

DOES THE PATIENT WANT TO QUIT?

This question by itself is not enough. It should be combined with a clear statement of the importance of quitting and an offer to help:

“Quitting smoking is the most important thing you can do for your health. We can help you to quit.”

Of course, the exact way this statement is phrased will vary according to the personality and situation of both doctor and patient. However it is phrased, physician advice must be clear, strong, and personalized. Further counseling and action will be tailored to the response.

If a patient is at risk for a specific problem, information related to this problem will strengthen the message (see box at right and box on page 1).

Please refer to the flowchart “Brief Counseling for Tobacco Cessation” in the inside fold for a step-by-step guide to patient counseling.

IS THE PATIENT ADDICTED?

If a patient is addicted, counseling and pharmacotherapy should **always** be offered. Patients who are severely addicted have a higher likelihood of relapse and may need prolonged treatment. Three questions will establish whether nicotine addiction is present:

- **How many cigarettes do you smoke per day?**

A person who smokes 10 cigarettes or more per day is certainly addicted. More than 15 per day indicates probable strong addiction.

- **How long after waking up do you light your first cigarette?**

A person who lights up within an hour is almost certainly strongly addicted.

- **Do you smoke some cigarettes every day?**

A person who smokes some days, but doesn't feel a need to smoke every day, is probably not addicted.

EFFECTIVE INTERVENTIONS FOR SMOKING CESSATION

Every person who smokes should be offered and encouraged to accept smoking-cessation treatment at every office visit.

After just 3–5 minutes of firm and positive counseling by a clinician, 10% of smokers who try to quit will succeed, most of them permanently. The long-term quit rate can rise to 20% with consistent follow-up counseling or pharmacotherapy and to 30% when counseling is combined with pharmacotherapy. With such strong evidence for better results, it makes sense to offer counseling and drugs to all addicted smokers who want to quit. Drug therapy may not be necessary for those who are not addicted. Clinical judgment will be needed

SPECIAL MEDICAL REASONS FOR PATIENTS TO QUIT

Coronary artery disease and hypertension: Risk of the first heart attack decreases immediately after the patient quits, drops by 50% in the first year after quitting, and continues to fall thereafter.

Previous myocardial infarction: Risk of another heart attack will be reduced by 50%.

Stroke: After quitting, the risk of stroke decreases within 2 years and falls to the level of non-smokers in 5–15 years.

Peripheral vascular disease: 90% of persons with peripheral vascular disease are smokers. All will do better if they quit, and some with early disease will be completely relieved of symptoms.

Diabetes: People with diabetes are at risk for vascular complications. The risk is higher with young age at onset and increases with higher insulin requirement. Smoking dramatically increases this risk. If a smoking patient quits, the risk will be lower immediately after quitting.

Chronic obstructive pulmonary disease (COPD): The death rate from COPD is 10 times higher among persons who smoke a pack a day than that of non-smokers. Modest improvement in lung function can be expected if a symptomatic patient stops smoking, but the most important benefit is an immediate reduction in the rate of disease progression. The lungs of patients with alpha-1 anti-trypsin deficiency are especially sensitive to damage from tobacco smoke. If these patients start smoking at a young age, most will develop severe COPD.

Lung cancer: 90% of lung cancers would never have occurred if the patient had not smoked or been exposed to second-hand smoke. The risk is reduced by 30% after 5 years and steadily declines to a 90% reduction after 15 years.

Women who use oral contraceptives: If women who use oral contraceptives smoke, they have a higher risk of heart attack, stroke, and deep vein thrombosis. The elevated risk increases with the patient's age. After quitting, the risk falls immediately.

Women who are pregnant: Babies born to smoking mothers are on average 500 grams lighter and are more likely to die or be developmentally delayed. Mothers who do not smoke during pregnancy are less likely to have miscarriages, stillbirths, and children with low birthweight. Their children are less likely to die of Sudden Infant Death Syndrome (SIDS).

Macular degeneration and cataract: Blindness from these causes is twice as common among smokers.

Patients requiring surgical procedures for any reason: If the patient stops smoking before surgery, wound healing will be better and the risk of wound infection and pulmonary and vascular complications will be lower.

for special situations, such as pregnant women and adolescents (see box on page 3). Patients who want to quit without drugs should be assisted and supported; 80% of all smokers who quit do so without counseling or medicine.

Counseling and drug treatment can independently improve results, but combining both therapies will give the best results for addicted smokers.

Counseling

After brief counseling and the patient's acceptance of a quit date, subsequent counseling can be individual, group, or by telephone. "Reactive" and single-session counseling is less effective than "proactive" counseling, in which the counselor arranges repeated sessions to interact with the patient and follow progress. This is true whether counseling is person-to-person or by telephone. Counseling works best when combined with pharmacotherapy. Often, a physician manages the pharmacotherapy, seeing the patient monthly or every other week, while counselors provide more intensive follow-up.

Intensive individual or group counseling greatly increases both the likelihood that a smoker will try to stop and the odds of success. Counseling should highlight the health and financial costs of continued smoking and the health and financial benefits of stopping. Counseling should also provide practical tips (see inside fold). There is a strong dose-response relationship: effective counseling consists of 4 or more sessions, each at least 10 minutes long. Counseling is even more effective if several types of clinicians (e.g., doctors, nurses, and counselors) reiterate smoking-cessation messages.

Phone lines, websites, and counseling facilities, as well as clinics in New York City that provide free or low-cost smoking cessation medications, are listed on page 4.

Pharmacotherapy

Several types of nicotine replacement therapy (NRT) have been approved by the Food and Drug Administration (FDA) for use by smokers who want to quit: nicotine gum, nicotine patch, nicotine oral inhaler, and nicotine nasal spray. (The nicotine lozenge has only recently been approved by the FDA as an over-the-counter smoking cessation aid; as of the publication date of this issue of *City Health Information*, it is not yet commercially available in the U.S.) In recommended doses, it is safe to use NRT in patients with stable heart disease. A pregnant woman who smokes is exposing her fetus to dozens of harmful chemicals. Most pregnant smokers can quit without medication, but NRT is safer than continued smoking.

Nicotine patch and gum are available over the counter. In New York State, both over-the-counter and prescribed NRT are covered by Medicaid, but a prescription is needed.

Sustained-release bupropion (bupropion SR), an antidepressant also known as Wellbutrin SR[®] or Zyban[®], is effective for smokers who want to quit. The most important contraindication is a history of seizures. Interactions between bupropion SR and other psychotropic drugs can produce serious adverse effects, so a psychiatrist should see and follow patients who are taking bupropion SR with

CONDITIONS THAT COMPLICATE TREATMENT

Weight gain

Nicotine suppresses appetite and, although many patients gain some weight after quitting, weight gain is by no means inevitable. Counselors must recognize that weight gain may occur and discuss the problem openly with patients. An exercise program can reduce or prevent this. So can diet, but this is often hard to combine with abstinence from tobacco. After several months without tobacco, compliance with a diet is easier. Patients may find that taking a walk or several deep breaths when they would otherwise smoke or take a snack helps.

Concurrent psychiatric or substance abuse problem

The prevalence of smoking is high among patients with mental illness and substance abuse. It is usually more difficult for these persons to quit, and relapse after quitting is more common. Carefully adjusted nicotine replacement therapy is very important. Sustained-release bupropion (bupropion SR) can be used with other psychotropic drugs, but these patients should be followed by a psychiatrist. Bupropion SR should not be used with monoamine oxidase inhibitors or in patients with an eating disorder. It must be used with caution in patients taking levodopa and drugs that lower the seizure threshold.

Pregnancy

The risk to the fetus that is posed by smoking during pregnancy is clear. Most pregnant women stop smoking on their own. Those who do not are usually addicted, find it very difficult to stop, and need intensive counseling. Bupropion SR can be used during pregnancy if non-pharmacotherapeutic interventions fail, but it should be used with caution because it lowers the threshold for seizures. The risk to the fetus from nicotine replacement or bupropion SR should be balanced against the greater risk from maternal smoking.

Adolescence

There are limited data on the use of pharmacotherapy in adolescents. Nicotine replacement is not approved by the FDA for persons under the age of 18. Bupropion SR can be used if the physician feels it is indicated. Many teenagers smoke only sporadically and are not yet addicted to nicotine, but many others are truly addicted despite low cigarette consumption. Young smokers are often clinically depressed and may need treatment for their depression.

Relapse

Nicotine addiction is a chronic disease. Many patients relapse, even several times, before they quit permanently. The physician has an obligation to ensure that there is follow up, with an opportunity for re-treatment as needed. Patients often go through two or more cessation attempts before they quit for good. The great majority of smokers who stop for 6 months or more never become regular smokers again. A useful way to be sure that smoking status is monitored on return visits is to incorporate smoking status into the vital signs for every follow-up visit.

other psychotropic medication. For strongly-addicted smokers, bupropion SR is commonly prescribed in combination with one or even two kinds of nicotine replacement (e.g., bupropion SR plus a patch, plus gum to supplement the patch). Bupropion SR appears to increase quit rates even more among women.

Two other drugs are known to be effective for nicotine withdrawal but have not been approved for this use by the FDA: nortriptyline and clonidine. Both have significant adverse effects. They should be used with caution and only in patients unable to use NRT or bupropion SR (see Table 2 in inside fold).

Other drugs, including other antidepressants, have not been shown to increase quit rates; nor has acupuncture or hypnosis.

Patient choice is an important factor in the success of a pharmacotherapy regimen. Patients won't use what they do not like. Some prefer to rely on the hand-to-mouth routine that the inhaler provides, while others may prefer gum. Some patients may simply want to take a pill or use a patch and then go about their daily routine without interruption. Some may find usage instructions for gum, inhaler, or spray to be too complicated for them to follow properly.

Guidelines for the use of these drugs, dosages, and common adverse effects are presented in the inside fold in Tables 1 and 2; possible regimens are listed in Table 3.

Nicotine addiction is the leading cause of preventable illness and death in New York City. Most smokers will see a doctor each year, and most want to quit. Doctors can play a crucial role in saving the lives of hundreds of thousands of New Yorkers who are addicted to nicotine. Every health-care provider should be an effective advocate for smoking cessation and should know how to provide or arrange counseling and appropriate drug treatment for those who want to quit.

Acknowledgments: Division of Health Promotion & Disease Prevention, Bureau of Chronic Disease and Tobacco Control: Colin W. McCord, MD, Assistant Commissioner; Patricia Repetto, MEd, Assistant Director for Cessation

FREE SMOKING-CESSATION RESOURCES

Phone counseling and referrals

Toll-free Smokers' Quitline

1-888-609-6292

(New York State)

Links to Internet counseling

www.nyc.gov/html/doh/html/smoke/smoke.html

(NYC Department of Health and Mental Hygiene)

Smoking-cessation clinics

The NYC Health and Hospitals Corporation operates free and confidential smoking-cessation clinics; free or low-cost nicotine replacement therapy is also available.

1-888-NYB-WELL (692-9355)

www.nyc.gov/html/hhc/html/smokingcessation.html

A list of cessation clinics in New York City is available online at:

www.nyc.gov/html/doh/html/smoke/quit.html

Additional online support resources

www.cdc.gov/tobacco/how2quit.htm

(Centers for Disease Control and Prevention)

www.ffsonline.org

(American Lung Association)

www.trytostop.org

(Massachusetts Department of Public Health)

Sources

This issue of *City Health Information* was drawn in large part from:

Crofton J, Simpson D. Tobacco: A Global Threat. Hong Kong: Macmillan Education. 2002.

Fiore MC, Bailey WC, Cohen SJ, et al. Treating Tobacco Use and Dependence. Clinical Practice Guideline. Rockville, MD: U.S. Department of Health and Human Services. Public Health Service. June 2000.

Rigotti NA. Clinical practice. Treatment of tobacco use and dependence. *N Engl J Med* 2002;346:506-512.



City Health Information

November 2002 The New York City Department of Health and Mental Hygiene Vol. 21 No. 6

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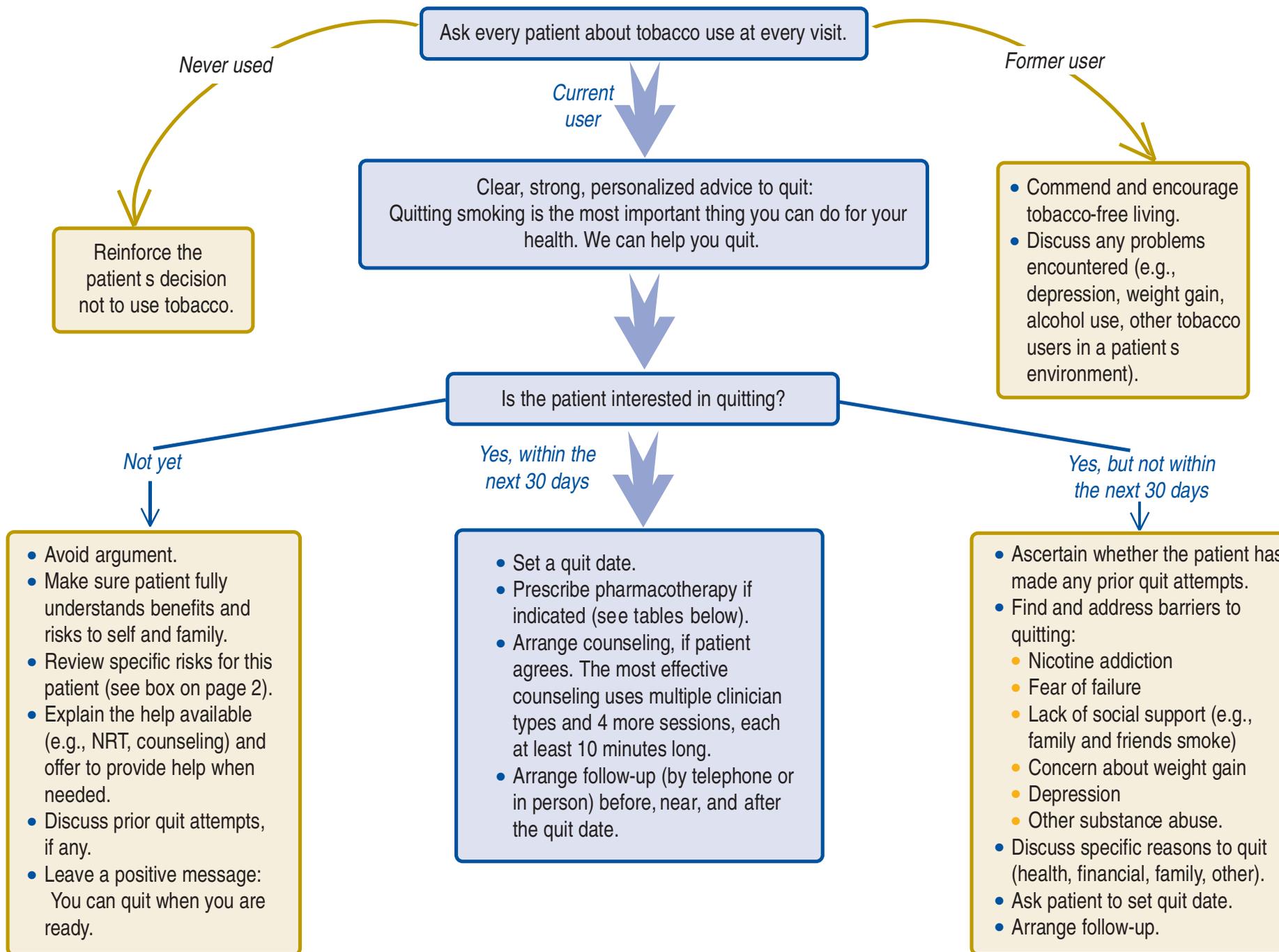
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BRIEF COUNSELING FOR TOBACCO CESSATION



QUIT TIPS

1. Have the patient choose and write down his/her reasons for quitting.

- The patient may need to refer back to this at a later date.

2. Have the patient identify his/her smoking triggers.

- Alcohol, other smokers, caffeine, and stress (including time pressure) are common triggers.
- If there are other smokers in the household, aid patient in establishing a smoke-free home.

3. Assist the patient in identifying coping strategies.

- Keep busy.
- Stay in non-smoking areas.
- Drink lots of water or other fluids.
- If stress is a trigger, what alternative behaviors can the patient turn to instead of smoking to deal with the situation at hand?
- If rising in the morning is accompanied with a cigarette, what can the patient do in place of smoking (e.g., exercise, take a walk, deep breathing, make breakfast)?

4. Have the patient select a quit date and prepare for that quit date.

- Have patient discard all tobacco products, lighters, ashtrays, etc. (including those in the car).
- Encourage patient to select a quit date that is during a period as close to his/her “normal” routine as possible (i.e., no vacations/holidays, major work deadlines, foreseeable major life events such as weddings, moving, etc.).

5. Have the patient prepare a list of support persons who can be called upon when in need.

- Make sure patient includes smokers who live in the same household.
- Encourage the patient to identify a “quitting buddy.”
- Contact identified persons (by mail or phone) to confirm support of patient’s cessation attempts.
- Prepare patient with available support group and quitline information ([1-888-609-6292](tel:1-888-609-6292)).

6. Educate the patient about withdrawal symptoms.

- Withdrawal symptoms are temporary and can last 2–4 weeks but will most likely peak within the first week.
- Symptoms may include negative mood, difficulty concentrating, urges to smoke.
- If patient is not aware that these symptoms are expected to occur, he/she may get discouraged and resume smoking.

7. Congratulate the patient on attempting to quit smoking.

- Smoking is an addiction, but it can be overcome.
- Millions of smokers have quit successfully. Provide your patient with positive reinforcement that he/she will succeed as well; most people who ever smoked have already stopped.
- Remind patient that any smoking, even as little as one puff, increases the likelihood of relapse.
- Continue to contact the patient periodically to provide support, encouragement, and advice.

SPECIFIC REASONS TO GIVE YOUR PATIENT TO QUIT

- Health Reasons:**
- Reduce your risk of:
 - heart attack and stroke
 - emphysema and bronchitis
 - coronary heart disease
 - cancers of the larynx, esophagus, lung, bladder, kidney, cervix.
 - Reduce the chance of your children developing or suffering from worsened asthma, middle ear infections, and bronchitis.
 - Reduce the chance of your family developing cancer, heart disease, and other diseases associated with breathing second-hand smoke.
 - Reduce the chance that your children will smoke.
- Financial Reasons:**
- More money in your pocket!
- Social Reasons:**
- Less stress from family, friends, and co-workers who are non-smokers.

TABLE 1: FREQUENTLY ASKED QUESTIONS ABOUT PHARMACOTHERAPY FOR SMOKING CESSATION

Who should receive pharmacotherapy for smoking cessation?	All smokers trying to quit, except in special circumstances. Special consideration should be given before using pharmacotherapy for patients with medical contraindications, those smoking fewer than 10 cigarettes/day, pregnant/breastfeeding women, and adolescent smokers.
Are pharmacotherapeutic treatments appropriate for lighter smokers (e.g., 5–10 cigarettes/day)?	If pharmacotherapy is used with lighter smokers, clinicians should consider reducing the dose of first-line nicotine replacement therapy (NRT). No adjustments are necessary when using sustained-release bupropion (bupropion SR) only.
Which pharmacotherapies should be considered for patients worried about weight gain?	Bupropion SR and nicotine replacement therapies, in particular nicotine gum, have been shown to delay, but not prevent, weight gain.
Are there pharmacotherapies that warrant particular consideration in patients with a history of depression?	Bupropion SR and nortriptyline appear to be effective with this population.
Can nicotine replacement therapies be used in patients with a history of cardiovascular disease?	Yes. In particular, the nicotine patch is safe and has been shown not to cause adverse cardiovascular effects.
May tobacco-dependence pharmacotherapies be used long term?	Yes. Most patients achieve maximal benefit with 6–8 weeks of treatment. However, for some patients, long-term treatment may be helpful (e.g., smokers who report persistent withdrawal symptoms during the course of pharmacotherapy or who desire long-term therapy). A minority of individuals who successfully quit smoking use <i>ad libitum</i> NRT medications (gum, nasal spray, or inhaler) long term. The long-term use of these medications does not present a known health risk. Additionally, the Food and Drug Administration (FDA) has approved the use of bupropion SR for long-term maintenance.
May pharmacotherapies be combined?	Yes. There is evidence that combining the nicotine patch with either nicotine gum or nicotine nasal spray has an additive effect, raising long-term abstinence rates above those produced by a single form of NRT.

Adapted with modification from Fiore MC, Bailey WC, Cohen SJ, et al. Treating Tobacco Use and Dependence. Clinical Practice Guideline. Rockville, MD. U.S. Department of Health and Human Services. Public Health Service. June 2000

TABLE 2: DRUGS FOR NICOTINE ADDICTION

Product	Dosage	Common Adverse Effects	Advantages	Disadvantages
NICOTINE REPLACEMENT THERAPY				
Transdermal patch 24 hr (e.g., Nicoderm CQ*)	7-, 14 -, 21-mg patch worn for 24 hr Start on quit date. The starting dose is 21 mg/day, unless the smoker weighs less than 100 lbs or smokes fewer than 10 cigarettes/day, in which case the starting dose is 14 mg/day. The starting dose should be maintained for 2–4 weeks, after which the dose should be decreased every week until it is stopped.	<ul style="list-style-type: none"> • Skin irritation • Insomnia 	<ul style="list-style-type: none"> • Provides steady levels of nicotine • Easy to use • Unobtrusive • Available without prescription 	<ul style="list-style-type: none"> • User cannot adjust dose if craving occurs • Nicotine released more slowly than in other products
16 hr (e.g., Nicotrol*)	15-mg patch worn for 16 hr Start on quit date.			
Nicotine polacrilex gum (Nicorette*) 2 mg (< 25 cigarettes/day) 4 mg (≥ 25 cigarettes/day)	1 piece/hr maximum (24 pieces/day) Start on quit date. The user should chew the gum slowly until he or she experiences a distinct taste, indicating that nicotine is being released. The user should then place the gum between cheek and gum until the taste disappears to allow the nicotine to be absorbed through oral mucosa. The sequence should be repeated for 30 minutes before the gum is discarded. Acidic beverages (such as coffee and soft drinks) reduce the absorption of nicotine and should be avoided for 30 minutes before and during chewing.	<ul style="list-style-type: none"> • Mouth irritation • Sore jaw • Dyspepsia • Hiccups 	<ul style="list-style-type: none"> • User controls dose • Oral substitute for cigarettes • Available without prescription 	<ul style="list-style-type: none"> • Proper chewing technique needed • User cannot eat or drink while chewing the gum • Can damage dental work • Difficult for denture wearers to use
Vapor inhaler (Nicotrol Inhaler*)	6–16 cartridges/day (delivered dose, 4 mg/cartridge) Start on quit date.	<ul style="list-style-type: none"> • Mouth and throat irritation • Cough 	<ul style="list-style-type: none"> • User controls dose • Hand-to-mouth substitute for cigarettes 	<ul style="list-style-type: none"> • Frequent puffing needed • Device visible when used
Nasal spray (Nicotrol NS*)	1–2 doses/hr (1 mg total; 0.5 mg in each nostril) (maximum, 40 mg/day) Start on quit date.	<ul style="list-style-type: none"> • Nasal irritation • Sneezing • Cough • Tearing Tolerance develops to local adverse effects during the first week of use.	<ul style="list-style-type: none"> • User controls dose • Offers most rapid delivery of nicotine and highest nicotine levels of all nicotine replacement products 	<ul style="list-style-type: none"> • Most irritating nicotine replacement product to use • Device visible when used
Nicotine polacrilex lozenge (Commit*) 2 mg (for patients who smoke first cigarette of the day no sooner than 30 minutes after waking) 4 mg (for patients who smoke first cigarette of the day within 30 minutes of waking)	9–20 lozenges/day during first 6 weeks, then decrease dose gradually until treatment is stopped Start on quit date.	<ul style="list-style-type: none"> • Insomnia • Nausea • Hiccups • Coughing • Heartburn • Headache 	<ul style="list-style-type: none"> • User controls dose • Easy to use • Oral substitute for cigarettes • Available without prescription 	<ul style="list-style-type: none"> • Unpleasant taste at first • User cannot eat or drink 15 minutes before using lozenge • User must suck on lozenge until it dissolves (should not chew or swallow it)
NON-NICOTINE THERAPY				
Sustained-release bupropion (Zyban* or Wellbutrin SR*)	150 mg/day for 3 days, then 150 mg twice a day Start 1–2 weeks before quit date.	<ul style="list-style-type: none"> • Insomnia • Dry mouth • Agitation 	<ul style="list-style-type: none"> • Easy to use (pill) • No exposure to nicotine • Usually well tolerated by cardiac patients 	<ul style="list-style-type: none"> • Increased risk of seizure (≤ 0.1%) • Should not be used with monoamine oxidase inhibitors, and must be used with caution in patients taking levodopa and drugs that lower the seizure threshold • Should not be used in patients with an eating disorder
Nortriptyline This agent has not been approved by the FDA as a smoking aid. The Public Health Service clinical guidelines recommend it as a second-line drug for smoking cessation.	75–100 mg/day Treatment should be started 10–28 days before the quit date at a dose of 25 mg/day; the dose should be increased as tolerated.	<ul style="list-style-type: none"> • Dry mouth • Sedation • Dizziness • Tremor 	<ul style="list-style-type: none"> • Easy to use (pill) • No exposure to nicotine 	<ul style="list-style-type: none"> • Side effects common • Should be used cautiously in patients with heart disease • Risk of overdose
Clonidine This agent has not been approved by the FDA as a smoking aid. The Public Health Service clinical guidelines recommend it as a second-line drug for smoking cessation.	0.1–0.3 mg twice a day Start 2 days before quit date. If stopped, should be gradually tapered.	<ul style="list-style-type: none"> • Dry mouth • Sedation • Dizziness • Hypotension • Rebound hypertension when stopped 	<ul style="list-style-type: none"> • No exposure to nicotine • Inexpensive 	<ul style="list-style-type: none"> • Side effects limit use

*Use of brand names is for informational purposes only and does not imply endorsement of any particular products by the New York City Department of Health and Mental Hygiene.

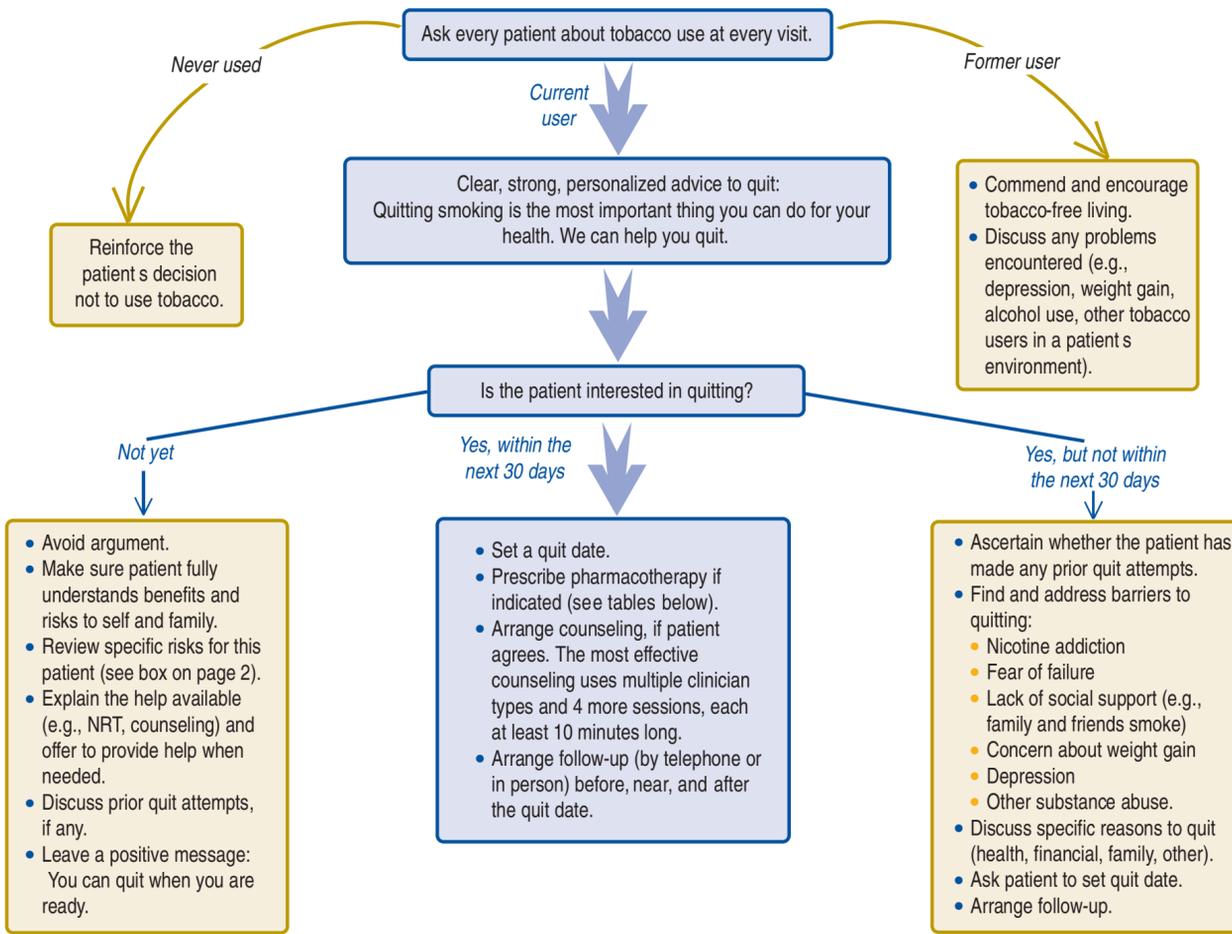
Adapted with permission from Rigotti NA. Clinical practice. Treatment of tobacco use and dependence. N Engl J Med 2002;346:506-512.

TABLE 3: POSSIBLE REGIMENS FOR SMOKING CESSATION

Patient Characteristics	Nicotine Replacement Therapy	Sustained-Release Bupropion	Counseling
<ul style="list-style-type: none"> • Not addicted* • No complicating factors† 	<i>Ad libitum</i> NRT (gum, spray, and/or inhaler)	Not usually	Phone/Internet, optional group counseling
<ul style="list-style-type: none"> • Addicted* • No complicating factors† • First quit attempt with clinical assistance 	Patch	Usually	Group or individual counseling if willing, ideally with 4 or more sessions of at least 10 minutes each; otherwise phone/Internet
<ul style="list-style-type: none"> • Addicted* • Either complicating factors† or prior failed quit attempts despite NRT or bupropion SR 	Patch and <i>ad libitum</i> NRT (gum, spray, and/or inhaler)	Strongly consider unless contraindicated	Strongly encourage group or individual counseling of 4 or more sessions of at least 10 minutes each
<p>All patients to receive printed materials, calendars, tips, and phone numbers and websites to contact for support.</p>			
<p>* Addiction: Patients who smoke 10 or more cigarettes every day are almost certainly addicted (see page 2). † Complicating factors: depression, schizophrenia, polysubstance abuse (alcohol and/or other drug), significant life stress (e.g., job change, divorce, personal loss).</p>			

TREATING NICOTINE ADDICTION

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 - If there are other smokers in the household, aid patient in establishing a smoke-free home.
3. Assist the patient in identifying coping strategies.
 - Keep busy.
 - Stay in non-smoking areas.
 - Drink lots of water or other fluids.
 - If stress is a trigger, what alternative behaviors can the patient turn to instead of smoking to deal with the situation at hand?
 - If rising in the morning is accompanied with a cigarette, what can the patient do in place of smoking (e.g., exercise, take a walk, deep breathing, make breakfast)?
4. Have the patient select a quit date and prepare for that quit date.
 - Have patient discard all tobacco products, lighters, ashtrays, etc. (including those in the car).
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TABLE 3: POSSIBLE REGIMENS FOR SMOKING CESSATION

Patient Characteristics	Nicotine Replacement Therapy	Sustained-Release Bupropion	Counseling
• Not addicted* • No complicating factors†	<i>Ad libitum</i> NRT (gum, spray, and/or inhaler)	Not usually	Phone/Internet, optional group counseling
• Addicted* • No complicating factors† • First quit attempt with clinical assistance	Patch	Usually	Group or individual counseling if willing, ideally with 4 or more sessions of at least 10 minutes each; otherwise phone/Internet
• Addicted* • Either complicating factors† or prior failed quit attempts despite NRT or bupropion SR	Patch and <i>ad libitum</i> NRT (gum, spray, and/or inhaler)	Strongly consider unless contraindicated	Strongly encourage group or individual counseling of 4 or more sessions of at least 10 minutes each

All patients to receive printed materials, calendars, tips, and phone numbers and websites to contact for support.

* Addicted: Patients who smoke 10 or more cigarettes every day are almost certainly addicted (see page 2).

† Complicating factors: depression, schizophrenia, polysubstance abuse (alcohol and/or other drug), significant life stress (e.g., job change, divorce, personal loss).

TABLE 2: DRUGS FOR NICOTINE ADDICTION

Product	Dosage	Common Adverse Effects	Advantages	Disadvantages
NICOTINE REPLACEMENT THERAPY				
Transdermal patch 24 hr (e.g., Nicoderm CQ [†])	7-, 14-, 21-mg patch worn for 24 hr Start on quit date. The starting dose is 21 mg/day, unless the smoker weighs less than 100 lbs or smokes fewer than 10 cigarettes/day, in which case the starting dose is 14 mg/day. The starting dose should be maintained for 2-4 weeks, after which the dose should be decreased every week until it is stopped.	• Skin irritation • Insomnia	• Provides steady levels of nicotine • Easy to use • Unobtrusive • Available without prescription	• User cannot adjust dose if craving occurs • Nicotine released more slowly than in other products
16 hr (e.g., Nicotrol [†])	15-mg patch worn for 16 hr Start on quit date.			
Nicotine polacrilex gum (Nicorette [†])	1 piece/hr maximum (24 pieces/day) Start on quit date. The user should chew the gum slowly until he or she experiences a distinct taste, indicating that nicotine is being released. The user should then place the gum between cheek and gum until the taste disappears to allow the nicotine to be absorbed through oral mucosa. The sequence should be repeated for 30 minutes before the gum is discarded. Acidic beverages (such as coffee and soft drinks) reduce the absorption of nicotine and should be avoided for 30 minutes before and during chewing.	• Mouth irritation • Sore jaw • Dyspepsia • Hiccups	• User controls dose • Oral substitute for cigarettes • Available without prescription	• Proper chewing technique needed • User cannot eat or drink while chewing the gum • Can damage dental work • Difficult for denture wearers to use
2 mg (< 25 cigarettes/day) 4 mg (≥ 25 cigarettes/day)				
Vapor inhaler (Nicotrol Inhaler [†])	6-16 cartridges/day (delivered dose, 4 mg/cartridge) Start on quit date.	• Mouth and throat irritation • Cough	• User controls dose • Hand-to-mouth substitute for cigarettes	• Frequent puffing needed • Device visible when used
Nasal spray (Nicotrol NS [†])	1-2 doses/hr (1 mg total; 0.5 mg in each nostril) (maximum, 40 mg/day) Start on quit date.	• Nasal irritation • Sneezing • Cough • Tearing Tolerance develops to local adverse effects during the first week of use.	• User controls dose • Offers most rapid delivery of nicotine and highest nicotine levels of all nicotine replacement products	• Most irritating nicotine replacement product to use • Device visible when used
Nicotine polacrilex lozenge (Commit [†])	9-20 lozenges/day during first 6 weeks, then decrease dose gradually until treatment is stopped 2 mg (for patients who smoke first cigarette of the day no sooner than 30 minutes after waking) Start on quit date. 4 mg (for patients who smoke first cigarette of the day within 30 minutes of waking)	• Insomnia • Nausea • Hiccups • Coughing • Heartburn • Headache	• User controls dose • Easy to use • Oral substitute for cigarettes • Available without prescription	• Unpleasant taste at first • User cannot eat or drink 15 minutes before using lozenge • User must suck on lozenge until it dissolves (should not chew or swallow it)
NON-NICOTINE THERAPY				
Sustained-release bupropion (Zyban [†] or Wellbutrin SR [†])	150 mg/day for 3 days, then 150 mg twice a day Start 1-2 weeks before quit date.	• Insomnia • Dry mouth • Agitation	• Easy to use (pill) • No exposure to nicotine • Usually well tolerated by cardiac patients	• Increased risk of seizure (< 0.1%) • Should not be used with monoamine oxidase inhibitors, and must be used with caution in patients taking levodopa and drugs that lower the seizure threshold • Should not be used in patients with an eating disorder
Nortriptyline	75-100 mg/day This agent has not been approved by the FDA as a smoking aid. The Public Health Service clinical guidelines recommend it as a second-line drug for smoking cessation. Treatment should be started 10-28 days before the quit date at a dose of 25 mg/day; the dose should be increased as tolerated.	• Dry mouth • Sedation • Dizziness • Tremor	• Easy to use (pill) • No exposure to nicotine	• Side effects common • Should be used cautiously in patients with heart disease • Risk of overdose
Clonidine	0.1-0.3 mg twice a day Start 2 days before quit date. If stopped, should be gradually tapered.	• Dry mouth • Sedation • Dizziness • Hypotension • Rebound hypertension when stopped	• No exposure to nicotine • Inexpensive	• Side effects limit use

[†] Use of brand names is for informational purposes only and does not imply endorsement of any particular products by the New York City Department of Health and Mental Hygiene.

Adapted with permission from Rigotti NA. Clinical practice. Treatment of tobacco use and dependence. N Engl J Med 2002;346:506-512.