

35 - Electronic nicotine vaping devices and vaping

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Addictions and substance misuse CHAPTER 4 Bupropion Bupropion is an antidepressant with dopaminergic and adrenergic actions and is additionally an antagonist at the nicotinic acetylcholine receptor. It is indicated for smokers over the age of 18 who are motivated to stop smoking. Clinical effectiveness A Cochrane review¹⁶ found high-certainty evidence that bupropion is more effective than placebo (RR 1.60). Bupropion was of similar efficacy to single-product NRT and less effective for quitting compared with varenicline and combination NRT. In smokers with serious mental illness, bupropion improved the odds of stopping by 3–4 times compared with placebo.^{13,14}

Preparations and dose People who smoke should set a target stopping date in the first 2 weeks of starting bupropion treatment. Dosage regimens can be found in the treatment algorithm for those people making an attempt to stop smoking at the end of this section (Table 4.21). Adverse effects Bupropion is contraindicated in those with seizure disorders, eating disorders and alcohol dependence. Clinicians should be cautious of the potential for manic switch in patients with bipolar affective disorder (very low risk but it can occur¹⁷). Common adverse effects include dizziness, taste changes, gastrointestinal disturbance and insomnia, which can be reduced by avoiding a dose close to bedtime. Unlike NRT and varenicline, bupropion is known to interact with psychotropic medicines. It is metabolised by the cytochrome CYP2B6. Caution is advised when bupropion is co-administered with medicines known to induce (e.g. carbamazepine, phenytoin) or inhibit (e.g. valproate) its metabolism as this may affect the efficacy of bupropion or increase the risk of adverse effects. Bupropion and its main metabolite (hydroxybupropion) are inhibitors of the CYP2D6 enzyme. It has been shown to increase the levels of medicines metabolised by CYP2D6 (e.g. imipramine, risperidone, haloperidol) and so caution is required particularly with narrow therapeutic index drugs (lower starting doses are recommended).

Electronic nicotine vaping devices and vaping Also referred to as vapes (formerly known as electronic cigarettes or e-cigarettes), electronic nicotine vaping devices produce an inhalable aerosol (vapour) which is formed by heating an e-liquid using a battery-powered heating coil. Vaping devices are activated by a switch or by suction as the user draws on the device's mouthpiece. They do not contain tobacco, are not combusted and do not produce smoke or sidestream vapour. Regulation of vaping devices varies across different countries and states, ranging from total bans to the absence of regulation. In the UK and European Union there are controls on quality standards (e.g. ingredients,

packaging and advertising) and manufacturers have to notify the competent authority in each country (the MHRA in the UK) of the ingredients in nicotine vaping devices before they are placed on the market. Notified nicotine-containing vaping devices can only be sold to people over the age of 18 in the UK. Vaping devices

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