

TOBACCO DEPENDENCY IS A LONG-TERM RELAPSING CONDITION THAT USUALLY STARTS IN CHILDHOOD



Supporting smokers to quit, knowing and using these interventions, is the business of every healthcare professional.

Treating tobacco dependency is the single most cost-effective intervention for the prevention of smoking-related disease and for smokers who have smoking-related disease(s). A range of evidence-based pharmacological treatments exist to support smokers facing the difficulty of behaviour change and breaking nicotine addiction.

Stop smoking support, across the board, has been shown to be a clinically and highly cost-effective long-term intervention for people with smoking-related long-term disease.

MAKING EVERY CONTACT COUNT

Very Brief Advice

ASK

and record smoking status

Is the patient a smoker, ex-smoker or non-smoker?



ADVISE

on the best way of quitting

The best way of stopping smoking is with a combination of medication and specialist support



ACT

on the patient's response

Build confidence, give information, refer, prescribe
Patients are up to four times more likely to quit successfully with NHS support

Making Every Contact Count (MECC) encourages conversations based on behaviour change methodologies (ranging from brief advice to more advanced behaviour change techniques), empowering healthier lifestyle choices and exploring the wider social determinants that influence all of our health.

Patients expect to be asked about their smoking by a GP. 72% of smokers consider quitting and 30% try, but only a tiny fraction (5–8%) of smokers use an evidence-based intervention each year.

Make sure you have accessible information backed up by trained reception staff who facilitate access to the right stop smoking interventions and healthcare professionals who are trained and confident to help quitters.

<http://www.ncsct.co.uk/>
<http://www.nhshealth.org.uk/StopSmoking/>

ARE YOU PREPARED FOR SUPPORTING YOUR PATIENTS TO QUIT?

Have the tools you need on your desk and in your room

- A carbon monoxide monitor
- A microspirometer to assess lung age
- Examples of stop smoking medicines – show you know how to use them and that you consider them as treatments
- A stop smoking prescribing ready reckoner

TREATMENTS AVAILABLE

Smoking cessation treatment options, both pharmacological and advisory, are inexpensive and judged by NICE to be highly cost-effective in terms of life years gained.¹ Providing a mixture of nicotine replacement therapy (NRT) and a stop smoking drug is the most effective pharmacological intervention when providing behavioural support. When using NRT, ensure you are prescribing enough to manage the nicotine withdrawal symptoms. The best way to do this is often by giving more than one delivery system so patients can fit it in to their daily life. As with choosing inhaler devices, use something that the patient would like to try and change if it isn't working. There is good evidence to show that combination NRT is more effective than single product use. NICE recommends that combination NRT should be considered as a viable option for smokers wanting to quit.²

Nicotine replacement therapy (NRT)



- NRT is available in patch format, patch, inhalator, microtab, lozenge, mouthspray and nasal spray.
- Discuss patient preference, highlighting the benefits and disadvantages of each option. The patch is easy to use and available in different strengths but does not offer replacement activity for smoking whereas the gum, inhalator, lozenge, microtabs and nasal spray can all be titrated to nicotine needs and offer a replacement activity for smoking. The microtabs can taste unpleasant and the nasal spray is more difficult to use and may cause watery eyes and sneezing.



- The degree of nicotine addiction and therefore the required dosage of NRT is best decided by asking how long after waking the first cigarette is smoked, the so called "Time To First Cigarette" (TTFC). If the TTFC is less than 30 minutes, the maximum dose should be used.
- Localised reactions can occur depending on the form taken (e.g. skin irritation with patches).
- NRT can be prescribed in pregnancy, breastfeeding and in children from the age of 12 years. Swallowed nicotine may exacerbate symptoms in patients suffering from oesophagitis, gastritis or peptic ulcers and oral NRT preparations should be used with caution in these conditions.³



Bupropion (Zyban®)

- Bupropion works as a dopamine re-uptake inhibitor, reducing the need for the next cigarette because of the fall in dopamine levels.
- Side effects include insomnia, headache, dry mouth and nausea. It is reported to cause seizures in one per 1,000 people.³
- Some patients express a preference for bupropion if they have used it before or if it has been recommended by a friend.



Varenicline tartrate (Champix®)

- Varenicline tartrate is the most effective of the smoking cessation drugs.
- It has long-term quit rates of 22.5% compared with 15.7% for bupropion and 9.4% for placebo.⁴
- Varenicline tartrate has no known clinically meaningful drug interactions (for full details please see summary of product characteristics at <http://emc.medicines.org.uk>). The main side effect is nausea which affects about a third of patients, so warning of this before prescribing is a good idea. It often occurs as the dose goes up on days 4 and 8, usually lasts for about an hour after taking the tablet for the first two or three weeks, and is mild to moderate with 97% of patients tolerating it. Taking treatment with drink or food can help, and if it becomes difficult to tolerate then anti-emetics such as prochlorperazine can be used for a short period or the dosage may be reduced from 1 mg b.d. to 0.5 mg b.d.
- Varenicline tartrate is contraindicated in the under 18s, pregnant or lactating women and those with end-stage renal disease.



- Varenicline can be used in people with mild, moderate and severe mental illness.⁵ It has very few if any clinically significant drug interactions.⁶
- The act of stopping smoking itself may alter the liver metabolism of insulin and warfarin, for example. Psychoactive medication requirements may change for the same reason, so extra monitoring is usually required in those with more serious mental health problems and with certain drugs.

References

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- Combination therapy - NCSCT http://www.ncsct.co.uk/publication_combination_nrt_briefing.php
- Prescribing Information for smoking cessation products available at <https://www.medicines.org.uk/emc/medicine/20534> (change the searches for different products)
- Gonzales DH *et al*. Presented at 12th SRNT, 15th-18th Feb 2006, Orlando, Florida, Abstract PA9-2
- Anthenelli RM, Benowitz NL, West R, *et al*. Neuropsychiatric safety and efficacy of varenicline, bupropion, and nicotine patch in smokers with and without psychiatric disorders (EAGLES): a double-blind, randomised, placebo-controlled clinical trial. *Lancet* 2016; **387**:2507–20. [http://dx.doi.org/10.1016/S0140-6736\(16\)30272-0](http://dx.doi.org/10.1016/S0140-6736(16)30272-0)
- <https://www.drugs.com/monograph/varenicline-tartrate.html>

Manufacturers have had the opportunity to comment on the factual accuracy of the information about their product or equipment.

E-CIGARETTES

Based on the current evidence PCRS-UK supports e-cigarettes as a positive option available to support people to quit tobacco smoking.

- E-cigarettes are marketed as consumer products and are proving much more popular than NRT as a substitute and competitor for tobacco cigarettes.
- The hazard to health arising from long-term vapour inhalation from the e-cigarettes available today is unlikely to exceed 5% of the harm from smoking tobacco.
- The available evidence to date indicates that e-cigarettes are being used almost exclusively as safer alternatives to smoked tobacco, by confirmed smokers who are trying to reduce harm to themselves or others from smoking, or to quit smoking completely.
- Supported by Public Health England, RCP and RCGP



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References

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- RCGP Position Statement on the use of non-combustible inhaled tobacco products, November 2016 <http://www.rcgp.org.uk/policy/rcgp-policy-areas/e-cigarettes-non-combustible-inhaled-tobacco-products.aspx>
- Public Health England E Cigarettes Evidence Review <https://www.gov.uk/government/news/phe-publishes-independent-expert-e-cigarettes-evidence-review>

Carbon monoxide breath test monitors

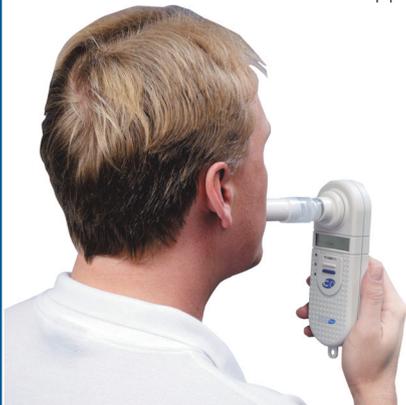
Carbon monoxide (CO) is breathed into the lungs from polluted or smoky air or from inhaling tobacco smoke. CO is absorbed into the blood from the lungs. It binds to haemoglobin in red blood cells about 200 times as readily as oxygen. It also reduces the release of oxygen. CO deprives the body of oxygen and the body needs oxygen to live.

CO monitors measure the amount of CO in the exhaled breath in CO molecules in a million parts of air (parts per million – ppm). The CO ppm reading informs how much CO is in the blood. The COHb(%) reading is the proportion of haemoglobin that is carrying CO instead of oxygen. If a CO ppm reading is 30 ppm then it means that 5% of the red blood cells are carrying CO.

Smokers can have 2–20% of their normal blood oxygen taken up by CO.

The CO breath test is simple and quick to perform with instant readings. In most cases, patients are simply required to hold their breath for 15 seconds and then blow slowly into the mouthpiece aiming to empty the lungs fully.

Devices are inexpensive and easy to maintain. All devices require maintenance, cleaning and calibration to ensure accuracy. Inexpensive consumable mouthpieces can be purchased from suppliers.



Interpreting expired air carbon monoxide (CO) readings

10ppm
and
over

Almost certainly smoking

A reading of 10ppm and over suggests recent exposure to a high level of CO. He/she can be a smoker (higher readings indicate heavier smoking).

- If a person says he/she does not smoke, discuss potential reasons for a high CO reading (e.g. secondhand smoking, faulty gas appliances, cannabis smoking).

Example of what to say:

- "Your CO reading is... times high than what would be safe for you. As CO is a poisonous gas, which can cause serious health problems, it is important that you stop smoking completely to improve your overall health. Once you stop smoking, CO is eliminated from your body rapidly, and help is available to increase your chance of quitting."
- "Your CO reading today is... ppm which we normally only see in smokers, as the typical readings for adult non-smokers are below 10ppm. You can get support from trained professionals and there are effective medications to help you stop smoking."
- "One of the immediate health benefits of stopping smoking is rapid decline in your CO level. If you stop smoking completely, your CO reading will return from...ppm to that of a non-smoker within a day of quitting."

5-9ppm

Possibly smoking

A reading between 5ppm and 9ppm suggests recent exposure to a moderate level of CO. He/she can be a non-smoker or a light smoker

- If a person says that he/she smokes, discuss potential reasons for a low CO reading (e.g. CO monitors can only detect smoking in the last 24 hours).

Example of what to say:

- "This reading is consistent with that of a non-smoker, which is below 10ppm in adults."
- "Your CO reading is within the normal range. As long as you do not have a single puff on a cigarette, you can maintain this low level and become a non-smoker for good."

1-4ppm

Almost certainly not smoking

A reading of 4ppm and below suggests recent exposure to a low level of CO.

Example of what to say:

- "It is normal to have a small amount of CO in your breath even if you are not a smoker. The body naturally produces CO and the air quality around you can also affect your CO readings."

Acknowledgements

The content of this flyer is composed primarily of information derived from the PCRS-UK tobacco dependency resources available at <https://pcrs-uk.org/tobacco-dependency> written by Dr Noel Baxter. The PCRS-UK would like to thank GlaxoSmithKline, Pfizer Ltd and Williams Medical and for the supply of images of pharmacological treatments and equipment. Interpreting expired air carbon monoxide (CO) readings chart provided with permission by NHS London Clinical Senate.