

Buprenorphine/naloxone addiction in a pharmacist as a result of migraine self-treatment

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Abstract

Objective: A unique case report is presented to demonstrate addiction in a pharmacist through the use of buprenorphine/naloxone film for the self-prescribed treatment of migraine headaches.

Case Summary: A 35-year-old female hospital pharmacist was admitted to treatment for opioid use disorder for using buprenorphine/naloxone film to self-medicate her migraine headaches. After daily use of sublingual buprenorphine/naloxone, and several failed attempts to discontinue use, the pharmacist was admitted to a partial hospitalization treatment program. She was prescribed sumatriptan subcutaneous injection for her migraines, while maintaining buprenorphine/naloxone abstinence. Upon completion, the pharmacist transitioned to the aftercare program, where she maintains sobriety and uses her story to help aid in other patients' recoveries at the treatment center.

Discussion: Addiction and substance abuse affect a substantial number of health care professionals. Pharmacists are particularly vulnerable to prescription drug misuse and addiction as a result of their direct access and vast pharmacologic knowledge. In a 2004 self-report survey of a random sample of health care providers, 58.7% of pharmacists reported using nonprescribed prescription drugs at least once in their lifetime. This case is a story of rehabilitation and recovery of a pharmacist who has a desire to return to the practice of pharmacy through the use of effective pharmacologic and behavioral interventions.

Keywords: buprenorphine/naloxone, substance use disorder, migraine, pharmacist, addiction/recovery

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taking buprenorphine/naloxone, the patient reported that she had been medicated for attention deficit/hyperactivity disorder with amphetamine/dextroamphetamine salts (Adderall®, Teva Pharmaceutical Inc, Petach Tikva, Israel) since she was in high school.

Case Report

A 35-year-old female pharmacist who worked at a hospital presented to the treatment center seeking help with her buprenorphine/naloxone (Suboxone®, Indivior Inc, Richmond, VA) addiction. Upon admission, the patient reported difficulty experiencing pleasure, depressed appetite, increased anxiety, and depressed mood. As a pharmacist, she also carried tremendous shame, guilt, and embarrassment over her substance abuse. In addition to

The patient stated that she had been self-medicating with buprenorphine/naloxone for treating migraines. The patient reported that she had tried several medications over the years to relieve migraine headaches, and all of them had lost their effectiveness. Consequently, the patient was going to the emergency room quite often, and these incidents started interfering with her work. In spring 2008, her friend, who was prescribed buprenorphine/naloxone 4-mg/1-mg films, offered her some of the drug. The patient

found that this worked well to relieve her symptoms and continued using this drug without a prescription whenever she experienced migraine headaches. Then she discovered that buprenorphine/naloxone also helped her feel better in general and function better in her work. Her buprenorphine/naloxone use escalated for a year during 2009 as the patient reported taking 2 to 4 mg of buprenorphine daily in order to work and function properly. She stated that during that time, she continued to purchase the films from her friend and from people to whom her friend had introduced her. The patient stated that she tried to wean herself off of the drug many times but was unsuccessful because she experienced opioid withdrawal symptoms of agitation, anxiety, chills, insomnia, nausea, headache, and abdominal cramping. In spring 2010, the patient was drug tested at work as part of a routine drug test, and her urine drug screen was positive for buprenorphine. The patient was sent to a private addiction specialist for a 21-day detoxification treatment where she received 1 buprenorphine/naloxone 2-mg/0.5-mg film sublingually daily for 7 days, and then ½ film daily for 14 days. After detoxification, she remained sober for a month until she found a leftover buprenorphine/naloxone film in her car and relapsed.

Upon admission to the partial hospitalization program shortly after her relapse, her diagnosis was opioid use disorder based on *Diagnostic and Statistical Manual of Mental Disorders, 5th Edition* assessment. The patient entered treatment at the partial hospitalization program level of care for 1 week and moved to the daytime intensive-outpatient program level of care for 5 weeks. She was prescribed sumatriptan 6 mg/0.5 mL subcutaneous injections as needed to relieve her migraine symptoms. The patient attended group therapy daily, received education about addiction and recovery, and worked the 12 steps of Narcotics Anonymous with her sponsor. Some of these steps included admitting powerlessness over her addiction, admitting to herself and others the nature of her wrongs, and vowing to make amends for those wrongs. During the initial week of group therapy, her communication with the group was reserved and limited owing to her self-professed shame and guilt. Through education sessions, the patient began to develop a better understanding of both addiction as a disease and the concept of cross-addiction so that she was able to forgive herself and overcome her shame. During this time, the patient had maintained buprenorphine/naloxone abstinence and continued to use sumatriptan injections for migraine symptom relief. She reported taking no other medications. The patient's pharmacist license was suspended, and upon completion of the treatment program, she had the opportunity to appear before the board of pharmacy to be considered for license reinstatement in order to return to practice under a private consent order.

Literature Review

Health care professionals, including pharmacists, are at a particularly high risk for addictive disease; it has even been referred to as an *occupational hazard*. Exposure and ease of access to medications, the pharmacologic knowledge of how they work, and the ability to self-treat are all risk factors for addiction.¹ Increased access and job elements, such as workplace stress, are also contributing factors to substance abuse and dependence.² A study conducted in 2003 concluded that 8% to 12% of physicians were estimated to develop a substance use problem, with emergency medicine doctors and anesthesiologists having the greatest risk.³ Comparatively, Kenna and Wood⁴ reported that 40% of pharmacists used prescription drugs without a physician's approval, and 20% of them had done it more than 5 times. More recently, Merlo et al⁵ conducted a study in which 32 substance impaired pharmacists, who were being supervised by their state professional health program, were interviewed. This study revealed many of the ways in which impaired pharmacists gain access to illicit medications, with the 6 primary methods of diversion being: taking expired drugs, obtaining the responsibility of managing the pharmacy inventory, forging prescriptions, using devious techniques to take drugs out of the pharmacy, deliberately stealing drugs, and saving patients' unused medications.⁵ The same study revealed what impaired pharmacists describe as an unwritten *code of silence* in which one pharmacist will cover up or hide another pharmacist's unethical or inappropriate behavior.⁵

Individuals aware of a substance problem are directed by the professional code of ethics to seek help for themselves or to report the impaired pharmacist if that individual is unwilling to do so. There are many confidential treatment options available, including groups such as the Pharmacy Recovery Network (PRN). The PRN is supported by the state professional pharmacy associations and offers confidential assistance to pharmacists with substance abuse or addiction issues. For a state board to consider reinstating the license of an impaired pharmacist, they will likely be required to enroll in a PRN program to begin recovery from addiction.⁶ Participants in the PRN programs have an estimated success rate as high as 85%.⁷ Oftentimes, the state board will also require the pharmacist to participate in random drug tests, maintain regular contact with an assigned counselor, and participate in a support group on a regular basis.⁶ This element of treatment can validate that the pharmacist is ready to safely return to practice.²

Migraine headaches are associated with severe, debilitating pain that can persist anywhere from hours to days if they remain untreated. They often present with sensory sensitivity, nausea, and vomiting. This headache often

presents as *the worst pain* ever experienced.⁸ According to the US Headache Consortium, the goals of long-term migraine treatment include reducing frequency, severity and disability, improving quality of life, avoiding escalation of headache medication use, and educating/enabling patients to manage their disease.⁹ Treatment strategies are based on either abortive or symptomatic treatment and preventive therapy. Symptomatic treatment utilizes nonsteroidal anti-inflammatory agents, analgesics, and antiemetics. Migraine-specific symptomatic treatments include ergot alkaloids and triptans. Preventive therapy may be considered when symptoms are persistent despite acute or symptomatic therapy and when the episodes produce severe disability.⁸ The American Academy of Neurology and the American Headache Society recognize evidence-based guidelines produced by Silberstein et al¹⁰ summarizing pharmacologic preventive treatment options for adults with episodic migraines.

Opioids are not typically used as first-line agents for migraine headaches as they have no anti-inflammatory effect and have the tendency to be overused and lead to *rebound headaches*.⁹ They are generally reserved for patients where standard drug therapy may be contraindicated or ineffective.⁸ A 5-year study completed by the Michigan Headache and Neurological Institute discovered that less than 25% of patients treated with daily opioids for the treatment of migraines actually benefited in a clear or measurable way. The study also stated that many of the patients taking narcotic medications demonstrated misuse patterns such as altering doses without physician consultation.¹¹ Buprenorphine is a partial mu opioid receptor agonist that exerts its effects in the central nervous system. Naloxone is a pure opioid antagonist that displaces opioids at its receptor sites. While buprenorphine alone has an approved indication for pain management,¹² when combined, these drugs are approved for the sole indication of opioid substance use disorder treatment.¹³ Due to its analgesic effects, people may be tempted to use buprenorphine/naloxone as a solution to self-treat common ailments such as pain or migraines. However, because of its risk for adverse events, abuse, and overdose, buprenorphine/naloxone should only be used under close supervision of health care providers and monitored using the risk evaluation and mitigation strategies (REMS) program. The REMS program is individualized for specific drugs and was designed to enhance the safety of such medications.¹⁴ If the Food and Drug Administration determines that a REMS program is required, it is crucial to show that the benefits outweigh the risks, and only qualified pharmacies are allowed to dispense such medications.¹⁵ There are several well-established and efficacious therapies for migraines that present a much lower risk for abuse and addiction.

Conclusion

At least 1 in 8 individuals will have a problem with alcoholism or addiction, with a possibility for a higher prevalence of addictive disease in health care professionals owing to their pharmacologic knowledge.¹⁶ Substance use disorder can negatively affect the performance of a pharmacist by compromising the integrity, trust, and quality of care for patients. Although this issue may leave an undesirable impression on the profession, recovery is an extremely realistic goal for struggling pharmacists, as long as they are fully committed to acknowledging their problem and seeking the appropriate treatment.⁵

In conclusion, the patient in this case successfully completed 6 weeks of outpatient treatment in summer of 2010. After being discharged from primary treatment, the patient transitioned to the aftercare program where she participated in mirror imaging—a method where the patient played the role of counselor to combat the shame and embarrassment of overcoming addiction. The patient reported that mirror imaging served as reminder of where she used to be and helped her to see similarities in others' experiences, thus prompting her to provide insight and advice to current patients. The patient volunteered to spend time with other patients and led group therapy sessions at the treatment center. She hoped that she would have her license reinstated and that she would be able to return to the practice of pharmacy.

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