

Supporting individuals to cut down and quit vaping

Guidance for NHS Quit Your
Way advisers based in prisons

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Key messages

- 1** This guidance is based on a review of the existing research evidence on cutting down or stopping vaping. Unfortunately, there have been no systematic reviews relating to cutting down or quitting vaping. Although vaping behaviour is different from smoking tobacco, both involve nicotine dependence and therefore the application of behaviour change techniques is currently considered appropriate.
- 2** There are eight steps to take the individual through quitting vaping, based on the principles of stop-smoking approaches.
- 3** Current evidence demonstrates that treatment with varenicline achieves the best quit rates for smokers. In order to support individuals in custody who are attempting to quit inhalation of nicotine delivered via vaping devices, NHS Boards intend to make nicotine replacement therapy (NRT) and varenicline available.
- 4** Individuals from custody on home leave and work placements require additional support to prevent or respond to relapse to smoking tobacco.
- 5** Preparing an individual for release from prison involves providing advice on relapse and signposting to Quit Your Way (QYW) Scotland support in the community.
- 6** If a practitioner is concerned that any individual's health condition or suspected problem could be linked to vaping, they have a duty to report this to their clinical supervisor.

How this guidance was developed

This guidance has been written to assist NHS Quit Your Way (QYW) and other practitioners operating within the prison setting to support individuals who want to cut down or stop vaping electronic cigarettes (e-cigarettes) – option 2 in the Smoke Free Prisons Service Specification.¹

The guidance is based on a review of the existing evidence on cutting down or stopping vaping. Details on the review can be found in Appendix A.

This guidance draws on the NHS Health Scotland Stop Smoking Standard Treatment Programme, which provides detailed steps on providing behavioural support for stopping smoking. You can access the [stop smoking specialist training module](#) on NHS Health Scotland's Virtual Learning Environment.

The same evidence-based behaviour change techniques, available from the NHS Health Scotland e-learning platform, should be applied when delivering a structured face-to-face stop-vaping intervention. This also reflects the knowledge, skills and competencies needed to deliver stop-smoking interventions. **Although vaping behaviour is different from smoking tobacco, both involve nicotine dependence and therefore the application of behaviour change techniques is currently considered appropriate by the authors of and contributors to this guidance.**

What is an e-cigarette and vaping?

- E-cigarettes are a diverse group of products that produce a heated aerosol, often containing nicotine, which users inhale. Common components of e-cigarettes include a battery, heating coil, atomiser that transforms the e-cigarette liquid into an aerosol, a cartridge that contains e-liquid, and a mouthpiece.²
- The action of using an e-cigarette is known as vaping.
- E-cigarette liquids (sometimes referred to as 'juice') contain nicotine, flavouring, propylene glycol and vegetable glycerin.^{2,3} There are many different types of e-cigarettes available in the UK, which provide different levels of delivery and varying levels of nicotine content. Some e-liquids contain no nicotine.

Individuals in custody can access two types of e-cigarette:

- A single-use disposable device, available on admission in many cases, and also available to purchase from the prison canteen.
- A choice of two closed-system devices, which are available to purchase from the prison canteen.

These closed-system devices are the Logic Pro and the Wee Vim models, both of which have their own technology, delivery and nicotine concentrations (see Appendix B). The Wee Vim uses nicotine salts which initial studies suggest can more closely replicate cigarette-like nicotine delivery in the lung than the 'freebase' nicotine found in some other vaping devices.⁴ Each establishment differs in the e-cigarette products available (see product list in Appendix B).

The Scottish Prison Service (SPS) chose to offer closed-system devices with disposable, sealed capsules for sale rather than open-system, refillable devices to safeguard against individuals refilling devices with unauthorised substances.

Eight steps to take the individual through

In the absence of systematic review evidence, regarding effective reduction or cessation interventions for vaping, adapting the principles of stop-smoking approaches currently represents the best available advice.

There are eight steps to take the individual through.

1 Assess the individual's current readiness and ability to cut down or quit vaping.

- a. Explore the reasons why the individual wants to cut down or stop vaping completely.
- b. The adviser to remain mindful of the limitation of the range of distraction opportunities available within the prison setting.

2 Assess current vaping practice.

- a. Ask what strength or mg/ml of e-liquid the individual is using.
- b. How often does the individual feel they need to use an e-cigarette?
- c. Why does the individual feel they need to use it?
- d. At what times does the individual use it more often?

3 Assess previous quit attempts.

- a. If NRT or prescribed medication (varenicline/bupropion) have been used before, what was the individual's experience of using them?
- b. Ask the individual if they have tried to quit vaping before and what helped with quitting.

4 Explain what is in e-cigarette liquid.

- a. E-cigarette liquids contain nicotine, flavouring, propylene glycol, and vegetable glycerine.^{2,3} There are many different types of e-cigarettes available in the UK, which provide different levels of delivery and varying levels of nicotine content. Some e-liquids contain no nicotine. Studies have demonstrated that nicotine delivery is improved from later-generation devices.^{5,6} This means that the two closed-system products

available in Scottish prisons are likely to relieve nicotine cravings and withdrawal symptoms better than single-use disposable devices.

- b. Based on current evidence, the consensus in Scotland is that vaping e-cigarettes is less harmful and carries less risk than smoking tobacco, but it is not risk free.⁷
- c. There is a growing body of research about the short-term effects of vaping on health.⁸ However, at this stage there is inconclusive evidence in Scotland or worldwide to confirm the short-term and long-term impact of vaping on the body.

5 Explain nicotine dependence and inform the individual of withdrawal symptoms.

- a. If someone experiences withdrawal symptoms from e-cigarettes it is because they are still withdrawing from nicotine. However not everyone will experience withdrawal symptoms.
- b. Refer to the Standard Treatment Programme for guidance on withdrawal symptoms. You can access this through the stop smoking specialist training module on NHS Health Scotland's Virtual Learning Environment: [Standard Treatment Programme](#).

6 Discuss help available for support with cutting down or quitting.

There are three options for support:

- Behavioural support only
- Treatment with NRT and behavioural support
- Treatment with varenicline and behavioural support

- **Behavioural support only**

Tips for those experiencing nicotine withdrawal are included in 'iQuit: coping without tobacco'.⁹

The use of 0% nicotine e-liquid to support quitting vaping is not advised by public health experts (in the absence of any research evidence) for two reasons:

- There is no health advantage of using zero nicotine liquid as the risk of vaping is not from nicotine but from the other chemicals in the liquid. At least one study¹⁰ has shown that people who use very low-strength products consume more e-liquid and have higher toxicant exposure than those using higher-strength products.
- There are potential long-term behaviour implications, such as repeated hand-to-mouth action, which can reduce the rate of individuals stopping vaping entirely.

Treatment

- Current evidence clearly demonstrates that treatment with varenicline achieves the best quit rates for smokers.
- In order to support individuals in custody who are attempting to quit inhalation of nicotine delivered via vaping devices, NHS Boards intend to make NRT and varenicline available.
- It is accepted that the prescribing and/or supply of these treatments in these circumstances would be an unlicensed indication for the product. However, it is appropriate that individuals are supported with the treatments that offer the best chance of quitting nicotine use.
- NHS Boards may need to consider any cost implications that could arise due to increased prescribing of these products in the prison population.

- **Nicotine replacement therapy**
 - NRT can be used for those who vape and want to cut down or stop vaping. NRT provides nicotine at levels which are not addictive, but some people will use NRT long term to avoid relapsing back to smoking.¹¹
 - The adviser needs to establish frequency of vaping (i.e. number of puffs) and strength of the refills being used (0–18 mg), to determine what NRT product is suitable. The higher the usage level, the stronger the strength of NRT. The level of nicotine replacement needed can then be decided by the QYW adviser or healthcare professional supporting the quit attempt.
 - There is evidence that by using combination therapy (more than one NRT product at a time) a person will be more successful in a quit attempt.¹²
 - The adviser to remind the individual that too much nicotine through continuing to vape along with NRT could result in side effects such as headaches and nausea.

- **Varenicline (Champix)**
 - The same guidance for prescribing varenicline for stopping smoking tobacco will apply for quitting vaping. Varenicline is not licensed for use in individuals under 18 years of age or those who are pregnant.¹
 - We are awaiting the results of a current trial of vaping while using varenicline, to provide further advice.

7 Set a quit date or time period for cutting down and ensure commitment from the individual.

8 Provide a summary of the discussion.

- The individual should continue to attend sessions as per the prison criteria for NHS QYW or services provided by healthcare professionals to help with quitting vaping.
- Remind individuals that only purchased oils from the canteen list are to be placed into vaping devices, to prevent harm to their health.

Upon return from home leave/work placement

Upon return to custody the adviser should discuss with the individual if they have had a lapse back to vaping/smoking when in the community. The adviser should remind individuals that upon return to custody, if they have been smoking cigarettes while in the community, they may experience withdrawal symptoms from tobacco.

The adviser can explore the following:

- How many cigarettes were smoked in the community?
- If the home leave/work placement is on a regular basis, discuss coping mechanisms while in the community, the health benefits of not returning to smoking tobacco, and associated costs of resuming smoking cigarettes.
- Ask when in the community if their friends and family members smoke?
- What strength of e-liquid the individual is using in custody compared to what they were using when in the community to determine what NRT products are suitable.

If issuing a prescription through GP10, ensure the individual knows how to access the products when in the community.

Preparing for release from prison

Remind the individual that upon release they may relapse back to vaping/smoking, which can be due to a number of social and environmental factors.

Inform individuals of the risks of returning to smoking tobacco or vaping due to the fact that nicotine can be highly addictive. Therefore each time they quit the withdrawal symptoms may become more severe.

Highlight that in terms of product choice, the cheaper, lower-quality vaping devices deliver nicotine less efficiently, and may not satisfy craving, risking a return to smoking tobacco. The adviser should emphasise the long-term health impacts of smoking.

Inform the individual that community services can assist if individuals are concerned about relapsing to smoking tobacco.

Quit Your Way Scotland can be contacted for free:

- Phone a QYW Scotland adviser on 0800 84 84 84, Monday to Friday, 8 am to 10 pm and Saturday and Sunday, 9 am to 5 pm
- Chat online with a QYW Scotland adviser at www.nhsinform.scot/care-support-and-rights/nhs-services/helplines/quit-your-way-scotland

Adverse incidents potentially related to vaping

If a practitioner is concerned that any individual's health condition or suspected problem (adverse incident) could be linked to an e-cigarette or e-liquid they must report this to their clinical supervisor in the prison.

The clinical supervisor has a duty to report this to the Medicines and Healthcare Product Regulatory Agency (MHRA). The reporting is undertaken through the Yellow Card Scheme: <https://yellowcard.mhra.gov.uk>

There have been a very small number of incidents of ingestion of e-liquids reported anecdotally from practitioners working in prisons in England. The pharmacy lead in Healthcare Improvement Scotland considers the guidance on actions that should be taken for the suspected ingestion of nicotine e-cigarette vaping liquid, issued by NHS England, to be relevant in the Scottish context. (See Appendix C.)

Appendix A

Rationale for this guidance and evidence review process

Since 30 November 2018, when all Scottish prisons became smoke free, anecdotal reports from practitioners based in prisons highlighted the demand from individuals in custody for support to cut down or quit vaping. Reports and emerging findings from the [Tobacco in Prisons Study \(TIPS\)](#) point to this being due to the costs of refills, concern over perceived increasing addiction to nicotine/vaping or a disinterest in vaping. The perceived increased addiction is due to more frequent use of e-cigarettes to obtain the same amount of nicotine as that from cigarettes, rather than the devices themselves being more addictive.¹³

This guidance responds to actions from the Scottish Government's Tobacco Control Action Plan¹⁴ in relation to providing research support and guidance (RA12), smoke-free prisons legislation (PR1/2) and improving services (IS4).

A literature search, including grey and peer-reviewed published literature, was conducted by NHS Health Scotland Knowledge Services to identify research relating to quitting vaping. The search engines used were Medline and ProQuest Public Health databases, which returned 66 papers. An assessment of the literature was carried out to establish if any of the papers related to quitting vaping. Two papers^{15,16} were selected as relevant, supplemented with evidence from the Truth Initiative¹⁷ in the USA which examined the issue of vaping cessation. Additional references to support the wider body of evidence cited in the guidance (on e-cigarette use in general and on smoking cessation) were provided by the authors of this guidance.

Evidence on e-cigarettes and nicotine addiction

The rapid emergence of e-cigarettes has made it difficult for researchers to keep up to speed with assessing existing evidence. This has resulted in differences in perspectives and a lack of consensus among academics regarding the effectiveness of e-cigarettes for smoking cessation.¹⁵ However, a number of studies have been conducted on the use of e-cigarettes, including the extent of nicotine dependence

from vaping. To date, there has been no systematic review or robust evidence gathered relating to cutting down or stopping vaping.¹⁶

Nicotine can be highly addictive, although the extent of dependence is directly related to the form of delivery. Smoking combustible cigarettes is widely regarded as the most addictive form of nicotine delivery.² However, it is also known that some e-cigarettes can deliver levels of nicotine similar to combustible cigarettes.¹⁸

Although there is very little research on quitting vaping, there is an abundance of information on how to deal with nicotine withdrawal. However, there are few studies that have assessed nicotine withdrawal when separated from tobacco.

Appendix B

Product availability (differs per prison establishment)

Disposable devices

E-cig name	Flavour	Strength
Clearecig	Rolling	18 mg
Clearecig	Classic	18 mg
Clearecig	Menthol	12 mg
Silver 300		18 mg
Silver 425		12 mg

Rechargeable devices

E-cig name	Flavour	Strength
Wee Vim	Blackcurrant	18 mg
Wee Vim	Strawberry	18 mg
Logic Pro capsules	Tobacco	18 mg
Logic Pro capsules	Tobacco	12 mg
Logic Pro capsules	Tobacco	0 mg
Logic Pro capsules	Menthol	12 mg
Logic Pro capsules	Berry mint	12 mg
Logic Pro capsules	Berry mint	6 mg
Logic Pro capsules	Strawberry	12 mg
Logic Pro capsules	Red cherry	12 mg
Logic Pro capsules	Red cherry	0 mg

Product availability is subject to change.

Appendix C

Advice on the actions for suspected ingestion of e-liquid

This brief information is to support staff delivering care in health and justice settings. As rechargeable e-cigarettes are being made available for purchase by prisoners, this briefing provides some background information about these devices and also how to manage cases of suspected ingestion of the vaping fluid.

Alert

- All patients who have taken a deliberate overdose or who have ingested 0.2 mg/kg or more nicotine, or those who are symptomatic, should be referred for medical assessment.
- Emergency transfer to hospital is needed if signs and symptoms of toxicity are present or develop.
- People aged 13 and over or adults who have accidentally ingested less than 0.2 mg/kg nicotine and who have no new symptoms since the time of ingestion do not need to be referred for medical assessment. Patients should be advised to seek medical attention if symptoms develop.

Signs and symptoms for nicotine toxicity

Early features of ingestion include burning in the mouth and throat, nausea, vomiting, confusion, dizziness, weakness, hypersalivation, sweating and increased bronchial secretions. There may be features including tachycardia, tachypnoea, hypertension and agitation followed by bradycardia, systemic hypotension and respiratory depression. More severe poisoning can lead to arrhythmias including atrial fibrillation, coma, convulsions and respiratory and cardiac arrest.

Skin contact may lead to irritation with a level of absorption dependent on length of exposure and concentration. Systemic features may follow.

Refills can be mistaken for eye drops and administered accidentally. Eye contact with liquid may lead to irritation and lacrimation.

Actions to take if systemic toxicity is suspected or present

- Ingestion: Maintain a clear airway and ensure adequate ventilation. In the event of cardiac arrest commence CPR and call an ambulance.
- Skin exposure: Remove soiled clothing and any nicotine patches. Thoroughly wash contaminated skin with soap and water. If features of systemic toxicity are present, manage as per ingestion above.
- Eye exposure: Gently bathe eye(s) with water, to remove any residue, and seek advice in case of significant irritation. If features of systemic toxicity are present, manage as per ingestion.

Advice for treating pregnant women

Treatment of the pregnant patient should be the same as for the non-pregnant patient. Following nicotine poisoning in a pregnant patient, maternal toxicity is likely to be a major determinant of fetal risk. Where treatment of maternal symptoms is clinically indicated, this should not be withheld on account of pregnancy.

Due to lack of data concerning how nicotine poisoning can affect the fetus, it is not currently possible to predict the nature or likelihood of adverse events occurring in the developing fetus. In all cases of nicotine poisoning in pregnancy, enhanced maternal and fetal monitoring may be warranted. Discussion with UK Teratology Information Service (UKTIS) is recommended in all cases.

E-cigarettes and vaping devices – background on products and toxicity

E-cigarettes and vaping devices (ECs) use battery power to heat an element to disperse a solution that usually contains nicotine. The dispersion of the solution leads to the creation of an aerosol that can be inhaled by the user. The heated solution typically contains propylene glycol or glycerine, nicotine, and flavourings. ECs do not contain tobacco, do not create smoke and do not rely on combustion. EC products available in prison contain a maximum of 20 mg/ml of nicotine. Vaping products not compliant with UK regulation have been known to contain up to 100 mg/ml so the toxicity risk is significantly increased.

Fatal poisoning from nicotine is extremely rare but with the increase in EC use, there has been an increase in calls to poison centres following accidental exposures. These remain lower than calls following such exposure from tobacco and none resulted in any serious harm.⁸ Serious nicotine poisoning seems normally prevented by the fact that relatively low doses of nicotine cause nausea and vomiting, which stops users from further intake.

There is evidence to suggest that nicotine is highly toxic by ingestion, inhalation and skin contact, although the fatal dose in adults is not clear from published evidence. Nicotine can be very rapidly absorbed with CNS, neuromuscular and autonomic features. Symptoms may persist for up to 72 hours in severe cases of poisoning. The half-life of nicotine ranges from 24 minutes to 2 hours.

Guidance produced by Denise Farmer, NHS England, 2018

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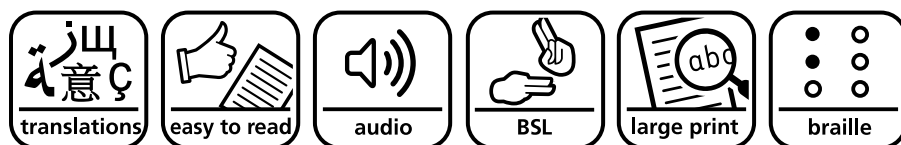
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This guidance has been written to assist NHS Quit Your Way (QYW) and other practitioners operating within the prison setting to support individuals who want to cut down or stop vaping electronic cigarettes (e-cigarettes). The guidance is based on a review of the existing evidence on cutting down or stopping vaping.

This resource may also be made available on request in the following formats:



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