

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

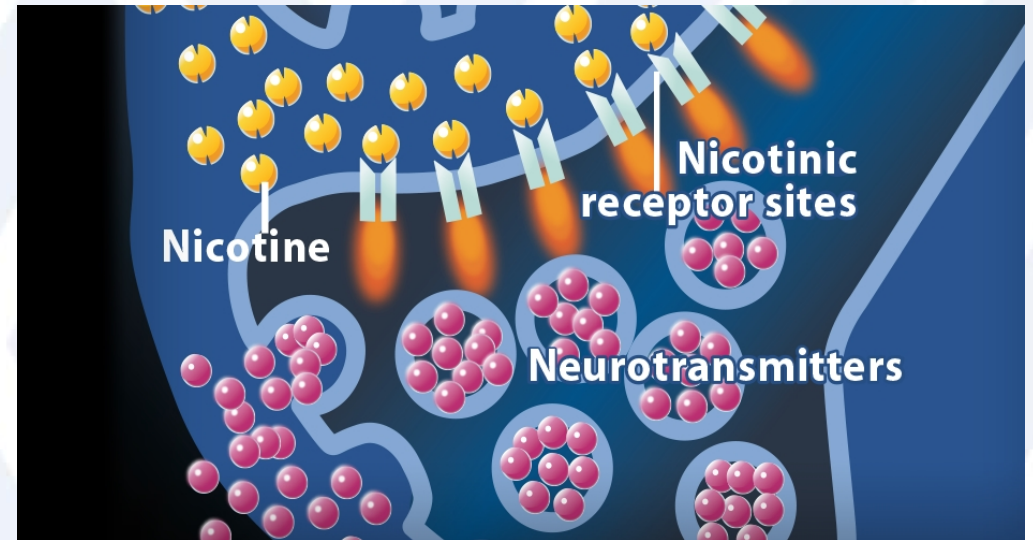


Why Are Cigarettes Addictive?

- 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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