

# Summary of Product Characteristics

## 1 NAME OF THE MEDICINAL PRODUCT

Nicorette Icy White 4mg Medicated Chewing Gum

## 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each medicated chewing gum contains 4 mg nicotine as a resin complex.  
For the full list of excipients, see section 6.1

## 3 PHARMACEUTICAL FORM

Medicated Chewing Gum

A square, coated, cream coloured chewing gum

## 4 CLINICAL PARTICULARS

### 4.1 Therapeutic Indications

For the treatment of tobacco dependence by relieving nicotine craving and withdrawal symptoms

- thereby facilitating smoking cessation in smokers motivated to quit.
- helping smokers temporarily abstain from smoking

In smokers currently unable or not ready to stop smoking abruptly, Nicorette gum may also be used as part of a programme to reduce smoking prior to stopping completely.

### 4.2 Posology and method of administration

Nicorette Icy White 4mg Gum should be chewed slowly.

#### Smoking cessation

##### **Adults**

The strength of gum to be used will depend on the smoking habit of the individual. In general, if the patient smokes fewer than 20 cigarettes a day, Nicorette Icy white 2mg Gum is indicated. If more than 20 cigarettes per day are smoked Nicorette Icy white 4mg Gum will be needed to meet the withdrawal of the high serum nicotine levels from heavy smoking. The patient should be urged to stop smoking completely when initiating therapy with Nicorette Gum.

The chewing gum should be used whenever there is an urge to smoke according to the “chew and rest” technique described on the pack. After about 30 minutes of such use, the gum will be exhausted. Not more than 15 pieces of the chewing gum may be used each day. Absorption of nicotine is through the buccal mucosa, any nicotine which is swallowed being destroyed by the liver.

Administration of nicotine should be stopped temporarily if any symptoms of nicotine excess occur. Nicotine intake should be decreased by lowering dosing frequency if nicotine excess symptoms persist (see Section 4.9).

Nicorette Icy white Gum may be used for up to 3 months during which time the habits associated with smoking will be lost. For those using the 4mg Gum, the 2mg will be helpful during withdrawal.

If not successful after 12 weeks the patient should be encouraged to make a fresh attempt to stop smoking. This may necessitate full or partial re-treatment with an NRT programme.

**Temporary Abstinence**

During periods of temporary abstinence, the patient should use Nicorette Icy white Gum when required to relieve nicotine cravings and withdrawal symptoms.

The strength of gum to be used will depend on the smoking habits of the individual. In general, if the patient smokes fewer than 20 cigarettes a day, Nicorette Icy white 2mg Gum is indicated. If more than 20 per day are smoked Nicorette Icy white 4mg Gum is indicated.

Not more than 15 pieces of the gum should be used per day.

**Smoking reduction**

For smokers who are unwilling or unable to quit abruptly.

Use the gum whenever there is a strong urge to smoke in order to reduce the number of cigarettes smoked as far as possible and to refrain from smoking as long as possible.

The number of pieces of gum is variable and depends on the patient's needs. Not more than 15 pieces of the gum should be used per day.

If a reduction in number of cigarettes per day has not been achieved after 6 weeks, professional advice should be sought.

Reduced tobacco consumption should lead to complete cessation of smoking. A quit attempt should be made as soon as the number of cigarettes has been reduced to a level whereby the smoker feels ready to quit completely, then start as outlined for "smoking cessation" as given above.

If the 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.

A minor reduction in total clearance of nicotine has been demonstrated in healthy elderly patients, however, not justifying adjustment of dosage.

**4.3 Contraindications**

Hypersensitivity to the active substance or to any of the excipients listed in section 6.1.

Use in non-smokers.

**4.4 Special warnings and precautions for use**

The benefits of quitting smoking outweigh any risks associated with correctly administered nicotine replacement therapy (NRT).

A risk-benefit assessment should be made by an appropriate healthcare professional for patients with the following conditions:

- Cardiovascular disease. Dependent smokers with a recent myocardial infarction, unstable or worsening angina including Prinzmetal's angina, severe cardiac arrhythmias, recent cerebrovascular accident, and/or who suffer with uncontrolled hypertension should be encouraged to stop smoking with non-pharmacological interventions (such as counselling). If this fails, Nicorette Gum may be considered but as data on safety in this patient group are limited, initiation should only be under close medical supervision.
- Renal and hepatic impairment: Use with caution in patients with moderate to severe hepatic impairment and/or severe renal impairment as the clearance of nicotine or its metabolites may be decreased with the potential for increased adverse effects.
- Gastrointestinal Disease: Nicotine may exacerbate symptoms in patients suffering from oesophagitis, gastric or peptic ulcers and NRT preparations should be used with caution in these conditions.

- Pheochromocytoma and uncontrolled hyperthyroidism. Nicotine, both from NRT and smoking, causes the release of catecholamines from the adrenal medulla. Therefore, Nicorette should be used with caution in patients with uncontrolled hyperthyroidism or pheochromocytoma.
- Diabetes Mellitus. Patients with diabetes mellitus should be advised to monitor their blood sugar levels more closely than usual when smoking is stopped and NRT is initiated, as reductions in nicotine-induced catecholamine release can affect carbohydrate metabolism. Patients with diabetes mellitus may require lower doses of insulin as a result of smoking cessation.
- Smokers who wear dentures may experience difficulties in chewing Nicorette Gum. The chewing gum may stick to, and may in rare cases damage dentures.

Transferred dependence: Nicotine in any dose form is capable of inducing a dependence syndrome after chronic use and is highly toxic after acute use. However, dependence with Nicorette Icy white Gum is a rare side-effect and is both less harmful and easier to break than smoking dependence.

Danger in children: Doses of nicotine tolerated by smokers can produce severe toxicity in children that may be fatal. Products containing nicotine should not be left where they may be handled or ingested by children, see section 4.9 Overdose.

## 4.5 Interaction with other medicinal products and other forms of interaction

Smoking (but not nicotine) is associated with an increase in CYP1A2 activity. After cessation of smoking, reduced clearance of substrates for this enzyme may occur. This may lead to an increase in plasma levels for some medicinal products of potential clinical importance and for products with a narrow therapeutic window, e.g. theophylline, tacrine, ropinirole and clozapine.

The plasma concentration of other drugs metabolised in part by CYP1A2 e.g. imipramine, olanzapin, clomipramine and fluvoxamine may also increase on cessation of smoking, although data to support this are lacking and the possible clinical significance of this effect is unknown.

Limited data indicate the metabolism of flecainide and pentazocine may also be induced by smoking.

Nicotine may possibly enhance the haemodynamic effects of adenosine i.e. increase in blood pressure and heart rate and also increased pain response (angina-pectoris type chest pain) provoked by adenosine administration.

## 4.6 Fertility, pregnancy and lactation

### Women of childbearing potential/ contraception in males and females

In contrast to the well-known adverse effects of tobacco smoking on human conception and pregnancy, the effects of therapeutic nicotine treatment are unknown. Thus, whilst to date no specific advice regarding the need for female contraception has been found to be necessary, the most prudent state for women intending to become pregnant is to be both non-smoking, and not using NRT.

Whilst smoking may have adverse effects on male fertility, no evidence exists that particular contraceptive measures are required during NRT treatment by males.

### Pregnancy:

Smoking during pregnancy is associated with risks such as intra-uterine growth retardation, premature birth or stillbirth. Stopping smoking is the single most effective intervention for improving the health of both pregnant smoker and her baby. The earlier abstinence is achieved the better. Nicotine passes freely to the foetus and affects its breathing movements and circulation. The effect on the circulation is dose-dependent.

Therefore, the pregnant smoker should always be advised to stop smoking completely without the use of nicotine replacement therapy. The risk of continued smoking may pose a greater hazard to the foetus as compared with the use of nicotine replacement therapy products in a supervised cessation programme.

Use of Nicorette should only be initiated after advice from a physician.

**Lactation:**

Nicotine passes freely into breast milk in quantities that may affect the child even in therapeutic dose. Nicorette should therefore be avoided during breast-feeding. Should smoking cessation not be achieved, use of the Nicorette Gum by breast feeding smokers should only be initiated after advice from a health care professional. Women should take Nicorette Gum just after having breastfed.

**Fertility**

In females tobacco smoking delays time to conception, decreases in-vitro fertilization success rates, and significantly increases the risk of infertility. In males tobacco smoking reduces sperm production, increases oxidative stress, and DNA damage. Spermatozoa from smokers have reduced fertilizing capacity.

The specific contribution of nicotine to these effects in humans is unknown.

**4.7 Effects on ability to drive and use machines**

Nicorette Medicated Chewing gum has no or negligible influence on the ability to drive and use machines.

**4.8 Undesirable effects**

**Effects of Smoking Cessation**

Regardless of the means used, a variety of symptoms are known to be associated with quitting habitual tobacco use. These include emotional or cognitive effects such as dysphoria or depressed mood; insomnia; irritability, frustration or anger; anxiety; difficulty concentrating, and restlessness or impatience. There may also be physical effects such as decreased heart rate; increased appetite or weight gain, dizziness or presyncopal symptoms, cough, constipation, gingival bleeding or aphthous ulceration, or nasopharyngitis. In addition, and of clinical significance, nicotine cravings may result in profound urges to smoke.

**Adverse Drug Reactions (ADRs)**

Nicorette Icy white Gum may cause adverse reactions similar to those associated with nicotine administered by other means and are dose dependent. Most of the undesirable effects reported by the patient occur during the early phase of treatment and are mainly dose dependent. Irritation in the mouth and throat may be experienced, however most patients adapt to this with ongoing use.

Adverse reactions observed in patients treated with oral nicotine formulations during clinical trials and post-marketing experience are listed below by system organ class (SOC). Frequencies are defined in accordance with current guidance, as: Very common (>1/10); common (>1/100, <1/10); uncommon (>1/1 000, <1/100); rare (>1/10 000, <1/1 000); very rare (<1/10 000), Not known - cannot be estimated from the available data.

System Organ Class	Reported Adverse Event	Incidence
Immune System Disorders	Hypersensitivity <sup>a</sup>	Common
	Anaphylactic reaction <sup>a</sup>	Not known
Psychiatric disorders	Abnormal dreams*	Uncommon
Nervous System Disorders	Headache <sup>a#</sup>	Very Common
	Burning sensation <sup>c</sup>	Common
	Dysgeusia	Common
	Paraesthesia <sup>a</sup>	Common
Eye Disorders	Blurred Vision	Not known
	Lacrimation increased	Not known
Cardiac Disorders	Palpitations <sup>a</sup>	Uncommon
	Tachycardia <sup>a</sup>	Uncommon

Vascular Disorders	Flushing <sup>a</sup> Hypertension <sup>a</sup>	Uncommon Uncommon
Respiratory, Thoracic and Mediastinal Disorders	Cough** Throat irritation Bronchospasm Dysphonia Dyspnoea <sup>a</sup> Nasal Congestion Sneezing Throat tightness	Very common Very common Uncommon Uncommon Uncommon Uncommon Uncommon Uncommon
Gastrointestinal Disorders	Hiccups Nausea <sup>a</sup> Abdominal pain Diarrhoea *** Dry mouth Dyspepsia Flatulence Salivary hypersecretion Stomatitis Vomiting <sup>a</sup> Eructation Glossitis Oral mucosal blistering and exfoliation Paraesthesia oral *** Dysphagia Hypoaesthesia oral *** Retching Dry throat Gastrointestinal discomfort <sup>a</sup> Lip pain	Very common Very common Common Common Common Common Common Common Common Uncommon Uncommon Uncommon Uncommon  Uncommon Rare Rare Rare Not known Not known Not known
Skin and Subcutaneous Tissue Disorders	Hyperhidrosis <sup>a</sup> Pruritus <sup>a</sup> Rash <sup>a</sup> Urticaria <sup>a</sup> Erythema <sup>a</sup>	Uncommon Uncommon Uncommon Uncommon Not known
Musculoskeletal and Connective Tissue Disorders	Pain in jaw <sup>b</sup> Muscle tightness <sup>b</sup>	Uncommon Not known
General Disorders and Administration Site Conditions	Fatigue <sup>a</sup> Asthenia <sup>a</sup> Chest discomfort and pain <sup>a</sup> Malaise <sup>a</sup> Allergic reactions including angioedema	Common Uncommon Uncommon Uncommon Rare

<sup>a</sup> Systemic effects;  
<sup>b</sup> Tightness of jaw and pain in jaw with nicotine gum formulation  
<sup>c</sup> At the application site  
\*Identified only for formulations applied during the night  
\*\* Higher frequency observed in clinical studies with inhaler formulation.  
\*\*\*Reported the same or less frequently than placebo  
# Although the frequency in the active group is less than that of the placebo group, the frequency in the specific formulation in which the PT was identified as a systemic ADR was greater in the active group than the placebo group.

**Reporting of Suspected Adverse Reactions.**

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via HPRA Pharmacovigilance, Earlsfort Terrace, IRL - Dublin 2; Tel: +353 1 6764971; Fax: +353 1 6762517. Website: [www.hpra.ie](http://www.hpra.ie); e-mail: [medsafety@hpra.ie](mailto:medsafety@hpra.ie).

**4.9 Overdose**

Excessive use of nicotine from either NRT and/or smoking might cause symptoms of an overdose. Symptoms of an overdose are those of acute nicotine poisoning and include nausea, salivation, abdominal pain, diarrhoea, sweating, headache, dizziness, disturbed hearing and marked weakness. At high doses, these symptoms may be followed by hypotension, weak and irregular pulse, breathing difficulties, prostration, circulatory collapse and general convulsions.

Doses of nicotine that are tolerated by adult smokers during treatment may produce severe symptoms of poisoning in small children and may prove fatal. Suspected nicotine poisoning in a child should be considered a medical emergency and treated immediately.

***Management of overdose:***

The administration of nicotine must be stopped immediately and the patient should be treated symptomatically. If excessive amount of nicotine is swallowed, activated charcoal reduces the gastrointestinal absorption of nicotine.

Tachycardia causing circulatory impairment may require treatment with a  $\beta$ -blocker. Excitation and convulsions may be treated with diazepam. Mechanically assisted ventilation should be instituted if necessary.

**5 PHARMACOLOGICAL PROPERTIES****5.1 Pharmacodynamic properties**

**Pharmacotherapeutic Group:** Drug for treatment of addiction

**ATC Code:** NO7B A01

The pharmacological effects of nicotine are well documented. Those resulting from chewing Nicorette Icy white 4mg Gum are comparatively small. The response at any one time represents a summation of stimulation and depressant actions from direct, reflex and chemical mediator influences on several organs. The main pharmacological actions are central stimulation and/or depression; transient hyperpnoea; peripheral vasoconstriction (usually associated with a rise in systolic pressure); suppression of appetite and stimulation of peristalsis.

The gum contains a number of ingredients that are recognized as having properties for removal of dental staining. Clinical studies have shown that the gum helps to improve tooth whiteness.

**5.2 Pharmacokinetic properties**

Nicotine administered in chewing gums is readily absorbed from the buccal mucous membranes. Demonstrable blood levels are obtained within 5 – 7 minutes and reach a maximum about 30 minutes after the start of chewing. Blood levels are roughly proportioned to the amount of nicotine chewed and are unlikely to exceed those obtained from smoking cigarettes.

**5.3 Preclinical safety data**

There are no findings derived from preclinical testing of relevance to the prescriber in determining the safety of the product which have not been considered in other relevant sections of this Summary of Product Characteristics.

## 6 PHARMACEUTICAL PARTICULARS

### 6.1 List of excipients

#### Core Gum

Chewing gum base\*  
 Xylitol  
 Peppermint oil  
 Sodium carbonate, anhydrous  
 Acesulfame Potassium  
 Levomenthol  
 Magnesium oxide, light  
 Quinolone yellow E104 (Alu lake)  
 Talc

#### Sub coating

Winterfresh  
 Hypromellose  
 Sucralose  
 Polysorbate 80  
 Purified water

#### Hard Coating

Xylitol  
 Starch, pre-gelatinised  
 Titanium dioxide (E171)  
 Winterfresh  
 Quinolone yellow E104 (Alu lake)  
 Carnauba wax  
 Purified water

#### Chewing gum base consists of

Calcium carbonate  
 Ester gums  
 Microcrystalline wax  
 Isobutylene-isopropene copolymer (butyl rubber)  
 Glycerol monostearate  
 Polyethylene  
 Polyvinyl acetate  
 Polyisobutylene  
 Butylhydroxytoluene (BHT E321).

### 6.2 Incompatibilities

Not applicable.

### 6.3 Shelf life

3 years

### 6.4 Special precautions for storage

Do not store above 25°C.

## **6.5 Nature and contents of container**

PVC/PVDC/Al Blister packed strips each containing 6,10 or 15 pieces supplied in packs of 10, 12, 15, 30, 105 and 210 pieces.

Not all pack sizes may be marketed.

## **6.6 Special precautions for disposal**

No Special Requirements.

## **7 MARKETING AUTHORISATION HOLDER**

McNeil Healthcare (Ireland) Ltd.  
Airton Road  
Tallaght  
Dublin 24

## **8 MARKETING AUTHORISATION NUMBER**

PA0823/049/025

## **9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION**

Date of first authorisation: 6th August 2010

Date of last renewal: 6th August 2015

## **10 DATE OF REVISION OF THE TEXT**

April 2016