Tobacco Cessation – Pediatric/Adult – Inpatient/Ambulatory Clinical Practice Guideline

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Release Date: August 2014

Next Review Date: August 2016

Executive Summary

Guideline Overview
This guideline is based primarily on the 2008 Department of Health and Human Services guidelines for Treating Tobacco Use and Dependence\(^1\), with support provided by the 2009 and 2013 U.S. Preventive Services Task Force recommendations\(^2,3\) and the American Academy of Pediatrics Policy Statement\(^4\) (reaffirmed in 2014). Inpatient recommendations are derived from the 2008 Department of Health and Human Services guidelines as well as the 2012 Wisconsin Hospital Association(WHA)/University of Wisconsin Center for Tobacco Research & Intervention (UW-CTRI) guideline.\(^5\)

**Key Practice Recommendations**
1. Ask every patient on admission or during each clinic visit if he or she uses tobacco and document tobacco use status in the patient’s medical record.
2. Advise every patient who uses tobacco to stop.
3. Assess the patient’s willingness to make a quit attempt.
4. Assist patients with quitting by providing evidence-based counseling and medication and develop a tobacco abstinence plan.
5. Assist patients with managing withdrawal symptoms, especially during hospitalization by providing counseling and medication.
6. Arrange for follow-up to assess smoking status and provide supportive contact.

**Companion Documents**
1. Tobacco Cessation Algorithm
2. Tobacco Dependence Treatment Inpatient Flowchart

**External Resources**
1. UW Center for Tobacco Research and Intervention (UW-CTRI)
2. Wisconsin Tobacco Quit Line
   a. 1-800-QUIT NOW (763-8669) (English) or 1-877-266-3863 (Spanish)
   b. 1-800-483-3114 (Fax to Quit)
3. UW Center for Tobacco Research and Intervention (UW-CTRI) Inpatient Guideline
4. First Breath Training Program (for pregnant women)
5. UW Center for Tobacco Research and Intervention (UW-CTRI) Billing Codes

**Patient Resources:**
1. UW-Center for Tobacco Research and Intervention (UW-CTRI) Fact Sheets
   a. Plan to Quit
   b. Quit Chewing Tobacco Fact Sheet
   c. Electronic Cigarettes (E-cigs) Fact Sheet
2. UW-Center for Tobacco Research and Intervention (UW-CTRI) Smoker Website
3. First Breath Training Program Website (for pregnant women)

**Scope**

**Disease/Condition(s):**
Tobacco Use, Smoking

Clinical Specialty:
Inpatient Units, Primary Care, Specialty Clinics

Intended Users:
Physicians, Primary Care Physicians, Physician Assistants, Hospitalists, Nurse Practitioners, Advanced Practice Nurses, Registered Nurses, Medical Assistants, Pharmacists

CPG objective(s):
To assist clinicians by providing a framework for the evaluation and treatment of adolescent and adult tobacco users.

Target Population:
Children, adolescent (11-17 years) and adult patients who use or are exposed to tobacco/nicotine products.

Interventions and Practices Considered:
1. Screen for tobacco use
2. Advise to quit and assess willingness to quit
3. Assist in quit attempt via counseling, motivational intervention, or pharmacotherapy
4. Arrange follow-up to prevent relapse

Methodology

Methods Used to Collect/Select the Evidence: The steps used to develop this report include: (1) completing a comprehensive search of the literature; (2) conducting an in-depth review of relevant abstracts and articles; (3) preparing evidence tables to assess the weight of current evidence with respect to past recommendations and new and unresolved issues; (4) conducting thoughtful discussion and interpretation of findings; (5) ranking strength of evidence underlying the current recommendations that are made; (6) updating text, tables, figures, and references of the existing guidelines with new findings from the evidence review.

Methods Used to Assess the Quality and Strength of the Evidence:
Comprehensive review of over 8,700 articles in the peer-reviewed literature from 1975 to 2008 conducted by the U.S. Public Health Service (PHS) Clinical Practice Guideline Panel. Published, peer-reviewed, randomized controlled trials were read and rated independently by at least three reviewers. Evidence collected since the 2008 PHS review (2008-2014) was evaluated by the guideline workgroup.

Rating Scheme for the Strength of the Evidence and Recommendations:
Each recommendation and its strength of evidence reflects consensus of the PHS Guideline Panel and/or of the UW Health workgroup members. The following rating scheme developed within the PHS Guideline was applied to this guideline:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Multiple well-designed randomized clinical trials, directly relevant to the recommendation, yielded a consistent pattern of findings.</td>
</tr>
<tr>
<td>B</td>
<td>Some evidence from randomized clinical trials supported the recommendation, but the scientific support was not optimal.</td>
</tr>
<tr>
<td>C</td>
<td>Reserved for important clinical situations in which the Panel achieved consensus on the recommendation in the absence of relevant randomized clinical trials.</td>
</tr>
</tbody>
</table>

**Methods Used to Formulate the Recommendations:**
Review of current literature and consensus agreement among workgroup members.

**Introduction**
Forty-two million American adults and about three million middle and high school student smoke. On average, compared to people who have never smoked, smokers suffer more health problems and disability due to their smoking. Smoking causes 87% of lung cancer deaths, 32% of coronary heart disease deaths, and 79% of all cases of chronic obstructive pulmonary disease (COPD). It is estimated that the economic cost attributed to smoking and exposure to tobacco smoke is $300 billion annually, with direct medical costs of at least $130 billion and productivity losses of more than $150 billion per year.6

**Recommendations**
See Tobacco Cessation Algorithms in [Appendix A](#) and [Appendix B](#).

1. **Ask About Tobacco Use**
Assessment of tobacco use is the first critical step in decreasing tobacco use. Assessment success is enhanced if:
   - Screening guidelines are used at each clinic site.
   - A system such as an electronic medical record prompt of vital sign stamp is used to indicate status.
   - The person taking the other vital signs performs the assessment.

Every patient should be assessed for tobacco use and/or secondhand smoke exposure at every clinical visit, whether inpatient or outpatient, when vital signs are obtained or during every inpatient hospitalization.1,4,5,7 (Grade A)

Refer to Table 1 below for screening questions based upon patient age or patient scenario. As parental smoking and tobacco use are two of the strongest risk factor for smoking initiation in children, assess smoking status of the parent or guardian during pediatric visits.3,8 (Grade B)
Non-use should be reinforced by providers and other health care professionals, especially among former tobacco users.¹ (Grade C)

Table 1. Suggested Screening Question(s) Based Upon Patient Age/Scenario (Grade C)

<table>
<thead>
<tr>
<th>Single Screening Question (Adults 18 years or older)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often have you used tobacco within the last month?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Screening Questions (Adolescents 11-17 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>During the past 12 months, have you used tobacco or nicotine products (i.e. E-cigarettes)?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Screening Question (Pregnant Adults)¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which of the following statements best describes your cigarette smoking?</td>
</tr>
<tr>
<td>a) I smoke regularly now; about the same as before finding out I was pregnant.</td>
</tr>
<tr>
<td>b) I smoke regularly now, but I’ve cut down since I found out I was pregnant.</td>
</tr>
<tr>
<td>c) I smoke every once in a while.</td>
</tr>
<tr>
<td>d) I have quit smoking since finding out I was pregnant.</td>
</tr>
<tr>
<td>e) I wasn’t smoking around the time I found out I was pregnant, and I don’t currently smoke cigarettes.</td>
</tr>
</tbody>
</table>

2. Advise to Quit
In a clear, strong, and personalized manner, urge every tobacco user to quit.¹ (Grade A)
Evidence shows that physician advice to quit smoking increase abstinence rates. Advice should be:
- Clear—“It is important that you quit smoking (or using chewing tobacco) now, and I can help you.” “Cutting down while you are ill is not enough.” “Occasional or light smoking is still dangerous.”
- Strong—“As your clinician, I need you to know that quitting smoking is the most important thing you can do to protect your health now and in the future. The clinic staff and I will help you.”
- Personalized—Tie tobacco use to current symptoms and health concerns, and/or its social and economic costs, and/or the impact of tobacco use on children and others in the household. “Continuing to smoke makes your asthma worse, and quitting may dramatically improve your health.” “Quitting smoking may reduce the number of ear infections your child has.”

3. Assess Willingness to Quit
Assess every tobacco user’s willingness to make a quit attempt at the current time.¹ (Grade A)
4. Assist in Quit Attempt

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least minimal intervention, whether or not the patient is referred to an intensive intervention.¹,⁹ (Grade A)

**Patients Willing to Quit**

For the patient willing to make a quit attempt, offer medication and provide or refer for counseling or additional treatment to help the patient quit smoking.¹ (Grade A)

**Counseling**

Counseling provided by many different types of providers and other staff (physicians, nurses, dentists, psychologists, pharmacists, etc.) as well as in different formats (practical counseling/problem-solving treatment or support/encouragement) is effective in increasing tobacco cessation rates.¹,¹⁰ (Grade B)

Both individual and group counseling are effective and are more effective than no counseling. While the choice of format will depend on the provider and patient, a strong dose-response relationship exists between counseling intensity and cessation success.¹ (Grade A) Person-to-person treatment delivered for four or more sessions appears especially effective in increasing abstinence rates. Whenever feasible, physicians should strive to meet four or more times with patients who are attempting to quit tobacco use.¹ (Grade A)

<table>
<thead>
<tr>
<th>Problem-solving Treatment Component</th>
<th>Examples</th>
</tr>
</thead>
</table>
| **Recognition of danger situations** – Identification of events, internal states, or activities that are thought to increase the risk of smoking or relapse | • Being around other smokers  
• Being under time pressure  
• Getting into an argument  
• Experiencing urges or negative moods  
• Drinking alcohol |
| **Coping skills** – Identification and practice of coping or problem-solving skills. Typically, these skills are intended to cope with danger situations. | • Learning to anticipate and avoid danger situations  
• Learning cognitive strategies that will reduce negative moods  
• Accomplishing lifestyle changes that reduce stress, improve quality of life, or produce pleasure  
• Learning cognitive and behavioral activities that distract attention from smoking urges |
| **Basic information** – Provision of basic information about smoking and successful quitting. | • The nature/time course of withdrawal  
• The addictive nature of smoking  
• The fact that smoking (even a single puff) increases the likelihood of full relapse |
During the counseling sessions, it is important to assist the patient in developing a quit plan. Conversations surrounding quit plans should contain the following information:

- Set a quit date (ideally within 2-3 weeks)
- Tell others and ask for support (i.e., alert coworkers, family, friends)
- Anticipate and plan for challenges and temptations (including withdrawal symptoms).
- Remove all tobacco products from home, car, and work environments.
- Stress total abstinence and sticking with treatment even if there is a slip or lapse.

To provide more intensive counseling and support to patients, the following options are also available:

- Center for Tobacco Research and Intervention for individual or group tobacco cessation counseling.
- Quit Lines – 1-800-QUIT-NOW (800-784-8669); in Spanish 1-877-266-3863. Counselors are available 24/7.
- Fax to Quit – 1-800-483-3114 (attachment: sample consent form). This program links the services of the Wisconsin Tobacco Quit Line directly to the potential quitter with the help of health care providers.

With Fax to Quit, tobacco users no longer have to take the first step of calling the Quit Line. Instead, a quit coach proactively contacts the tobacco user to provide an intervention after receiving a faxed consent form. The Quit Line faxes a report back to the health care provider when the contact is made with the potential quitter. Please contact a Center for Tobacco Research and Intervention (CTRI) Regional Outreach Specialist (ROS) for more information.

**Pharmacotherapy**

The efficacy of tobacco-cessation counseling interventions is enhanced by the use of pharmacologic therapy. Pharmacologic support is recommended to all smokers who are motivated to make a quit attempt, in the absence of specific contraindications (i.e., pregnant women, smokeless tobacco users, light smokers and adolescents; light smokers are defined as anyone who smokes fewer than 10 cigarettes per day). Nicotine replacement therapy (NRT) may also be used in conjunction with physician encouragement and instruction to reduce daily smoking as much as possible in patients unwilling to quit. Additionally, pharmacotherapy may be used to minimize withdrawal symptoms in hospitalized patients who are unwilling to make a quit attempt.

Pharmacologic support will be most successful when one or more of the following criteria are met:

- The patient is motivated to quit within the month.
- The patient agrees to quit using tobacco products with the start if nicotine replacement therapy (or 1-2 weeks after the start of bupropion or Varenicline).
- The patient agrees to participate in a follow-up program.
- Previous quit attempts have failed because of withdrawal symptoms.
Information on the contraindications, adverse effects, and recommended doses for FDA-approved medications is listed in Table 2.

Precautions in patient using non-nicotine pharmacotherapy
The U.S. FDA added new Boxed Warnings for the two non-nicotine smoking cessation pharmacotherapies, bupropion (Zyban™ and generics) and varenicline (Chantix™), highlighting the risk of serious neuropsychiatric symptoms. The boxed warning for these pharmacotherapies directs clinicians to monitor patients for the emergence of such symptoms, and if they emerge, to continue monitoring until they resolve.

Pregnancy and lactation
Pregnant smokers should be encouraged to quit without medication. The nicotine patch has not been shown to be effective for treating tobacco dependence in pregnant smokers. (The nicotine patch is an FDA pregnancy Class D agent.) The nicotine patch has not been evaluated in breastfeeding patients, however nicotine and its metabolites are present in human milk and therefore use is discouraged.1,4

Cardiovascular diseases
Nicotine replacement therapy (NRT) is not an independent risk factor for acute myocardial events.1 NRT should be used with caution among particular cardiovascular patient groups: those in the immediate (within 2 weeks) post myocardial infarction period, those with serious arrhythmias, and those with unstable angina pectoris.

Skin reactions
Up to 50% of patients using the nicotine patch will have a mild and self-limiting local skin reaction that can worsen over the course of therapy. Hydrocortisone (5%) or triamcinolone (0.5%) and patch rotation may reduce local reactions. Less than 5% of patients require discontinuation of patch treatment.

Adolescents/Children
No medications are currently approved by the U.S. Food and Drug Administration for tobacco cessation in children and adolescents.3 Although nicotine replacement has been shown to be safe in adolescents, there is little evidence that these medications and bupropion SR are effective in promoting long-term smoking abstinence among adolescent smokers.15-20 As a result, they are not recommended as a component of pediatric tobacco use interventions.

The amounts of nicotine that are tolerated by adult smokers can produce symptoms of poisoning and be potentially fatal to children. Used and unused nicotine delivery systems should be kept out of the reach of children and pets.
Table 2. Pharmacotherapy Options for Tobacco Cessation\textsuperscript{1,21,22} (Grade A, unless otherwise indicated)

<table>
<thead>
<tr>
<th>Medication</th>
<th>Contraindications/Precautions</th>
<th>Adverse Effects</th>
<th>Dosage</th>
<th>Initiation &amp; Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bupropion SR 150</td>
<td>Not for use in patients: - Use monoamine oxidase (MAO) inhibitor - Use of bupropion in any other form - History of seizures or risk for seizures - History of eating disorders <a href="https://www.fda.gov/Drugs/InformationOnDrugs/ucm073492.htm">FDA Boxed Warning</a></td>
<td>- Insomnia</td>
<td>Days 1-3: 150 mg each morning</td>
<td>Start 1-2 weeks before quit date; use 2-6 months</td>
</tr>
<tr>
<td>(Generic, Zyban, Wellbutrin SR)</td>
<td></td>
<td>- Dry mouth</td>
<td>Days 4-end: 150 mg twice daily (at least 8 hours apart)</td>
<td></td>
</tr>
<tr>
<td>Nicotine Gum</td>
<td>- Caution with dentures - Can worsen dental problems - Do not eat or drink 15 minutes before or during use</td>
<td>- Mouth soreness</td>
<td>If smoking &gt; 30 min. after waking: 2 mg</td>
<td>1 piece every 1-2 hrs. (6-15 pieces/day) for the first 6 weeks, every 2-4 hours for the next 3 weeks, every 4-8 hours for the final 2 weeks; use for 3 months</td>
</tr>
<tr>
<td>(Generic, Nicorette)</td>
<td></td>
<td>- Stomach ache</td>
<td>If smoking &lt; 30 min. after waking: 4 mg (Grade B)</td>
<td></td>
</tr>
<tr>
<td>Nicotine Inhaler</td>
<td>- May irritate mouth/throat at first (improves with use) - Use with caution in patients with bronchospastic disease</td>
<td>- Local irritation of mouth &amp; throat</td>
<td>6-16 cartridges/day Inhale 80 times/cartridge May save partially-used cartridge for next day</td>
<td>Pre-quit: Up to 6 months before quit date Post-quit: Up to 6 months; taper at end</td>
</tr>
<tr>
<td>(Nicotrol inhaler)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nicotine Lozenge</td>
<td>- Do not eat or drink 15 minutes before or during use - One lozenge at a time - Limit 20 in 24 hrs.</td>
<td>- Hiccups</td>
<td>If smoke &gt; 30 min. after waking: 2 mg</td>
<td>Use 3-6 months</td>
</tr>
<tr>
<td>(Grade B)</td>
<td></td>
<td>- Cough</td>
<td>If smoking &lt; 30 min. after waking: 4 mg</td>
<td>Weeks 1-6: 1 every 1-2 hrs. Weeks 7-9: 1 every 2-4 hrs. Weeks 10-12: 1 every 4-8 hrs.</td>
</tr>
<tr>
<td>(Generic, Commit)</td>
<td></td>
<td>- Heartburn</td>
<td>Maximum dose is 20 lozenges/day</td>
<td></td>
</tr>
<tr>
<td>Medication</td>
<td>Contraindications/ Precautions</td>
<td>Adverse Effects</td>
<td>Dosage</td>
<td>Initiation &amp; Use</td>
</tr>
<tr>
<td>----------------------------------</td>
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</tr>
<tr>
<td><strong>Nicotine Nasal Spray</strong></td>
<td>- Do not use in patients with severe reactive airway disease</td>
<td>- Nasal irritation</td>
<td>0.5 mg/spray 1 “dose” = 1 spray per nostril</td>
<td>Use 3-6 months; taper at end</td>
</tr>
<tr>
<td>(Nicotrol NS)</td>
<td>- Avoid use in patients with chronic allergic rhinitis, nasal polyps, or sinusitis</td>
<td></td>
<td>1-2 doses/hour 8-40 doses/day</td>
<td>DO NOT inhale</td>
</tr>
<tr>
<td></td>
<td>- May irritate nose (improves with use)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- May cause dependence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nicotine Patch</strong></td>
<td>- Do not use in patients with severe eczema or psoriasis</td>
<td>- Local skin reaction</td>
<td>One patch per day</td>
<td>Pre-quit: Up to 6 months prior to quit</td>
</tr>
<tr>
<td>(Generic, Nicoderm CQ, Nicotrol)</td>
<td></td>
<td>- Insomnia</td>
<td>If &gt; 10 cigarettes/day: 21 mg for 4 weeks, 14 g for 2-4 weeks, 7 mg for 2-4 weeks</td>
<td>date</td>
</tr>
<tr>
<td></td>
<td>Use with cause in patients:</td>
<td></td>
<td></td>
<td>Post-quit: 12 weeks</td>
</tr>
<tr>
<td></td>
<td>- With significant renal impairment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- With serious psychiatric illness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>FDA Boxed Warning</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Varenicline</strong></td>
<td>Use with cause in patients:</td>
<td>- Nausea</td>
<td>Days 1-3: 0.5 mg every morning</td>
<td>Start 1 week before quite date and</td>
</tr>
<tr>
<td>(Chantix)</td>
<td>- With significant renal impairment</td>
<td>- Insomnia</td>
<td>Days 4-7: 0.5 mg twice daily</td>
<td>use 3-6 months OR Begin and then quit</td>
</tr>
<tr>
<td></td>
<td>- With serious psychiatric illness</td>
<td>- Abnormal, strange dreams</td>
<td>Days 8-end: 1 mg twice daily</td>
<td>between day 8 and 36.</td>
</tr>
<tr>
<td></td>
<td><strong>FDA Boxed Warning</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Combination Therapy:</strong></td>
<td>Only patch + bupropion is currently FDA-approved</td>
<td>See above.</td>
<td>See above.</td>
<td>See above.</td>
</tr>
<tr>
<td>Patch + short-acting nicotine</td>
<td>Follow instructions for individual medications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>products</td>
<td>See above.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Patients Not Willing to Quit
For patients unwilling to quit, provide motivational interventions designed to increase future quit attempts.¹ (Grade B) Motivational intervention may include counseling strategies such as motivational interviewing²³-²⁶ or discussions which identify or touch on content related to the “5 Rs” (relevance, risks, rewards, roadblocks, and repetition).²⁵,²⁷,²⁸ Motivational intervention does support an increase in quit attempts in individuals not already willing to quit.²⁵,²⁹,³⁰

Understanding what motivates patients to want to quit is critical to understanding why a patient succeeds or fails. Emphasize the importance of learning from prior quit attempts in achieving success. Reinforce the role of social supports such as spouse, children, and grandchildren. A patient unwilling to quit may respond to motivational interventions following the “5 Rs” (Table 3), especially when physician time or training does not permit motivational interviewing.¹,¹⁰ (Grade A)

Table 3. The "5 Rs" of Motivational Intervention

<table>
<thead>
<tr>
<th>Relevance</th>
<th>Encourage the patient to indicate why quitting is personally relevant, being as specific as possible. Motivational information has the greatest impact if it is relevant to a patient's disease status or risk, family or social situation (e.g., having children in the home), health concerns, age, gender, and other important patient characteristics (e.g., prior quitting experience, personal barriers to cessation).</th>
</tr>
</thead>
</table>
| Risk | Ask the patient to identify the potential negative consequences of tobacco use and highlight those that seem most relevant to the patient. Examples of consequences include:  
  - Acute risks: shortness of breath, exacerbation of asthma, impotence, infertility, increased risk of respiratory infections, harm to pregnancy  
  - Long-term risks: heart attacks, strokes, lung and other cancers, COPD (chronic bronchitis and emphysema), osteoporosis, long-term disability, the need for extended care.  
  - Environmental risks: increased risk of lung cancer and heart disease in spouse, increased risk for low birth-weight, sudden infant death syndrome (SIDS), middle ear diseases, and respiratory infections in children of smokers. |
| Reward | Ask the patient to identify the potential benefits of quitting tobacco use; highlight those that seem most relevant to the patient. Examples of rewards include:  
  - Food will taste better  
  - Save money  
  - Home, car, breath will smell better  
  - Have healthy babies and children  
  - Perform better in physical activities  
  - Improved sense of smell  
  - Feel better about yourself  
  - Improved health  
  - Feel better physically  
  - Setting a good example for children and decreasing the likelihood they will smoke |
Roadblocks

Ask the patient to identify barriers to quitting and note elements of treatment (problem solving, pharmacotherapy) that could address the barriers. Common barriers include:
- Withdrawal symptoms
- Fear of failure
- Weight gain
- Lack of support
- Depression
- Enjoyment of tobacco
- Being around tobacco users
- Limited knowledge of effective treatment options

Repetition

The motivational intervention should be repeated every time an unmotivated patient visits the clinic setting. Tobacco users who have failed in previous quit attempts should be told that most people make repeated quit attempts before they are successful.

Motivational interviewing is a specialized technique which requires intensive training, as well as ongoing practice. This counseling strategy is based upon four general principles: expressing empathy, identifying discrepancy, rolling with resistance, and supporting patient self-efficacy (Table 4).

**Table 4. Motivational interviewing principles**

<table>
<thead>
<tr>
<th>Express Empathy</th>
<th>Develop Discrepancy</th>
<th>Roll with Resistance</th>
</tr>
</thead>
</table>
| • Use open-ended questions to explore:  
  - The importance to addressing smoking or other tobacco use (e.g., “How important do you think it is for you to quit smoking?”).  
  - Concerns and benefits of quitting (e.g., “What might happen if you quit?”).  
  • Use reflective listening to seek shared understanding:  
    - Reflect words or meaning (e.g., “So you think smoking helps you to maintain weight.”).  
    - Summarize (e.g., “What I have heard so far is that smoking is something you enjoy. On the other hand, your boyfriend hates your smoking, and you are worried you might develop a serious disease.”).  
    • Normalize feelings and concerns (e.g., “Many people worry about managing without cigarettes.”).  
    • Support the patient’s autonomy and right to choose or reject change (e.g., “I hear you saying you are not ready to quit smoking right now. I’m here to help you when you are ready.”).  
| • Highlight the discrepancy between the patient’s present behavior and expressed priorities, values and goals (e.g., “It sounds like you are very devoted to your family. How do you think your smoking is affecting your children?”).  
  • Reinforce and support “change talk” and “commitment” language (e.g., “So, you realize how smoking is affecting your breathing and making it hard to keep up with your kids;” and “It’s great that you are going to quit when you get through this busy time at work.”).  
  • Build and deepen commitment to change (e.g., “There are effective treatments that will ease the pain of quitting, including counseling and many medication options;” and “We would like to help you avoid a stroke like the one your father had.”)  
| • Back off and use reflection when the patient expresses resistance (e.g., “Sounds like you are feeling pressured about your smoking.”).  
  • Express empathy (e.g., “You are worried about how you would manage withdrawal symptoms.”).  
  • Ask permission to provide information (e.g., “Would you like to hear about some strategies that can help you address that concern when you’re ready to quit?”).  

Support Self-Efficacy

- Help the patient to identify and build on past successes (e.g., "so you were fairly successful the last time you tried to quit?").
- Offer options for achievable small steps toward change:
  - Call the Quit Line (1-800 QUIT-NOW) for advice and information.
  - Read about quitting benefits and strategies.
  - Change smoking patterns (e.g., no smoking in the home).
  - Ask the patient to share his or her ideas about quitting strategies.

5. Arrange Follow-up (Prevent Relapse)

For the patient willing to make a quit attempt, arrange for follow-up contacts, beginning within the first week after the quit date or discharge. Follow-up contacts may include a scheduled cessation counseling session with the attending physician, a follow-up telephone call by designated hospital staff, referral to group, community, or health plan cessation counseling (i.e., UW-CTRI), or education and information regarding quit lines (1-800-QUIT NOW). Insufficient evidence exists to support the use of any specific behavioral intervention which would help recent quitters avoid relapse.

For patients unwilling to make a quit attempt at the time, address tobacco dependence and willingness to quit at the next clinic visit. (Grade B)

All quitters are at risk of relapse but several groups of patients are at higher risk of relapse and should have more intensive phone or office visit follow-up. Predictors of relapse include:

- High levels of nicotine dependence
- Psychiatric comorbidity
- Low levels of motivation to quit
- Post-partum

Every ex-tobacco user undergoing relapse prevention should receive congratulations, encouragement, and a request from the provider that they remain abstinent. (Grade C)

When encouraging a recent quitter, a provider may use open-ended questions to identify any success or barriers the patient is experiencing. These may include:

Successes:
- The benefits, including health benefits, which the patient may derive from cessation.
- Any success the patient has had in quitting (duration of abstinence, reduction on withdrawal).

Disadvantages or Barriers to Abstinence:
- Anticipated problems or threats to maintaining abstinence.
- Weight gain – the clinician might make dietary, exercise, or lifestyle recommendations, or might refer the patient to a specialist or program. The patient can be reassured that some weight gain after quitting is common, is usually temporary, and that significant dietary restrictions soon after quitting may be counterproductive.
• Negative mood or depression – if significant, the clinician might prescribe appropriate medications or refer the patient to a specialist.
• Prolonged withdrawal symptoms – if the patient reports prolonged craving or other withdrawal symptoms, the clinician might consider extending therapy.
• Lack of support for cessation – the clinician might schedule follow-up phone calls with the patient, help the patient identify sources of support within his/her environment, or refer the patient to an appropriate organization that offers cessation counseling or support.

6. Considerations for Specific Populations

Adolescents and Children
The U.S. Preventive Services Task Force (USPSTF) recommends that clinicians provide interventions, including education and brief counseling, to prevent initiation of tobacco use in school-aged children and adolescents.3,4 (Grade B) While screening for personal tobacco use should begin at age 11, anticipatory guidance and education may be appropriate at a much earlier age. The American Academy of Pediatrics (AAP) supports beginning anticipatory guidance at the age of 5 years.4 Children and adolescents should be warned about the harmful effects of tobacco and the ease with which experimentation progresses to addiction and regular use.4,7

Counseling has been shown to be effective in adolescents, therefore adolescents who smoke should be provided counseling interventions which aid them in quitting smoking.1,34 (Grade B) The literature varies on counseling method (i.e., intensity, content, format), however providers may use motivational interventions which are adapted for the adolescent population.35 The interventions should contain content related to enhancing motivation, establishing rapport, goal setting, promotion of problem-solving and skills training, as well as relapse prevention.1,25,36,37

Here are a number of brief messages or talking points which may be used when talking to teenage patients:
• Tobacco causes yellow teeth and fingers, bad breath, smelly clothes, and wrinkled skin.
• Cigarettes contain 4000 chemicals, 400 are toxic (arsenic & formaldehyde), and 40 cause cancer.
• Eating healthy foods and exercising is a better way to lose weight than smoking.
• Smoking a pack a day costs more than $200 per month – more than the cost of an X-Box game, a monthly cell phone bill, or a box set of DVDs. In a month you could buy a digital camera or MP3 player.
• Ask the teen: “Do you feel that cigarettes control your life in any way?”

Secondhand smoke exposure is harmful, and clinicians should ask parents or guardians about their tobacco use and offer cessation advice and assistance during the child’s pediatric visit.1,3,4,7,38 (Grade B)
**Other Tobacco and Nicotine Users**

Smokeless tobacco users (i.e., chewing tobacco, snuff) or users of nicotine products (i.e., e-cigarettes) should be identified, strongly urged to quit and provided counseling cessation interventions.\(^{39-44}\) (Grade A)

Users of cigars, pipes, and other non-cigarette forms of smoking tobacco should be also be identified, urged to quit and provided counseling interventions. (Grade C) Provider should be aware that cigar smokers are at an increased risk for coronary heart disease, COPD, periodontitis and oral, esophageal, lung, and other cancers.\(^{45-48}\)

The current evidence is insufficient to suggest that the use of pharmacotherapy increases long-term abstinence among users of smokeless tobacco.\(^{42,49,50}\)

**Hospitalized Tobacco Users**

Hospitalized patients may be particularly motivated to make a quit attempt due to their potentially heightened perception of the health risks of smoking based upon the admitting illness, or due to their temporary housing in a smoke-free environment. The 2009 Wisconsin Act 12 Smoking Ban\(^51\) prohibits smoking within inpatient health care facilities, and The Joint Commission requires every accredited hospital to be smoke-free.\(^1,5\)

During the admission intake, all patients should be asked about their tobacco use, advised to quit, and assessed regarding their willingness to make a quit attempt during the hospitalization (see above recommendations for additional details).\(^1,5\) (Grade A)

Patients who are willing to quit should undergo intensive behavioral intervention with supportive contact at least one month after discharge.\(^{25,52}\) (Grade A) Those patients unwilling to quit may have their withdrawal symptoms managed by nicotine-replacement therapy.\(^1,5,14\) (Grade A)

**Pregnant Women**

Due to the serious risks of smoking to the pregnant smoker and the developing fetus, pregnant smokers should be offered person-to-person psychosocial interventions that exceed minimal advice to quit.\(^1,53\) (Grade A) For more intensive support, advise patients to contact the Quit Line (1-800-QUIT NOW), use Quit Line’s Fax to Quit (1-800-483-3114), or First Breath. Pharmacotherapy is not recommended for use in pregnant women.

Although abstinence from smoking produces the greatest benefit, quitting at any point during pregnancy is beneficial. Therefore, providers should identify and provide interventions during the first prenatal visit as well as throughout the course of pregnancy.\(^1,4\) (Grade B)
Disclaimer
CPGs are described to assist clinicians by providing a framework for the evaluation and treatment of patients. This Clinical Practice Guideline outlines the preferred approach for most patients. It is not intended to replace a clinician’s judgment or to establish a protocol for all patients. It is understood that some patients will not fit the clinical condition contemplated by a guideline and that a guideline will rarely establish the only appropriate approach to a problem.

References


