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

<table>
<thead>
<tr>
<th>Eligible Population</th>
<th>Key Components</th>
<th>Recommendation and Level of Evidence</th>
</tr>
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</table>
| 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 [A]  
  - High dose, chronic, or multiple NSAIDs including aspirin  
  - Age > 60 years  
  Assess behavioral health status including depression, sleep disturbance, and/or chronic pain syndrome. Consider racial equity and social determinants of health impact.¹ |

Non-pharmacologic modalities | Multi-faceted individualized treatment plan should include:  
  - Education and counseling regarding weight reduction and joint protection  
  - Range-of-motion [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., American Arthritis Foundation self-help tools and resources)  
  Improved sleep hygiene may decrease perception of pain. Assistive devices for ambulation and activities of daily living for select patients. |

Pharmacologic Therapy | Initial drug of choice should be individualized based on age, comorbidities and affected joints.²  
  Avoid use of opioids including tramadol. If used, limit to 72 hours.  
  Consider acetaminophen at minimum effective dose, lower dose for patients with risk factors for hepatic toxicity (alcohol, drug interactions). Warn patients that many over-the-counter products and prescription analgesics contain acetaminophen and to monitor total dose carefully. Maximum dose from all sources 3 g/d.  
  Other alternatives:  
  - Nonacetylated salicylate, intra-articular drugs (glucocorticoids, anesthetics), pain-modulating SSRI (venlafaxine, duloxetine), topical preparations (methyl salicylate, diclofenac, or capsaicin [conditionally recommended for Knee only³]). Prescription topicals are costly.  
  Consider NSAID, based on risk. Add proton-pump inhibitor⁴ if on aspirin.  
  If high GI risk:  
  - NSAID plus PPI⁴. If NSAID not tolerated, Cyclo-oxygenase-2 (COX-2) selective inhibitor.  
  For those with prior GI bleed: Avoid all NSAIDS/COX-2. If must use, then COX-2 plus proton-pump inhibitor⁴, [D]  
  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. |

²2019 American College of Rheumatology/Arthritis Foundation Guideline for the Management of Osteoarthritis of the Hand, Hip, and Knee  
³Osteoarthritis Management: Updated Guidelines from the American College of Rheumatology and Arthritis Foundation - Practice Guidelines - American Family Physician (aafp.org)  
⁴Misoprostol 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
