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DISCUSSION PAPER

IPCRG Consensus statement: Tackling the smoking epidemic - practical guidance for primary care

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Abstract

Tobacco use will become the world's foremost cause of premature death and disability within 20 years unless current trends are reversed. Many opportunities to reduce this epidemic are missed in primary care. This Discussion paper from the International Primary Care Respiratory Group (IPCRG) – which reflects the IPCRG's understanding of primary care practitioners' needs – summarises a new approach based on strong evidence for effective interventions.

All primary care health professionals can increase smoking cessation rates among their patients, even when time and resources are limited. Medical and non-medical staff can support patients who choose to quit by providing information, referral to telephone counselling services, and behavioural counselling using motivational interviewing techniques, where resources permit. Drug therapy to manage nicotine dependence can significantly improve patients' chances of quitting successfully, and is recommended for people who smoke 10 or more cigarettes per day. All interventions should be tailored to the individual's circumstances and attitudes.

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Introduction

The health benefits of smoking cessation, and the efficacy and cost-effectiveness of medical treatment for tobacco dependence, are well established.[1] For pharmacological therapies, it has been estimated that one person will successfully quit (achieve 6-month abstinence) for every 6–23

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people treated.[2] Given that approximately half of all long-term smokers will die of a smoking-related illness,[3,3a] smoking cessation represents a highly effective preventive strategy compared with other primary prevention interventions.

Health professionals working in primary care can play a vital role in helping their patients quit smoking. The International Primary Care Respiratory Group (IPCRG) has recently published practical guidance on smoking cessation in primary care[4] as part of its current focus on reducing the impact of smoking on respiratory health.

This IPCRG practical guidance discussion paper is intended for use by primary care health professionals including doctors, nurses and other health workers. It provides an overview of useful tips for incorporating brief, effective smoking cessation interventions into everyday practice, and is supported by a desktop aid. The IPCRG guidance has been developed to help primary care health professionals integrate effective and time-efficient strategies for smoking cessation into their everyday practice. It draws on, but is not intended to replicate, systematic reviews of clinical literature on smoking cessation interventions undertaken elsewhere,[5–16] nor is it intended to replace national guidelines.[6,17–26] The guidance development process is outlined at www.theipcrg.org. In summary, no new systematic reviews have been performed; available reviews and guidelines[5-26] were reviewed, and specific primary care elements were identified and collated during a consensus meeting and then summarised in this paper.

Background: the smoking epidemic

On current trends, tobacco use may become the world's most common cause of premature death and disability within 20 years.[1] Almost five million people die each year from tobacco-related causes, and the World Health Organisation (WHO) predicts that this number will double by 2030.[1] While the combination of population-based strategies and government policies over the past 20 years has substantially reduced the prevalence of smoking in most high-income countries, rates are increasing in low-income and middle-income countries.[27]

Individuals gain significant health benefits by quitting smoking (Table 1).[28] At the population level, smoking cessation by current adult smokers can be expected to reduce the burden of smoking-related disease within 20–30 years. Meanwhile, efforts to prevent young people taking up the smoking habit should improve population health 30–50 years from now.[1]

Survey-based studies in some Western populations indicate that over 70% of current smokers report that they want to quit.[29,30] Attitudes to smoking will be harder to change where it is a cultural norm or where the health benefits of quitting have not been well publicised. Regardless of public health messages, some smokers may not fully realise or accept the health risks of smoking.[31,32]

Table 1. Health benefits of smoking cessation.

Time since quitting	
8 hours	Blood levels of nicotine and carbon monoxide reduced by half Blood oxygen levels return to normal
24 hours	Carbon monoxide eliminated from the body
48 hours	Nicotine eliminated from the body Taste buds start to recover
1 month	Skin colour improves (loses greyish pallor, less wrinkled) Respiratory cilia begin to regenerate Withdrawal symptoms have stopped
3–9 months	Coughing and wheezing less frequent
5 years	Risk of a heart attack halved, compared with a smoker
10 years	Risk of lung cancer halved, compared with a smoker

Adapted from reference 28

Nicotine is highly addictive and smokers find it difficult to imagine life without cigarettes. Success rates are low for unaided attempts to quit.[33] Tobacco dependence is recognised by WHO as a chronic relapsing health disorder.[34] Successful long-term cessation often requires multiple quit attempts, and the experience of relapse can discourage people from continuing to try. Many tobacco users will need significant support to quit successfully and avoid relapse. Effective support includes motivation, advice, counselling, telephone or Internet-based support, and drug treatment where indicated.[1]

Primary care encounters: opportunities for intervention

Primary health care visits represent important opportunities to promote smoking cessation. Most smokers see their primary care doctor at least once each year,[35] and many people consider their family doctor as a key influence and source of advice about smoking.[36,37]

Despite effective strategies available to primary care health professionals to help patients quit, we lose many opportunities to counter the smoking epidemic. In countries where smoking is common among health professionals, personal smoking habit is likely to be a strong disincentive to advocate quitting by patients. Even where health professionals believe that smoking is harmful, barriers to intervention include time constraints, lack of skills and resources, health professionals' beliefs that brief advice is unlikely to be effective or that patients are not motivated to quit, and reluctance to jeopardise the doctor–patient

Table 2. Which smoking cessation strategies are effective?

Effective
Simple supportive organisational infrastructure – identifying and recording all patients' smoking status, placing smoking cessation literature and posters in waiting areas, promoting quit support services such as telephone counselling.[58]
Brief advice to quit given by a primary care doctor[6,8]
Telephone smoking cessation counselling services ('quit lines')[12,59,60]
Pharmacotherapy for nicotine dependence (Table 5)[6,9,11,15,16]
Face-to-face individual counselling by a healthcare worker trained in behavioural change and not involved in the person's routine clinical care.[10]
Effectiveness not demonstrated*
Acupuncture[14]
Hypnotherapy[5]

*Insufficient evidence demonstrating greater efficacy than placebo at 6 months' follow-up.

relationship by giving unwelcome advice.[38–40] In reality, however, patient satisfaction with the consultation is generally higher when smoking is addressed.[41,42]

Implementation considerations

For the IPCRG, the immediate challenge to improve the health of people with respiratory disease is to apply known evidence in practice.[43] As Grol and Buchan have argued, "*guidelines do not implement themselves ...[To achieve] complex changes in health care, we need to build bridges between the different approaches to better care — guidelines, performance indicators and feedback; patient empowerment; quality management; organisational change; improving culture, teamwork and leadership in the workplace; and creating the necessary financial incentives.*"[44]

A number of recent reviews[45–47] have examined the challenges of implementing guidelines in clinical practice. Models for improving physician adherence may not be generalisable to other settings where different barriers exist[48] – a consideration that is particularly relevant to the IPCRG's mission.

Primary care is complex because it involves dealing with a wide diversity of illnesses every day.[49,50] Primary care doctors must be able to identify, adapt and apply the appropriate intervention to each patient[51,52] within the person's family and social context and according to health system constraints that apply in their country.[53,54] Workloads are often high, so there is constant pressure on health professionals' use of time.[55,56]

In recent years, there has been a shift in emphasis from guideline development to implementing changes in practice that are informed by evidence.[51] For instance, Sheikh and

Table 3. Tailoring strategies to suit your practice.

	Consulting time available		
	< 5 minutes	< 1 minute	Nil
Ask	Ask about smoking status	Ask about smoking status	Waiting room materials: • Self-administered smoking questionnaire • Self-help quit materials Information: posters, leaflets, 'quit line' number
Assess	Assess: • interest in quitting • motivation and confidence to quit • barriers to quitting • level of nicotine dependence • outcome of previous quit attempts.	Assess interest in quitting	
Advise	Provide clear, personalised, non-judgemental advice to quit Encourage the patient to set quit date Give advice on withdrawal symptoms Re-emphasise health benefits of quitting	Provide clear, personalised, non-judgemental advice to quit	
Assist	Offer 'quit line' number and self-help material Offer another session Review the need for pharmacotherapy. Discuss type, common side effects and dosage.	Offer a 'quit line' number and self-help materials	
Arrange	Arrange: • follow-up within 7 days • further support as needed.	Set up prompt to discuss smoking at the patient's next visit.	

Wallia[57] have addressed a specific problem for people with diabetes undergoing a prolonged period of fasting.

Practical guidance for the primary care team seeks to use the available evidence to inform the way that care can best be delivered in a local setting.

Key messages from the IPCRG

Primary care health professionals can support smokers effectively before they are ready to quit, during quit attempts, after quitting and during any relapses. Effective smoking cessation interventions in primary care are based on an awareness of which strategies have been shown to work (Table 2), and on making the most of available resources (Table 3, Figure 1). Key recommendations of the IPCRG guidance are summarised in Table 4.

Use every opportunity to promote smoke-free living

Consider whether your practice can implement some or all of these strategies to raise awareness of the benefits of quitting and to offer support:[52]

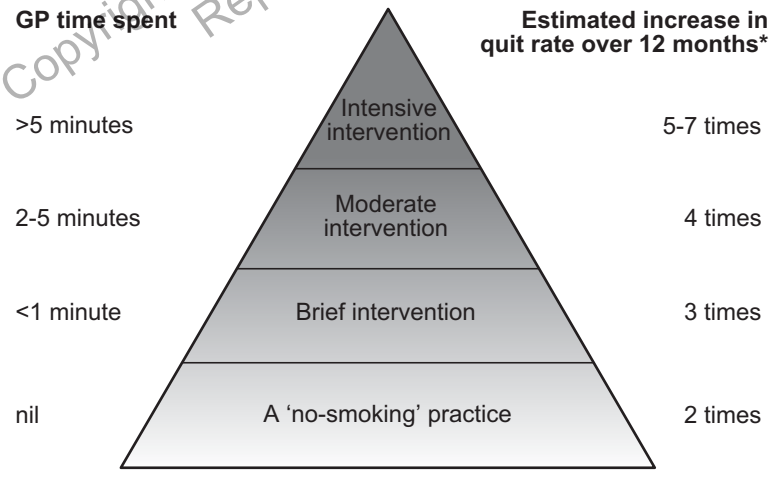
- Become a 'no-smoking' practice; institute a smoking ban on practice premises (for staff as well as visitors).
- Place posters and smoking cessation literature in the waiting area.
- Set up systems to prompt you to ask each patient about smoking, routinely record smoking status in medical records, and review it yearly. A combination of identifying and recording all patients' smoking status, displaying smoking cessation literature and posters in waiting areas and promoting telephone counselling services ('quit lines') can double quit rates among your patients, compared with no intervention.[58]
- Opportunistically provide clear, personalised, non-judgemental advice to quit. For every 100 people who receive brief advice from a primary care doctor to quit smoking, up to three extra people will succeed in quitting for at least six months compared to when no advice is given.[6,8] Approximately 40% of smokers make some attempt to quit after such advice.[6]

Support smokers who want to quit

Whenever smokers indicate they would like to quit, offer your support. Provide reliable verbal and written information and offer consultation to help them in the quit attempt. Refer people to quit lines, where available. Services that actively call people back for follow-up counselling are more effective than those providing only counselling on demand.[12,59,60] In the UK (and in some other European countries) there are effective specialist smoking cessation services. Smokers referred to these services are treated in groups using an approach that aims to foster group communication and support.[61] This approach is cost effective because groups of 20 or more smokers can be treated together and success rates are relatively high.[62]

Prescribe drug treatment for tobacco dependence as indicated (Table 5). Pharmacotherapy, particularly when

Figure 1. Choose the level of intervention that suits your practice.



No-smoking practice: identify and record patients' smoking status, place smoking cessation literature and posters in waiting areas, promote quit support services; **Brief intervention:** discuss smoking status, assess motivation to quit and nicotine dependence, give encouragement to quit, offer advice, information and self-help materials, make a separate appointment to discuss smoking cessation, refer to quit line; **Moderate intervention:** assess barriers to quitting (quitting history, high-risk situations), briefly explore motivation, ambivalence, barriers and confidence, advise on overcoming dependence, discuss solutions, prescribe pharmacotherapy, offer support and referral to quit line, arrange follow-up; **Intensive intervention:** in addition to all of the above, offer more intensive exploration of person's motivation, attitudes and confidence, make a quit plan.

Adapted with permission from reference 58 *Compared with no intervention

Table 4. Key recommendations.

Recommendation	Grade*
Make your practice 'smoke free' by banning smoking on the premises, displaying information on smoking cessation in the waiting room, asking every patient about smoking status, and promoting smoking cessation services.	B
Opportunistically provide brief, clear advice to quit whenever appropriate (doctors).	A
Train practice nurses and other staff to encourage smokers to quit and offer assistance.	C
Recommend a local telephone counselling service ('quit line'), where available, to all smokers who indicate interest in quitting.	A
Consider prescribing drug treatment for tobacco dependence (e.g. nicotine replacement therapy, bupropion, varenicline) to people who smoke 10 or more cigarettes per day, after consideration of contraindications and comorbidity.	A
Tailor your approach to smoking cessation advice or treatment to the individual's degree of readiness to quit.	D
Use a non-judgemental communication style.	C
Use motivational interviewing techniques† to help people understand their own attitudes to smoking and quitting, make their own decisions and solve problems encountered during a quit attempt.	B
Provide or arrange intensive behavioural counselling, where resources permit.	A

*Recommendations graded according to the Scottish Intercollegiate Guidelines Network system (described at http://www.bmj.com/cgi/content/full/323/7308/334 accessed January 2008)[78]

†Effective when provided by trained counsellors

supported by behavioural counselling, significantly improves long-term quit rates compared with no treatment or placebo.[9-11,15,16] Offer pharmacotherapy to people who smoke 10 or more cigarettes per day[63,64] or who smoke within 30–60 minutes of waking, after consideration of contraindications and co-morbidity. Selection of pharmacotherapy is based on clinical suitability and takes account of patient choice.[65]

Tailor advice to the person's circumstances

Smoking cessation advice is likely to be most effective when tailored to suit the individual. Time spent giving specific advice about nicotine withdrawal or drug therapy may be misplaced when offered to a person who is not yet ready to contemplate a quit attempt. A more efficient approach might be to spend a few seconds reinforcing motivation by simply stating the health benefits of quitting. Discussion of 'banning' smoking inside the home must take into account the smoking habits of other family members.

Assess each person's readiness to quit. While the theoretical basis of the "stages of change" model of health-related behavioural change (Figure 2)[66] has recently been questioned,[67] it remains a useful framework in the consultation to enable you to tailor advice and support. Use the following approach as a guide:

- For people who have not yet thought about quitting (pre-contemplation stage), state the health benefits of quitting and offer to help as soon as they feel ready to try. Ask permission to discuss their experience of smoking (e.g. habit, degree of nicotine dependence, previous attempts).
- For those contemplating quitting, explore their ambivalence by helping them identify the pros and cons of quitting. Identify how you can help with a quit plan and offer to provide medical support when they are ready to try.
- For those who have decided to quit, give enthusiastic support, help plan the quit plan and set a firm quit date. Offer medical support including pharmacotherapy, and give advice on how to manage nicotine withdrawal. Offer a follow-up visit.
- For those currently attempting to quit, discuss the quit plan and offer help coping with relapse. Arrange a follow-up visit. Congratulate people when they succeed.
- For those who have quit, offer ongoing support to maintain a smoke-free lifestyle and reinforce the health benefits already achieved.
- For those experiencing relapse, reassure them that they have not 'failed' and have already made progress by gaining the valuable lessons learned from the last quit attempt. Encourage them to use this experience for the next attempt. Reassure them that relapse is common but that people can often quit permanently after more than one attempt.

Use a motivational approach to support quit attempts

A motivational, non-judgemental style during consultations is more likely to engage patients than a judgemental, directional style.[68-71] Take the role of an interested, empathising partner who asks questions that explore the smoker's determination and ability to quit. Motivational

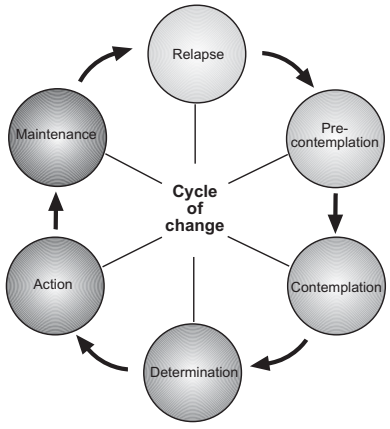
Table 5. Pharmacotherapy for nicotine dependence.

Agent	Efficacy	Contraindications	Adverse effects
Nicotine replacement therapy (gum, patches, nasal sprays, sublingual tablets, lozenges)	Abstinence at 6 months approximately 1.5–2 times higher than for placebo or no nicotine replacement therapy[9]	Acute coronary syndromes Severe cardiac arrhythmia Post stroke (acute phase)	Gastrointestinal disturbances (gum) Local irritation (patches, nasal sprays, sublingual tables, lozenges)
Bupropion*	Abstinence at 6 months approximately doubled compared with placebo[15]	History of seizures Anorexia nervosa Bulimia Bipolar disorder Severe liver impairment Pregnancy	Insomnia Dry mouth Nausea Headache Constipation Agitation
Nortriptyline†	Abstinence at 6 months approximately doubled compared with placebo[15]	Recent myocardial infarction Benign prostatic hyperplasia History of urinary retention	Sedation Dry mouth Light-headedness Cardiac arrhythmia Constipation Nausea Visual disturbance Benign prostatic hyperplasia
Varenicline	Abstinence at 12 months approximately three times higher than for placebo[16]	Pregnancy Significant psychiatric illness	Nausea Insomnia Abnormal dreams Headache Gastrointestinal upset

*Can be used in combination with nicotine replacement therapy

† Not licensed for smoking cessation, but is an inexpensive alternative for consideration where other options are unavailable

Figure 2. The cycle of change.



Pre-contemplation: person has not yet considered quitting; **Contemplation:** person is considering quitting but still very ambivalent; **Determination:** person is ready to attempt quitting; **Action:** quit plan is underway; **Maintenance:** person has quit; **Relapse:** person has recommenced smoking.

Adapted with permission from reference 64

interviewing acknowledges that the patient, not the doctor, is responsible for changing behaviour. There are four key principles:[72]

1. Acknowledge the person's behaviour as his or her own personal choice.
2. Let patients decide the degree to which smoking is a problem for them.
3. Avoid argumentation and confrontation.
4. Encourage the person to discuss the advantages and disadvantages of making a quit attempt, as they see them. Use this discussion to highlight inconsistencies in the smoker's beliefs.

A useful framework for integrating all of the evidence-based strategies for smoking cessation in primary care is based on the principles of asking, assessing, advising, assisting and arranging – the 'five As' (Table 3). This framework complements the motivational approach based on the cycle of change and has been successfully applied in practice to guide patients through and beyond their quit attempt.[6,26,63]

Make the most of available time

Effective strategies can be incorporated into routine primary care encounters, even where available consultation time is limited (Figure 1). Before health workers even mention smoking, a practice can already have sent patients a strong visual "quit smoking" message through posters and literature in the waiting room.[73]

Brief advice to quit takes less than a minute. In 2–5 minutes (particularly if working in co-operation with other team members), it is possible to ask a patient about current smoking status, briefly assess the person's desire to quit and degree of nicotine dependence, identify the main barriers to quitting and suggest some strategies to overcome them, set a quit date, provide self-help materials, and arrange follow-up or referral to 'quit' services.

Recruit all staff members to help motivate patients to quit smoking. Suitable roles might involve asking about smoking status whenever appropriate, offering literature, and informing people about useful local websites and services such as telephone counselling.

Where resources permit, offer more intensive intervention (for example, behavioural support in sessions at least 30 minutes long, or shorter sessions in combination with follow-up appointments and pharmacological support). These types of intensive support may increase rates of successful quitting (at least six months' abstinence) by up to 19% more than for groups not receiving these forms of support.[6]

Special risk groups

Pregnant women

Smoking cessation interventions are particularly effective during pregnancy because mothers are usually aware of the potential harm to their baby.[7] Post-partum follow-up reduces relapse rates.

Nicotine replacement therapy may be appropriate (subject to local prescribing regulations), given that the dose of nicotine is lower than the dose from cigarettes. However, there are limited safety data for pregnancy, so the benefits must be weighed against potential adverse effects. Most national smoking cessation guidelines conclude that the benefits of treatment outweigh the risks and therefore recommend using some form of NRT during pregnancy. However, bupropion and varenicline are not recommended in pregnancy.

Adolescents

Approximately 80% of smokers begin smoking during their teenage years. Nicotine dependence develops very rapidly in teenagers. Among teenagers who lose control over their tobacco use, 10% do so within two days of inhaling from a cigarette for the first time, and 50% by the time they are smoking seven cigarettes per month.[74]

Teenagers care more about the immediate benefits to their appearance, current well-being and financial status than about future health gains. Therefore, it is useful to emphasise the following benefits of quitting in addition to long-term health: better physical appearance including teeth; avoiding bad breath; cost savings (e.g. calculate the amount spent per year on cigarettes); better sexual performance; avoidance of toxic chemicals in cigarettes; and ability to control own behaviour.

People living with mental illness

Compared with the general population, smoking rates are higher among people with mental illness, and heavy smoking is common among those with psychotic disorders.[75] Bupropion and nortriptyline are effective in assisting smoking cessation in people with and without a history of depression.[76] Carefully consider potential interactions with other antidepressant medications, including lowering of the seizure threshold. Varenicline is not recommended in patients with significant psychological illness because there is a lack of evidence for its efficacy and safety in this group.[65]

Conclusions

All primary care health professionals should consider smoking as an important health issue for intervention, and should manage tobacco dependence as a chronic relapsing medical disorder. All can make an effective contribution by helping existing adult smokers to quit and encouraging teenagers not to begin smoking. Evidence-based smoking cessation strategies can be incorporated into any primary care practice, tailored to the practice style, the patient demographics, and the time and resources available.

Cultural issues will differ between primary care settings, depending on the country and its cultural norms, the socio-cultural backgrounds of health professionals, and the socioeconomic status of their patients. Independent of their desire to quit, groups who are socioeconomically deprived face additional challenges and may need more support to quit and avoid relapse. In Europe, for instance, quit rates seen over the past 10 years have been higher among groups with higher socioeconomic and education status.[77] Those groups that have not yet benefited from the secular trend towards a smoke-free lifestyle stand to benefit most from well-directed support from their primary care health professionals.

Accordingly, this IPCRG guidance is offered as a set of suggested strategies based on those which have proved effective in their original socio-cultural settings. In the absence of supportive government policies, implementation of the guidance will be particularly challenging for individual primary care health professionals.

Conflict of interest

The authors have declared that there are no directly relevant conflicts of interest in relation to this article.

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