



## **Rx for Change: Clinician-Assisted Tobacco Cessation**

### **Goals and Learning Objectives**

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### Goal

To provide students in the health professions with the knowledge and skills necessary to provide comprehensive tobacco cessation counseling to patients who use tobacco.

### Overall Program Objectives

Upon completion of the Rx for Change training program, students will be able to:

1. Describe population-based trends of tobacco use in the United States.
2. Identify health-related consequences of tobacco use.
3. List seven forms of tobacco used in the U.S.
4. List the pharmacologic effects of nicotine and understand the principles of nicotine addiction.
5. List four clinically significant drug interactions associated with tobacco smoking.
6. List and describe the following consequences of tobacco cessation:
  - Withdrawal effects
  - Health benefits
7. Apply the 5 A's (ask, advise, assess, assist, arrange) when counseling patients for tobacco cessation.
8. Apply the brief intervention model (ask, advise, and refer) when counseling patients for tobacco cessation.
9. Assess a tobacco user's readiness to quit smoking.
10. Assist patients with tobacco cessation using individually tailored interventions.
11. Demonstrate competency in selecting appropriate tobacco cessation aids, based on patient-specific factors.
12. Counsel patients on proper use of the following aids for cessation (including dosing, potential side effects, and precautions):
  - Nicotine polacrilex gum
  - Nicotine polacrilex lozenge
  - Nicotine transdermal patch
  - Nicotine nasal spray
  - Bupropion SR
  - Varenicline
  - Combination therapy
13. In at least four role-playing scenarios, be able to ask patients about tobacco use, advise patients to quit, assess readiness to quit, apply tailored strategies to assist patients with quitting, and arrange follow-up.

Objectives for each of the modules are listed below.

## **CORE MODULES**

### **Epidemiology of Tobacco Use**

1. Describe the prevalence of tobacco use across the United States.
2. Describe tobacco use trends among adult males and females over the past fifty years.
3. List five compounds contained in tobacco smoke that can cause harm to humans.
4. List three health risks associated with smoking during pregnancy.
5. List three health risks to infants, children, and adults due to second-hand smoke.
6. Describe health benefits associated with tobacco cessation.

### **Nicotine Pharmacology & Principles of Addiction**

1. Describe the pharmacokinetic profile of nicotine (absorption, distribution, metabolism, and excretion).
2. Describe the pharmacodynamic effects of nicotine on the central nervous and cardiovascular systems.
3. Describe how certain beverages can affect the absorption of nicotine from the buccal mucosa.
4. List four neurotransmitters that are affected by nicotine and their effects.
5. Describe the dopamine reward pathway and its role in nicotine addiction.
6. List six symptoms of nicotine withdrawal and their peak and duration.
7. Explain in lay language to a patient the physiological and behavioral components of nicotine addiction and treatment for each of these components.

### **Drug Interactions with Smoking**

1. Describe the most common mechanism for a drug interaction between medications and tobacco smoke. Identify the two key factors that increase the likelihood of stroke, myocardial infarction, and thromboembolism in smokers who use oral contraceptives.
2. Assess a patient's medication list for drugs that interact with smoking and those that would require dosage adjustment.
3. Describe the drug interaction between smoking and caffeine and be able to advise patient how to adjust caffeine consumption when quitting smoking.

### **Assisting Patients with Quitting**

1. List and describe the 5 A's.
2. Be able to assess a tobacco user's readiness to quit.
3. Describe the key counseling strategies for patients who are not ready to quit, including the 5 R's.
4. Following the Tobacco Cessation Counseling Guidesheet, list key components to discuss with patients who are ready to quit.
5. Describe cognitive and behavioral strategies for quitting.
6. Identify the appropriate times to arrange follow-up with a patient upon cessation.
7. Describe a brief intervention that can be used when one is too busy to provide comprehensive counseling.

### **Medications for Cessation**

1. List all FDA-approved medications for tobacco cessation.
2. Select appropriate pharmacologic agent(s) based on patient-specific factors.
3. Develop a treatment regimen that incorporates medications for tobacco and vaping cessation, including drug, dose, route, frequency of administration, and monitoring.

4. Counsel a tobacco user on the proper use of the following pharmacologic agents (including dosing, instructions on use, potential side effects, and precautions):
  - Nicotine polacrilex gum
  - Nicotine polacrilex lozenge
  - Nicotine transdermal patch
  - Nicotine nasal spray
  - Bupropion SR
  - Varenicline
  - Combination therapy
5. Describe the efficacy of the various pharmacologic aids for cessation.
6. Describe the relative daily costs of the pharmacologic aids for cessation compared to cigarette smoking.
7. Assess appropriateness of combination pharmacotherapy for an individual patient.

### **Case Scenarios (Role Playing)**

1. Using the Tobacco Cessation Counseling Guidesheet, assess a patient's readiness to quit and apply tailored strategies to assist the patient with quitting.
2. Counsel a partner on tobacco cessation in at least four role-playing scenarios.