

EFFECTIVENESS

Matters

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Smoking Cessation: What The Health Service Can Do

- In 1995 tobacco was responsible for 120,000 deaths of people over 35 years of age in the UK and rates of tobacco use are increasing, particularly in young people.
- Research evidence shows that there are highly cost-effective ways to help people stop smoking.
- Health professional advice about quitting can achieve cessation rates of 2%. This quit rate can be increased to around 12% in motivated patients by adding nicotine replacement therapy.
- Health professionals should systematically identify patients who smoke and encourage and support them to stop.
- The use of nicotine replacement therapy should be encouraged in those smokers who are motivated to quit.
- Health professionals should encourage and help pregnant women to stop smoking.
- Some health professionals would benefit from training in smoking cessation techniques.
- Health authorities and other health service commissioners should develop co-ordinated smoking cessation strategies and fund their implementation.

Effectiveness Matters is an update on the effectiveness of health interventions for practitioners and decision makers in the NHS. It is produced by researchers at the NHS Centre for Reviews and Dissemination at the University of York, based on high quality systematic reviews of the research evidence. *Effectiveness Matters* is extensively peer reviewed by subject area experts and practitioners.

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HAZARDS OF SMOKING

The health hazards of smoking are large and well established.^{1,2} Several diseases, including lung cancer, other lung disease, and heart disease are more prevalent in smokers. Tobacco smoking is now the greatest single cause of illness and premature death in the UK, with more than 120,000 deaths of people aged over 35 years attributable to smoking.³ Environmental tobacco smoke has also been linked with lung cancer in non-smokers.⁴

The use of tobacco during pregnancy is one of the most important risk factors for neonatal and late foetal death.^{5,6} In addition, parental smoking is estimated to be responsible for at least 17,000 children under the age of five being admitted to hospital each year in England and Wales.⁷

Disease risks are reduced following smoking cessation and those smokers who stop before middle age can avoid most of the excess risk they would have suffered.²

TRENDS IN SMOKING

Regular cigarette smoking in Britain declined from 1974 to 1994, with the proportion of smokers falling from 51% to 28% for men and from 41% to 26% for women. Since 1994 however, prevalence has increased; largely attributable to an increase in the number of young people who smoke regularly.⁸ Therefore, taking action to reduce smoking is a priority.

This issue of *Effectiveness Matters* summarises the research evidence about the effectiveness of methods to promote smoking cessation. It is based on the findings of good quality systematic reviews from several countries. These include only randomised controlled trials (RCTs) with at least 5-6 months follow-up because relapse is highest in the first few months of quitting.⁹⁻¹³

Detailed smoking cessation guidelines are being produced by the Health Education Authority and a Government White Paper on Tobacco Control is being published. Research on methods to prevent people starting to smoke, particularly relevant for young people, will be considered in a future issue of the *Effective Health Care* bulletin series.

EFFECTIVENESS OF INTERVENTIONS

There are a number of smoking cessation interventions which are effective, such as brief advice from a health professional and the use of nicotine replacement therapy (NRT). However, there is insufficient evidence of the effectiveness of a number of other interventions such as the use of antidepressants, anxiolytics, aversive conditioning, acupuncture, hypnosis,

mecamylamine, and self-help materials (booklets, pamphlets and manuals). (See box) Clonidine can be effective but side-effects, such as sedation affecting up to one third of users, have been reported.^{19,20}

Good evidence of effectiveness	Insufficient evidence of effectiveness
Brief advice from a health professional ^{9,13}	Antidepressants, anxiolytics ¹⁴
Nicotine Replacement Therapy with advice ^{9,10,13}	Aversive conditioning ^{15,16}
Advice & support to pregnant women ⁹	Acupuncture ^{17,18}
	Hypnosis ⁹
	Mecamylamine ³¹
	Self-help materials (booklets, pamphlets, manuals) ⁹

Advice from health professionals

Brief advice to stop smoking given by health professionals, taking around 3 minutes, has been shown to decrease the proportion of people smoking by around 2% when compared with patients who did not receive any advice.^{9,13} Given the large number of smokers who have contact with health professionals, a 2% reduction represents a significant population health gain. Increasing the intensity of advice (i.e. the time spent giving advice on smoking and the duration of follow-up) improves the effectiveness, decreasing the proportion smoking by around 3-5%.^{9,13} However, more intensive advice may not always be feasible in primary care because of the resources required.

Nicotine Replacement Therapy

Trials have shown that the use of NRT decreased the proportion of people smoking by around 12% in more motivated patients who were self-referred.¹³ In all these studies some form of additional support, ranging from brief advice to more intensive forms of counselling, was provided alongside the NRT.

NRT is available in a number of forms, such as transdermal patches, chewing gum, nasal spray and inhalers. In the most heavily dependent smokers (i.e. those craving a cigarette on waking and/or who smoke more than 20 cigarettes per day), higher dose nicotine gum (4mg) is more effective than 2mg gum or nicotine patches.^{10,12}

Among less dependent smokers the nicotine patch is as effective as 2mg chewing gum,¹² it needs less detailed instruction and is probably more convenient to use.^{9,10} Newer forms of NRT, such as nicotine inhalers and sprays, appear to be as effective as patches or gum, although they have not been as extensively evaluated.¹⁰

Reported adverse effects associated with nicotine gum include hiccups, gastrointestinal disturbance, jaw pain and mouth soreness. Nicotine patches have been associated with mild skin sensitivity and irritation. This may affect a large percentage of users but has not been shown to affect adherence.¹⁰ Weaning off NRT should be encouraged, although its use is preferable to a return to smoking because it does not contain the toxic substances, such as tar, found in cigarette smoke.^{9,21}

WEIGHT GAIN

Most people who stop smoking gain weight. For some people, concern about weight gain is an important impediment to smoking cessation.²² Smokers should be informed that weight gain is common but that the associated health risks are far outweighed by the benefits of stopping smoking.^{9,23} NRT can delay weight gain until smokers feel ready to follow a weight control strategy.⁹

SMOKING IN PREGNANCY

A number of women quit smoking during pregnancy without assistance.⁹ However, a significant proportion of women continue to smoke and this has increased from about one in four in 1992 to about one in three in 1996.²⁴ Smoking among younger pregnant women from lower income groups is particularly high.³

Prenatal counselling consisting of at least 10 minutes person to person contact, combined with written materials tailored to pregnancy, can double cessation rates to about 15%.⁹ Increased contact with health professionals during the prenatal period provides more opportunities to intervene.

Many women report personal benefits of smoking during pregnancy (e.g. stress relief)²⁵ and any cessation programme should be accompanied by support, and offered with sensitivity.

COST-EFFECTIVENESS

Analyses have consistently reported that smoking cessation interventions are relatively cheap ways of saving lives and reducing morbidity.²⁶⁻²⁸ The interventions reported above are, therefore, a good use of NHS time and resources.

PROMOTING THE USE OF SMOKING CESSATION INTERVENTIONS

There is evidence that the NHS could do more to promote smoking cessation. In a recent

Recommendations

Smoking cessation interventions are highly cost-effective, therefore:

- health professionals should identify smokers, encourage and support them to stop and provide follow-up.
- health professionals should encourage the use of NRT in those smokers who are motivated to quit.
- pregnant women should be offered intensive advice and support to stop smoking.
- health authorities and other commissioners of health care should develop local strategies for promoting smoking cessation which build upon national initiatives such as 'No Smoking Day' and Quitline (0800 002200) and, where appropriate, assist by suitable training of health professionals.
- action against smoking at a local level should be monitored in order to promote implementation.

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national survey, for example, only 38% of current smokers recalled being given advice on smoking by their GP and 13% by someone else at the surgery.²⁹ There is good evidence that training health professionals to offer smoking cessation interventions in primary care settings and providing chart or computer-based reminders increases the frequency with which such interventions are offered.³⁰ The impact of this on smoking cessation rates is however, unclear.

Health authorities and primary care groups should work together to ensure the implementation of these effective interventions. This should build upon national action against smoking, such as increased taxation and advertising bans, other national initiatives such as Quitline and 'No Smoking Day', and local initiatives such as community campaigns.

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