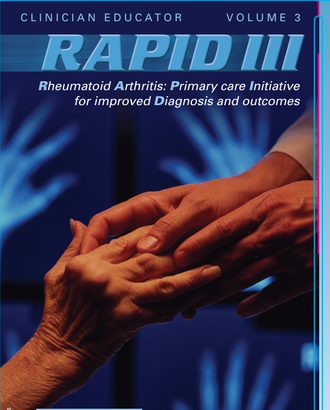
CLINICIAN EDUCATOR VOLUME 3

RAPID III

***R**heumatoid **A**rthritis: **P**rimary care **I**nitiative for improved **D**iagnosis and outcomes*



SIDE **A** is for clinicians

SIDE **B** is for patients

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2A

Fusiform swelling of the hand

RHEUMATOID ARTHRITIS (RA) FACTS

RA is a chronic, progressive, systemic inflammatory disease

- Characterized by:
  - Progressive destruction of synovial joints with loss of cartilage and bony erosions
  - Symptoms that begin in the small joints of the fingers, wrists, and feet
  - Warm, swollen, tender joints that are painful and difficult to move
  - Loss of physical function and quality of life
  - Disability and underemployment with rapid loss of work productivity and job loss
- Affects 1.3 million Americans
- Peak age of onset: 40 to 60 years
- Two to 4 times more common in women than men
- Patients are 7 times as likely to have greater-than-moderate disability than age- or sex-matched individuals
- Life expectancy reduced by 5 to 15 years
  - RA accounts for 22% of all deaths from arthritis and other rheumatic conditions

It is never too late to stop further damage

Hochberg MC, Silman AJ, Smolen JS, Weinblatt ME, Weisman MH, eds. *Rheumatology*. 3rd ed. New York, NY: Mosby; 2003:757-763.

American College of Rheumatology Fact Sheet. http://www.rheumatology.org/public/factsheets/diseases_and_conditions/ra.asp?aud=pat. Accessed September 10, 2009.

MacLean CH, Louie R, Leake B, et al. Quality of care for patients with rheumatoid arthritis. *JAMA*. 2000;284(8):984-992.

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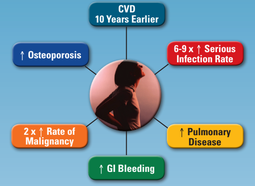

RA IS A DISEASE OF THE ENTIRE BODY

Heart:
- Cardiovascular disease (CVD) occurs on average 10 years earlier in RA patients than in the general population without RA
- Pericarditis is not uncommon

Lungs: Increased risk for multiple pulmonary comorbidities
- Pleuritis may occur, or tissues may become stiff or overgrown
- Interstitial lung disease

Infections: RA patients have a 6- to 9-fold increase in the rate of serious infections, including tuberculosis

Malignancy: RA doubles the risk for malignancy, particularly lymphoma

Gastrointestinal (GI): RA patients have a very high incidence of GI bleeding, which may be attributable to nonsteroidal anti-inflammatory drug (NSAID) and steroid use during therapy

Nervous system: The deformity of and damage to joints in RA may lead to entrapment of nerves, leading to serious consequences
- May present with carpal tunnel syndrome

Osteoporosis: Generalized bone loss may result from immobility, the inflammatory process, and/or treatments such as steroids
- Periarticular demineralization may result from mediators of inflammation

McQueen FM, Stewart N, Crabbe J, et al. Magnetic resonance imaging of the wrist in early rheumatoid arthritis reveals a high prevalence of erosions at four months after symptom onset. *Ann Rheum Dis*. 1998;57(6):350-356.

Böttcher J, Pfeil A. Diagnosis of periarticular osteoporosis in rheumatoid arthritis using digital X-ray radiogrammetry. *Arthritis Res Ther*. 2008;10(1):103.

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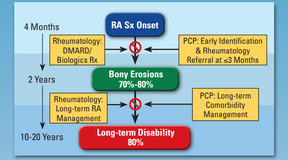

PRIMARY CARE: EARLY DETECTION IS CRITICAL

To prevent the progressive destruction of synovial joints and improve long-term outcomes, RA must be detected within 3 months of onset.
- RA has rapid onset; bony erosions are detectable by MRI within 6 weeks
- Rate of progression is more rapid in the first year than in the second and third
- Within 2 years, most individuals will develop bony erosions, and most of those (~80%) will go on to develop long-term disability
- Successful management requires a partnership between the primary care clinician and the rheumatologist

Benefits of early detection:
- Decreased RA severity, disability, and mortality with effective treatments, such as disease-modifying antirheumatic drugs (DMARDs)
- Lower rates of RA complications
- Declining rates of lower-extremity orthopedic surgical procedures
- Control of inflammation may decrease cardiac and malignancy risks

Emery P, Breedveld FC, Dougados M, Kalden JR, Schiff MH, Smolen JS. Early referral recommendation for newly diagnosed rheumatoid arthritis: evidence based development of a clinical guide. *Ann Rheum Dis*. 2002;61(4):290-297.

Adapted from: Hochberg MC, Silman AJ, Smolen JS, Weinblatt ME, Weisman MH, eds. *Rheumatology*. 3rd ed. New York, NY: Mosby; 2003.

Arnett FC, Edworthy SM, Bloch DA, et al. The American Rheumatism Association 1987 revised criteria for the classification of rheumatoid arthritis. *Arthritis Rheum*. 1988;31(3):315-324.

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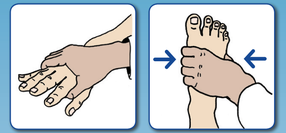


The "squeeze test" is a simple, but reliable diagnostic test for early RA

DIAGNOSIS OF RA

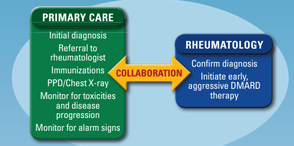
Initial referral to a rheumatologist is advised if the patient has any of the following symptoms: *(See last panel for a diagnosis decision tree)*
- At least 3 swollen joints
- Positive "squeeze" test across metacarpophalangeal/ metatarsophalangeal joints
- Morning stiffness ≥30 minutes

Even if a patient has fewer than 3 swollen joints, a preliminary diagnosis of "possible RA" may be made, and the patient should be referred to a rheumatologist for a definitive diagnosis.

A rheumatologist will make a definitive diagnosis based on the following criteria:
1. Morning stiffness
2. Arthritis in 3 or more joint areas
3. Arthritis of hand joints or balls of the smaller toe joints
4. Symmetric arthritis

Bridges SL. Spotting aggressive RA early: the physical examination, testing, and imaging. *J Musculoskelet Med*. 2006;23(suppl Nov):S10-S14.

6A



THE RA TEAM

Successful management of RA will require long-term team involvement. The primary care clinician will be responsible for identifying possible cases of RA and referral.
- Early referral to a rheumatologist is critical
- Early treatment by the primary care clinician is intended to relieve pain and enhance mobility
  - NSAIDs
  - Short courses of prednisone
  - On occasion, opioids
- To facilitate the evaluation of the patient, it is advisable to obtain:
  - Rheumatoid factor (RF)
    - 30%-70% of patients are positive
  - Anti-CCP antibody
    - 40%-60% of patients are positive
    - Patient who is RF and anti-CCP negative may still have RA
  - C-reactive protein
  - Erythrocyte sedimentation rate
  - CBC
  - LFT
  - X-rays of the hands, wrists, and feet
- Monitor for alarm signs (infection, dyspnea, neck pain, rheumatoid eye disease, painful red eye)

7A

OVERVIEW

This Clinician Educator is designed to aid primary care clinicians in recognizing the early signs of rheumatoid arthritis (RA) and determining when to refer a patient to a rheumatologist. Side A discusses the role of the primary care clinician in the early diagnosis of RA, and describes how the primary care clinician can work in tandem with the patient's rheumatologist to effectively manage this disease. Side B is designed to help patients understand RA.

INTENDED AUDIENCE

This tool is intended for primary care clinicians.

FACULTY

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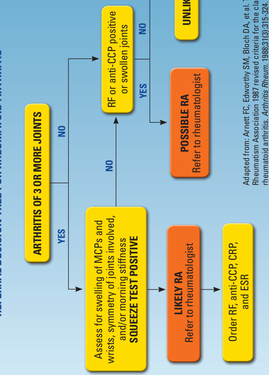
8A



Adapted from: Arnett FC, Edworthy SM, Bloch DA, et al. The American Rheumatism Association 1987 revised criteria for the classification of rheumatoid arthritis. *Arthritis Rheum*. 1988;31(3):315-324.

1B

What is rheumatoid arthritis (RA)?

- RA is a chronic disease that damages the joints of the body. Chronic diseases are long lasting (greater than 3 months) and do not easily or quickly go away
- RA affects women more than twice as much as men. Although it may occur at any age, it usually starts in patients when they are between 40 and 60 years old
- RA causes continuing damage for most patients, and must be optimally managed throughout life

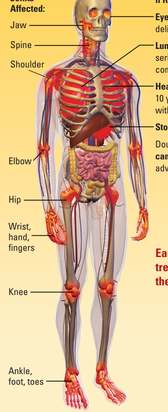
What are the symptoms?

Early signs of RA include:

- Swelling or stiffness in the joints of the hands
- Pain or aching in the hands and wrists
- Morning stiffness that lasts for at least a half hour, and may often last for several hours
- You may not be able to grip things as strongly as you used to
- Later, RA may affect many joints in the body, including the feet, ankles, knees, hips, elbows, and shoulders

2B

Are other parts of the body affected besides the joints?



Other organs that may be affected if RA is not treated early:

Eyes: dryness and damage to delicate structures

Lungs: much greater risk of getting serious infections and other complications

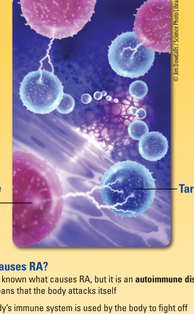
Heart disease: may occur about 10 years sooner than in people without RA

Stomach: high risk of bleeding

Double the risk of **some types of cancer**, so increased screening is advisable

Early diagnosis and treatment may prevent these complications.

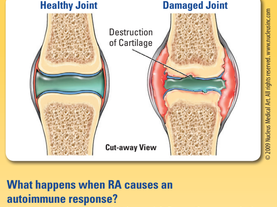
3B



What causes RA?

- It is not known what causes RA, but it is an **autoimmune disease**. This means that the body attacks itself
- The body's immune system is used by the body to fight off infections caused by invading bacteria and viruses
- In autoimmune diseases like RA, the body responds as if its normal tissues are invading target cells, and attacks them
- Genetics may play a part in the development of RA, but many people who get RA do not have any relatives with the disease

4B



What happens when RA causes an autoimmune response?

When an immune response is triggered, **inflammation** occurs in the areas that are attacked by the immune system.

- Inflammation causes redness and warmth, swelling, stiffness, and pain in the affected joints
- If the autoimmune response is not slowed or stopped, it can permanently damage the affected joints and other tissues

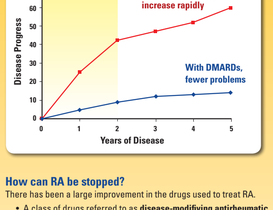
Can RA be prevented?

Because we do not know why RA happens, there is no way to prevent the disease.

- **Early diagnosis and aggressive treatment are the best ways to fight RA**
- Treatment is first focused on reducing inflammation and relieving pain
- When a diagnosis of RA is confirmed, treatment also aims at stopping or slowing joint damage and damage to other parts of the body

5B

Treatment With Disease-modifying Antirheumatic Drugs (DMARDs) Improves Long-term Outcomes



How can RA be stopped?

There has been a large improvement in the drugs used to treat RA.

- A class of drugs referred to as **disease-modifying antirheumatic drugs (DMARDs)** acts to slow or stop the progression of RA to more advanced stages of the disease
- If you look at the graph above, you will see that when a DMARD is not used (the red line), the problems caused by RA increase rapidly, especially in the first 2 years
- However, when treated with DMARDs (the blue line), the disease progresses much more slowly, and fewer problems occur
- DMARDs such as methotrexate, hydroxychloroquine, sulfasalazine, or biologic DMARDs are most often used to control RA

6B

***Q:** I have some pain in my hands. How can I tell if I have RA?*

A: If you think you may have RA, you need to tell your health care provider. He/She will examine you and ask the following questions:

- What hurts as you get out of bed in the morning?
- How long does it take to feel as limber as you're going to feel for the day?
- When is your pain the worst (AM or PM)?
- Do you smoke?
- Do any members of your family have RA?
- Can you
  - Turn faucet handles?
  - Hold a hairbrush/toothbrush?
  - Dress/bathe independently?
  - Fix your own breakfast?
  - Walk outdoors on flat ground?
- How is your energy level?
- Important clues to diagnose other diseases
  - Fever?
  - Night sweats?
  - Unexpected weight loss?
  - Rash, tick exposure?
  - Recent contact with sick children?

You may also fill out the questionnaire on panel 8B, which will help in diagnosing the cause of your discomfort.

7B

***Q:** What happens next?*

A: If your health care provider thinks you may have RA, he/she will prescribe medications to reduce the pain and inflammation in the joints. He/She will also refer you to a **rheumatologist**, which is a doctor who specializes in RA and related diseases.

The rheumatologist will confirm the diagnosis of RA and prescribe appropriate medication to slow or stop the autoimmune process.

Depending on the extent of injury caused by RA, you may be referred to a physical or occupational therapist, or a podiatrist.

Rheumatoid Arthritis Resources and Information

The American College of Rheumatology
http://www.rheumatology.org/

The Arthritis Foundation
http://www.arthritis.org/

The National Library of Medicine/Medline Plus
http://www.nlm.nih.gov/medlineplus/ency/article/000431.htm

The Mayo Clinic
http://www.mayoclinic.com/health/rheumatoid-arthritis/DS00020

8B

SELF-REPORT QUESTIONNAIRE FOR RHEUMATOID ARTHRITIS

Please check the ONE best answer for your abilities

At this moment, are you able to:	Without any difficulty	With some difficulty	With much difficulty	Unable to do
1. Dress yourself, including tying shoelaces and doing buttons?				
2. Get in and out of bed?				
3. Lift a full cup or glass to your mouth?				
4. Walk outdoors on flat ground?				
5. Wash and dry your entire body?				
6. Bend down to pick up clothing from the floor?				
7. Turn regular faucets (taps) on and off?				
8. Get in and out of a car?				

The questionnaire is used to make a quantitative assessment of the functional capacity of the patient to carry out the tasks of daily living.

Gordon DA, Hastings DE. Clinical features of rheumatoid arthritis. In: Hochberg MC, Silman AJ, Smolen JS, Weinblatt ME, Weisman MH, eds. Rheumatology. 3rd ed. New York, NY: Mosby; 2003:709-784. With permission.