

# Mobile Application to Reduce the Risk of Narcotics Abuse Through Patient and Provider Empowerment

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#### Technology description

#### The Need

The recent opioid epidemic has devastated American cities and kills 91 Americans per day. 80% of these addicts start with prescription pain killers. Preventative strategies to lower opioid use must be developed as most state adopted regulatory measures have failed. The development of such preventative strategies requires clinical trials studying the effects of alternate pain management techniques. In the current standard of care for managing acute pain after surgery, prescription pain killers are routinely prescribed and an inappropriate use of prescription pain killers may lead to many patients unwillingly becoming addicted to narcotics and dying from overdose. The use of a non-narcotic regimen paired with an app to establish a method for providers to track patient pain, along with post-operative pain medications, may indicate that non-narcotic regimens provide comparable pain control as narcotics, without the risk of addiction. Thus, clinical trials such as this provide researchers and medical providers a way to track and analyze patients as they progress through the course of their entire treatment, from pre-operation to post-operation. Ultimately, this has potential to provide a new safer patient standard of care to manage pain after surgery, close the narcotic gateway, and make a major preventative impact on the current opioid epidemic.

### The Technology

To fill this void in the data, Ohio State University researchers Rajiv Chandawarkar and Allison Capek have created a mobile application that connects patients, providers and researchers to each other, while providing a system for quick and easy data collection from the patient. The app would not only help the patient through their pain-management therapy by providing them with helpful reminders to take their medications and information for non-prescriptive alternative pain-management options, but it would also allow providers to track each patients and the efficiency of their treatments. That same data would also be shared directly with researchers for analysis.

By bringing the three parties together, providers are able to better understand the needs of their patients using the app and the data they have collected, while patients are able to stay better informed of their treatment and quickly report problems and issues directly to their provider. Though focused on

pain-management, the app could be expanded for use in various medical settings where providers/ researchers would like to track and analyze other therapies or other conditions.

This mobile application for pain management provides simple tools for patients, providers and researchers to use during clinical trials. The app not only tracks the efficacy of each patient's treatment, it can provide additional information to supplement and support the needs of the clinical trial.

## Application area

Pain-management care
Prescription abuse prevention
Patient monitoring

#### Advantages

Direct communication between patients and providers Remote patient tracking Direct data transfer for researchers during clinical studies

#### Institution

**Ventech Solutions** 

#### Inventors

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