Workers' Comp

The Future of Pain Therapy in Workers' Compensation

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As we move into a new decade, we continue to look for solutions to address the opioid crisis and discover alternative ways to treat pain. From a drug-therapy perspective, current alternatives to opioids include NSAIDs, anticonvulsants and occasionally certain antidepressants. Non-drug therapies include physical therapy, home exercise programs and electrical therapy treatments. What about the future of pain medication? Opioids can be effective for treating pain, but come with many adverse side effects—the worst of which are dependence or addiction. However, there are a few options on the horizon that could prove just as effective as opioids without causing the negative side effects.

AT-121: The New Miracle Drug?

Currently referred to as AT-121, a new analgesic is being studied on primates at Wake Forest University. According to the National Institute on Drug Abuse, AT-121 functions similarly to opioids by binding to the mu opioid receptor (MOR) that mutes pain. Unlike opioids, AT-121 also binds to the nociceptin/orphanin FQ peptide (NOP) receptor, which may prevent the unwanted side effects of current opioids. The pre-clinical studies show promise:

- A dose of AT-121 was able to "suppress monkey's discomfort when their tails were placed in very warm water"; a dose of morphine 100 times higher was needed to produce the same effect.
- AT-121 was able to reduce "heightened pain sensations like those that are sparked by hypersensitive pain fibers in some chronic pain conditions."
- The monkeys in the experiment were "no more likely to self-administer AT-121 than saline", suggesting that AT-121 has low likelihood of abuse.

Interestingly, the researchers also found that AT-121 may be able to be used as a treatment for opioid addiction. AT-121 is still undergoing preliminary research and needs to go through clinical trials before any drug will be released to market. There is no indication of when, or if, this drug will be available for use in the workers' compensation industry, but the preliminary experiments provide hope for the future of chronic pain treatment.

Medical Marijuana: Continued Assessment for Alternative Pain Therapy

Discussion of medical marijuana continues into 2020 as more states consider legalization of the drug. The past few years have shown significant movement on the legislative side of marijuana, but not much in the way of clinical research. Anecdotally, marijuana is purported as a potential alternative pain treatment to opioids. Small-scale studies have shown some potential in using marijuana to treat chronic pain, though there are currently no FDA-approved clinical trials to support or disprove these initial findings. The topic will continue to permeate discussion in the workers' compensation industry, especially as more states consider legalization. Better research should ultimately provide the clarity needed to steer legislators, regulators, clinicians and payers in the right direction. To learn more about marijuana in the workers' compensation industry, visit our latest review of clinical and legislative updates.

Non-Drug Alternatives for Pain Therapy

As we look toward the future of pain treatment, are there options beyond drug therapy? One interesting area of consideration is transcranial alternating current stimulation (tACS), which has been studied on patients with chronic low back pain (CLBP). The researchers of this therapy "hypothesized that restoring the electrical activity to normal levels in the brains of patients suffering from CLBP may reduce the severity of pain." This potential treatment is still undergoing research, but provides interesting insight into what treatments may be available in the future for the workers' compensation industry. Read the study in the Journal of Pain. Another interesting area that we could see in the near future is gene editing. There are many different types of gene editing currently being studied, including a method where the genes that communicate pain to a person can effectively be silenced , or turned off, so the patient will experience reduced pain. The hope is that this treatment will be able to effectively treat chronic pain without causing any permanent modifications to a person's genes. The researchers expect human trials to be conducted next year. Other alternatives that are available now include physical therapy, home exercise programs and electrical therapy treatments, among others. For more insight into these alternatives and more, check back for our latest podcast with Genex Services, where Mitchell Chief Clinical Officer, Dr. Mitch Freeman, and Genex Services VP of Case Management, Helen Froehlich, discuss both drug and non-drug therapy alternatives to opioids. The next decade is sure to see advancement of new treatments for pain, though the exact developments are still unclear. Continue to check back here for clinical updates as the year progresses.



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