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Rheumatoid Arthritis: Diagnosis, Management and Monitoring

Effective Date: September 30, 2012

Scope

This guideline is intended to aid in early recognition, intervention and management of patients with rheumatoid arthritis (RA). The guideline summarizes current recommendations for diagnosis and treatment of RA for patients 16 years of age and older.

Introduction

Rheumatoid Arthritis (RA) is associated with reduced quality of life, decreased life expectancy, and has an adverse financial impact on the individual and society. The risk of cardiovascular mortality is twice that of the general population.

Urgent management is important because early recognition and intervention has been shown to improve outcome. The use of traditional medications in combination, and the new biologic therapies have revolutionised the paradigm of RA treatment in recent years.[1] Disease modifying anti-rheumatic drugs (DMARDs), particularly when used early, change the course of the disease and are proven to reduce damage and associated disability.

The aims of RA treatment are not only symptom control during active disease flares, but also suppression of disease activity in order to prevent permanent joint damage. Treatment is multi-disciplinary involving physicians, physiotherapists, occupational therapists, patients themselves, and other team members.

Specialist care has become increasingly important in managing complex medication regimens. Access to timely specialized care is not universally available. This guideline is intended to help physicians make the diagnosis of RA quickly so treatment can be started early.

Diagnosis

The approach to care of patients with RA can be considered as falling into two groups.

- Early RA (ERA) is defined as patients with symptoms of less than 3 months duration.
- Patients with established disease who have symptoms due to inflammation and/or joint damage.

Early RA Investigation

Differentiate Inflammatory from Non-inflammatory Arthritis

The treatment approach varies depending on whether the symptoms arise from inflammation or joint damage, making the differentiation vital.

Feature	Inflammatory	Non-Inflammatory
Joint pain	With activity and at rest	With activity
Joint swelling	Soft tissue	Bony
Local erythema	Sometimes	Absent
Local warmth	Frequent	Absent
Morning stiffness	>30 minutes	<30 minutes
Systematic symptoms	Common, especially fatigue	Absent

Differentiate RA from Other Inflammatory Arthritides

RA Likely	Differential Diagnoses	Features Suggesting Alternative Diagnosis
• Morning stiffness > 30 minutes • Painful swelling of 3 or more joints • Symmetric involvement of hands and feet (especially metacarpophalangeal and metatarsophalangeal joints) • Duration of 4 or more weeks	• Crystal arthropathy • Psoriatic arthritis • Lupus • Reactive arthritis • Spondyloarthropathies • Polyarticular sepsis	• Mucosal ulcers, photosensitivity, psoriasis, skin rashes • Raynaud's • Ocular inflammation – iritis/uveitis • Urethritis • Inflammatory bowel disease • Infectious diarrhea • Nephritis • Isolated distal interphalangeal joint inflammation

Note that extra-articular manifestations are an indication of more severe disease and thus have prognostic value.

Investigations

RA is a clinical diagnosis. Referral to a specialist should not be based on the results of lab tests if there are no clinical features suggesting RA. There are no tests that can reliably make the diagnosis of RA. If there are clinical features then the following lab tests may be useful for monitoring and ruling out other types of arthritis.

Tests*	Diagnostic Value	Disease Activity Monitoring
C-Reactive Protein (CRP) or Erythrocyte Sedimentation Rate (ESR)	CRP is the preferred test. [2,3] Indicate only inflammatory process - very low specificity.	May be useful in monitoring disease activity and response to treatment. Both can be useful, but CRP is more sensitive to short term fluctuations. ESR elevated in many but not all with active inflammation.
Rheumatoid Factor Latex Test (RF)	RF has low sensitivity and specificity for RA. Seropositive RA has a worse prognosis than seronegative RA.	No value - do not repeat
Antinuclear Antibody (ANA)	ANA is rarely positive in RA. Unless there are other clinical features indicating SLE or other connective tissue diseases, ordering ANA is not indicated.[4]	No value - do not repeat
X-Rays	Diagnostic erosions rarely seen in disease of <3 months duration.	If clinically indicated, serial x-rays over years may show disease progression and indicate need for medication change.
Joint Aspiration	Joint aspiration indicated if infection or crystal arthropathy is suspected. Antibiotics may be started only after aspiration.	

** Anti-cyclic citrullinated protein antibodies (Anti-CCP) may have some value but can only be ordered by a specialist in BC. If ordered by a GP then the test is patient pay.*

Management

Referral to Specialists

- Specialist intervention has been shown to improve RA outcomes. Referrals to specialists should indicate "**Urgent: new-onset RA**". Copy all relevant tests to specialist.
- Referral to Physiotherapist (PT) and/or Occupational Therapist (OT) with expertise in RA and indicate "**Urgent: new-onset RA**".

Management of Early RA

Before patient's specialist appointment initiate treatment as follows:

- Patient education: provide attached RA patient guide.
- Start nonsteroidal anti-inflammatory drugs (NSAIDs) and acetaminophen for pain management having recorded blood pressure and ordered baseline complete blood count (CBC), creatinine, electrolytes and chest x-ray.

- Can start with:
  - Hydroxychloroquine[5-7] until diagnosis of RA is confirmed (See Appendix A - Non-Biologic Disease-Modifying Anti-rheumatic Drugs (DMARDs) table for information.)

  OR

  - Sulfasalazine and methotrexate if confident about diagnosis and in using these medications (See Appendix A Non-Biologic Disease-Modifying Anti-rheumatic Drugs (DMARDs) table). Combination DMARD therapy is the current standard of care.
- If symptoms are severe add low-dose prednisone (up to 10 mg/day).

Consider seeing early RA patients monthly to monitor response to treatment and possible side effects of medications.[8] Contact specialist if concerned.

There are currently at least nine biologic medications approved for treatment of RA. They will be initiated only by specialists. As such, detailed review of this drug class is beyond the scope of this guideline. Details of initiation, dosing and monitoring are based on recommendations made by specialists in each case.

Management of Established RA

The objective of treatment is to suppress all inflammation and prevent joint damage. Most patients will require long-term DMARD therapy.

Consider follow-up every 3-6 months and specialist follow-up every 6-12 months after inflammation is suppressed.[8]

At each visit:

- Assess current drug therapy including dose and monitoring for side effects (see Appendix A - Non-Biologic Disease-Modifying Anti-rheumatic Drugs (DMARDs)),
- Examine joints for active inflammation (If necessary review clinical features),
- When baseline CRP or ESR is elevated, serial assessment may be helpful,
- Review general health concerns and co-morbidities.

If the assessment suggests ongoing active inflammation, then consider or review:

- Adherence to medication regimen,
- Dosage of current medications and dosages of substitutions/additions of alternative medications,
- Referral back to specialist,
- Referral back to PT and/or OT.

If the assessment suggests joint damage, then consider or review:

- Pain relieving modalities,
- Re-referral to PT and/or OT,
- Referral for surgical opinion.

Always take into account that patients may have a combination of inflammation and damage.

Consider Implications of Chronic Disease

Optimal outcome is achieved through a multi-disciplinary approach coordinated by the primary care physician.

Consider or review:

- Implications of chronic pain,
- Psychosocial issues,
- Immunizations (flu vaccine, pneumococcal polysaccharide vaccine (PPSV)),
- Osteoporosis assessment and preventive measures. See BCGuidelines.ca – Osteoporosis: Diagnosis, Treatment and Fragility Fracture Prevention,
- Patients with RA have an increased risk of cardiovascular disease (CVD) compared with the general population.[9] Aggressive treatment of RA disease activity may minimize the cumulative burden of inflammation. Traditional CVD risk factors (e.g., cholesterol levels, blood pressure) should also be carefully screened and managed in this patient population.[10,11]
- Encourage self-management for RA symptoms,
- Smoking cessation (smoking directly aggravates RA),[12]
- Weight management. See BCGuidelines.ca – Overweight and Obese Adults: Diagnosis and Management.

Resources

References

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Diagnostic Code: 714: Rheumatoid Arthritis

Resources

- The Arthritis Society www.arthritis.ca or Toll Free: 1-866-414-7766
- Rheuminfo - rheumatology resource for patients and physicians www.rheuminfo.com
- BC Guidelines: www.bcguidelines.ca
    - Osteoporosis: Diagnosis, Treatment and fragility Fracture Prevention
    - Cardiovascular Disease: Primary Prevention
    - Overweight and Obese Adults: Diagnosis and Management
    - Osteoarthritis in Peripheral Joints - Diagnosis and Treatment
- BC Health and Seniors Information Line 1-800-465-4911, Victoria 250-952-1742 and website www.seniorsbc.ca
- HealthlinkBC – Health information, translation services and dieticians, www.healthlinkbc.ca or by telephone 811.
- Community Healthcare and Resource Directory (CHARD) - Information on healthcare specialists and resources www.info.chardbc.ca or Toll Free: 1-877-330-7322

Appendices

Appendix A – Non-Biologic Disease-Modifying Anti-rheumatic Drugs (DMARDs)

Associated Documents

The following documents accompany this guideline:

- Summary

- Patient Guide

This guideline is based on scientific evidence current as of the Effective Date.

This guideline was developed by the Guidelines and Protocols Advisory Committee, approved by the British Columbia Medical Association, and adopted by the Medical Services Commission.

THE GUIDELINES AND PROTOCOLS ADVISORY COMMITTEE

The principles of the Guidelines and Protocols Advisory Committee are to:

- encourage appropriate responses to common medical situations
- recommend actions that are sufficient and efficient, neither excessive nor deficient
- permit exceptions when justified by clinical circumstances

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The Clinical Practice Guidelines (the "Guidelines") have been developed by the Guidelines and Protocols Advisory Committee on behalf of the Medical Services Commission. The Guidelines are intended to give an understanding of a clinical problem, and outline one or more preferred approaches to the investigation and management of the problem. The Guidelines are not intended as a substitute for the advice or professional judgment of a health care professional, nor are they intended to be the only approach to the management of clinical problem.