

Clinical Guideline / Formulary Document

Pharmacy Department Medicines Management Services

SMOKING CESSATION

Introduction

- ▶ NICE recommends that Nicotine Replacement Therapy (NRT), bupropion [Zyban®] and varenicline [Champix®] are options for smoking cessation, as appropriate, and should normally be prescribed as part of an abstinence-contingent treatment, in which the smoker makes a commitment to stop smoking on or before a particular target date
- ▶ Smoking cessation, with or without pharmacotherapy, has been associated with exacerbation of underlying psychiatric illness (e.g. depression, suicidal ideation and behaviour). Neuropsychiatric adverse events were reported more frequently in patients with a history of psychiatric disorders compared to those without a history of psychiatric disorders, regardless of treatment.
- ▶ Based on clinical experience, NRT remains the most clinically appropriate treatment of choice for smoking cessation within Mersey Care NHS Foundation Trust. We are aware that individuals may request treatments other than NRT. Exceptional requests should be discussed with the Chief Pharmacist on a case by case basis.
- ▶ Smokers should be offered advice, encouragement, and where possible, access to an evidence-based smoking cessation service for behavioural support. According to NICE guidelines, people who are already using an unlicensed nicotine-containing product (such as unlicensed electronic cigarettes) should be encouraged to switch to a licensed NRT product.

Nicotine Replacement Therapy

- ▶ NRT, in conjunction with a behavioural support programme, may be offered to all service users for the relief of nicotine withdrawal symptoms, for harm reduction and as an aid to smoking cessation.
- ▶ The use of nicotine replacement products in an individual who is already accustomed to nicotine introduces few new risks and it is widely accepted that there are no circumstances in which it is safer to smoke than to use NRT.
- ▶ Short-acting NRT can be used for smoking reduction in 'cut down to quit' programmes.
- ▶ NRT may also be used to assist smokers to temporarily abstain from smoking, while admitted to hospital.
- ▶ NRT reduces the urge to smoke and prevents nicotine withdrawal symptoms.
- ▶ A variety of nicotine replacement products are available, including nicotine-containing gum (2 mg and 4 mg), transdermal patches (various strengths), inhalator/inhaler, nasal spray (0.5 mg per dose), sublingual tablet, mouth-spray and lozenges.
- ▶ There is little difference in efficacy between different formulations.
- ▶ The choice of NRT preparation should be tailored to the individual and must consider personal preference, compliance, motivation, cigarettes smoked per day, the time to the first cigarette of the day, level of dependence, desired speed of nicotine delivery, ability to adjust and titrate nicotine dose as required and ease of use. Availability of counselling and support, previous experience of attempts to stop smoking, contraindications, interactions and adverse effects of the products should also be considered.
- ▶ NRT products may be used alone or in combinations, where steady nicotine levels are supplied via slow release patch, with occasional use of faster delivery products (gum, inhalator, lozenges) to counteract withdrawal symptoms.

- ▶ Ideally, cigarette smoking should stop completely before starting nicotine replacement therapy. If complete smoking cessation is not possible, some nicotine preparations (gum or inhalator) are licensed for use as part of a programme to cut down smoking before quitting. Smoking while using a nicotine patch is not advised.
- ▶ The duration of use of NRT in people maintaining abstinence from cigarettes is usually 8–12 weeks, depending on the form and initial dose of NRT used, followed by a gradual reduction in dose. Some people, in particular those who are more dependent on nicotine, may need higher doses of NRT for a longer duration to reduce the risk of relapse.

Nicotine Replacement Therapy continued

- ▶ If an attempt to stop smoking completely has not been started within 6 months after the beginning of treatment, it is recommended to consult a healthcare professional. Service users should be provided with behavioural support to meet the target stop date
- ▶ Information should be provided on available treatments and the benefits and side effects should be discussed with all service users, including young people, pregnant or breast-feeding women and people with cardiovascular disorders.
- ▶ The use of nicotine replacement products in an individual who is already accustomed to nicotine introduces few new risks and it is widely accepted that there are no circumstances in which it is safer to smoke than to use NRT.
- ▶ The risks and benefits of using NRT should be discussed with young people aged from 12 to 17, pregnant or breastfeeding women, and people who have unstable cardiovascular disorders.
- ▶ If there is a clinically significant increase in cardiovascular or other effects attributable to nicotine, the nicotine dose should be reduced or discontinued.
- ▶ The combination of NRT with varenicline or bupropion is not recommended.
- ▶ Cigarette smoking increases the metabolism of some medicines by stimulating the hepatic enzyme CYP1A2. When smoking is discontinued, the dose of these drugs, in particular theophylline, ropinirole, coumarins, including warfarin and some antipsychotics (including clozapine, olanzapine, chlorpromazine and haloperidol) may need to be reduced. Regular monitoring of adverse effects is advised. Further information and advice regarding the impact of smoking on medication is available from Pharmacy, Medicines Information.
- ▶ E-cigarettes are electronic inhalers that vaporise liquid nicotine into an aerosol mist in a way that mimics the act of smoking tobacco.
- ▶ E-cigarettes are not currently recommended for prescribing across the Pan Mersey Area.
- ▶ As of 1st of January 2017, Mersey Care NHS Foundation Trust continues to restrict the use of e-cigarettes and at present they are not allowed to be used within the Trust. The original decision was made via the Trust Health and Safety Committee and is reviewed at intervals at Trust wide Smoking Cessation Group.
- ▶ Manufacturer information on various NRT products is available from the [eMC](#).

Relevant NICE guidance

- ▶ Smoking cessation Services (PH10) <http://guidance.nice.org.uk/PH10>. Published February 2010.
- ▶ Varenicline for smoking cessation
<http://publications.nice.org.uk/varenicline-for-smoking-cessation-ta123>
- ▶ Tobacco: harm-reduction approaches to smoking (PH45). Available at:
<http://www.nice.org.uk/guidance/PH45>. Published June 2013.
- ▶ Smoking cessation in secondary care: acute, maternity and mental health services
<http://www.nice.org.uk/guidance/ph48>

Smoking Cessation

First Line:	Relative Cost	Notes
Nicotine Replacement Therapy [NRT]		Choice of product should depend on the service user's history taking into account previous personal experience and preferences.
Patch	££	Treatment should be initiated at a dose appropriate to the number of cigarette used
Inhalator	££-£££	People unable to tolerate one type of NRT may benefit from an alternative NRT preparation.
Gum	£-££	Inhalator simulates cigarette smoking but may cause local irritation of the mouth and throat
Nicotine sublingual tabs	£-££	S/L tablets may be useful for those who have difficulty chewing gum or if gum is not allowed
Mouth spray	£££	Highly dependent smokers may benefit from the 4mg gum compared with 2mg gum
Nasal Spray	£££	
Combinations of NRT products	££ - £££	Combination therapy with different types of NRT (e.g. patches with inhalator or chewing gum) can be tried as a means of increasing efficacy, especially to people who show high level of dependency or for whom single forms of NRT have been inadequate
Patch + fast acting		
Second Line:	Relative Cost	Notes
NRT		
Lozenges	££	Lozenges can also be used to reduce the amount of cigarettes smoked prior to quitting
Nasal Spray	£££	Nasal spray has a fast onset of action but may cause local irritation
Not Recommended	Relative Cost	Notes
Bupropion	££	Should not be prescribed to people with: a history of seizures, BPAD (can precipitate mania), a tumour of the central nervous system, eating disorders; symptoms of withdrawal from alcohol or benzodiazepine. Discontinue if abstinence is not achieved by the seventh week The SPC states: "Neuropsychiatric reactions have been reported. In particular, psychotic and manic symptomatology have been reported mainly in patients with a known history of psychiatric illness." Exceptional requests should be discussed with the Chief Pharmacist on a case by case basis.
Varenicline	£££	The SPC states: "Changes in behaviour or thinking, anxiety, psychosis, mood swings, aggressive behaviour, depression, suicidal ideation and behaviour and suicide attempts have been reported in patients attempting to quit smoking with CHAMPIX in the post-marketing experience." Exceptional requests should be discussed with the Chief Pharmacist on a case by case basis.
Combinations of NRT + Varenicline/Bupropion	£-£££	Do not offer NRT, varenicline or bupropion in any combination
E-cigarettes	£££	Not currently recommended for use across Mersey Care NHS Foundation Trust and Pan Mersey.

Appendix 1 Flowchart for Selecting Nicotine Replacement Therapies (NRT)

- Before prescribing, assess the level of nicotine dependence by asking how many cigarettes the service user usually smokes each day and how soon after waking up they smoke the first cigarette. Highly nicotine dependence means smoking >20 cigarettes/day or smoking within 30 minutes of waking.
- Find out if the service user wants to stop smoking for good or requires NRT to support temporary abstinence from smoking whilst in hospital.
- Ask which type of NRT product the service user prefers and any previous experience on NRT, including any side effects and allergies to NRT.
- Consider if the service user has any concurrent conditions or co-prescribed medications that can be affected by stopping smoking or using NRT
- Consider contraindications, cautions and side effects of each NRT product selected.

Based on outcome of assessment, usually prescribe **ONE** NRT product for light smokers or **TWO** NRT products for moderate to heavy smokers

Light smoker

Smokes 1-10 cigarettes a day

Prescribe **ONE** form of NRT, e.g.

Patch, for daily application

7mgs/24 hours or 10mg/16 hours, or
14mg/24 hours, then 7mgs/24 hours, or
15mg/16 hours, then 10mg/16 hours

OR

Short-Acting NRT, for intermittent use when urge to smoke occurs or to prevent cravings

Inhalator 15mg, PRN, max 2-4 cartridges a day
Lozenge 1-2mg every 1-2 hours PRN, max 15/day
Microtab 2mg every 1-2 hours PRN, max 40/day
Gum 2mg PRN, max 15/day

Moderate smoker

Smokes 11-20 cigarettes a day

Prescribe **ONE** or **TWO** forms of NRT, e.g.

Patch, for daily application

25mg/16 hours, then 15mg/16 hours, then 10mg/16 hours or
21mg/24 hours, then 14mg/24 hours, then 7mg/24 hours
AND/OR

Short-Acting NRT, for intermittent use when urge to smoke occurs or to prevent cravings

Inhalator 15mg PRN, max 6 cartridges a day
Lozenge 2-4mg PRN, every 1-2 hours, max 15/day
Microtab 2mg PRN, every 1-2 hours, max 40/day
Gum 2-4mg PRN, max 15/day
Oral spray 1-2 sprays PRN, up to 4 sprays/hour, max 64 sprays a day.

Heavy smoker

Smokes more 20 cigarettes a day

Prescribe **TWO** forms of NRT, e.g.

Patch, for daily application

25mg/16 hours, then 15mg/16 hours, then 10mg/16 hours
21mg/24 hours, then 14mg/24 hours, then 7mg/24 hours
AND

Short-Acting NRT, for intermittent use when urge to smoke occurs or to prevent cravings

Inhalator 15mg PRN, max 6 cartridges a day
Lozenge 4mg PRN, every 1-2 hours, max 15/day
Microtab 2 tabs (4mg) PRN, every 1-2 hours, max 40/day
Gum 4mg PRN, max 15/day
Oral spray 1-2 sprays PRN, up to 4 sprays/hour, max 64 sprays a day.

Some forms of NRT may be restricted in certain areas of the Trust e.g. gum, inhalator and oral spray

Patches give a constant release of nicotine and are not suitable for occasional smokers. 24 hour patches are preferable for service users who experience early morning cravings for cigarettes and those who usually smoke during the day and at night.

Consider inhalator if the service user is likely to miss the physical/behavioural aspects of smoking.

For service users stopping smoking, the usual duration of treatment is 8-12 weeks. During this period, the dose of NRT is gradually reduced. Some service users e.g. those who are heavily nicotine dependent or temporarily abstaining from smoking may require higher doses on NRT for a longer duration.

Use the [BNF](#) or manufacturer summary of product characteristics ([SPC](#)) for further information on specific NRT products.

Appendix 2

Nicotine Replacement Therapy				
NRT type	Brand / Strength	Dose	Directions	Side Effects
NRT		Depends on level of dependence. Adults who use NRT beyond 9 months are recommended to seek additional help and advice from a healthcare professional.	The choice of preparation should be tailored to the individual.	Smoking cessation can affect levels of medication. Dose adjustments may be necessary. Palpitations may occur with nicotine replacement therapy,
Patches available in different strengths; Designed to be worn for 16 or 24 hours	Nicotinell 24hr: '30 patch' 21mg '20 patch' 14mg '10 patch' 7mg;	Nicotinell 24hr: One patch daily - remove after 24 hrs. > 20 cigarettes daily, initially 21mg patch. < 20 cigarettes daily, initially 14mg patch. Withdraw gradually, reducing dose every 3–4 weeks;	Apply to clean, dry intact areas of hairless skin, e.g. on the hip, upper arm, or chest Remove after the specified time. Rotate sites daily Avoid broken, red or irritated skin. If patients experience strong cravings for cigarettes on waking, a 24-hour patch may be more suitable.	NRT general Dizziness, headache, gastrointestinal discomfort, nausea, vomiting, dry mouth. Palpitations, chest pain and rarely arrhythmia. Sweating, arthralgia, and myalgia. irritability, anxiety, dizziness, headaches Patch Redness, itching, swelling or a burning sensation at the application site. Abnormal dreams (removal of the patch before bed may help)
	NiQuitin 24h '21mg' patch '14mg' patch '7mg' patch	NiQuitin 24hr: One patch daily; remove after 24 hrs. >10 cigarettes daily, Initially '21-mg' patch daily for 6 weeks then '14-mg' patch daily for 2 weeks then '7mg' patch daily for 2 weeks; < 10 cigarettes daily, initially '14-mg' patch daily for 6 weeks then '7-mg' patch daily for 2 weeks;		
	Nicorette (Invisi patch 10mg, 15mg and 25mg)	Nicorette 16hr: >10 cigarettes daily, Initially "25mg" patch daily for 8 weeks then "15mg" patch daily for 2 weeks then "10mg" patch daily for 2 weeks <10 cigarettes daily, initially "15mg" patch daily for 8 weeks then "10mg" patch daily for 4 weeks.		

Appendix 2 Continued

Nicotine Replacement Therapy

NRT type	Brand / Strength	Dose	Directions	Side Effects
Gum	2mg; 4mg	Sufficient pieces of gum should be used, usually 8-12, up to a maximum of 15 pieces 20 cigarettes or less daily - start with 2mg strength; 20 cigarettes daily or require more than 15 pieces daily of the 2mg - use 4-mg strength.	When the urge to smoke occurs, chew one piece of gum slowly until taste becomes strong, then rest gum between cheek and gum; when taste fades start chewing again – repeat for approximately 30 minutes	Irritation of the throat, unpleasant taste; increased salivation, indigestion, heartburn, nausea and hiccups. The gum may stick to and damage dentures. Avoid acidic beverages, such as coffee or fruit juice 15 minutes before use.
Inhalator	15mg/cartridge	Initially replace all cigarettes with the Inhalator up to a maximum 6 cartridges daily then reduce number of cartridges used	Inhale when required, to relieve the urge to smoke. Each cartridge can be used for approximately eight 5-minute sessions, with each cartridge lasting approximately 40 minutes of intense use.	Local irritation of the mouth and throat; nasal congestion; coughing; dizziness, headache. Very rarely reversible atrial fibrillation. Caution in patients with COPD, chronic throat disease or bronchospastic disease. Avoid acidic beverages, such as coffee or fruit juice 15 minutes before use.

Appendix 2 continued.

Nicotine Replacement Therapy				
NRT type	Brand / Strength	Dose	Directions	Side Effects
Nasal Spray	500micrograms per metered spray	1 spray in each nostril when the urge to smoke occurs, up to twice every hour for 16 hours daily as required (Maximum 64 sprays daily).	Initially 1 spray should be used in both nostrils but when withdrawing from therapy, the dose can be gradually reduced to 1 spray in 1 nostril.	Local nasal irritation - sneezing or runny nose, watery eyes, epistaxis, coughing; Gastrointestinal discomfort, nausea, vomiting Dizziness, headache, palpitations.
Lozenge	1mg, 1.5mg, 2mg, and 4mg	Abrupt cessation or temporary abstinence, initially one lozenge every 1 to 2 hours; gradual cessation of smoking, one lozenge when strong urge to smoke; Usual daily dose is 8 to 12 lozenges - maximum daily dose of 30 of the 1-mg lozenges or 15 lozenges for all higher strengths; 20 – 30 cigarettes per day, initially 1 or 2mg strength lozenges; >30 cigarettes per day, initially 2 or 4mg strength lozenges up to a maximum of 15 lozenges daily.	Suck 1 lozenge every 1-2 hours when urge to smoke occurs between smoking episodes Gradually reduce the number of lozenges used.	Irritation of the throat, increased salivation, indigestion, heartburn, hot flushes, dry mouth, cough, palpitations. constipation, Dysphagia, oesophagitis, gastritis, mouth ulcers, bloating, flatulence, and less commonly, taste disturbance, thirst, gingival bleeding, and halitosis. Avoid acidic beverages, such as coffee or fruit juice 15 minutes before use.

Appendix 2 continued.

Nicotine Replacement Therapy				
NRT type	Brand / Strength	Dose	Directions	Side Effects
Sublingual Tablets	2mg	<p>1 or 2 tablets sublingually every hour, increased to a maximum of 40 tablets daily if necessary</p> <p><20 cigarettes per day, initially, 1 tablet each hour, increased to 2 tablets each hour if necessary;</p> <p>>20 cigarettes per day initially 2 tablets each hour. Maximum 40 tablets (80 mg) daily.</p>	<p>Each tablet should be placed under the tongue and allowed to dissolve. The treatment should be stopped when the daily consumption is down to one or two tablets.</p>	<p>.Sore mouth or throat, dry mouth, burning sensation in the mouth, rhinitis. Gastrointestinal discomfort, hiccups, nausea, coughing, dizziness, headache, palpitations. Avoid acidic beverages, such as coffee or fruit juice 15 minutes before use.</p>
Oral spray	QuickMist nicotine 1 mg/metered dose	<p>1–2 sprays in the mouth when the urge to smoke occurs or to prevent cravings. Individuals should not exceed 2 sprays per episode (up to 4 sprays every hour), and a maximum of 64 sprays daily.</p>	<p>If using the spray for the first time, or if unit not used for 2 or more days, prime the unit before administration. Release spray into the mouth, avoiding the lips. Do not inhale while spraying and avoid swallowing for a few seconds after use.</p>	<p>Paraesthesia, irritation of the throat, increased salivation, watery eyes and blurred vision. Nausea, vomiting, dyspepsia, hiccup, ulcerative stomatitis dry mouth, abdominal pain, flatulence, sweating, myalgia and taste disturbance. Rarely arrhythmia and chest pain. Avoid acidic beverages, such as coffee or fruit juice 15 minutes before use.</p>
Oral films	2.5mg	<p>Initially 1 nicotine film every 1 to 2 hours for 6 weeks, maximum of 15 films per day.</p>	<p>Place film on the tongue, and press the tongue gently to the roof of the mouth until film dissolves (3 mins). Do not chew or swallow the film.</p>	<p>Sore mouth or throat, dry mouth, burning sensation in the mouth, rhinitis. Gastrointestinal discomfort, hiccups, nausea, coughing, dizziness, headache, palpitations. Avoid acidic beverages, such as coffee or fruit juice 15 minutes before use.</p>

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