



HIV & Tobacco Use

Pharmacologic and behavioral methods
to help your patients quit



Resources

American Cancer Society: www.cancer.org

American Lung Society: www.lungusa.org

National Quit Smoking Helpline: 1-800-QUIT NOW

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Background

- Smoking prevalence among persons living with HIV (PLWH) is 2-3 times greater than the general population.¹
- Cigarette smoking is associated with a decreased response to antiretroviral therapy (ART), development of oral candidiasis, oral hairy leukoplakia, pneumonia, cancer, cardiovascular disease, and pulmonary disease.¹
- Stopping or reducing cigarette smoking can have significant impact on HIV-related co-morbidities and should be a priority for clinicians.²
- Addiction to cigarettes has been shown to be as intense as heroin and cocaine addictions.³
- Successful interventions for smoking cessation should address both physiologic and behavioral aspects of smoking.⁴
- Research has shown that as few as 3 minutes of counseling provided by physicians has an impact on cessation rates.⁴
- Using a multi-disciplinary team approach improves the likelihood of smoking cessation.⁴

The U.S. Surgeon General developed guidelines for clinicians to use during clinic visits to help patients interested in smoking cessation. The 5A model provides a structured approach to assessment and management of smokers.⁴

The 5A Model

ASK every patient at every visit about tobacco use.

ADVISE every patient about the benefits of smoking cessation. Use a clear, strong, and personalized message urging tobacco users to quit.

ASSESS the patient's readiness to quit at this time. For those not ready to quit, other harm reduction strategies should be used (e.g., decreasing the number of cigarettes smoked per day).

ASSIST patients who are willing to quit by developing a quit plan, using approved medications (if appropriate), and providing practical counseling, support, and supplementary materials. A combination of counseling and medications has been found to be the most successful intervention.

ARRANGE follow up during the quit process. Follow up within one week after the agreed-upon quit date. Assess problems, review medication side effects, and provide reminders about additional resources.

Stages of Change for Smoking Cessation^{5,6}

Pre-Contemplation: the patient does not expect to make any change in behavior within the next 6 months.

Provider Goal: discuss the problem of ongoing tobacco use with the patient and keep her/him engaged.

Contemplation: the patient plans to quit smoking within the next 6 months.

Provider Goal: keep the patient talking, reinforce benefits of smoking cessation.

Preparation: the patient anticipates quitting smoking within the next month.

Provider Goal: help the patient determine best course of action.

Action: the patient stops smoking.

Provider Goal: decrease barriers to change, encourage progress.

Maintenance: the patient has stopped smoking and remains abstinent from smoking for 6 months.

Provider Goal: help the patient stay focused, reduce relapse risk.

Relapse: a normal and expected process during behavior change. About 80% of smokers will relapse during the first month of a quit attempt.

Provider Goal: help the patient avoid becoming discouraged. Re-engage the patient in the change process. Identify what was successful with previous attempts and focus on new strategies for behavior change.

For patients not ready to quit

Patients who are not ready to quit may have other priorities or may be unaware of the effects of tobacco use. Brief motivational interviewing techniques may be helpful in these situations.⁴

Motivational interviewing is a specialized counseling technique that uses 4 basic principles:^{4,7}

1. Expressing Empathy

"It must be hard to think about quitting..."

2. Developing Discrepancy:

"You said you are worried about the effect smoking has on your immune system. Tell me more about that."

3. Rolling with Resistance:

"It sounds like now is not a good time to think about stopping smoking. Perhaps we can talk about it at your next appointment."

4. Supporting Self-Efficacy

"We've discussed a number of ideas to help you change your smoking habits. You get to decide if you would like to try any of these things."

The content of motivational interviewing should address the 6 Rs.

The 6 Rs

Relevance: encourage patient to indicate why quitting is personally relevant.

Risks: help patient identify risks and potential negative consequences of tobacco use, such as increased respiratory symptoms, lower CD4+ T cell counts, cancer.

Rewards: help identify potential benefits of tobacco cessation most relevant to the patient, such as improved health, saving money, breathing easier, etc.

Roadblocks: help patient identify barriers to quitting and problem solve on ways to address these barriers.

Repetition: repeat motivational interventions every time a not-ready-to-quit patient visits the clinic.

Reconsider: discuss the option of modifying smoking behavior. Any decrease is an improvement. For instance, the patient could decrease smoking by 1 cigarette per day or could agree to stop smoking in the car. This approach can help the patient gain confidence in her/his ability to change behavior.

For patients who are attempting to quit

- Help patient develop a written plan that includes access to support (counseling and pharmacology, as desired) and set a quit date. Give a copy of the plan to the patient and keep one in the clinic chart.
- Follow up with the patient 1 week after an agreed upon quit date to offer support and identify potential risks for relapse.

- Frequent follow up and support during the quit phase improves abstinence rates.⁴
- Follow up can be by telephone, in-person, or Internet.⁴
- For patients who are prescribed medications, such as bupropion or varenicline, assess for mood changes and other side effects.^{1,4}

Coping with Cravings and Withdrawal

- Withdrawal and craving cigarettes during the first few weeks of a quit attempt is common. To help minimize cravings and withdrawal, discuss these techniques with the patient:
 - Delay the urge to smoke by doing another activity, such as taking a walk, exercising, or meditating. Cravings will often pass if the urge to smoke is delayed by 5 minutes.
 - Deep breathing and relaxation may reduce cravings.
 - Getting enough sleep may reduce fatigue and irritability.
 - Many people turn to food as a substitute because nicotine's stimulant properties may serve as an appetite suppressant. Encourage patients to surround themselves with healthy, low calorie snacks and to increase physical activity.

Treatment Considerations

- The most successful intervention includes the transdermal nicotine replacement patch with ad lib nicotine gum.⁴
- Side effects of some smoking cessation therapies, such as varenicline and bupropion, may be exacerbated by HIV medications, such as efavirenz. Monitor symptoms, (such as depression, mood changes, and sleep disturbance) closely.¹

Nicotine Replacement Therapies

Over the Counter (OTC)

Nicotine Gum

Nicotine Lozenges

Nicotine Patch

Prescription Only

Nicotine Inhaler

Nicotine Nasal Spray

Non-Nicotine Replacement Therapies

Prescription Only

First Line Agent

Bupropion Sustained Release

Varenicline

Second Line Agent

Clonidine

Nortriptyline

Nicotine Patch (OTC)

How Supplied:

21 mg/24 hours

14 mg/24 hours

7 mg/24 hours

Dosing

Dosing recommendations vary based on amount of cigarette use. Individualize treatment.

Place new patch on a relatively hairless location, rotating sites to avoid irritation. Apply upon awakening. If sleep disturbances occur, remove patch prior to bed or use the 16 hour patch.

Sample treatment recommendation for smokers

- who smoke **10 or more cigarettes** per day:
 - 21 mg/24 hrs for 4 weeks
 - 14 mg/24 hrs for 2 weeks
 - 7 mg/24 hrs for 2 weeks
- who smoke **less than 10 cigarettes** per day:
 - 14 mg/24 hrs for 6 weeks
 - 7 mg/24 hrs for 2 weeks

Common Side Effects

Local skin reactions, insomnia, and/or vivid dreams

Comments

- Use with caution in patients with cardiovascular disease (especially those within 2 weeks of myocardial infarction), those with serious arrhythmias, and those with unstable angina pectoris.
- Do not use if pregnant.

Nicotine Gum (OTC)

How Supplied:
2 mg and 4 mg

Dosing

For smokers who smoke less than 25 cigarettes per day, start with 2 mg.

For smokers who smoke more than 25 cigarettes per day start with 4 mg.

Chew one piece of gum every 1 to 2 hours for the first 6 weeks, then continue for up to 12 weeks. Maximum of 24 pieces per day.

Chew gum until “peppery” or “flavored” taste emerges. Keep gum “parked” between cheek and gum for 30 minutes until taste dissipates.

Common Side Effects

Mouth soreness, hiccups, dyspepsia, jaw ache

Comments

- Use with caution in patients with cardiovascular disease (especially within 2 weeks of myocardial infarction), serious arrhythmias, and unstable angina pectoris.
- Do not eat or drink anything except water for 15 minutes before or during gum use.
- Do not use if pregnant.

Nicotine Lozenge (OTC)

How Supplied:
2 mg and 4 mg

Dosing

For patients who smoke their first cigarette more than 30 minutes after waking, start with 2 mg dose. For patients who smoke their first cigarette within 30 minutes of waking, start with 4 mg. Most patients should use 1 lozenge every 1-2 hours during the first 6 weeks.

Allow lozenge to dissolve in mouth, do not chew or swallow. Most individuals should use 9 lozenges per day, with a maximum of 20 per day.

Lozenges should be used for up to 12 weeks, decreasing dosing from 1 lozenge every 1 to 2 hours for the first 6 weeks, to 1 lozenge every 2 to 4 hours during weeks 7-9, and 1 lozenge every 4 to 8 hours during weeks 9-12.

Common Side Effects

Nausea, hiccups, heartburn, headache, cough

Comments

- Use with caution in patients with cardiovascular disease (especially within 2 weeks of myocardial infarction), serious arrhythmias, and unstable angina pectoris.
- Do not eat or drink anything except water for 15 minutes before or during lozenge use.
- Do not use if pregnant.

Nicotine Inhaler (Rx)

How Supplied:
10 mg cartridges

Dosing

Inhale with continuous puffing over 20 minutes.

Recommended dose is 6-16 cartridges/day as needed.

Each 10 mg cartridge delivers 4 mg of nicotine over 80 inhalations.

Duration of therapy is up to 6 months, taper dose in last 3 months.

Common Side Effects

Local irritation in the mouth and throat, cough, rhinitis

Comments

- Use with caution in patients with cardiovascular disease (especially within 2 weeks of myocardial infarction), serious arrhythmias, and unstable angina pectoris.
- Do not use if pregnant.

Nicotine Nasal Spray (Rx)

Dosing

One dose is equivalent to 0.5 mg to each nostril (1 mg total).

Patient should use 1 to 2 sprays in each nostril per hour, increasing as needed for symptom relief.

Minimum recommended treatment is 8 doses per day, with a maximum limit of 40 doses per day or 5 doses per hour.

Recommended duration of therapy is 3 to 6 months.

Do not sniff, swallow, or inhale through the nose while administering doses. Tilt head slightly back when dosing.

Common Side Effects

Nasal irritation, transient changes in ability to smell and taste

Comments

- Use with caution in patients with cardiovascular disease (especially within 2 weeks of myocardial infarction), serious arrhythmias, and unstable angina pectoris.
- Do not use if pregnant.
- Do not use in persons with severe reactive airway disease.
- Nicotine nasal spray has highest dependence potential of all other nicotine replacement therapies.

Bupropion Sustained Release (Rx)

How Supplied:
150 mg SR tablet

Dosing

Begin 1-2 weeks before quit date.

Start at 150 mg daily for 3 days, then increase to 150 mg twice daily for 7-12 weeks.

May consider longer term therapy.

Common Side Effects

Insomnia, dry mouth

***WARNING:** Antidepressant medicines may increase suicidal thoughts or actions in some children, teenagers, and young adults within the first few months of treatment. Depression and other serious mental illnesses are the most important causes of suicidal thoughts and actions. Some people may have a particularly high risk of having suicidal thoughts or actions.

Comments

Contraindicated in patients who have a history of seizures or eating disorders, who are taking other forms of bupropion, or who have used an MAO inhibitor in the previous 14 days.

Varenicline (Rx)

How Supplied:
0.5 mg and 1 mg tablet

Dosing

Begin therapy 1 week before quit date.

Start with 0.5 mg daily for 3 days, increase to 0.5 mg twice daily for 4 days, then 1mg twice daily for duration of therapy.

Typical duration is 12 weeks.

Varenicline is approved for maintenance therapy for up to 6 months.

Common Side Effects

Nausea, sleep disturbance, and abnormal, vivid, or strange dreams

To reduce nausea, take with food and at least 8 ounces of water. To reduce insomnia, take second dose at dinner rather than at bedtime.

***WARNING:** The FDA has issued warnings regarding depressed mood, agitation, behavior change, suicidal ideation, and suicide associated with the use of varenicline.

Comments

- Use with caution in patients with history of psychiatric illness. Monitor closely for mood and behavior changes.
- Use with caution in patients with significant kidney disease (CrCl < 30 mL/min) or on dialysis.
- No contraindications for patients with cardiovascular disease.

Clonidine (Rx - Second Line)

Dosing

0.1 mg twice daily orally or 0.1 mg/day transdermally.

Can increase by 0.1 mg/day per week if needed.

Duration of treatment is usually 3 to 10 weeks.

Initiate shortly before (up to 3 days), or on the quit date.

How Supplied:

Transdermal Patch

0.1 mg/24 hrs

0.2 mg/24 hrs

0.3 mg/24 hrs

Oral Tablets

0.1 mg

0.2 mg

0.3 mg

If using patch, place on relatively hairless location between the neck and waist.

Do not discontinue therapy abruptly.

Common Side Effects

Dry mouth, drowsiness, dizziness, sedation, constipation

Comments

- Monitor blood pressure when using this medication.
- When discontinuing, taper medication to avoid rebound hypertension.

Nortriptyline (Rx - Second Line)

How Supplied:
10 mg, 25 mg, 50 mg
and 75 mg capsule

Dosing

Begin treatment 10-28 days before quit date.

Start at 25 mg/day and increase to target dose of 75-100 mg/day.

Treatment duration is approximately 12 weeks, some may consider extending treatment up to 6 months.

Common Side Effects

Sedation, dry mouth, blurred vision, urinary retention, lightheadedness, shaky hands

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Comments

- Use with caution in patients with cardiovascular disease.
- Do not co-administer with MAO inhibitors.
- Do not discontinue abruptly because of withdrawal effects.
- Overdose may produce life-threatening cardiovascular toxicity, seizure and/or coma.

For patients who recently quit smoking:

- Acknowledge and congratulate success
- Encourage continued abstinence
- Review any benefits experienced after stopping cigarettes
- Help anticipate threats to maintaining abstinence from tobacco (e.g., depression, weight gain, alcohol, other tobacco users, etc.) and ways to manage threats
- Maintain supportive stance, especially during relapse episodes

Strategies for dealing with issues that may lead to relapse

Lack of Support

- Schedule follow up visits or telephone calls with patient
- Help patient identify support systems within the community, family, and friends
- Refer to organizations that offer counseling and support

Negative mood or depression

- Provide counseling or refer to a specialist

Strong or prolonged withdrawal symptoms

- Consider extending use of approved medication or add/combine medications to reduce withdrawal symptoms

Weight gain

- Encourage physical activity
- Emphasize benefits of quitting smoking relative to health risks of weight gain
- Emphasize importance of healthy diet
- Suggest low calorie foods and snacks
- Refer to dietitian

Smoking relapse

- Maintain support, explore situation(s) that lead to relapse, and point out successes prior to relapse
- Discuss alternate pharmacologic and behavioral therapies
- Encourage another quit attempt or recommitment
- Reassure that quitting may take multiple attempts and use lapse as a learning experience
- Provide or refer for intensive counseling

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