Trial finds increasing or altering smoking-cessation treatment helps persistent smokers quit

May 2 2024

For most smokers, quitting on the first attempt is likely to be unsuccessful, but a new study from The University of Texas MD
Anderson Cancer Center found patients were more likely to quit if their cessation regimen was altered and doses were increased. Researchers also found that varenicline, a cessation medication, was more effective than combined nicotine replacement therapy (CNRT), such as patches or lozenges.

The study, published in *JAMA*, revealed smokers who failed to quit with varenicline in the trial's first phase were seven times more likely to quit by the end of the second phase if varenicline doses were increased.

There also was a nearly two-fold increase in those who successfully quit if they were switched from a CNRT regimen to varenicline. These results are favorable compared to the near zero chance of abstinence seen in patients who were switched from varenicline to CRNT or left on the same treatment plans.

"These data indicate that sticking to the same medication isn't effective for smokers who are unable to quit in the first six weeks of treatment," said lead researcher Paul Cinciripini, Ph.D., chair of Behavioral Science.

"Our study should encourage doctors to check in on patients early in their cessation journey and, if patients are struggling, to try a new approach, such as increasing medication dosage."

The double-blind, placebo-controlled trial followed 490 smokers who were randomized to receive six weeks of varenicline or CNRT. After the first phase, those unable to quit were re-randomized to continue, switch or increase medication dose for an additional six weeks.

Initial treatment included 2 mg of varenicline or CNRT (21 mg patch plus 2 mg lozenge). Participants who were re-randomized either continued the same varenicline or CNRT dose, switched between varenicline and CNRT, or were given an increased dose of 3 mg of
varenicline or CNRT (42 mg patch plus 2 mg lozenge). The study was conducted in Texas from June 2015 to October 2019.

Of the patients who received varenicline and had their doses increased, 20% were still abstaining six weeks later. Meanwhile, the abstinence rate was 14% among patients who switched from CRNT to varenicline or who had their CRNT doses increased. However, varenicline patients who switched to CNRT saw a 0% quit rate. After six months, only those who had their doses increased remained continuously abstinent.

Tobacco use remains the leading preventable cause of death and disease in the U.S. Each year, about 480,000 Americans die from tobacco-related illnesses. Currently, more than 16 million Americans suffer from at least one disease caused by smoking, including cancer.

Quitting tobacco can improve the chances of survival by 30–40% for cancer patients who smoke. Since the average smoker makes several attempts to quit before successfully beating the addiction, MD Anderson tackles the barriers to cessation at an individual and population level, factoring in cost, access to cessation services, and knowledge gaps among health care providers on treating tobacco addiction.

In a larger ongoing trial, researchers are testing several different medication combinations as an alternative for those unable to quit on their initial doses of varenicline or CNRT.

More information: JAMA (2024). jamanetwork.com/journals/jama/...1001/jama.2024.4183