VA/DOD Clinical Practice Guidelines

THE NON-SURGICAL MANAGEMENT OF HIP & KNEE OSTEOARTHRITIS

Provider Summary

Version 3.0 | 2026

VA/DOD CLINICAL PRACTICE GUIDELINE FOR THE NON-SURGICAL MANAGEMENT OF HIP & KNEE OSTEOARTHRITIS

Department of Veterans Affairs
Department of Defense

Provider Summary

QUALIFYING STATEMENTS

The Department of Veterans Affairs (VA) and the Department of Defense (DOD) guidelines are based upon the best information available at the time of publication. The guidelines are designed to provide information and assist decision making. They are not intended to define a standard of care and should not be construed as one. Neither should they be interpreted as prescribing an exclusive course of management.

This Clinical Practice Guideline (CPG) is based on a systematic review of both clinical and epidemiological evidence published through July 2025. Developed by a panel of multidisciplinary experts, it provides a clear explanation of the logical relationships between various care options and health outcomes while rating both the quality of the evidence and the strength of the recommendation.

Variations in practice will inevitably and appropriately occur when clinicians consider the needs of individual patients, available resources, and limitations unique to an institution or type of practice. Every healthcare professional making use of these guidelines is responsible for evaluating the appropriateness of applying them in the setting of any clinical situation with a patient-centered approach.

These guidelines are not intended to represent VA or TRICARE policy. Further, inclusion of recommendations for specific testing and/or therapeutic interventions within these guidelines does not guarantee coverage of civilian sector care. Additional information on current TRICARE benefits may be found at www.tricare.mil or by contacting your regional TRICARE Managed Care Support Contractor.

Version 3.0 – 2026

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Introduction

The Department of Veterans Affairs (VA) and Department of Defense (DOD) Evidence-Based Practice Work Group (EBPWG) was established in 2004, with a mission to use clinical and epidemiological evidence to improve population health within the Veterans Health Administration (VHA) and Military Health System (MHS) and develop clinical practice guidelines (CPGs) for the VA and DOD populations.(1) The development and updating of VA/DOD CPGs is funded by VA Evidence Based Practice, Office of Quality and Patient Safety. The system-wide goal of evidence-based guidelines, including this CPG, is to guide providers in non-surgical osteoarthritis management in addition to offering management pathways supported by evidence. This CPG is intended to provide health care providers with a practical framework by which to evaluate, treat, and manage osteoarthritis, address the individual needs and preferences of patients, and improve clinical outcomes.

In 2014, the VA and DOD published a CPG for the Non-Surgical Management of Hip & Knee Osteoarthritis (2014 VA/DOD OA CPG), which was based on evidence reviewed from January 2002 through December 2012. This was updated in 2020 using the same process, based on evidence reviewed through June 3, 2019 (2020 VA/DOD OA CPG). Since then, a growing body of research has expanded the general knowledge and understanding of the impact of non-surgical management interventions on hip and knee osteoarthritis. Consequently, a recommendation to update the 2020 OA CPG was initiated in April 2025 using published data from June 3, 2019, to July 31, 2025. This updated CPG's use of the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) approach reflects a more rigorous application of the methodology than previous iterations.(2) Therefore, the strength of some recommendations might have been modified because of changes in the quality of the supporting evidence (see **Evidence Quality and Recommendation Strength** in the full CPG).

This CPG provides an evidence-based framework for evaluating and managing adults, 18 years or older, with osteoarthritis of the hip or knee who are eligible for care in the VA or DOD systems, including community care. These guidelines were written to emphasize the role of:

- Utilizing patient-centered care;
- Decreasing preventable complications and morbidity;
- Improving health outcomes and quality of life (QoL); and
- Using shared decision-making frameworks in patient collaboration efforts.

Scope of the CPG

This CPG is based on published clinical evidence and related information available between June 3, 2019, to July 31, 2025. It is intended to provide general guidance on best evidence-based practices (see **Appendix A** in the full text of the OA CPG for additional information on the evidence review methodology). Although the CPG is intended to improve the quality of care and clinical outcomes (see Introduction), it is not intended to define a standard of care (i.e., mandated or strictly required care).

This CPG is intended for use by providers who manage, co-manage, or otherwise care for adults with osteoarthritis of the hip or knee.

This CPG is intended for adults (18 years or older) with osteoarthritis of the hip or knee who are eligible for care in the VA or DOD systems, including community care.

Force Readiness

Osteoarthritis is a common cause of disability in military populations and remains an important contributor to duty limitation and medical separation. Active-Duty Service Members face unique OA risks related to repetitive joint loading, occupational demands, traumatic joint injury, and post-traumatic osteoarthritis.(3,4) Consistent with the Defense Health Agency's role as a Combat Support Agency, effective OA management supports warfighter medical readiness by preserving function, reducing duty-limiting pain, and facilitating return to mission-capable status.(5) These guidelines emphasize early identification, structured exercise-based therapy, physical therapy, weight management when appropriate, and shared decision-making to improve function and reduce unnecessary invasive interventions.(6-9) Timely, evidence-based conservative care helps sustain deployability, force generation, and operational readiness across the Joint Force.(5-9)

Recommendations

The following recommendations were made using a systematic approach considering four domains as per the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach, as detailed in the section on **Methods** and **Appendix A** in the full text OA CPG. These domains include: confidence in the quality of the evidence, balance of desirable and undesirable outcomes (i.e., benefits and harms), patient or provider values and preferences, and other implications, as appropriate (e.g., resource use, equity, acceptability).

Table 1. Evidence-based Clinical Practice Recommendations with Strength and Category[a,b]

Topic	Sub-topic	#	Recommendation	Strength[a]	Category[b]
Diagnosis		1.	For the diagnosis of osteoarthritis of the hip and knee, we suggest against magnetic resonance imaging, computed tomography, and ultrasound.	Weak against	Reviewed, New-replaced
Lifestyle-Based Interventions		2.	In individuals with osteoarthritis of the knee and co-occurring obesity/overweight*, we recommend weight loss to improve osteoarthritis symptoms and outcomes. (see VA/DOD Management of Adult Overweight and Obesity CPG)	Strong for	Reviewed, New-added
		3.	In individuals with osteoarthritis of the hip and co-occurring obesity/overweight*, we suggest weight loss to improve osteoarthritis symptoms and outcomes. (see VA/DOD Management of Adult Overweight and Obesity CPG)	Weak for	Reviewed, New-added
		4.	For the self-management of osteoarthritis of the knee, we suggest tailored patient education and physical activity.	Weak for	Reviewed, New-replaced

Topic	Sub-topic	#	Recommendation	Strength[a]	Category[b]
Physical Therapy		5.	For osteoarthritis of the hip and knee, we suggest a structured physical therapy program.	Weak for	Reviewed, Amended
		6.	For osteoarthritis of the hip and knee, there is insufficient evidence to recommend for or against a specific type or mode of delivery of a structured physical therapy program over another.	Neither for nor against	Reviewed, New-added
Devices		7.	In select patients with osteoarthritis of the knee, we suggest bracing.	Weak for	Reviewed, New-replaced
		8.	For osteoarthritis of the knee, there is insufficient evidence to recommend for or against the use of orthopedic insoles.	Neither for nor against	Reviewed, New-added
		9.	For osteoarthritis of the knee, there is insufficient evidence to recommend for or against the use of transcutaneous electrical nerve stimulation.	Neither for nor against	Reviewed, Not changed
Pharmacotherapy	a. Topical Pharmacotherapy	10.	For osteoarthritis of the knee, we suggest topical capsaicin.	Weak for	Reviewed, Amended
		11.	For osteoarthritis of the knee, we suggest topical non-steroidal anti-inflammatory drugs.	Weak for	Reviewed, New-replaced
	b. Oral Pharmacotherapy	12.	For osteoarthritis of the hip and knee, we suggest oral non-steroidal anti-inflammatory drugs or acetaminophen.	Weak for	Reviewed, Amended
		13.	For osteoarthritis of the knee, we suggest duloxetine depending upon patient characteristics and preferences.	Weak for	Reviewed, New-replaced
		14.	For osteoarthritis of the hip and knee, we suggest against initiating opioids (including tramadol). For patients already on long-term opioid therapy, refer to the current VA/DOD CPG for the Use of Opioids in the Management of Chronic Pain.**	Weak against	Reviewed, Not changed
	c. Intra-articular Injections	15.	For patients with persistent pain due to osteoarthritis of the knee inadequately relieved by other interventions, we suggest an intra-articular corticosteroid injection.	Weak for	Reviewed, Amended
		16.	For patients with persistent pain due to osteoarthritis of the hip inadequately relieved by other interventions, we suggest an image-guided intra-articular corticosteroid injection.	Weak for	Reviewed, Amended
		17.	For patients with persistent pain due to osteoarthritis of the knee inadequately relieved by other interventions, there is insufficient evidence to recommend for or against an intra-articular viscosupplementation injection.	Neither for nor against	Reviewed, New-replaced

Topic	Sub-topic	#	Recommendation	Strength[a]	Category[b]
	c. Intra-articular Injections (cont.)	18.	For osteoarthritis of the hip, we suggest against the use of an intra-articular viscosupplementation injection.	Weak against	Reviewed, Amended
		19.	For osteoarthritis of the knee, there is insufficient evidence to recommend the selection of either corticosteroid or viscosupplementation injections over the other.	Neither for nor against	Reviewed, New-added
Orthobiologics		20.	For patients with persistent pain due to knee osteoarthritis, there is insufficient evidence to recommend for or against platelet-rich plasma.	Neither for nor against	Reviewed, Amended
		21.	For osteoarthritis of the hip, there is insufficient evidence to recommend for or against platelet-rich plasma injections.	Neither for nor against	Reviewed, Amended
		22.	For osteoarthritis of the knee, there is insufficient evidence to recommend for or against the following intra-articular injections (listed alphabetically): • Amniotic tissue allograft suspension (e.g. BioDRestore™) • Autologous conditioned serum • Dextrose prolotherapy • Micro fragmented adipose tissue • Plasma rich in growth factor • Polynucleotides • Stem cell injections (e.g., mesenchymal, adipose- derived, and bone marrow-derived)	Neither for nor against	Reviewed, New-replaced
		23.	For osteoarthritis of the knee, we suggest against the following intra-articular injections (listed alphabetically): • Atelocollagen • Autologous Protein Solution (or APS, e.g. nSTRIDE®) • Low molecular weight human serum albumin • Sprifermin	Weak against	Reviewed, New-replaced
Interventional Procedures		24.	For the treatment of osteoarthritis of the knee, we suggest against geniculate artery embolization.	Weak against	Reviewed, New-added
		25.	For the treatment of osteoarthritis of the knee, we suggest against geniculate nerve block.	Weak against	Reviewed, New-added
		26.	For the treatment of osteoarthritis of the knee, there is insufficient evidence to recommend for or against the use of radiofrequency ablation.	Neither for nor against	Reviewed, New-added
		27.	For the treatment of osteoarthritis of the hip and knee, there is insufficient evidence to recommend for or against extracorporeal shockwave therapy.	Neither for nor against	Reviewed, New-added
		28.	For the treatment of osteoarthritis of the hip and knee, there is insufficient evidence to recommend for or against radiation therapy.	Neither for nor against	Reviewed, New-added

Topic	Sub-topic	#	Recommendation	Strength[a]	Category[b]
Dietary Supplements and Nutraceuticals		29.	For the treatment of osteoarthritis of the hip and knee, we suggest against the use of cannabidiol (CBD oil).	Weak against	Reviewed, New-added
		30.	For osteoarthritis of the hip and knee, there is insufficient evidence to recommend for or against the use of the following dietary supplements or nutraceuticals: • Avocado and soybean extract • Boswellia serrata • Chondroitin • Collagen • Curcumin (active component of turmeric) • Ginger • Glucosamine • Glucosamine plus chondroitin • Methylsulfonylmethane (MSM) • Omega-3 fatty acid • Pycnogenol (pine bark) • Rosehip • Specialized pro-resolving lipid mediators (SPMs) • Traditional Chinese medicine • Traditional Korean medicine Gyejigachulbutang (GCB) • Vitamin D • Vitamin E • Willow bark extract	Neither for nor against	Reviewed, New-replaced
Complementary and Integrative Health		31.	For osteoarthritis of the knee, we suggest yoga or tai chi.	Weak for	Reviewed, New-replaced
		32.	For the treatment of osteoarthritis of the hip and knee, there is insufficient evidence to recommend for or against: • Acupressure • Acupuncture • Balneotherapy • Dry needling • Massage • Meditation • Mindfulness • Moxibustion • Mud therapy • Neurofeedback	Neither for nor against	Reviewed, New-replaced

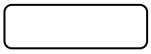
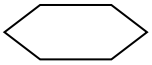
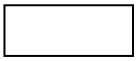
[a] For additional information, please refer to **Determining Recommendation Strength and Direction** in the full CPG.
[b] For additional information, please refer to **Recommendation Categorization** in the full CPG
* See the VA/DOD Clinical Practice Guideline for the Management of Adult Overweight and Obesity. Available at: https://www.healthquality.va.gov/guidelines/CD/obesity/
** See the VA/DOD Clinical Practice Guideline for the Use of Opioids in the Management of Chronic Pain. Available at: https://www.healthquality.va.gov/guidelines/pain/cot/

Algorithm

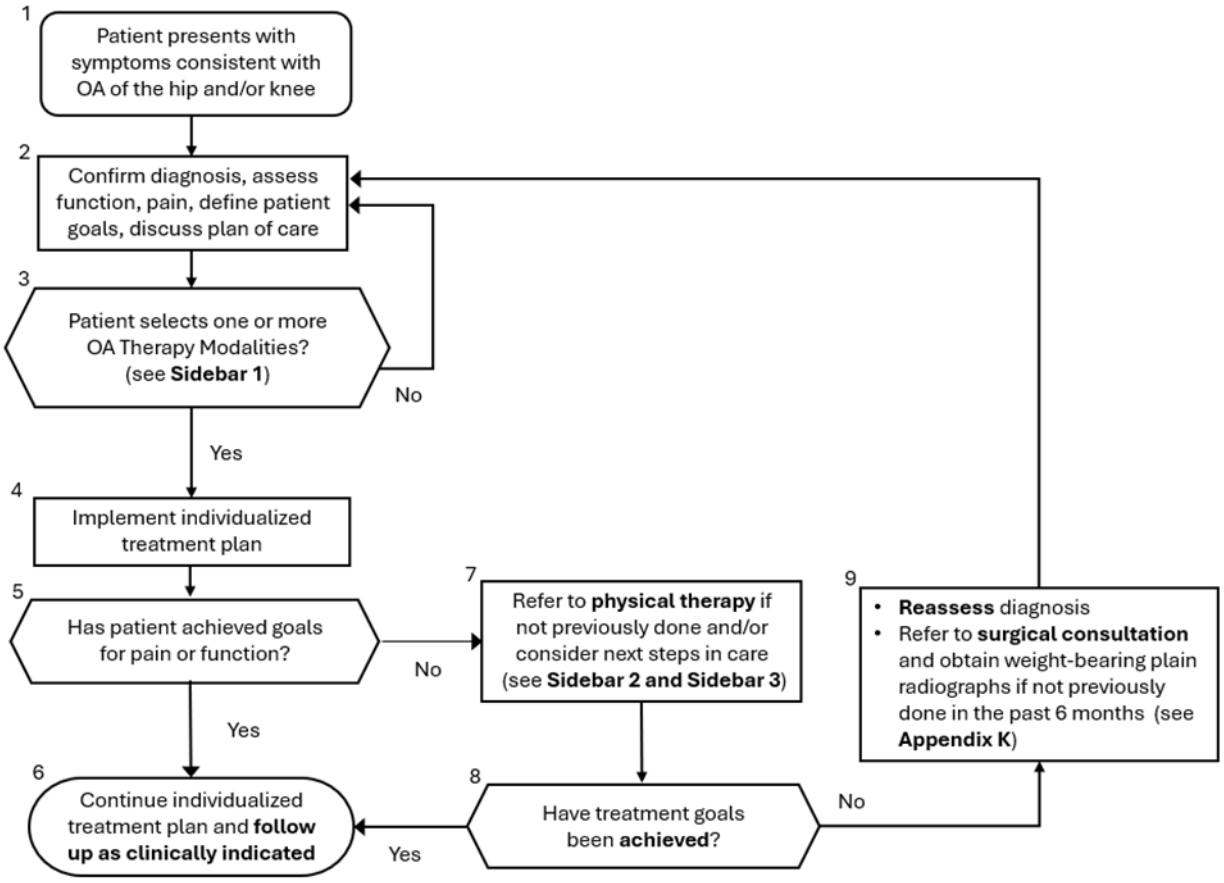
This CPG's algorithm is designed to facilitate understanding of the clinical pathways and decision-making process used in managing OA. This algorithm format represents a simplified flow of the management of patients with OA and helps foster efficient decision making by providers. It includes:

- An ordered sequence of steps of care;
- Recommended observations and examinations;
- Decisions to be considered; and
- Actions to be taken

The algorithm is a step-by-step decision tree. Standardized symbols are used to display each step, and arrows connect the numbered boxes indicating the order in which the steps should be followed.(10) Sidebars provide more detailed information to assist in defining and interpreting elements in the boxes.

Shape	Description
	Rounded rectangles represent a clinical state or condition.
	Hexagons represent a decision point in the guideline, formulated as a question that can be answered "Yes" or "No".
	Rectangles represent an action in the process of care.
	Ovals represent a link to another section within the algorithm

Module: Management and Treatment of Osteoarthritis of the Hip and/or the Knee



Abbreviations: OA: osteoarthritis

Sidebar 1: Initial Individualized Treatment Plan

Discuss an individualized wellness and self-management program, which can include:

- Provide education on self-management of OA and treatment goals (see **Recommendation 4**)
- Increase physical activity (e.g., walking, cycling) (see **Recommendation 4**)
- Engage in regular self-directed exercise if appropriate (e.g., self-strengthening, yoga, tai chi) (see **Recommendation 31**)
- Recommend weight reduction for patients who are overweight or obese: refer to the current VA/DOD CPG for the Management of Adult Overweight and Obesity* (see **Recommendations 2 and 3**)
- Offer referral for physical therapy and bracing if indicated** (See **Recommendations 5-7**)

Pharmacotherapy, which can include one or more of the following:

- Topical agents for OA of the knee (e.g., NSAIDs, capsaicin) (see **Recommendations 10 and 11**)
- Acetaminophen† (see **Recommendation 12**)
- NSAIDs including COX-2 inhibitors‡ (see **Recommendation 12**)

* See the VA/DOD Clinical Practice Guidelines for the Management of Adult Overweight and Obesity. Available at: https://www.healthquality.va.gov/guidelines/CD/obesity

**Consider early referral to physical therapy based on pain severity, functional limitations, and patient preferences

† Because of safety concerns (e.g., hepatotoxicity), the lowest clinically effective dose should be used; in addition, a maximum of 4 g/day should never be exceeded

‡ Consider adding a PPI or misoprostol in patients at risk for UGI events who require treatment with NSAIDs (including COX-2); and should generally be avoided in patients with or at risk for CVD, CKD, and in those patients at risk for serious UGI toxicity

Assessment of renal function should occur and NSAIDs (including COX-2) should be avoided in patients with eGFR <30 ml/min/1.73 m2

Abbreviations: CKD: chronic kidney disease; COX-2: cyclooxygenase-2; CPG: Clinical Practice Guideline; CVD: cardiovascular disease; DOD: Department of Defense; eGFR: estimated glomerular filtration rate; ml/min/1.73 m2: milliliter per minute per 1.73 meters squared (measure of GFR); NSAIDs: non-steroidal anti- inflammatory drugs; OA: osteoarthritis; PPI: proton-pump inhibitor; UGI: upper gastrointestinal; VA: Department of Veterans Affairs

Sidebar 2: Next Steps in Care

- Offer a different combination of initial treatments **(see Sidebar 1)**
- In select patients, consider adding duloxetine as an alternative or adjunct to initial treatments **(see Recommendation 13)**

Sidebar 3: Consider Intra-Articular Injections

- CSI for hip and knee OA* **(see Recommendations 15 and 16)**

*CSI should be avoided for the three months preceding joint replacement surgery; CSI for the hip should be image-guided

Abbreviations: CSI: corticosteroid injection; OA: osteoarthritis

Methods

The 2026 VA/DOD OA CPG is an update to the 2020 VA/DOD OA CPG. The methodology used in developing the 2026 CPG follows the *Guideline for Guidelines,*[a] an internal document of the VA and DOD EBPWG that was updated in January 2019.(11) The guideline development process for the 2026 VA/DOD OA CPG update consisted of the following steps: formulating and prioritizing key questions (KQs); convening a patient focus group; conducting the systematic evidence review; convening a face-to-face meeting with the CPG Champions and Work Group members; and drafting and submitting a final CPG on the management of OA to the VA/DOD EBPWG.

The Champions and Work Group used the Grading of Recommendations Assessment, Development and Evaluation (GRADE) system to assess the quality of the evidence and assign a grade for the strength for each recommendation. The GRADE system uses the following four domains to assess the strength of each recommendation: balance of desirable and undesirable outcomes; confidence in the quality of the evidence; patient or provider values and preferences; other implications, as appropriate (e.g., resource use, equity).(12) Using this system, the Champions and Work Group determined the relative strength of each recommendation ("Strong" or "Weak"). A "Strong" recommendation generally indicates that the Work Group is highly confident that the desirable effects of an intervention outweigh undesirable effects. If the Work Group is less confident that the desirable effects of an intervention outweigh undesirable effects, they give a "Weak" recommendation. It is important to note that the GRADE terminology used to indicate the assessment across the four domains (i.e., "Strong" versus "Weak") should not be confused with the clinical importance of the recommendation. A "Weak" recommendation may be just as important to the clinical care of a patient as a strong recommendation.

Occasionally, instances may occur when the Work Group feels there is insufficient evidence to make a recommendation for or against a particular therapy or preventive measure. This can occur when there is an absence of studies on a particular topic that met evidence review inclusion criteria, studies included in the evidence review report with conflicting results, or studies included in the evidence review report inconclusive results regarding the desirable and undesirable outcomes.

Using these elements, the grade of each recommendation is presented as part of a continuum:

- Strong For (or "We recommend offering this option …")
- Weak For (or "We suggest offering this option …")
- No recommendation for or against (or "There is insufficient evidence …")
- Weak Against (or "We suggest not offering this option …")
- Strong Against (or "We recommend against offering this option …")

The rating of each recommendation made in the 2026 CPG can be found under Recommendations. Additional information regarding the use of the GRADE system can be found in **Appendix A** in the full OA CPG.

[a] See the *Guideline for Guidelines*. Available at: http://www.healthquality.va.gov/policy/index.asp

The Work Group largely focused on developing new and updated recommendations based on the evidence review conducted for the priority areas addressed by the KQs. In addition, the Work Group considered, without complete review of the relevant evidence, the current applicability of other recommendations that were included in the 2020 VA/DOD OA CPG, subject to evolve practice in today's environment. Accordingly, some recommendations found in the 2020 VA/DOD OA CPG do not appear in this updated CPG.

A set of recommendation categories was adapted from those used by England's National Institute for Health and Care Excellence (NICE).(12, 13) These categories, along with their corresponding definitions, were used to account for the various ways in which recommendations could have been updated. In brief, the categories considered whether the evidence that related to a recommendation was systematically reviewed, the degree to which the recommendation was modified, and the degree to which a recommendation is relevant in the current care environment and within the scope of the CPG. Additional information regarding these categories and their definitions can be found in Table 2. The categories for the recommendations carried forward from the 2020 VA/DOD OA CPG are noted in **Appendix C** in the full text OA CPG.

In accordance with VA/DOD CPG methodology, evidence retrieved in prior VA/DOD systematic reviews for this topic (undertaken before the date limits noted in Table A-3 of the full OA CPG) and summarized in earlier evidence reports can be brought forward to support recommendations categorized as "Not Reviewed, Not Changed," "Reviewed, Not Changed," or "Reviewed, Amended." See **Appendix C** for more information on recommendation categorization.

Table 2. Recommendation Categories and Definitions*

Evidence Reviewed	Recommendation Category	Definition
Reviewed	New-added	New recommendation following review of the evidence
	New-replaced	Recommendation from previous CPG that has been carried over to the updated CPG and has been changed following review of the evidence
	Not changed	Recommendation from previous CPG that has been carried forward to the updated CPG where the evidence has been reviewed but the recommendation is not changed
	Amended	Recommendation from the previous CPG that has been carried forward to the updated CPG where the evidence has been reviewed and a minor amendment has been made
	Deleted	Recommendation from the previous CPG that has been removed based on review of the evidence
Not reviewed	Not changed	Recommendation from previous CPG that has been carried forward to the updated CPG, where the evidence has not been reviewed and the recommendation has not changed
	Amended	Recommendation from the previous CPG that has been carried forward to the updated CPG, where the evidence has not been reviewed and a minor amendment has been made
	Deleted	Recommendation from the previous CPG that has been removed because it was deemed out of scope for the updated CPG

* Adapted from the NICE guideline manual (2012)(12) and Garcia et al. (2014)(13)
Abbreviation: CPG: clinical practice guideline

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Patient-Centered Care

VA and DOD encourage providers to be sensitive to demographic, cultural, and other differences that affect patients' values, needs, and preferences, aimed at treating the condition while also optimizing the individual's overall health and well-being. Regardless of the care setting, all patients should have access to individualized evidence-based care. Patient-centered care can decrease patient anxiety, increase trust in providers, and improve treatment adherence.(14,15) A whole health approach (https:/www.va.gov/wholehealth/) empowers and equips individuals to meet their personal health and well-being goals. Clear communication is essential and should be supported by evidence-based information tailored to each patient's needs.

Guideline recommendations should be applied in a holistic approach to care that is patient-centered, culturally appropriate, and available to people with limited literacy skills and physical, sensory, or learning disabilities. The focus is using an individual's risk factors and event history to guide the various treatment and management strategies among patients with OA of the hip and/or knee.

Shared Decision-Making

This CPG encourages providers to practice shared decision-making, a process in which providers, patients, and patient care partners (e.g., family, friends, caregivers) consider clinical evidence of benefits and risks as well as patient values and preferences to make decisions regarding the patient's treatment.(16) Shared decision-making is emphasized in "Crossing the Quality Chasm", an Institute of Medicine, now NAM, report in 2001 (17) and is a core component of a patient-centered, whole health approach. Providers must be adept at presenting information to their patients regarding individual treatments, expected risks, possible outcomes, and levels and/or settings of care, especially where patient heterogeneity in weighing risks and benefits might exist. The VA and DOD have embraced shared decision-making. Providers are encouraged to use shared decision-making to individualize treatment goals and plans based on patient capabilities, needs, values, and preferences.

Pharmacotherapy Considerations

Table I-4: Commonly Used Pharmacologic Agents for the Treatment of OA and their Selected Characteristics[a,b,c]

Generic Name	Common Formulations	Starting Dose	Maximum Dose for OA	Frequency	Comments
Topicals					
Capsaicin	Cream, Gel, Liquid, Lotion Varied concentrations: 0.025 – 0.075%	-	-	TID – QID	Patients may experience burning/tingling sensation in the first few days of use; instruct patients to wash their hands with soap and water after application
Diclofenac	1% gel	2 – 4 g	Daily Dose: 16 g/joint; 32 g total	QID	Gastrointestinal (GI) and Cardiovascular (CV) Risk: Lower than oral NSAIDs
Oral NSAIDs					
Celecoxib	Capsule	100 – 200 mg	200 mg	QD – BID	GI Risk: Relatively Low; CV Risk: Moderate to High
Diclofenac potassium/sodium	Tablet	50 mg	Single Dose: 75 mg Daily Dose: 100 – 150 mg	BID – TID	GI Risk: Moderate; CV Risk: High; Risk of hepatotoxicity
Diclofenac sodium (XR)	Tablet, Extended Release	100 mg	100 mg	QD	
Ibuprofen	Tablet	400 mg	Single Dose: 800 mg Daily Dose: 3,200 mg	TID – QID	GI Risk: Relatively Low; CV Risk: Moderate to High
Meloxicam	Tablet	7.5 mg	15 mg	QD	GI Risk: Relatively Low; CV Risk: Moderate
Naproxen	Tablet Tablet –Enteric Coated (XR)	250 mg 375 – 500 mg (EC)	Single Dose: 500 mg Daily Dose: 1,000 mg	BID	GI Risk: Moderate; CV Risk: Relatively Low to Moderate
Naproxen sodium	Tablet	275 mg	Single Dose: 550 mg Daily Dose: 1,100		
Other Therapies					
Acetaminophen	Capsule, Tablet (Including some Extended Release)	650 mg	Single Dose: 1,300 mg Daily Dose: 4,000 mg (in carefully selected patients)	TID – QID	Consider lower total daily doses (e.g., 2 – 3 g) in elderly patients or those with heavy use of alcohol; Risk of hepatotoxicity
Duloxetine	Capsule, Delayed Release	30 mg	60 mg	QD	Avoid in end-stage renal disease or CrCl <30 ml/min or in patients with substantial alcohol intake; Risk of hepatotoxicity

[a] Refer to VA or DOD formularies for availability of agents or comparable agents. Select oral NSAIDs were chosen based on their relative utilization within the VA and DOD systems. The list of available formulations is not all-inclusive, and combination products are not included in Table F-1.

[b] For additional details on warnings and precautions, drug-drug interactions, adverse events, dosing considerations and use in special populations, etc., refer to the prescribing information for the individual agents of interest.

[c] All NSAIDs have the potential to increase the risk for cardiovascular events and therefore should be used at the lowest effective dose for the shortest possible duration. Use with caution or avoid use of NSAIDs in patients with renal impairment, history of gastrointestinal bleeding, uncontrolled hypertension, congestive heart failure, advanced liver diseases, at high risk for or with known CVD, patients receiving anticoagulants or systemic corticosteroids, etc.

Abbreviations: BID: twice a day; CrCl: creatinine clearance; CV: cardiovascular; CVD: cardiovascular disease; DOD: Department of Defense; EC: enteric-coated; g: gram(s); GI: gastrointestinal; mg: milligram(s); ml: milliliters: min: minute; NSAIDs: non-steroidal anti-inflammatory drugs; OA: osteoarthritis; QD: once a day; QID: four times a day; TID: three times a day; VA: Department of Veterans Affairs; XR: extended release

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