



Michigan Quality Improvement Consortium Guideline

**Medical Management of Adults with Osteoarthritis**

The following guideline recommends initial evaluation, nonpharmacologic and pharmacologic interventions for the management of osteoarthritis.

Eligible Population	Key Components	Recommendation and Level of Evidence
Adults with clinical suspicion or confirmed diagnosis of osteoarthritis	Initial evaluation	Detailed history (aspirin and other anti-platelet use, pain control with over-the-counter medications, narcotic use, activity tolerance and limitations) Physical examination, with emphasis on musculoskeletal examination Assess gastrointestinal (GI) risk: - History of GI bleeding - History of peptic ulcer disease and/or non-steroidal induced GI symptoms - Concomitant use of corticosteroids and/or warfarin <b>[A]</b> - High dose, chronic, or multiple NSAIDs including aspirin - Age > 60 yrs Assess behavioral health status including depression and/or chronic pain syndrome
	Non-pharmacologic modalities	Multi-faceted individualized treatment plan should include: - Education and counseling regarding weight reduction and joint protection - Range-of-motion <b>[B]</b> , aerobic and muscle strengthening exercises, aquatic exercises - For patients with functional limitations, consider physical and occupational therapy, manual medicine - Self-management resources (e.g., <a href="#">American Arthritis Foundation self-help tools and resources</a> ) For select patients: - Assistive devices for ambulation and activities of daily living
	<b>All Pharmacologic Therapy</b>	
	<b>Initial drug of choice should be individualized:</b> consider acetaminophen at minimum effective dose, lower dose for patients with risk factors for toxicity (hepatic toxicity risk factors, aspirin, warfarin) <sup>1</sup> . Warn patients that many over-the-counter products and prescription analgesics contain acetaminophen and to monitor total dose carefully.	
	<b>Low GI risk</b>	<b>High GI risk</b>
	<ul style="list-style-type: none"> <li>◆ NSAID</li> <li>◆ Add proton-pump inhibitor<sup>2</sup> if on aspirin, or if risk warrants GI protection</li> </ul>	<ul style="list-style-type: none"> <li>◆ NSAID plus PPI<sup>2</sup></li> <li>◆ If NSAID not tolerated, Cyclo-oxygenase-2 (COX-2) selective inhibitor</li> <li>◆ For those with prior GI bleed <b>avoid all NSAIDs/COX-2. If must use, then COX-2 plus proton-pump inhibitor<sup>2</sup> [D].</b></li> </ul>
NSAID analgesics: Use with caution in patients with HTN, CKD and stable CV disorders only when the individual clinical benefit outweighs the cardiovascular or renal risk. If aspirin is used daily, COX-2 offers no advantage over NSAID.		
◆ Nonacetylated salicylate, intra-articular drugs (such as glucocorticoids, anesthetics), topical preparations such as methylsalicylate or capsaicin. Prescription topicals are costly. Avoid use of opioids including tramadol. If used, limit to 72 hours.		

<sup>1</sup> Maximum recommended acetaminophen dose from all sources 2-4 g/d.

<sup>2</sup> Misoprostol at full dose (200 µg four times a day) may be substituted for proton-pump inhibitor.

**Levels of Evidence for the most significant recommendations:** A = randomized controlled trials; B = controlled trials, no randomization; C = observational studies; D = opinion of expert panel

This guideline lists core management steps and is based on: VA/DoD Clinical Practice Guideline for the Non-Surgical Management of Hip and Knee Osteoarthritis, Version 1.0 - 2014; American Academy of Orthopaedic Surgeons clinical practice guideline on the treatment of osteoarthritis of the knee, 2nd ed. 2013 May 18. Individual patient considerations and advances in medical science may supersede or modify these recommendations.