatologist within 3 months of symptom onset has been shown to be associated with less joint destruction compared with patients assessed later

WHAT PERCENTAGE OF RA PATIENTS AT YOUR HEALTH SYSTEM ARE ASSESSED AND MANAGED BY A RHEUMATOLOGIST WITHIN 3 MONTHS OF SYMPTOM ONSET?

*From a large inception cohort that enrolled consecutive patients between 1993 and 2006 from the Leiden Early Arthritis Clinic (EAC) study in the Netherlands.
CARE GAP: DELAY IN DIAGNOSIS AND APPROPRIATE MANAGEMENT

Potential Causes

- Unavailability of timely appointments for RA patients
- Inappropriate referrals, which fill rheumatologist’s schedule
- Insufficient information from referring physician, which may lead to redundant testing
- Delays in identifying patients who are not responding to management plan

Delays May Occur in the PCP or Rheumatologist Setting

RA patients who were not assessed by a specialist within 3 months of onset of symptoms had a higher rate of joint destruction than patients assessed within 3 months.25

Of 598 RA patients referred, only 31% were assessed by a specialist within 3 months of symptom onset.25*

(Patients referred to an early arthritis clinic between 1993 and 2006)

A survey of US rheumatologists (reported in 2012) showed 40% of patients waiting 5 weeks to 6 months for an appointment.50

SPECIALIST REFERRAL

- Early initiation of a DMARD may result in less joint damage and disability5,6
- Redesigning referral protocols and scheduling processes led to the following in a large rheumatology group (after implementing an advanced access program)51†:
  - Reduction in wait time: third available appointment‡ fell from ~60 days to <2 days
  - Reduction in cancellations: from 40% to <20%
  - 6.7% decrease in knee OA referrals
  - 50.4% increase in new RA referrals

† Rheumatology group practice with 11,000 patient visits per year in a health system served by 50 PCP sites; program development in 2001.51
‡ Third available appointment was used as an endpoint to provide a more realistic sense of scheduling.51
SUBOPTIMAL LONG-TERM CO-MANAGEMENT CAN LEAD TO DELAYS IN APPROPRIATE PATIENT CARE

CARE GAP: SUBOPTIMAL CARE AND CARE COORDINATION

Potential Causes

- Lack of regular assessment for RA disease activity
- Delay in assessing for comorbid conditions

Disease activity assessment using clinical and laboratory markers is important to monitor disease progression and ensure the management plan is working.

- **Assessment of disease activity** by symptoms alone may overlook poorly controlled inflammation and irreversible joint damage

Heart disease and depression are serious diseases linked to one another as well as to other diseases such as R.A.\(^{38,40,42}\)

- Patients with RA should be monitored for these conditions

Suboptimal Monitoring of RA Disease Progression and Comorbid Conditions May Impact Patients

- In an analysis of patients with RA enrolled in the CORRONA Registry after publication of the 2008 ACR guidelines, about \(50\%\) of the patients with active disease did not receive care consistent with the ACR recommendations\(^{52}\)
  - Results were due to several factors including relying on symptoms rather than quantitative disease activity scores for management decisions
- In addition to joint damage, comorbidities and systemic complications impact many patients
  - **Cardiovascular disease** is the number 1 cause of death in patients with R.A.\(^{37}\)
  - **Depression** is twice as likely in patients with RA compared with the general population\(^{41}\)
  - Patients with RA are at higher risk of **lung, skin, and eye complications** as well as cardiovascular disease\(^{14}\)

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CORRONA=Consortium of Rheumatology Researchers of North America.

*Assessment of impact of 2008 ACR guidelines on management of patients enrolled in the CORRONA Registry between October 1, 2001 to December 30, 2009.\(^{52}\)*
LONG-TERM CO-MANAGEMENT

It is important that all health care providers involved in the patient’s care schedule regular follow-up visits to monitor

- Disease progression using quantitative and qualitative measures
- Adherence to management plan
- Adverse events
- Changes in the patient’s general health, including vaccinations, tuberculosi

screening, body mass index, and pain assessment
- Comorbidities

ARE YOUR PCPs AND RHEUMATOLOGISTS PARTNERING TO MANAGE RA PATIENTS?

DID YOU KNOW?

Some patients progress more rapidly than others. Identifying this subset of patients can have importance in preventing irreversible joint damage. Monitoring clinical and structural progression can identify when a change in management may be warranted.

Risk Factors for Rapidly Progressing Patients\textsuperscript{6,53}

<table>
<thead>
<tr>
<th>CLINICAL EVIDENCE</th>
<th>SUBCLINICAL EVIDENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early age of onset</td>
<td>Evidence of bone erosion on radiograph or MRI (vdH score ≥2.6)</td>
</tr>
<tr>
<td>Failed 2 DMARDs in 6 months</td>
<td>Elevated CRP level (≥0.6 mg/dL)</td>
</tr>
<tr>
<td>Swollen joints (≥3 swollen joints)</td>
<td>Positive rheumatoid factor</td>
</tr>
<tr>
<td>High DAS (≥4.02)</td>
<td>Presence of anti-CCP antibodies</td>
</tr>
<tr>
<td>HAQ raw score &gt;4</td>
<td>Elevated ESR (28 mm/h)</td>
</tr>
<tr>
<td>Presence of rheumatoid nodules, RA vasculitis, or Felty's syndrome</td>
<td></td>
</tr>
</tbody>
</table>

Anti-CCP = anti-cyclic citrullinated peptide; CRP = C-reactive protein; DAS = disease activity score; ESR = erythrocyte sedimentation rate; HAQ = health assessment questionnaire; MRI = magnetic resonance imaging; vdH = van der Heijde.
3. Early intervention with the use of a DMARD may slow disease progression and help prevent joint damage. The inclusion of the DMARD measure in multiple quality programs reinforces the urgent need to address gaps in RA care.
GUIDELINES EMPHASIZE EARLY DISEASE MANAGEMENT TO SLOW PROGRESSION AND PREVENT SERIOUS JOINT DAMAGE

ACR/EULAR INITIATIVES FOR RA SUPPORT A NEED FOR EARLY DIAGNOSIS

<table>
<thead>
<tr>
<th>ACR/EULAR CLASSIFICATION CRITERIA 2010(^2)</th>
<th>ACR TREATMENT RECOMMENDATIONS 2012 UPDATE(^6)</th>
</tr>
</thead>
</table>
| • Latest classification criteria aim to prevent irreversible joint damage through earlier identification and appropriate management | • Goal is to prevent joint damage through early management  
• Focus on attaining low disease activity or remission |

WITH EARLY RA DIAGNOSIS, IT MAY BE POSSIBLE TO SUPPRESS THE INFLAMMATORY ACTIVITY EARLY TO SLOW PROGRESSION AND PREVENT JOINT DAMAGE AND DISABILITY\(^{24,25}\)

Early Referral Facilitates Early Management

<table>
<thead>
<tr>
<th>PCP</th>
<th>REFERRAL</th>
<th>RHEUMATOLOGIST/ ARTHRITIS SPECIALIST</th>
</tr>
</thead>
</table>
| • For identifying suspected RA, managing mild RA, assessing disease progression, monitoring/managing comorbid conditions | • Suspected RA  
• Disease activity not under control  
• Complex patient | • For diagnosing, assessing disease activity, creating a disease management plan, and managing complex patients |

EARLY DIAGNOSIS AND TREATMENT OFFER THE BEST OPPORTUNITY TO SLOW OR HALT DISEASE PROGRESSION IN SOME PATIENTS\(^{28}\)

ARE YOUR PCPs AWARE OF THE URGENCY OF EFFECTIVELY MANAGING RA SOON AFTER SYMPTOM ONSET?

ACR=American College of Rheumatology; EULAR=European League Against Rheumatism.
MULTIPLE QUALITY PROGRAMS INCLUDE A FOCUS ON SLOWING PROGRESSION OF RHEUMATOID ARTHRITIS

Quality Programs That Include a Measure Encouraging DMARD Therapy in Patients Diagnosed With RA

<table>
<thead>
<tr>
<th>NCQA Healthcare Effectiveness Data and Information Set (HEDIS)</th>
<th>CMS Physician Quality Reporting System (PQRS)</th>
<th>Medicare Advantage Five-Star Rating</th>
<th>Medicare and NCQA ACO Accreditation</th>
</tr>
</thead>
</table>

BETWEEN 2006 AND 2013, HEALTH PLANS INCREASED THE DMARD TREATMENT RATE FROM 85% TO 88%, BUT THERE IS STILL ROOM FOR IMPROVEMENT

CMS PQRS Program Specifies Additional Metrics to Encourage Improvements in Overall Care of RA Patients

In addition to DMARD usage, the Rheumatoid Arthritis Measures Group for 2015 includes the following assessments in patients with RA:

- TB screening
- Disease activity assessment
- Functional status assessment
- Glucocorticoid management
- Body Mass Index screening and follow-up plan
- Pain assessment and follow-up
- Assessment of disease prognosis

See Appendix for more information on the PQRS program.

HOW WELL DOES YOUR HEALTH SYSTEM ACHIEVE RA MEASURES FOR PQRS?

ACO=accountable care organization; CMS=Centers for Medicare & Medicaid Services; NCQA=National Committee for Quality Assurance; TB=tuberculosis.
PCP EDUCATION CAN FACILITATE EARLY REFERRAL TO A RHEUMATOLOGIST

Increased familiarity with the diagnostic hallmarks of RA could help PCPs more effectively diagnose early RA and better distinguish early symptoms from other more common diseases, such as OA.11

1. RA may be suspected if symptoms have been present for 6 weeks or longer and any of the following are true4,5:

- **Swollen joints:**
  - 1 or more small joints or 2 or more large joints

- **Positive squeeze test**
  - when gently squeezing the metacarpophalangeal/metatarsophalangeal joints

- **Morning stiffness**
  - ≥60 minutes

2. Differentiation of rheumatoid arthritis and osteoarthritis can begin at the PCP office

- RA tends to affect middle joints of the fingers and joints where fingers attach to the hands; OA more commonly affects joints at the ends of the fingers and base of the thumb15

- Prolonged stiffness is very common in RA, but is not common in OA15

- Joint pain typically involves both sides of the body in RA, but only one side in OA15

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IS YOUR HEALTH SYSTEM MANAGING RA PATIENTS WITHIN THE 3-MONTH WINDOW OF OPPORTUNITY FOR POSITIVE OUTCOMES?
POPULATION HEALTH MANAGEMENT MAY IMPROVE QUALITY OF CARE

Has Your System Adopted a Systematic and Automated Approach to Population Management?

EMR=electronic medical record.
### Potential Gaps in the Care of Patients With RA

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<th>PATIENT IDENTIFICATION</th>
<th>SPECIALIST REFERRAL</th>
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<td>Delays in Diagnosis</td>
<td>Late Diagnosis Impacts Outcomes</td>
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#### GAPS

- Diagnosis can be challenging due to:
  - Overlapping symptoms with other diseases
  - The need for PCP education to identify patients with early signs of RA
- The need for earlier referrals (before 3 months) and earlier management to slow disease progression
- The need for improved coordination of care across multiple providers to manage RA and related comorbidities
- The need for ongoing disease assessments to manage disease activity

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**Need for HIT Integration**

**ADOPTING A POPULATION MANAGEMENT APPROACH TO ADDRESS THESE GAPS CAN HELP YOUR HEALTH SYSTEM ACHIEVE THE TRIPLE AIM**

HIT = health information technology.
Adopting a **POPULATION HEALTH MANAGEMENT** approach for RA may help your health system achieve the Triple Aim:\(^1:\)

- **REducing Per Capita Costs**
- **Improving the Health of This Population**
- **Improving the Experience of Care**
ABBVIE STANDARDS OF CARE RHEUMATOID ARTHRITIS PROGRAM

ABBVIE STANDARDS OF CARE RA PROGRAM CAN HELP YOU IMPLEMENT A POPULATION HEALTH MANAGEMENT PROGRAM IN YOUR HEALTH SYSTEM

The AbbVie Standards of Care RA program was developed by leading experts in best practices focused on improving engagement and outcomes of patients with RA.

ABBVIE—SUPPORTING HEALTH SYSTEMS WITH POPULATION HEALTH MANAGEMENT GOALS

HOW THE ABBVIE STANDARDS OF CARE RA PROGRAM WORKS

The Standards of Care platform is designed for turn-key implementation and provides templates, tools, and resources that focus on care coordination, team-based care, and patient engagement to help improve the management of patients with chronic diseases. These resources include paper, electronic, and live program offerings. Many of the resources can also be integrated into the HIT system.

Step 1 Assess your system’s RA care gaps and identify strategies to minimize these gaps using the executive tools provided in the Standards of Care tool kit.

Step 2 Identify practices to utilize Standards of Care provider and patient tools.

Step 3 Evaluate feedback from participating practices and determine appropriate system-wide Standards of Care implementation opportunities, including integration within HIT.
1. Assess your system’s RA care gaps and identify strategies to minimize these gaps using the executive tools provided in the Standards of Care tool kit.

The first step towards adopting a population health management approach is to uncover your system’s RA care gaps and identify strategies to minimize them. The following executive tools provided in the Standards of Care tool kit can help you assess your health system’s RA care gaps and identify strategies for improvement along the continuum of care.

Executive Tools

**ASSESSING HOW YOUR HEALTH SYSTEM IS MANAGING PATIENTS WITH RHEUMATOID ARTHRITIS**

**Data Pull Guide**
Facilitates identification of RA care gaps within the health system, utilizing EMR data pulls.

**RHEUMATOID ARTHRITIS: PATIENT IDENTIFICATION AND REFERRAL PROCESS**

**Process Map**
Illustrates an ideal RA management process throughout the care continuum, from patient identification to appropriate referral through long-term co-management.

2. Identify practices to utilize Standards of Care provider and patient tools.

Once you uncover your system’s RA care gaps and identify strategies to minimize them, you can utilize the RA Standards of Care provider and patient tools to implement a population health management approach along the RA continuum of care.

**IMPROVING EARLY IDENTIFICATION, REFERRAL, AND CO-MANAGEMENT FOR PATIENTS WITH RHEUMATOID ARTHRITIS (RA)**

**Provider Education Brochure**
Provides an overview of patient care for RA, including epidemiology, impact of the disease, presentation of symptoms, diagnosis and patient evaluation, appropriate referral, and management. Brochure includes tools to assist in patient identification and appropriate referral.

**DID YOU KNOW?**
Some patients progress more rapidly than others. Identifying this subset of patients can have importance in preventing irreversible joint damage.50 Monitoring both clinical and structural progression can identify when a change in management may be warranted.

**Risk Factors for Patients With Rapidly Progressing RA**

- Early age of onset
- Failed 2 DMARDs in 6 months
- Swollen joints: ≥3 swollen joints
- High DAS (≥4.02)
- HAQ raw score >4
- Presence of rheumatoid nodules, RA vasculitis, or Felty’s syndrome
- Evidence of bone erosion on radiograph or MRI (vdH score ≥2.6)
- Elevated CRP level (≥0.6 mg/dL)
- Positive rheumatoid factor
- Presence of anti-CCP antibodies
- Elevated ESR (28 mm/h)

**Anti-CCP=anti-cyclic citrullinated peptide; CRP=C-reactive protein; DAS=disease activity score; ESR=erythrocyte sedimentation rate; HAQ=health assessment questionnaire; MRI=magnetic resonance imaging ; vdH=van der Heijde.**
PREPARING FOR YOUR FIRST VISIT TO A RHEUMATOLOGIST

A Guide for Patients

Encourages patients to make the most of their first visit to a rheumatologist if RA is suspected. Includes tips on how to prepare for the visit, what to expect during the visit, and guidance for next steps after the visit to ensure continuity with their physicians in the management of their disease.

LIVING WITH RHEUMATOID ARTHRITIS (RA)

Understanding Your Diagnosis

Educates patients about the disease and its management. Includes a description of RA, with an overview of symptoms and management options. Also, encourages patients to take an active role with their health care team, provides strategies to help them maintain a healthy lifestyle, and provides websites to find additional resources.

Evaluate feedback from participating practices and determine appropriate system-wide Standards of Care implementation opportunities, including integration within HIT.

After system-wide implementation of the program, the health system may evaluate the impact by reassessing the care gaps using the Data Pull Guide.

Executive Tools

ASSESSING HOW YOUR HEALTH SYSTEM IS MANAGING PATIENTS WITH RHEUMATOID ARTHRITIS

Data Pull Guide

Facilitates identification and monitoring of RA care gaps within the health system, utilizing EMR data pulls.
**CMS PHYSICIAN QUALITY REPORTING SYSTEM PROGRAM: FOCUS ON RHEUMATOID ARTHRITIS**

**Program Overview**

Physician Quality Reporting System (PQRS) is a Centers for Medicare & Medicaid Services (CMS) initiative that supports health systems’ and eligible professionals’ (EPs) quality improvement goals. Nonparticipation or unsuccessful PQRS reporting in 2015 will result in negative payment adjustments to Medicare Physician Fee Schedule (PFS) payments for 2017. Additionally, group practices will receive a downward, neutral, or upward value-based payment modifier (VM) adjustment, based on participation in PQRS and quality tiering of PQRS results.

**Reported by**

Physicians and other EPs (list includes physician assistants and nurse practitioners, including advanced practice registered nurses)

**Financial Implications**

PQRS

EPs who do not satisfactorily report data on quality measures for covered professional services during the 2015 PQRS program year will be subject to a negative payment adjustment of their Medicare PFS reimbursements in 2017.

**PQRS Payment Adjustment**: 
- Groups of 2-9 EPs and solo practitioners will receive a -2% adjustment
- Groups ≥10 EPs will receive -4% adjustment

**Value Modifier**

In addition to the PQRS adjustment, a VM will be applied to 2017 Medicare PFS payments for all EPs based on 2015 PQRS reporting:
- Groups of 2-9 EPs and solo practitioners may receive neutral adjustment or upward VM adjustment (0% to +2%) based on quality tiering
- Groups ≥10 EPs will receive downward, neutral, or upward VM adjustments (-4% to +4%) based on quality tiering
- Non-PQRS reporters receive an automatic negative VM adjustment (-2% for groups with 2-9 EPs and -4% for groups with 10+ EPs)

**Registry Reporting Requirements**

To satisfactorily report the Rheumatoid Arthritis Measures Group via a qualified registry, EPs must report a sample of at least 20 patients, the majority (at least 11 of 20) of whom must be Medicare Part B Fee-for-Service (FFS) patients (remaining patients may be Medicare Advantage or commercial). Measures groups containing a measure with a 0% performance rate will not be counted.
- In 2015, group practices of 100 or more EPs are required to report Consumer Assessment of Healthcare Providers and Systems (CAHPS) using a CMS Certified Vendor. CAHPS reporting is optional for groups of 2-99 EPs.

**Reporting Options**

Registry only.

**Reporting Period**

12-month period from January 1 – December 31, 2015.
### Patient Population

At least 20 patients, ages 18 years and older, with a specific diagnosis of RA and accompanied by a specific patient encounter.

**ICD-9-CM** (for use 1/1/2015 – 9/30/2015): 714.0, 714.1, 714.2, 714.81

**ICD-10-CM** (for use 10/1/2015–12/31/2015): M05.00, M05.011, M05.012, M05.019, M05.021, M05.022, M05.029, M05.031, M05.032, M05.039, M05.041, M05.042, M05.049, M05.051, M05.052, M05.059, M05.061, M05.062, M05.069, M05.071, M05.072, M05.079, M05.09, M05.111, M05.112, M05.119, M05.121, M05.122, M05.129, M05.131, M05.132, M05.139, M05.141, M05.142, M05.149, M05.151, M05.152, M05.159, M05.161, M05.162, M05.169, M05.171, M05.172, M05.179, M05.19, M05.20, M05.211, M05.212, M05.219, M05.221, M05.222, M05.229, M05.231, M05.232, M05.239, M05.241, M05.242, M05.249, M05.251, M05.252, M05.259, M05.261, M05.262, M05.269, M05.271, M05.272, M05.279, M05.29, M05.30, M05.311, M05.312, M05.319, M05.321, M05.322, M05.329, M05.331, M05.332, M05.339, M05.341, M05.342, M05.349, M05.351, M05.352, M05.359, M05.361, M05.362, M05.369, M05.371, M05.372, M05.379, M05.39, M05.40, M05.411, M05.412, M05.419, M05.421, M05.422, M05.429, M05.431, M05.432, M05.439, M05.441, M05.442, M05.449, M05.451, M05.452, M05.459, M05.461, M05.462, M05.469, M05.471, M05.472, M05.479, M05.49, M05.50, M05.511, M05.512, M05.519, M05.521, M05.522, M05.529, M05.531, M05.532, M05.539, M05.541, M05.542, M05.549, M05.551, M05.552, M05.559, M05.561, M05.562, M05.569, M05.571, M05.572, M05.579, M05.59, M05.60, M05.611, M05.612, M05.619, M05.621, M05.622, M05.629, M05.631, M05.632, M05.639, M05.641, M05.642, M05.649, M05.651, M05.652, M05.659, M05.661, M05.662, M05.669, M05.671, M05.672, M05.679, M05.69, M05.70, M05.711, M05.712, M05.719, M05.721, M05.722, M05.729, M05.731, M05.732, M05.739, M05.741, M05.742, M05.749, M05.751, M05.752, M05.759, M05.761, M05.762, M05.769, M05.771, M05.772, M05.779, M05.79, M05.80, M05.811, M05.812, M05.819, M05.821, M05.822, M05.829, M05.831, M05.832, M05.839, M05.841, M05.842, M05.849, M05.851, M05.852, M05.859, M05.861, M05.862, M05.869, M05.871, M05.872, M05.879, M05.89, M05.9, M06.00, M06.011, M06.012, M06.019, M06.021, M06.022, M06.029, M06.031, M06.032, M06.039, M06.041, M06.042, M06.049, M06.051, M06.052, M06.059, M06.061, M06.062, M06.069, M06.071, M06.072, M06.079, M06.08, M06.09, M06.1, M06.30, M06.311, M06.312, M06.319, M06.321, M06.322, M06.329, M06.331, M06.332, M06.339, M06.341, M06.342, M06.349, M06.351, M06.352, M06.359, M06.361, M06.362, M06.369, M06.371, M06.372, M06.379, M06.38, M06.39, M06.80, M06.811, M06.812, M06.819, M06.821, M06.822, M06.829, M06.831, M06.832, M06.839, M06.841, M06.842, M06.849, M06.851, M06.852, M06.859, M06.861, M06.862, M06.869, M06.871, M06.872, M06.879, M06.88, M06.89, M06.9.

Accompanying by one of the following CPT patient encounter codes: 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, G0402

Report a numerator option on all measures within the RA Measures Group for each patient within the eligible professional’s patient sample.

| Public Reporting | 2015 PQRS will be available on the Physician Compare website in 2016. |
**PQRS 108 (NQF 0054) — RA: Disease-Modifying Antirheumatic Drug (DMARD) Therapy**

**Description:** Percentage of patients aged 18 years and older who were diagnosed with rheumatoid arthritis and were prescribed, dispensed, or administered at least 1 ambulatory prescription for a DMARD

**PQRS 128 (NQF 0421) — Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan**

**Description:** Percentage of patients aged 18 years and older with a BMI documented during the current encounter or during the previous 6 months AND with a BMI outside of normal parameters, a follow-up plan is documented during the encounter or during the previous 6 months of the current encounter

**PQRS 131 (NQF 0420) — Pain Assessment and Follow-Up**

**Description:** Percentage of visits for patients aged 18 years and older with documentation of a pain assessment using a standardized tool(s) on each visit AND documentation of a follow-up plan when pain is present

**PQRS 176 (NQF None) — RA: Tuberculosis Screening**

**Description:** Percentage of patients aged 18 years and older with a diagnosis of RA who have documentation of a tuberculosis screening performed and results interpreted within 6 months prior to receiving a first course of therapy using a biologic DMARD

**PQRS 177 (NQF None) — RA: Periodic Assessment of Disease Activity**

**Description:** Percentage of patients aged 18 years and older with a diagnosis of RA who have an assessment and classification of disease activity within 12 months

**PQRS 178 (NQF None) — RA: Functional Status Assessment**

**Description:** Percentage of patients aged 18 years and older with a diagnosis of RA for whom a functional status assessment was performed at least once within 12 months

**PQRS 179 (NQF None) — RA: Assessment and Classification of Disease Prognosis**

**Description:** Percentage of patients aged 18 years and older with a diagnosis of RA who have an assessment and classification of disease prognosis at least once within 12 months

**PQRS 180 (NQF None) — RA: Glucocorticoid Management**

**Description:** Percentage of patients aged 18 years and older with a diagnosis of RA who have been assessed for glucocorticoid use and, for those on prolonged doses of prednisone ≥10 mg daily (or equivalent) with improvement or no change in disease activity, documentation of glucocorticoid management plan within 12 months

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*Measures Groups are a subset of 6 or more PQRS measures that have a particular clinical condition or focus in common and are used together when reporting the Measures Group option. PQRS in 2015 includes 22 Measures Groups. All measures within a Measures Group must be reported together as an entire group. [1,2]
**Registry Reporting For PQRS**

The RA measures group must be reported via a qualified registry. Qualified registries submit PQRS quality measures data on behalf of physicians and other EPs.

To view the list of CMS-qualified registries and determine which registries support the RA measures, visit the Registry Reporting page on the CMS PQRS website (www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS). Qualified registries will provide EPs with specific instructions on how and when to submit data for the RA measures group. Registries will submit 2015 PQRS data in the first quarter of 2016.

**Appendix References**


References


HOW WELL IS YOUR HEALTH SYSTEM ADDRESSING
THE BURDEN OF RHEUMATOID ARTHRITIS?