TOBACCO CESSATION GUIDELINE
Contributors

Health Promotion Division, Department of Public Health, Ministry of Health

1. Mr. Tshering Gyeltshen – Sr. Communication Officer (Focal of Tobacco Control Initiatives)
2. Mr. Ugyen Norbu – Information and Media Officer

Jigme Dorji Wangchuck National Referral Hospital

1. Dr. Damber Kumar Nirola – Psychiatrist

Mental Health Program, Non-Communicable Diseases Division, Department of Public Health, Ministry of Health

1. Mr. Dil Kumar Subha – Program Officer

Health Help Center

1. Mr. Devi Charan Subedi – Staff Nurse I
2. Mr. Ugyen Wangdi – Staff Nurse II
3. Mr. Karma Dorji – Assistant Nurse

Bhutan Narcotic Control Authority

1. Mr. Bhim Bdr. Poudyel – Program Officer (Tobacco Control Office)

Reviewed by:

1. Dr. Jagdish Kaur, Regional Advisor, DPM/NDE WHO-SEARO, New Delhi, India.
2. Mr. Sonam Rinchen, Public Health Consultant, Thimphu, Bhutan
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Foreword

Tobacco use especially among the youths has increased over the years posing grave public health concern in Bhutan. There are scientific evidences that tobacco use has profound implications on the quality of human life thereby posing direct impact on socioeconomic development of individuals, communities and eventually to the country at large.

Bhutan is signatory to the WHO Framework Convention on Tobacco Control (WHO FCTC) abiding by the specific obligation concerning tobacco dependence and cessation under article 14. Tobacco cessation guideline was developed in response to Tobacco Control Act 2010 of the Kingdom of Bhutan which imposes on Tobacco Control office the obligation to design and implement effective programmes aimed at providing tobacco cessation services in all health-care facilities across the country. It was also developed in response to overwhelming number of people using tobacco who wants tobacco cessation support and to help tobacco users to quit.

The tobacco cessation guideline is designed to build the capacity in terms of competence and skills of our health workers in providing tobacco cessation services at various district and community health settings. This provision of tobacco cessation services are embedded within a comprehensive tobacco control strategy and will be integrated in the primary health care system in years to come.

I hope this guideline will go a long way in providing tobacco cessation services for those who want to quit tobacco and prove useful to strengthen tobacco control interventions and aspire to become tobacco free nation for all the times to come.

(Dr. Pandup Tshering)
DIRECTOR
Department of Public Health
Ministry of Health
Acknowledgement

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INTRODUCTION

Tobacco is the single greatest preventable cause of death in the world today. It kills 5.4 million people in a year. If we don’t do anything to check the number of tobacco users, the mortality will increase to more than 8 million by 2030. In industrialized countries, where smoking has been common for decades, it is estimated to cause over 90% of lung cancer among men and about 70% of lung cancer among women, and about 22% of all cardiovascular disease. There is also profound implication on the quality of life of individuals, families, communities and country at large due to diseases caused by tobacco use as it has direct impact on socio-economic development.

Tobacco consumption remains one of the public health concerns in Bhutan today. Smokers have an increased risk of cerebrovascular disease, chronic obstructive pulmonary disease, and heart disease. It has been estimated that smokers of 1 to 2 packs of cigarettes a day lose anywhere from 4.4 to 6.8 years of life.

In accordance to National Survey for non-communicable disease risk factors and mental health using WHO STEPS approach in Bhutan, 2014, 9.5% of adults aged 18-39 smoke and 3.5% of aged 40-69 smoke. The prevalence of smokeless tobacco among adults aged 18-39 was 20.3% and 18.7% of aged 40-69. The prevalence of adult tobacco use has remained consistent over the years. However, a more disturbing trend is the prevalence of cigarette smoking and smokeless tobacco use among high school students, which increased over the years.

The Global Youth Tobacco Survey [GYTS] findings indicate there is a significant increase in the prevalence of current tobacco use both among boys and girls from 28.6% in 2006 to 41.2% in 2013 and among girls from 12.4% in 2006 to 25.5% in 2013. This drastic increase is mainly because of significant increase in prevalence of current smokeless tobacco use among both boys from 14.5% in 2006 to 27.2% in 2013 and girls from 6% in 2006 to 19.8% in 2013.
Tobacco Cessation Guideline

RATIONALE

In view of the addictiveness of tobacco products, many tobacco users will need support in quitting. Support for smoking cessation or “treatment of tobacco dependence” refers to a range of techniques including motivation, advice and guidance, counselling, telephone and internet support, and appropriate pharmacological aids, all of which aim to encourage and help tobacco users to stop using tobacco and to avoid subsequent relapse. Tobacco cessation services are, therefore, recognized as an important element of a comprehensive tobacco control strategy.

Tobacco Control Act of Bhutan 2010 mandates... “to take effective measures to promote cessation of tobacco use and adequate treatment for tobacco dependence. The Act provides to design and implement effective cessation programmes in the health care facilities, collaborate with rehabilitation centers and organize programme for diagnosing, counseling, preventing and treating tobacco dependence and collaborate with international agencies to facilitate accessibility and affordability for treatment for tobacco dependence including pharmaceutical products.”

In view of this, it has become important for the Ministry of Health to provide tobacco cessation services to help the ever increasing number of tobacco users who wish to quit smoking or use smokeless tobacco.

The GYTS shows that 81.8% of current smokers wanted to stop smoking (Boys 87.9%; Girls 64.2%) and 82.8% of current smokers tried to quit smoking (Boys 82.5%; Girls 83.4%). Only 26.1% of smokers have received help/advice to stop smoking from a program or professionals. Such high demand for quitting tobacco use warrants a need of providing tobacco cessation support to them which may be facilitated by providing training on tobacco cessation to health professionals and equips them with skills so that they can assist tobacco users to quit tobacco use.

Successfully quitting smoking can result in an increase in life expectancy of up to 10 years, if it occurs early enough. There is also substantial evidence that advice from health professionals including doctors, nurses, pharmacists, psychologists, dentists, social workers and smoking cessation specialists helps smokers to quit. Research shows that the cost per life year saved by smoking cessation interventions makes it one of the most cost-effective healthcare interventions. All those who wish to quit tobacco use should have access to appropriate cessation services.
NICOTINE ADDICTION

Tobacco is widely cultivated in South East Asia Region. Various varieties of tobacco are used to produce a large plethora of tobacco products such as cigarette, ‘biri’, cigar, smokeless/chewing tobacco khaini, ‘Zarda’, ‘Surti’, snuff etc.

Nicotine contained in tobacco is highly addictive substance. In fact, it is much more addictive than alcohol, heroin, cocaine and cannabis. This addictive nature of nicotine in tobacco causes its users to continuously use it. Tobacco addicts need enough nicotine over a day to ‘feel normal’ – to satisfy cravings or control their mood. How much nicotine a smoker needs determines how much smoke they are likely to inhale, no matter what type of cigarette they smoke. Along with nicotine, smokers inhale about 7,000 other chemicals in cigarette smoke. Many of these chemicals come from burning tobacco leaf. Some of these compounds are chemically active and trigger profound and damaging changes in the body. Tobacco smoke contains over 60 known cancer-causing chemicals. Smoking harms nearly every organ in the body, causing many diseases and reducing health in general. Similarly, smokeless tobacco contains nearly 3000 harmful chemicals and 29 of these are proven carcinogenic.

Smokers are not the only ones killed by tobacco. Second-hand smoke also has serious and often fatal health consequences. Second-hand smoke has different chemicals, of which, some are known to be associated with cancer. Second-hand smoke also has twice the amount of nicotine and tar and five times the carbon monoxide than what the smokers inhale.

Thus, there is no safe level of nicotine and it is highly addictive and harmful. There is no other psychoactive drug that affects brain chemistry as much as nicotine.

Nicotine addiction has following features:
- Craving: a strong desire to use the nicotine
- Withdrawal symptoms
- Increase and regular use
- Use despite harm
- Difficulty in controlling use
- Use despite knowing the harmful effects
SCIENCE OF NICOTINE ADDICTION

The limbic system contains the brain’s reward circuit. The limbic system links together a number of brain structures that control emotional memory and regulate the ability to feel pleasure. Feeling pleasure motivates us to repeat behaviours such as eating—actions that are critical to existence.

The limbic system is also activated by substances of
abuse such as nicotine. It is also responsible for the perception of other emotions, both positive and negative, which explains the mood-altering properties of many psychoactive substances.

This pleasure or reward is largely related to the neurotransmitter dopamine. Certain survival activities, like eating and sex, stimulate production of dopamine. All psychoactive substances of abuse also directly or indirectly target the brain’s reward system by flooding the circuit with dopamine and/or other neurotransmitters. However, substance-induced rewards are much more powerful than natural rewards. When some substances of abuse are taken, they can release 2 to 10 times the amount of dopamine that natural rewards do. In some cases, this occurs almost immediately (as when substances are smoked or injected). The effects can also last much longer than those produced by natural rewards.

One of the neural substrates called nicotine acetylcholine receptor mediates the reinforcing effects of nicotine in the brain giving rise to nicotine dependence. Other neurotransmitters that are responsible in nicotine dependence are dopamine, glutamate and gamma-aminobutyric acid (GABA).

Overstimulation of the reward circuit produces the euphoric effects sought by people who abuse psychoactive substances and teaches them to repeat the behaviour. Whenever this reward circuit is activated naturally, the brain notes that something important is happening that needs to be remembered and teaches us to do it again and again, without thinking about it. Because psychoactive substances of abuse stimulate the same circuit, people learn to abuse substances in the same way. The resulting effects on the brain’s pleasure circuit dwarfs those produced by naturally rewarding behaviours such as eating and sex.

This overstimulation of the reward system becomes even more complicated, leading the brain to try to compensate and reinstate balance. The brain adjusts to the overwhelming surges in dopamine (and other neurotransmitters) by producing less dopamine or by reducing the number of receptors that can receive and transmit signals. As a result, dopamine’s impact on the reward system of the brain of a person who abuses substances can become abnormally low, and the ability to experience any pleasure induced by normal stimuli is reduced. This is why the person who abuses substances eventually feels listless and depressed and cannot enjoy things that previously brought pleasure.
Now the person needs to take the substance just to bring the dopamine function back to normal. The person must take larger amounts of the substance than he or she first did to create the dopamine high—an effect known as tolerance.

**Dangerous chemicals in tobacco smoke**

The most damaging components of tobacco smoke are:

- **Tar** – this is the collective term for the various particles suspended in tobacco smoke. The particles contain chemicals, including several cancer-causing substances (carcinogens). Tar is sticky and brown, and stains teeth, fingernails and lung tissue. Tar contains the carcinogen benzopyrene.

- **Carbon monoxide** – this odourless gas is fatal in large doses because it takes the place of oxygen in the blood. Each red blood cell contains a protein called haemoglobin that transports oxygen molecules around the body. However, carbon monoxide binds to haemoglobin better than oxygen. This means that less oxygen reaches the brain, heart, muscles and other organs.

- **Hydrogen cyanide** – the lungs contain tiny hairs (cilia) that help to clean the lungs by moving foreign substances out. Hydrogen cyanide stops this lung clearance system from working properly, which means the poisonous chemicals in tobacco smoke can build up inside the lungs. Other chemicals in smoke that damage the lungs include hydrocarbons, nitrous oxides, organic acids, phenols and oxidizing agents.

- **Free radicals** – these highly reactive chemicals can damage the heart muscles and blood vessels. They react with cholesterol, leading to the build-up of fatty material on artery walls. Their actions lead to heart disease, stroke and blood vessel disease.

- **Metals** – tobacco smoke contains dangerous metals including arsenic, cadmium and lead. Several of these metals are carcinogenic.

- **Radioactive compounds** – tobacco smoke contains radioactive compounds that are known to be carcinogenic.
Effects of tobacco smoking on the body

Inhaling tobacco smoke causes damage to many of the body’s organs and systems.

Effects of smoking on the respiratory system

The effects of tobacco smoke on the respiratory system include:

- Irritation of the trachea and larynx
- Reduced lung function and breathlessness due to swelling and narrowing of the lung airways and excess mucus in the lung passages
- Impairment of the lungs’ clearance system, leading to the build-up of poisonous substances, which results in lung irritation and damage
- Increased risk of lung infection and symptoms such as coughing and wheezing
- Permanent damage to the air sacs of the lungs.

Effects of smoking on the circulatory system

The effects of tobacco smoke on the circulatory system include:

- Raised blood pressure and heart rate
- Constriction of blood vessels in the skin, resulting in a drop in skin temperature
- Less oxygen carried by the blood
- ‘Stickier’ blood, which is more prone to clotting
- Damage to the lining of the arteries, which is thought to be a contributing factor to atherosclerosis (the build-up of fatty deposits on the artery walls)
- Reduced blood flow to extremities (fingers and toes)
- Increased risk of stroke and heart attack due to blockages of the blood supply.

Effects of smoking on the immune system

The effects of tobacco smoke on the immune system include:

- Greater susceptibility to infections such as pneumonia and influenza
- More severe and longer-lasting illnesses
- Lower levels of protective antioxidants (such as vitamin C), in the blood.
Effects of smoking on the musculoskeletal system

- Tightening of certain muscles
- Reduced bone density.

Effects of smoking on the sexual organs

The effects of tobacco smoke on the male body include:
- Lower sperm count
- Higher percentage of deformed sperm
- Genetic damage to sperm
- Impotence, which may be due to the effects of smoking on blood flow and damage to the blood vessels of the penis.

The effects of tobacco smoke on the female body include:
- Reduced fertility
- Menstrual cycle irregularities or absence of menstruation
- Menopause reached one or two years earlier
- Increased risk of cancer of the cervix
- Greatly increased risk of stroke and heart attack if the smoker is aged over 35 years and taking the oral contraceptive pill.

Other effects of smoking on the body

Other effects of tobacco smoke on the body include:
- Irritation and inflammation of the stomach and intestines
- Increased risk of painful ulcers along the digestive tract
- Reduced ability to smell and taste
- Premature wrinkling of the skin
- Higher risk of blindness
- Gum disease (periodontitis).
**Effects of smoking on babies**

The effects of maternal smoking on an unborn baby include:

- Increased risk of miscarriage, stillbirth and premature birth
- Low birth weight, which may have a lasting effect of the growth and development of children. Low birth weight is associated with an increased risk of heart disease, stroke, high blood pressure, being overweight and diabetes in adulthood
- Increased risk of cleft palate and cleft lip
- Paternal smoking can also harm the foetus if the non-smoking mother is exposed to second-hand smoke.

If a parent continues to smoke during their baby’s first year of life, the child has an increased risk of ear infections, respiratory illnesses such as pneumonia and bronchitis, sudden infant death syndrome (SIDS) and meningococcal disease.

**Effects of chewing Tobacco**

Increased risk of oral cancers, cancers of digestive system, cancers of nasal cavity (snuff), discoloration of teeth, dental problems, precancerous lesions e.g. oral submucous fibrosis, leukoplakia, erythroplakia etc.

**Medical conditions caused by long-term smoking**

A lifetime smoker is at high risk of developing a range of potentially lethal diseases, including:

- Cancer of the lung, mouth, nose, larynx, tongue, nasal sinus, oesophagus, throat, pancreas, bone marrow (myeloid leukaemia), kidney, cervix, ovary, ureter, liver, bladder, bowel and stomach
- Lung diseases such as COPD, which includes chronic bronchitis and emphysema
- Coronary artery disease, heart disease, heart attack and stroke
- Ulcers of the digestive system
- Osteoporosis and hip fracture
- Poor blood circulation in feet and hands, which can lead to pain and, in severe cases, gangrene and amputation.
**Withdrawal symptoms of tobacco**

Each person will experience different set of withdrawal symptoms. For some people, withdrawal won’t feel so bad. For others, it will feel horrible. It depends on many factors, including how one takes tobacco and how much you smoke. In general, people notice symptoms within a few hours of quitting. Their symptoms may be worse in the evening.

Withdrawals symptoms don’t last forever. They usually become less noticeable after the first 4-5 days.

**Withdrawal symptoms include**

- Irritability
- Lack of energy
- Trouble sleeping
- Dry cough and irritable throat
- Lack of concentration
- Tightness in chest
- Stomach pain and constipation
- Intense craving for cigarettes
Benefits of Quitting Tobacco

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Benefits</th>
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<tbody>
<tr>
<td>In 20 minutes</td>
<td>Blood pressure and pulse rate drops to normal</td>
</tr>
<tr>
<td>In 8 hours</td>
<td>Oxygen level increases to normal &amp; carbon monoxide level drops in blood</td>
</tr>
<tr>
<td>In 24 hours</td>
<td>Chance for a heart attack goes down</td>
</tr>
<tr>
<td>In 48 hours</td>
<td>Ability to smell and taste improves; walking is becoming easier</td>
</tr>
<tr>
<td>Within 2 weeks to 3 months</td>
<td>Blood circulation improves. No more cold hands and cold feet. Lung function increased up to 30%</td>
</tr>
<tr>
<td>Within 1 month to 9 months</td>
<td>Coughing, sinus congestion and shortness of breath have decreased dramatically</td>
</tr>
<tr>
<td>Within 1 year</td>
<td>Risk of coronary heart disease is cut in half</td>
</tr>
<tr>
<td>By 5 years</td>
<td>Risk of stroke reduced to that of a non-smoker. Risk of cancers of the mouth, throat and esophagus cut in half. Risk of lung cancer reduced in half</td>
</tr>
<tr>
<td>By 10 years</td>
<td>Risk of dying from lung cancer is cut in half</td>
</tr>
<tr>
<td>By 15 years</td>
<td>Risk for coronary heart disease and stroke is the same as for a lifelong non-smoker</td>
</tr>
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TOBACCO CESSATION PROTOCOL

Tobacco cessation advice and support from health professionals are key aspects of a comprehensive approach to tobacco control. Health professionals can make an important contribution to tobacco control in Bhutan and to the health of the community by providing opportunities for smokers and smokeless tobacco users to quit.

An encouraging environment can be provided in all health settings (BHUs, hospitals, dental, eye care and pharmacies). All types of health professionals can play an important role in tobacco cessation—WHO states that involvement in offering smokers advices and assistance with quitting should be based on factors such as access, rather than professional discipline.
Following is the protocol to be adapted while dealing with patients who visit any health facility and who use tobacco:

1. Ask every patient at every visit about Tobacco Use.
   - Former Tobacco users: Relapse Prevention
     - Discuss Cessation Benefits, Threats to abstinence and side effects
     - Unwilling to quit: Provide Motivational Intervention “5R’s”
   - Current Tobacco users: Clinician Counseling
     - Provide Clear, Strong and personalized Advice
     - Willing to quit: Provide Appropriate Tobacco Dependence Treatments 5A’s
   - Never used: Primary Prevention
     - Offer Congratulations
5 A’s Framework

**ASK** every patient about tobacco status. (Document status in medical

Current tobacco user?  

**YES**  

**ADVISE** to quit (Message clear, strong and personalized)

**ASSESS:** Willingness to quit  

**NO**  

Client is not ready to quit and requires motivational interventions: 5 R's

**YES**  

**ASSIST** by providing:
- Help with setting a quit date
- Personalized advice:
  - Review prior attempts
  - Anticipate challenges
  - Prepare environment
- Pharmacologic therapy as appropriate
- Information on community programs

**ARRANGE** follow-up  
(Eg: 1 week and routine clinic visits or phone call

**ABSENT** at follow-up?  

**YES**  

- Congratulate success
- Review/reinforce reason for quitting

**NO**  

Assess reasons for failure:
- Consider referral for more intense counseling
- Reassess choice of pharmacologic intervention
- Advise to make another quit attempt

**PREVENT** relapse
Tobacco Cessation Guideline

TREATMENT ALGORITHM

Assessment for the need of pharmacotherapy

Assess nicotine dependence
Nicotine dependence can be briefly assessed by asking
- Minutes after waking for first cigarette?
- Number of cigarettes per day?
- Cravings or withdrawal symptoms in previous quit attempts?

Indication of nicotine dependence
- Smoking within 30 minutes of waking
- Smoking more than 10 cigarettes per day
- History of withdrawal symptoms in previous quit attempts. Also consider patient's previous experience and views on pharmacotherapy.

Nicotine dependent: pharmacotherapy

- Recommend use of pharmacotherapy to increase chance of successful cessation
- Explain options for pharmacotherapy (nicotine replacement therapy, varenicline, nortriptyline)
- Specify therapy based on clinical suitability and patient preference
- Explain that medicines can reduce felt need to smoke, but do not eliminate them; they are only aids to quitting.
- Provide counselling in combination with pharmacotherapy.

Nonpharmacological support

Support quit attempt with nonpharmacological strategies
- Counselling
- Cognitive and behavioural coping strategies: delay, deep breathe, drink water, do something else
- Offer written information (eg. Quit Pack)
- Offer Quitline referral or other assistance
- Arrange follow up visit, if appropriate

Not nicotine dependent

Not willing to use pharmacotherapy

Nicotine Replacement Therapy (NRT)

Clinical suitability
Can be used in all groups of smokers including adolescents. Use with caution in pregnant women and patients with unstable cardiovascular disease

Client choice
Reasons to prefer:
- Concerns about side effects of other therapy
- Can be used in pregnancy under medical supervision

Varenicline

Clinical suitability

Client choice
Reasons to prefer:
- On current evidence, varenicline is the most effective pharmacotherapy.

Bupropion

Clinical suitability
Absence of contraindications such as current or past seizures, concurrent monoamine oxidase inhibitors, pregnancy. Caution with other conditions or drugs that lower seizure threshold

Client choice
Reasons to prefer:
- Oral non-nicotine preparation
- Relapse in past using NRT
- Evidence of benefit in chronic disease and depression

Nortriptyline

Clinical suitability
Not recommended for pregnant woman and childhood. Caution with cardiovascular disease. It should not take with monoamine oxidase inhibitors. It is dangerous in overdose.

Client choice
Reasons to prefer:
- Evidence shows nortriptyline significantly increases long term quit compared with placebo.

Discuss benefit of follow up visits, especially if there are concerns about side effects, eg. skin irritation, sleep disturbance
- Encourage use of support services
- Encourage completion of at least 10 weeks of therapy
- Consider combination NRT if withdrawal not controlled
- Consider a further follow up visit if client needs extra support.

Give initial 4 week script; arrange for return for second script and discussion of progress
- Encourage use of support services
- At follow up, review progress and problems: common adverse effects, nausea and abnormal dreams
- Check for neuropsychiatric symptoms
- Encourage completion of 12 weeks of therapy
- Consider a further follow up visit if client needs extra support.

Give initial 2 weeks script; arrange for return for second script and discussion of progress
- Encourage use of support services
- At follow up, review progress and adverse effects; monitor allergy problems (skin rash) and insomnia
- Encourage completion of at least 7 weeks of therapy
- Consider combination treatment if withdrawal not controlled
- Consider a further follow up visit if client needs extra support.

Give initial 10 – 28 days script; arrange for return for second script and discuss on progression
- Encourage use of support services
- At follow up, review progress and adverse and its side effect.
- Encourage completion of 12 weeks of therapy
- Consider a further follow up visit if needed extra support.

Adapted from Royal Australian College of General Practitioners
Pharmacotherapy in special populations

<table>
<thead>
<tr>
<th>Special group</th>
<th>Varenicline</th>
<th>Bupropion</th>
<th>Nortriptyline</th>
<th>Nicotine replacement therapy (NRT)</th>
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<tbody>
<tr>
<td>Pregnant and lactating women</td>
<td>ND</td>
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<td>√&lt;sup&gt;a&lt;/sup&gt;</td>
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<td>Children and adolescents (12–18 years)</td>
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<td>People with smoking-related diseases</td>
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<tr>
<td>- Cardiovascular disease</td>
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<td>√</td>
<td>√&lt;sup&gt;b&lt;/sup&gt;</td>
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<tr>
<td>- Chronic obstructive pulmonary disease</td>
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<td>√</td>
<td>ND</td>
<td>√</td>
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<tr>
<td>- Diabetes</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>√&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td>- Severe renal impairment</td>
<td>√&lt;sup&gt;e&lt;/sup&gt;</td>
<td>√&lt;sup&gt;e&lt;/sup&gt;</td>
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<td>- Moderate to severe hepatic impairment</td>
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<td>Yes&lt;sup&gt;h&lt;/sup&gt;</td>
<td>Yes&lt;sup&gt;h&lt;/sup&gt;</td>
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Note: Quitting smoking can alter the metabolism of a number of medications.

√: Suitable.

X: Not to be used.

ND: Lack of safety data.

<sup>a</sup> There is currently insufficient evidence to determine whether or not NRT is effective or safe when used in pregnancy for smoking cessation. Intermittent dosing products are preferable with...
monitoring by a suitably qualified health professional.
b Caution is advised in patients with cardiovascular disease. There is some concern about the possible increase in risk of cardiovascular events when varenicline and nortriptyline is used.
c Caution is advised for people in hospital for acute cardiovascular events such as myocardial infarction, unstable or progressive angina, severe cardiac arrhythmias or acute-phase stroke. NRT can be used under medical supervision, where the clinician should balance risk of using nicotine replacement against risk of smoking.
d Closely monitor blood sugar levels as insulin or other medication requirements may change.
e Dosing adjustment required.
f Close follow-up required. Check for any unusual or serious changes in mood or behaviour at the 2- to 3-week follow-up visit and after treatment is completed. Careful monitoring for mood changes, depression, behaviour disturbance and suicidal thoughts is required.
g Caution with alcohol abuse.
h Hypersensitivity to the active substance or to any of the excipients.
i Contraindications – seizures, anorexia, bulimia, CNS tumours, MAOI treatment within 14 days.

Adapted from Royal Australian College of General Practitioners

**MOTIVATIONAL INTERVENTION**

Motivational Interviewing, originally developed by William Miller in his work with problem drinkers, is a counselling style designed to help clients build commitment and reach a decision to change.

The principal purpose of motivational interviewing is to help clients resolve their ambivalence (“I know smoking is not good for me, BUT I enjoy it; it calms me down; it helps me keep weight off, etc.”) and move along the continuum of change. “Motivational Interviewing assists the individual in changing his or her perception of consequences…that [ultimately] change behaviour”

A few key points embody the spirit of Motivational Interviewing:

- Motivation to change is determined by the client, not externally imposed by the counsellor.
- The client owns the responsibility to resolve his ambivalence.
- Prescribing specific methods or techniques is ineffective; allowing clients to pursue their own means of change increases likelihood of success.
Tobacco Cessation Guideline

- Client resistance and denial are viewed as a reaction to counsellor behaviour, not as client traits.
- The client/counsellor relationship is seen more as a collaborative and friendly partnership than as an expert/recipient or teacher/student relationship.

Counselling Skills

The practice of motivational interviewing requires the health worker to develop five primary skills:

<table>
<thead>
<tr>
<th>Expression</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Express empathy</strong></td>
<td>Be non-judgmental; listen reflectively; accept ambivalence; see the world through the client’s eyes. Accurately understanding the client’s experience can facilitate change.</td>
</tr>
<tr>
<td><strong>Develop discrepancy</strong></td>
<td>Help client perceive difference between present behaviour and desired lifestyle change. Clients are more motivated to change when they see what they’re doing will not lead them to a future goal.</td>
</tr>
<tr>
<td><strong>Avoid argumentation</strong></td>
<td>Gently diffuse client defensiveness. Confronting clients’ denial can lead to drop out and relapse. When client demonstrates resistance to change, counsellor changes strategies.</td>
</tr>
<tr>
<td><strong>Roll with resistance</strong></td>
<td>Reframe client’s thinking/statements; invite client to examine new perspectives; value client as being her own change agent.</td>
</tr>
<tr>
<td><strong>Support self-efficacy</strong></td>
<td>Provide hope; increase client’s self-confidence in ability to change behaviour; highlight other areas where client has been successful.</td>
</tr>
</tbody>
</table>

Application in tobacco treatment

Motivational Interviewing can be utilized with the Stages of Change model (Prochaska & DiClementi, 1983) in counselling tobacco-dependent clients. The goal is to help clients move toward being ready to change behaviour, NOT to get someone to quit using tobacco.
Brief Motivational Interviewing

Brief motivational interviewing can be integrated into any multi-session intensive tobacco treatment program.

The elements of brief motivational interviewing involve **FRAMES**:

<table>
<thead>
<tr>
<th>Feedback</th>
<th>Personalized information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Responsibility</strong></td>
<td>Freedom of choice; individual's responsibility for own health</td>
</tr>
<tr>
<td><strong>Advice</strong></td>
<td>Need for change delivered clear, supportive, concerned manner</td>
</tr>
<tr>
<td><strong>Menu</strong></td>
<td>Strategies for change offered in a varied (menu) format</td>
</tr>
<tr>
<td><strong>Empathy</strong></td>
<td>Empathetic, reflective, supportive style related to positive treatment outcomes</td>
</tr>
<tr>
<td><strong>Self-efficacy</strong></td>
<td>Client's belief in ability to change is essential</td>
</tr>
</tbody>
</table>

Motivational Interviewing Techniques for Tobacco Cessation

Assess the client’s readiness to change by using two questions:

- “From 1-10, what is your Desire to quit tobacco?”
- “From 1-10, how Confident are you in your ability to stop using tobacco?”

(If someone answers a 3 to either question, you might ask, “How come you’re not a 10?”)

- Listen for and discuss with the client ANY ambivalence presented. For example, if the client mentions a child, try to draw out ANY ambivalence (regarding using tobacco in relation to the child) and get the client to talk about it. This can help the client move through the stages.

- Use the Decision-making Worksheet below with the client, to make sure that both the practitioner and the client are “on the same page.”
Tobacco Cessation Guideline

<table>
<thead>
<tr>
<th>Good Things About Smoking</th>
<th>Not So Good Things About Smoking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not So Good Things About Quitting</td>
<td>Good Things About Quitting</td>
</tr>
</tbody>
</table>

While interviewing a client the counsellor uses important facilitative counselling skills:

1. **Open-ended questions**

Examples of open-ended questions appropriate for motivational counselling:
"How did you first start using tobacco?"

"What would change in your life if you stopped using tobacco?"

"Sometimes people decide to quit using and succeed, only later to begin again. What things do you think might influence you to start using tobacco again after you’ve already quit for a period of time?"

Examples of closed-ended questions appropriate for motivational counselling:
"I’d like to summarize what I understand so far. Would you be willing to listen, and make sure I’ve gotten it right?"

"Would you be interested in hearing about a telephone coaching program?"

2. **Reflective Listening**

The process of reflective listening involves hearing what the client says and either repeating or paraphrasing back to the client, or reflecting the feeling you believe is behind what the client says. Different levels of reflective listening can be distinguished.
- **Simple Reflection.** Counsellor simply rephrases what client says.

  **Client:** "But I can’t stop smoking. All of my friends smoke!"
  **Counsellor:** "Quitting smoking seems nearly impossible because you spend so much time with others who smoke."
  **Client:** "Yes, right, although maybe I should."

- **Amplified Reflection.** Counsellor exaggerates the client's statement to the point client may disagree with it. Counsellor must not be mocking or patronizing.

  **Client:** "But I can’t stop smoking. All of my friends smoke!"
  **Counsellor:** "Oh, so you couldn’t really quit smoking because then you’d be too different to fit in with your friends."
  **Client:** "Well, that would make me different, although maybe they might not really care if I didn’t try to get them to quit, too."

- **Double-Sided Reflection.** Counsellor reflects both the current, resistant statement, and a previous, contradictory statement the client has made.

  **Client:** "But I can’t stop smoking. All of my friends smoke!"
  **Counsellor:** "You can’t imagine how you would be able to not smoke with your friends, and at the same time you’re worrying how it’s affecting you."
  **Client:** "Well, yes, I guess I have mixed feelings."

- **Shifting Focus.** Sometimes counselling goals are better achieved by simply not addressing the resistant statement.

  **Client:** "But I can’t stop smoking. All of my friends smoke!"
  **Counsellor:** "Well, we’re not really there yet; I’m not talking about your quitting smoking here. Let’s just keep to what we’re doing here -- talking through the issues -- and later on we can worry about what, if anything, you want to do about smoking."
  **Client:** "Well, I just wanted you to know."
• **Rolling with Resistance.** With clients who are extremely unreceptive to any idea or suggestion, this technique can be effective. It involves a paradoxical element, which can often bring the client back into a more balanced, non-combative perspective.

  *Client:* "But I can’t stop smoking. All of my friends smoke!"
  *Counsellor:* "And it may be that when we’re finished here, you’ll decide that it’s worth it to you to keep on smoking. Right now it may be too difficult to make a change. That decision is yours to make."

  *Client:* "Okay."

• **Reframing.** With this strategy, the counsellor invites clients to examine their perspective in a new light, thereby giving new meaning to what the client has said.

  *Client:* "My husband told me I really need to stop smoking. He’s always telling me what to do!"
  *Counsellor:* “Your husband must really care a lot about you to say that, knowing you’d probably get angry with him.”

• **Working with resistance:** To reduce client resistance, the counsellor can use paraphrasing. Effective motivational interviewing involves a ratio of paraphrasing to questioning. The counsellor should paraphrase two to three times as often as asking a question.
Tobacco Cessation Guideline

THE STAGES OF BEHAVIOUR CHANGE

The Stages of Behavior change is a general model for any behavioral change. The model can also be applied to tobacco cessation as it also requires a behavior change. It further helps to understand a user’s readiness to adopt tobacco cessation interventions. Tobacco users will be transiting through 5 stages of behavioral change before, during, and after the tobacco cessation process: namely pre-contemplation, contemplation, preparation, action, and maintenance phase.

Precontemplation Stage

In this stage tobacco users will not experience the existence of problem due to tobacco use and will not seriously consider quitting. Tobacco users at this stage will find more benefits than the adverse risks and effects. They will be defensive of their behaviour and there will be feel no need for change. They would avoid and deny for behavior change as they may not be seeing tobacco use to affect their daily life.

Interventions like increasing awareness of adverse effects of tobacco use are beneficial. In this stage, the health workers role is primarily to advise and inform the client about adverse effects of tobacco use at later stages or in long run.

Contemplation Stage

When the users are in contemplation stage, they will be recognizing certain harmful effects or risks of tobacco use. The users will develop concern and may be planning to quit, however, there will be no date set. This in other words means that the users are ambivalent to change and are often stuck...
in “chronic contemplation.”

At this stage health workers should emphasize on motivating them to act on their plan for quitting tobacco use. Motivational interventions would increase awareness of the adverse effects and helping them on strategic planning for quitting.

**Preparation Stage**

The users will have proper plan to quit and a stop date will be set. They will be motivated to change their behavior and initiate steps to quit. Individuals in the preparation stage will be still using tobacco, but typically they intend to stop using very soon. They will have commitment and strong desire to quit. They begin to set goals for themselves and make commitments to stop using.

At this point health professionals should emphasize on assisting in initiating steps toward cessation through identifying their potentials and recommending appropriate strategies. For instance, delaying the first tobacco use in the morning, cutting down the frequency of use, informing family and friends for support, and suggest for some alternatives. Other assistance for them would be to help them develop some behavior modification skills to prevent relapse.

**Action Stage**

Individuals in this stage have taken steps to stop using tobacco. They will quit by using medication, behavior modification, willpower, an informal quitting strategy, or a combination of some or all of these methods. They will be actively modifying their behavior. As a result they will be making lifestyle changes and will be facing challenges including withdrawal. This stage lasts from onset of the efforts, until 6 months after cessation. This is the stage where most relapses occur, which may be caused by challenges due to changes in lifestyle, alcohol consumption and history of depression. High initial relapse occurs during the first 2 to 3 weeks. This then tapers off during the next 2 to 3 months.

For service providers it is important to support at the onset of action till 2-3 weeks to comply with adopted strategies. Support after 3 to 4 months has much smaller effects on relapse. Therefore, interventions addressing relapse, prevention and rewarding positive behavior are most effective.
Frequent contact with health worker by users and follow up by health workers will be useful for continuation of this stage.

**Maintenance Stage**

At this stage, the clients have not used tobacco at least for 6 months. Successful clients will be avoiding relapse. Relapse occurs often. Most successful quitters relapse and cycle through the stages an average of 3 to 4 times before becoming free from tobacco. This is sustaining stage after quitting tobacco.

The model in short describes the process of behavior change through a continuum of stages. Therefore, the service provider’s role is to:

1. Motivate tobacco users to stop.
2. Assist motivated clients to succeed in quitting.
MOTIVATIONAL INTERVENTION FRAMEWORK

Motivational interventions for clients unwilling to quit at the present time are characterized by the “5 R’s”:

<table>
<thead>
<tr>
<th>RELEVANCE (1 minute)</th>
<th>Ask client about how quitting may be personally relevant.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Do you feel quitting smoking is an important thing to do for yourself and others around you?</td>
</tr>
<tr>
<td></td>
<td>• Longer and better quality of life</td>
</tr>
<tr>
<td></td>
<td>• Extra money</td>
</tr>
<tr>
<td></td>
<td>• People you live with will be healthier</td>
</tr>
<tr>
<td></td>
<td>• Decrease chance of heart attack, stroke or cancer</td>
</tr>
<tr>
<td></td>
<td>• If pregnant, improves chance of healthy baby</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RISKS (1 minute)</th>
<th>Ask the client about their perception of short-term, long-term and environmental risks of continued use.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>What effect do you think your continued smoking will have on you and others around you?</td>
</tr>
<tr>
<td></td>
<td>• Acute (shortness of breath, exacerbation of asthma, harm to pregnancy, impotence, infertility, increased serum carbon monoxide levels.)</td>
</tr>
<tr>
<td></td>
<td>• Long-term (myocardial infarction and strokes, lung and other cancers (larynx, oral cavity, pharynx, esophagus, pancreas, bladder, cervix), chronic obstructive pulmonary diseases (chronic bronchitis and emphysema), long-term disability and need for extended care)</td>
</tr>
<tr>
<td></td>
<td>• Environmental risks: increased risk of lung cancer and heart disease in spouses; higher rates of smoking by children of tobacco users; increased risk for low birth weight, sudden infant death syndrome, asthma, middle ear disease, and respiratory infections in children of smokers.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REWARDS (1 minute)</th>
<th>Ask the client about perceived benefits/rewards for quitting tobacco use.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Can you identify the benefits of quitting for yourself and not smoking around others?</td>
</tr>
<tr>
<td></td>
<td>• Healthier (self &amp; others)</td>
</tr>
<tr>
<td></td>
<td>• Food taste better</td>
</tr>
<tr>
<td></td>
<td>• Improved sense of smell</td>
</tr>
<tr>
<td></td>
<td>• Save money</td>
</tr>
</tbody>
</table>
### Tobacco Cessation Guideline

| ROADBLOCKS (3 minutes+) | Ask client about perceived roadblocks to quitting. **What is stopping you from quitting?**  
- Withdrawal symptoms  
- Fear of failure  
- Weight gain  
- Lack of support  
- Depression  
- Enjoyment of tobacco |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>REPETITION (1 minute+)</td>
<td>The motivational intervention should be repeated every time an unmotivated client visits the clinical setting. Tobacco users who have failed in previous quit attempts should be told that most people make repeated quit attempts before they are successful.</td>
</tr>
</tbody>
</table>

### PHARMACOTHERAPY

Pharmacotherapy is recommended for all dependent smokers who express an interest in quitting, except where contraindicated. Best results are achieved when medicines are used in combination with counselling and support, although there is some evidence that nicotine replacement therapy (NRT) can increase quit rates with or without counselling.

### Nicotine Replacement Therapy (NRT)

Nicotine is the substance in tobacco that causes addiction – it makes people dependent on tobacco products, but it is the other chemicals in combusted tobacco that cause cancer, accelerate heart disease and affect other areas of health. The aim of NRT is to reduce withdrawal symptoms by providing some of the nicotine that would normally be obtained from cigarettes/other tobacco products, without providing the harmful components of tobacco smoke/tobacco.
## Key points:
- Using NRT to quit is always safer than continuing to use tobacco.
- All forms of NRT (at equivalent doses) are similarly effective in aiding long term cessation.
- All forms of NRT can increase the rate of quitting by 50–70%.
- Higher dose forms of NRT (4 mg) are more effective than lower dose forms (2 mg) for more addicted smokers.
- More than one form of NRT can be used concurrently with increased success rates and no safety risks.
- NRT can be given several weeks prior to smoking cessation to help smokers prepare for quitting.
- NRT can be used by people with cardiovascular disease. Caution is advised for people in hospital for acute cardiovascular events, but if the alternative is active smoking, NRT can be used under medical supervision.
- NRT can be used by smokers aged 12–17 years.
- NRT may be appropriate in pregnant smokers if they have been unsuccessful in stopping smoking without NRT.
- Intermittent, short acting dosage forms (oral) are preferred in pregnancy to long acting dosage forms (patches).

### Nicotine replacement therapy initial dosing guidelines

<table>
<thead>
<tr>
<th>Client group</th>
<th>Dose</th>
<th>Duration (weeks)</th>
<th>Instructions</th>
<th>Side effects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patch</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;10 cigarettes per day and weight &gt;45 kg</td>
<td>21 mg/24 hr or 15 mg/16 hr</td>
<td>&gt;8</td>
<td>No tobacco use while on patch, rotate to new hairless skin site each day, remove before bed if insomnia. May supplement with 2 mg gum in first 48 hours. May continue supplementation for 8 weeks or longer if effective.</td>
<td>Skin reactions including pruritus, edema, rash, sleep disturbance</td>
</tr>
<tr>
<td>&lt;10 cigarettes per day or weight &lt;45 kg or cardiovascular disease</td>
<td>14 mg/24 hr or 10 mg/16 hr</td>
<td>&gt;8</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nicotine Gum</strong></td>
<td>2 mg 8–12 per day</td>
<td>&gt;8</td>
<td>Chew until spicy flavor begins, then “park” between cheek and gum for absorption. Remove after ½ hour. Acidic beverages decrease absorption.</td>
<td>Jaw fatigue, hiccups, belching and nausea.</td>
</tr>
<tr>
<td>10–20 cigarettes per day</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;20 cigarettes per day</td>
<td>4 mg 6–10 per day</td>
<td>&gt;8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Varenicline is a nicotinic acetylcholine-receptor partial agonist. It was developed specifically for smoking cessation by targeting the nicotinic acetylcholine (ACh) receptor in the reward centres in the brain.

Key points:
- Varenicline is a nicotine partial agonist drug for smoking cessation
- It can more than double the chances of long term quitting
- It has been found to be more effective than bupropion, but there is a lack of studies directly comparing it to NRT
- Smokers using varenicline should be advised to report unusual mood changes, depression, behaviour disturbance and suicidal thoughts and if these occur to stop using the medicine
- The risk of cardiovascular events should be discussed with smokers and weighed up against the known benefits of the drug on smoking cessation
- There is no evidence of the efficacy of combining varenicline with any other smoking cessation pharmacotherapy
- The target quit day is in the second week of treatment, but clients should continue to use varenicline as the rate of successful cessation rises during the standard 12 week treatment period
- Longer term use (a second 12 week course) slightly reduces relapse for up to one year in people who have successfully quit at the end of week 12.

Varenicline dosing guidelines

A course of varenicline requires two or three authority prescriptions.
- An initial 4 weeks of treatment (including dose titration)
  Smokers should start varenicline and then set a quit date 1–2 weeks after starting. The exact date can be determined on the basis of perceived effects of the drug, but should not exceed 2 weeks. The recommended dose of varenicline is 1 mg twice per day following a one-week titration as follows:
  Days 1–3  0.5 mg once per day
  Days 4–7  0.5 mg twice per day
  Day 8 on 1 mg twice per day until the end of the 4-week course
- A further 8 weeks of treatment: continue with 1 mg twice per day until the end of the 8-week course
- A final 12 weeks of treatment for those who successfully quit at 12 weeks: continue with 1
Clients who are motivated to quit, and who did not succeed in stopping smoking during prior varenicline therapy for reasons other than intolerability due to adverse events or who relapsed after treatment, should be encouraged to make another attempt with varenicline once factors contributing to the failed attempt have been identified and addressed.

Caution with poor renal function. Adjust dose with Cr Cl <30.

**Side effect:** Nausea, insomnia, unusual dreams. Neuropsychiatric symptoms: behaviour changes, agitation and depressed mood.

**Bupropion**

Bupropion is a norepinephrine dopamine reuptake inhibitor also used as an antidepressant. It may act through dopaminergic or noradrenergic pathways which are responsible for nicotine addiction. It reduces the craving and withdrawal for tobacco, however the exact mechanism of action is not understood. Bupropion's ability to help people quit smoking is not related to its antidepressant action. It can help you stop smoking even if you do not have depression.

Bupropion works just as well as nicotine replacement therapies (NRTs). Using bupropion along with nicotine replacement therapy (such as nicotine patches, gum, or inhaler) may increase your chances of success.

Taken as directed, bupropion reduces:

- Craving.
- Irritability, restlessness, anxiety.
- Difficulty concentrating.
- Feelings of unhappiness or depression.
Tobacco Cessation Guideline

- Bupropion: 150mg PO qDay (per day) for 3 days, THEN
- Increase to 150 mg PO 12 hourly; should continue treatment for 7-12 weeks; if client successfully quits after 7-12 weeks, consider ongoing maintenance therapy based on individual client risk/benefit.
- Begin therapy 1 week before target date of quit (usually second week of treatment)
- May be used in combination with nicotine patch.

Bupropion is contraindicated in people who:
- Have seizures or a medical condition that makes you prone to seizures.
- Are taking a monoamine oxidase inhibitor (MAOI).
- Have an eating disorder.
- Have an alcohol use problem.

Side Effects

Common side effects include:
- Dry mouth, affecting 1 out of 10 people who use bupropion.
- Difficulty sleeping (insomnia). If twice a day dosing is prescribed, the evening dose may be taken in the afternoon so as to help with sleep problems; however, the evening dose has to be at least 8 hours after the morning dose.

In over 70 out of 100 people who use bupropion, the above side effects go away within about a week after they stop taking the medicine. Only about 10 out of 100 people have to stop taking bupropion because of side effects.

Less common side effects (occurring in less than 10 out of 100 people) include:
- Dizziness
- Difficulty concentrating
- Upset stomach (nausea)
- Anxiety
- Constipation
- Tremors
- Skin problems or rashes

There is a small risk of having seizures when using bupropion. The risk increases if you have had seizures in the past.
Nortriptyline

Nortriptyline is a tricyclic anti-depressant and is used primarily to treat depression. Though the exact mechanism through which nortriptyline works as a smoking cessation agent is unclear, research suggests that it is related to dopaminergic or adrenergic activity. It has been shown to approximately double the cessation rates in comparison to placebo. A systematic review also shows that the use of nortriptyline for smoking cessation resulted in higher prolonged abstinence rates after at least 6 months, compared to placebo treatment. This could mean that nortriptyline reduces the strength of the rewarding properties of smoking for the individual.

- 25 mg orally daily;
- Start 1 – 2 weeks before quit date; may titrate to 75 – 100 mg/day
- 10 -28 days prior to selected quit date

Caution

Because of the risk of arrhythmias and impairment of myocardial contractility, it has to be used with caution in clients with cardiovascular disease. This medicine can interact with other medications, therefore, it should not be taken with Monoamine oxidase inhibitors [MAOI] such as selegiline, isocarboxazid, phenelzine, etc. Nortriptyline can be dangerous in overdose.

Possible Side Effects

1. Sedation
2. Dry mouth
3. Blurred vision
4. Urinary retention/light headedness
5. Shaky hands
TELEPHONE COUNSELLING AND QUITLINES

Telephone counselling provides advice, encouragement and support by counsellors to smokers who want to quit, or who have recently quit. Counsellors can call the client (a proactive service) usually several times over the period leading up to, and the month following, their quit attempt or the client can call the service (a reactive service). There is stronger evidence that the proactive form of support is more effective, in part because most smokers do not make the call to quitline often enough to get the full benefit, yet they readily accept and appreciate proactive calls. Telephone counselling, also known as quitline services will be provided by Health Help Center through toll free number 112.

Telephone Quitline Flow Chart
### Steps of Approach

<table>
<thead>
<tr>
<th>Section</th>
<th>Content</th>
</tr>
</thead>
</table>
| Introduction    | • Orient the caller –by stating the name  
• Thank the caller for calling to quit line services  
• “signposting”-providing the overview of topics |
| Assessment      | • History of trying to quit  
• Determine willingness to quit  
• Barriers to quitting |
| Action plan     | • Counselling  
• Develop a realistic and sustainable action plan  
• Identify barriers to quitting  
• Available pharmacology interventions  
• Self-efficacy (motivation and confidence) |
| Closing         | • Encourage caller/clients to call for support as needed.  
• Summarize the action plan  
• Set a quit date, day and time and telephone Number. |
| Follow-up Sessions | • Develop a relapse prevention plan.  
• Medication decision  
• Refer |

### SELF-HELP MATERIALS

Self-help interventions for tobacco cessation in the form of structured programs in any forms of IEC materials (books, brochures, manuals) or electronic (CDs and can be online) formats provide support and advice for tobacco users without the help of health professionals, counsellors or group support. On their own, these materials show only marginal effect compared to no intervention, and there is no evidence that they have an additional benefit when used with other interventions, such as advice from a health professional or NRT. There is evidence that materials tailored for individual smokers in different tobacco dependent populations are more effective than untailored materials. Two studies have found that text message mobile phone support programs are effective in the short term (6
weeks) and long term. Combined internet/mobile telephone programs can be effective for up to 12 months for assisting smokers to quit. Online smoking cessation interventions are low cost and have the potential to reach a large number of tobacco users. A major advantage of the internet over printed material is its interactivity and the ability to tailor information to individual needs, but relatively few sites make use of this possibility.

**RELAPSE PREVENTION**

Most tobacco users relapse several times before achieving long term success. A relapse refers to a return to regular daily use of tobacco and generally means that quit attempt has failed. Even after withdrawal symptoms pass, the risk of relapse continues to be high, largely due to exposure to temptations, social situations and other smoking triggers.

Common Factors Associated with Relapse:

- alcohol use
- negative mood or depression
- negative self-talk
- other tobacco users/smokers in household
- prolonged withdrawal symptoms
- exposure to high-risk situations, such as social situations, arguments and other sources of stress
- dietary restriction
- lack of cessation support
- problems with pharmacotherapy, such as under dosing, side effects, compliance or premature discontinuation.
- recreational drug abuse
Strategies to avoid relapse

- Keeping motivation on top of the mind
  Motivation seems to be an obvious factor in quitting. There is considerable evidence that some self-report measures of motivational factors are predictive of making quit attempts, but at least when assessed before the person quits, are not predictive of the success of attempts. A smoker needs to be motivated to prompt action to stop smoking but this is not sufficient on its own to maintain cessation. Explain to the client that relapses are a trial and error learning opportunity and not a sign of failure.
- Anticipating and avoiding triggers (stress and mood changes, social pressure and alcohol)

Coping with cravings: the 4-D Solution

<table>
<thead>
<tr>
<th>When you have the urge to smoke, try the 4-D Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drink water</strong></td>
</tr>
<tr>
<td>Drink lots of water. This flushes the nicotine and other chemicals out of the system faster. It will also help the person to keep the mouth busy.</td>
</tr>
<tr>
<td><strong>Deep breaths</strong></td>
</tr>
<tr>
<td>Take a deep breath break instead of a smoke break. Taking a few deep breaths, holding the last one and breathing out slowly will help the person relax and not look for a smoke.</td>
</tr>
<tr>
<td><strong>Delay</strong></td>
</tr>
<tr>
<td>Even when there is a strong craving, it is very important to defer lighting a cigarette. This way the craving can just pass by and there may not be any need to smoke.</td>
</tr>
<tr>
<td><strong>Do something different</strong></td>
</tr>
<tr>
<td>When a craving hits, it helps to change what the person is doing at the moment. In order to do that it may be necessary to step outside; call a friend or read a book to distract your mind. Something different needs to be done.</td>
</tr>
<tr>
<td>Some people find it helpful to do something with their hands when a craving strikes, like picking up their knitting project or squeezing a stress ball.</td>
</tr>
</tbody>
</table>
References

15. Anczak DJ, Nogler AR. Tobacco Cessation in Primary Care: Maximizing Intervention
**Annexure I**  
**Fagerstrom Test for Nicotine Dependence**

Please Tick (√) one box for each question

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>How soon after waking do you smoke your first cigarette?</td>
<td>Within 5 minutes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>5-30 minutes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>31-60 minutes</td>
<td></td>
</tr>
<tr>
<td>Do you find it difficult to refrain from smoking in places where it is forbidden: e.g. Monastery, Public places, bars and commercial centers etc</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Which cigarette would you hate to give up?</td>
<td>The first time in the morning</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Any other</td>
<td>No</td>
</tr>
<tr>
<td>How many cigarettes a day do you smoke?</td>
<td>10 or less</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>11-20</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>21-30</td>
<td></td>
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<tr>
<td></td>
<td>31 or more</td>
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<tr>
<td>Do you smoke frequently in the morning?</td>
<td>Yes</td>
<td>1</td>
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<tr>
<td></td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Do you smoke even if you are sick in the bed most of the day?</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total Score</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SCORE</strong></td>
<td>1-2 = low dependence</td>
<td>5-7= moderate dependence</td>
</tr>
<tr>
<td></td>
<td>3-4 = low to mod dependence</td>
<td>8+ = high dependence</td>
</tr>
</tbody>
</table>
Scoring the Fagerstrom Test for Nicotine Dependence

To remind you information (covered in Module 1) about scoring the Test:

**Score of 1-2**

A client who scores between 1 and 2 on the Fagerstrom Test for Nicotine Dependence is classified as having a low dependence on nicotine. This suggests that they may not need Nicotine Replacement Therapy (NRT), although it is recommended that they still be monitored for withdrawal symptoms.

**Score of 3-4**

A client who scores 3 or 4 would be considered to have a low to moderate dependence on nicotine and could be offered patches or gum. Please check NRT recommendations chart.

**Score of 5-7**

A client who scores 4 would be considered to be moderately dependent on nicotine and can be offered patches and gum. They can also be offered the combined therapy of patches and gum. Please check NRT recommendations chart.

**Score of 8 and over**

A client who scores 5 and over would be considered highly dependent on nicotine and can be offered patches or gum. They can also be offered the combined therapy of patches and gum. Please check NRT recommendations chart (see the chart on next page).
## NRT recommendation chart

<table>
<thead>
<tr>
<th>Dependence level</th>
<th>Nicotine Replacement Therapy Dosage</th>
<th>Combine Therapy</th>
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</table>
| High                 | **Patches**: 21mg/24hr or 15mg/16hr  
                       | **Gum**: 4mg                                                            | **Patches**: 21mg/24hr or 15mg/16hr    |
|                      |                                                                         | **and**                                  | **Gum**: 2mg                           |
| Moderate             | **Patches**: 21mg/24hr or 15mg/16hr  
                       | **Gum**: 2mg                                                            | **Patches**: 21mg/24hr or 15mg/16hr    |
|                      |                                                                         | **and**                                  | **Gum**: 2mg                           |
| Low to moderate      | Patches: 14mg/24hr patch or 10mg/16hr  
                       | **Gum**: 2mg                                                            | **Patches**: 14mg/24hr or 15mg/16hr    |
|                      |                                                                         | **and**                                  | **Gum**: 2mg                           |
| Low                  | May not need NRT  
                       | **Monitor for withdrawal symptoms**                                    |                                        |
                       | **Patches**: 7mg/24hr patch or 5mg/16hr  
                       | **Gum**: 2mg                                                            |                                        |
# Annexure II

**Number of tobacco users availing/receiving intense tobacco cessation support**

Name of Health Facility: 

Dzongkhag: 

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Date</th>
<th>Client Name</th>
<th>Sex/Age</th>
<th>Tobacco smoke</th>
<th>Smokeless tobacco</th>
<th>Type of cessation support (Counselling/NRT/Pharmacotherapy)</th>
<th>Contact No.</th>
<th>Referral</th>
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