

# Nicotine Replacement and Smoking Cessation: Update on Best Practices

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# Objective

At the end of the presentation, participants will understand best practices for counseling and prescribing/recommending medications for the treatment of tobacco dependence.

# Disclosure

The presenter has no conflicts of interest to disclose.

# Tobacco Use in United States and WV

- Cigarette smoking contributes to 1 in 5 deaths in the U.S. every year.
- ~15% of U.S. adults smoke (2015 data).
- ~26.7% of WV adults smoke (2014 data).
- West Virginia has one of the highest rates of smoking in the United States (second to Kentucky).

# Tobacco Use in United States and WV

- In 2014, West Virginia had the highest rate of smokeless tobacco use in the country (8.5% to 3.7% national average).
- Electric cigarette were used by 7.1% of WV adults (5.6% of users identified as never smokers)

# How Can We Change the Statistics

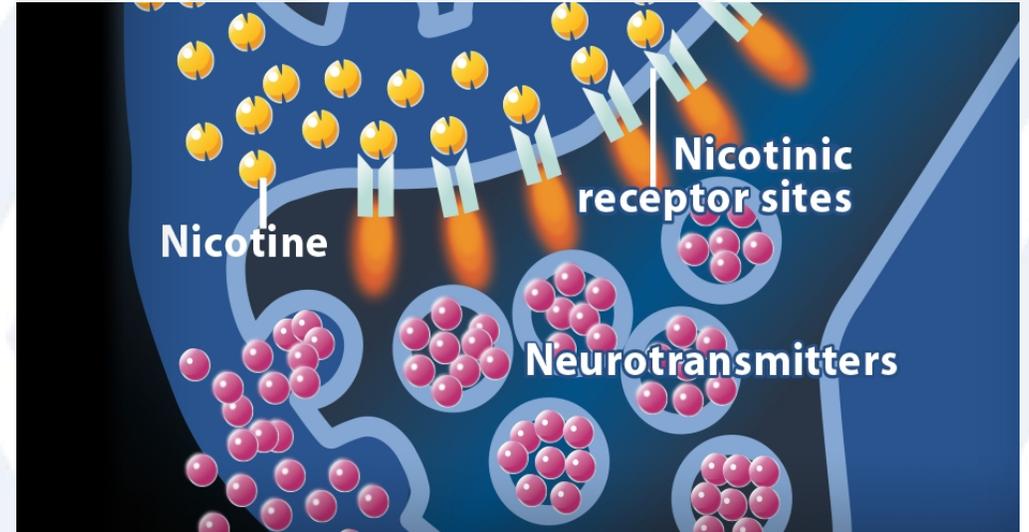


# Why Are Cigarettes Addictive?

- The addictive component of cigarettes is nicotine.
- Inhalation is the fastest way to deliver nicotine to the brain (moves through the lungs into the bloodstream then to the brain within 7-10 seconds).

# Why Are Cigarettes Addictive?

- Nicotine increases the number of nicotinic acetylcholine receptors in the brain. When these receptors are empty, people experience cravings.
- It takes time after quitting smoking for nicotine receptors that were produced during active smoking to disappear. These receptors also can be cued by triggers.



# How Can We Change the Statistics?

- Understanding that tobacco dependence is a chronic illness that necessitates repeat intervention and multiple quit attempts to be successful.
- Utilizing each interaction with patients as an opportunity to at least provide brief discussion/counseling about smoking cessation.
  - Ask
  - Advise
  - Assess
  - Assist
  - Arrange

5 A'S

# Stages of Behavior Change

- Precontemplation
- Contemplation
- Preparation
- Action
- Maintenance
- Relapse



# Why That is Important

- It is important to understand where patients fall in this continuum to know when is the best time for more intense interventions.
- People are more likely to change behavior if they feel the change is needed (importance) and think they have the ability to make the change (confidence).

# Tobacco Treatment Options

- Most effective means of quitting smoking is a combination of cognitive-behavioral therapy and pharmacotherapy.
- Even a brief intervention (1-3 minutes) can improve tobacco cessation success.
- More intensive provider intervention can further increase quitting rates.

# Tobacco Treatment Options

Emphasis should be placed on helping the patient understand why quitting smoking is important for them and helping to instill confidence in ability to make a lifestyle change



# First Line Pharmacotherapy

- Long-acting medications
  - Nicotine patch
    - Available in 21 mg, 14 mg, and 7 mg doses.
    - After 4-6 weeks of smoking cessation, cut dose every 2-4 weeks in 7-14 mg steps as patient tolerates.
  - Bupropion SR (Zyban)
    - Start medication one week prior to quit date.
    - Take 150 mg PO daily for 3 days then 150 mg PO BID for 4 days.
    - Then quit smoking, and continue medication for 12 weeks.
    - May continue for up to 12 months.
  - Varenicline (Chantix)
    - Start medication one week prior to quit date.
    - Take 0.5 mg PO daily for 3 days then 0.5 mg PO BID for 4 days.
    - Then quit smoking, and take 1 mg PO BID for 11 weeks.
    - If not smoking at the end of 12 weeks, may continue for additional 12 weeks.

# First Line Pharmacotherapy

Short-acting medications (can be used as monotherapy)

- Nicotine Gum
  - 2 mg, 4 mg doses
  - Initial dosing is 1-2 pieces every 1-2 hours
  - Not chewed like regular gum; chewed and then “parked” between cheek and gum
- Nicotine Lozenge
  - 2 mg, 4 mg doses
  - Initial dosing is 1-2 lozenges every 1-2 hours
  - Should not be chewed or swallowed
- Nicotine inhaler
  - Delivers nicotine through mouth lining not lungs
  - Initial dosing of minimum of 6 cartridges/day (up to 16/day)
  - Each cartridge can deliver 80 pumps over 20 minutes
- Nicotine nasal spray
  - Fastest delivery of nicotine product (other than cigarettes)
  - 1 spray in each nostril 1-2 times/hour (up to 5 times/hr or 40 times/day)
  - Most people average 14-15 doses/day



# Pharmacotherapy

- Combination therapy has been proved to be more effective at controlling cravings and reducing withdrawal symptoms by providing a consistent baseline.
- Consideration should be given to the patient's wishes when prescribing a breakthrough medication as this may improve use.
- When prescribing patch dosing, level of patch prescribed should be equal to number of cigarettes smoked per day (2 PPD = 2 nicotine 21 mg patches).
- Under-dosing nicotine replacement may result in inability for patient to quit smoking. Most common side effect of too much nicotine is nausea.

# Second Line Pharmacotherapy

- These medications should only be used if patient has failed first-line therapy on multiple occasions and with consideration of potential side effects.
  - Nortriptyline
  - Clonidine

# Smokeless Tobacco Users

- When considering pharmacotherapy for smokeless tobacco users, it is important to know how many cans/pouches/tins per week are currently used.
  - >3 cans per week = 42 mg/day
  - 2-3 cans per week = 21 mg/day
  - <2 cans per week = 14 mg/day
- Nicotine gum and lozenges can be used for breakthrough cravings. Nicotine inhalers and nasal spray are not recommended in this population.
- Bupropion and varenicline may be of benefit, with dosing guidelines recommended for cigarette smokers.



# Moving Forward

- Tobacco addiction is a chronic disease, and tobacco cessation is a process that requires effort to manage.
- Even brief interventions can help patients to quit smoking.
- Patients should be followed closely during and after smoking cessation.
- Patients should be congratulated on efforts.
- Relapse prevention should be addressed as many people return to tobacco use, even years after quitting

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