

Caring for patients with rheumatoid arthritis in the community

Aggressive treatment and expert nursing care can improve patients' quality of life.

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A DEBILITATING DISEASE

marked by swelling, tenderness, and synovial joint destruction, rheumatoid arthritis (RA) can lead to severe functional disability and poor quality of life, imposing substantial burdens on patients and their caregivers. (See *Who gets RA?*)

What's more, the disease is linked to systemic comorbidities, such as cancer, infections, and cardiovascular and mental health conditions. These comorbidities increase mortality and shorten life expectancy. And while more aggressive treatments have decreased the incidence of extra-articular RA manifestations, the disease also can affect the eyes, lungs, kidneys, skin, hematopoietic system, blood vessels, nervous system, and salivary glands. Evidence suggests that both genetics and environmental factors play a role in RA development.

Once focused in acute-care settings, care of patients with RA has moved into home and ambulatory settings. However, patients in these venues don't always have access to a nurse practitioner (NP) or rheumatology RN who can provide specialty care. This article highlights the importance of early diagnosis, dis-



cusses current therapeutic recommendations for managing pain and achieving remission, and describes RNs' role in caring for these patients in the community.

Early diagnosis

Early diagnosis (within 6 months of RA symptom onset) coupled with aggressive treatment reduces the risk of joint damage and disability, helps maintain joint integrity, and enhances productivity and quality of life. However, with no diagnostic gold standard available, early diagnosis can be challenging.

Before development of the antibodies against citrullinated peptides (ACPA) test, rheumatoid factor (RF) was the only laboratory test available to diagnose RA. The ACPA test promotes early, accurate diagnosis, with a specificity of 90% to 97%. On the other hand, the RF test is relatively sensitive (70% to 75%) but rather nonspecific (as low as 50%) because other rheumatic and nonrheumatic conditions (such as Sjögren's syndrome and hepatitis C infection) may trigger positive RF tests. Abnormal erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) results can help as-

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LEARNING OBJECTIVES

1. State techniques for diagnosing rheumatoid arthritis (RA).
2. Describe treatment strategies for RA.
3. Discuss the nurse's role in caring for patients with RA in the community.

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sess treatment response, but these inflammatory markers aren't useful in diagnosing early-onset RA.

Many clinical features of RA—joint deformities, rheumatoid nodules, and joint erosion on X-ray—don't appear in early disease stages. However, pain and swelling in fingers and toes have high sensitivity for RA (94.6%) early in the disease, but specificity of only 15.3%.

Given the difficulty of accurate early diagnosis, clinicians commonly rely on a combination of a history consistent with inflammatory arthropathy (for example, morning stiffness lasting an hour or longer) and physical findings of joint swelling in classic RA patterns (symmetrical involvement of small joints). RA diagnosis may be made even without a positive RF/ACPA test.

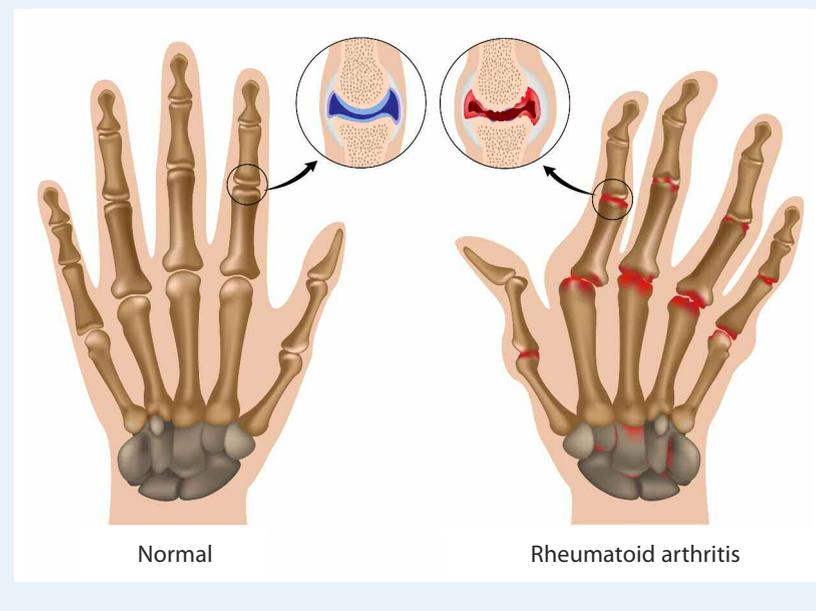
Early aggressive treatment

Before 1980, the pyramid approach to RA treatment started with aspirin or other nonsteroidal anti-inflammatory drugs. Disease-modifying antirheumatic drugs (DMARDs), such as methotrexate, were reserved for patients with severe disease or those who didn't respond to conservative treatment. Reluctance to prescribe DMARDs stemmed from lack of knowledge about early aggressive treatment to minimize permanent joint damage, unfamiliarity with optimal dosing, and few effective drugs with high benefit-to-risk ratios. As a result, many patients became disabled 10 to 20 years after diagnosis due to severe joint deformities and extra-articular manifestations.

Current RA treatment recommendations focus on early aggressive therapy. For example, clinicians should initiate DMARDs (preferably methotrexate) immediately after diagnosis, with the goal of achieving remission or low disease activity. Patients who don't respond to traditional DMARD monotherapy may be candidates for combination therapy, such as

Who gets RA?

- 1.5 million U.S. adults have been diagnosed with rheumatoid arthritis (RA), according to a study published in 2008.
- 41 of every 100,000 people in the United States are diagnosed with RA annually.
- RA affects both men and women ages 18 and older, but more women than men are diagnosed with the disease.
- Incidence rises with age, peaking between ages 65 and 74.



multiple traditional DMARDs or concomitant biologic agents, such as tumor necrosis factor inhibitors (TNFis); examples of TNFis include etanercept, infliximab, and adalimumab. The current treatment model has dramatically reduced severe joint deformities and extra-articular manifestations.

Patients receiving these agents require close monitoring for adverse effects. For example, methotrexate is associated with hepatotoxicity and bone marrow suppression, so patients taking this drug should undergo complete blood counts and liver enzyme tests every 2 to 3 months. And because of the immunomodulating actions of biologics that increase the risk of certain infections, patients taking TNFis and other biologic agents should be tested for latent tuberculosis and receive pneumococcal, zoster, and influenza vaccinations before be-

ginning treatment. (See *Recommended drug therapies for RA*.)

Multidisciplinary approach

Patients with extensive joint damage need ongoing treatment and close monitoring, along with instructions to adhere to prescribed drug therapy. These actions are best coordinated through a multidisciplinary approach. Depending on the individual patient's needs, the team may include a rheumatologist, rheumatology NP, RN, pharmacist, physical therapist, occupational therapist, podiatrist, physician assistant, and social worker. To help ensure optimal physical and psychosocial functioning and quality of life, the team provides education and support based on the patient's goals.

Some multidisciplinary models include specialized arthritis programs, ongoing management, triage, rural consultant support, and tele-

Recommended drug therapies for RA

This chart summarizes recommended drug therapies for the aggressive treatment of rheumatoid arthritis (RA).

Commonly used disease-modifying antirheumatic drugs (DMARDs) and biologic agents

Drug name	Route	Optimal dosage	Adverse effects	Monitoring
Synthetic DMARDs				
Methotrexate*	Oral SubQ	15-30 mg/week	<ul style="list-style-type: none"> Hepatotoxicity Bone marrow suppression Nausea Oral ulcers Hair loss Teratogenic effects 	<ul style="list-style-type: none"> Initial screen for hepatitis B and C Blood counts, liver enzymes, creatinine level every 2-3 months
Hydroxychloroquine*	Oral	200-400 mg daily	<ul style="list-style-type: none"> Retinal toxicity 	<ul style="list-style-type: none"> Annual eye examinations
Sulfasalazine*	Oral	1-1.5 g twice daily	<ul style="list-style-type: none"> Nephritis Azoospermia Bone marrow suppression 	<ul style="list-style-type: none"> Blood counts, liver enzymes level every 2-3 months
Leflunomide	Oral	20 mg daily	<ul style="list-style-type: none"> Hepatotoxicity Bone marrow suppression Nausea Oral ulcers Hair loss 	<ul style="list-style-type: none"> Blood counts, liver enzymes, creatinine level every 2-3 months
Biologic agents				
Tumor necrosis factor inhibitors (TNFis)**	SubQ IV	Varies	<ul style="list-style-type: none"> Reactivation of TB, infections 	<ul style="list-style-type: none"> Initial screen for TB and hepatitis B and C Ensure vaccinations are up-to-date
Abatacept	SubQ IV	SubQ: 125 mg/week IV: 500-1,000 mg (weight based); initial dose is repeated 2-4 weeks later, then every 4 weeks	<ul style="list-style-type: none"> Infections Headache Nausea COPD exacerbation 	<ul style="list-style-type: none"> Initial screen for TB, hepatitis B and C Ensure vaccinations are up-to-date
Tocilizumab	SubQ IV	SubQ: 162 mg/week or every other week IV: 4-8 mg/kg every 4 weeks	<ul style="list-style-type: none"> Upper respiratory infection Headaches Hypertension Increased ALT 	<ul style="list-style-type: none"> Initial screen for TB, hepatitis B and C, neutrophil count > 2,000/mm³, platelet count > 100,000/mm³, AST and ALT not more than 1.5 times upper limit of normal
Rituximab	IV	1,000 mg at week 0 and week 2, then every 6 months	<ul style="list-style-type: none"> Respiratory infections Headache Muscle spasms Peripheral edema Hepatitis B reactivation Progressive multifocal leukoencephalopathy 	<ul style="list-style-type: none"> Initial screen for TB, hepatitis B and C Ensure vaccinations are up-to-date

ALT = alanine transaminase, AST = aspartate aminotransferase, COPD = chronic obstructive pulmonary disease, subQ = subcutaneous, TB = tuberculosis

*Methotrexate, hydroxychloroquine, and sulfasalazine may be used in combination (triple therapy).

**Five TNFis are currently approved for use in RA: adalimumab, certolizumab pegol, etanercept, golimumab, and infliximab.

medicine. Given the lack of reimbursement for hospitalization, most multidisciplinary programs are conducted in outpatient and community settings as day-patient programs. In the United States and across Europe, nurses have become an integral part of the multidisciplinary team, engaging in tasks traditionally performed only by rheumatologists. (See *NPs' impact on RA care*.)

Providing care in the community

With limited availability of rheumatology NPs and rheumatology RNs in home health care, some long-term care facilities, hospices, schools, and faith-based organizations employ RNs to manage and coordinate the plan of care established by the rheumatologist or NP.

So RNs must be knowledgeable about RA pathophysiology, treatment, and management. We'll use the nursing process steps of assessment, diagnosis, planning, implementation, and evaluation as a guide for managing patients and, as applicable, their caregivers.

Conduct an initial assessment

During your initial assessment of the patient and caregiver, establish goals and expected outcomes for successful disease management. Many patients with RA experience anxiety, anger, frustration, and depression. When you recognize these emotions, encourage the patient to discuss them with the rheumatologist or NP.

Key nursing actions at this stage are to establish a therapeutic relationship with the patient and caregiver, assess their understanding of RA and its management, and evaluate their physical, emotional, and psychological well-being.

Identify appropriate nursing diagnoses

RA signs and symptoms vary with disease severity. Note joint swelling and pain, morning stiffness, and deformities. Pain and deformities may

NPs' impact on RA care

Nurse practitioners (NPs) who specialize in rheumatology work in such settings as rheumatology clinics, hospitals, and medical homes. They assess, diagnose, and conduct follow-up with patients, administer intra-articular joint injections, recommend and prescribe therapeutic agents, and coordinate care in both inpatient and outpatient settings.

Recent studies report that NP-led clinics produce similar or better outcomes in RA patients' physical function, disease activity, pain, and quality of life, compared with RA patients seen only by rheumatologists.

In 2013, ANA published *Rheumatology Nursing: Scope and Standards of Practice*, a vital reference for NPs and other nurses in this specialty.



limit the patient's ability to perform activities of daily living (ADLs), which may lead to frustration, low self-esteem, and poor quality of life. Evaluate family dynamics as well as ethnic and cultural influences on the patient's perception of RA and self-care abilities.

Use the information you've gathered to identify appropriate nursing diagnoses. Common ones for patients with RA are pain and discomfort, activity intolerance and impaired mobility, self-care deficits, fall risk, ineffective coping, altered body image or role performance, ineffective health maintenance, nonadherence to the therapeutic regimen, and caregiver role strain.

Collaborate in care planning

Work with the patient and caregiver to set measurable short- and long-term goals to achieve expected outcomes based on the nursing diagnoses. Evaluate their readiness to learn and motivation to participate in care. As you do this, be sure to:

- reinforce the multidisciplinary team approach to care
- discuss psychological factors related to RA, such as depression, anxiety, and stress
- explain drugs used to treat RA
- discuss nonpharmacologic approaches, such as joint protec-

tion, heat and cold therapy, range-of-motion exercises, and complementary and alternative therapies, as prescribed by the provider.

To enhance your effectiveness, ask open-ended questions, be sensitive to cultural preferences and family communication styles, and avoid arguing with the patient or caregiver.

Implement the plan

After devising a plan of care, implement evidence-based strategies based on established priorities, and provide patient education. Explain to the patient and caregiver that RA is a progressive chronic systemic disease that eventually may affect ADLs. Discuss the importance of adhering to prescribed drug therapy and nonpharmacologic treatment to control pain. Because of the remitting and relapsing nature of RA, review signs and symptoms of flares with the patient and caregiver.

Use the following strategies to enhance your effectiveness:

- Identify the preferred teaching method for and learning styles of the patient and caregiver.
- Educate them about the prescribed drug regimen to control pain and achieve remission.
- Reinforce the importance of

Online resources for patients with RA

The websites listed below, run by the U.S. government (.gov) and nonprofit organizations (.org), provide trusted, accurate information on rheumatoid arthritis (RA). But you should still evaluate the information sources for each website before using them to teach patients and their caregivers.

American College of Rheumatology (ACR)

The ACR provides consumer health information and short videos on rheumatic diseases, discusses healthcare team members and their specific roles in care management, and provides links to other resources, such as how to participate in ACR's legislative activities and campaigns that may interest patients and caregivers.

www.rheumatology.org/I-Am-A/Patient-Caregiver

Arthritis Foundation®

This nonprofit organization advocates for research and community connections for people living with arthritis. The Arthritis Foundation publishes *Arthritis Today* magazine.

www.arthritis.org/about-arthritis/types/rheumatoid-arthritis/

Johns Hopkins Arthritis Center

The website provides detailed data about RA, including drug lists, radiologic findings, and treatments. However, the information may be too complex for some consumers.

www.hopkinsarthritis.org/arthritis-info/rheumatoid-arthritis/ra-symptoms/

Mayo Clinic

Nationally recognized for its patient health materials, the Mayo Clinic offers easy-to-understand information for consumers, including tips to help patients cope with RA.

www.mayoclinic.org/diseases-conditions/rheumatoid-arthritis/home/ovc-20197388

MedlinePlus

Produced by the National Library of Medicine, MedlinePlus is the largest free medical consumer health site. It provides up-to-date health and wellness information in various languages.

<https://medlineplus.gov/rheumatoidarthritis.html>

National Institute of Arthritis and Musculoskeletal and Skin Diseases

This National Institutes of Health site provides a wealth of information about the latest treatments and research on RA.

www.niams.nih.gov/Health_Info/Rheumatic_Disease/default.asp

Patient Education Center (PEC)

Developed by Harvard Medical School, PEC provides reliable multimedia health information to help patients and caregivers better understand RA.

www.patienteducationcenter.org/articles/rheumatoid-arthritis/

resources for patients with RA.)

- Teach the patient and caregiver how to recognize and manage acute flares and systemic complications of RA.
- Urge them to keep follow-up appointments.

Evaluate outcomes

To determine if the expected outcomes and goals of care are being met, regularly evaluate how the plan of care is progressing.

- Monitor medication therapy, including efficacy, side effects, and signs and symptoms of RA flares (for example, changes in morning stiffness, fatigue, painful or swollen joints).
- Inform other multidisciplinary team members of the effectiveness of medications, nonpharmacologic measures, and disease progress.
- Collaborate with other multidisciplinary team members to help the patient or caregiver achieve unmet goals.
- Work with the patient and caregiver to refine goals as needed.

Your role in enhancing patient outcomes

Nurses in the community help patients with RA achieve the ultimate goal of remission or low disease activity. Based on the patient's individual needs, encourage and assist him or her to establish health behaviors and activities that promote rest and exercise, reduce stress, and encourage independence. ★

Visit AmericanNurseToday.com/?p=26913 for a list of selected references.

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medication adherence. Discuss adverse reactions, drug interactions, and use of herbal and complementary remedies with prescribed medications.

- Monitor medication efficacy and the patient's tolerance.
- Promote participation in self-care, including safety issues such

as hot and cold therapy and coping with the stress or depression that may accompany RA.

- Review and obtain appropriate adaptive devices to help the patient perform ADLs.
- Provide consumer health material on RA and information about local support groups. (See *Online*

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Please mark the correct answer online.

1. Which statement about the incidence of rheumatoid arthritis (RA) is correct?

- a. 500,000 U.S. adults have been diagnosed with RA.
- b. Men are more likely than women to have RA.
- c. 22 of every 100,00 people in the United States are diagnosed with RA annually.
- d. The incidence of RA rises with age, peaking between ages 65 and 74.

2. The antibodies against citrullinated peptides (ACPA) test:

- a. promotes early, accurate diagnosis of RA.
- b. has a specificity of 80% to 90%.
- c. is the least useful laboratory test for diagnosis of RA.
- d. has a sensitivity of 70% to 75%.

3. The rheumatoid factor (RF) test:

- a. promotes early, accurate diagnosis of RA.
- b. has a specificity of 80% to 90%.
- c. is the least useful laboratory test for diagnosis of RA.
- d. has a sensitivity of 70% to 75%.

4. Which statement about the diagnosis of RA is correct?

- a. Joint deformities, rheumatoid nodules, and joint erosion occur early in the disease.
- b. Pain and swelling in fingers and toes have low sensitivity for RA early in the disease.
- c. A single gold standard for diagnosing RA exists, which facilitates early diagnosis.
- d. Early diagnosis is challenging but can help reduce the risk of joint damage.

5. In patients with RA, disease-modifying antirheumatic drugs (DMARDs) should be:

- a. started immediately after diagnosis.
- b. reserved for patients with severe disease.
- c. limited to patients who don't respond to conservative treatment.
- d. started at least 6 months after diagnosis.

6. Agnes Smith*, a 55-year-old teacher with RA, is prescribed methotrexate. Which information should you include in your patient education about the drug?

- a. Methotrexate can cause retinal toxicity.
- b. Laboratory work will be needed every 2 to 3 months.
- c. Methotrexate does not have teratogenic effects.
- d. Laboratory work will be needed every 3 to 6 months.

7. Later in her disease, golimumab is added to Ms. Smith's regimen. Which of the following would be correct to tell Ms. Smith?

- a. Golimumab is not a tumor necrosis factor inhibitor (TNFi).
- b. She will first have to be screened for tuberculosis (TB).
- c. She doesn't have to have current vaccinations before starting therapy.
- d. Golimumab can cause oral ulcers and hair loss.

8. Another patient with RA is prescribed sulfasalazine. Which statement about this therapy is correct?

- a. It is a DMARD.
- b. It is a TNFi.
- c. It requires annual eye examinations.
- d. The typical dose is 20 mg daily by mouth.

9. Which of the following requires an initial screen for TB, hepatitis B and C, neutrophil count > 2,000/mm³, platelet count > 100,000/mm³, and alanine transaminase (ALT) and aspartate aminotransferase (AST) not more than 1.5 times upper limit of normal?

- a. Leflunomide
- b. Sulfasalazine
- c. Hydroxychloroquine
- d. Tocilizumab

10. Which of the following can cause azoospermia?

- a. Leflunomide
- b. Sulfasalazine
- c. Hydroxychloroquine
- d. Tocilizumab

11. Ms. Smith's primary care provider is a nurse practitioner (NP). Which of the following statements about NPs and RA care is correct?

- a. NP-led clinics produce similar or better outcomes in RA patients compared to rheumatologists.
- b. NP-led clinics produce slightly worse outcomes in RA patients compared to rheumatologists.
- c. NPs are unable to administer intra-articular joint injections.
- d. NPs can only prescribe DMARDs for patients with RA.

12. When caring for Ms. Smith, you should do all of the following except:

- a. work with her to set measurable short- and long-term goals to achieve expected outcomes based on the nursing diagnoses.
- b. establish goals and expected outcomes for successful disease management during the initial assessment.
- c. delay involving other team members, such as physical therapists, pharmacists, and social workers until she is late in the disease progression.
- d. evaluate family dynamics as well as ethnic and cultural influences on her perception of RA and self-care abilities.

*Names are fictitious.