Smoking cessation for the older patient: it is never too late

Smoking accounts for 18% of all deaths in adults aged 35 or older and costs the NHS £5·2 billion a year (5% of the total health-care costs). Health-care professionals are ideally placed to help reduce these figures by encouraging patients who smoke to quit. Older patients should not be excluded from receiving smoking cessation support because, regardless of their age or length of habit, they can still benefit from giving up. Smoking cessation support should include some form of counselling (eg. group therapy) and, if appropriate, pharmacotherapy.

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As awareness of the health risks of smoking has increased, the prevalence of people who smoke in the UK has decreased—from 39% in 1980 to 21% in 2007. Of those who smoke, the highest prevalence is those aged 20–24 with 32% reporting that they smoke. The lowest prevalence is in those aged 60 or older with 12% claiming to smoke.[1]

However, although the UK has fewer smokers than it had in previous years, smoking is still a substantial cause of UK deaths and hospital admissions. It caused approximately 83,900 deaths in adults aged 35 or older (18%) in 2008, and the number of hospital admissions with a primary diagnosis of a smoking-related disease has increased steadily since 1996/97. In 1996/97, the number of such admissions was 1·1 million compared with 1·4 million in 2007/08. The cost of treating smoking-related diseases to the NHS is also substantial; it is estimated to be £5·2 billion a year, which is about 5·5% of total health-care costs.[1] Therefore, encouraging patients who smoke to give up their habit remains an important priority for all health-care professionals.

The earlier a patient stops smoking, the more beneficial it will be for their health. But, this does not mean that older patients, who may be life-long smokers, cannot benefit from stopping smoking. Taylor et al found that smoking cessation at any age provided meaningful life extensions.[2] In their study, they estimated the relationship between smoking and mortality among 87,7243 patients in the Cancer Prevention Study II. Life expectancy among smokers who quit at the age of 35 years exceeded that of continuing smokers by 6·9 to 8·5 years for men and 6·1 to 7·7 years for women. But among smokers who quit at aged 65 years, men gained 1·4 to 2 years of life and women gained 2·7 to 3·7 years compared with continuing smokers. Taylor et al reported: "These findings reinforce the urgency of emphasising smoking cessation to all smokers, irrespective of age, and the importance of never assuming that a smoker 'is to far gone'."

LaCroix et al[3] also showed the benefits of quitting smoking at any age. They found that smoking cessation in older adults markedly reduced the risks of coronary events and risks of cardiac events during the first year of quitting, and that these risks continued to decline more gradually for many years. Male older smokers who quit also reduce their risk of dying of chronic obstructive pulmonary disease (COPD) after 10 to 15 years of abstinence, and female older smokers reduced this risk after 5 to 10 years of abstinence. In their conclusion, LaCroix et al said that the prospect, at a population level, that smoking cessation after the age of 65 years would both extend life and improve quality of life was "excellent."

Support services

NICE recommends that all patients who smoke should be encouraged to quit unless there are exceptional circumstances (eg. because of personal circumstances). Most smokers claim that they do want to quit (67%),[1] but those that are reluctant to do so should be advised to at least consider the possibility of quitting and to seek help in the

future. Doctors should record the smoking status of these patients and review this status with the patient once a year where possible.

For those that do express an interest in giving up, advice on quitting should be tailored to the individual's preferences, needs, and circumstances.[4] Owen and Morgan[5] state that advice for older people needs to take account of their knowledge and attitudes to quitting, their [probable] heavy nicotine dependence, and the social context of their smoking.

NICE recommend that patients are offered referral to an intensive support service (eg. NHS Stop Smoking Services). If the patient is unable or unwilling to use this type of service, health-care professionals should offer pharmacotherapy (if clinically appropriate) and provide additional support.[4]

Smoking support services should offer patients behaviour counselling, group therapy, pharmacotherapy, or a combination of treatments proven to be effective. Managers and providers of NHS smoking services must also ensure that the professionals providing behavioural support have had the appropriate training and that telephone quitlines offer a rapid, positive and authoritative response. Where possible, information and support should be in the language of the client's choosing.[6] According to Owen and Morgan, smoking cessation interventions that are effective in the general population are also effective in the older population.[5]

Pharmacotherapy

Pharmacotherapy can be used to help patients who are planning on giving up smoking. Three therapies are available: nicotine replacement therapy (NRT), bupropion, and varenicline. The choice of therapy depends on which one the treating health-care professional and the patient feels will be the most beneficial. NICE state that when deciding which treatment to use, the health-care professional should take into account:

- Whether a first offer of referral to the NHS Stop Smoking Services has been made
- Contraindications and the potential for adverse effects
- The patient's personal preferences
- The availability of appropriate counselling or support
- The likelihood that the patient will follow the course of treatment
- The patient's previous experience of smoking cessation aids.

Whichever drug is chosen, pharmacotherapy works best when used in combination with advice and support. Also, the patient should make a commitment to stop smoking on or before a particular date (the target date). The prescription of the chosen drug should be sufficient to last only two weeks after this target date, and it should only be represcribed if the patient can demonstrate (on re-assessment) that their attempt to quit is continuing. How long a patient should take pharmacotherapy after their stop date (and how long they should take it before their target date) depends on the administration and mode of action of the chosen drug (Box 1). But if a smoker's attempt to quit is ultimately unsuccessful, they should not be offered pharmacotherapy again for another six months unless there were special circumstances that hindered their first attempt.[6]

NRT

NRT is available as gum, patches, inhalers, tablets, lozenges, and sprays. There is little difference in effectiveness between the different types, so choice of NRT is usually determined by patient preference.[7] But, NICE suggests offering patients a combination of NRT if they show a high dependence on nicotine or if they have found single forms of NRT to be inadequate in the past.[6]

The benefits of NRT are well known. Kralikova et al found that treatment with 10 mg nicotine inhaler or 4 mg nicotine chewing gum was associated with a significantly higher abstinence rate (defined as not a single cigarette smoked and expired CO readings of <10 ppm) than treatment with placebo. They also found that a large number of smokers, across all treatment groups, managed to reduce their cigarette consumption by more than 50% compared with their baseline levels.[8]

Bupropion

First developed as a treatment for depression, bupropion (Zyban) works by reliving the withdrawal symptoms associated with smoking cessation.[9] How it does this is not clear, but it is known to inhibit the presynaptic uptake of dopamine and noradrenaline in specific areas of the brain (other mechanisms may be involved as well).[10]

Like NRT, bupropion has been shown to be an effective pharmacotherapy for smoking cessation. Tønnensen et al[10] randomised 707 smokers to receive 300 mg buproprion daily or placebo, in combination with counselling, for seven weeks. The continuous abstinence rates from weeks four to seven was 46% in the

Box 1: Pharmacotherapy for smoking cessation[13]

NRT

Administration: Patch, patch + gum, gum, microtabs, nasal spray, inhaler, or lozenges

Treatment duration: 10–12 weeks (patients should not use NRT while still smoking)

Warnings: Severe cardiovascular disease, diabetes, uncontrolled hyperthyroidism, pheochromocytoma, moderate-to-severe heptic impairment, severe renal impairment. Oral preparations: oseophagitis, gastritis, or peptic ulcer; transdermal: skin disorders (avoid using on broken skin)

Contraindications: none

Buproprion

Administration: Prolonged release, film-coated tablets

Treatment duration: Seven to nine weeks. Patients can take bupropion while still smoking, but the target stop date must be set within the first two weeks of them starting treatment

Warnings: Risk of seizure increased in patients with a history of head trauma, alcohol abuse or diabetes (only use if compelling clinical justification and use a lower dose), mild-to-moderate heptic or renal impairment, monitor blood pressure (especially in patients with pre-existing hypertension), history of psychiatric illness, the elderly

Contraindications: History of seizure, CNS tumour, bipolar disorder, bulmia, anorexia nervosa, severe heptic cirrhosis, patients experiencing abrupt withdrawal of alcohol or benzodiazepines

Varenicline

Administration: Film-coated tablets

Treatment duration: 12 weeks (initiate treatment one to two weeks before the target date)

Warnings: Moderate-to-severe renal impairment, psychiatric disorders. Reports of depression and suicidal ideation, advise patients to report suicidal thoughts and stop treatment if symptoms develop. Epilepsy

Contraindications: none

All treatments should be reviewed 2 weeks after the target date, and should only be represcribed if patient can demonstrate that their attempt to quit is continuing . None of the treatments should be used in combination

active treatment group compared with 23% in the placebo group (p<0·001). Bupropion was also shown to be effective in the longer term. At month 12, the continuous abstinence rates were 21% for the bupropion group and 11% for the placebo group (p=0·002).

Although bupropion is usually well tolerated, seizure is an uncommon (affecting 1 in 1000) but serious side effect of the drug. This risk of a seizure is increased in patients with certain medical conditions and, therefore, bupropion should not be used in these patients. For example, it is not suitable for people with epilepsy or unexplained blackouts.[9]

Varenicline

Varenicline (Champix) is the newest agent for smoking cessation and works by mimicking the effects of nicotine on the body,[11] reducing the urge to smoke and relieving withdrawal symptoms. Again, it is an effective treatment for smoking cessation.

Jorenby et al[12] compared the use of varenicline with the use of placebo and the use of bupropion. During the last four weeks of treatment, 43·9% of patients in the varenicline group were continuously abstinent from smoking compared with 17·6% in the placebo group and 29·8% in the bupropion group (p<0·001). Between weeks nine and 52 of the study, 23% of patients in the varenicline group were continuously abstinent compared with 10·3% in the placebo group (p<0·001) and 14·6% in the bupropion group (p=0·004).

Varenicline is generally well tolerated and is suitable for use in most people.[13]

Conclusion

Despite a decrease in prevalence in recent years, smoking continues to be a major cause of death and disease in the UK. Health-care professionals should encourage all patients who smoke to quit. Neither advanced age nor length

of habit should exclude a patient from being encouraged to stop smoking as evidence suggests that giving up at any age is beneficial.

Patients who are keen to stop smoking should be referred to a stop smoking service, which should provide counselling and other types of support. Pharmacotherapy, if appropriate, can also be offered and the choice of pharmacotherapy depends on what the treating health-care professional and patient feels is most likely to be successful.

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