



# 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	<ul style="list-style-type: none"> <li>◆ Detailed history (aspirin use, pain control with over-the-counter medications, activity tolerance and limitations)</li> <li>◆ Physical examination</li> <li>◆ <u>Assess gastrointestinal (GI) risk:</u> <ul style="list-style-type: none"> <li>◆ History of GI bleeding</li> <li>◆ History of peptic ulcer disease and/or non-steroidal induced GI symptoms</li> <li>◆ Concomitant use of corticosteroids and/or warfarin <b>[A]</b></li> <li>◆ High dose, chronic, or multiple NSAIDs including aspirin</li> <li>◆ Age &gt; 60 yrs</li> </ul> </li> </ul>		
	Nonpharmacologic modalities	Treatment plan should include: <ul style="list-style-type: none"> <li>◆ education and counseling regarding weight reduction and joint protection</li> <li>◆ range-of-motion <b>[B]</b>, aerobic and muscle strengthening exercises                             <ul style="list-style-type: none"> <li>- for patients with functional limitations, consider physical and occupational therapy</li> </ul> </li> <li>◆ self-management resources (e.g., American Arthritis Foundation self help course and book)</li> </ul> For select patients: <ul style="list-style-type: none"> <li>◆ assistive devices for ambulation and activities of daily living</li> <li>◆ appropriate footwear, orthotics (e.g., wedged insoles)</li> </ul>		
	<b>Pharmacologic Therapy</b>			
	Therapies other than NSAIDs	<ul style="list-style-type: none"> <li>◆ <b>Initial drug of choice:</b> Acetaminophen 4 g/day, modify dose for patients at risk for toxicity (note patients with hepatic toxicity risk factors, especially those on aspirin). Reassess and taper as tolerated.</li> <li>◆ Topical capsaicin</li> </ul>		
	NSAID analgesics:	<b>No or low NSAID GI risk</b>	<b>NSAID GI risk</b>	
◆ No cardiovascular risk	<ul style="list-style-type: none"> <li>◆ NSAID</li> <li>◆ Add PPI<sup>1</sup> if on aspirin, plus risk warrants GI protection</li> </ul>	<ul style="list-style-type: none"> <li>◆ NSAID plus PPI<sup>1</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 PPI<sup>1</sup>[D]</b></li> </ul>		
◆ Cardiovascular risk	<ul style="list-style-type: none"> <li>◆ Naproxen<sup>2,3</sup></li> <li>◆ Add PPI<sup>1</sup> if GI risk of aspirin/NSAID combination warrants GI protection</li> </ul>	<ul style="list-style-type: none"> <li>◆ Naproxen<sup>2,3</sup> plus PPI<sup>1</sup> if cardiovascular risk &gt; GI risk</li> <li>◆ COX-2 plus PPI<sup>1</sup> if GI risk &gt; cardiovascular risk</li> </ul>		
Other pharmacologic agents	<ul style="list-style-type: none"> <li>◆ Nonacetylated salicylate, tramadol, opioids, intra-articular glucocorticoids or hyaluronate, lidoderm or methylsalicylate</li> </ul>			

<sup>1</sup> Misoprostol at full dose (200 µg four times a day) may be substituted for PPI.

<sup>2</sup> Naproxen probably has lowest cardiovascular risk of NSAID/COX-2 class.

<sup>3</sup> If aspirin is used daily, COX-2 offers no advantage over NSAID.

**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 the following sources: The ICSI Diagnosis and Treatment of Adult Degenerative Joint Disease (DJD)/Osteoarthritis (OA) of the Knee, Institute for Clinical Systems Improvement, 2007 ([www.icsi.org](http://www.icsi.org)) and Scheiman JM. Summing the Risk of NSAID Therapy. Lancet 2007; 369:1580-1. Individual patient considerations and advances in medical science may supersede or modify these recommendations.