The Arthritis Society

Getting a Grip on arthritis

Best Practice Guidelines

Getting a Grip on Arthritis — Best Practice Guidelines

- Patient knows what kind of arthritis he or she has.
- Patients receive education about self-management strategies and contacts for further information (e.g., The Arthritis Society information line, Arthritis Self-Management Program, education and support groups, local programs).
- Patients receive a recommendation for exercise and/or a referral to an exercise program or physiotherapist.
- Patients receive information on joint protection and energy conservation techniques (e.g., splints, assistive devices) or a referral to an occupational therapist.
- Where appropriate, patients receive referral to an appropriate provider for foot orthoses or orthopedic shoes.
- Obese patients receive a recommendation for weight loss and/or a referral to a weight loss group or dietitian.
- Social support and coping is discussed with patients. Referrals made as needed.
- Acetaminophen (up to 1,000 mg four times/day) as initial therapy for pain.
- May progress to NSAIDs, advancing to higher doses as necessary. Consider NSAID contraindications, risk factors and alternatives such as cytoprotection or Cox2 agents.
- Consider intra-articular corticosteroids or hyaluronans for an OA painful knee.
- Discuss surgical referral with patient if optimal medical therapy not effective.
- Urgent rheumatology referral for inflammatory arthritis.

Red Flags for Musculoskeletal Complaints

- history of significant trauma
- acute severe pain
- focal or diffuse muscle weakness
- neurogenic pain or claudication pain pattern
- significant constitutional signs & symptoms (e.g., fever, weight loss, malaise)
- hot and swollen joint

Inflammatory vs. Non-Inflammatory Disorders

Feature	Inflammatory	Non-Inflammatory
Joint pain	yes—with activity and rest	yes—with activity
Joint swelling	soft tissue	bony (if present)
Local erythema	sometimes	absent
Local warmth	sometimes	absent
Morning stiffness	prolonged (>60 mins)	variable (<60 mins)
Systemic symptoms	common	rare
ESR, CRP	increased	normal for age
Haemoglobin	normal or low	normal
Serum albumin	normal or low	normal
Synovial fluid WBC/mm^3	>2,000	<2,000
Synovial fluid %PMN	>75%	<75%

Pharmacologic Treatment for OA

Analgesics:

Acetaminophen

- analgesia comparable to NSAIDs for mild to moderate OA knee
- hepatotoxicity in overdose (>10 g single dose)
- excessive ethanol or phenytoin may increase hepatotoxicity
- full dose is 1,000 mg 4x/day. Use lower dose if liver or kidney disease present
- if patient on warfarin, watch INRs (may increase)

Topical Capsaicin—may help pain of OA but burning sensation may not be tolerable

Combination Analgesics—enhanced short term analgesia but increased adverse side effects

Anti-inflammatories

Oral NSAIDs

Risk factors for GI toxicity (e.g., dyspepsia, hemorrhage, perforation, death) include:

- prior ulcer disease
- warfarin
- co-morbid illness (e.g., BP, CHF,RF, HF)
- advanced age
- corticosteroids
- multiple NSAIDs

If risk factors present, consider prophylactic agents such as misoprostol or PPIs or use selective COX-2 inhibiting NSAIDs.

Risk factors for increased renal toxicity include:

- pre-existing renal disease (BP, DM, GN, age > 65)
- renal hypoperfusion (low output cardiac disease, liver disease, hypovolemia, sodium depletion, hypoalbuminemia, BP, diuretics, extreme exercise)
- concomitant drug therapy (e.g., diuretics, beta blockers, ACE inhibitors, CYA)

Risk of drug interactions

- do not use COX-2 NSAIDs with triampterene
- decrease celecoxib levels with carbamazepine and phenytoin (p450 inducers)
- dose adjustment may be required with
  - digoxin
  - phenytoin
  - lithium
  - aminoglycosides
  - coumadin

Baseline Screening Lab

Patients over 65 or with comorbid conditions affecting renal function should have:

- Serum creatinine and electrolytes
- Calculate creatinine clearance using Cockroft-Gault formula creatinine clearance (ml/min) = 140 - (age in years) X (weight in kg) / (serum creatinine in umol/L) X 1.2 (males only)]

Monitoring Patients on NSAIDs

Recheck INR frequently after initiation if on anticoagulants
Hypertensives: check BP 1–2 weeks after initiation of COX-2 NSAID
Reassess need for continuing therapy Q 3-4 months
Monitor renal function in those at risk of renal toxicity

Topical NSAIDs—Pennsaid

Intra-Articular Injections
- IA corticosteroids may provide acute pain relief for OA knee with effusion and local inflammation—benefit wanes after 4–6 weeks
- Consider IA hyaluronan for mild to moderate OA knee (expensive)

Glucosamine (mild–moderate OA of the knee)
Improved pain and mobility and delay in radiologic progression—unregulated quality of supply

Non-pharmacologic Treatment of OA
Electro-acupuncture (moderate–severe OA of the knee)

Criteria for Diagnosis of Rheumatoid Arthritis

At least 4 of the following present for at least 6 weeks:
- Morning stiffness in and around joints for 1 hour or more
- Arthritis of 3 or more joint areas (soft tissue swelling or fluid)
- Arthritis of hand joints (wrist, MCP, PIP)
- Symmetric arthritis. Bilateral involvement PIP, MCP or MTP joints
- Rheumatoid nodules
- Serum rheumatoid factor abnormally elevated
- Radiographic changes on hand and wrist views (erosions, decalcification)

Pharmacologic Treatment for RA

DMARDs (disease modifying anti-rheumatic drugs)
- improve symptoms and reduce long-term disability
- combination DMARD therapy is indicated in early RA
- referral to Rheumatology to initiate this
- regular monitoring needed for potential toxicity

NSAIDs provide symptom relief but do not alter course of RA.

Corticosteroids (oral, IM or intra-articular) useful as short-term adjunctive therapy to above.

Urgent referral to a rheumatologist is recommended for the following:
- diagnostic uncertainty or confirmation
- management uncertainty
- medication complications
- organ involvement or life-threatening disease
- to assess disease activity or severity
- consideration of immunosuppressive (DMARD) therapy
- uncontrolled symptoms, increasing deformity or disability
- management of inflammatory arthritis during pregnancy

* Always call or indicate degree of urgency on referral letter

Referral to an orthopedic surgeon is recommended for the following:
- joint infection
- diagnostic procedures such as arthroscopy or synovial biopsy
- consideration for joint replacement
- joint aspiration or injection, if assistance required

Referral to a physiotherapist or occupational therapist is recommended for the following:
- improved control over symptoms (pain, stiffness, mobility)
- functional difficulties with activities of daily living or leisure
- assistance with braces, splints, mobility devices or equipment to improve function
- education and support
- gaining strength, endurance and energy
- gait problems, difficulty with stairs, knees weak or give out
- adapting the home or workplace to meet individual needs

Commonly Used DMARDs and Biologic Response Modifiers and Suggested Lab Monitoring

DRUG	COMMON S/E	UNCOMMON S/E	MONITORING
DMARDS			
Hydroxychloroquine (e.g., Plaquenil) 200-400 PO od mg/kg/day benefits begin in 2-6 months		retinal damage (cumulative dose and age >70 related) GI	fundoscopy, color vision and visual fields every 6 monthsmax 5-6
Methotrexate 7.5-25 mg PO/IM/SC weekly folate supplement benefits begin in 1-2 months	GI, mucositis increased LFTs	pneumonitis cytopenias hepatic fibrosis cirrhosis	CBC, platelets, LFTs albumin (4-8 wks) shortness of breath avoid alcohol
Sulfasalazine (e.g., Salazopyrin) start 500 mg PO/day max 3000 mg PO/day benefits begin in 1-3 months	GI, mucositis CNS	avoid if patient has Sulpha allergy leukopenia other cytopenias rash increased LFTs	CBC, platelets, LFTs (4-8 weeks) increase dose slowly
Gold, injectable (e.g., Myochrysine) test 10 mg IM, 25mg usual 50 mg IM/wk benefits begin in 3-6 months	rash stomatitis proteinuria	thrombocytopenia aplastic anemia nephrotic syndrome	BC, urinalysis (1-4 weeks) can increase dosing interval to 3-4 wks
Cyclosporine (e.g., Neoral) severe, refractory RA benefits begin in 2-4 months	gingival hyperplasia hypertension hirsutism	nephrotoxicity cytopenias	creatinine, CBC, platelets (2-4 wks) BP
Azothioprine (e.g., Imuran) 50-100 mg daily max 2.5 mg/kg daily benefits begin in 2-3 months	GI	rash cytopenias pancreatitis increased LFTs	CBC, platelets, LFTs (2-4 weeks)
Leflunomide (Arava) 10-20 mg PO daily benefits begin in 1-3 months	Diarrhea, loss of appetite, nausea and vomiting, mucous membrane lesions, headache, weakness, dizziness, hair loss, skin rash, hepatitis	Hypersensitivity reaction Hypertension	CBC, platelets, LFTs, albumin (4-8 weeks)
BIOLOGIC RESPONSE MODIFIERS			
Infliximab (Remicade) 3-5 mg/kg IV Q8weeks benefits begin in 0-4 months	Infusion reaction: hypotension, chills, chest tightness	TB reactivation Opportunistic infections CHF worsening	CBC, platelets, LFTs, albumin (4-8 weeks)
Etanercept (Enbrel) 25 mg SC 2X/wk	Redness, pain, and swelling at injection site	TB reactivation Upper respiratory tract infections	CBC, platelets, LFTs, albumin (4-8 weeks)
Anakinra (Kineret) 100 mg SC daily benefits begin in 0.5-4 months	Redness, swelling, bruising, itching, and stinging at injection site	Increased risk of infection in asthmatics	CBC, platelets, LFTs albumin (4-8 weeks)

Production of this document has been made possible by a financial contribution from the Primary Health Care Transition Fund, Health Canada. The views expressed herein do not necessarily represent the official policies of Health Canada.

Support for the original development of the 'Getting a Grip on Arthritis' initiative was provided by the Ontario Ministry of Health and Long-Term Care.

For more information contact
The Arthritis Society at 1.800.321.1433 or www.arthritis.ca