

Study finds no increased risk of suicide in patients using smoking cessation drugs

October 10 2013

A study to assess whether patients prescribed smoking cessation drugs are at an increased risk of suicide, self-harm and treated depression compared with users of nicotine replacement therapy (NRT) has found no evidence of an increased risk. The findings, led by researchers from the University of Bristol, are published online in the *British Medical Journal* today.

Varenicline (brand name Champix in the UK, Chantix in the US) is widely used by patients seeking to stop smoking with recent figures showing there were one million prescriptions for the drug in England in 2011 alone¹. Both [varenicline](#) and bupropion (brand name Zyban) - the other main non-nicotine smoking cessation product - work by helping to reduce nicotine cravings and withdrawal symptoms. Bupropion is also used to treat depressive illnesses in some countries, but is not licensed for this indication in the UK.

However, concerns that these drugs may increase the risk of suicide have led to safety warnings by regulatory agencies including the UK Medicines and Healthcare products Regulatory Agency (MHRA) and the US Food and Drug Administration (FDA).

Findings from this large-scale study aimed to assess the risk of psychiatric events in patients prescribed varenicline or bupropion compared with those using [nicotine replacement](#) products such as patches and gum.

Researchers analysed data from the medical records of 119,546 adults who had used a smoking cessation product between 1 September 2006 and 31 October 2011. Using linked data from the Office for National Statistics (ONS) mortality data and Hospital Episode Statistics (HES), the team were then able to assess the rate of treated depression, self-harm and suicide in 31, 260 (26.2 per cent) patients prescribed varenicline, 6,741 (5.6 per cent) patients prescribed bupropion and compare this with 81, 545 (68.2 per cent) people using nicotine replacement therapies.

The findings, which used three different analytical methods, showed no clear evidence of an [increased risk](#) of treated depression or suicidal behavior for patients prescribed with varenicline or [bupropion](#) compared to those taking nicotine replacement therapies.

Dr Kyla Thomas, National Institute for Health Research (NIHR) Doctoral Research Fellow and one of the study's lead authors in the University's School of Social and Community Medicine, said: "Given the concerns and accompanying [safety warnings](#) for these drugs these findings are reassuring for users and prescribers of [smoking cessation](#) medicines."

Professor David Gunnell concluded: "These findings support those of our earlier study² in a larger, more comprehensive assessment of this important issue; they will be of interest to [patients](#), prescribers and drug regulators."

More information: Smoking cessation treatment and the risk of depression, suicide and self-harm in the Clinical Practice Research Datalink: a Prospective Cohort Study, by Kyla Thomas et al. *British Medical Journal*, 2013.

References

1. Prescription Cost Analysis England 2011. Health and Social Care Information Centre. Prescribing and Primary Care Services, 2012.

2. Varenicline and suicidal behaviour: a cohort study based on data from the General Practice Research Database. *BMJ* 2009; 339:b3805.

Provided by University of Bristol

Citation: Study finds no increased risk of suicide in patients using smoking cessation drugs (2013, October 10) retrieved 26 March 2023 from

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