



VA/DoD Evidence-Based Practice

VA/DoD Clinical Practice Guideline for the Non-Surgical Management of Hip & Knee Osteoarthritis



July 2014

Osteoarthritis Facts

- Arthritis is the most frequent cause of disability among adults in the United States
- Approximately 27 million U.S. adults have symptomatic osteoarthritis
- The economic burden for the management of osteoarthritis approaches \$60 billion annually
- VA/DoD data

Tailor the treatment of OA according to:

- OA Risk factors
 - Obesity
 - Physical activity
- Systemic risk factors
 - Comorbidities
 - Polypharmacy
- Disability
 - Pain
 - Functional impairment

Knee Assessment

History Taking

- Joint pain worse after activity
- Joint stiffness
- Morning stiffness lasting less than 30min
- Diminished standing or walking tolerance

Physical Exam

- Malalignment
 - Genu valgum
 - Genu varum
- Antalgic gait
- Prior surgical incisions
- Flexion contractures
- Effusion
- Joint Line Tenderness
- Crepitus

Hip Assessment

History Taking

- Joint pain worse after activity
- Joint stiffness
- Morning stiffness lasting less than 30min
- Diminished standing or walking tolerance

Physical Exam

- Coxalgic (antalgic) gait
- Prior surgical incisions
- Flexion contractures
- Loss of hip internal rotation
- Pain on passive log roll
- Groin pain on resisted SLR
- Negative passive SLR

Obesity

- Obesity is a known risk factor for the development of OA.
- Utilizing a shared decision making approach, encourage patients to work on weight reduction
- Recommend weight loss (see VA/DoD CPG on Obesity)



Red Flags

- Erythema or severe local inflammation
- Effusion with signs of inflammation
- Constitutional Symptoms
- Progressive pain unrelated to use
- Inability to bear weight
- Night pain that awakens patients from sleep
- Mechanical symptoms

Radiographic Recommendations

- Do not order MRI's of the hip or knee in patients with radiographic evidence of osteoarthritis.
- Weight bearing radiographs of the knee and a patello-femoral view may aid in the diagnosis of **knee** osteoarthritis.
- Weight bearing radiographs of the hip may assist in the diagnosis of **hip** osteoarthritis

Management of OA

- The optimal management of OA requires a combination of non pharmacologic and pharmacologic treatment modalities
- This guideline is not meant to reflect a stepwise progression of treatment.
- A multimodal approach may be indicated based on a shared decision making and patient preference

Shared Decision Making

- Inform and educate patients on benefit and potential harm of treatment options
- Consider patient preferences and values
- Engage patient in making decision making regarding their therapy

Non Pharmacologic Treatment

- Physical Therapy specifically focused on quadriceps and abductor strengthening has been shown to improve patient function
- Traditional physical therapy, manipulative therapy or aquatic based therapy are all efficacious
- Use of walking aids such as a cane can significantly improve patient function

Pharmacologic Treatment

- First line agents include APAP and NSAIDs
- Limit dose for APAP to < 4 gr/day
- Combination therapy may be considered in select patients
- Reconcile other medication along with patients comorbidities

Pharmacologic Therapy

- In patients with increased GI risk to NSAIDs consider:
 - Adding selective COX-2 inhibitors
 - Adding a PPI
 - Topical agents such as capsaicin and NSAIDs have clinical efficacy and are safe
- Consider Tramadol or Duloxetine as second line agents.
- In patients with refractory pain and loss of function consider the addition of opioids

Injection Therapy

- Consider injection therapy in patient with refractory pain after core treatment
- Knee intra-articular **corticosteroid** injections may be beneficial in management of **knee** OA
- Consider intra-articular **hyaluronic** acid injections as a second line agent in **knee** OA
- Recommend against the use of **hyaluronic** acid injections in the management of **hip** OA

Neutriceutical Treatment

- Discourage usage of Glucosamine and Chondroitin Sulfate - No Efficacy.
- Discourage usage of other nutritional supplements.
- Ask patients about their usage of nutritional supplements specifically looking for drug interactions.

Complimentary & Alternative Medicine (CAM)

- Limited evidence exists regarding the efficacy of acupuncture and chiropractic care in the management of hip and knee OA

Surgical Referral

- Referral for joint replacement should be considered in patients with OA who have
 - Radiographic evidence of OA
 - Refractory pain and disability despite optimized management
 - Desire for surgery



Non-Surgical Management of Hip & Knee Osteoarthritis