Smoking cessation HPHS briefing (2016)

Background

Tobacco remains the primary preventable cause of ill health and premature death in Scotland,\textsuperscript{1,2} accounting for just over 10,000 smoking-attributable deaths and almost 128,000 hospital admissions each year.\textsuperscript{3} It also causes a considerable reduction of life expectancy and number of years of healthy life expectancy in others.\textsuperscript{4}

In Scotland, 24\% of all deaths are directly attributable to smoking.\textsuperscript{3,5,6} For every smoker in the UK who dies per year from smoking, many more suffer from smoking-related disease, as the burden of tobacco extends far beyond mortality and includes ill-health and disability for others.\textsuperscript{7}

Smoking during pregnancy is the ‘single largest preventable cause of disease and death to the foetus and infants, accounting for a third of perinatal deaths\textsuperscript{8} (300 per year attributable to smoking in the UK).\textsuperscript{9} It is a cause of a number of women’s health issues as well as foetal and neonatal problems, for example complications in pregnancy and labour (including ectopic pregnancy, placental complications and premature rupture of the membranes), preterm delivery, stillbirth, low birthweight, sudden infant death syndrome (SIDS) and lung function problems. It also increases the risk of miscarriages.\textsuperscript{10–13} Additionally, maternal exposure to second-hand smoke (SHS) during pregnancy is a cause of a small reduction in birthweight.\textsuperscript{13} Exposure to SHS in infancy is a cause of SIDS, respiratory illnesses/infections/symptoms including asthma, reduced lung function and middle ear disease.\textsuperscript{10–13}

<table>
<thead>
<tr>
<th>There is well-established evidence that smoking causes:</th>
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<td>• cardiovascular/cerebro-related diseases</td>
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<td>o cerebrovascular disease, in particular stroke</td>
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<td>o cardiovascular disease, in particular coronary heart disease, atherosclerosis, peripheral vascular disease, abdominal aortic aneurysm</td>
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<td>• lung-related and respiratory diseases</td>
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- lung cancer
- chronic obstructive pulmonary disease (COPD)
- respiratory illnesses and infections
- oral cavities
- laryngeal cancers
- pharyngeal cancers
- oesophageal cancers
- a range of other cancers, including gastric/stomach, colorectal, liver, kidney, bladder and pancreatic cancers
- adverse health outcomes in cancer patients and survivors
- diabetes – increased risk for smokers with diabetes of developing cardiovascular disease and complications, and smoking is an independent risk factor for type 2 diabetes
- a range of other conditions and illnesses
  - macular degeneration
  - cataracts
  - periodontitis
  - low bone density
  - rheumatoid arthritis
  - inflammation
  - impaired immune function.

In addition, SHS is a cause of lung cancer, cardiovascular disease, stroke, and respiratory effects and symptoms.\textsuperscript{13}

There is also an increased risk of surgical complications (smoking is an established cause of adverse surgical outcomes related to wound healing and respiratory complications).\textsuperscript{13} There is a well-established link between smoking and other postoperative complications, such as increased mortality, pulmonary/cardiovascular complications and delayed recovery.\textsuperscript{14,15}
The health benefits of stopping smoking start immediately. For example, the heart rate drops and oxygen levels in the blood return to normal within days, lung function begins to improve and the incidence of respiratory infections and symptoms decreases within weeks. The benefits can help those with existing smoking-related disease. Stopping smoking can slow the progression of heart or respiratory disease and reduce the risk of it recurring. It improves lung function in mild/moderate COPD sufferers within a year, and being quit in the longer term reduces the risk of cardiovascular and cerebrovascular disease and lung and other cancers. Stopping smoking before an operation decreases the risk of complications including wound complications, and generally reduces the risk of infections, delayed wound healing, postoperative complications, length of stay in hospital, the need for readmissions post surgery and survival rates. Generally, the earlier a smoker stops smoking pre surgery, the better the outcomes.

Hospital and midwifery settings provide ideal opportunities for the provision of smoking cessation support, with actual or potential smoking-attributed or smoking-exacerbated medical conditions raising receptivity and motivation. Unplanned admissions and associated enforced/unforeseen cessation, meanwhile, has the potential to become sustained abstinence.

Interventions, approaches and support for smoking cessation

Specialist smoking cessation services are available in every NHS Board in Scotland, although a variety of service models exist (for example in terms of access or referral pathways to services, and service locations/bases in the NHS). There are some specialist smoking cessation services for pregnant women and some hospital-based smoking cessation services.

In order to make a bigger impact on reducing the toll of smoking on the nation’s health, all health practitioners must play a role in helping smokers to quit. Those who can potentially contribute to smoking cessation through the provision of a brief intervention include, among other wider groups of staff within and outwith the NHS, hospital staff, midwifery and nursing staff, allied healthcare professionals, healthcare assistants, support workers, porters, administrative staff and other health professionals.

There should be close integration between specialist smoking cessation services and this wider smoking cessation activity (the provision of brief interventions), enabling referrers to understand the role of services better and act as more effective sources of referrals. The most effective smoking cessation approach is a combination of intensive, behavioural support and pharmacotherapy (which increases the rate at which quit attempts are made and improves their success rate). However, brief interventions in a variety of settings are effective in triggering new quit attempts by providing motivation to quit (see What are brief interventions? page 5). They are an essential element in efforts to increase the number of people who quit smoking as they are a vital source of referrals to smoking cessation services.
Different professional groups play important roles in targeting and supporting delivery of smoking cessation activity to particular population groups, through the provision of brief advice and referral on to services. Examples include the following:

- Midwifery staff monitor smoking status and exposure to SHS through the use of a carbon monoxide monitor and discussion. They offer automatic referrals and fast-tracking to intensive support through specialist NHS smoking cessation services for recent quitters and those with elevated readings. They also offer additional smoking cessation advice, encouragement and support throughout the pregnancy and at the postnatal appointment to reinforce the intensive support offered by smoking cessation services. In addition, they review the offer of referral if the original referral is declined and advise other household members not to smoke around pregnant women.

- Secondary care staff can access training to learn how to provide brief advice on stopping tobacco use and refer on to intensive/specialist NHS smoking cessation services. They identify and record the smoking and/or tobacco use status of their patients, and remind smokers at every suitable opportunity of the health benefits of stopping. They also offer brief advice and refer smokers on to the intensive/specialist NHS smoking cessation services. This ensures that they have an appointment prior to discharge and/or preferably for provision of this support while in hospital and access to pharmacotherapy (usually nicotine replacement therapy) as appropriate.

Hospital patients (including from pre-admission/pre-appointment as well as during actual use of secondary care), should be reminded at every opportunity of the health benefits of stopping smoking and given advice linked to their medical condition. They should be encouraged to stop as early as possible prior to surgery/admission and offered timely (ideally immediate) access and referral to an intensive/specialist service with pharmacotherapy, carbon monoxide monitoring and regular support.

For those already in hospital, advice from a suitably trained professional should be offered to help them to quit, and, if appropriate, nicotine replacement therapy (NRT). NRT can also be used to manage nicotine withdrawal symptoms through an enforced quit, if the patient is not ready to quit. An appointment with an intensive support service should be offered to achieve and maintain abstinence. Organising a fast-tracked referral and appointment with an NHS smoking cessation service prior to discharge is important for those who have started their quit attempt in hospital.

Advice for carers, visitors and household members should also be provided on the dangers of SHS exposure, and advocating not smoking around the patient. Smoking cessation and temporary abstinence support should be offered, along with the offer of referral for support and signposting to services to obtain NRT for temporary abstinence.15

Support for staff should also be provided, including the offer of on-site intensive support or signposting to details of other intensive smoking cessation services, and, for those unable or not ready to quit completely, advocating NRT for temporary abstinence.15
Tackling inequities

In order to mitigate against an increase in inequities, the World Health Organization recommends the following:

- Mandatory training for all front-line healthcare staff.
- Ensuring smoking cessation support is routinely offered at all healthcare visits and hospitalisations.
- Reducing financial, geographical and cultural barriers to accessing smoking cessation support, primary care and hospital services.

It refers to a review of pilot projects aiming to reduce smoking among a range of priority groups. These include introducing mandatory identification of tobacco users across all healthcare settings and implementing routine expired-air carbon monoxide monitoring.18

What are brief interventions?

A brief intervention or brief advice (the terms are often used interchangeably) to stop smoking involves a health worker taking opportunities provided through contact with patients (and their families) to advise and encourage smokers to stop smoking. They can also recommend support to help them do so, such as intensive/specialist NHS smoking cessation services with pharmacotherapy, and refer on to this more intensive treatment where appropriate.

The length of an intervention is typically 5–10 minutes, depending on whether it includes all the elements that all healthcare professionals should routinely provide. These include:

- asking, recording and having ready access to information on the current smoking status and tobacco use of patients (and the most recent occasion when advice to stop was given and the response to it)
- advising and encouraging all smokers to quit (advice may be linked to the disease/medical condition), providing advice on the benefits of complete quitting, and offering them help to do so (advice should be sensitive to the individual's preferences, needs and circumstances)
- advising of the dangers (to themselves and others) of exposure to SHS – this is even more important for those with diagnoses of heart disease, pregnant women and children
- encouragement to use/referral to services and explanation of the support available
- finding out how interested smokers are in quitting through assessment of commitment to quit
• an offer of pharmacotherapy and/or more intensive behavioural support through fast-tracked/timely referral when appropriate

• further support, encouragement and follow-up if support not accepted

• the provision of self-help material

• the recording of this intervention in the patient’s notes and review of this note

• explaining and advocating licensed nicotine-containing products, alongside providing nicotine replacement therapy if/as appropriate, if the patient is not ready to quit completely. Signposting and referral to intensive support.

Ideally, raising the topic of smoking and the benefits of completely quitting should take place on a regular basis throughout the patient’s journey in the NHS so that a consistent message is reinforced. These conversations should also be raised with the patients’ families in order to reduce the level of second-hand smoke exposure (passive smoking).

Evidence of effectiveness for smoking cessation support

Brief interventions can be a cost-effective and effective way of helping patients to stop smoking. Delivery should be consistent, sustained and systematic in order to provide a dripping tap effect to each patient, promoting quit attempts and gradually preparing smokers to quit or to reach the mindset of being ready to do so. The effectiveness of brief interventions is small in percentage or absolute terms, and they are not a substitute for intensive smoking cessation services. However, they can have a significant cumulative public health contribution due to the frequency with which individuals have contact with healthcare staff. This offers the potential to reach large numbers of the population and, therefore, the overall number of quit attempts promoted.

Brief advice on smoking cessation from doctors increases the likelihood that the smoker will quit and remain quit 12 months later. Such advice can increase quit rates by a further 1–3% over and above the unassisted or baseline background unassisted quit rate of 2–3%. More intensive advice from a doctor and/or follow-up support may result in higher quit rates, although this effect is small. A Cochrane review concluded that ‘there are potential benefits of smoking cessation advice and/or counselling given by nurses to patients.’ In addition, those who are medically referred to smoking cessation services are more likely to be successful in quitting than self-referrals.

Smoking cessation support with specific groups:

• A Cochrane review concluded that ‘psychosocial interventions to support women to stop smoking in pregnancy can increase the proportion of women who stop smoking in late pregnancy, and reduce low birthweight and pre-term births.'
Another Cochrane review concluded that, irrespective of admitting diagnosis and whether it was an acute or rehabilitation setting, ‘high intensity behavioural interventions that begin during a hospital stay and include at least one month of supportive contact after discharge promote smoking cessation among hospitalised patients.’

Taking this review of interventions for hospitalised patients and subsequent studies into account, the suggestion is that at least two months’ post-discharge telephone follow-up is likely to be required in order to be more successful. This can be provided by specialist smoking cessation services.

The following documents provide further evidence:


**Pharmacootherapy**

Pharmacotherapies have much lower risks than continued smoking and are most effective when combined with intensive smoking cessation support (for example from an NHS smoking cessation service) – this combination is the optimal form of support.

Availability of, and access to, a range of pharmacotherapies for patients and staff (in addition to smoking cessation support) via formularies and guidelines should be provided, and NRT should be available on site for sale to staff and visitors. Pharmacotherapies should be recommended and offered as appropriate, and smokers encouraged to use these licensed products (due to their longstanding safety and effectiveness profiles). Drug dosages affected by smoking/cessation should be monitored and adjusted as required and smokers encouraged to seek advice if side effects occur. For those who do not want or feel able to quit completely, NRT use for temporary abstinence should be encouraged.

Pharmacotherapy in the context of smoking cessation refers to licensed nicotine-containing products (currently seven forms of NRT), bupropion or varenicline. Although the three types of pharmacotherapies cannot be prescribed in combination, different forms of NRT, such as a patch with a shorter-acting form, can be. These can also improve the success rate of a quit attempt.

NRT, varenicline or bupropion should normally be prescribed as part of an abstinent-contingent treatment, in which the smoker makes a commitment to stop smoking on or before their target quit date. Initial prescriptions only last for two weeks after this date and subsequent prescriptions are issued only on condition that the quit attempt is continuing.

The traditional approach of quitting smoking abruptly on a target quit date, with intensive smoking cessation support and pharmacotherapy, offers the best outcomes.
for quitting, long-term quitting and health. For those unable or unwilling to quit, and who are highly nicotine-dependent, some harm-reduction options may be available.

However, some of these harm-reduction approaches may not be suitable for those for whom immediate smoking cessation is required, such as pregnant women and those with smoking-attributable or smoking-exacerbated conditions. These approaches haven’t been tested with particular subgroups.

Harm-reduction approaches include: cutting down to quit (for which there is most evidence, and indeed support for this may be available from services); cutting down; temporary abstinence; and long-term use of NRT for remaining quit long-term and preventing relapse. NRT improves the likelihood of success with each approach, and there are seven different forms. Smoking cessation advisers should be able to provide advice on the relative merits of these harm-reduction approaches, and pharmacists may be able to provide advice on the use of NRT for these approaches.

For those who are undergoing an enforced quit through a hospital stay, NRT can be offered to help manage nicotine withdrawal symptoms for temporary abstinence purposes, along with advice and an appointment to intensive services.

When considering prescribing or providing NRT to 12–17 year-olds, pregnant or breastfeeding women, or those with unstable cardiovascular disorders, explain the risks and benefits of NRT use in detail and strongly encourage them to attend the intensive/specialist smoking cessation services.

A supply of pharmacotherapies should be provided post discharge to last until contact with a smoking cessation service.

**Monitoring**

Information Services Division (ISD) Scotland’s National Smoking Cessation Database enables NHS smoking cessation service advisers and pharmacists providing intensive, specialist support to record information for service use. It also enables them and ISD to use this data for monitoring and statistical reporting purposes, against which the HEAT (health improvement, efficiency, access, treatment) performance target on smoking cessation is measured.

For those providing brief intervention support, however, referral systems – including prompts for action/referral and to ensure continuity of care – should be developed. Local monitoring systems (preferably electronic) should be used to ensure that health professionals have access to information (for example via patients’ case notes or all records held in hospitals) on current smoking status, the most recent occasion on which advice was given to quit smoking (or encouragement to stay stopped) and the patient’s response to this.

**Training**

Training should be included in relevant curricula and, for frontline staff, should include how to undertake brief intervention and referral, the role and responsibilities around maintaining smoke-free policies and lack of compliance, and annual
This should be relevant to the clinical specialism and include sensitive discussion about smoking, the benefits of quitting, and details of services on offer.

Training is available for staff within secondary care and for maternity services staff. Visit www.healthscotland.com/learning/index.aspx for details.

Details of locally-available training are available from NHS Board Smoking Cessation Coordinators or from local NHS smoking cessation services.

**Strategies and policies**

Local tobacco control strategies should include secondary care and smoke-free secondary care services. These should identify a clinical/medical director responsible for ensuring the following are developed, made available, communicated and promoted:

- referral and support care pathway systems
- on-site intensive smoking cessation support (for staff and patients)
- formularies and guidelines with a range of pharmacotherapies on offer
- sale of NRT on site
- smoke-free buildings and grounds policies (with associated resources).

In addition, they should monitor and audit implementation, progress and outcomes of the above as well as the following: identification of smokers/smoking status recording; brief interventions and referrals; uptake of referrals and outcomes; pharmacy prescribing; training; and the process of/how they are meeting the needs of high-risk groups, and measuring reach and impact among those in high-risk groups.15

Local tobacco smoke-free policies should be developed in line with NICE guidance on secondary care (www.nice.org.uk/guidance/PH48) and NHS Scotland smoke-free implementation guidance (www.healthscotland.com/documents/24827.aspx). This includes ensuring that staff roles and responsibilities regarding encouraging compliance are clear, and that the availability of smoking cessation and temporary abstinence support are well communicated, with clear and consistent messages on the risks of SHS and on the policy details. The smoke-free policy and the need for abstinence should be communicated via verbal and written information before and during use of secondary care. Its rationale, plus the availability of local smoking cessation services and NRT for temporary abstinence, should be communicated to relatives, visitors and others.15
Useful resources


The guide draws on and builds upon previous smoking cessation guidelines for Scotland and tobacco/smoking-related NICE public health guidance. It comprises the following components:

- Helping Smokers to Stop – targeted at health practitioners.
- Brief Intervention Flowchart/Desktop Guide (updated 2015) and its accompanying E-cigarettes/Harm Reduction for Brief Intervention Note (2015) – targeted at health practitioners, to be used in conjunction with the above.
- Planning and Providing Specialist Smoking Cessation Services – targeted at smoking cessation advisers, pharmacists and commissioners.
- Harm Reduction Addendum (2014) – targeted at smoking cessation advisers, to be used in conjunction with the above.


Local tobacco control profiles (ScotPHO [ISD] and NHS Health Scotland).
www.scotpho.org.uk/comparative-health/profiles/online-profiles-tool
This includes indicators on smoking during and post pregnancy, and smoking-attributable death and disease, for each of Scotland’s Health Boards and local authorities.

NICE public health guidance 48. Smoking: acute, maternity and mental health services. www.nice.org.uk/PH48
This guidance focuses on smoking cessation, temporary abstinence from smoking, and smoke-free policies in and around all secondary care settings. Its recommendations are incorporated within this briefing.

This contains a commissioned review plus an accompanying advisory group report which include actions to improve the effectiveness of smoking cessation services.
Other useful NHS Health Scotland resources, containing additional case studies and suggestions for good practice for this setting and client group:

  www.healthscotland.com/documents/2664.aspx and  

- Evidence into Practice smoking cessation reports include examples of good practice for smoking cessation in pregnancy and hospital settings (2012).  

- Effectiveness evidence briefings including tobacco briefings specifically focusing on smoking cessation in pregnancy and in secondary care:  

- Smoke-free Mental Health Services in Scotland: Implementation guidance (2011).  

  www.healthscotland.com/documents/24827.aspx (guidance)  
  www.healthscotland.com/documents/24828.aspx (supporting material/resources from NHS Boards)
References


Fiona Moore, Public Health Adviser (Tobacco), NHS Health Scotland.