Assessment of Tobacco Use or Secondhand Exposure and Interventions for Tobacco Cessation – Adult/Pediatric – Inpatient/Ambulatory Clinical Practice Guideline

The Assessment of Tobacco Use or Secondhand Exposure and Interventions for Tobacco Cessation - Adult/Pediatric - Inpatient/Ambulatory Clinical Practice Guideline was approved by the Quality Improvement Committee (QIC) on December 12, 2016.

This clinical guideline was developed by UW Health's Center for Clinical Knowledge Management (CCKM), a collaborative effort of expert clinicians and quality improvement staff representing area medical systems and payers. The goal is to help ensure that the clinical guidelines are current, evidence-based and meet the needs of our population.

Coverage of services mentioned in this guideline may differ depending on the individual's particular health plan. Please contact Senior Preferred Customer Service to confirm coverage by calling (800) 394-5566.
Contacts for Content:
Name: Michael Fiore, MD, MPH, MBA – Internal Medicine, UW-CTRI Director
Email Address: mcf@ctri.wisc.edu

Name: Robert Adsit, MEd – UW-CTRI Director of Education and Outreach
Phone Number: (608) 262-7557
Email Address: ra1@ctri.wisc.edu

Contact for Changes:
Name: Lindsey Spencer, MS- Center for Clinical Knowledge Management (CCKM)
Phone Number: (608) 890-6403
Email Address: lspencer2@uwhealth.org

Coordinating Team Members:
Amy Skora, BS, CHES – UW-CTRI Outreach Specialist for Southern Wisconsin
Richard L. Brown, MD, MPH – Family Medicine
Alex Young, MD – Family Medicine/Urgent Care
Richard Deming, MD- Family Medicine (Swedish American Health System)
Paula Cody, MD – Pediatrics (Adolescent Medicine)
Kristin Berg, MD, MS – Internal Medicine
Kraig Kumfer, MD- Medicine- Hospitalists
Paula Cynkar, MPAS, PA-C – Medicine- Hospitalists
Susan Mindock- Center for Treatment of Addictive Disorders
Lisa Ziegler- Nursing- Coordinated Care
Lori Williams, RN- Pediatric Universal Care Unit
Alana Winchel, RN- Pediatrics- General
Cheryl DeVault, RN- Family Medicine – General
Laura LaCoursiere, RN – Medicine- Internal Medicine/General
Melanie Erskine, CMA- Family Medicine- General
Ashlie St. John, CMA- Medicine- Internal Medicine/General
James Stein, MD – Medicine- Preventive Cardiology
Jon Matsumura, MD- Surgery- Vascular Surgery
Kyla Bennett, MD- Surgery- Vascular Surgery
Christie Bartels, MD- Medicine- Rheumatology
Josh Vanderloo, PharmD, BCPS – Drug Policy Program
Rachelle Greller – UW Health Employee Wellness Program
Elaine Rosenblatt, MSN, FNP-BC – Unity Health Insurance
Deb Dunham, RPh, MS, CPHIMS – Center for Clinical Knowledge Management (CCKM)

Review Individuals/Bodies:
Douglas Jorenby, PhD – Internal Medicine, UW-CTRI Clinical Services Director
Emmanuel Quarcoo, MSN, RN, ACNS-BC, CRRN- Family Medicine (D4/6)
Shelly VanDenBergh, MS, RN, GCNS-BC- D4/4
Brian Sharp, MD- Emergency Medicine
Jayne McGrath, RN- Emergency Medicine

Committee Approvals/Dates:
Clinical Knowledge Management (CKM) Council (Last Periodic Review: 10/27/16)
  • Interim revisions (05/03/2017)

Release Date: October 2016 | Next Review Date: October 2018
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, with support provided by the 2013 and 2015 U.S. Preventive Services Task Force recommendations and the American Academy of Pediatrics Policy Statement (reaffirmed in 2014).

Key Revisions (2017) Interim Revision
1. Revised information on varenicline/bupropion in response to FDA removal of Boxed Warning.

(2016 Periodic Review)
1. Revised scope to exclude patients who are pregnant and include emergency and urgent care.
2. Added recommendations to support use of abbreviated versions of 5A’s model.
3. Added recommendations for screening of parents/caregivers during pediatric care/visit.
4. Revised suggested screening questions and assessment of willingness to quit.
5. Added recommendations for preoperative smoking cessation.
6. Added recommendation to quit smoking abruptly versus gradually.
7. Further defined first- and second-line pharmacotherapy options.
8. Added recommendations to prevent relapse and support patients who recently quit.

Key Practice Recommendations
1. Every adolescent and adult patient should be assessed for tobacco use at every clinical encounter, preferably when vital signs are obtained or during inpatient admission. (UW Health High quality evidence, strong recommendation) Parental smoking and tobacco use are two of the strongest risk factors for smoking initiation in children. Therefore, it is important to assess parental or caregiver use of tobacco during pediatric visits, and address dependence as necessary. (UW Health Low quality evidence, strong recommendation)

2. Secondhand smoke exposure is harmful to all patients. Therefore, clinicians should ask about tobacco smoke exposure from parents, caregivers, spouses, or environmental conditions (e.g., multi-unit housing, public buildings where smoking is allowed). (UW Health Moderate quality evidence, strong recommendation)

3. Every tobacco user should be offered at least minimal intervention, whether or not the patient is referred to an intensive intervention. (HHS Strength of Evidence A) Once a tobacco user is identified and advised to quit, the clinician should assess the patient’s willingness to make a quit attempt at the current time. (HHS Strength of Evidence C)

4. The combination of counseling and medication is more effective for smoking cessation than medication, brief advice, or usual care alone. Therefore, whenever feasible and appropriate, both counseling and pharmacotherapy should be provided to patients trying to quit. (UW Health High quality evidence, strong recommendation)

5. Counseling and NRT are recommended 4-8 weeks prior to surgery, as these interventions have been shown to reduce surgical complication rates and increase long-term abstinence when compared to less intensive support. (UW Health Moderate quality evidence, weak/conditional recommendation)

6. Patients should be encouraged to quit smoking abruptly versus gradually. (UW Health Moderate quality evidence, strong recommendation)

7. The choice of medication should be dependent upon patient preferences and prior experiences identified via a discussion with the provider. (UW Health Moderate quality evidence, weak/conditional recommendation)

8. Clinicians should use motivational techniques and health education to encourage smokers not currently willing to quit to consider making a quit attempt in the future. (UW Health Moderate quality evidence, strong recommendation)
Companion Documents
1. Tobacco Cessation Algorithm

Scope
Disease/Condition(s): Tobacco use via smoking (e.g., cigarettes, cigars), smokeless delivery (e.g., chewing tobacco, snuff), or electronic nicotine delivery systems (electronic cigarettes)

Clinical Specialty: Primary Care, Specialty Care, Inpatient, Emergency Medicine, Urgent Care

Intended Users: Physicians, Advanced Practice Providers, Registered Nurses, Licensed Practice Nurses, Certified Medical Assistants, Case Managers, Social Workers, AODA Counselors, Psychologists, Pharmacists

Objective(s): To provide a framework for the evaluation of patients for tobacco use or secondhand smoke exposure, and to outline recommendations for treatment (or referral to treatment) in tobacco users.

Target Population: Pediatric, adolescent (age 11-17 years), and adult (age 18 years or older) patients who use or are exposed to tobacco/nicotine products. This guideline does not include recommendations for patients who are pregnant or postpartum.

Interventions and Practices Considered:
- Screening for tobacco use or secondhand smoke exposure
- Advise to quit and assessment of willingness to quit
- Assistance in quit attempt via counseling, motivational intervention, and/or pharmacotherapy
- Relapse prevention and follow-up

Major Outcomes Considered:
- Proportion of patients whose tobacco use status is identified and documented
- Proportion of tobacco users whose interest in quitting during the outpatient visit or hospitalization is documented (interested in quitting at this time [within the next 30 days]) versus not interested in quitting at this time)
- Proportion of tobacco users who are provided recommended counseling (5 As versus motivational counseling, based on interest in quitting at this time)
- Proportion of tobacco users who are provided medication to quit
- Tobacco use cessation (quit rates)
- Reduced secondhand exposure

Methodology
Methods Used to Collect/Select the Evidence:
Electronic database searches (e.g., PUBMED) were conducted by the guideline author(s) and workgroup members to collect evidence for review. Expert opinion and clinical experience were also considered during discussions of the evidence.

Methods Used to Formulate the Recommendations:
The workgroup members agreed to adopt recommendations developed by external organizations and/or arrived at a consensus through discussion of the literature and expert...
experience. All recommendations endorsed or developed by the guideline workgroup were reviewed and approved by other stakeholders or committees (as appropriate).

**Methods Used to Assess the Quality of the Evidence/Strength of the Recommendations:**
Recommendations developed by external organizations maintained the evidence grade assigned within the original source document and were adopted for use at UW Health.

Internally developed recommendations, or those adopted from external sources without an assigned evidence grade, were evaluated by the guideline workgroup using an algorithm adapted from the Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology (see Figure 1 in Appendix A).

**Rating Scheme for the Strength of the Evidence/Recommendations:**
See Appendix A for the rating scheme(s) used within this document.

**Recognition of Potential Health Care Disparities:**
Health disparities exist in tobacco use, morbidity, receipt of advice to quit, success of quit attempts, and rates of secondhand smoke exposure across certain populations. Lower education and income, co-morbid mental health and substance abuse diagnoses, poorer health status, and some racial/ethnic minorities (e.g., Native Americans) are also significantly associated with lower rates of advice to quit even after adjustment for number of cigarettes smoked, time from last provider visit, income, comorbidities, insurance coverage, gender, and age. Community and public policy changes (e.g., increasing price of tobacco products, smoke-free public buildings) have been shown to reduce these disparities, and targeted cessation programs could be implemented to support patients in vulnerable populations.

**Definitions**

*Light smoker:* any patient who smokes fewer than 10 cigarettes per day and includes patients who may not smoke daily. This does not include patients who smoke low tar/low-nicotine cigarettes.

**Introduction**

Forty-two million American adults and about three million middle and high school students smoke. In 2015, approximately 15% of all adults nationwide smoked with similar rates of smoking among adults in Wisconsin. 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.

**Recommendations**

Multiple care models exist to screen for tobacco use and provide pertinent interventions which encourage cessation, including those based on brief advice, the principles of motivational interviewing, or health education. The clinical situation or training of an individual clinician may encourage delivering components of each model in an order or format relevant to the individual clinical scenario.
The 5 A’s model is an endorsed model for tobacco screening and cessation.\(^1\) (UW Health High quality evidence, strong recommendation) The 5 A’s model (Ask - Advise – Assess – Assist - Arrange) is a brief intervention strategy endorsed by the U.S. Preventive Services Task Force, American Academy of Pediatrics, and is described primarily within the 2008 Department of Health and Human Services (HHS) Public Health Service Clinical Practice Guideline for Treating Tobacco Use and Dependence.\(^1,3,8\) This well established model may be particularly useful when staff is not adequately trained in motivational interviewing techniques, or in patients who express a low desire to quit.\(^15,21\) (UW Health Moderate quality evidence, strong recommendation)

Abbreviated versions of the 5 A’s model (e.g., Ask – Advise – Refer , Ask – Advise – Connect, or Ask – Advise – Act) have been developed as a result of concerns for efficiency and physician burden in clinical practice following implementation of the core model.\(^22,23\) In these abbreviated models, staff routinely assess the smoking status of all patients, deliver brief advice to users to quit smoking, and either: 1) distribute referral cards which includes the contact information to evidence-based cessation treatments such as a quit line (AAR) or 2) directly connect tobacco users interested in talking with a quit line via the electronic health record or fax (AAC).\(^22,23\) If an abbreviated model is implemented, it is recommended to “connect” rather than “refer” patients to evidence-based cessation treatments due to the greater number of patients enrolled in treatment when connected rather than referred.\(^9,22-24\) (UW Health Moderate quality evidence, strong recommendation)

**Screening for Tobacco Use and Secondhand Exposure**

Assessment of tobacco use is the first critical step in decreasing tobacco use. Tobacco use status should be assessed and documented in adolescent and adult patients at every clinical encounter (Table 1), preferably when vital signs are obtained or during inpatient admission.\(^1,4-6\) (UW Health High quality evidence, strong recommendation) Parental smoking and tobacco use are two of the strongest risk factors for smoking initiation in children.\(^2,7\) Therefore, it is important to assess parental or caregiver use of tobacco during pediatric visits, and address dependence as necessary.\(^8,9\) (UW Health Low quality evidence, strong recommendation)

Secondhand smoke exposure is harmful to all patients. Therefore, clinicians should ask about tobacco smoke exposure from parents, caregivers, spouses, or environmental conditions (e.g., multi-unit housing, public buildings where smoking is allowed).\(^1,2,4,5,10\) (UW Health Moderate quality evidence, strong recommendation)

A national survey of adolescent and young adults demonstrated the recent transition from electronic cigarette use to traditional cigarette smoking, suggesting e-cigarette use as a “gateway drug”. Smokeless tobacco users (e.g., chewing tobacco, snuff) or users of nicotine products (e.g., electronic cigarettes) should be identified, strongly urged to quit and provided counseling cessation interventions.\(^1,25-30\) (HHS Strength of Evidence A) Users of cigars, pipes, and other non-cigarette forms of smoking tobacco should be identified, strongly urged to quit, and offered the same counseling interventions recommended for cigarette smokers.\(^1\) (HHS Strength of Evidence 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.\(^31-34\)
Table 1. Screening Based Upon Patient Age

<table>
<thead>
<tr>
<th>Suggested Question (Age 0-10 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is this patient regularly exposed to tobacco smoke (e.g., at home, in a car, at work)?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suggested Questions (Age 11-17 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you ever tried tobacco or nicotine products (including e-cigarettes, e-hookah, hookah, vape or chew)?</td>
</tr>
<tr>
<td>Are you regularly exposed to tobacco smoke (e.g., at home, in a car, at work)?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suggested Questions (Age 18 years or older)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you currently use or have you used tobacco or nicotine products within the last month?</td>
</tr>
<tr>
<td>Are you regularly exposed to tobacco smoke (e.g., at home, in a car, at work)?</td>
</tr>
</tbody>
</table>

Prevention and Anticipatory Guidance

Non-use should be reinforced by providers and other health care professionals in patients of any age. *UW Health Low quality evidence, strong recommendation*

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.2,4 *(USPSTF 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.4,8 Children and adolescents should be warned about the harmful effects of tobacco and the ease with which experimentation progresses to addiction and regular use.4,5 Messages for adolescents which have been shown to resonate include those related to the effects of tobacco use on appearance, breath, sports performance, financial burdens, and lack of benefit for weight loss.8

Brief Advice and Assessment of Willingness to Quit

When using the 5A’s model, patients who screen positive for tobacco use should receive brief advice and be assessed for their willingness to quit.1 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.1,11 *(HHS Strength of Evidence A)*

In a clear, strong, and personalized manner, urge every tobacco user to quit.1 All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates.1 *(HHS Strength of Evidence A)*

Advice should be1:

- **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”.¹

Once an adolescent or adult tobacco user is identified and advised to quit, the clinician should assess the patient’s willingness to make a quit attempt at the current time (Table 2).¹ (HHS Strength of Evidence C) 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 Ban³⁵ prohibits smoking within inpatient health care facilities, and The Joint Commission requires every accredited hospital to be smoke-free.¹,⁶

Table 2. Assessment for Patient’s Willingness to Make a Quit Attempt

| Are you willing to make a quit attempt at this time or in the next 30 days? |

Care for Patients Willing to Quit

The combination of counseling and medication is more effective for smoking cessation than medication, brief advice, or usual care alone.¹,¹² Therefore, whenever feasible and appropriate, both counseling and pharmacotherapy should be provided to patients trying to quit.¹,¹² (UW Health High quality evidence, strong recommendation)

In particular, preoperative smoking interventions which include brief or intensive behavioral support and nicotine replacement therapy (NRT) have demonstrated effects on tobacco use status at the time of surgery and longer term abstinence.¹³ Counseling and NRT are recommended 4-8 weeks prior to surgery (UW Health Moderate quality evidence, weak/conditional recommendation), as these interventions have been shown to reduce surgical complication rates and increase long-term abstinence when compared to less intensive support.¹³

Counseling

Proactive telephone counseling, group counseling, and individual counseling formats are effective and should be used in smoking cessation interventions.¹,³⁶ (HHS Strength of Evidence A)

During the individual counseling provided by a clinician, it is important to assist the patient in developing a quit plan. (UW Health Low quality of evidence, strong recommendation) Conversations surrounding quit plans should contain the following information (STARS).¹,³⁷

<table>
<thead>
<tr>
<th>Quit Plan Components</th>
</tr>
</thead>
</table>

- **Set** a quit date (ideally within 2-3 weeks).
- **Tell** others and ask for support (i.e., alert coworkers, family, and 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.

In general, patients should be encouraged to quit smoking abruptly versus gradually.¹⁴ (UW Health Moderate quality evidence, strong recommendation) In a recent randomized, controlled noninferiority trial, a greater number of participants who quit smoking abruptly remained
abstinent at 4 weeks and 6 months following the quit date as compared to those who cut down first.\textsuperscript{14}

**Quit Line Referral**

Connection to a quit line service significantly increase abstinence rates compared to minimal interventions or no counseling.\textsuperscript{1,36} Adult patients willing to make a quit attempt in the ambulatory setting should be directly connected to a quit line to receive proactive telephone counseling services (Table 3).\textsuperscript{22,23,36,38} (\textit{UW Health Moderate quality evidence, strong recommendation}) While connection to a quit line is also suggested in hospitalized adult patients willing to quit (\textit{UW Health Low quality evidence, weak/conditional recommendation}), the strength of the evidence and benefits of long-term abstinence are more established in the ambulatory setting than the inpatient setting.\textsuperscript{39,40} Referral to a quit line also meets the counseling component of the Joint Commission TOB-3 measure. For that measure, documentation of patient referral (or refusal to accept such a referral) to evidence-based outpatient counseling at hospital discharge is required.

Tobacco-dependent adolescents should also be offered a quit line referral.\textsuperscript{8} (\textit{UW Health Low quality evidence, strong recommendation}) Telephone and text-based services are available and are outlined in Table 3.

**Table 3. Evidence-based Quit Line and Text-Based Tobacco Cessation Resources**

<table>
<thead>
<tr>
<th>National</th>
<th>1-800-QUIT-NOW (1-800-784-8669)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SmokefreeTXT (to enroll, text QUIT to 47848 from a mobile phone)</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.smokefree.gov">www.smokefree.gov</a> (operated by the National Cancer Institute)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wisconsin</th>
<th>1-800-QUIT-NOW (1-800-784-8669)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fax to Quit* 1-800-483-3114</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.uwhealth.org/health">UW- Center for Tobacco Research and Intervention</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Illinois</th>
<th>1-866-QUIT-YES (1-866-784-8937)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><a href="http://www.quityes.org">www.quityes.org</a> (operated by the American Lung Association)</td>
</tr>
</tbody>
</table>

*The Fax to Quit program links the services of the Wisconsin Tobacco Quit Line directly to the potential quitter with the help of health care providers. Rather than relying on the patient initiated contact, a quit coach proactively contacts the tobacco user to provide an intervention after receiving a faxed consent form from a provider. The Quit Line faxes a report back to the health care provider when the contact is made with the potential quitter.

**Individual and Group Counseling in Adult Patients**

Counseling provided by many different types of providers and other staff (e.g., physicians, nurses, dentists, psychologists, pharmacists, etc.) as well as in different formats (practical counseling/problem-solving treatment or support/encouragement- Table 4) is effective in increasing tobacco cessation rates.\textsuperscript{1,37} (HHS Strength of Evidence 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.\textsuperscript{1} (\textit{UW Health High quality evidence, strong recommendation}) Person-to-person treatment delivered for four or more sessions appears especially effective in increasing abstinence rates, although even a single session of...
counseling can be effective. Whenever feasible, physicians should strive to meet four or more times with patients quitting tobacco use.\(^1\) (HHS Strength of Evidence A)

Hospitalized patients who are willing to quit demonstrate enhanced quit rates if they are provided smoking cessation counseling and support post-discharge, with the typical recommendation for post-discharge counseling to occur at least one month after discharge.\(^{40,41}\) (UW Health Moderate quality evidence, strong recommendation)

**Table 4. Mechanisms of Problem-solving Treatment**

<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 |

**Individual and Group Counseling in Adolescent Patients**

Counseling has been shown to be effective in adolescents, therefore adolescents who smoke should be provided counseling interventions which aid them in quitting smoking.\(^1,42\) (HHS Strength of Evidence B) The literature varies on counseling method (i.e., intensity, content, format), however providers may provide the same 5 As approach to adolescent patients who are willing to make a quit and attempt and use motivational interventions which are adapted for the adolescent population for those not yet ready to quit.\(^43\) The counseling interventions for this latter group should contain content related to enhancing motivation, establishing rapport, goal setting, promotion of problem-solving and skills training, as well as relapse prevention.\(^1,41,44,45\)

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.
- Ask the teen: “Do you feel that cigarettes control your life in any way?”
Pharmacotherapy

Seven medications (varenicline, bupropion, and the five nicotine agents – gum, patch, lozenge, inhaler, and nasal spray) have been approved by the FDA as safe and effective agents to promote tobacco dependence. All of these medications have been endorsed and recommended by the 2008 United States Public Health Service Clinical Practice Guideline and the 2015 United States Preventive Services Task Force. These bodies recommend that clinicians provide at least one cessation medication to every patient making a quit attempt.

Barriers to a successful quit attempt, such as medication cost and availability of agents over-the-counter, should be minimized as much as possible. Patients should be encouraged to contact their insurance provider to determine specific coverage. Insurance coverage can be variable, but many provide coverage under the Affordable Care Act. However, reimbursement (particularly for nicotine replacement therapy) may depend on provider prescription.

Adult Patients

Pharmacologic support is recommended to all smokers who are motivated to make a quit attempt, in the absence of specific contraindications (e.g., bupropion and seizure history) and in specific populations for whom there is insufficient evidence or safety concerns (i.e., pregnant women, smokeless tobacco users, light smokers and adolescents). (HHS Strength of Evidence A) The efficacy of tobacco-cessation counseling interventions is enhanced by the use of pharmacologic therapy. Pharmacologic support is 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 of 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

Although abrupt cessation is preferred (UW Health Moderate quality evidence, strong recommendation), 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. (UW Health Low quality evidence, weak/conditional recommendation) A third indication for the use of pharmacotherapy may be to minimize withdrawal symptoms in hospitalized patients who are unwilling to make a quit attempt. (UW Health Low quality evidence, weak/conditional recommendation)

A recent randomized comparison of varenicline, combination NRT, and the nicotine patch alone did not demonstrate significant differences in abstinence rates at 26 weeks. The choice of medication should be dependent upon any contraindications identified by the provider as well as patient preferences identified via a discussion with the provider. (UW Health Moderate quality evidence, weak/conditional recommendation) Information on the contraindications, adverse effects, considerations, and recommended doses for FDA-approved medications is listed in Table 5.

Single first-line agents include varenicline, bupropion, or NRT (gum, inhaler, lozenge, nasal spray, patch) (see Table 5). Certain combinations of first-line medications have also been shown to be effective smoking cessation treatments; in particular using two types of NRT (patch + rapid-delivery form [e.g., the nicotine lozenge or gum]) has been found to be more effective than using a single type. (UW Health High quality evidence, strong recommendation): Clinicians should consider using these combinations of medications in patients who are willing to quit. Effective combination medications include the following (UW Health High quality evidence, strong recommendation):

- Nicotine patch + other rapid-delivery form of NRT (gum, lozenge, or nasal spray);
• Nicotine patch + nicotine inhaler; or
• Nicotine patch + bupropion.

Precautions in patients using non-nicotine pharmacotherapy
In December 2016, the U.S. FDA removed the Boxed Warnings for bupropion and varenicline. The EAGLES trial challenged prior evidence supporting these warnings. In this trial a comparison of varenicline and bupropion to the nicotine patch or placebo did not demonstrate a significant increase in neuropsychiatric adverse events attributable to the medications in patients with and without pre-existing psychiatric conditions. Despite removal of the formal warnings, it is important to monitor all patients prescribed these medications for behavioral changes and psychiatric symptoms (e.g., agitation, depression, suicidal behavior, or suicidal ideation). Patients should be encouraged to contact their health care provider and discontinue treatment if experiencing any of the adverse effects on mood, behavior or thinking.

Cardiovascular diseases
Nicotine replacement therapy (NRT) is not an independent risk factor for acute myocardial events. NRT should be used with caution among particular cardiovascular patient groups, including those in the immediate (within 2 weeks) post myocardial infarction period, those with serious arrhythmias, and those with unstable angina pectoris. NRT can safely be used in most hospitalized patients, both for cessation and to manage tobacco withdrawal symptoms.

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. Skin reactions may be prevented or minimized by rotating application sites with each new patch and applying each new patch to non-hairy, clean, dry skin on the upper body or upper outer arm. Hydrocortisone (0.5 or 1%; both OTC preparations) may reduce local reactions. Fewer than 5% of patients require discontinuation of patch treatment.

Nicotine Toxicity
Used and unused nicotine delivery systems should be kept out of the reach of children and pets.

Adolescent Patients
No medications are currently approved by the U.S. Food and Drug Administration for tobacco cessation in children and adolescents. 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. As a result, pharmacotherapy is not broadly recommended but may be considered on an individual basis in adolescent patients following a discussion with their provider. (UW Health Very low quality evidence, weak/conditional recommendation)

Other Tobacco Use
The current evidence is insufficient to suggest that the use of pharmacotherapy increases long-term abstinence among users of smokeless tobacco. However, pharmacotherapy may be considered on an individual basis in smokeless tobacco users following a discussion with their provider, particularly among smokeless tobacco users who report significant withdrawal symptoms upon attempting cessation. (UW Health Very low quality evidence, weak/conditional recommendation)
<table>
<thead>
<tr>
<th>Medication</th>
<th>Contraindications/Precautions</th>
<th>Adverse Effects</th>
<th>Dosage</th>
<th>Initiation, Use, &amp; Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varenicline (Chantix)</td>
<td>Use with caution in patients: - With serious psychiatric illness - With significant renal impairment - Unstable psychiatric status - History of suicidal ideation</td>
<td>- Nausea - Insomnia - Abnormal, strange dreams</td>
<td>0.5 mg every morning (Days 1-3) 0.5 mg twice daily (Days 4-7) 1 mg twice daily (Days 8-end)</td>
<td>Start 1 week before quit date and use 3-6 months OR Begin and then quit smoking between day 8 and 36 Monitor for neuropsychiatric symptoms including changes in behavior, hostility, agitation, depressed mood, and suicide-related events, including ideation, behavior, and attempted suicide</td>
</tr>
<tr>
<td>Combination Therapy: Nicotine Patch + short-acting nicotine products (e.g., lozenge, gum)</td>
<td>Only patch + bupropion is currently FDA-approved</td>
<td>Reference individual medications</td>
<td>Follow instructions for individual medications</td>
<td>Follow instructions for individual medications</td>
</tr>
<tr>
<td>Bupropion SR 150 (Generic, Zyban, Wellbutrin SR)</td>
<td>Avoid use in patients with: - History of seizures or risk for seizures - Use of monoamine oxidase inhibitor (MAOI) - Use of bupropion in any other form - History of eating disorders</td>
<td>- Insomnia - Agitation - Dry mouth</td>
<td>150 mg each morning (Days 1-3) 150 mg twice daily (at least 8 hours apart) (Days 4-end)</td>
<td>Start 1-2 weeks before quit date; use 2-6 months Monitor for neuropsychiatric symptoms including changes in behavior, hostility, agitation, depressed mood, and suicide-related events, including ideation, behavior, and attempted suicide</td>
</tr>
<tr>
<td>Medication</td>
<td>Contraindications/Precautions</td>
<td>Adverse Effects</td>
<td>Dosage</td>
<td>Initiation, Use, &amp; Monitoring</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>--------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Nicotine Patch</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 date</td>
</tr>
<tr>
<td>(Generic, Nicoderm CQ)</td>
<td></td>
<td>Insomnia</td>
<td>If &gt; 10 cigarettes/day: 21 mg for 4 weeks, 14 mg for 2-4 weeks, 7 mg for 2-4 weeks</td>
<td>Post-quit: 12 weeks</td>
</tr>
<tr>
<td>Prescription or OTC</td>
<td></td>
<td>Vivid dreams</td>
<td>If removed, takes 0.5-3 hrs. after reapplication to reach effective levels</td>
<td>Rotate sites of application with each new patch to minimize skin irritation</td>
</tr>
<tr>
<td>(HHS Strength of Evidence A)</td>
<td></td>
<td></td>
<td></td>
<td>If cigarette cravings occur upon awakening, wear for 24 hours; if vivid dreams or other sleep disturbances occur, remove the patch at bedtime and apply a new patch in the morning</td>
</tr>
<tr>
<td>Nicotine Gum</td>
<td>Caution with dentures</td>
<td>Mouth soreness</td>
<td>Maximum 24 pieces/day</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>Can worsen dental problems</td>
<td>Stomach ache</td>
<td>(HHS Strength of Evidence B)</td>
<td>Requires proper chewing technique (chew and park)</td>
</tr>
<tr>
<td>Prescription or OTC</td>
<td>Do not eat or drink 15 minutes before or during use</td>
<td>Heartburn</td>
<td></td>
<td>GI side effects are usually due to overly vigorous chewing</td>
</tr>
<tr>
<td>(HHS Strength of Evidence A)</td>
<td></td>
<td>Unpleasant taste</td>
<td></td>
<td>Oral substitute for cigarettes</td>
</tr>
<tr>
<td>Nicotine Inhaler</td>
<td>May irritate mouth/throat at first (improves with use)</td>
<td>Local irritation of mouth &amp; throat</td>
<td>6-16 cartridges/day</td>
<td>Pre-quit: Up to 6 months before quit date</td>
</tr>
<tr>
<td>(Nicotrol inhaler)</td>
<td>Use with caution in patients with bronchospastic disease</td>
<td></td>
<td>Inhale 80 times/cartridge</td>
<td>Post-quit: Up to 6 months; taper at end</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>May save partially-used cartridge for next day</td>
<td>Requires frequent puffing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maximum 16 cartridges/day</td>
<td>Oral substitute for cigarettes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medication</td>
<td>Contraindications/Precautions</td>
<td>Adverse Effects</td>
<td>Dosage</td>
<td>Initiation, Use, &amp; Monitoring</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| **Nicotine Lozenge**           | - Do not eat or drink 15 minutes before or during use  
- One lozenge at a time  
- Limit 20 in 24 hrs.                                         | - Unpleasant taste     | 2 mg (smoking > 30 min. after waking)  
4 mg (smoking ≤ 30 min. after waking)  
Maximum 20 lozenges/day | Use 3-6 months  
Weeks 1-6: 1 every 1-2 hrs.  
Weeks 7-9: 1 every 2-4 hrs.  
Weeks 10-12: 1 every 4-8 hrs.  
Oral substitute for cigarettes  
Can be used in patients with poor dentition |
| (Generic, Commit)              |                                                                                               | - Hiccups              |                                                                      |                                                                   |
| Prescription or OTC            |                                                                                               | - Cough                |                                                                      |                                                                   |
| (HHS Strength of Evidence B)   |                                                                                               | - Heartburn            |                                                                      |                                                                   |
|                                |                                                                                               | - Mouth irritation     |                                                                      |                                                                   |
| **Nicotine Nasal Spray**       | - Do not use in patients with severe reactive airway disease  
- Avoid use in patients with chronic allergic rhinitis, nasal polyps, or sinusitis  
- May irritate nose (improves with use)  
- May cause dependence | - Nasal and throat irritation  
- Rhinitis  
- Sneezing, coughing | 0.5 mg/spray  
1 “dose” = 1 spray per nostril  
1-2 doses/hour  
8-40 doses/day | Use 3-6 months; taper at end  
DO NOT inhale  
Local irritation to nasal mucosa is difficult for many patients to tolerate |
| (Nicotrol NS)                  |                                                                                               |                        |                                                                      |                                                                   |
| Prescription only              |                                                                                               |                        |                                                                      |                                                                   |
| (HHS Strength of Evidence A)   |                                                                                               |                        |                                                                      |                                                                   |
Care for Patients Not Willing to Quit

Motivational Intervention/Health Education
Clinicians should use motivational techniques and health education to encourage smokers not currently willing to quit to consider making a quit attempt in the future.\textsuperscript{1,15} \textit{(UW Health Moderate quality evidence, strong recommendation)} Motivational intervention may include counseling strategies such as motivational interviewing\textsuperscript{41,66-67} or discussions which identify or touch on content related to the “5 Rs” (relevance, risks, rewards, roadblocks, and repetition).\textsuperscript{41,68,69} Motivational intervention does support an increase in quit attempts in individuals not already willing to quit.\textsuperscript{41,70}

Understanding what motivates patients to want to quit is critical to understanding why a patient succeeds or fails. It is important to emphasize learning from prior quit attempts in achieving success, and reinforcing the role of social supports such as a spouse, children, or grandchildren. A patient unwilling to quit may respond to motivational interventions following the “5 Rs” \textit{(Table 6)}, especially when physician time or training does not permit motivational interviewing.\textsuperscript{1,15,37} \textit{(UW Health Moderate quality evidence, strong recommendation)}

\begin{table}[h]
\centering
\begin{tabular}{|c|p{15cm}|}
\hline
\textbf{Relevance} & 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). \\
\hline
\textbf{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. \\
\hline
\textbf{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 \\
\hline
\end{tabular}
\caption{The "5 Rs" of Motivational Interventions}
\end{table}
### Motivational Interviewing

Motivational interviewing is a patient-centered style of counseling which is designed to help patients explore ambivalence about behavior change, encourage empathy, and self-efficacy. It is a specialized technique which requires intensive training, as well as ongoing practice. When compared to brief advice and usual care, motivational interviewing (conducted in 1-6 sessions for 10-60 minutes per session) demonstrated a modest increase in cessation rates in adult tobacco users at six months. Motivational interviewing by physicians is recommended as an intervention for tobacco users who are not willing to quit, and can also be used as a method of providing secondhand smoke exposure education. \(^{20,21,67,71}\) (UW Health Moderate quality evidence, weak/conditional recommendation) Insufficient evidence exists to recommend an optimal number of sessions or follow-up contacts, however it is suggested that shorter sessions (less than 20 minutes) appear to result in a greater benefit than longer sessions. \(^{20}\) (UW Health Moderate quality evidence, weak/conditional recommendation)

For additional information or training, refer to motivationalinterviewing.org for more information.

### Care for Patients Who Recently Quit

Abstinent patients should have their quitting success acknowledged, and the clinician should offer to assist the patient with problems associated with quitting. \(^{1}\) (HHS Strength of Evidence C) In particular, the clinician should confirm that the patient has filled his/her cessation medication prescription, that they are adherent with that medication, and that any side effects are manageable.

If a patient has recently quit (e.g., within the last 6-12 months), it is important to assess challenges, need for support, and risk of relapse. A provider may use open-ended questions to identify any success or barriers the patient is experiencing. These may include the following: \(^{1}\)

**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.

Relapse Prevention and Follow-up

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 a greater risk of relapse include:

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

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.\(^{72,73}\) (UW Health Low quality evidence, weak/conditional recommendation) 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 (e.g., 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, frequency of contact or duration which would help recent quitters avoid relapse.\(^{1,74}\)

Patients who have relapsed should be assessed to determine whether they are willing to make another quit attempt.\(^1\) (HHS Strength of Evidence C)
UW Health Implementation

Potential Benefits:
- Tobacco cessation and improved health
- Reduced secondhand smoke exposure to family members, coworkers, etc.

Potential Harms:
- Nicotine dependent patients attempting to quit tobacco use may experience a range of unpleasant withdrawal symptoms, both physical and psychological. Use of pharmacologic therapy may reduce withdrawal symptoms, while introducing potential side effects of the medication.

Pertinent UW Health Policies & Procedures
1. UWMF Policy- Smoke and Tobacco Free Policy
2. UWHC Policy 1.41- Smoke Free/Tobacco Free Workplace
3. UWHC Policy 8.47- Screening, Assessment and Reassessment of Patients
4. UWHC Policy 8.02- Assessment and Reassessment of Patients and Documentation in Clinics

Patient Resources

Quit Smoking
1. Health Facts For You #2022: Quit Smoking Fact Sheet
2. Health Facts For You #2028: You Can Quit Smoking (Spanish)
3. Health Facts For You #3096: Quit Smoking (English)
4. Health Facts For You #3200: Quit Smoking Packet (Spanish)
5. Health Facts For You #6763: Quit Smoking (Spanish)
6. Health Facts For You #7515: Why You Should Quit Smoking
7. Health Information: Smoking Cessation
8. Health Information: Smoking Cessation Readiness Calculator
9. Health Information: Smoking Cessation: Getting support
10. Health Information: Smoking Cessation: Helping someone quit
11. Health Information: Smoking Cost Calculator
12. Health Information: Smoking Fewer Cigarettes
13. Health Information: Smoking Triggers
14. Health Information: Smoking: Choosing a Good Time to Quit
15. Healthwise: Smoking: Stopping
16. Kids Health: Kids and Smoking
17. Kids Health: Nicotine: What Parents Need to Know
18. Lexicomp: Quitting Smoking
19. Lexicomp: Quitting Smoking for Older Adults

Forms of Tobacco Use and Secondhand Exposure
1. Healthwise: Smokeless Tobacco: Quitting
2. Kids Health: E-Cigarettes
3. Kids Health: Smokeless Tobacco
4. Kids Health: What is a Hookah?
5. Lexicomp: Electronic Cigarettes
6. Kids Health: Secondhand Smoke
7. Lexicomp: Dangers of Secondhand Smoke
For Adolescents
1. Health Facts For You #5624: Quit Tobacco Program Workbook for Teens
2. Health Information: Tobacco Use in Teens
3. Healthwise: Teens Thinking About Quitting Smoking: After Your Visit
4. Kids Health: How Can I Quit Smoking?
5. Kids Health: Is It Safe to Vape Around Children?
6. Kids Health: Smoking
7. Kids Health: Stop Smoking: Your Personal Plan
8. Lexicomp: Quitting Smoking for Teens and Young Adults

Medications
1. Health Decision Handouts used in Preventive Cardiology
   a. Using Bupropion To Help You Stop Smoking
   b. Using the Nicotine Patch and Lozenge to Help You Stop Smoking
   c. Varenicline (Chantix)
2. Health Facts For You #5328: Bupropion ER (ZYBAN®) for Smoking Cessation
3. Health Facts For You #6141: Using a Nicotine Patch
4. Health Information: Nicotine Gum
5. Health Information: Nicotine Inhaler
6. Health Information: Nicotine Patches
7. Health Information: Smoking Cessation, Deciding About Medication
8. Healthwise: Anti-Smoking Medication: Deciding About
9. Lexicomp: Nicotine
10. Lexicomp: Nicotine Patch
11. Lexicomp: Nicotine Step 1 [OTC]
12. Lexicomp: Nicotine Step 2 [OTC]
13. Lexicomp: Nicotine Step 3 [OTC]
14. Lexicomp: Varenicline

Relapse Prevention
1. Health Facts For You #7008: Tobacco Use- How to Avoid Once You’ve Quit
2. Health Information: Smoking Cessation: Coping with craving and withdrawal
3. Health Information: Smoking Cessation: Dealing with weight gain
4. Health Information: Smoking Cessation: Preventing slips or relapses
5. Health Information: Smoking Cessation: What to do when you crave nicotine

Tobacco and Comorbid Conditions
1. Health Facts For You #6150: Smoking and Wound Healing (Burn Patients)
2. Health Information: Smoking and Coronary Artery Disease
3. Health Information: Smoking and Heart Attack Risk Calculator
4. Health Information: Smoking and Life Span Calculator
5. Health Information: Smoking And Stroke Risk
6. Health Information: Smoking in Cancer Care: Supportive Care- Health Professional
7. Health Information: Smoking in Cancer Care: Supportive Care- Patient Information
8. Health Information: Smoking: Health Risk for Family Members
9. Health Information: Smoking: Heart Attack and Stroke Risks
10. Health Information: Smoking: Sexual and Reproductive Problems
11. Kids Health: Smoking and Asthma
12. Lexicomp: Smoking: Not Just Harmful to Your Lungs and Heart
External Resources for Patients
1. Unity Health Insurance Tobacco Cessation Programs & Resources
2. Smokefree Teen (SfT) Resources
3. 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
4. UW-Center for Tobacco Research and Intervention (UW-CTRI) Smoker Website

Guideline Metrics
TOB Measures (Inpatient Psych Unit only)
TOB-1: Tobacco Use Screening
TOB-2/2A: Tobacco Use Treatment
TOB-3/3A: Tobacco Use Treatment at Discharge

ACO
1. ACO-17: Tobacco Use- Screening and Cessation Intervention

WCHQ
1. Diabetes Care- Tobacco Free: % of patients with diabetes age 18-75 yrs. whose most recent tobacco documentation status with any provider within the last 12 months is tobacco free.
2. Diabetes Care- All or None Outcome Measure: Optimal Control
3. Ischemic Vascular Disease Care- Tobacco Free: %

Implementation Plan/Clinical Tools
1. Guideline will be posted on uConnect and uwhealth.org in a dedicated location for Clinical Practice Guidelines.
2. Release of the guideline will be advertised in the Physician/APP Briefing newsletter.
3. Content and hyperlinks within clinical tools, documents, or Health Link related to the guideline recommendations (such as the following) will be reviewed for consistency and modified as appropriate.

Best Practice Alerts (BPA)
UWOP Tobacco Cessation
UWOP Tobacco Quit Line
UWOP Followup on Tobacco Quit Line

Delegation Protocols
Referral to Wisconsin Tobacco Quit Line – Adult – Ambulatory [130]

Related UW Health Clinical Practice Guidelines
1. Standard Primary Care Rooming Criteria – Adult/Pediatric – Ambulatory Guideline
2. Preventive Health Care – Pediatric/Adult – Ambulatory Guideline
3. Hypertension – Adult – Inpatient/Ambulatory Guideline
4. Mechanical Circulatory Device – Adult – Inpatient/Ambulatory Guideline
5. Standards of Medical Care in Diabetes – Pediatric/Adult – Inpatient/Ambulatory Guideline
6. Asthma – Pediatric/Adult – Inpatient/Ambulatory Guideline
7. Chronic Obstructive Pulmonary Disease – Adult – Inpatient/Ambulatory Guideline
Order Sets & Smart Sets
Tobacco Cessation [5088]
Passive Smoke Exposure [5326]
Quit Connect - Tobacco Cessation [6023]
IP – Tobacco Abstinence – Adult – Supplemental [682]
IP – Psychiatry – Adult – Discharge [5059]
IP – Vascular Surgery – Adult – Discharge [4824]

Reporting Workbench Reports
IP Heart Failure Core Measure (HF-4) Adult smoking cessation counseling: admitted patients/ discharged patients
IP PN Core Measure (PN-4) Adult smoking cessation counseling: discharged patients
Audit- Smoking Cessation (24hrs/48hrs/72hrs/96hrs)

Inpatient Documentation Flowsheets
The following are some tobacco use-related flowsheets used in inpatient Health Link, including the Adult and Peds Health Assessment completed on admission.
FLO 314603  Have you ever used tobacco?
FLO 314643  Tobacco Use Status
   Currently using - interested in quitting
   Currently using - not interested in quitting
   Quit in last year
   Quit over a year ago
FLO 212074  Smokeless Tobacco Status
FLO 330648  Are you interested in quitting tobacco use?
FLO 330646  Do you or have you ever smoked or chewed tobacco?
FLO 451545  Tobacco Use Disorder UW R WISH

Disclaimer
Clinical practice guidelines assist clinicians by providing a framework for the evaluation and treatment of patients. This 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.
Appendix A. Evidence Grading Scheme(s)

Figure 1. GRADE Methodology adapted by UW Health

**GRADE Ranking of Evidence**

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>We are confident that the effect in the study reflects the actual effect.</td>
</tr>
<tr>
<td>Moderate</td>
<td>We are quite confident that the effect in the study is close to the true effect, but it is also possible it is substantially different.</td>
</tr>
<tr>
<td>Low</td>
<td>The true effect may differ significantly from the estimate.</td>
</tr>
<tr>
<td>Very Low</td>
<td>The true effect is likely to be substantially different from the estimated effect.</td>
</tr>
</tbody>
</table>

**GRADE Ratings for Recommendations For or Against Practice**

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong</td>
<td>The net benefit of the treatment is clear, patient values and circumstances are unlikely to affect the decision.</td>
</tr>
<tr>
<td>Weak/conditional</td>
<td>Recommendation may be conditional upon patient values and preferences, the resources available, or the setting in which the intervention will be implemented.</td>
</tr>
</tbody>
</table>

Figure 2. U.S. Department of Health and Human Services (HHS)\(^1\)

<table>
<thead>
<tr>
<th>Strength-of-evidence classification</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strength of Evidence = A</td>
<td>Multiple well-designed randomized clinical trials, directly relevant to the recommendation, yielded a consistent pattern of findings.</td>
</tr>
<tr>
<td>Strength of Evidence = B</td>
<td>Some evidence from randomized clinical trials supported the recommendation, but the scientific support was not optimal. For instance, few randomized trials existed, the trials that did exist were somewhat inconsistent, or the trials were not directly relevant to the recommendation.</td>
</tr>
<tr>
<td>Strength of Evidence − C</td>
<td>Reserved for important clinical situations in which the Panel achieved consensus on the recommendation in the absence of relevant randomized controlled trials.</td>
</tr>
</tbody>
</table>
References


63. Rigotti NA. Strategies to help a smoker who is struggling to quit. *JAMA.* 2012;308(15):1573-1580.


Patient Presentation

Screen for tobacco use or secondhand exposure at every encounter (Table 1)

Current user?

Advise to quit

Yes

Is patient willing to make a quit attempt at this time or in the next 30 days?

No

Provide motivational intervention/health education (5 Rs) or motivational interviewing**

Yes

Reinforce tobacco-free lifestyle and assess challenges, need for support and risk of relapse.

No

Connect to or provide treatment interventions:

1) Connection to quit line
2) Group/individual counseling
3) Pharmacotherapy

Secondhand exposure?

No

Complete follow-up contacts beginning within the first week after quit date or 30 days after discharge

Abstinence?

No

Yes

Patients age > 18 years:
Reinforce tobacco-free lifestyle.

Patients age 5-17 years:
Provide education and anticipatory guidance to prevent initiation.

Table 1. Screening Based Upon Patient Age

<table>
<thead>
<tr>
<th>Suggested Question (Age 0-10 years)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Is this patient regularly exposed to tobacco smoke (e.g., at home, in a car, at work)?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suggested Questions (Age 11-17 years)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you ever tried tobacco or nicotine products (including e-cigarettes, e-hookah, hookah or vape)?</td>
<td></td>
</tr>
<tr>
<td>Are you regularly exposed to tobacco smoke (e.g., at home, in a car, at work)?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suggested Questions (Age 18 years or older)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you currently use or have you used tobacco or nicotine products within the last month?</td>
<td></td>
</tr>
<tr>
<td>Are you regularly exposed to tobacco smoke (e.g., at home, in a car, at work)?</td>
<td></td>
</tr>
</tbody>
</table>

** Hospitalized patients may also be interested in pharmacotherapy to minimize withdrawal symptoms.