

# Tobacco Cessation, E-Cigarettes and Hookahs

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- Discuss evidence-based tobacco cessation interventions including pharmacologic options.
- Review e-cigarette and hookah facts and safety considerations.

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- Tobacco dependence is a chronic disease that requires multiple interventions and attempts to overcome
- Clinicians should consistently attempt to identify, document and treat every tobacco user
- *Counseling and medications* are effective and should be recommended by clinicians
- Individual, group and telephonic counseling are effective and enhanced by medications
- If an individual is unwilling to quit at the present time, use motivational treatment to encourage future attempts

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U.S. Health Service Clinical Practice Guideline on Treating Tobacco Use and Dependence: 2008 (DHHS, 2008) and Recommendation Statement (Annals of Internal Medicine, Oct 2015)

- Promote health systems change
- Expanding insurance coverage and utilization of proven cessation treatments
- Supporting state quitline capacity

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Centers for Disease Control and Prevention. Best Practices for Comprehensive Tobacco Control Programs—2014. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

## What Works: Multi-Disciplinary Approach

- Establish staff roles (front desk staff, R.N., M.D., N.P., social worker) to implement smoking cessation in the clinic:
  - assessment of smoking status
  - brief interventions (based on stage of change)
    - Motivational Interviewing
    - Cognitive-behavioral strategies
    - Relapse prevention
  - addiction education
  - referral to quitline or other counseling
  - prescription of medication
  - follow-up

## What Can Multi-Disciplinary Teams Do?

- **Ask** tobacco questions at every visit
  - Document responses as a vital sign
  - **Provider reminders to ask about tobacco use:**
    - **electronic prompt, stamp, or vital sign checkbox**
- **Advise** all tobacco users to quit smoking
  - Use clear, strong and personalized message
  - Provide a brief intervention – brief (3-4 minutes)
- **Refer** individuals to an appropriate program
  - Individual counseling
  - Group counseling
  - Quitline
- **Follow-up** with all patients on tobacco status and quit process at every visit

## Impact of Multi-Disciplinary Team Approach

- Patients expect that health team will address tobacco use, even if they are ambivalent
- Patient perspective
  - Tobacco cessation intervention = quality care
- Different types of providers are effective at significantly increasing quit rates
- Multiple types of providers can enhance abstinence rates.

## Next Step: Where Do you Focus the intervention?

- Assess Stage of Change<sup>1</sup>
  - Pre-Contemplation & Contemplation = Motivational Interviewing Intervention
  - Preparation, Action, Maintenance, Slip/Relapse = Tobacco Cessation Intervention or Referral
- Assess Readiness<sup>2</sup>
  - Importance
    - How important is it to you to quit using tobacco?
  - Confidence
    - How confident are you in your ability to quit using tobacco?

## Brief Interventions: Motivational Interviewing (MI)

- Specific communication style
- Facilitates “change talk” - patients argue for change, not the provider
- Maximize motivation
- Opportunity for patients to make decisions
- Build on patients’ resources for change

## How to Deliver Motivational Interviewing Intervention



## Evidence-Based Tobacco Cessation Medications

### SUMMARIZING MOTIVATIONAL INTERVIEWING

## First Line Available Therapy – FDA Approved

### Effective Treatments

- All of the following improve the chances of quitting, with a low-risk of harm
  - NRT (patch, gum, lozenge, inhaler and spray)
  - Bupropion
  - Varenicline
- Combination NRT = Varenicline
  - more effective than single types of NRT

## Second Line Available Therapy – FDA Approved

- Nortriptyline improves the chances of quitting, with little evidence of harmful events
- Clonidine helped people to quit, but caused side effects

### Other aids (not 1<sup>st</sup> or 2<sup>nd</sup> – FDA)

- Cytisine has potential as a safe, effective and affordable treatment

## Nicotine Replacement Therapy (NRT)

- Nicotine replacement therapy (NRT) can be used instead of tobacco to aid quitting
- NRT delivers nicotine without the toxins from tobacco
- NRT helps combat the symptoms of withdrawal
- Nicotine dose from NRT is lower and administered more gradually than with smoking and this reduces the addictive potential
- Most available OTC

## Electronic Nicotine Delivery Systems: The Facts

- Rapidly emerging and diversified
- Deliver nicotine, flavorings, and other additives via an inhaled aerosol
- Referred to as "e-cigs," "e-hookahs," "mods," "vape pens," "vapes," and "tank systems"
- Most commonly used tobacco product among youth

## Electronic Nicotine Delivery Systems: The Facts Continued

- Major public health concern among youth and young adults
  - In 2014, young adults (18-24) surpassed adults
  - Young adults doubled use from 2013 to 2014
  - 2014 - more than one-third had tried e-cigarettes
  - Most recent data show that the prevalence of past 30-day use of e-cigarettes was 13.6% among young adults (2014) and 16.0% among high school students (2015)
  - Data available show that the prevalence of past 30-day use of e-cigarettes is similar among middle school students (5.3%) and adults 25 years of age and older (5.7%)

## Electronic Nicotine Delivery Systems: Safety Considerations

- Most contain nicotine
- Adolescent brain development
- The effects of nicotine exposure during youth and young adulthood
- Nicotine has potential to prime young brains for addiction
- Ingestion can cause acute toxicity and possible death
- The constituents of e-cigarette liquids can include solvents, flavorants, and toxicants
- Aerosol created by e-cigarettes can contain ingredients that are harmful and potentially harmful to the public's health

©2014 National Jewish Health U.S. Department of Health and Human Services. E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General—Executive Summary. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.

## E-Cigarettes & Current Cessation Practices

- 3 out of 4 adults who tried to quit in the past three months used multiple quit methods
- Most commonly used quit methods:
  - "cold turkey"
  - reducing the number of cigarettes they smoked
  - substituting some cigarettes with e-cigarettes
- E-cigarettes used by about one-third of smokers making quit attempts and more commonly used than the nicotine patch, gum, or other FDA-approved cessation aids

©2014 National Jewish Health Caraballo RS, Shafer PR, Patel D, Davis KC, McAfee TA. Quit Methods Used by US Adult Cigarette Smokers, 2014–2016. Prev Chronic Dis 2017; 14:160600. DOI: <https://doi.org/10.5888/pcd14.160600>.

## Application: E-cigarettes ≠ Cessation: Provider Opportunity

- Result - patients are using e-cigarettes when talking about cessation:
  - Provide a clear message about e-cigarettes, may be safer but not safe
  - Use this as opportunity to congratulate patient on working toward cessation
  - Ask about what they know about other quit medications (that are proven)
  - Ask about their plan and if they need support

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## Current State – Regulations May 2016

- Not allowing products to be sold to persons under the age of 18 years (both in person and online);
- Requiring age verification by photo ID;
- Not allowing the selling of covered tobacco products in vending machines (unless in an adult only facility); and
- Not allowing the distribution of free samples.

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U.S. Department of Health and Human Services. U.S. Food & Drug Administration, Center for Tobacco Products, FDA's New Regulations for E-Cigarettes, Cigars, and All Other Tobacco Products. <https://www.fda.gov/TobaccoProducts/Labeling/RegulationsGuidance/ucm394909.htm>

- Hookah use by youth and college students is increasing
  - 2015 – High school use  $\approx$  7% (almost = cigarettes use)
- Hookah typical use (teens and young adults):
  - hour-long session involves 200 puffs, while smoking an average cigarette involves 20 puffs
  - may absorb more of the toxic substances
  - amount of smoke inhaled 90,000 milliliters vs. 500–600 ml

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U.S. Department of Health and Human Services. [Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General](#). Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Office on Smoking and Health, 2012 [accessed 2015 Sep 14].

### Cancer

- Charcoal produces carbon monoxide, metals, and cancer-causing chemicals<sup>1</sup>
- Hookah tobacco and smoke contain several toxic agents known to cause lung, bladder, and oral cancers<sup>1</sup>
- Tobacco juices from hookahs irritate the mouth and increase the risk of developing oral cancers<sup>1</sup>

### Other Health Effects of Hookah Smoke

- Hookah tobacco and smoke contain many toxic agents that can cause clogged arteries and heart disease<sup>1</sup>
- Infections may be passed to other smokers by sharing a hookah<sup>2</sup>

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# Questions

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# Tobacco Cessation, E-Cigarettes and Hookahs

## Posttest Questions

- 1. What can providers do to help patients with smoking cessation? (Choose the best answer from a-d below.)**
  - Ask every patient about smoking use
  - Advise every patient to quit smoking
  - Refer patients to an appropriate program
  - All of the above
- 2. The following gives patients the best chance of quitting tobacco:**
  - Counseling
  - Medication
  - Counseling and medication
  - All of the above
- 3. The first-line medications approved by the FDA for smoking cessation are: (Choose all that apply)**
  - Bupropion
  - Gum
  - Lozenge
  - Cytisine
  - Varenicline
  - Nortriptyline
  - Clonidine
  - Inhaler
  - Patch
  - E-Cigarettes
  - Nasal Spray
- 4. We know that the following changes occur in the brain in response to chronic exposure to nicotine: (Choose the best answer from a-d below.)**
  - Tolerance
  - Increased number of brain receptors sensitive to nicotine
  - Psychological dependence
  - All the above
- 5. What are the concept(s) needed to assess readiness for any behavior change:**
  - Importance and Motivation
  - Importance and Confidence
  - Motivation
- 6. Electronic Nicotine Delivery Systems (ENDS) are a proven cessation strategy to quit tobacco.**
  - True
  - False