

## Nicotine Replacement Therapy for Smoking Cessation: A Review

### Context

Cigarette smoking is considered the leading cause of preventable death, with 45,000 smoking-related deaths in Canada each year. Although many smokers want to quit, many of their attempts are unsuccessful. Without treatment, only 3% to 7% will successfully quit for at least one year. With treatment, this percentage may increase to more than 30%.

Smoking is both a learned behaviour and a physical addiction to nicotine, so treatment may consist of counselling, as well as drug therapy. Drug therapy options include bupropion, varenicline, and nicotine replacement therapy (NRT).

### Technology

NRT delivers replacement nicotine while allowing abstinence from tobacco. This reduces withdrawal symptoms and cravings.

NRT is available in several forms, including patches, gum, inhaler, lozenge, nasal spray, and sublingual tablets (tablets that dissolve under the tongue).

### Issue

In 2010, CADTH published a report on smoking cessation and found that all drug therapies, including NRT, were equally efficacious. Since the publication of that review, newer NRT products have entered the Canadian market: Nicorette QuickMist mouth spray, Nicorette ComboQuit patch plus gum, and Nicorette mini lozenges.

As well, NRT is being used in higher-than-recommended doses, and is being used to reduce smoking in people who do not intend to quit.

A review of the evidence will help inform decisions about new NRT products, high-dose NRT, and using NRT to reduce smoking.

### Methods

A limited literature search was conducted of key resources, and titles and abstracts of the retrieved publications were reviewed. Full-text publications were evaluated for final article selection according to predetermined selection criteria (population, intervention, comparator, outcomes, and study designs).

### Key Messages

- No evidence was found specific to the new products Nicorette QuickMist, Nicorette ComboQuit, and Nicorette mini lozenges.
- Limited evidence shows a higher quit rate with:
  - nicotine mouth spray, as compared with placebo
  - the combination of nicotine patch plus gum, as compared with placebo
  - high-dose nicotine patch, as compared with standard-dose nicotine patch.
- NRT appears effective in the reduction of smoking for those who do not want to quit.
- These findings should be interpreted with caution because of limitations of the evidence.

### Results

The literature search identified 303 citations, with no additional articles identified from other sources. After screening the abstracts, 13 were deemed potentially relevant and 9 met the criteria for inclusion in this review: 3 systematic reviews and 6 randomized controlled trials.

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