Smoking: can we really make a difference?

G Sutherland

The enormous health benefits of stopping smoking are now well established. Doctors have a vital role in motivating smokers and initiating quit attempts. The mainstay of National Health Service smoking cessation strategy should be the routine provision of brief opportunistic intervention in primary care, backed up by referral to a specialist smoking cessation service. There is an urgent need to increase substantially the numbers of smokers referred by general practitioners, other members of the primary care team, and those working in acute hospital trusts, to specialist smoking cessation services and for better channels of communication between the various agencies. Use of pharmacotherapy (nicotine replacement therapy or bupropion) in combination with behavioural support achieves higher cessation rates than either component alone and is the most effective way of helping smokers to stop. Smokers who quit often relapse and hence will need repeated help.

Smokers have roughly double the risk of ischaemic heart disease compared with non-smokers and they have a two- to fourfold increased risk of sudden death. The effect of smoking on risk of myocardial infarction is greater in younger smokers. The cardiovascular benefits of stopping smoking are, however, now well established. The risk of coronary heart disease reduces rapidly after smoking cessation. The excess risk is reduced by about 50% after one year’s abstinence and continues to decline gradually so that after 5–10 years the risk is similar to that of a person who has never smoked. Stopping smoking reduces the risk of stroke to non-smoker level after five years.

The Royal College of Physicians has stated that nicotine addiction must be recognised as a major medical problem and that it is as strong as addiction to drugs such as cocaine and heroin—in some respects it actually exceeds those addictions. The power of nicotine addiction is demonstrated by the fact that about 50–70% of smokers relapse after a myocardial infarction, with nearly 40% of those who relapse doing so while they are still in hospital. Among all smokers, about 2% of unaided attempts to stop smoking result in abstinence at one year.

Both the government and the National Health Service (NHS) are now taking smoking cessation seriously. The 1998 White Paper Smoking kills detailed the government’s package of antismoking measures, which included the establishment of specialist smoking cessation services in the NHS. With the initial three year funding, challenging targets were set by the Department of Health for the number of smokers successfully quitting using the services. It is expected that funding will continue to be provided to keep the momentum going with the allocation to primary care trusts from 2003 onwards reflecting the high priority of smoking cessation within the NHS.

Updated UK guidelines on smoking cessation were published in 2000. These evidence based guidelines are endorsed by 25 professional bodies including the Royal College of Physicians, the Royal College of General Practitioners, and the Royal College of Nursing. Obstacles to full implementation of the guidelines include the perception (which is slowly changing) that smoking is not a medical problem; in addition, medical students are not taught the priority or practice of smoking cessation, existing clinicians have little or no training in smoking cessation, and some doctors, managers, and policy makers still give low priority to smoking cessation.

PRIMARY CARE SMOKING CESSATION SERVICES

The UK smoking cessation guidelines and the Royal College of Physicians’ report advocate that the mainstay of NHS smoking cessation strategy should be the routine provision of brief opportunistic intervention in primary care. Primary care health professionals should be proactive in undertaking smoking cessation activities and they are ideally placed to do so as 80% of smokers visit their general practitioner (GP) at least once a year. Primary care intervention should be backed up by referral wherever possible to a specialist smoking cessation clinic. It is not realistic to expect primary care staff to have the time to provide the more intensive support needed by some smokers.

The guidelines emphasise the need to keep records up to date (table 1). At present, patients might only be asked about their smoking habits on first registration; annual updating of records is recommended. The guidelines recommend that all smokers should be advised to stop during routine consultations, preferably at least once per year, and help should be offered. The action taken then depends on the individual smoker and his or her motivation to stop smoking. Those who are “ready to quit” should be prescribed nicotine replacement therapy (NRT) or bupropion and then be referred to a specialist clinic if they are willing to attend. Attendance at a specialist clinic will achieve higher success rate and greater cost efficacy. Some smokers will not be “ready to quit” but it is not the job of the GP to try to force them to stop smoking—GPs do not have the time to motivate every smoker who is not interested. But

Correspondence to: Ms Gay Sutherland, Tobacco Research Unit, Institute of Psychiatry, 4 Windsor Walk, London SE5 8AF, UK; g.sutherland@iop.kcl.ac.uk

Abbreviations: GP, general practitioner; NHS, National Health Service; NICE, National Institute for Clinical Excellence; NRT, nicotine replacement therapy
they are able to provide brief information about the individu-
als' risk of smoking and benefits of quitting, maybe in the
form of a leaflet, and can then repeat the advice to stop smok-
ing the next time the person visits.

The use of pharmacological treatments (NRT or bupropion)
has been shown in numerous clinical trials to improve the rate
of smoking cessation. Use of pharmacotherapy in combination
with behavioural support achieves a higher cessation rate than
either component alone, and is the most effective way of help-
ing smokers to stop.

NRT and bupropion are effective, even in patients with
cardiovascular disease. The National Institute for Clinical
Excellence (NICE) assessed these treatments in March 2002
and supported their use as first line treatments for virtually all
smokers who wish to stop, with no minimum cigarette
consumption before treatment is recommended. A NICE
meta-analysis of NRT from 97 randomised controlled trials
involving 38 000 smokers who were followed for six months
after starting treatment showed an odds ratio of smoking ces-
sation of NRT versus placebo of 1.74 (95% confidence interval
1.64 to 1.86). For bupropion, a meta-analysis of 10 randomised
controlled trials involving 3800 smokers, followed for six or 12
months, showed an odds ratio for smoking cessation versus
placebo of 2.16 (95% confidence interval 1.51 to 3.10).

There is a clear dose–response relationship between success
at quitting and amount of behavioural support received.5 Since
NRT approximately doubles success rate regardless of the
amount of adjunctive support, increasing the amount of sup-
port increases the efficacy of NRT. Future studies are likely to
show a similar result for bupropion. Patient characteristics,
such as dependence level, motivation, mental health status,
and age are also related to outcome. The success rate tends to
be higher in older patients and those who are less nicotine
dependent. The results with specific patient groups using
these treatments are consistent with the overall efficacy—that
is, roughly a doubling of the chance of quitting. However,
lower success rates are often found in cardiovascular patients
and in respiratory patients. The fact that these patients
continue to smoke despite the obvious health effects caused by
smoking indicates that they are highly addicted and thus
likely to need more intensive help.

### POTENTIAL FOR SUCCESS WITH PRIMARY CARE
INTERVENTION

Studies have shown that many doctors perceive their efforts to
assist smokers as ineffective and potentially damaging to the
doctor–patient relationship. However, the data do not support
such pessimism. For example, a typical three GP practice in the
UK will have around 1400 adult smokers. It is estimated that
of these, 951 will want to stop, 1100 will have tried to stop, 600
want to stop in the next year, and 500 try every year. Therefore,
there is a great deal of interest in stopping smoking and many
efforts to do so among smokers in primary care. The common
view that smokers take little notice of doctors’ advice to stop
smoking is also unfounded. Many patients do attempt to quit
when a GP advises them to do so. Unfortunately doctors
perceive that their advice has no effect as many smokers fail in
their attempts because they are poorly planned, and do not
involve either specialist behavioural support or appropriate
pharmacotherapy. The important point is that the GP's advice
motivated them to try to quit. The challenge is to harness the
interest and motivation to quit, inspired by a doctor’s advice,
by ensuring smokers are aware of and use specialist support
and medication, wherever possible.

Expected one year success rates (continuous abstinence) for
smoking cessation are shown in fig 1. With no advice or sup-
port from a doctor or other health care professional only 1–2%
of smokers will stop smoking and remain abstinent over the
next year; with three minutes’ advice from a doctor the
success rate will be 5%, and adding pharmacotherapy can
increase this to 10%. The success rate increases further when
intensive behavioural support is provided from a specialist
clinic, and intensive support plus pharmacotherapy can lead
to 25% success rates at one year.

A national GP attitudes survey in 2002 showed that fewer
than 50% of GPs saw either NRT or bupropion as having high
priority in their drug budget (unpublished data). Some GPs
hold the view that the costs of trying to help people stop smok-
ing, in terms of medications and professional time, make it an
expensive intervention when so many patients fail in their ces-
sation attempt. However, smoking cessation using NRT or
bupropion is one of the most cost effective interventions in the
NHS, ranging from about £250 (for brief advice from a GP) to
£1000 (for a specialist smokers clinic) per discounted life year
saved. This compares favourably with the costs for other
interventions in cardiovascular prevention. Aspirin, given for
secondary prevention, costs £7750 per life year saved.20 For
statins, the cost efficacy figure varies with different analyses21
from £5400 to £13 000, yet the NHS spends around 10 times as
much on statins as it does on smoking cessation treatments. It
should also be borne in mind that successful smoking cessation
can hugely reduce the need for statin prescribing, by an
estimated 80%, as a result of the reduction of an individual's
level of cardiovascular risk on quitting.22

### CONCLUSION

To improve success in smoking cessation, primary health care
professionals should systematically and repeatedly advise
smokers to stop and more smokers should be persuaded to
attend specialist cessation services, especially heavy smokers
and those with smoking related disease. There is a need for
better coordination of primary and secondary care efforts with
the specialist clinics, and for these clinics, which have been
built up successfully over the past three years or so, to be
funded on a permanent basis in order to avoid losing experi-
enced personnel. There should be wider use of pharmaco-
therapies as these significantly enhance long term success
rates. Finally, it is also important to recognise that tobacco

### Table 1 Smoking cessation guidelines for primary
care. Adapted from West et al,3 with permission

<table>
<thead>
<tr>
<th>Success rate (%)</th>
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<tbody>
<tr>
<td>Intensive support + treatment</td>
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<td>Intensive support</td>
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<tr>
<td>Intensive support</td>
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<td>Brief advice</td>
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<td>No action</td>
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NRT, nicotine replacement therapy.
addiction is a chronic relapsing disorder, and many smokers who quit in the short term will relapse and hence will need repeated help, as is the case for other addictive disorders.

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REFERENCES