

Smoking cessation

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Assessment

Smoking history:

- the **number of cigarettes** smoked per day
- the **time to first cigarette after waking**
- **readiness to quit**
- any previous quit attempts and perceived reasons for failure

level of nicotine dependence:

- **high dependence:** waking at night to smoke or smoking within the first 5 minutes after waking (usually smokes more than 30 cigarettes daily)
- **moderate dependence:** smoking within 30 minutes after waking (usually smokes 20 to 30 cigarettes daily)
- **low-to-moderate dependence:** not needing to smoke within the first 30 minutes after waking (usually smokes 10 to 20 cigarettes daily)
- **low dependence:** not needing to smoke in the first hour after waking (usually smokes fewer than 10 cigarettes daily)

Giving advice

- Most smokers have had failed quitting attempts in the past.
- These attempts can be used as learning experiences, to identify triggers for relapse, danger situations.
- Reassure smokers that most former smokers have progressed through a number of quitting attempts and relapses before achieving long-term cessation.
- Explore fears concerning weight gain, depression and irritability, plan to deal.
- Reassure that weight gain (which may be around 4 to 5 kg after 12 months) is likely to be temporary.
- Discuss other potentially difficult areas including dealing with stress, the habit and cravings.
- Many relapses occur because of a lack of awareness that **even one puff** substantially increases the chance of relapsing; many relapses are related to alcohol use.
- Some smokers have great belief in the use of hypnosis and acupuncture and may find them effective. (in controlled clinical trials these interventions have not been shown to be effective)

Arrange follow-up to maintain nonsmoking

- Review the person about a week after the quit date, and arrange further consultations at regular intervals. (dose–response relationship between the intensity of support offered and quit rates)
- Relapse is most likely to occur within the **first 2 weeks** and is more likely if motivation is poor, if family and friends continue to smoke, or if the person uses alcohol significantly.
- Can be associated with neuropsychiatric symptoms such as irritability, poor concentration, sleep disturbance and mood changes.
- People with a past history of depression are at risk of a recurrence.
- Tobacco smoking can interact with drugs taken for psychiatric conditions.

If judged by quit rates in motivated individuals, nicotine seems to be one of the most addictive substances yet discovered.

- Best results from pharmacotherapy in combination with counselling and support.
- NRT, varenicline and bupropion are registered to aid smoking cessation.
- Varenicline produced better quit rates than bupropion in several clinical trials.
- In one prospective study, more people taking varenicline were continually abstinent after 3 months than people using NRT, but at 12 months the difference in response was no longer clinically significant.

Nicotine replacement therapy

- In primary care, quit rates are doubled from approximately 5% to 10%, and in more intensive settings from approximately 10% to 20%.
- The choice of NRT product is a **personal one**.
- Many people find the patches most convenient to use.
- Short-acting forms of NRT (gum, inhalation cartridge, lozenge, oral spray and sublingual tablet) give a rapid increase in blood nicotine concentration (similar to that associated with smoking)
- May be helpful for the more nicotine-dependent smokers.
- Nicotine patches do not produce this rapid increase (which people may miss).

Nicotine replacement therapy

- Smokers with high nicotine dependence, unsuccessful in quitting attempt may benefit from a combination of nicotine patches and a short-acting formulation.

Risk of harm

Contraindications for NRT

- Recent myocardial infarction,
- severe arrhythmias,
- unstable angina
- recent cerebrovascular event,

(However, nicotine patches have been safely used in these patients)

Nicotine patches

Over 45 kg and smokes more than 10 cigarettes per day:

- Nicotine patch 21 mg/24 hour, once daily applied for 24 hours, OR
- Nicotine patch 15 mg/16 hour, once daily applied for 16 hours in a 24-hour period.

Aim to stop treatment within 12 weeks by either reducing the strength of patches or by stopping treatment abruptly.

Less than 45 kg, cardiovascular disease or fewer than 10 cigarettes per day:

- Nicotine patch 14 mg/24 hour, once daily applied for 24 hours OR
- Nicotine patch 10 mg/16 hour, once daily applied for 16 hours in 24-hour

Aim to stop treatment within 12 weeks

Nicotine gum

More than 20 cigarettes per day:

- Nicotine 4 mg gum, chew 1 piece every 1 to 2 hours initially.
Maximum 40 mg (10 pieces) in 24 hours.
- After 4 to 8 weeks the gum strength may be reduced to 2 mg.

Smokes 10 to 20 cigarettes per day:

- nicotine 2 mg gum, chew 1 piece every 1 to 2 hours initially.
Maximum 24 mg (12 pieces) in 24 hours.
- Users should gradually cut down the number of pieces chewed each day until only 1 to 2 pieces of gum per day are required, and stop.
Aim to stop within 12 weeks.
- In the final weeks of quitting, it may help if they can only chew a piece of gum when strongly tempted to smoke.

Nicotine inhalation cartridges

- Nicotine inhalation cartridges can be used in the urge to smoke or to prevent craving.
- When using nicotine inhalation cartridges, the person can inhale up to 6 nicotine 15 mg cartridges per day for 12 weeks, then gradually taper.
- Each session of inhaling can last for approximately 5 minutes.
- The amount of nicotine from one puff of a cartridge is less than that from a cigarette, thus it is necessary to inhale more often than when smoking a cigarette.

Combination therapy

- Controlled trials have shown that a combination of a transdermal nicotine patch and a short-acting form of NRT can be more effective than using a single form of NRT.
- Combination may be offered to those people who are unable to remain abstinent
who continue to experience withdrawal symptoms when using only one type of NRT.

Use of nicotine replacement therapy before quitting

- NRT use before the quit date is safe and can assist the quitting process.
- There is also evidence for benefit from NRT for smokers who are not willing to quit abruptly.
- Smokers can use NRT to reduce the number of cigarettes smoked before stopping completely within 6 months.

Varenicline

- Is a nicotine partial agonist can double the chances of a smoke quitting. Nausea is the most common adverse effect (30%).
- Should be monitored for unusual mood changes, depression, behaviour disturbance and suicidal thoughts.
- There is limited evidence of safety and efficacy in significant psychiatric illnesses.
- Is started while the person is still smoking, and a quit date is set for the second week of therapy but there can be flexibility around the timing:
 - 0.5 mg orally, daily for 3 days, then 0.5 mg twice daily for 4 days, then 1 mg twice daily for the remainder of a 12-week course.

Bupropion

- Bupropion is a non-nicotine oral therapy (originally developed as an antidepressant) with **similar efficacy to NRT**.
- It is effective for smokers with depression, and cardiac or respiratory diseases
- The most significant, but uncommon, adverse effect is seizures.
- Contraindicated in patients with a history of seizures, and eating disorders.
- Started while the person is still smoking, and a quit date is set
- Higher than 300 mg daily has of a risk of dose-dependent seizures.

Bupropion 150 mg orally, once daily for 3 days, then 150 mg twice daily for the remainder of a 9-week course.

Electronic Cigarettes

- For every 100 people using e-cigarettes to stop smoking, **only four** might successfully quit and abstain from nicotine, **compared with seven** per 100 people in the NRT group.
- A few **systematic reviews** demonstrated that there is an increased risk of subsequent combustible smoking initiation and smoking relapse among users of e-cigarettes.
- A substantial number of individuals using e-cigarettes as a cessation device may initiate **dual use of e-cigarettes and combustible tobacco**, which is the most common use pattern.