What Your Patients Need to Know About NSAIDs—A Case Study


Not an actual patient

When Prescribing **NSAIDs…**

USE THE **LOWEST EFFECTIVE DOSE**

FOR THE **SHORTEST PERIOD OF TIME**

Joan M.

Joan M. is a 62-year-old woman with plantar fasciitis who was prescribed a nonsteroidal anti-inflammatory drug (NSAID) and advised to use orthotic shoe inserts. At a follow-up visit, the patient reports that she has been experiencing fairly regular headaches, most likely associated with seasonal allergies, and is taking an over-the-counter (OTC) NSAID almost daily concurrent with her prescription NSAID.

Clinical Issues

- Concurrent use of >1 NSAID
- Inadvertent polypharmacy
- Use of higher dose of NSAID than prescribed

Case Commentary

Concomitant and typically inadvertent use of more than 1 NSAID at a time is a common practice among patients in the United States. In a survey of a random sample of the US public, 38% of respondents admitted to concurrent use of OTC and prescription NSAIDs.[1] This polypharmacy may occur because patients do not know what the term NSAID means or which products contain NSAIDs. They are also often unaware of the potential adverse events (AEs) associated with these agents, which include potentially severe gastrointestinal (GI), cardiovascular (CV), and renal toxicity.[1,2]

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What Joan M. Should Know

Use of more than 1 NSAID concurrently is concerning because it increases the risk for NSAID-associated toxicities and may result in a preventable medication overdose. Additionally, the concomitant use of multiple NSAID products is outside of accepted standard of care, which explicitly directs NSAID use at the lowest effective dose for the shortest time required to achieve the desired therapeutic effect.[3-7]

- Compared with use of 1 NSAID, concurrent use of:
  - **>1 NSAID** approximately doubled the risk for acute renal failure (ARF)[8]
  - **2 NSAIDs** doubled odds of a GI bleed, and ≥3 NSAIDs increased odds 12-fold[9]

In addition, taking more than 1 NSAID at a time increases the NSAID dose, which increases the risk for NSAID-associated GI, CV, and renal toxicity.

- Compared with low-dose NSAID use, high-dose NSAID use:
  - Increased the risk of upper GI complications by **70% to 230%,**[10*†] and the risk of upper GI bleeding by approximately **3- to 6-fold**[9*†]
  - Increased the risk of ARF by **50% to 240%**[8,11*]
  - Increased the risk of myocardial infarction (MI) by **28%**[12]
- Risk of MI was increased 20% with NSAID use longer than 1 month, and 35% with use longer than 3 years[12]

Practical Considerations

The risks of NSAID use can be minimized if they are taken according to evidence-based guidelines—1 NSAID at a time at the lowest effective dose for the shortest period of time medically required to achieve the desired therapeutic effect.[3-7]

However, the availability and use of OTC NSAID products complicates patient compliance with recommendations and impacts their appropriate use. Therefore, patient education is critical when prescribing NSAIDs—patients should be counseled to use only 1 type of NSAID at a time and to take NSAIDs exactly as indicated or prescribed to help to avoid NSAID-associated AEs. It is also important to educate patients about which medications, both prescription and OTC, are in the NSAID class, and for health care providers to ask about OTC NSAID use as a standard part of every medication review to minimize risk and maximize therapeutic benefit.

The Alliance for Rational Use of NSAIDs—a public health coalition—aims to bridge the gap between guidance and clinical practice, educating health care professionals and the public at-large to ensure safe and appropriate use of NSAIDs.

Visit www.NSAIDAlliance.com to take an interactive survey about NSAID risks and learn more about the Alliance for Rational Use of NSAIDs.

*Relative risk or odds ratio varied depending on the NSAID used.
†NSAIDs used in these studies were not accompanied by gastroprotection.

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