

# Treatment for tobacco use



Treatment for Tobacco Use: Chantix Substance abuse is often not recognized by the general public as a disease though treatment for the addiction follows the same path through drug development and Food and Drug Administration approval as any other drug. Recent years have seen a variety of pharmacological products that aid in the cessation of substance abuse. Recently smoking has received increased attention as was noted by the approval of bupropion to treat smoking in 1997 under the name Zyban. The latest product to be approved for smoking cessation is Chantix (varenicline tartrate) from Pfizer Inc. It has been shown to be a considerable improvement over Zyban.

Chantix was developed specifically for smoking cessation and is a highly selective nicotinic acetylcholine receptor partial agonist. Chantix affects the sites in the brain that are affected by nicotine and aid by reducing the craving for nicotine. Being a partial agonist means that it has both a stimulating and a blocking effect on the receptor it is attracted to. Pfizer received a priority FDA review because of its potential to offer substantial improvement in the public health. According to the Journal of the American Medical Association (JAMA), trials took place in 2003-2004 at 6 US and 18 International medical clinics that were experienced in smoking cessation. The participants were chronic smokers who averaged smoking 21 cigarettes per day.

The trials were designed as a 12-week treatment program with an extended follow-up period. Participants were given carbon monoxide testing to verify their claims of abstinence. In a trial reported by JAMA, after 52 weeks 43.6% of the participants that received varenicline had continued not to smoke. This compared to 36.9% of the participants that received a placebo. Other

studies have reported a success rate of 21.9% for varenicline versus 8.4% for the placebo. The difference has been attributable to the design of the study. During the 12-week testing phase, the all participants that received varenicline had a significantly reduced urge to smoke.

The drug, which was approved in May 2006, has been shown to be more effective than Zyban, which has reported a success rate of about 30% after 52 weeks. Research has additionally shown that after 52 weeks, treatment with Zyban fared no better than a placebo. However, JAMA reports that Chantix does have a significant long-term positive effect on the cessation of smoking. In addition, Chantix has fewer side effects. Most of the side effects were contributed to nicotine withdrawal such as insomnia and constipation. The only drug related side effect reported was nausea that was termed mild and tolerable. This occurred in about 3% of the participants.

Though the general public may not always view smoking as a disease, it is a major factor impacting public health in the US where over 8 million people suffer from a smoking related disease. The new approach by Pfizer is a welcome addition to the pharmacological arsenal needed to fight this public health menace. Though Chantix can be helpful, it should also be noted that over 50% of the participants returned to smoking within one year. A successful program of smoking cessation may begin with a drug treatment and be supplemented with cognitive behavior therapies for a longer term treatment with a higher rate of success.

#### Works Consulted

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