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# The Use of Non-opioid Pain Medications to Prevent Opioid Dependence in Patients

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## Abstract

- In the modern practice of western medicine, the use of opiates has reached an epidemic level within the United States and throughout the world. The implementation of the “pain as the fifth vital sign” movement led to a dramatic increase in the prescription of opiates for pain management. As a result, millions of people worldwide suffer from opioid addiction. However, as an alternative to opioid pain management, non-opioid medications like NSAID’s and antidepressants can be used as an effective means of treating acute and chronic pain in patients. Research has proven their effectiveness in clinical trials, but there has been a lag in their implementation throughout the healthcare system. Opiates continue to be prescribed in large amounts annually and opioid dependence continues to be a major issue. As well, although there is dependable research into their effectiveness, there is a surprisingly small number of studies being conducted into the use of non-opioid medications. Without proper evidence-based practice into the issue, it is likely that there will continue to be an opioid epidemic worldwide.

## Research Question

- For patients receiving pain management, can non-opioid pain medications be used in place of opioid pain medications to treat pain effectively and prevent the development of addiction to opiates?

## PICOT

- Population – Patients receiving pain medications for acute or chronic pain management
- Intervention – Using non-opioid pain medications in the place of more addictive opiates to help reduce the level of opioid dependence in the population
- Comparison – The effectiveness of non-opioid pain medications to treat pain and reduce dependence compared to opioid pain medications.
- Outcome – The expected outcome of this intervention is that patient's pain is effectively treated without causing addiction to opioid pain medications
- Time – Duration of time that pain management is required for a patient

## Background

- In the 1990’s the “pain as the fifth vital sign” movement led to the start of opioids becoming over prescribed for pain management
- Opioid addiction disorder remains at epidemic levels in the U.S. and worldwide
- 3 million U.S. citizens and 16 million people worldwide suffer from opioid addiction
- Studies indicate that nearly 90 people in the U.S. die each day from opiate overdose

## Standard Practice

- Opioid medications act on the delta, kappa, and mu receptors in the brain which treats the effects of pain effectively but also create a euphoric effect with their stimulation.
- Opiates are used in the treatment of a multitude of conditions as solo pain management or in combination with other medications
- Medications like oxycodone, morphine, and hydrocodone are commonly prescribed for pain management
- In 2015, 91.8 million people used prescription opioids for pain management and the numbers continue to rise each year

## Intervention – NSAID’s

- Using NSAID pain medications in place of opiates
- NSAID’s are an affordable over-the-counter medication
- They reduce pain by limiting the inflammatory response within the body
- A 2007 study indicated that NSAID’s dosed correctly were effective in treating the pain of post-operative patients

## Intervention - Antidepressants

- Using antidepressants in the place of opiates to treat chronic pain
- Opiates are often prescribed for the treatment of chronic pain
- Antidepressants act on the nervous system and hormone levels in the body to block pain signals
- Antidepressants are used in treating chronic pain in conditions like arthritis, back pain, neuropathy, and multiple sclerosis

## Outcome

- Antidepressants like amitriptyline and doxepin are non-addictive and have been proven by research studies to successfully treat chronic pain
- NSAID’s have no addictive effect within the body and have been proven by research studies to treat pain effectively
- With the use of effective non-opioid pain medications, the number of prescribed opiates can be reduced
- Reduced opioid prescription will help to lower the nearly 42,000 people who die from opiate overdoses each year

## Summary

- The opioid epidemic is a continuing problem within the U.S. Three million people nationwide suffer with addiction that could have been prevented. The use of non-opioid pain medication to treat pain in patients has been proven to be effective through research studies. Medications like NSAID’s and antidepressants are safe and non-addictive medications that can be used to help manage pain for patients without causing addiction. Promoting the health of our patients and community is an important part of healthcare, especially concerning something that can be prevented with the further use of non-opioid medications to treat pain. Although there is little research in this area, with further studies into this field opiate consumption in the U.S. can be reduced effectively.

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