Today’s Talk

- Clinical Interventions to help our patients quit
- E-Cigarettes
- Policies that encourage cessation
Smoking in the U.S.

- 17.0% of adult Americans smoke (2014)
- 1 out of every 5 deaths in America is directly caused by smoking
- Kills almost 500,000 Americans each year
  - 1/3 to 1/2 of all tobacco users in this country will die prematurely from tobacco dependence
  - Smokers lose an average of 15-20 years of life
- Secondhand smoke kills >50,000 non-smokers each year
  - Class A Carcinogen; no safe level
  - Most deaths are related to cardiovascular disease

Tobacco directly causes:

- ~ 30% of all cancers, including 90% of all lung cancers
- ~ 30% of all cardiovascular diseases
- ~ 90% of all COPD
- ~ 10% of all healthcare costs
  - ~ $100 billion/year
Tobacco Use = Chronic Disease

- Like hypertension, diabetes, hyperlipidemia
- Address at every visit
- Keep trying

Challenge #1

Nicotine takes only 7 seconds to reach the brain
Challenge #2

- Craving for tobacco
- Irritability
- Anxiety
- Restlessness
- Depressed mood
- Insomnia
- Difficulty concentrating
- Increased appetite

The Guideline

- PHS Guideline evidence-based treatments
  - Counseling
  - Medications
  - Health System Changes
- 2008 - Updated Guideline published
- Literature from 1975 – 2007
- Approximately 8,700 total articles
The 5 A's

- Ask
- Advise
- Assess
- Assist
- Arrange

Ask
Advise
Assess
Assist
Arrange

Every patient. Every visit. Document.
The most important thing you can do to improve your health is to quit smoking, and I can help you.

“Are you willing to try to quit at this time? I can help you.”
The "5 A's" Algorithm

**ASK**
Do you currently use tobacco?

**YES**

**ADVISE**
to quit

**ASSESS**
Are you open to making a quit attempt?

**YES**

**ASSIST**
Counseling and medication

**ARRANGE**
Follow-up

**NO**

**ASSIST**
Motivation interventions

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The 5 R's

For those not yet ready to quit:

- **Relevance**
- **Risks**
- **Rewards**
- **Roadblocks**
- **Repetition**

**ASSIST**
Motivation interventions
The "5 A's" Algorithm

ASK
Do you currently use tobacco?

YES

ADVISE
To quit

ASSESS
Are you open to making a quit attempt?

YES
ASSIST
Counseling and medication

NO
ASSIST
Motivation interventions

ARRANGE
Follow-up

For smokers willing to try quitting

ASSIST
Counseling and medication
Counseling is effective
Medications are effective
Counseling + medication together produces the highest quit rates
Counseling – Key Measures

- **Set quit date**
  - Remove all tobacco products
  - No smoking, not even a puff, after you wake up

- **Review past quit attempts**
  - What worked – build on that
  - What led to relapse – plan for that

- **Anticipate challenges and ways to cope**
  - Triggers and smoking cues
  - Weight gain
  - Other smokers in home
  - Alcohol use
FDA-Approved Medications Can Double, Even Triple Success Rates

Bupropion SR
Varenicline
Nicotine lozenge
Nicotine gum
Nicotine nasal spray
Nicotine patch
Nicotine inhaler

*Always consult package insert for full prescribing and usage information.
2 Medication Regimens Result in Higher Quit Rates*

- Combination NRT
- Varenicline

*When compared to the nicotine patch

Combination Nicotine-Replacement Therapy (NRT)
Combination Nicotine-Replacement Therapy (NRT)

- Nicotine is active ingredient
- Two Types:
  - Steady dose (patch)
  - Self-administered (lozenge/gum)
- Start using both NRT medications on the quit day

Nicotine Patch: Dosing

- Patient smokes 10+ cigarettes per day
  - 4 weeks of 21 mg/day
  - 2 weeks of 14 mg/day
  - 2 weeks of 7 mg/day
- Patient smokes 5-9 cigarettes per day
  - 6 weeks of 14 mg/day
  - 2 weeks of 7 mg/day
Nicotine Gum and Lozenge: Dosing

- First cigarette smoked within 30 minutes of waking
  - 4 mg
- First cigarette smoked more than 30 minutes after waking
  - 2 mg
- Use enough – 5 to 20 pieces/day
- Use on a schedule and then prn for breakthrough cravings

Lozenge vs Gum

- While nicotine gum and lozenge both are effective, increasingly, we use the **mini-lozenge** because:
  - Better tolerated
  - Quicker nicotine absorption
Varenicline

- Mechanism of Action
  - Agonist and antagonist effects

- Dosing:
  - Start one week before the quit date.
  - ½ mg/day x 3 days, then ½ mg BID x 4 days, then 1mg BID x 3-6 months
  - The day the dose is increased to 1 mg BID (Day 8) is the Quit Day

- Side Effects: Nausea, insomnia, headache, abnormal dreams, psychiatric symptoms including suicidal ideation and aggression.
Varenicline

- Use with caution in patients with:
  - Significant renal impairment/undergoing dialysis
  - Serious psychiatric illness
  - Cardiovascular disease

- FDA Warning (March 2008 and updated in 2011):
  - Varenicline patients have reported depressed mood, agitation, changes in behavior, suicidal ideation and suicide. If your patient is feeling depressed while taking varenicline, make sure you tell your patient to stop the medication and call you.
  - Patients with CVD should be instructed to notify their health care providers of new or worsening cardiovascular symptoms and to seek immediate medical attention if they experience signs and symptoms of myocardial infarction.

- It is important to follow patients you put on varenicline, just like you follow patients with other medications.

Arrange a Follow-Up Visit

- 1-4 weeks after the Quit Date
- During the follow-up visit:
  - Assess progress
  - Stress medication adherence
  - Emphasize relapse prevention
Telephone counseling/coaching is effective.

How the Quit Line Works

1. A Wisconsinite calls the Quit Line.
2. A friendly coach offers tips and helps create a plan.
3. The Quit Line sends free medications and materials.
4. They arrive in the mail. It's free.
Electronic cigarettes: What we know and what we need to know about this emerging tobacco product

What Is an E-Cigarette?

- A device that heats and vaporizes a liquid that contains nicotine designed to mimic the experience of smoking a conventional cigarette
- More than 250 brands
Types of E-Cigarettes

- Disposable (AKA “Cigalikes”)

Types of E-Cigarettes

- Rechargeable
Types of E-Cigarettes

- Vape pen

- Tank systems
Types of E-Cigarettes

- Mod systems

E-Liquids or “Juice”

- Usually contains:
  - Propylene glycol or vegetable glycerin
  - Water
  - Nicotine
  - Flavorings

- Also sold without propylene glycol, without nicotine, or without flavors
Prevalence

- Rapidly increasing rates of use
  - In 2012, approximately 20% of smokers reported they had tried e-cigarettes (almost 10 million smokers)
  - In 2015, 10% of U.S. adults vape – 4x higher than the 2013 estimate
- Rapidly increasing U.S. sales
  - Approx. $2 billion in 2013
  - Approx. $90 billion for conventional cigarettes

E-Cigarette Users

- More likely to be:
  - Current smokers
  - Non-Hispanic Whites
  - Younger
  - In better health
  - Use for an average of 10 months
Health Effects

- E-cigarettes do contain nitrosamines and formaldehyde, but at 1/1000 the level of combustible cigarettes
- Adverse events are typically:
  - Mouth and throat irritation
  - Nausea
  - Headache
  - Dry cough
- There are no studies of long-term health effects or the effects of second-hand vapor

Do E-Cigarettes Help Smokers?

- E-cigarettes have been shown to help smokers reduce the number of combustible cigarettes smoked
- 3 out of 4 smokers who vape continue to smoke combustible cigarettes
British Approach

- Their expert review is that e-cigarettes are 95% safer than combustible cigarettes
  - <10 ingredients vs. >7,000 – almost 70 of which are carcinogenic
- In England, e-cigarettes will be licensed and regulated as a smoking cessation aid in 2016

McNeill et al., 2015. E-cigarettes: An evidence update
A report commissioned by Public Health England
Nutt et al., 2014, Eur Addict Res

E-Cigarettes

What is a Reasonable Clinical Approach in 2015?
A Realistic Clinical Approach for 2015
When Patients Ask About E-Cigarettes

- Patients are asking about e-cigarettes as a strategy to quitting conventional cigarettes, necessitating a clinical response.

- The following five step approach is the clinical strategy we currently follow, knowing that the science needed to clinically respond is very limited.


A Realistic Clinical Approach for 2015
When Patients Ask About E-Cigarettes

Step 1

- Clearly communicate that use of any tobacco product (combustible or smokeless tobacco) can be harmful, but that combustible tobacco use is by far the most harmful.
A Realistic Clinical Approach for 2015 When Patients Ask About E-Cigarettes

Step 2

- Strongly encourage the patient to stop using any combustible or smokeless tobacco product.
- If the smoker is willing to make a quit attempt, offer the evidence-based cessation treatments recommended by the United States Public Health Service (PHS) Clinical Practice Guideline:
  - Physician advice
  - Quit line counseling
  - FDA-approved medications

Step 3

- If the patient is not willing to make a quit attempt at this time, urge the smoker to smoke combustibles as little as possible (i.e., cut down). Also:
  - Review new strategies to help the patient reduce smoking, including behavioral strategies (e.g., not smoking in home or car).
  - Inform the patient that using NRT may help reduce combustible use and ultimately quit entirely.
  - Inform the patient that there are many forms of FDA-approved NRT (e.g., the nicotine mini-lozenge, combination NRT) that can reduce the urge to smoke.
A Realistic Clinical Approach for 2015
When Patients Ask About E-Cigarettes

Step 4

- When discussing cigarette substitutes, many patients may propose using e-cigarettes. Inform the patient that:
  - The health effects of e-cigarette use are not known, but e-cigarettes are likely safer than combustible tobacco products.
  - If they cannot stop or greatly reduce their smoking using NRT or behavioral strategies, patients may decide to try e-cigarettes.
  - Emphasize that the ultimate goal must be complete cessation of combustible cigarette use in order to protect health.
  - Note that dual use is not a good long-term goal.

Step 5

- Over time, the clinician should monitor the patient’s success in eliminating combustible tobacco use, and assist the patient in achieving complete cessation of all tobacco products.
Affordable Care Act Guidance on Tobacco Cessation Treatment Coverage

A group health plan or health insurance issuer will be considered to be in compliance with the Affordable Care Act’s requirement to cover tobacco use counseling and interventions, if, for example, the plan or issuer covers without cost-sharing or prior authorization:

1. Screening of all patients for tobacco use; and,

2. For those who use tobacco products, at least two tobacco cessation attempts per year, with coverage of each quit attempt including:
   - Four tobacco cessation counseling sessions of at least 10 minutes each (including telephone, group, and individual counseling).
   - All Food and Drug Administration (FDA)-approved tobacco cessation medications* (including both prescription and over-the-counter medications) for a 90-day treatment regimen when prescribed by a health care provider.

*Currently, the FDA has approved seven smoking cessation medications: 5 nicotine medications (gum, patch, lozenge, nasal spray, inhaler) and 2 non-nicotine pills (bupropion and varenicline)

Meaningful Use of Electronic Health Records
### Meaningful Use of Electronic Health Records

<table>
<thead>
<tr>
<th>Stage 1 Core Objective (required)</th>
<th>Stage 1 Core Measure</th>
<th>Stage 2 Core Objective (required)</th>
<th>Stage 2 Core Measure</th>
<th>Stage 3 Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record smoking status for patients 13 years old or older</td>
<td>More than 50% of all unique patients 13 years old or older seen by the EP or admitted to the eligible hospital or CAH have smoking status recorded as structured data</td>
<td>Record smoking status for patients 13 years old or older</td>
<td>More than 80% of all unique patients 13 years old or older seen by the EP or admitted to the eligible hospital or CAH have smoking status recorded as structured data</td>
<td>Smoking status still required, but does not have to be reported for Meaningful Use attestation. New Clinical Quality Measure “Recommended” for Eligible Professionals - Closing the Referral Loop: Receipt of Specialist Report</td>
</tr>
</tbody>
</table>

### Clinical Quality Measures (All Stages of MU)

One of nine “Recommended” for Eligible Professionals (no tobacco intervention measure for Hospitals)

Tobacco Use: Screening and Cessation Intervention. Percentage of patients 18 and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user.

[www.ctri.wisc.edu](http://www.ctri.wisc.edu)