

REVIEW ARTICLE

Smoking Cessation

Agathi-Panagiota Spiropoulou¹, Vasileios Spyropoulos¹, Georgia Spyropoulou², Dimosthenis Lykouras¹, Kiriakos Karkoulis¹, Kostas Spiropoulos¹

¹School of Medicine University of Patras Rio Patras 26500, Greece.

²Department of Pharmacy, University of Nicosia, Nicosia 2417, Cyprus.

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Corresponding Author: Kostas Spiropoulos, Professor Emeritus of Pulmonary Medicine, University of Patras, Greece.

Abstract

Cigarette smoking is a harmful health habit because it is associated with many morbidities such as: lung cancer, cancer of the tongue, cancer of the lip, stomach cancer, bladder cancer, ischaemic heart disease and chronic obstructive pulmonary disease.

70% of smokers want to quit and need on average 6 – 7 attempts to achieve this. Stopping smoking leads to immediate and long-term benefits, such as less shortness of breath, coughing, wheezing, improved appetite.

Nicotine replacement therapy (NRT) is the most commonly used drug treatment to stop smoking. Bupropion has similar efficacy to NRT for improving the cessation rates. Varenicline is a partial nicotine agonist, which also inhibits the nicotine receptors from being stimulated by free nicotine

Electronic cigarettes are devices that heat a liquid (usually including a liquid that is heated by the cigarette propylene glycol and glycerol) with nicotine (with or without added flavouring substances) stored in a disposable or refillable cartridge or tank .Long term safety data are not available.

1. Introduction

Cigarette smoking is a harmful health habit because it is associated with many morbidities such as: lung cancer, cancer of the tongue, cancer of the lip, stomach cancer, bladder cancer, ischaemic heart disease, but of course also chronic obstructive pulmonary disease which leading to respiratory failure and right heart failure and reduces significantly quality and life expectancy(1).

Smoking was introduced in the UK in the 16th century. King James I was the first to impose a tax on tobacco use. And he said that the majority of of people with H.I.V. came from slightly more affluent social groups.

Its prevalence varies and is highest among the unemployed, the younger people, professionals and among people with a low level of education, while

there are more male smokers than female smokers. Smokers with COPD have often mental health disorders, including anxiety and depression(2).

Most smokers with COPD start smoking in adolescence. Children from households where there are smokers are three times more likely to start smoking(2).

Apart from being the biggest factor in the onset of COPD that can avoidable, smoking (which exposes individuals to the toxic effects of smoking, is a major cause of more than 4,000 chemicals and carcinogens present in tobacco cigarette smoke) causes or influences the development of many other diseases, such as reported. Helping smokers with COPD to quit smoking cessation offers significant benefit to patients, children, the families, health care providers and society (1,2).

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2. The Psychology of Addiction

70% of smokers want to quit and need on average 6 – 7 attempts to achieve this. Tobacco addiction is caused by nicotine along with behavioural, environmental and physical stimuli, such as smoking after meals, outside a bar or restaurant, tactile contact and direct effect on the throat through inhalation (3,4).

Nicotine acts on receptors in the brain to release dopamine, which in turn creates a feeling of reward. However about 4 – 12 hours after smoking a cigarette, regular smokers experience the unpleasant withdrawal symptoms, which include irritability, irritability anxiety, nervousness and a strong desire for a cigarette, which in turn perpetuate the desire to use another cigarette to relieve the symptoms.

Although nicotine is the main component of tobacco addiction, it does not cause serious health problems for conventional cigarette smokers. Difficulty in quitting smoking is directly related to dependence nicotine dependence. Addiction is characterized by:

- continued use despite knowledge of the harmful effects
- a strong desire to take the substance during abstinence(5)
- failure of cessation attempts
- withdrawal symptoms during abstinence

3. Smoking Cessation as a Treatment for COPD

Stopping smoking leads to immediate and long-term benefits, such as less shortness of breath, coughing, wheezing, improved appetite, fewer exacerbations, fewer hospital admissions, less need for medication and a slower rate of decline in lung function. The best way to help people with COPD to quit smoking is to refer them to a service smoking cessation service.

This way trained professionals can explore the most appropriate pharmacological aids tailored to the individual and provide behavioural support long-term support. Smoking cessation services are four times more likely to succeed in helping patients to quit than when patients make a quit attempt on their own. The key elements for of setting up a service in any organisation include:

- the presence of a local ‘supervisor’ who leads the development of these services. This can be any health worker and is not dependent on seniority or profession.

- implementation of a referral pathway to the local smoking cessation service or the existence of in-house specialist smoking cessation advisers
- regular training of the organisation’s staff to use the “3 As” model
- measuring the number of smokers identified and supported to making a quit attempt, so that the quit attempt is monitored effectiveness and to guide the implementation of changes in the service (6,7,8).

4. Nicotine Replacement Therapy

Nicotine replacement therapy (NRT) is the most commonly used drug treatment to stop smoking and increases the chances of quitting smoking cessation by about 40% (nicotine patch) and 100% (nasal spray).

Nicotine replacement therapy is available in many different forms. Even if some forms of NRT (gum, inhalers, nasal sprays, lozenges) offer nicotine more quickly than others (dermal patches), they all provide a lower total dose and release it into the brain more slowly than a cigarette(7).

More useful is combination therapy with a dermal patch to provide continuous nicotine levels and a faster-acting product (gums, inhalers, nasal spray, lozenges) for use before the usual times cigarettes and other periods of intense craving(7,10).

Treatment is generally recommended for 10 - 12 weeks, but smokers can continue using NRT for a longer period if they feel like they need it. There is no evidence to suggest that gradual cessation of NRT is better than abrupt cessation, although gradual cessation is usually preferable(7).

5. Bupropion

Bupropion has similar efficacy to NRT for improving the cessation rates. It is an antidepressant, but its effect on smoking cessation is independent of this property and may be due to effects on noradrenaline and dopamine neurotransmission.(8) Bupropion helps prevent the weight gain that often occurs with smoking cessation.

The most important side effect that identified with bupropion is its association with seizures. The drug is therefore contraindicated in people with a history of epilepsy and seizures epileptic seizures. Bupropione should generally not be prescribed to people with other risk factors for seizures or with some other drugs - such as antidepressants, anticonvulsants, antipsychotics, quinolones and theophylline – that can reduce the risk of seizures(8).

6. Varenicline

Varenicline is a partial nicotine agonist, which also inhibits the nicotine receptors from being stimulated by free nicotine. It is an effective smoking cessation treatment, which increases the likelihood of cessation by about 2.3 times and is slightly more effective than NRT or bupropion. There is no evidence that combining varenicline with other drug therapies is more effective than taking varenicline alone(2,10,11,12,13,14,15).

7. Electronic Cigarettes

Electronic cigarettes were first developed in China around 2003 and became available in the UK and Europe several years later. They are devices that heat a liquid (usually including a liquid that is heated by the cigarette propylene glycol and glycerol) with nicotine (with or without added flavouring substances) stored in a disposable or refillable cartridge or tank.

The electronic cigarettes consist of a battery, an atomizer and a liquid nicotine-containing liquid that produces a smoke-like aerosol (vapour), which the user inhales (or vaporizes). The use of e-cigarettes among long-term ex-smokers is significantly lower than among recent ex-smokers and use among non-smokers is very low(16).

There is no evidence that e-cigarette use (or passive exposure to vapour) causes serious harm in the short term and is unlikely to even approach the degree of harm caused by long-term cigarette use, although long-term safety data are not available.

A review with only two studies by Cochrane showed that e-cigarette use that containing nicotine increased the chances of quitting smoking in the long term and helped more people reduce the amount they smoke at least by half (compared with using nicotine-free e-cigarettes).

Therefore the use of e-cigarettes should be encouraged as a substitute for cigarettes tobacco, especially among smokers who find them more useful or more acceptable than prescription drugs(17,18).

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