

OxyContin: A Tale of Advertisement and Addiction

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Summary

Purdue Pharma is under scrutiny for its role in North America's opioid crisis with its widely marketed narcotic OxyContin. Released in 1995, the same year as the American Pain Society announced their Pain is the Fifth Vital Sign campaign, OxyContin quickly became a blockbuster drug through aggressive advertisement. Purdue Pharma sponsored tens of thousands of pain management education programs, funded influential organizations, and marketed directly to physicians. They publicized research that downplayed the risk of addiction, suppressed early reports of drug abuse, and led physicians to believe that iatrogenic narcotic addiction was rare. By 2004, OxyContin had become the most prevalent prescription opioid abused in the USA.

Purdue Pharma has since acknowledged misleading regulators, doctors and patients about OxyContin's risk of addiction and abuse. The company recently filed for bankruptcy, as thousands of jurisdictions are now seeking to recover costs associated with the opioid crisis. This story demonstrates how vulnerable physicians are to marketing and misinformation, and the importance of critical appraisal when new drugs, technologies, and practice patterns are introduced to our practice.

Key Words

Opioid epidemic, oxycodone, opioid-related disorders, analgesia, advertising

Purdue Pharma is widely scrutinized for its role in North America's opioid crisis. How its blockbuster opioid OxyContin came to generate over \$31 billion in revenue is a story of how physicians, the public, and medical institutions are vulnerable to marketing and misinformation.

In the 19th century, opioids were in vogue for ailments including pain, insomnia, diarrhea, and cough. The early 20th century saw advances in public health and the invention of nonopioid analgesics. Iatrogenic opioid dependence became a concern in the 1920s; opioid overprescribing was considered a hallmark of the out of date physician.¹ By the 1980s, clinicians began to question whether their pain management was adequate. Purdue released OxyContin, a long acting oxycodone, in 1995. In the same year, the American Pain Society announced their Pain is the Fifth Vital Sign campaign, urging healthcare providers to take pain as seriously as other vital signs. The Veteran's Health Association, the largest healthcare system in America, adopted the campaign in 1999. The Joint Commission, which accredits hospitals in the US,

announced pain management standards emphasizing the use of quantitative pain assessments. Physicians to prescribe more opioids. After implementation of a mandatory pain score in the Mayo Clinic Hospital PACU, opioid use increased on average from 6.5 to 10.5mg of morphine equivalents.² Purdue Pharma's revenues soared.

Purdue Pharma funded over 20,000 pain-related educational programs between 1996 and 2002. They provided financial support to influential organizations including the American Pain Society and the Joint Commission. OxyContin was extensively marketed directly to physicians. Purdue advertised in medical journals, sponsored pain websites, and recruited specialists to spread word about an epidemic of untreated chronic pain. They sent pharmaceutical representatives across the country to provide samples and distribute branded marketing products. From 1997 to 2002, the annual number of OxyContin prescriptions for cancer increased from 250,000 to over 1 million; prescriptions for noncancer pain increased from 670,000 to 6.2 million.³

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Purdue promoted OxyContin as less addictive and less prone to abuse than other opioid medications due to its controlled release mechanism. They promoted literature that downplayed the risk of addiction to opioids. A 1980 paper by Porter and Jick was heavily referenced.⁴ Only 5 sentences long, this study has been cited over 600 times and has its own Wikipedia page.⁵ In 12,000 inpatients who received narcotics, “there were only four cases of reasonably well documented addiction”. Their study used healthcare provider documentation to define addiction instead of applying diagnostic criteria, thereby underestimating its prevalence. The subjects were inpatients who received as little as a single narcotic dose administered by hospital personnel. In contrast, most patients using OxyContin self-medicated at home over long periods of time. Despite the lack of external validity, Purdue cited the risk of addiction as less than 1%. The original OxyContin package insert stated that iatrogenic addiction to opioids legitimately used in the management of pain is “very rare”.⁶

A later investigation found that Purdue Pharma’s sales representatives had written the words “street value,” “crush,” or “snort” in 117 internal notes from visits to medical professionals from 1997 to 1999, suggesting they were aware of abuse as early as 1997.⁷ By early 2000, media reports of OxyContin abuse surfaced. Users evaded the controlled release mechanism by crushing the tablets and snorting or dissolving and injecting them. Purdue Pharma created a plan to combat abuse, but significant damage had already been done. The Drug Enforcement Agency reported 146 deaths nationally involving OxyContin in 2000 and 2001.³ By 2004, OxyContin was the most prevalent prescription opioid abused in the USA.⁶ In Canada, the addition of long-acting oxycodone to provincial drug formularies was associated with a 5-fold increase in oxycodone-related mortality between 1994 to 2004.⁸

In 2010, Purdue Pharma released a tamper resistant OxyContin. Abuse decreased by 48% in the three years following reformulation; overdose fatalities reported to the manufacturer decreased by 65%.⁹ However, reformulation may have had collateral damage. A survey of 10,000 patients with opioid use disorder found that heroin use increased after reformulation; reformulation perhaps hastened the transition from prescription opioid to heroin abuse.¹⁰ In Canada, long acting oxycodone was dropped from provincial drug formularies in 2012. The next year, Canada’s first fentanyl seizure occurred when police arrested two men shipping a microwave containing 10,000 fentanyl tablets. In 2017, there were almost 4,000 opioid related deaths in Canada; 72% involved fentanyl or fentanyl analogues. One form of street fentanyl is put through a pill press and dyed green to resemble 80mg OxyContin tablets.¹¹

Legal action against Purdue Pharma gathered momentum. In 2007, three Purdue executives and Purdue Frederick, a Purdue Pharma holding company, pled guilty to criminal charges that they had misled regulators, doctors and patients about OxyContin’s risk of addiction and abuse. Purdue Frederick paid \$600 million in fines; the executives paid \$34.5 million.⁷ As of 2019, 48 of 50 US states have sued Purdue Pharma.¹² Municipalities, counties, and first nations tribes have also filed lawsuits. Over 2600 lawsuits against the company and their owners, the Sackler family, were bundled into a giant civil case in federal court. In September

2019, a tentative agreement was reached: Purdue Pharma would be dissolved; a publicly overseen company would sell OxyContin and pay the plaintiffs with the profits. Purdue would donate drugs for addiction treatment and overdose reversal. The Sackler family would pay \$3 billion over 7 years. The deal is estimated to be worth \$10 to 12 billion.¹³ Purdue Pharma subsequently filed for bankruptcy; further negotiations are ongoing.

The story of OxyContin provides insight into our medical culture and how easily influenced we are as healthcare practitioners. It demonstrates the importance of critical appraisal when new drugs, technologies, and practice patterns are introduced in order to best serve our patients. Many patients are first exposed to opioids perioperatively; the incidence of new persistent opioid use after surgery is 5.9 to 6.5%.¹⁴ It is the author’s hope that revisiting the story of OxyContin and Purdue Pharma will serve as a learning opportunity for our community.

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