STOP SMOKING with Nicotine Replacement Therapy

Gita Anjali Shah, Clinical Pharmacist, UK and Guest Lecturer,

Faculty of Pharmacy, Mahidol University

Shocking Statistics

According to the last Global Adult Tobacco Survey, which took place in Thailand in 2009, 27.2% of the population, which equates to 14.3 million adults, are tobacco users [1].

It is known that tobacco kills up to half of its users, which adds up to nearly 6 million people per year worldwide. Over 600,000 of these people die as a result of indirect contact with tobacco; that is, passive smoking. The World Health Organisation (WHO) states that unless urgent action is taken, the annual global death toll from tobacco-related disease could rise to over 8 million by 2030. Low- and middle-income countries contribute to almost 80% of the one billion smokers in the world. [2].

It has been shown in studies that many people do not understand the harmful effects of tobacco use. The 2009 survey in China, for example, found that only 27% of smokers knew that smoking contributes to a stroke and only 38% of smokers knew that it contributes to coronary heart disease [2]. The published 2009 survey in Thailand does not go into this amount of detail, but does at least show that 97.3% of smoking adults believed that smoking causes serious illness [1].

Tobacco smoke has a huge adverse effect on health; 90% of lung cancers, 90% of COPD deaths and 25% of deaths due to heart disease are related to tobacco smoke [3].

The Effects of Smoking on the Lungs

Aside from cancers of the ororespiratory tract, death is caused, primarily, by tobacco smokers being predisposed to chronic obstructive pulmonary disease (COPD), which is the more commonly used umbrella term for chronic bronchitis and emphysema.

COPD is characterised by poorly reversible airflow obstruction and a continuous, exaggerated inflammatory response in the lungs, which is due to the toxic, irritant chemicals of smoking [3, 4, 5]. With time, this inflammatory response causes damaging changes in the lungs, both of a structural and physiological nature. The airways constrict and narrow due to

smooth muscle hypertrophy and fibrosis in the bronchioles, which in turn, leads to mucus hypersecretion and cilia dysfunction [4, 5]. The latter two changes make clearing the lungs, hence breathing, very difficult. In addition to this, the alveolar walls are destroyed rendering the lungs less elastic, leading to collapsed airways during expiration, then air trapping and lung hyperinflation [3, 4, 5].

The typical symptoms of COPD are therefore characterised as a productive cough, wheezing and breathlessness that is worse in the mornings. As life goes on, the breathlessness becomes marked and can be debilitating for patients, significantly reducing their quality of life. Patients who develop the disease severely, need home oxygen and often cannot walk ten metres without the oxygen mask.

COPD is primarily managed with lifelong inhalers. Mucolytic capsules are also necessary for some patients. As the disease progresses, long term oxygen therapy may also become a necessity.

Nicotine Replacement Therapy (NRT)

NRT can be used to reduce the withdrawal symptoms that occur when one stops smoking. The aim is to deter the person from having another cigarette, hence lessening the harmful effects of tobacco, by replacing nicotine in another form. A large scale multi-trial review [6] has found that NRT evidently provides a huge benefit to people who are trying to quit smoking; the rate of quitting smoking was increased by 50 – 70% when NRT was used, regardless of the situation [6].

There are many different forms of NRT: slow release trans-dermal patches (providing background systemic levels of nicotine), and more fast acting dosage forms such as the gum, nasal spray, oral spray, sublingual lozenges / tablets and the inhalator. Faster acting preparations are used to suppress cravings or whenever the urge to smoke occurs. It is interesting to note that no difference of effectiveness between the different dosage forms was found [6]. However, it was found that using the slow acting patch in combination with a faster acting form was of benefit to achieve success in quitting [6]. Behavioural support and monitoring through regular contact with healthcare professionals, however, is thought to largely contribute to overall success [7].

Advice on NRT Preparations

Use the following flow chart as a guide to quitting smoking. Please ask your local pharmacist / doctor for further advice on availability of preparation, pricing and personal specifications.

The British National Formulary 66 has been used as a source of information when compiling this flow chart.

Have you made the decision to QUIT SMOKING on your own?

YES

Excellent, this is the first step to success! Now, here are some pieces of advice:

1) Decide on a stop date
2) Throw away all remaining cigarettes in your possession
3) Take up a new hobby to take your mind off it
4) Avoid socialising with smokers
5) It's always helpful to have a quit-buddy to share your successes with

Do you smoke first thing in the morning?

YES → 24 hour patch (replace once a day)

NO → 16 hour patch (put on in the morning, take off at night)

Do you miss holding something in your hand?

YES → **'Inhalator'**.
Max 12 cartridges of 10mg strength or 6 cartridges of the 15mg strength daily.

NO

NO

You will not be successful unless you decide to do this for yourself. You must be determined.

Gum:

<20 cigarettes/day: chew the 2mg gum when you get a craving

> 20 cigarettes/day (or if you need > 15 pieces of 2mg/day): chew the 4mg gum when you get a craving (Max 15 pieces/day)

OR Nasal Spray:

One spray in each nostril up to twice an hour for 16 hours a day (Max 64 sprays/day)

OR Oral Spray:

1-2 sprays in the mouth. Up to 4 sprays in one hour. (Max 64 sprays / day)

OR Lozenges: OR Sublingual (SL) Tablets:

<20 cigarettes/day: use the lower strength lozenge **OR** one SL tablet/hour

>20 cigarettes/day or have not had success with the lower strength: use higher strength lozenge **OR** two SL tablets / hour (Max 15 lozenges / day)
(Max 40 tablets /day)

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