Nicotine replacement therapy

**Section:** 24. Medicines for mental and behavioural disorders > 24.5. Medicines for disorders due to psychoactive substance use

### Indication
- **Nicotine dependence**

### Medicine type
- Chemical agent

### List type
- Core

### Formulations
- Oral > Other: 2 mg chewing gum; 4 mg chewing gum
- Local > Topical > Transdermal patch: 5 to 30 mg per 16 hour; 7 to 21 mg per 24 hour

### EML status history
- First added in 2009 (TRS 958)

### Sex
- All

### Age
- Adolescents and adults

### Therapeutic alternatives
- The recommendation is for this specific medicine

### Patent information
- Patents have expired in most jurisdictions
- [Read more about patents.](#)

### Wikipedia
- [Nicotine replacement therapy](#)

### DrugBank
- [Nicotine replacement therapy (Nicotine)](#)

### Expert Committee recommendation
The Committee considered the addition of NRT in the context of the Framework Convention on Tobacco Control. The Committee recommended that nicotine patches and gum be added to the Model List because of the public health need, high-quality evidence of effectiveness, and acceptable safety and cost effectiveness. Other forms were not recommended for inclusion at this time due to the availability of less evidence of comparative safety, effectiveness and cost in diverse populations.

### Background
A representative from the Tobacco Free Initiative, WHO, outlined the potential benefits of nicotine replacement therapy (NRT) for aiding smoking cessation, as presented in the application for inclusion of this medicine on the WHO Model List of Essential Medicines. It was highlighted that a third of the world's population smoked and that if current patterns do not change, up to 1 billion people could die from smoking tobacco this century. Nicotine replacement therapy is one of the possible ways to support smoking cessation. The Committee was informed that many people, particularly in low-income countries face substantial barriers to obtaining NRT, which could be removed if NRT was classed as an essential medicine.

### Public health relevance
The public health consequences of smoking have been demonstrated repeatedly.

### Benefits
The largest and most recent systematic review included in the application was a Cochrane Review, which included 111 randomized and quasi-randomized controlled studies of the effectiveness of NRT among 43,040 men and women, and demonstrated that all forms of NRT were effective as part of a strategy to promote smoking cessation in individuals (1). However, there were no data showing that availability of NRT reduces smoking rates in a population.
The Committee noted that the risk–benefit profile of NRT was well defined and noted that the potential benefits of smoking cessation outweighed the risks of NRT.

The application provided a review of the cost-effectiveness of NRT in a wide variety of countries and settings, and in various smoking cessation programmes. However, no data were presented regarding comparable cost-effectiveness between the different types and formulations of NRT.