

# Nonprescription drugs recommended in guidelines for common pain conditions

Hagen M, Alchin J. Nonprescription drugs recommended in guidelines for common pain conditions. *Pain Manag*. 2019 Dec 20.

## Background

The increased availability of analgesics as nonprescription makes it easier for patients to take control of their own pain.

 Nevertheless, patients still seek advice from their doctor or pharmacist regarding the best therapy to use.

The sheer number of guidelines available for each pain condition, exacerbated by the wide range of prescription and nonprescription options may make it difficult for time-constrained healthcare professionals to suggest the most appropriate analgesic for the individual patient, considering their age, gender, comorbidities and concomitant medications.

- Currently, the most widely available over-the-counter medications are paracetamol, acetylsalicylic acid and nonsteroidal anti-inflammatory drugs (NSAIDs).
- All of which have the major advantage of not causing unwanted sedative, cognitive, addictive or other central effects.
- However, acetaminophen should be avoided in patients with liver disease, while oral NSAIDs may be risky in those with renal, cardiovascular or peptic ulcer disease.

### Objective



Non-systematic review of accessible clinical guidelines (English only) of the most common pain conditions. To look at all drugs recommended within the guidelines

- Descriptively summarize the nonprescription analgesics as to which nonprescription analgesics are mostly recommended including the vulnerable groups such as pregnant women, older people and children.
- Provide a concise summary to aid decision-making for healthcare providers to determine the first, most effective and evidence-based step to take in the management of pain.

#### Method

- The search was conducted on websites of pain societies, organizations, databases like PubMed, ProQuest, Embase, and open searches on Google Scholar identifying accessible (English) guidelines available for common pain conditions: General pain, Acute back pain, Osteoarthritis, Dysmenorrhea, Dental pain, Tension-type headache, Migraine, Postoperative pain until April 2019.
- Exclusion criteria: Hospital specific guidelines, withdrawn or archived guidelines, language barrier (non-English), guidelines only on diagnostics, surgical procedures and not talking about nonprescription drugs were.
- **o** The quality of the guidelines was not assessed for this study.

## Results

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- 114 relevant guidelines identified, most were in acute pain conditions. Migraine (27) and osteoarthritis (26) had most published evidence around the world.
- Few pain guidelines included special populations like pain in pregnancy, childhood & elderly
- As per the overall analysis, guidelines recommends:
  - Acetaminophen (Paracetamol) and oral NSAIDs as first-line treatment particularly for mild-to-moderate pain in adults & children. Non-prescription treatment recommendations are summarized in Figure 1.
  - Non-pharmacological treatment options like physical therapy or lifestyle changes alongside pharmacological treatment for optimal pain relief.

Acetaminophen is the first-line of treatment recommended by the guidelines in the older population. It is also generally considered safe in pregnancy and is recommended by the pain guidelines for pregnancy.



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Oral NSAIDs should be used cautiously in the older population. It should also be avoided during pregnancy but can be used if there is a need for greater analgesia. However, it should be used cautiously during the first trimester and must be discontinued by week 32.



In osteoarthritis, **topical NSAIDs** are recommended over the oral NSAIDs due to their comparable efficacy and lower systemic side effects.



In headache, acetaminophen and/or NSAIDs are commonly recommended with adjunct analgesic caffeine.





Figure 1. Nonprescription acetaminophen and oral nonsteroidal anti-inflammatory drugs can be used initially in all types of acute pain and in vulnerable groups such as children, pregnant women and older people. Where oral NSAIDs are contraindicated or not tolerated, acetaminophen is the treatment of choice, or topical NSAIDs in osteoarthritis. It should be noted that nonpharmacological options (which vary according to the pain indication, but include measures such as physical therapy, lifestyle changes, etc.) are usually recommended alongside pharmacological therapy, for optimal pain relief. NSAID: Nonsteroidal anti-inflammatory drug; TTH: Tension-type headache.

#### Conclusion

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- Overwhelmingly, acetaminophen and oral NSAIDs represent the first line of management across all pain conditions in adults, particularly for mild-to-moderate pain & for some sever pain cases, such as osteoarthritis & postoperative pain.
- Oral NSAIDs should be used cautiously in pregnant and older population.
- Acetaminophen (Paracetamol) is recommended as the treatment of choice where oral NSAIDs are contraindicated or not tolerated.
- Topical NSAIDs are preferred over oral NSAIDs for indications like osteoarthritis. Though this summary can be a useful tool, specific guidelines must also be referred.

Panadol is approved for a range of pain types\*



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Headache  $\overline{\mathbf{v}}$ **Muscle ache** Period pain

Musculoskeletal pain **V** Toothache

- **Joint** pain

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Mid-to-moderate

pain associated

with cold and flu