Study Question Answers
Pharmacotherapy for the Treatment of Tobacco Use Disorder

1. c

2. a  **NOTE:** The patch is probably the best choice, but bupropion may be an acceptable choice.

3. d

4. e

5. Seizure disorder or any condition that lowers seizure threshold such as an eating disorder, head injury or current binge drinking.

6. Agitation, depressed mood, suicidal ideation, aggression, worsening of pre-existing psychiatric condition.

7. b

8. c

9. a

10. b

11. Start 1-2 weeks before quit date, then:
   One white tablet daily (0.5 mg) for 3 days
   Then one white tablet (0.5 mg) twice a day for 4 days
   Then one blue tablet (1.0 mg) twice daily for up to 12 weeks; recommended for another 12 weeks if person has successfully quit smoking.

12. Application Problem: Jane
   a. **Stage of Change:** Preparation
      
      Key Points:  
      _____ She says she is ready to quit and is planning how to do it
      _____ She is actively engaged in problem solving around her barriers to quitting
      _____ She is looking at past quit attempts to learn from previous failure (shows she is actively engaged in planning)
      _____ Other ________________________________
   
   b. **Health Consequences.** Note: This is a listing of potential health effects which you as a treatment specialist need to be aware of. It is NOT intended to reflect the manner in
which this information is discussed with the patient. That is the goal of the next module on counseling theory and practice.

Key Points:  
___ Premature death  
___ Cardiovascular disease  
___ Cancer, including lung and others  
___ Pulmonary disease, including bronchitis and emphysema  
___ Reproductive effects  
___ Short term, such as shortness of breath, coughing,  
___ Other ________________________________  

Benefits of Stopping:

Key Points:  
___ Improved oxygen carrying capacity  
___ Pregnant women deliver healthier babies  
___ Better sense of smell and taste  
___ Better lung function  
___ Reduced risk of sudden death  
___ Reduced risk of fatal heart attack  
___ Reduced risk of stroke  
___ Risk of cancer slowly diminishes  
___ The sooner one stops, the lower the health risk  
___ It is never too late to stop
Nicotine Effects:

Key Points:  
- Raises heart rate, blood pressure  
- Stimulates/arouses  
- Increases metabolism  
- Relaxes  
- Increases break down of fat  
- Reduces stress  
- Causes dependence:  
  -- tolerance develops  
  -- withdrawal symptoms  
  -- only function normally in presence of drug  
- Increases attention  
- Cuts appetite  
- Improves mood

How NRT works:

Key Points:  
- Replaces some of the nicotine in blood that a smoker usually gets from smoking  
- Blocks/blunts withdrawal symptoms  
- Makes smoking less reinforcing  
- Replaces oral/handling aspects of habit (inhaler particularly)  
- Fear of consequences if one smokes while on NRT  
- Other

How Bupropion works:

Key Points:  
- Blocks nicotine withdrawal  
- Makes smoking less reinforcing  
- Possible antidepressant effects  
- May be used with the patch  
- Other

How Varenicline works:

Key Points:  
- Acts at nicotine receptor sites in the brain  
- Helps to ease withdrawal symptoms  
- Blocks some of the pleasurable effects of nicotine  
- Most common side-effect is nausea

c. Pharmacological Options:

Key Points:  
- She needs something to help deal with severe withdrawal  
- Options: Patch, gum, spray, inhaler, varenicline, bupropion (i.e., nothing is contraindicated given the information (or lack of) that we have)  
- Recommendations should include sound reason(s) why a certain type of NRT or varenicline or bupropion is being recommended. A reasonable first line option in this case is a 21 mg patch with close monitoring the first few weeks after quitting.
13. Application problem: Matt

a. **Stage of Change – smoking**: Preparation
   
   Key points: 
   
   - Actively trying to cut down
   - Seeking alternatives to smoking

   **Stage of Change – smokeless**: Pre-contemplation
   
   Key Points: 
   
   - Recently initiated use
   - May view smokeless as reasonable alternative to smoking
   - No expressed interest in cutting down or quitting

b. **Educate regarding chewing tobacco and health effects**
   
   Key points: 
   
   - Chewing tobacco is not a safe alternative to cigarettes
   - It increases risk of esophageal CA and other forms of oral CA
   - It contributes to tooth decay and gum disease
   - There is evidence that shows increased risk of dying from heart disease.

c. **Pharmacological Options**:
   
   Key points: 
   
   - There are medications that are approved by the FDA and are known to be effective in quitting ALL tobacco products. Some of the possible choices may be:
     
     - 42 mg of patches
     - 21 mg patch plus a short acting NRT (gum, lozenges, inhaler)
     - If no contraindications: bupropion plus NRT
     - If no contraindications: Varenicline

   - He likely will need substantial pharmacotherapy given his long, heavy smoking history.