**Tobacco Cessation for the Busy Clinician**

This continuing education program provides an overview of a brief intervention approach for facilitating tobacco cessation. Detailed information regarding pharmaceutical aids for cessation is provided through audience handouts (included).

**Goal**

To provide clinicians with the knowledge and skills necessary to apply brief interventions for tobacco cessation, by asking about tobacco use, advising tobacco users to quit, and referring patients to other resources (e.g., tobacco quitlines) for additional assistance.

**Learning Objectives**

Upon completion of this Rx for Change continuing education program, participants will be able to:

1. Describe the role of the pharmacist in the tobacco cessation process, positioning them as the initiator of the quit attempt.
2. Briefly summarize how the pharmacist can ask about tobacco use and successfully advise patients to quit.
3. Explain the importance of pharmacists referring patients to appropriate intensive interventions after initiating the cessation process.
4. Review the seven FDA approved medications for cessation.
TRAINING OVERVIEW

- Epidemiology of Tobacco Use
- Nicotine Pharmacology & Principles of Addiction
- Drug Interactions with Smoking
- Assisting Patients with Quitting
- Aids for Cessation
- Tobacco Trigger Tapes
- Role Playing with Case Scenarios and Video Counseling Sessions

"CIGARETTE SMOKING..."

is the chief, single, avoidable cause of death in our society and the most important public health issue of our time.”

C. Everett Koop, M.D., former U.S. Surgeon General

All forms of tobacco are harmful.

EPIDEMIOLOGY of TOBACCO USE


70% want to quit

Tobacco Trigger Tapes

Role Playing with Case Scenarios and Video Counseling Sessions

STATE-SPECIFIC PREVALENCE of SMOKING among ADULTS, 2009

Prevalence of current smoking (2009)

- < 18.0%
- 18.0 – 19.9%
- 20.0 – 21.9%
- 22.0 – 23.9%
- ≥ 24.0%


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PREVALENCE of ADULT SMOKING, by RACE/ETHNICITY—U.S., 2009

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian/Alaska Native</td>
<td>29.5%</td>
</tr>
<tr>
<td>White</td>
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<tr>
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<tr>
<td>Hispanic</td>
<td>14.5%</td>
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<tr>
<td>Asian</td>
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PREVALENCE of ADULT SMOKING, by EDUCATION—U.S., 2009

<table>
<thead>
<tr>
<th>Education</th>
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<tbody>
<tr>
<td>No high school diploma</td>
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<tr>
<td>GED diploma</td>
<td>49.1%</td>
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<tr>
<td>High school graduate</td>
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<tr>
<td>Graduate degree</td>
<td>5.6%</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
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</tr>
<tr>
<td>Black</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

Institute for Social Research, University of Michigan. Monitoring the Future Project. www.monitoringthefuture.org

PUBLIC HEALTH versus "BIG TOBACCO"

The biggest opponent to tobacco control efforts is the tobacco industry itself.

Nationally, the tobacco industry is outspending our state tobacco control funding.

For every $1 spent by the states, the tobacco industry spends $25 to market its products.

TOBACCO INDUSTRY MARKETING

- $12.49 billion spent in the U.S. in 2006
- $34.2 million a day
- 85.6% increase over 1998 figures

The TOBACCO INDUSTRY

- For decades, the tobacco industry publicly denied the addictive nature of nicotine and the negative health effects of tobacco.
- April 14, 1994: Seven top executives of major tobacco companies state, under oath, that they believe nicotine is not addictive: http://www.jeffreywigand.com/7ceos.php
  - Tobacco industry documents indicate otherwise
  - Documents available at http://legacy.library.ucsf.edu
- The cigarette is a heavily engineered product.
  - Designed and marketed to maximize bioavailability of nicotine and addictive potential
  - Profits over people

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COMPOUNDS in TOBACCO SMOKE

An estimated 4,800 compounds in tobacco smoke, including 11 proven human carcinogens

Gases
- Carbon monoxide
- Hydrogen cyanide
- Ammonia
- Benzene
- Formaldehyde

Particles
- Nicotine
- Nitrosamines
- Lead
- Cadmium
- Polonium-210

Nicotine is the addictive component of tobacco products, but it does NOT cause the ill health effects of tobacco use.

ANNUAL U.S. DEATHS ATTRIBUTABLE to SMOKING, 2000–2004

Percent of all smoking-attributable deaths

<table>
<thead>
<tr>
<th>Category</th>
<th>Deaths</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular diseases</td>
<td>128,497</td>
<td>29%</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>125,522</td>
<td>28%</td>
</tr>
<tr>
<td>Respiratory diseases</td>
<td>103,338</td>
<td>23%</td>
</tr>
<tr>
<td>Second-hand smoke</td>
<td>49,400</td>
<td>11%</td>
</tr>
<tr>
<td>Cancers other than lung</td>
<td>35,326</td>
<td>8%</td>
</tr>
<tr>
<td>Other</td>
<td>1,512</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

TOTAL: 443,595 deaths annually


2004 REPORT of the SURGEON GENERAL: HEALTH CONSEQUENCES of SMOKING

FOUR MAJOR CONCLUSIONS:

- Smoking harms nearly every organ of the body, causing many diseases and reducing the health of smokers in general.
- Quitting smoking has immediate as well as long-term benefits, reducing risks for diseases caused by smoking and improving health in general.
- Smoking cigarettes with lower machine-measured yields of tar and nicotine provides no clear benefit to health.
- The list of diseases caused by smoking has been expanded.

HEALTH CONSEQUENCES of SMOKING

- Cancers
  - Acute myeloid leukemia
  - Bladder and kidney
  - Cervical
  - Esophageal
  - Gastric
  - Laryngeal
  - Lung
  - Oral cavity and pharyngeal
  - Pancreatic
  - Pulmonary diseases
    - Acute (e.g., pneumonia)
    - Chronic (e.g., COPD)

- Cardiovascular diseases
  - Abdominal aortic aneurism
  - Coronary heart disease
  - Cerebrovascular disease
  - Peripheral arterial disease

- Reproductive effects
  - Reduced fertility in women
  - Poor pregnancy outcomes (e.g., low birth weight, preterm delivery)
  - Infant mortality
  - Other effects: cataract, osteoporosis, periodontitis, poor surgical outcomes

FORMS of TOBACCO

- Cigarettes
- Smokeless tobacco (chewing tobacco, oral snuff)
- Pipes
- Cigars
- Clove cigarettes
- Bidis
- Hookah (waterpipe smoking)
- Electronic cigarettes (“e-cigarettes”)*

*E-cigarettes are devices that deliver nicotine and are not a form of tobacco.

HEALTH CONSEQUENCES of SMOKELESS TOBACCO USE

- Periodontal effects
- Gingival recession
- Bone attachment loss
- Dental caries

Oral leukoplakia

Cancer
- Oral cancer
- Pharyngeal cancer


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ANNUAL SMOKING-ATTRIBUTABLE ECONOMIC COSTS

Health-care expenditures: $96.7 billion
Lost productivity costs: $97.6 billion
Total federal-state Medicaid program costs: $30.9 billion
Total Medicare program costs: $18.9 billion
Total economic burden of smoking, per year: $194 billion

Societal costs: $10.28 per pack of cigarettes smoked


Total Medicare program costs:
- Total federal-state Medicaid program costs:
- Total economic burden of smoking, per year:
- There is no safe level of second-hand smoke.
- Second-hand smoke causes premature death and disease in nonsmokers (children and adults)
- Children:
  - Increased risk for sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, and more severe asthma
  - Respiratory symptoms and slowed lung growth if parents smoke
- Adults:
  - Immediate adverse effects on cardiovascular system
  - Increased risk for coronary heart disease and lung cancer
- Millions of Americans are exposed to smoke in their homes/workplaces
- Indoor spaces: eliminating smoking fully protects nonsmokers
- Separating smoking areas, cleaning the air, and ventilation are ineffective

FINANCIAL IMPACT of SMOKING

Buying cigarettes every day for 50 years @ $5.51 per pack
Money banked monthly, earning 2% interest


SMOKING CESSATION: REDUCED RISK of DEATH

Prospective study of 34,439 male British doctors
Mortality was monitored for 50 years (1951–2001)
On average, cigarette smokers die approximately 10 years younger than do nonsmokers.
Among those who continue smoking, at least half will die due to a tobacco-related disease.

QUITTING: HEALTH BENEFITS

- Circulation improves, walking becomes easier
- Lung function increases up to 30%
- Excess risk of CHD decreases to half that of a continuing smoker
- Lung cancer death rate drops to half that of a continuing smoker
- Risk of cancer of mouth, throat, esophagus, bladder, kidney, pancreas decrease
- Risk of stroke is reduced to that of people who have never smoked
- Risk of CHD is similar to that of people who have never smoked

Tobacco Dependence: A 2-PART PROBLEM

Physiological
- The addiction to nicotine
- Medications for cessation

Behavioral
- The habit of using tobacco
- Behavior change program

Treatment should address the physiological and the behavioral aspects of dependence.
**PROBLEM #1: ADDICTION TO NICOTINE**

**WHAT IS ADDICTION?**

"Compulsive drug use, without medical purpose, in the face of negative consequences"

Alan I. Leshner, Ph.D.
Former Director, National Institute on Drug Abuse
National Institutes of Health

**NICOTINE DISTRIBUTION**

Nicotine reaches the brain within 10–20 seconds.


**DOPAMINE REWARD PATHWAY**

Dopamine release

Stimulation of nicotine receptors

Nicotine enters brain

**BIOLOGY of NICOTINE ADDICTION: ROLE of DOPAMINE**

Nicotine stimulation dopamine release

Nicotine addiction is not just a bad habit.

Discontinuation leads to withdrawal symptoms.


**NICOTINE PHARMACODYNAMICS: WITHDRAWAL EFFECTS**

- Irritability/frustration/anger
- Anxiety
- Difficulty concentrating
- Restlessness/impatience
- Depressed mood/depression
- Insomnia
- Impaired performance
- Increased appetite/weight gain
- Cravings

Most symptoms manifest within the first 1–2 days, peak within the first week, and subside within 2–4 weeks.

NICOTINE ADDICTION

- Tobacco users maintain a minimum serum nicotine concentration in order to
  - Prevent withdrawal symptoms
  - Maintain pleasure/arousal
  - Modulate mood

- Users self-titrate nicotine intake by
  - Smoking/dipping more frequently
  - Smoking more intensely
  - Obstructing vents on low-nicotine brand cigarettes


FDA-APPROVED MEDICATIONS for CESSATION

- Nicotine polacrilex gum
  - Nicorette (OTC)
  - Generic nicotine gum (OTC)

- Nicotine lozenge
  - Nicorette lozenge (OTC)
  - Nicorette Mini lozenge (OTC)
  - Generic nicotine lozenge (OTC)

- Nicotine transdermal patch
  - NicoDerm CQ (OTC)
  - Generic nicotine patches (OTC, Rx)

- Nicotine nasal spray
  - Nicotrol NS (Rx)

- Nicotine inhaler
  - Nicotrol (Rx)

- Bupropion SR (Zyban)
- Varenicline (Chantix)

These are the only medications that are FDA-approved for smoking cessation.

PHARMACOTHERAPY

"Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations* for which there is insufficient evidence of effectiveness."

* Includes pregnant women, smokeless tobacco users, light smokers, and adolescents.

FDA-APPROVED MEDICATIONS for CESSATION

- Nicotine polacrilex gum
  - Nicorette (OTC)
  - Generic nicotine gum (OTC)

- Nicotine lozenge
  - Nicorette lozenge (OTC)
  - Nicorette Mini lozenge (OTC)
  - Generic nicotine lozenge (OTC)

- Nicotine transdermal patch
  - NicoDerm CQ (OTC)
  - Generic nicotine patches (OTC, Rx)

- Nicotine nasal spray
  - Nicotrol NS (Rx)

- Nicotine inhaler
  - Nicotrol (Rx)

- Bupropion SR (Zyban)
- Varenicline (Chantix)

These are the only medications that are FDA-approved for smoking cessation.

PHARMACOTHERAPY: USE in PREGNANCY

- The Clinical Practice Guideline makes no recommendation regarding use of medications in pregnant smokers
- Insufficient evidence of effectiveness
- Category C: varenicline, bupropion SR
- Category D: prescription formulations of NRT

"Because of the serious risks of smoking to the pregnant smoker and the fetus, whenever possible pregnant smokers should be offered person-to-person psychosocial interventions that exceed minimal advice to quit." (p. 165)

PHARMACOTHERAPY: OTHER SPECIAL POPULATIONS

- Pharmacotherapy is not recommended for:
  - Smokeless tobacco users
  - No FDA indication for smokeless tobacco cessation

- Individuals smoking fewer than 10 cigarettes per day

- Adolescents
  - Nonprescription sales (patch, gum, lozenge) are restricted to adults ≥18 years of age
  - NRT use in minors requires a prescription

Recommended treatment is behavioral counseling.

NRT: RATIONALE for USE

- Reduces physical withdrawal from nicotine
- Eliminates the immediate, reinforcing effects of nicotine that is rapidly absorbed via tobacco smoke
- Allows patient to focus on behavioral and psychological aspects of tobacco cessation

NRT products approximately doubles quit rates.

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**PLASMA NICOTINE CONCENTRATIONS**

**for NICOTINE-CONTAINING PRODUCTS**

<table>
<thead>
<tr>
<th>Product</th>
<th>Graph</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigarette</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moist snuff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal spray</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhaler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lozenge (drag)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gum (drag)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patch</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NICOTINE GUM</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Nicorette (GlaxoSmithKline); generics |       | - Resin complex  
  - Nicotine  
  - Polacrilin  
- Sugar-free chewing gum base  
- Contains buffering agents to enhance buccal absorption of nicotine  
- Available: 2 mg, 4 mg; original, cinnamon, fruit, mint (various), and orange flavors |
| **NICOTINE LOZENGE**     |       |                                                                               |
| Nicorette Lozenge and Nicorette Mini Lozenge (GlaxoSmithKline); generics |       | - Nicotine polacrilex formulation  
  - Delivers ~25% more nicotine than equivalent gum dose  
- Sugar-free mint, cherry flavors  
- Contains buffering agents to enhance buccal absorption of nicotine  
- Available: 2 mg, 4 mg |
| **NICOTINE NASAL SPRAY** |       |                                                                               |
| Nicotrol NS (Pfizer)     |       | - Aqueous solution of nicotine in a 10-ml spray bottle  
  - Each metered dose actuation delivers  
    - 50 mL spray  
    - 0.5 mg nicotine  
  - ~100 doses/bottle  
  - Rapid absorption across nasal mucosa |
| **NICOTINE INHALER**     |       |                                                                               |
| Nicotrol Inhaler (Pfizer) |       | - Nicotine inhalation system consists of:  
  - Mouthpiece  
  - Cartridge with porous plug containing 10 mg nicotine and 1 mg menthol  
  - Delivers 4 mg nicotine vapor, absorbed across buccal mucosa |
**BUPROPION SR**

Zyban (GlaxoSmithKline); generic

- Nonnicotine cessation aid
- Sustained-release antidepressant
- Oral formulation

---

**VARENICLINE**

Chantix (Pfizer)

- Nonnicotine cessation aid
- Partial nicotinic receptor agonist
- Oral formulation

---

**HERBAL DRUGS for SMOKING CESSATION**

- Lobeline
  - Derived from leaves of Indian tobacco plant (*Lobelia inflata*)
  - Partial nicotinic agonist
  - No scientifically rigorous trials with long-term follow-up
  - No evidence to support use for smoking cessation


---

**LONG-TERM (≥6 month) QUIT RATES for AVAILABLE CESSATION MEDICATIONS**

<table>
<thead>
<tr>
<th>Cessation Medication</th>
<th>Active Drug</th>
<th>Placebo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nicotine gum</td>
<td>18.0%</td>
<td>15.8%</td>
</tr>
<tr>
<td>Nicotine patch</td>
<td>15.9%</td>
<td>12.1%</td>
</tr>
<tr>
<td>Nicotine lozenge</td>
<td>16.1%</td>
<td>11.3%</td>
</tr>
<tr>
<td>Nicotine nasal spray</td>
<td>17.1%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Nicotine inhaler</td>
<td>17.2%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Bupropion SR</td>
<td>16.1%</td>
<td>11.2%</td>
</tr>
<tr>
<td>Varenicline</td>
<td>15.9%</td>
<td>11.1%</td>
</tr>
</tbody>
</table>


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**COMBINATION PHARMACOTHERAPY**

Regimens with enough evidence to be "recommended" first-line

- **Combination NRT**
  - Long-acting formulation (patch)
    - Produces relatively constant levels of nicotine
  
  **PLUS**
  - Short-acting formulation (gum, inhaler, nasal spray)
    - Allows for acute dose titration as needed for nicotine withdrawal symptoms

- Bupropion SR + Nicotine Patch

---

**YOUR ROLE in PROMOTING CORRECT MEDICATION USE**

- Most patients under dose the products.
- You can have an important impact on patients’ success in quitting if you:
  - Instruct patients to read **all** directions.
  - Advise patients to use the products according to the recommended dosing schedule.
    - Use on a steady, consistent basis throughout the day
    - Do **not** use "as needed."

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COMPARATIVE DAILY COSTS of PHARMACOTHERAPY

Average $/pack of cigarettes, $5.51

<table>
<thead>
<tr>
<th>Country</th>
<th>5am</th>
<th>7am</th>
<th>9am</th>
<th>11am</th>
<th>1pm</th>
<th>3pm</th>
<th>5pm</th>
<th>7pm</th>
<th>9pm</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>5.35</td>
<td>5.35</td>
<td>5.35</td>
<td>5.35</td>
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<td>5.35</td>
<td>5.35</td>
<td>5.35</td>
</tr>
<tr>
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<td>5.35</td>
<td>5.35</td>
<td>5.35</td>
<td>5.35</td>
<td>5.35</td>
<td>5.35</td>
<td>5.35</td>
<td>5.35</td>
</tr>
<tr>
<td>Japan</td>
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<td>5.35</td>
<td>5.35</td>
<td>5.35</td>
<td>5.35</td>
<td>5.35</td>
<td>5.35</td>
<td>5.35</td>
<td>5.35</td>
</tr>
</tbody>
</table>

PROBLEM #2: CHANGING BEHAVIOR

TOBACCO CESSATION REQUIRES BEHAVIOR CHANGE

- Fewer than 5% of people who quit without assistance are successful in quitting for more than a year.
- Few patients adequately PREPARE and PLAN for their quit attempt.
- Many patients do not understand the need to change behavior.
- Patients think they can just “make themselves quit”

Behavioral counseling is a key component of treatment for tobacco use and dependence.

CHANGING BEHAVIOR (cont’d)

- Often, patients automatically smoke in the following situations:
  - When drinking coffee
  - While driving in the car
  - When bored
  - While at a bar with friends
  - While stressed
  - While with specific friends or family members who use tobacco
- Behavioral counseling helps patients learn to cope with these difficult situations without having a cigarette.

EFFECTS of CLINICIAN INTERVENTIONS

With help from a clinician, the odds of quitting approximately doubles.

<table>
<thead>
<tr>
<th>Type of Clinician</th>
<th>Estimated relative change</th>
</tr>
</thead>
<tbody>
<tr>
<td>No clinician</td>
<td>1.0</td>
</tr>
<tr>
<td>Self-help material</td>
<td>1.1</td>
</tr>
<tr>
<td>Nonphysician clinician</td>
<td>1.7</td>
</tr>
<tr>
<td>Physician clinician</td>
<td>2.2</td>
</tr>
</tbody>
</table>

$n = 29$ studies

Compared to patients who receive no assistance from a clinician, patients who receive assistance are 1.7–2.2 times as likely to quit successfully for 5 or more months.
Compared to smokers who receive assistance from no clinicians, smokers who receive assistance from two or more clinician types are 2.4–2.5 times as likely to quit successfully for 5 or more months.

**STEP 1: ASK**
- **ASK** about tobacco use
  - "Do you, or does anyone in your household, ever smoke or use any type of tobacco?"
  - "We like to ask our patients about tobacco use, because it has the potential to interact with many medications."
  - "We like to ask our patients about tobacco use, because it contributes to many medical conditions."

**STEP 2: ADVISE**
- **ADVISE** tobacco users to quit (clear, strong, personalized)
  - "It's important that you quit as soon as possible, and I can help you."
  - "Cutting down while you are ill is not enough."
  - "Occasional or light smoking is still harmful."
  - "I realize that quitting is difficult. It is the most important thing you can do to protect your health now and in the future. I have training to help my patients quit, and when you are ready, I will work with you to design a specialized treatment plan."

**STEP 3: REFER**
- **REFER** tobacco users to other resources
  - Referral options:
    - A doctor, nurse, pharmacist, or other clinician, for additional counseling
    - A local group program
    - The support program provided free with each smoking cessation medication
    - The toll-free telephone quit line: 1-800-QUIT-NOW

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WHAT ARE “TOBACCO QUITLINES”?

- Tobacco cessation counseling, provided at no cost via telephone to all Americans
- Staffed by trained specialists
- Up to 4–6 personalized sessions (varies by state)
- Some state quitlines offer pharmacotherapy at no cost (or reduced cost)
- Up to 30% success rate for patients who complete sessions

Most health-care providers, and most patients, are not familiar with tobacco quitlines.

WHEN a PATIENT CALLS the QUITLINE

- Counselor or Intake Specialist Answers
  - Caller is routed to language-appropriate staff
- Brief Questionnaire
  - Contact and demographic information
  - Smoking behavior (e.g., cigarettes per day)
  - Choice of services

WHAT ARE “TOBACCO QUITLINES”?

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- Up to 30% success rate for patients who complete sessions

WHEN a PATIENT CALLS the QUITLINE (cont’d)

- Services provided
  - Referral to local programs
  - Quitting literature mailed within 24 hrs
  - Individualized telephone counseling
    - Confidential
    - Professional, trained counselors

Quitlines have broad reach and are recommended as an effective strategy in the 2008 Clinical Practice Guideline.

WHY SHOULD CLINICIANS ADDRESS TOBACCO?

- Tobacco users expect to be encouraged to quit by health professionals.
- Screening for tobacco use and providing tobacco cessation counseling are positively associated with patient satisfaction (Barzilai et al., 2001).

Failure to address tobacco use tacitly implies that quitting is not important.

HELPING PATIENTS QUIT IS a CLINICIAN’S RESPONSIBILITY

TOBACCO USERS DON’T PLAN TO FAIL. MOST FAIL TO PLAN.

Clinicians have a professional obligation to address tobacco use and can have an important role in helping patients plan for their quit attempts.

THE DECISION TO QUIT LIES IN THE HANDS OF EACH PATIENT.

MAKE a COMMITMENT...

Address tobacco use with all patients.

At a minimum, make a commitment to incorporate brief tobacco interventions as part of routine patient care.

Ask, Advise, and Refer.
DR. GRO HARLEM BRUNTLAND,
FORMER DIRECTOR-GENERAL of the WHO:

“If we do not act decisively, a hundred years from now our grandchildren and their children will look back and seriously question how people claiming to be committed to public health and social justice allowed the tobacco epidemic to unfold unchecked.”


WHAT IF...

a patient asks you about your use of tobacco?
**STEP One: ASK** about Tobacco Use

- **Suggested Dialogue**
  - Do you ever smoke or use any type of tobacco?
  - I take time to talk with all of my patients about tobacco use—because it’s important.
  - Condition X often is caused or worsened by exposure to tobacco smoke. Do you, or does someone in your household smoke?
  - Medication X often is used for conditions linked with or caused by smoking. Do you, or does someone in your household smoke?

**STEP Two: ADVISE to Quit**

- **Suggested Dialogue**
  - Quitting is the most important thing you can do to protect your health now and in the future. I have training to help my patients quit, and when you are ready I would be more than happy to work with you to design a treatment plan.
  - What are your thoughts about quitting? Might you consider quitting sometime in the next month?

Prior to imparting advice, consider asking the patient for permission to do so – e.g., “May I tell you why this concerns me?” [then elaborate on patient-specific concerns]

**STEP Three: ASSESS** Readiness to Quit

- **Questions**
  - Does the patient now use tobacco?
  - Is the patient now ready to quit?
  - Did the patient once use tobacco?

- **Foster motivation**
  - Provide treatment
  - Prevent relapse*
  - Encourage continued abstinence

* Relapse prevention interventions are not necessary if patient has not used tobacco for many years and is not at risk for re-initiation.

**STEP Four: ASSIST with Quitting**

- **Assess Tobacco Use History**
  - Current use: type(s) of tobacco used, amount
  - Past use:
    - Duration of tobacco use
    - Changes in levels of use recently
  - Past quit attempts:
    - Number of attempts, date of most recent attempt, duration
    - Methods used previously—What did or didn’t work? Why or why not?
    - Prior medication administration, dose, compliance, duration of treatment
    - Reasons for relapse

- **Discuss Key Issues** (for the upcoming or current quit attempt)
  - Reasons/motivation for wanting to quit (or avoid relapse)
  - Confidence in ability to quit (or avoid relapse)
  - Triggers for tobacco use
  - Routines and situations associated with tobacco use
  - Stress-related tobacco use
  - Concerns about weight gain
  - Concerns about withdrawal symptoms

- **Facilitate Quitting Process**
  - Discuss methods for quitting: pros and cons of the different methods
  - Set a quit date: ideally, less than 2 weeks away
  - Recommend Tobacco Use Log
  - Discuss coping strategies (cognitive, behavioral)
  - Discuss withdrawal symptoms
  - Discuss concept of “slip” versus relapse
  - Provide medication counseling: compliance, proper use, with demonstration
  - Offer to assist throughout the quit attempt

- **Evaluate the Quit Attempt** (at follow-up)
  - Status of attempt
  - “Slips” and relapse
  - Medication compliance and plans for discontinuation

**STEP Five: ARRANGE** Follow-up Counseling

- **Monitor patients’ progress throughout the quit attempt. Follow-up contact should occur during the first week after quitting. A second follow-up contact is recommended in the first month. Additional contacts should be scheduled as needed. Counseling contacts can occur face-to-face, by telephone, or by e-mail. Keep patient progress notes.**

- **Address temptations and triggers; discuss strategies to prevent relapse.**

- **Congratulate patients for continued success.**
WITHDRAWAL SYMPTOMS INFORMATION SHEET

Quitting tobacco use brings about a variety of physical and psychological withdrawal symptoms. For some people, coping with withdrawal symptoms is like riding a roller coaster—there may be sharp turns, slow climbs, and unexpected plunges. **Most symptoms manifest within the first 1 to 2 days, peak within the first week, and subside within 2 to 4 weeks.** Report new symptoms to your health-care provider, especially if severe. Consider the impact of recent medication changes and your caffeine intake.

<table>
<thead>
<tr>
<th>SYMPTOM</th>
<th>CAUSE</th>
<th>DURATION</th>
<th>RELIEF</th>
</tr>
</thead>
</table>
| Chest tightness                | Tightness is likely due to tension created by the body’s need for nicotine or may be caused by sore muscles from coughing. | A few days          | • Use relaxation techniques  
• Try deep breathing  
• Use of NRT may help |
| Constipation, stomach pain, gas| Intestinal movement decreases for a brief period.                      | 1–2 weeks           | • Drink plenty of fluids  
• Add fruits, vegetables, and whole-grain cereals to diet               |
| Cough, dry throat, nasal drip  | The body is getting rid of mucus, which has blocked airways and restricted breathing. | A few days          | • Drink plenty of fluids  
• Avoid additional stress during first few weeks                          |
| Craving for a cigarette       | Nicotine is a strongly addictive drug, and withdrawal causes cravings. | Frequent for 2–3 days; can happen for months or years | • Wait out the urge, which lasts only a few minutes  
• Distract yourself  
• Exercise (take walks)  
• Use of a nicotine medication may help  
• Increase pleasurable activities  
• Talk with your clinician about changes in your mood when quitting  
• Get extra support from friends and family |
| Depressed mood                | It is normal to feel sad for a period of time after you first quit smoking. Many people have a strong urge to smoke when they feel depressed. | 1–2 weeks           | • Plan workload accordingly  
• Avoid additional stress during first few weeks                          |
| Difficulty concentrating      | The body needs time to adjust to not having constant stimulation from nicotine. | A few weeks         | • Use extra caution  
• Change positions slowly                                                  |
| Dizziness                     | The body is getting extra oxygen.                                      | 1–2 days            | • Take naps  
• Do not push yourself  
• Use of a nicotine medication may help  
• Drink water or low-calorie liquids  
• Be prepared with low-calorie snacks                                    |
| Fatigue                       | Nicotine is a stimulant.                                               | 2–4 weeks           | • Take walks  
• Try hot baths  
• Use relaxation techniques                                               |
| Hunger                        | Cravings for a cigarette can be confused with hunger pangs; sensation may result from oral cravings or the desire for something in the mouth. | Up to several weeks | • Limit caffeine intake (and none after 12 noon), because its effects will increase with quitting smoking  
• Use relaxation techniques                                                |
| Insomnia                      | Nicotine affects brain wave function and influences sleep patterns; coughing and dreams about smoking are common. | 1 week              | • Limit caffeine intake (and none after 12 noon), because its effects will increase with quitting smoking  
• Use relaxation techniques                                                |
| Irritability                  | The body’s craving for nicotine can produce irritability.              | 2–4 weeks           | • Take walks  
• Try hot baths  
• Use relaxation techniques                                               |

Adapted from materials from the National Cancer Institute.
Many interactions between tobacco smoke and medications have been identified. Note that in most cases it is the tobacco smoke—not the nicotine—that causes these drug interactions. Tobacco smoke interacts with medications through pharmacokinetic (PK) and pharmacodynamic (PD) mechanisms. PK interactions affect the absorption, distribution, metabolism, or elimination of other drugs, potentially causing an altered pharmacologic response. The majority of PK interactions with smoking are the result of induction of hepatic cytochrome P450 enzymes (primarily CYP1A2). PD interactions alter the expected response or actions of other drugs. The potentially causing an altered pharmacologic response. The majority of PK interactions with smoking are the result of induction of pharmacodynamic (PD) mechanisms. PK interactions affect the absorption, distribution, metabolism, or elimination of other drugs, and are depicted in the shaded rows.

### Drug Interactions with Tobacco Smoke

<table>
<thead>
<tr>
<th>Drug/Class</th>
<th>Mechanism of Interaction and Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pharmacokinetic Interactions</strong></td>
<td></td>
</tr>
<tr>
<td>Alprazolam (Xanax)</td>
<td>Conflicting data on significance, but possible ↓ plasma concentrations (up to 50%); ↓ half-life (35%).</td>
</tr>
<tr>
<td>Bendamustine (Treanda)</td>
<td>Metabolized by CYP1A2. Manufacturer recommends using with caution in smokers due to likely ↓ bendamustine concentrations, with ↑ concentrations of its two active metabolites.</td>
</tr>
<tr>
<td>Caffeine</td>
<td>↑ Metabolism (induction of CYP1A2); ↑ clearance (56%). Caffeine levels likely ↑ after cessation.</td>
</tr>
<tr>
<td>Chlorpromazine (Thorazine)</td>
<td>↓ Area under the curve (AUC) (36%) and serum concentrations (24%). ↓ Sedation and hypotension possible in smokers; smokers may require ↑ dosages.</td>
</tr>
<tr>
<td>Clopidogrel (Plavix)</td>
<td>↑ Metabolism (induction of CYP1A2) of clopidogrel to its active metabolite. Clopidogrel’s effects are enhanced in smokers (≥ 10 cigarettes/day): significant ↑ platelet inhibition, ↓ platelet aggregation; while improved clinical outcomes have been shown, may also ↑ risk of bleeding.</td>
</tr>
<tr>
<td>Clozapine (Clozaril)</td>
<td>↑ Metabolism (induction of CYP1A2); ↓ plasma concentrations (18%). ↑ Levels upon cessation may occur; closely monitor drug levels and reduce dose as required to avoid toxicity.</td>
</tr>
<tr>
<td>Erlotinib (Tarceva)</td>
<td>↑ Clearance (24%); ↓ trough serum concentrations (2-fold).</td>
</tr>
<tr>
<td>Fluoxetine (Luvox)</td>
<td>↑ Metabolism (induction of CYP1A2); ↑ clearance (24%); ↓ AUC (31%); ↓ plasma concentrations (32%). ↓ Dosage modifications not routinely recommended but smokers may need ↑ dosages.</td>
</tr>
<tr>
<td>Haloperidol (Haldol)</td>
<td>↑ Clearance (44%); ↓ serum concentrations (70%).</td>
</tr>
<tr>
<td>Heparin</td>
<td>Mechanism unknown but ↑ clearance and ↓ half-life are observed. Smoking has prothrombotic effects. Smokers may need ↑ dosages due to PK and PD interactions.</td>
</tr>
<tr>
<td>Insulin, subcutaneous</td>
<td>Possible ↓ insulin absorption secondary to peripheral vasoconstriction; smoking may cause release of endogenous substances that cause insulin resistance. PK &amp; PD interactions likely not clinically significant; smokers may need ↑ dosages.</td>
</tr>
<tr>
<td>Irinotecan (Camptosar)</td>
<td>↑ Clearance (18%); ↓ serum concentrations of active metabolite, SN-38 (~40%; via induction of glucuronidation); ↓ systemic exposure resulting in lower hematologic toxicity and may reduce efficacy. ↑ Smokers may need ↑ dosages.</td>
</tr>
<tr>
<td>Mexiletine (Mexitil)</td>
<td>↑ Clearance (25%; via oxidation and glucuronidation); ↓ half-life (36%).</td>
</tr>
<tr>
<td>Olanzapine (Zyprexa)</td>
<td>↑ Metabolism (induction of CYP1A2); ↑ clearance (98%); ↓ serum concentrations (12%). ↓ Dosage modifications not routinely recommended but smokers may need ↑ dosages.</td>
</tr>
<tr>
<td>Propranolol (Inderal)</td>
<td>↑ Clearance (77%; via side-chain oxidation and glucuronidation).</td>
</tr>
<tr>
<td>Ropinirole (Requip)</td>
<td>↓ Cmax (30%) and AUC (38%) in study with patients with restless legs syndrome. Smokers may need ↑ dosages.</td>
</tr>
<tr>
<td>Tacrine (Cognex)</td>
<td>↑ Metabolism (induction of CYP1A2); ↓ half-life (50%); serum concentrations 3-fold lower. ↑ Smokers may need ↑ dosages.</td>
</tr>
<tr>
<td>Theophylline (Theo Dur, etc.)</td>
<td>↑ Metabolism (induction of CYP1A2); ↑ clearance (58–100%); ↓ half-life (63%). ↑ Levels should be monitored if smoking is initiated, discontinued, or changed. Maintenance doses are considerably higher in smokers. ↑ Clearance with second-hand smoke exposure.</td>
</tr>
<tr>
<td>Tricyclic antidepressants (e.g., imipramine, nortriptyline)</td>
<td>Possible interaction with tricyclic antidepressants in the direction of ↓ blood levels, but the clinical significance is not established.</td>
</tr>
<tr>
<td>Trazodone (Zanaflex)</td>
<td>↑ AUC (30-40%) and ↓ half-life (10%) observed in male smokers.</td>
</tr>
<tr>
<td>Warfarin</td>
<td>↑ Metabolism (induction of CYP1A2) of R-enantiomer; however, S-enantiomer is more potent and effect on INR is inconclusive. Consider monitoring INR upon smoking cessation.</td>
</tr>
<tr>
<td><strong>Pharmacodynamic Interactions</strong></td>
<td></td>
</tr>
<tr>
<td>Benzodiazepines (diazepam, clorazepate)</td>
<td>↓ Sedation and drowsiness, possibly caused by nicotine stimulation of central nervous system.</td>
</tr>
<tr>
<td>Beta-blockers</td>
<td>Less effective antihypertensive and heart rate control effects; possibly caused by nicotine-mediated sympathetic activation. Smokers may need ↑ dosages.</td>
</tr>
<tr>
<td>Corticosteroids, inhaled</td>
<td>↑ Risk of cardiovascular adverse effects (e.g., stroke, myocardial infarction, thromboembolism) in women who smoke and use oral contraceptives. Ortho Evra patch users shown to have 2-fold ↑ risk of venous thromboembolism compared to oral contraceptive users, likely due to ↑ estrogen exposure (60% higher levels).</td>
</tr>
<tr>
<td>Hormonal contraceptives</td>
<td>↑ Risk with age and with heavy smoking (≥15 cigarettes per day) and is quite marked in women ≥35 years old.</td>
</tr>
<tr>
<td>Opioids (propoxyphene, pentazocine)</td>
<td>↓ Analgesic effect; smoking may ↑ the metabolism of propoxyphene (15–20%) and pentazocine (40%). Mechanism unknown. Smokers may need ↑ opioid dosages for pain relief.</td>
</tr>
</tbody>
</table>

The Tobacco Use Log can help patients to identify activities or situations that trigger the desire to smoke or use other forms of tobacco. It is important for patients to understand these environmental cues so that they can develop coping strategies to overcome the temptation to use tobacco. Clinicians can use this information to suggest alternative behaviors to increase the likelihood of a successful quit attempt. The log is most appropriate for patients who are preparing for a quit attempt, but it can be used with any patient who wants to learn more about his or her smoking behavior.

**Instructions for use:**
The Tobacco Use Log is a piece of paper that is kept with the patient's tobacco. It can be folded and wrapped around the cigarette pack or can of snuff with a rubber band. Alternatively, patients may keep the log in their wallet or day planner. It is important that the log be readily available at the times when the patient uses the tobacco. Through careful documentation of tobacco use over a period of several days, patient-specific tobacco usage patterns become evident.

1. Instruct the patient to continue his or her regular tobacco use for a period of at least three days (including one non–work day). It is preferable to complete the Tobacco Use Log for seven consecutive days, because usage patterns might fluctuate as a function of the day of the week (e.g. weekends vs. work days). The patient should not attempt to reduce his or her tobacco use during this time. The intent is to document current tobacco use habits and patterns, so that the patient can understand the triggers and situations associated with his or her tobacco use.

2. The following information should be noted in the Tobacco Use Log each time tobacco is used:

   - **Time** of day (indicate AM or PM)
   - Description of the activity/situation at the time of tobacco use (e.g., were others present?)
   - **Need rating** of the patient's perceived importance of using tobacco, at that time, using the following scale:

<table>
<thead>
<tr>
<th>Not very important (would not have missed it)</th>
<th>Moderately important</th>
<th>Very important (would have missed it a great deal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

3. The patient should use a separate log sheet each day. *Note: Heavy tobacco users will require more than one log sheet per day.*

4. Just prior to the quit date, review the Tobacco Use Log with the patient to identify specific situations that trigger tobacco use. Additionally, develop specific cognitive and behavioral strategies to prevent relapse.

<table>
<thead>
<tr>
<th>Time</th>
<th>Describe the situation/activity at the time of this tobacco use.</th>
<th>Need Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td>1 2 3</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td>1 2 3</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td>1 2 3</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td>1 2 3</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td>1 2 3</td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td>1 2 3</td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td>1 2 3</td>
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<tr>
<td>8.</td>
<td></td>
<td>1 2 3</td>
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<tr>
<td>9.</td>
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<tr>
<td>10.</td>
<td></td>
<td>1 2 3</td>
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<tr>
<td>11.</td>
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<td>1 2 3</td>
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<tr>
<td>12.</td>
<td></td>
<td>1 2 3</td>
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<tr>
<td>13.</td>
<td></td>
<td>1 2 3</td>
</tr>
<tr>
<td>14.</td>
<td></td>
<td>1 2 3</td>
</tr>
<tr>
<td>15.</td>
<td></td>
<td>1 2 3</td>
</tr>
<tr>
<td>16.</td>
<td></td>
<td>1 2 3</td>
</tr>
<tr>
<td>17.</td>
<td></td>
<td>1 2 3</td>
</tr>
<tr>
<td>18.</td>
<td></td>
<td>1 2 3</td>
</tr>
<tr>
<td>19.</td>
<td></td>
<td>1 2 3</td>
</tr>
<tr>
<td>20.</td>
<td></td>
<td>1 2 3</td>
</tr>
</tbody>
</table>

*Need RATING: Rate the importance of your need to use tobacco for each instance of use—based on the following scale:

<table>
<thead>
<tr>
<th>Not very important (would not have missed it)</th>
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<th>Very important (would have missed it a great deal)</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
## COGNITIVE STRATEGIES

Focus on *retraining the way a patient thinks*. Often, patients mentally deliberate on the fact that they are thinking about a cigarette, and this leads to relapse. Patients must recognize that thinking about a cigarette doesn’t mean they need to have one.

### REVIEW COMMITMENT TO QUIT

*Each morning, say, “I am proud that I made it through another day without tobacco!”* Remind oneself that cravings and temptations are temporary and will pass. Announce, either silently or aloud, “I am a nonsmoker, and the temptation will pass.”

### Distractive Thinking

*Use deliberate, immediate refocusing of thinking toward other thoughts when cued by thoughts about tobacco use.*

### Positive Self-Talks, Pep Talks

*Say, “I can do this,” and remind oneself of previous difficult situations in which tobacco use was avoided.*

### Relaxation through Imagery

*Center mind toward positive, relaxing thoughts.*

### Mental Rehearsal, Visualization

*Prepare for situations that might arise by envisioning how best to handle them. For example, envision what would happen if offered a cigarette by a friend—mentally craft and rehearse a response, and perhaps even practice it by saying it aloud.*

## BEHAVIORAL STRATEGIES

Involve *specific actions to reduce risk for relapse*. These strategies should be considered prior to quitting, after determining patient-specific triggers and routines or situations associated with tobacco use. Below are strategies for several of the more common cues or causes for relapse.

### Stress

*Anticipate upcoming challenges at work, at school, or in personal life. Develop a substitute plan for tobacco use during times of stress (e.g., use deep breathing, take a break or leave the situation, call a supportive friend or family member, perform self-massage, use nicotine replacement therapy).*

### Alcohol

*Drinking alcohol can lead to relapse. Consider limiting or abstaining from alcohol during the early stages of quitting.*

### Other Tobacco Users

*Quitting is more difficult if the patient is around other tobacco users. This is especially difficult if another tobacco user is in the household.* During the early stages of quitting, limit prolonged contact with individuals who are using tobacco. Ask co-workers, friends, and housemates not to smoke or use tobacco in your presence.

### Oral Gratification Needs

*Have nontobacco oral substitutes (e.g., gum, sugarless candy, straws, toothpicks, lip balm, toothbrush, nicotine replacement therapy, bottled water) readily available.*

### Automatic Smoking Routines

*Anticipate routines associated with tobacco use and develop an alternative plan. Examples:*

- **Morning Coffee:** change morning routine, drink tea instead of coffee, take shower before drinking coffee, take a brisk walk shortly after awakening.
- **While Driving:** remove all tobacco from car, have car interior detailed, listen to a book on tape or talk radio, use oral substitute.
- **While on the Phone:** stand while talking, limit call duration, change phone location, keep hands occupied by doodling or sketching.
- **After Meals:** get up and immediately do dishes or take a brisk walk after eating, call supportive friend.

### Postcessation Weight Gain

*Do not attempt to modify multiple behaviors at one time. If weight gain is a barrier to quitting, engage in regular physical activity and adhere to a healthful diet (as opposed to strict dieting). Carefully plan and prepare meals, increase fruit and water intake to create a feeling of fullness, and chew sugarless gum or eat sugarless candies. Consider use of pharmacotherapy shown to delay weight gain (e.g., nicotine gum, nicotine lozenge, bupropion).*

### Cravings for Tobacco

*Cravings for tobacco are temporary and usually pass within 5–10 minutes. Handle cravings through distractive thinking, take a break, do something else, take deep breaths, perform self-massage.*
Understanding the reasons why you smoke, in addition to considering your smoking patterns and routines, are important to the design of a successful quitting plan. Consider the following before you quit:

**WHY DO I STILL SMOKE?**

My top 3 reasons for continuing to smoke are:

1. 
2. 
3. 

**WHY IS QUITTING IMPORTANT?**

My top 3 reasons for wanting to quit smoking are:

1. 
2. 
3. 

**WHAT WERE YOUR MAIN DIFFICULTIES WITH QUITTING IN THE PAST?**

My top 3 difficulties with quitting in the past were:

1. 
2. 
3. 

**WHAT ARE YOUR BARRIERS TO QUITTING NOW?**

My top 3 barriers to quitting now are:

1. 
2. 
3. 

**WHAT IS THE WORST THING THAT COULD HAPPEN TO YOU IF YOU QUIT SMOKING FOR GOOD?**

**ARE YOU READY TO QUIT NOW? (WITHIN THE NEXT MONTH)**

If YES, what will be your official quit date? _____ / _____ / _____ (ENTER DATE)

If NO, how will it benefit you to quit later?
Smokers don’t plan to fail. Most fail to plan. To plan for quitting you should: (1) identify triggers for smoking and how to cope with them, (2) identify persons to help you throughout your quit attempt, and (3) choose the best methods—for you—for quitting.

### WHAT ARE YOUR THREE MAIN TRIGGERS OR SITUATIONS FOR SMOKING?

To deal with situations when you feel the urge to smoke, you should (1) identify the trigger situation, (2) change what you do or how you do it, and (3) change the thoughts that trigger the desire to smoke.

<table>
<thead>
<tr>
<th>Trigger #1:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I will change <em>what I do</em> in this situation by:</td>
</tr>
<tr>
<td></td>
<td>I will change <em>how I think</em> in this situation by:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trigger #2:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I will change <em>what I do</em> in this situation by:</td>
</tr>
<tr>
<td></td>
<td>I will change <em>how I think</em> in this situation by:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trigger #3:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I will change <em>what I do</em> in this situation by:</td>
</tr>
<tr>
<td></td>
<td>I will change <em>how I think</em> in this situation by:</td>
</tr>
</tbody>
</table>

### WHO WILL HELP YOU WITH QUITTING?

My top 3 persons who will have a positive influence on my ability to quit for good:

1. (1)
2. (2)
3. (3)

### WHAT FORM OF COUNSELING ASSISTANCE WILL YOU RECEIVE WHILE QUITTING?

### WHAT MEDICATION(S) WILL YOU USE FOR QUITTING, AND HOW WILL YOU USE THEM?
<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>NICOTINE REPLACEMENT THERAPY (NRT) FORMULATIONS</th>
<th>PRECAUTIONS</th>
<th>DOSING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GUM</td>
<td>LOZENGE</td>
<td>TRANSDERMAL PATCH</td>
</tr>
<tr>
<td>Nicorette¹, Generic OTC</td>
<td>Nicorette Lozenges,¹ Nicorette Mini Lozenges,¹ Generic OTC</td>
<td>Nicoderm CQ², Generic OTC (Nicoderm CQ generic) Rx</td>
<td>Nicotrol NS² Rx</td>
</tr>
<tr>
<td>Nicorette Mini Lozenges,¹ Generic OTC</td>
<td>2 mg, 4 mg cherry, mint</td>
<td>7 mg, 14 mg, 21 mg (24-hour release)</td>
<td>1 mg tablet</td>
</tr>
<tr>
<td>NicoDerm CQ</td>
<td>0.5 mg, 1 mg tablet</td>
<td>aqueous nicotine solution</td>
<td>Nicotine inhaler delivers 4 mg inhaled nicotine vapor</td>
</tr>
<tr>
<td>Zyban</td>
<td>Nicorette Mini Lozenges,¹ Generic OTC</td>
<td>Nicorette Lozenges,¹ Nicorette Mini Lozenges,¹ Generic OTC</td>
<td>Nicoderm CQ², Generic OTC (Nicoderm CQ generic) Rx</td>
</tr>
</tbody>
</table>

**Contraindications:**
- Seizure disorder
- Concomitant bupropion (e.g., Wellbutrin) therapy
- Current or prior diagnosis of bulimia or anorexia nervosa
- Simultaneous abrupt discontinuation of alcohol or sedative/hypnotics
- MAO inhibitor therapy in previous 14 days

**Warnings:**
- **BLACK-BOXED WARNING for neuropsychiatric symptoms⁴**
- Cardiovascular adverse events in patients with existing cardiovascular disease

**Precautions:**
- Recent (<2 weeks) myocardial infarction
- Serious underlying arrhythmias
- Serious or worsening angina pectoris
- Pregnancy³ and breastfeeding
- Adolescents (<18 years)

**Dosing:**
- >10 cigarettes/day: 1-2 doses/hour (8-10 doses/day) Individualized dosing; initially use 1 cartridge q 1-2 hours
- 1-2 doses/hour (8-10 doses/day) One dose = 2 sprays (one in each nostril); each spray delivers 0.5 mg of nicotine to the nasal mucosa
- Maximum = 6 doses/hour or 40 doses/day
- For best results, initially use at least 8 doses/day
- Do not sniff, swallow, or inhale through the nose as the spray is being administered
- Duration: 3-6 months
- 6-16 cartridges/day
- 150 mg po q AM 3 days, then 150 mg po bid
- Do not exceed 300 mg/day
- Begin therapy 1-2 weeks prior to quit date
- Allow at least 8 hours between doses
- Avoid bedtime dosing to minimize insomnia
- Dose tapering is not necessary
- Can be used safely with NRT
- Duration: 7-12 weeks, with maintenance up to 6 months in selected patients

**Nicorette**
- 2 mg, 4 mg original, cinnamon, fruit, mint, orange
- ≤2 weeks) myocardial infarction
- Recent (<2 weeks) myocardial infarction
- Serious underlying arrhythmias
- Severe hepatic cirrhosis
- Pregnancy³ (category C) and breastfeeding
- Adolescents (<18 years)

**Nicorette Mini Lozenges**
- 2 mg, 4 mg cherry, mint
- ≤2 weeks) myocardial infarction
- Recent (<2 weeks) myocardial infarction
- Serious underlying arrhythmias
- Severe renal impairment (dosage adjustment is necessary)
- Pregnancy³ (category C) and breastfeeding
- Adolescents (<18 years)

**Nicoderm CQ**
- 0.5 mg, 1 mg tablet
- ≤2 weeks) myocardial infarction
- Recent (<2 weeks) myocardial infarction
- Serious underlying arrhythmias
- Severe renal impairment (dosage adjustment is necessary)
- Pregnancy³ (category C) and breastfeeding
- Adolescents (<18 years)

**Zyban**
- Nicorette Lozenges,¹ Nicorette Mini Lozenges,¹ Generic OTC | Nicoderm CQ², Generic OTC (Nicoderm CQ generic) Rx
- 7 mg, 14 mg, 21 mg (24-hour release) | aqueous nicotine solution | Nicotrol Inhale² Rx | Nicotrol Inhaler² Rx | Zyban¹, Generic Rx 150 mg sustained-release tablet | Chantix² Rx 0.5 mg, 1 mg tablet |
- Nicorette Lozenges,¹ Nicorette Mini Lozenges,¹ Generic OTC | Nicoderm CQ², Generic OTC (Nicoderm CQ generic) Rx (generic) | Nicotrol NS² Rx | Nicotrol Inhale² Rx | Nicotrol Inhaler² Rx | Zyban¹, Generic Rx 150 mg sustained-release tablet | Chantix² Rx 0.5 mg, 1 mg tablet
- Nicorette Lozenges,¹ Nicorette Mini Lozenges,¹ Generic OTC | Nicoderm CQ², Generic OTC (Nicoderm CQ generic) Rx | Nicotrol NS² Rx | Nicotrol Inhaler² Rx | Nicotrol Inhaler² Rx | Zyban¹, Generic Rx 150 mg sustained-release tablet | Chantix² Rx 0.5 mg, 1 mg tablet
- Nicorette Lozenges,¹ Nicorette Mini Lozenges,¹ Generic OTC | Nicoderm CQ², Generic OTC (Nicoderm CQ generic) Rx (generic) | Nicotrol NS² Rx | Nicotrol Inhaler² Rx | Nicotrol Inhaler² Rx | Zyban¹, Generic Rx 150 mg sustained-release tablet | Chantix² Rx 0.5 mg, 1 mg tablet
- Nicorette Lozenges,¹ Nicorette Mini Lozenges,¹ Generic OTC | Nicoderm CQ², Generic OTC (Nicoderm CQ generic) Rx | Nicotrol NS² Rx | Nicotrol Inhaler² Rx | Nicotrol Inhaler² Rx | Zyban¹,Generic Rx 150 mg sustained-release tablet | Chantix² Rx 0.5 mg, 1 mg tablet
- Nicorette Lozenges,¹ Nicorette Mini Lozenges,¹ Generic OTC | Nicoderm CQ², Generic OTC (Nicoderm CQ generic) Rx (generic) | Nicotrol NS² Rx | Nicotrol Inhaler² Rx | Nicotrol Inhaler² Rx | Zyban¹, Generic Rx 150 mg sustained-release tablet | Chantix² Rx 0.5 mg, 1 mg tablet
- Nicorette Lozenges,¹ Nicorette Mini Lozenges,¹ Generic OTC | Nicoderm CQ², Generic OTC (Nicoderm CQ generic) Rx | Nicotrol NS² Rx | Nicotrol Inhaler² Rx | Nicotrol Inhaler² Rx | Zyban¹, Generic Rx 150 mg sustained-release tablet | Chantix² Rx 0.5 mg, 1 mg tablet
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<table>
<thead>
<tr>
<th>Nicotine Replacement Therapy (NRT) Formulations</th>
<th>Bupropion SR</th>
<th>Varenicline</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ADVERSE EFFECTS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mouth/jaw soreness</td>
<td>Insomnia</td>
<td>Nausea</td>
</tr>
<tr>
<td>Hiccups</td>
<td>Dry mouth</td>
<td>Sleep disturbances (insomnia, abnormal/vivid dreams)</td>
</tr>
<tr>
<td>Dyspepsia</td>
<td>Nervousness/difficulty concentrating</td>
<td>Constipation</td>
</tr>
<tr>
<td>Hypersalivation</td>
<td>Rash</td>
<td>Flatulence</td>
</tr>
<tr>
<td>Effects associated with incorrect chewing technique:</td>
<td>Constipation</td>
<td>Vomiting</td>
</tr>
<tr>
<td>- Lightheadedness</td>
<td>Neuropsychiatric symptoms (rare; see Precautions)</td>
<td>Neuropsychiatric symptoms (rare; see Precautions)</td>
</tr>
<tr>
<td>- Nausea/vomiting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Throat and mouth irritation</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ADVANTAGES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Might satisfy oral cravings</td>
<td>Easy to use oral formulation might be associated with fewer compliance problems</td>
<td></td>
</tr>
<tr>
<td>Might delay weight gain</td>
<td>Easy to use oral formulation might be associated with fewer compliance problems</td>
<td></td>
</tr>
<tr>
<td>Patients can titrate therapy to manage withdrawal symptoms</td>
<td>Easy to use oral formulation might be associated with fewer compliance problems</td>
<td></td>
</tr>
<tr>
<td>Variety of flavors are available</td>
<td>Offers a new mechanism of action for patients who have failed other agents</td>
<td></td>
</tr>
<tr>
<td>Variety of flavors are available</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DISADVANTAGES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Need for frequent dosing can compromise compliance</td>
<td>Strain due to nicotine withdrawal</td>
<td>Nausea</td>
</tr>
<tr>
<td>Might be problematic for patients with significant dental work</td>
<td>Strain due to nicotine withdrawal</td>
<td>Sleep disturbances (insomnia, abnormal/vivid dreams)</td>
</tr>
<tr>
<td>Patients must use proper chewing technique to minimize adverse effects</td>
<td>Strain due to nicotine withdrawal</td>
<td>Constipation</td>
</tr>
<tr>
<td>Gum chewing may not be socially acceptable</td>
<td>Strain due to nicotine withdrawal</td>
<td>Flatulence</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 mg or 4 mg: $2.25–$4.41 (9 pieces)</td>
<td>$3.62–$7.46</td>
<td>$5.38–$6.20</td>
</tr>
<tr>
<td>2 mg or 4 mg: $2.61–$4.95 (9 pieces)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$1.87–$3.52 (1 patch)</td>
<td>$4.43</td>
<td>$3.62–$7.46</td>
</tr>
<tr>
<td>$4.43 (8 doses)</td>
<td>$7.68</td>
<td>$5.38–$6.20</td>
</tr>
<tr>
<td>$4.43 (6 cartridges)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Marketed by GlaxoSmithKline.</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Marketed by Pfizer.</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>The U.S. Clinical Practice Guideline states that pregnant smokers should be encouraged to quit without medication based on insufficient evidence of effectiveness and theoretical concerns with safety. Pregnant smokers should be offered behavioral counseling interventions that exceed minimal advice to quit.</em></td>
<td><em>Pregnant smokers should be offered behavioral counseling interventions that exceed minimal advice to quit.</em></td>
<td></td>
</tr>
<tr>
<td><em>In July 2009, the FDA mandated that the prescribing information for all bupropion- and varenicline-containing products include a black-boxed warning highlighting the risk of serious neuropsychiatric symptoms, including changes in behavior, hostility, agitation, depressed mood, suicidal thoughts and behavior, and attempted suicide. Clinicians should advise patients to stop taking varenicline or bupropion SR and contact a healthcare provider immediately if they experience agitation, depressed mood, and any changes in behavior that are not typical of nicotine withdrawal, or if they experience suicidal thoughts or behavior. If treatment is stopped due to neuropsychiatric symptoms, patients should be monitored until the symptoms resolve.</em></td>
<td><em>In July 2009, the FDA mandated that the prescribing information for all bupropion- and varenicline-containing products include a black-boxed warning highlighting the risk of serious neuropsychiatric symptoms, including changes in behavior, hostility, agitation, depressed mood, suicidal thoughts and behavior, and attempted suicide. Clinicians should advise patients to stop taking varenicline or bupropion SR and contact a healthcare provider immediately if they experience agitation, depressed mood, and any changes in behavior that are not typical of nicotine withdrawal, or if they experience suicidal thoughts or behavior. If treatment is stopped due to neuropsychiatric symptoms, patients should be monitored until the symptoms resolve.</em></td>
<td></td>
</tr>
<tr>
<td>Abbreviations: MAO, monoamine oxidase; NRT, nicotine replacement therapy; OTC, over-the-counter (non-prescription product); Rx, prescription product.</td>
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<td></td>
</tr>
</tbody>
</table>
For complete prescribing information, please refer to the manufacturers' package inserts.

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Many smokers who relapse do so because they fail to plan. Often, patients think that they can simply “make” themselves quit and do not avail themselves of the many proven behavior change programs provided by various sources. Furthermore, most smokers do not use a cessation medication or, if they do, they use it incorrectly. Generally speaking, patients significantly under-dose or stop pharmacologic therapy too soon.

You can help relapsed smokers regain abstinence by encouraging them to learn from their prior experiences rather than use those experiences as proof that they cannot quit. To underscore this perspective, inform patients that the best way to quit smoking is to combine a behavior change program with a cessation medication. The following 3-step protocol will help you provide this information in an efficient, effective manner for patients who are ready to try again:

**STEP 1: ASK**

- **“TELL ME ABOUT YOUR LAST QUIT ATTEMPT(S).”**
- **“DID YOU USE A SMOKING CESSATION MEDICATION?”**
  - If yes: “EXPLAIN HOW YOU USED YOUR MEDICATION.”
    - Reinforce proper usage/rectify incorrect usage or dosage
  - If no: “WHAT WAS YOUR REASONING FOR NOT USING A MEDICATION?”
- **“DID YOU RECEIVE ANY PROFESSIONAL ADVICE OR ENROLL IN A BEHAVIOR CHANGE PROGRAM?”**
  - If yes: “TELL ME WHAT YOU LIKED, OR DIDN’T LIKE ABOUT THE ASSISTANCE YOU RECEIVED.”
  - If no: “WHAT WAS YOUR REASONING FOR NOT SEEKING ADVICE OR ENROLLING IN A PROGRAM?”

**STEP 2: ADVISE**

- **“ACCORDING TO THE MOST CURRENT RESEARCH AND THE SURGEON GENERAL, THE BEST WAY TO QUIT IS TO COMBINE A SMOKING CESSATION MEDICATION WITH A BEHAVIORAL PROGRAM.”**
  
  **NOTE:** Examples of behavior change programs are listed on the reverse side, under the “Refer” section of the protocol.

- **“LET’S DISCUSS WHICH MEDICATION(S) WOULD BE BEST FOR YOU.”**
- **Review** current level of tobacco use, past usage of medications, personal preference, precautions/contraindications, etc. to determine best product for current quit attempt.

  **NOTE:** Refer to the Rx for Change *Pharmacologic Product Guide* for dosing instructions, etc. for FDA-approved smoking cessation medications.

- **Consider the following options:**
  - If prior medication was used correctly, was well tolerated, and appeared to have been effective, consider repeating the same medication regimen in conjunction with an enhanced behavioral program.
  - If prior medication was used incorrectly, carefully review usage instructions.
  - If prior medication was used correctly but did not control urges/withdrawal, or if patient prefers something new, review other medication options, including both single and combination therapy:

CONTINUED ON BACK
RELAPSED SMOKERS WHO ARE READY TO TRY AGAIN: WHAT TO DO?

A 3-STEP PROTOCOL FOR CLINICIANS (PAGE 2 OF 2)

Combination therapy currently is off-label for all cessation medications, but is supported by multiple clinical trials and the Clinical Practice Guideline for Treating Tobacco Use and Dependence (p. 118):

- Safe: Most smokers are highly tolerant to nicotine from years of smoking. Side effects are rare and easily mitigated by reducing or stopping use.
- Effective: Especially in those who failed with one medication. Also useful in patients who are heavily dependent (2 or more packs/day).

Suggested combinations:
- Nicotine patch + ad libitum gum, lozenge, inhaler, or nasal spray as needed for breakthrough urges.
- Sustained-release bupropion (Zyban) + nicotine patch

Currently, varenicline (Chantix) is not recommended for combination therapy

STEP 3: REFER

The amount of counseling that patients receive is linearly related to their success in quitting. More counseling contacts yield higher quit rates. If you do not have the time or expertise to assist patients with quitting and to provide follow-up counseling, refer patients to other resources:

- To a behavior change program:
  “HERE ARE SOME SUGGESTIONS. WHICH DO YOU THINK WOULD WORK BEST FOR YOU?”
  - 1 800 QUIT NOW, the national toll-free telephone quit line
  - All products are accompanied by a free behavior change program: Refer to usage instructions for enrollment procedures
  - Hospital-based or other local resources (e.g., a group program)
  - www.quitnet.com, an on-line tobacco cessation support program
  - smokefree.gov, an on-line guide for quitting
  - American Lung Association, American Cancer Society, or American Heart Association web-sites or cessation programs (e.g., American Lung Association’s Freedom From Smoking group cessation program)
  - Local pharmacist, physician, or other health-care provider specializing in cessation

- To a community pharmacist:
  “WHEN YOU PURCHASE YOUR SMOKING CESSATION MEDICATION, PLEASE TAKE A FEW MINUTES TO DISCUSS PROPER USAGE WITH THE PHARMACIST, EVEN IF IT IS A PRODUCT YOU HAVE USED IN THE PAST. PROPER USAGE WILL GIVE YOU THE BEST CHANCE OF SUCCESS.”

- To other staff:
  - If you have dedicated cessation staff within your clinic or health-care organization, refer patient to these resources for follow-up counseling.


For complete prescribing information, please refer to the manufacturers’ package inserts.
## ESTIMATED EFFICACY OF METHODS FOR TREATING TOBACCO USE AND DEPENDENCE

<table>
<thead>
<tr>
<th>TREATMENT METHOD</th>
<th>Estimated Odds Ratio&lt;sup&gt;a&lt;/sup&gt; (95% CI)</th>
<th>Estimated Abstinence Rate&lt;sup&gt;b&lt;/sup&gt; (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Behavioral interventions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advice to quit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No advice to quit</td>
<td>1.0</td>
<td>7.9</td>
</tr>
<tr>
<td>Physician advice to quit</td>
<td>1.3 (1.1–1.6)</td>
<td>10.2 (8.5–12.0)</td>
</tr>
<tr>
<td>Clinic intervention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No counseling by a clinician</td>
<td>1.0</td>
<td>10.2</td>
</tr>
<tr>
<td>Counseling by a non–physician</td>
<td>1.7 (1.3–2.1)</td>
<td>15.8 (12.8–18.8)</td>
</tr>
<tr>
<td>Counseling by a physician</td>
<td>2.2 (1.5–3.2)</td>
<td>19.9 (13.7–26.2)</td>
</tr>
<tr>
<td>Format of smoking cessation counseling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No format</td>
<td>1.0</td>
<td>10.8</td>
</tr>
<tr>
<td>Self-help</td>
<td>1.2 (1.0–1.3)</td>
<td>12.3 (10.9–13.6)</td>
</tr>
<tr>
<td>Proactive telephone counseling&lt;sup&gt;c&lt;/sup&gt;</td>
<td>1.2 (1.1–1.4)</td>
<td>13.1 (11.4–14.8)</td>
</tr>
<tr>
<td>Group counseling</td>
<td>1.3 (1.1–1.6)</td>
<td>13.9 (11.6–16.1)</td>
</tr>
<tr>
<td>Individual counseling</td>
<td>1.7 (1.4–2.0)</td>
<td>16.8 (14.7–19.1)</td>
</tr>
<tr>
<td><strong>Pharmacotherapy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Placebo</td>
<td>1.0</td>
<td>13.8</td>
</tr>
<tr>
<td>First-line agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bupropion SR</td>
<td>2.0 (1.8–2.2)</td>
<td>24.2 (22.2–26.4)</td>
</tr>
<tr>
<td>Nicotine gum (6–14 weeks)</td>
<td>1.5 (1.2–1.7)</td>
<td>19.0 (16.5–21.9)</td>
</tr>
<tr>
<td>Nicotine inhaler</td>
<td>2.1 (1.5–2.9)</td>
<td>24.8 (19.1–31.6)</td>
</tr>
<tr>
<td>Nicotine lozenge (2 mg)</td>
<td>2.0 (1.4–2.8)</td>
<td>24.2&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td>Nicotine patch (6–14 weeks)</td>
<td>1.9 (1.7–2.2)</td>
<td>23.4 (21.3–25.8)</td>
</tr>
<tr>
<td>Nicotine nasal spray</td>
<td>2.3 (1.7–3.0)</td>
<td>26.7 (21.5–32.7)</td>
</tr>
<tr>
<td>Varenicline (2 mg/day)</td>
<td>3.1 (2.5–3.8)</td>
<td>33.2 (28.9–37.8)</td>
</tr>
<tr>
<td>Second-line agents&lt;sup&gt;e&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clonidine</td>
<td>2.1 (1.2–3.7)</td>
<td>25.0 (15.7–37.3)</td>
</tr>
<tr>
<td>Nortriptyline</td>
<td>1.8 (1.3–2.6)</td>
<td>22.5 (16.8–29.4)</td>
</tr>
<tr>
<td>Combination therapy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patch (&gt;14 weeks) + ad lib nicotine (gum or nasal spray)</td>
<td>3.6 (2.5–5.2)</td>
<td>36.5 (28.6–45.3)</td>
</tr>
<tr>
<td>Nicotine patch + bupropion SR</td>
<td>2.5 (1.9–3.4)</td>
<td>28.9 (23.5–35.1)</td>
</tr>
<tr>
<td>Nicotine patch + nortriptyline</td>
<td>2.3 (1.3–4.2)</td>
<td>27.3 (17.2–40.4)</td>
</tr>
<tr>
<td>Nicotine patch + nicotine inhaler</td>
<td>2.2 (1.2–3.6)</td>
<td>25.8 (17.4–36.5)</td>
</tr>
</tbody>
</table>

<sup>a</sup> Estimated relative to referent group

<sup>b</sup> Abstinence percentages for specified treatment method

<sup>c</sup> A quitline that responds to incoming calls and makes outbound followup calls. Following an initial request by the smoker or via a fax-to-quit program, the clinician initiates telephone contact to counsel the patient.

<sup>d</sup> One qualifying randomized trial; 95% CI not reported in 2008 Clinical Practice Guideline

<sup>e</sup> Not approved by the U.S. Food and Drug Administration as a smoking cessation aid; recommended by the USPHS Guideline as a second-line agent for treating tobacco use and dependence.

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Recommendation Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tobacco dependence is a chronic disease that often requires repeated intervention and multiple attempts to quit. Effective treatments exist, however, that can significantly increase rates of long-term abstinence.</td>
</tr>
<tr>
<td>2</td>
<td>It is essential that clinicians and health care delivery systems consistently identify and document tobacco use status and treat every tobacco user seen in a health care setting.</td>
</tr>
<tr>
<td>3</td>
<td>Tobacco dependence treatments are effective across a broad range of populations. Clinicians should encourage every patient willing to make a quit attempt to use the counseling treatments and medications recommended in this Guideline.</td>
</tr>
<tr>
<td>4</td>
<td>Brief tobacco dependence treatment is effective. Clinicians should offer every patient who uses tobacco at least the brief treatments shown to be effective in this Guideline.</td>
</tr>
<tr>
<td>5</td>
<td>Individual, group, and telephone counseling are effective, and their effectiveness increases with treatment intensity. Two components of counseling are especially effective, and clinicians should use these when counseling patients making a quit attempt: (a) practical counseling (problem solving/skills training) and (b) social support delivered as part of treatment.</td>
</tr>
<tr>
<td>6</td>
<td>Numerous effective medications are available for tobacco dependence, and clinicians should encourage their use by all patients attempting to quit smoking—except where medically contraindicated or with specific populations for which there is insufficient evidence of effectiveness (i.e., pregnant women, smokeless tobacco users, light smokers, and adolescents). Seven first-line medications (5 nicotine and 2 non-nicotine) reliably increase long-term smoking abstinence rates: bupropion SR, nicotine gum, nicotine inhaler, nicotine lozenge, nicotine nasal spray, nicotine patch, and varenicline. Clinicians also should consider the use of certain combinations of medications identified as effective in this Guideline.</td>
</tr>
<tr>
<td>7</td>
<td>Counseling and medication are effective when used by themselves for treating tobacco dependence. The combination of counseling and medication, however, is more effective than either alone. Thus, clinicians should encourage all individuals making a quit attempt to use both counseling and medication.</td>
</tr>
<tr>
<td>8</td>
<td>Telephone quitline counseling is effective with diverse populations and has broad reach. Therefore, both clinicians and health care delivery systems should ensure patient access to quitlines and promote quitline use.</td>
</tr>
<tr>
<td>9</td>
<td>If a tobacco user currently is unwilling to make a quit attempt, clinicians should use the motivational treatments shown in this Guideline to be effective in increasing future quit attempts.</td>
</tr>
<tr>
<td>10</td>
<td>Tobacco dependence treatments are both clinically effective and highly cost-effective relative to interventions for other clinical disorders. Providing coverage for these treatments increases quit rates. Insurers and purchasers should ensure that all insurance plans include the counseling and medication identified as effective in this Guideline as covered benefits.</td>
</tr>
</tbody>
</table>