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Canadian Family Medicine Clinical Card

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Joint Pain 1: Arthritis

Red Flag: Acute Red Joint - R/O Septic Arthritis

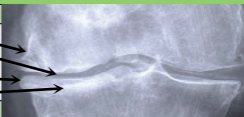
Risk Factors	Presentation	Investigations
Prosthesis, skin infxn, RA, age >80, DM, recent joint surgery or injection, IVDU	Painful joint with erythema, swelling, warmth, ↓ROM, ± fever	Clinical suspicion → joint aspiration: WBC + diff, gram stain & culture, blood cultures
R/O gonococcal infxn - ♀ > ♂, recent menses, age <40, ± tenosynovitis & dermatitis		

Degenerative vs. Inflammatory Arthritis: General Signs & Symptoms

Degenerative	Inflammatory
<input type="checkbox"/> Pain is relieved by rest	<input type="checkbox"/> Pain at rest, relieved by motion
<input type="checkbox"/> <½ hr AM stiffness	<input type="checkbox"/> >1 hr AM stiffness
<input type="checkbox"/> Localized, slow onset, progressive pain	<input type="checkbox"/> warmth, swelling, extra-articular signs

Osteoarthritis

OA Clues	X-ray features of OA
↑age, obesity (knee OA), joint damage, progressive asymmetric pain ± bony deformities	<ol style="list-style-type: none"> 1. Subchondral cysts 2. Joint space narrowing 3. Osteophytes 4. Subchondral sclerosis



Management Principles

Non-pharmacological: Patient education, weight loss, regular low-impact exercise, PT (e.g. flexibility & strength, TENS) & OT (e.g. walking aids).

Medical: Analgesics/NSAIDs (oral &/or topical), corticosteroid injection, topical capsaicin, hyaluronic acid knee injection (controversial); No high quality studies for glucosamine or chondroitin supplements. *If refractory: surgical assessment.*

	Disease	Diagnostic Clues	Investigations & MGMT
Inflammatory Arthropathies	Seropositive		
	Rheumatoid Arthritis	Symmetric, >3 joints & in hands, >6 weeks. Rheumatoid nodules (e.g. over extensor surfaces), ±↑RF & x-ray changes. ♀ > ♂ age -40-50's.	If suspicion: ESR±CRP, RF, anti-CCP & radiographs. Early intervention with DMARDs*!
	Lupus (SLE)	Multi-organ involvement, diverse presentation, ♀ > ♂. Symmetrical, small & large joints. FHx.	ANA (Anti-nuclear antibody) (if -ve virtually R/O SLE), NSAIDs/analgesics for pain
	Seronegative		
	Reactive Arthritis	Asymmetric 1-4 joints, lower extremity. Usually GI or GU infection 1-4 weeks before joint pain.	NSAIDs & treat infxn. If resistant: steroids (oral & injection) → DMARDs*.
Crystal	Psoriatic Arthritis	FHx &/or presence of psoriasis, DIP involvement, enthesitis, bursitis, nail changes. Asymmetric, 1-4 joints.	Most cases controlled with NSAIDs. May require DMARDs or biologics.
	Ankylosing spondylitis	Low back pain & ↓ROM, ♂ > ♀, asymmetric, enthesitis, younger age	See low back pain card
	Juvenile Idiopathic Arthritis	<16 years old, ≥1 joint, ≥6 weeks, other causes excluded (e.g. sepsis). Minimal systemic complaints. ♀ > ♂.	Many subtypes. Exercise, multi-discipl. team, NSAIDs, steroid inject. = 1st line.
Crystal	Gout	1st MTP , ankle, knee, ♂ & post-meno ♀. Risks: Diuretic use, renal disease, EtOH. May mimic cellulitis.	Joint aspiration, NSAIDs, intra-articular steroids. ±Colchicine in acute gout.
	Pseudogout	Age >60, knee joint most frequent, may resemble gout	Lifestyle Δ & ± allopurinol in chronic gout.

*Disease Modifying Anti-Rheumatic Drugs (e.g. hydroxychloriquine, methotrexate)

Key References: Aletaha D, et al. 2010 Rheumatoid arthritis classification criteria: an American College of Rheumatology/European League Against Rheumatism collaborative initiative. *Arthritis Rheum.* 2010;62(9):2569-81. Cibere J. Rheumatology: 4. acute monoarthritis. *CMAJ* 2000;162(11):1577-83. Hochberg MC, et al. American College of Rheumatology 2012 recommendations for the use of nonpharmacologic and pharmacologic therapies in osteoarthritis of the hand, hip and knee. *Arthritis Care Res.* 2012;64(4):465-74. Klinkhoff A. Rheumatology: 5. Diagnosis and management of inflammatory polyarthritis. *CMAJ.* 2000;162(13):1833-8. Margaretten ME, et al. Does this adult patient have septic arthritis? *JAMA.* 2007;297(13):1478-88. Shojania K. Rheumatology: 2. What laboratory tests are needed? *CMAJ* 2000;162(8):1157-63. Knee radiograph: AHS Repository.