Thank you for creating your osteoarthritis landscape!

We hope you found it informative and engaging. Explore this document to discover the data that maps your personalized landscape.

Multimodal approaches

combining pharmacologic methods with lifestyle changes can effectively manage OA symptoms[1,2]

Home-use studies analysis

30–48% reductions

in OA hip and knee pain with acetaminophen, plus improved physical function and stiffness[4†]

Real-world patient survey

Rapid pain relief #1 priority

Rapid pain relief is patients' top priority in OA pain medication choice[3*]

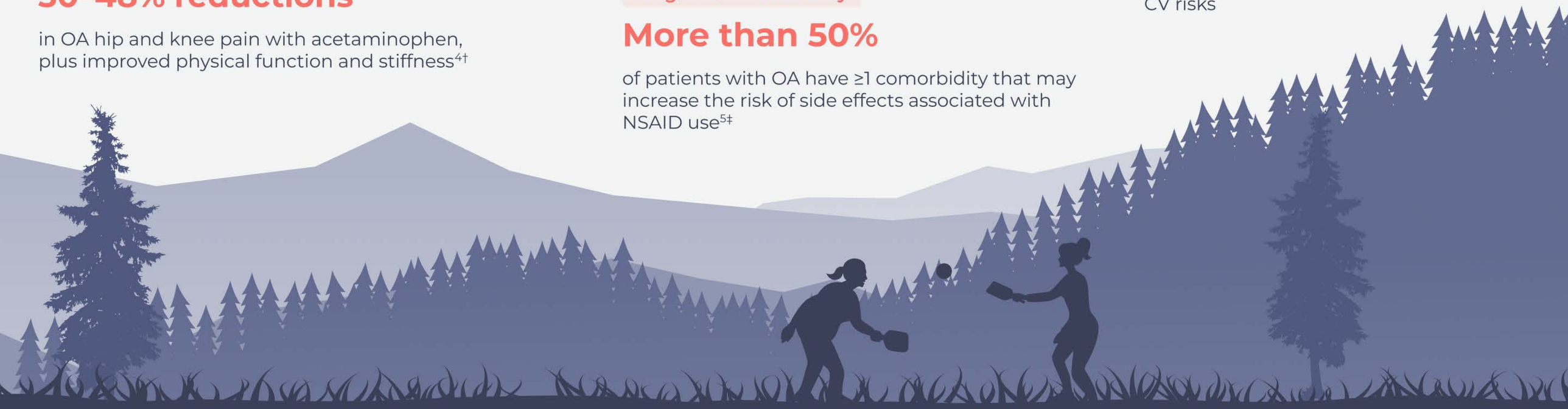
Large real-world study

More than 50%

of patients with OA have ≥1 comorbidity that may increase the risk of side effects associated with NSAID use[5‡]

Suitable to consider for certain common comorbidities

TYLENOL® is an appropriate analgesic choice for patients with GI, renal, and CV risks



*Data from a discrete-choice experiment of 1005 US adults (mean age: 59 years) with mild to moderate OA who regularly used OTC pain or anti-inflammatory medications over the past 6 months. The follow-up survey included 628 of the original participants (response rate >60% over 4 months). †Analysis of five randomized, double-blind, active-controlled, multiple-dose, parallel, multicenter, home-use studies of acetaminophen in individuals with radiographically confirmed hip or knee OA, with dosing ≥4 weeks, conducted between 1993 and 2004. ‡A retrospective cohort of 17,842,628 OA patients, constructed from three large US administrative claims databases (mean age: 61.4 years).

CV, cardiovascular; GI, gastrointestinal; NSAID, non-steroidal anti-inflammatory drug; OA, osteoarthritis; OTC, over-the-counter.

Real-world patient survey

Multimodal approaches combining pharmacologic methods with lifestyle changes can effectively manage OA symptoms[1,2]

A **multimodal approach** to pain management that addresses several aspects of chronic pain conditions, such as **biopsychosocial effects** of the condition, has been documented to:[2]

- ↓ Reduce pain severity
- ↑ Improve mood and overall QoL
- ↑ **Increase physical functioning**

Improving physical function can help patients integrate exercise into their OA management, potentially reducing pain and further enhancing physical function[6,7]

Losing 1 pound of body weight = Losing 4 pounds of pressure on the knees[7]

In a study of older persons with knee OA, moderate exercise **3 times per week** reduced the risk of developing ADL disability by **43%**[6]

Studies show that combining lifestyle changes, such as exercise, with pharmacologic approaches, as well as considering the biopsychosocial effects of a condition can reduce pain and improve outcomes for patients with OA.

ADL, activities of daily living; OA, osteoarthritis; QoL, quality of life.

Real-world patient survey

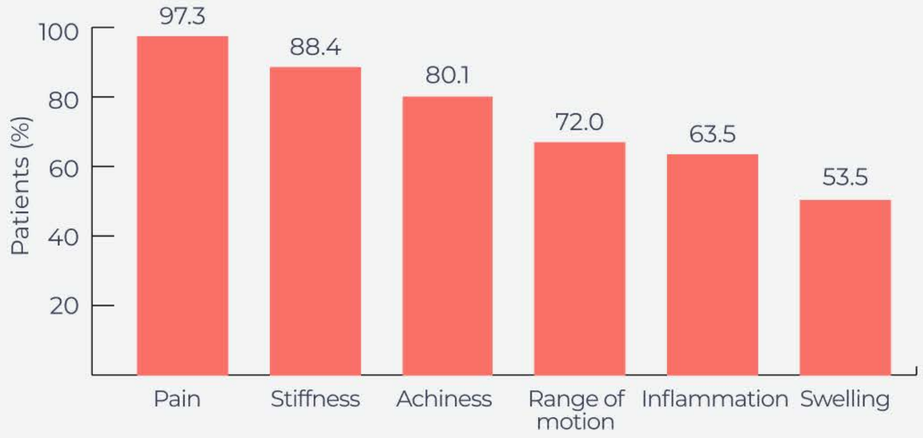
Rapid pain relief is patients' top priority in OA medication choice[3]

This study aimed to describe **patients' preferences for OA pain medications** and assess the effect of clinical, symptomatic, functional, personal, and environmental factors in their medication-use patterns.

The quantitative phase of this study entailed a discrete-choice experiment (DCE) survey at baseline and 4 months. **1005 US adults** (mean age: 59 years) with mild to moderate OA **who regularly used OTC pain or anti-inflammatory medications over the past 6 months** were included. **The follow-up survey** had >60% response rate, with **628 participants** completing it over 4 months.

of patients used multiple medications including both oral and topical, reflecting the need to address the spectrum of OA symptoms

Among those using multiple medications, the highest-reported symptoms were:



This study highlighted medication-use patterns among patients with OA, emphasizing a strong preference for medications that offer rapid relief and tackle multiple symptoms.

Medication preferences

Based on the DCE analyses, the following list shows the attributes in order of relative importance (all p-values <0.001)

1. **Quick-relief medications, reducing symptoms in under 15 minutes**
2. Medications addressing multiple symptoms (e.g. ache/pain stiffness, range of motion in joints and inflammation/ swelling) over medications addressing ache/pain only
3. Medications that reduce symptoms to a barely noticeable level
4. Economically priced medications (under $10)
5. Ingestible medications (over topicals)
6. Medications that are taken less frequently (once or twice a day)

DCE, discrete-choice experiment; OA, osteoarthritis; OTC, over the counter.

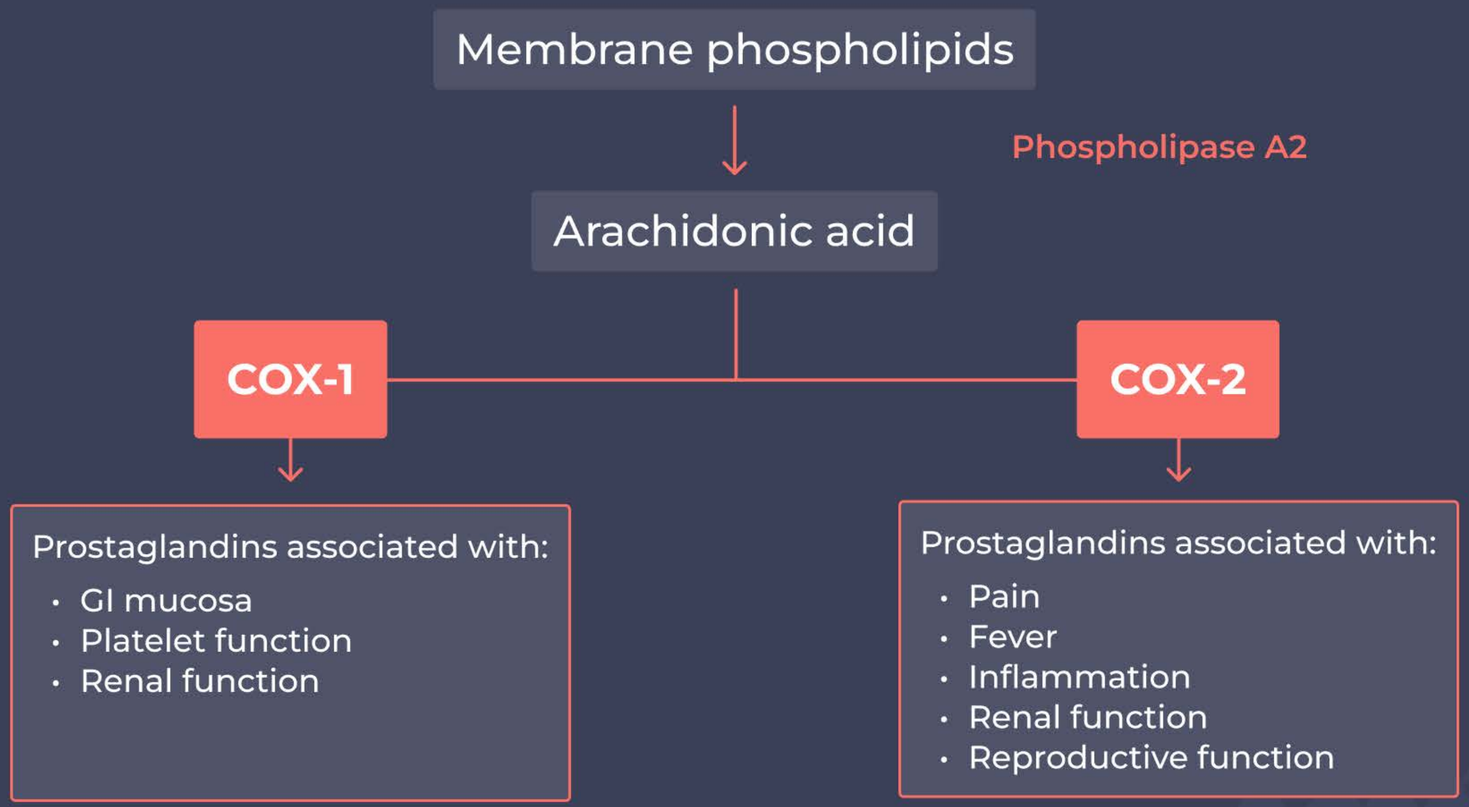
Suitable to consider for certain common comorbidities

Acetaminophen won't increase the risk of heart attack, heart failure, and stroke the way ibuprofen or naproxen sodium can[8]

Acetaminophen does not inhibit COX-1, an important enzyme in GI mucosal protection, the way NSAIDs can[9–12]

Acetaminophen does not compromise renal function in patients with existing kidney dysfunction when taken at recommended doses[13–15]

Cyclooxygenase pathways are inhibited by NSAIDs[16]



TYLENOL® is an appropriate analgesic choice for people with certain comorbid conditions, such as GI bleeding, renal impairment and CV risk.

COX, cyclooxygenase; CV, cardiovascular; GI, gastrointestinal.

Home-use studies analysis

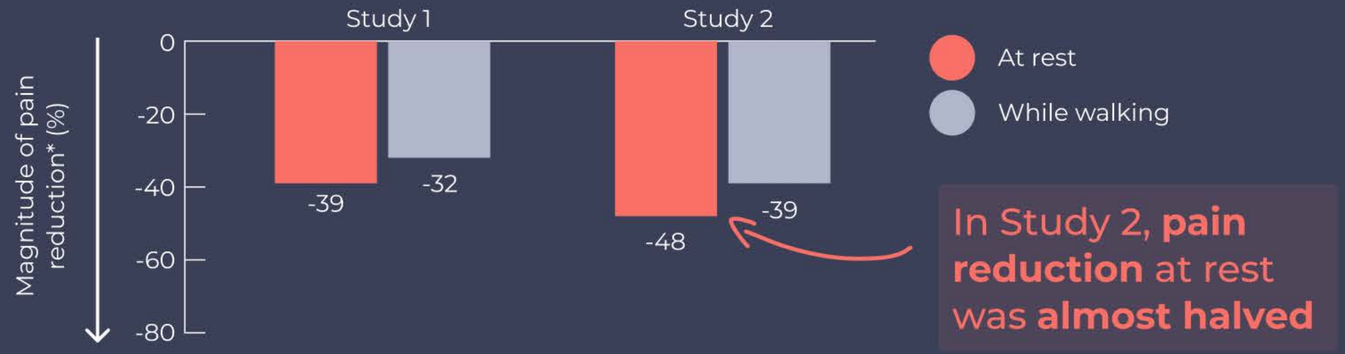
30–48% reductions in OA hip and knee pain with acetaminophen, plus improved physical function and stiffness[4]

This study aimed to examine the efficacy and safety of acetaminophen using patient-reported outcomes from 5 home-use studies.

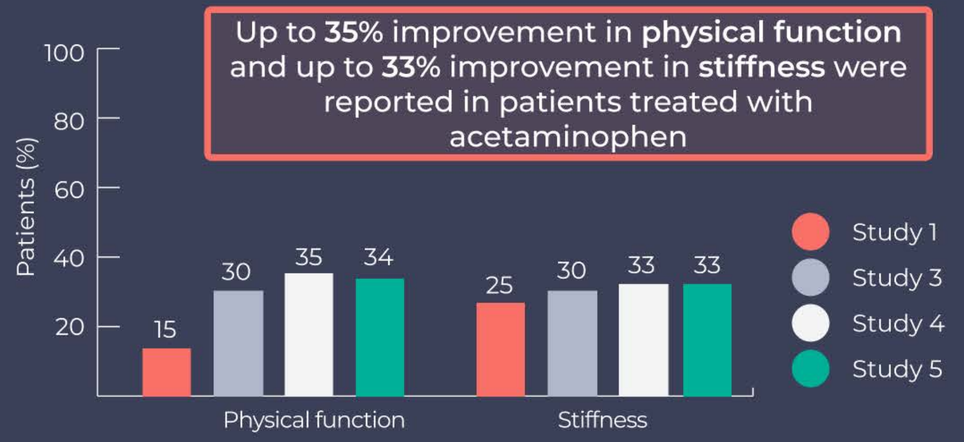
Analysis of 5 randomized, double-blind, active-controlled, multiple-dose, parallel, multicenter, home-use studies of acetaminophen in **856 individuals** with radiographically confirmed hip or knee OA, with dosing ≥4 weeks, conducted between 1993 and 2004. This study analyzed **5 studies** (2 unpublished, 3 published) **following 1, 2, and 4 weeks of treatment** with acetaminophen-IR 4000 mg or acetaminophen-ER 3900 mg. Study populations were similar across the 5 studies.

- In Study 1, 46 participants, in Study 2, 96, and in Study 3, 287 used acetaminophen-IR 4000 mg/day
- In Study 4, 160 participants and in Study 5, 267 used acetaminophen-ER 3900 mg/day

Pain reduction at Weeks 1, 2, and 4 in Studies 1 and 2*



Improvements in physical function and stiffness on the WOMAC scale



This analysis confirms the analgesic effectiveness and safety of acetaminophen in the management of "moderate to moderately severe pain related to hip and knee OA" while also improving physical function and reducing stiffness.

*Presented is the highest recorded pain reduction at rest and on walking in each study, reported via a 5-point scale. Ranges are as follows: in Study 1, participants reported 36–39% reduction in pain at rest and 30–32% reduction in pain on walking; in Study 2, participants reported 38–48% reductions in pain at rest and 30–39% reduction in pain on walking.

ER, extended release; IR, immediate release; OA, osteoarthritis; WOMAC, Western Ontario and McMaster Universities Osteoarthritis Index.

Large real-world study

More than 50% of patients with OA have ≥1 comorbidity that may increase the risk of side effects associated with NSAID use[5]

The aim of this study was to estimate the **prevalence of prescribing and dispensing of NSAIDs** pre- and post-OA diagnosis in patients with and without a **coexisting medical condition of interest (CMCOI).**

A retrospective cohort of **17,842,628 OA patients** was constructed from three large US administrative claims databases (mean age: 61.4 years).

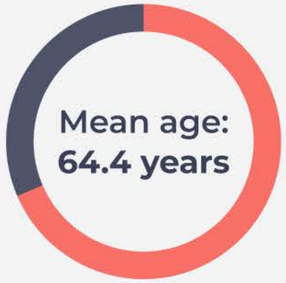
The selected CMCOIs were **CV risk,* GI bleeding risk, asthma, and renal impairment.**

Databases leveraged were IBM MarketScan Medicare Supplemental Database (MDCR), IBM MarketScan Commercial Database (CCAE), and Optum's de-identified Clinformatics Data Mart Database (Optum CDM).

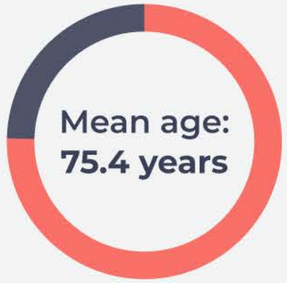
The proportion of patients in each database with at least one CMCOI increases with age

CCAE 48.0%

Optum CDM: 68.6%



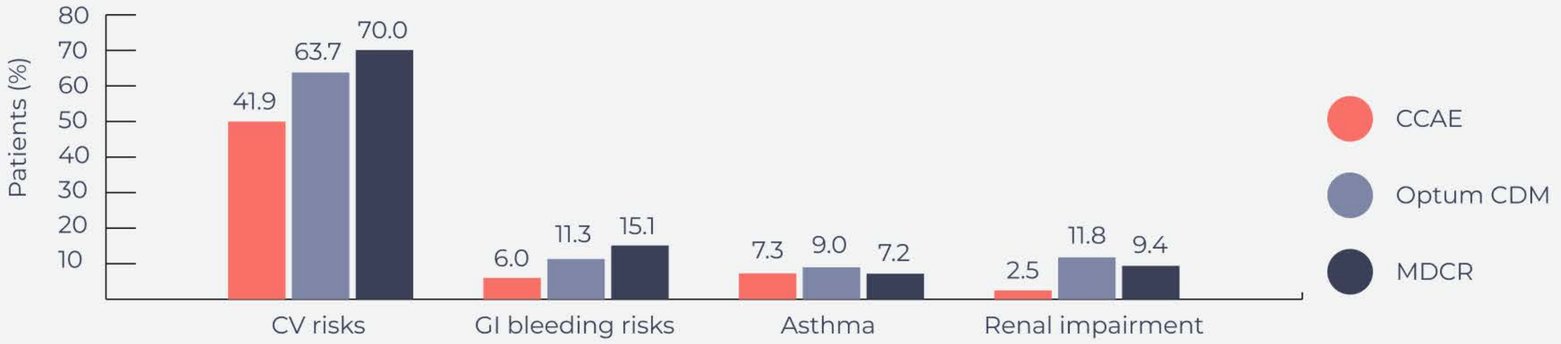
MDCR: 74.4%



The databases used are representative of the US population in primary care

Up to **46%** of these patients were **prescribed and dispensed NSAIDs†**

CV risks* were the most common CMCOI among patients diagnosed with OA



Patients with CMCOIs "may benefit from alternative analgesic options."

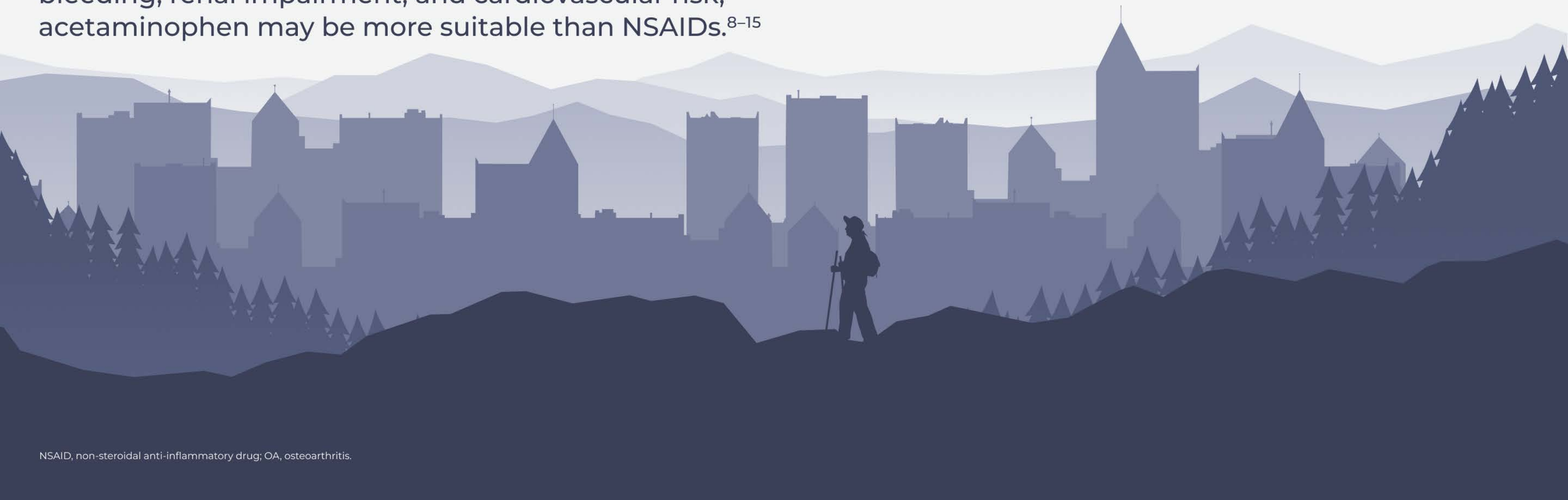
*To include diseases such as hypertension, cerebrovascular disorders, and heart failure. †Among patients with OA with CMCOI, NSAID dispensing increased post-index across all three databases, with a range from 30.8% (MDCR) to 42.7% (CCAE) at baseline and 33.0% (MDCR) to 46.2% (CCAE) during the follow-up.

CCAE, Commercial Claims and Encounters; CDM, Clinformatics Data Mart Database; CMCOI, coexisting medical condition of interest; CV, cardiovascular; GI, gastrointestinal; MDCR, MarketScan Medicare Supplemental Database; NSAID, non-steroidal anti-inflammatory drug; OA, osteoarthritis.

Studies indicate that combining lifestyle changes, such as exercise, with pharmacologic approaches, while considering the biopsychosocial effects of OA, can reduce pain and improve patient outcomes.[1,2,6,7] Medication-use patterns among OA patients reveal a strong preference for treatments that provide rapid relief and address multiple symptoms.[3]

Studies show that acetaminophen is an effective option for managing minor OA pain, also improving physical function and reducing stiffness.[4] For patients with with gastrointestinal bleeding, renal impairment, and cardiovascular risk, acetaminophen may be more suitable than NSAIDs.[8–15]

Acetaminophen can supplement non-pharmacological treatments, offering pain relief without exacerbating certain comorbid conditions, making it an appropriate choice for many OA patients



NSAID, non-steroidal anti-inflammatory drug; OA, osteoarthritis.

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