

## **NSAIDs: What nurses need to know**

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Recently, I overheard two RNs talking about patients they were treating for pain. One nurse said she thought her patient, who was taking an opioid for mild lower back pain, might be able to achieve the same relief with acetaminophen or a nonsteroidal anti-inflammatory drug (NSAID). The other nurse's patient was achieving her treatment goals for her moderate neck pain with ibuprofen, but the RN was concerned about her CVD risks. Both nurses wondered about the best way to help treat their patients' pain safely.

Nurses are part of the front lines in managing patients with mild-to-moderate pain. As such, we realize recommending an OTC analgesic to treat pain is not that simple. We have become intimately aware of the gastrointestinal and renal risks that NSAIDs pose, especially in patients who are predisposed to these risks (US FDA 2009). However, coming to the forefront more recently are the risks associated with NSAIDs and CVD.

CVD affects approximately 85.6 million Americans, more than 1 in 3 (Mozaffarian 2015). When the commonality of these conditions overlap with the widespread use of nonprescription NSAIDs, there becomes a serious need for healthcare professionals to educate patients about the safe use of NSAIDs. After all, millions of Americans use nonprescription NSAIDs each day, and there is potential for this number to grow as the US population ages.

Patients taking NSAIDs may be at risk of exacerbating existing CVD. NSAIDs have been linked to increased risk of cardiovascular complications, such as hypertension, myocardial infarction, and stroke (Bavry 2011; Antman 2007). NSAID use has also been linked to an increase in systolic blood pressure (Aljadhey 2012).

The concern about these effects was enough to draw the attention of the U.S. Food and Drug Administration. In July 2015 the FDA strengthened the existing label warning on non-aspirin prescription NSAIDs regarding cardiovascular risks and will be requesting similar updates to the label warning of OTC non-aspirin NSAIDs (US FDA 2015).

The FDA has warned that all prescription non-aspirin NSAIDs, except aspirin, put patients at increased risk for heart attack, stroke, and heart failure, any of which can lead to death. The risk of heart attack or stroke can occur as early as the first weeks of using a prescription NSAID and may increase with longer use. The risk is also greater at higher doses. While prescription NSAIDs can increase the risk of heart attack or stroke in patients with or without heart disease or risk factors for heart disease, patients treated with prescription NSAIDs after a first heart attack were more likely to die in the first year after the heart attack compared to patients who were not treated with prescription NSAIDs after their first heart attack. Even though it is an NSAID, aspirin is an exception

to this warning and is still proven to reduce the risk of heart attack and stroke (US FDA 2015).

Current FDA recommendations indicate that prescription NSAIDs should be used for the shortest period of time and at the lowest effective dose (US FDA 2015).

We as healthcare professionals should help our patients understand their risk of heart attack or stroke when using NSAIDs. We should also understand that NSAIDs may interact with medications commonly used in patients with CVD risks. Drug label warnings for ibuprofen highlight the fact that the drug may decrease the benefit of aspirin heart therapy when taken together. Physiologically, ibuprofen takes the place of aspirin at the COX-1 binding site on the platelet, making it impossible for the aspirin to bind and exert its action. This represents a limitation for cardiac patients and an important consideration for their healthcare professionals.

So what now? We recognize the prevalence of coexisting conditions which need to be taken into consideration when recommending (OTC) NSAIDs—with specific emphasis in this blog post around CVD. We also recognize the prevalence of use for nonprescription NSAIDs. These and other considerations form the basis for pain treatment individualization.

Pain management can be thought of as a mosaic — a grand visual composed of smaller pieces. Not only are nurses tasked with evaluating what they see and determining the best fit for treatment for their patients, but they also frequently need to confirm they have all of the right pieces! We accomplish this by spending quality time with the patients and acquiring a full medical history. Pain is just a piece of the mosaic — a big piece, surely — but one that cannot complete the image on its own. The full pain management picture includes age, pre-existing conditions, concomitant medications, adherence, lifestyle, etc. Depending on a patient's cardiovascular, renal, or gastrointestinal condition, an alternative pain relief option might be more appropriate.

One treatment does not fit all, and individualizing our considerations for the management of pain is paramount to patient safety.

We nurses are in an ideal position to help patients understand the big picture in pain management, including the risks and benefits of their medications. It is critical that patients are aware of medication risks before taking NSAIDs.

It is also important to educate patients about the importance of telling us about coexisting medical conditions and other medications that they may be taking so that we can make informed decisions on their behalf. We should use every opportunity to explain to our patients why we recommend a certain OTC analgesic. The more our patients understand why we make certain recommendations, the more likely they are to remember those recommendations and follow the directions we provide.

No matter where you practice, you have opportunities to help ensure your patients fully understand the risks of NSAID use. Talk to your patients about NSAIDs. Also, get the conversation going with your colleagues by sharing the helpful infographic above. •

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