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BUPROPION INCREASES RATE OF SMOKING ABSTINENCE IN SMOKERS WITH SCHIZOPHRENIA: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMISED TRIAL DATA

D.T.-Y. Tsoi¹, M. Porwal², A.C. Webster^{2,3}

¹Academic Clinical Psychiatry, University of Sheffield, Sheffield, UK, ²School of Public Health, University of Sydney, Sydney, Australia, ³London School of Hygiene and Tropical Medicine, University of London, London, UK

Aims: In patients with schizophrenia, higher rates of tobacco dependency contribute significantly to increased morbidity and mortality of various physical illnesses. However, evidence for treatment of nicotine addiction in these patients is uncertain. We performed a systematic review of the effectiveness and safety of bupropion (Zyban) for smoking cessation in schizophrenia.

Method: We searched databases and conference proceedings for reports of randomised controlled trials (RCTs) in all languages, comparing bupropion with placebo or with a different therapeutic control in adult smokers with schizophrenia. Eligibility and quality of RCTs were independently assessed by two reviewers. Results are synthesised using a random effects model and expressed as Risk Ratio (RR) and mean difference (MD), both with 95% confidence interval (CI).

Results: 16 reports from six RCTs were included (258 participants). Smoking cessation rates after bupropion were significantly higher than placebo at the end of bupropion treatment (RR 2.56, CI 1.46 to 4.50) and at six months (RR 2.82, CI 1.04 to 7.69). Expired carbon monoxide level was significantly lower with bupropion at the end of therapy (MD -5.39ppm, CI -7.43 to -3.34ppm) but the effect was not sustained at six months ($p=0.33$). Positive and negative symptoms were not significantly different between bupropion and placebo group, but depressive symptoms were significantly reduced with bupropion at the end of treatment. There were no seizures reported with bupropion use.

Conclusion: Our review suggests that bupropion increases the rates of smoking abstinence in smokers with schizophrenia, without jeopardising their mental state.