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CLINICAL PRACTICE GUIDELINES

Smoking Cessation



Apr 2002

Levels of evidence and grades of recommendation

Levels of evidence

Level	Type of Evidence
Ia	Evidence obtained from meta-analysis of randomised controlled trials.
Ib	Evidence obtained from at least one randomised controlled trial.
IIa	Evidence obtained from at least one well-designed controlled study without randomisation
IIb	Evidence obtained from at least one other type of well-designed quasi-experimental study.
III	Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies and case studies.
IV	Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities.

Grades of recommendation

Grade	Recommendation
A (evidence levels Ia, Ib)	Requires at least one randomised controlled trial as part of the body of literature of overall good quality and consistency addressing the specific recommendation.
B (evidence levels IIa, IIb, III)	Requires availability of well conducted clinical studies but no randomised clinical trials on the topic of recommendation.
C (evidence level IV)	Requires evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities. Indicates absence of directly applicable clinical studies of good quality.
GPP (good practice points)	Recommended best practice based on the clinical experience of the guideline development group.

CLINICAL PRACTICE GUIDELINES

Smoking Cessation

MOH Clinical Practice Guidelines 4/2002

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Statement of Intent

These guidelines are not intended to serve as a standard of medical care. Standards of medical care are determined on the basis of all clinical data available for an individual case and are subject to change as scientific knowledge advances and patterns of care evolve.

The contents of this publication are guidelines to clinical practice, based on the best available evidence at the time of development. Adherence to these guidelines may not ensure a successful outcome in every case, nor should they be construed as including all proper methods of care or excluding other acceptable methods of care. Each physician is ultimately responsible for the management of his/her unique patient in the light of the clinical data presented by the patient and the diagnostic and treatment options available.

Foreword

Currently, the 3 top causes of death in Singapore are cancer, heart disease and stroke. These three diseases share a common denominator in the form of one risk factor - smoking. The national trend of smoking in Singapore is fairly similar to that of developed countries with the recent rise in teen and female smoking rates. Healthcare practitioners have a duty to tell their patients to stop smoking. This will prevent the onset of smoking related diseases that will destroy the lives of patients and their loved ones. Advice to quit smoking when given by a doctor, can be effective in helping a proportion of smokers give up the habit.

It was with this in mind that the Ministry of Health convened a panel of experts to produce this set of guidelines to assist the healthcare practitioner. The guidelines should be helpful for the doctor and paramedical staff like pharmacists, dentists and nurses.

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Executive summary of recommendations

A All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Clinicians and health care delivery systems should institutionalise the consistent identification, documentation, and treatment of every tobacco user seen in a health care setting.

Grade A, Level Ia, Ib

A All clinicians should strongly advise every patient who smokes to quit.

Grade A, Level Ia

A Tobacco dependence is a chronic condition that often requires repeated intervention. Effective treatments that can produce long-term or even permanent abstinence exist.

Grade A, Levels Ib

A Treatment for tobacco dependence is clinically effective and cost-effective relative to other medical and disease prevention interventions.

Grade A, Level Ia

A Brief tobacco dependence treatment is effective and every patient who uses tobacco should be offered at least brief treatment.

Grade A, Level IIa

A There is a strong dose-response relation between the session length of person-to-person contact and successful treatment outcomes. Intensive interventions are more effective than less intensive interventions and should be used whenever possible.

Grade A, Levels Ia, Ib, IIa

A Nicotine replacement therapy (NRT) is effective and safe for smoking cessation.

Grade A, Level Ia

A There is no difference in efficacy between various forms of nicotine replacement.

Grade A, Level Ib

A There is currently no evidence that nicotine replacement therapy increases cardiovascular risk.

Grade A, Level Ib

A Bupropion Slow-Release (SR) is safe and effective for smoking cessation.

Grade A, Level Ib

C Once a tobacco user is identified and advised to quit, the healthcare practitioner should assess the patient's willingness to quit at this time:

- i) Patients willing to try to quit tobacco use should be provided treatments identified as effective in this set of guidelines.
- ii) Patients unwilling to try to quit tobacco use should be provided a brief intervention designed to increase their motivation to quit as described in this set of guidelines.

Grade C, Level IV

1.1 Health risks of smoking

Smoking is the most important preventable cause of ill health and death in Singapore and all over the world. Those who die from smoking die on average, 14 years early.¹ One third of smokers will die prematurely because of their dependence on smoking.¹ It is now well documented that smoking causes lung cancer, heart disease, stroke, lung diseases and other cancers such as cancer of the larynx, pharynx, mouth, pancreas, kidney, cervix and bladder. Men who smoke are 17 times more likely than non-smokers to develop lung cancer.² Smoking causes over 90% of chronic obstructive lung disease. Other consequences of smoking include spontaneous abortions, low birth weight babies and the sudden infant death syndrome.³

Meta-analysis reveals that 40% of impotent men were current smokers compared with 28% of men in the general population.⁴ Smoking may increase 2-fold the likelihood of developing moderate or complete erectile dysfunction.⁵

“Second-hand smoke”, also known as environmental tobacco smoke (ETS) contains approximately 4,000 chemicals.⁶ Exposure of children to second-hand smoke also increases their risk for asthma, pneumonia and bronchiolitis.⁶

1.2 Smoking and smoking related disease trends in Singapore

Cancer, heart diseases and cerebrovascular diseases are currently the leading causes of death in Singapore, accounting for almost two thirds of all deaths.⁷ Lung cancer is the leading cancer among males and the third most frequently occurring cancer among females.⁸ What is even more alarming is that lung cancer is the most important killer amongst these common cancers with 5-year survival rates of about 14%.⁸ Although the proportion of persons aged 18-64 years who were daily smokers has declined significantly from 18.3% in 1992 to 15.0% in 1998, the prevalence of smoking among females in the 18-24 age group has increased from 2.8 to 5.9% within the same period. In addition, 20% of males aged 18-19 years initiated smoking in 1998.⁹

This seems to follow the trend in developed countries to the point where female smoking rates are almost equal to those among males. There is hence an urgent need to further reduce the current smoking rate as well as arrest the rising trend of smoking among young females.

1.3 Benefits of smoking cessation

It is beneficial to stop smoking at any age as it has major and immediate health benefits even for smokers who have smoked for many years.² Within two days of quitting, the sensations of smell and taste are enhanced. Within two weeks to three months of quitting, circulation improves and lung function increases by up to 30%. The excess risk of heart disease is reduced by half within one year of stopping smoking. Within five years, the risk of heart disease reduces to the level of non-smokers.¹⁰ In those with existing heart disease, smoking cessation reduces the risk of recurrent infarction or death by half. The risk of lung cancer is reduced by 50-70% after 10 years of abstinence from smoking and continues to decline thereafter.

Women who stop smoking before or during the first trimester of pregnancy reduce the risk to their baby to a level comparable to that of women who have never smoked. The incidence of babies born with low birth weight could potentially be reduced by 25% if pregnant women do not smoke during pregnancy.

1.4 Methodology

The workgroup comprised primary care doctors, health educators, specialists from Respiratory Medicine, Cardiology and Psychiatry and a clinical psychologist. They come from the SingHealth and National Healthcare groups, the private sector, the Singapore Armed Forces and the Health Promotion Board. The workgroup formulated these guidelines using the best available evidence from current literature.

1.5 Target group

These guidelines are designed primarily for doctors in the primary health care and hospital setting as well as for other health care providers who have contact with smokers such as dentists, nurses, psychologists and pharmacists. Several studies have shown that even brief physician advice (averaging 3 minutes in the primary care setting) significantly increases long-term smoking abstinence rates of 10.2% in the intervention group compared to 7.9 % in the control groups.¹¹

1.6 Cost effectiveness of smoking interventions

Cost-effectiveness analyses have shown that smoking cessation treatments ranging from brief clinician advice to specialist-delivered intensive programmes, including pharmacotherapy, compare favourably with other medical interventions such as the treatment of hypertension and preventive screening interventions such as cervical pap smear screening or mammography.¹²⁻¹⁵ Studies in the United States showed that smoking cessation interventions cost less than US\$1,000 per year of life saved. For comparison, cost estimates for the treatment of moderate hypertension is approximately US\$10,000 per year of life saved.¹⁶

1.7 World-wide efforts by healthcare bodies against smoking

Recognising that smoking is a major contributor to ill health has resulted in many organisations coming up with national guidelines for smoking cessation. Examples are the British Guidelines (Thorax 1999) and the American Clinical Practice Guidelines (US Department of Health and Human Services, 2000).

2 Smoking cessation intervention by the healthcare practitioner – The 5 As Approach

The 5 As approach was adopted by the workgroup to help the healthcare practitioner to carry out smoking cessation intervention. When dealing with the smoker, remember the **5As: Ask, Advice, Assess, Assist and Arrange.**

2.1 ASK

Identify and document tobacco use status for every patient at every visit. Implement an office wide system that ensures that, for every patient at every clinic visit, tobacco use status is queried and documented.²⁰⁻²⁵

e.g. Expand the vital signs to include tobacco use.
Place tobacco use stickers on patient records.
Indicate tobacco use status in electronic medical records or computer reminder systems.

Grade A, Level Ia, Ib

2.2 ADVISE

In a clear and personalised manner, strongly urge all tobacco users to quit.²⁶⁻²⁸ A firm, unequivocal stop smoking message communicates the importance you place on smoking cessation. It also effectively shows your concern for your patient's health. Tie tobacco use to current health/illness, and/or its social and economic costs, motivation level/readiness to quit, and/or the impact of tobacco use on children and others in the household.

e.g. "I think it is important for you to quit smoking now and I can help you if you desire to do so. As your doctor, I want you to know that quitting smoking is the most important thing you can do to protect your health now and in the future."

Grade A, Level Ia

2.3 ASSESS

Determine patient's stage of readiness to change. Ask every tobacco user if he or she has thought about stopping smoking and whether he or she is willing to do so in the next 30 days. If he has not thought about stopping smoking at all, he is in the **Precontemplation stage**. If he has thought about stopping but has not made any definite plans to stop in the next one month, he is in the **Contemplation stage**. For smokers in these two stages, provide some motivation to help him decide to want to quit.

If patient is in the **Action stage**, where he has decided he wants to quit within the next 30 days, provide assistance in quitting.

If patient is in the **Maintenance stage**, where he has stopped smoking for at least a month, assist in preventing relapse.

Grade C, Level IV

2.4 ASSIST

(a) Motivational intervention

Patients unwilling to make a quit attempt may lack information about the harmful effects of tobacco, may lack the required financial resources, may have fears or concerns about quitting, or may be demoralised because of previous failed efforts. Such patients may respond to a motivational intervention such as those built around the 5R's: relevance, risks, rewards, roadblocks, and repetition. Motivational interventions are more likely to succeed if the clinician is empathetic, allows patients to make their own choices, does not argue with the patients and encourages them to believe that they can quit by helping them identify previous successes in their attempts to quit.

(b) Quit plan

Prepare the patient to stop smoking by setting a quit date. Inform family, friends and colleagues about intention to quit and request understanding and support. Anticipate challenges to the planned quit attempt, particularly during the critical first few weeks. Remove

tobacco products from the environment. Help patient choose from several options to stop.

Options to stop smoking:

- i. Patient stops on his own with minimal assistance
- ii. Patient stops with your assistance and follow up.
- iii. Patient is referred to a dedicated smoking cessation programme

(c) Relapse prevention

Because of the chronic relapsing nature of tobacco dependence, clinicians should provide brief effective relapse prevention treatment.²⁹⁻³³ When clinicians encounter a patient who has quit smoking recently, they should reinforce the patient's decision to quit, review the benefits of quitting, and assist the patient in resolving any residual problems arising from quitting.

Although most relapses occur early in the quitting process, some relapses occur months or even years after the quit date. Therefore, clinicians should engage in relapse prevention interventions even with former tobacco users who no longer consider themselves actively engaged in the quitting process.

Grade A, Levels Ia & Ib

2.5 ARRANGE FOLLOW-UP

Schedule subsequent follow up visits, preferably in person rather than via the telephone. Follow up should occur soon after the quit attempt, preferably during the first week. A second follow up contact is recommended within the first month. Schedule further follow up visits as indicated.

Congratulate patients who achieve success. If tobacco use has occurred, review relapse, circumstances and elicit recommitment to total abstinence. Remind patient that a lapse can be used as a learning experience. Identify problems already encountered and anticipate challenges in the immediate future.

3 Pharmacological approaches

3.1 Nicotine replacement therapy (NRT)

(a) *NRT types*

- Numerous studies have consistently shown that NRT is safe and efficacious for smoking cessation when compared to placebo.⁴⁵⁻⁵³ Side effects, when present, are usually mild.

Grade A, Level Ia

- As most studies were performed with some form of counselling or supportive intervention, it should be routinely recommended for all smokers who intend to use pharmacotherapy for smoking cessation.

Grade A, Level Ib

- Currently in Singapore, the available NRT products are nicotine patch and inhaler.
- Studies with combination NRT suggest improvement in efficacy over single NRT over a short-term period.^{52, 54} However, results over medium-term (1 year) are variable. Further studies are therefore required.

Grade A, Level Ib

- There is no difference in efficacy between the various forms of NRT when the studies are evaluated critically.^{47, 50, 53, 55, 66}

Grade A, Level Ia

- There is no evidence of increased cardiovascular risk with appropriate use of NRT.

Grade A, Level Ib

(b) *Nicotine patch*

- Nicotine patch has been shown to approximately double the long-term abstinence rate when compared to placebo.^{47, 55-57}
Grade A, Level Ia
- The 2 available formulations are the 24-hour and 16-hour patches. There is presently insufficient data comparing these 2 formulations regarding their relative efficacy in smoking cessation. However, Shiffman and colleagues⁵⁸ reported that the 21mg/24-hour patch may yield better control of craving at 2 weeks compared to the 15mg/16-hour patch.
Grade A, Level Ib
- Present data also suggested that abrupt discontinuation of nicotine patch therapy does not affect smoking cessation.^{47, 53}
Grade A, Level Ib
- Higher than standard dose and longer treatment period of nicotine patch may be necessary to improve smoking cessation success for some smokers^{47, 59} Hurt and colleagues³ found that only 33% of their abstinent subjects receiving nicotine patch therapy had complete nicotine replacement. They also noted that withdrawal symptoms continued to exist at 8 weeks despite nicotine patch therapy. Longer duration of treatment of 12 and 22 weeks were used by Tonnesen and colleagues,⁵⁹ which resulted in improvement in abstinence rates. In contrast, Jorenby and colleagues⁶⁰ used an 8-week nicotine patch treatment and did not find additional benefit of high dose nicotine patch therapy. This may be due to inadequate duration of treatment. Although weaning of smoking cessation pharmacotherapy is usually recommended, its continued use is preferable to a return in smoking with respect to health consequences.⁶¹
Grade A, Level Ib
- Nicotine patch is generally well tolerated with few side effects.^{55, 59, 62,63}
Grade A, Level Ia

- Skin irritation like itch and rash caused by direct contact is the most common. Other side effects include nausea, vomiting, headache, insomnia and nightmares. Few subjects stopped nicotine patch because of treatment-related side effects. Nicotine patch has also been shown to be well tolerated in hospitalised patients⁵¹ and patients with smoking-related respiratory or cardiovascular disease.⁶³

Grade A, Level Ib

(c) *Nicotine inhaler*

- Nicotine inhaler has been found to increase the smoking cessation success rate of 1.6 to 3 times when compared to placebo.^{46, 50, 64} Continuous abstinence rates ranged from 13% to 28% in these studies.

Grade A, Level Ib

- Nicotine inhalers are well tolerated with few side effects.^{46, 50} Main side effects are irritation in the mouth and throat, and coughing. Other uncommon side effects listed in the product insert include nausea, vomiting, heartburn, nasal congestion, sinusitis, headache and dizziness.

Grade A, Level Ib

3.2 Bupropion hydrochloride SR

- Bupropion SR increases the continuous abstinence rate at 1 year by 2.4 to 3.3 times when compared to placebo.^{71, 72} Absolute continuous abstinence rate varies from 18% to 24%.

Grade A, Level Ib

- Adverse drug reactions reported to the Canadian Adverse Drug Reaction Monitoring Program (CADRMP) included myocardial infarction, seizures, hypoglycaemia, allergic reactions, nausea, anxiety, insomnia and dizziness.⁷³ The CADRMP also reported higher risk of hypoglycaemia if there was concomitant use of insulin. It is contraindicated in patients at risk for seizures. The

product insert warns of a higher risk of seizures in patients using either oral hypoglycaemic agents or insulin together with Bupropion SR.

Grade C, Level IV

- After reviewing available clinical evidence, the Committee on Safety of Medicines in the United Kingdom recommended that the increase in dose be delayed from Day 4 to Day 7 of treatment with Bupropion SR⁷⁴ to allow stabilisation of drug levels.

Grade C, Level IV

3.3 Other drugs

Although current data suggest that clonidine and nortryptiline may be useful in smoking cessation, they should be used only when first line therapies fail. They have significant side effects and should be used only by those who are well versed in their use.

Grade C, Level IV

3.4 Drug therapy during pregnancy

- Previous animal studies had associated nicotine with fetal neural abnormalities.
- Nicotine had also been shown to affect uteroplacental circulation and could contribute to fetal hypoxia.⁸²
- On the other hand, serum nicotine levels are higher in active smokers compared to those receiving NRT.
- The efficacy of smoking cessation pharmacotherapy in pregnancy has not been tested. Also, its effect on pregnancy is unknown.
- As there is lack of data in pregnancy, it must be used with great caution. Pregnant smokers should be encouraged to stop smoking and psychosocial interventions should be used if necessary. If this fails, physicians may consider pharmacotherapy on an individual basis, after risk and benefit of such a therapy has been discussed with the patient.⁶¹

Grade C, Level IV

Suggested guide to the use of pharmacotherapy for smoking cessation

Drug	Adverse Effects	Dosage	Duration
Nicotine patch	Local skin reaction, insomnia, headache, nausea	21mg/24h (Nicotinell-TTS 30) 14mg/24h (Nicotinell-TTS 20) 7mg/24h (Nicotinell-TTS 10) 15mg/16h (Nicorette) 10mg/16h 5mg/16h	4-12weeks then 2-4 weeks then 2-4 weeks 8-12 weeks then 2 weeks then 2 weeks
Nicotine inhaler	Local mouth and throat irritation, headache, nausea, heartburn	6-12 cartridges/day (Nicorette) 3-6 cartridges/day 3 cartridges/day to 0	8 weeks 2 weeks 2 weeks
Bupropion SR	Insomnia, dry mouth, seizures, nausea	150mg once daily (Zyban) then 150mg twice daily (begin 1-2 weeks before quit date)	6 days 12 weeks

4 Non-pharmacological approaches

To bring about higher abstinence rates, all smokers should be provided with the following 3 types of counselling and behaviour therapies in addition to pharmacotherapy:

- Individualised counselling and skill-based training
- Social support as part of treatment
- Social support outside of treatment

4.1 Individualised counselling and skill-based training

Aims:

1. To provide all smokers with accurate information about smoking and successful quitting
2. Smokers are taught to recognise danger situations which increase the risk of smoking or relapse
3. New and existing coping skills intended to cope with the dangers situations are identified for use by the smokers

Treatment components to be discussed:

- the nature of nicotine addiction
- the physical, psychological and behavioural aspects of smoking
- withdrawal symptoms and what they can do to cope with them
- quitting methods available and choice that is most appropriate to the individual smoker
- smoking pattern to understand and monitor the pattern in order to anticipate and avoid triggers and temptation
- stress management strategies like relaxation exercises and positive thinking.

4.2 Social support as part of treatment

A supportive therapeutic environment should be cultivated to encourage and motivate smokers to quit smoking. Through this environment, smokers are encouraged to discuss their feelings about quitting.

Treatment components:

- Smokers are asked about their reason for wanting to quit
- Their concerns and fears of quitting, the difficulties experienced, and ambivalent feelings

4.3 Social support outside of treatment

The support of family members, friends and colleagues should be sought to increase the smokers' success in quitting. In doing so, positive treatment outcomes gained during counselling sessions can be extended to the smokers' natural environment as family members and friends are made aware of the process involved in quitting and the importance of their role in supporting the smoker who is trying to quit. Where smoking cessation groups are being conducted, a buddy system can be introduced.

The most useful modality of evaluating the success of these guidelines is the National Survey of Smoking Prevalence which is conducted by the Ministry of Health every few years. This is part of the government's effort to bring down national smoking rates via public education and other means. It is also important to recognise that every health care practitioner has a duty to every patient to attempt to help identify and help that patient quit smoking.

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Annex A List of smoking cessation centres/services

1. Smoking Cessation Clinic
Child Guidance Clinic
(For 18 years and below)
Level 3, Health Promotion Board
Second Hospital Avenue
Singapore 168937
Tel: 64353878/64353879
2. Stop Smoking Clinic
Institute of Mental Health
10 Buangkok Green
Singapore 539747
Tel: 63892200/6389 2380
3. Quit Programme*
Singapore Cancer Society
15 Enggor Street
#04-01 to 04 Realty Centre
Singapore 079716
Tel: 64215809
**Group counselling sessions only*
4. Smoking Cessation Programme
Health for Life Centre
Alexandra Hospital
378 Alexandra Road
Singapore 159964
Tel: 64768828
5. Smoking Cessation Programme
Singapore General Hospital
Outram Road
Singapore 169608
Tel: 63214377

6. Smoking Cessation Programme
Health Enrichment Centre
Tan Tock Seng Hospital
11 Jalan Tan Tock Seng
Singapore 308433
Tel: 63572233
 7. Quit Now: 7 Steps to Freedom®/Smarter Teens Against Tobacco® (STAT)
Youngberg Wellness Center
798 Thomson Road
Singapore 298186
Tel: 63552600
 8. Smoking cessation services are also available at all polyclinics
 9. QuitLine call 1800 4382000 for personal advice and a free 'Quit for Life' booklet (a step-by-step guide on quitting smoking)
 10. Resources for health professionals and the public obtainable from Health Information Centre, Health Promotion Board
Tel: 6435 3954
- Talk to your patients about smoking
 - Help your dental patients stop smoking
 - Quit for Life
 - Help Someone Quit for Life

(The above information is correct at the time of printing)

Annex B Self-assessment (MCQs)

After reading the Clinical Practice Guidelines, you can claim one CME point under Category III (Self-Study) of the SMC Online CME System. Before you login to claim the CME point, we encourage you to evaluate whether you have mastered the key points in the Guidelines by completing this set of MCQs. This is an extension of the learning process and is not intended to “judge” your knowledge and is not compulsory. The answers can be found at the end of the questionnaire.

Instruction: Choose the best answer

1. Smoking is related to all except
 - A. Chronic Obstructive Lung Disease
 - B. Cancer of larynx
 - C. Congenital heart disease
 - D. Spontaneous abortions
 - E. Cancer of bladder

2. Drug therapy for smoking cessation is strictly contraindicated in
 - A. pregnancy
 - B. those with coronary heart disease
 - C. diabetics
 - D. hospitalised patients
 - E. none of the above

3. Regarding NRT (nicotine replacement therapy), which of the following is not true
 - A. it should be used with some form of counselling
 - B. it helps reduce the symptoms of nicotine withdrawal
 - C. there is a lot of difference in outcome between the various formulations
 - D. NRT can double the abstinence rate compared to controls at one year
 - E. can be used for more than 8 weeks

4. The 5 As of smoking cessation are
 - A. Ask, assess, assist, advise, arrange follow-up

- B. Assess, advocate, ask, advise, arrange follow-up
 - C. Advocate, ask, assess, advise, arrange follow-up
 - D. Ask, advise, assess, assist, arrange follow-up
 - E. Ask, admonish, advocate, assess, arrange follow-up
5. Second hand tobacco smoke is clearly related to the development of all except
- A. Lung Cancer
 - B. Pneumonia
 - C. Asthma
 - D. Hypertension
6. Regarding nicotine patches, the following statements are true except
- A. there is a 16 hour and 24 hour formulation
 - B. they help wean the patient off tobacco gradually
 - C. the most common side effects are local
 - D. they commonly cause acute respiratory failure
7. Regarding bupropion, which of the following statement is true
- A. the usual dose is 1.5g bd
 - B. it is contraindicated in those with a history of seizures
 - C. it should be started a week after quit date
 - D. kidney function is to be monitored monthly while on treatment
8. Regarding the use of nicotine inhaler, which of the following statement is true
- A. the usual starting dose is 6-12 cartridges a day
 - B. it can increase smoking cessation rates by more than 10X
 - C. it is far superior compared to patches
 - D. one has to light up the cartridge just before use

Answers

1. C
2. E
3. C
4. D

5. D
6. D
7. B
8. A

Annex C List of agencies endorsing guidelines

1. Academy of Medicine
2. College of Family Physicians, Singapore
3. Occupational and Environmental Health Society
4. Pharmaceutical Society of Singapore
5. Singapore Armed Forces Medical Corps
6. Singapore Cardiac Society
7. Singapore Dental Association
8. Singapore Medical Association
9. Singapore Neuroscience Society
10. Singapore Nursing Association
11. Singapore Psychiatric Society
12. Singapore Psychological Society
13. Singapore Society of Oncologists
14. Singapore Thoracic Society

Workgroup members

The members of the workgroup are:

Chairperson	Clinical Assoc Prof Philip Eng Head, Respiratory Medicine Singapore General Hospital
Members	Major (Dr) Gregory Chan Head, Preventive Medicine Branch HQ Medical Corps, SAF
	Dr Loo Chian Min Consultant Respiratory Medicine Singapore General Hospital
	Dr Low Lip Ping Cardiologist Low Cardiology Clinic
	Dr Alfred Loh CEO, World Organisation of Family Doctors (WONCA) Raffles Hospital
	Dr Swah Teck Sin Divisional Director (Operations) SingHealth Polyclinics
	Dr Audrey Tan Associate Consultant Health Promotion Consultancy National Healthcare Group
	Dr Veronica Tay Associate Consultant Health Promotion Board

Members

Dr Munidasa Winslow
Consultant
Institute of Mental Health

Assoc Prof Wong Mee Lian
Department of Community,
Occupational and Family Medicine
National University of Singapore

Ms Clare Yeo
Senior Psychologist
Institute of Mental Health

At the time of appointment, the workgroup members are appointed in their personal professional capacity and are not representing their institutions.

Smoking Cessation



Ministry
of Health



Health
Promotion
Board

NMRC

National Medical
Research Council

Executive summary of recommendations

A All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Clinicians and health care delivery systems should institutionalise the consistent identification, documentation, and treatment of every tobacco user seen in a health care setting.

Grade A, Levels Ia & Ib

A All clinicians should strongly advise every patient who smokes to quit.

Grade A, Level Ia

A Tobacco dependence is a chronic condition that often requires repeated intervention. Effective treatments exist that can produce long-term or even permanent abstinence.

Grade A, Level Ib

A Treatment for tobacco dependence is clinically effective and cost-effective relative to other medical and disease prevention interventions.

Grade A, Level Ia

A Brief tobacco dependence treatment is effective and every patient who uses tobacco should be offered at least brief treatment.

Grade A, Level IIa

A There is a strong dose-response relation between the session length of person-to-person contact and successful treatment outcomes. Intensive interventions are more effective than less intensive interventions and should be used whenever possible.

Grade A, Levels Ia, Ib & IIa

A Nicotine replacement therapy (NRT) is safe and effective for smoking cessation.

Grade A, Level Ia

A There is no difference in efficacy between various forms of nicotine replacement.

Grade A, Level Ib

A There is currently no evidence that nicotine replacement therapy increases cardiovascular risk.

Grade A, Level Ib

A Bupropion Slow-Release (SR) is safe and effective for smoking cessation.

Grade A, Level Ib

C Once a tobacco user is identified and advised to quit, the clinician should assess the patient's willingness to quit at this time:

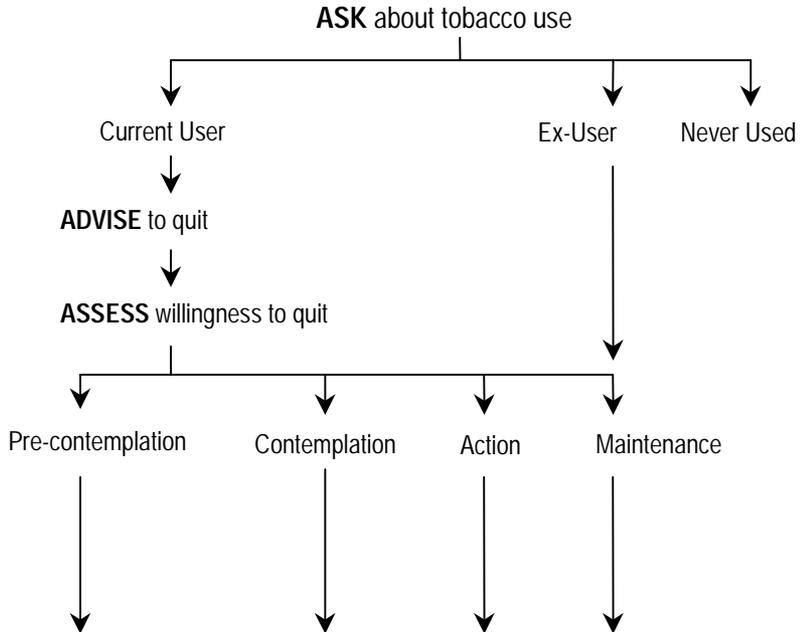
- (i) Patients willing to try to quit tobacco use should be provided treatments identified as effective in this guideline.
- (ii) Patients unwilling to try to quit tobacco use should be provided a brief intervention designed to increase their motivation to quit as described in this set of guidelines.

Grade C, Level IV

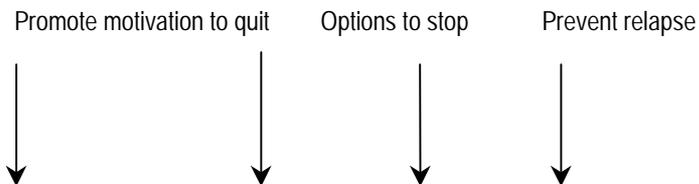
Suggested guideline of pharmacotherapy for smoking cessation

Drug	Adverse Effects	Dosage	Duration
Nicotine patch	Local skin reaction, insomnia, headache, nausea	21mg/24h (Nicotinell-TTS 30) 14mg/24h (Nicotinell-TTS 20) 7mg/24h (Nicotinell-TTS 10) 15mg/16h (Nicorette) 10mg/16h 5mg/16h	4-12weeks then 2-4 weeks then 2-4 weeks 8-12 weeks then 2 weeks then 2 weeks
Nicotine inhaler	Local mouth and throat irritation, headache, nausea, heartburn	6-12 cartridges/day (Nicorette) 3-6 cartridges/day 3 cartridges/day to 0	8 weeks 2 weeks 2 weeks
Bupropion SR	Insomnia, dry mouth, seizures, nausea	150mg once daily (Zyban) then 150mg twice daily (begin 1-2 weeks before quit date)	6 days 12 weeks

The 5 As approach to smoking cessation intervention



ASSIST in quit attempt



ARRANGE follow up