EVIDENCE-BASED INTERVENTIONS TO HELP PATIENTS QUIT TOBACCO

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Overview of Tobacco Use
The World Health Organization describes smoking as an **EPIDEMIC**

that currently causes nearly 6 million deaths per year and will lead to 8 million deaths annually by 2030 if current trends continue.

Current Trends - U.S.

• In 2014, nearly 17 of every 100 U.S. adults aged 18 years or older (15.1%) currently* smoked cigarettes.

• Cigarette smoking is the leading cause of preventable disease and death in the United States, accounting for more than 480,000 deaths every year, or 1 of every 5 deaths

• Smoking costs the United States billions of dollars each year.

Source: CDC, 2018
Current Cigarette Use Among Adults (Behavior Risk Factor Surveillance System) 2014

Source: CDC, 2016: http://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm#national
Tobacco Dependence

- Nicotine is the addictive agent in tobacco products
- Smoking habits are established early
- 9 out of 10 smokers started before the age of 18
- Young people greatly overestimate their own ability to quit
- Addiction develops quickly
- Withdrawal symptoms appear in adolescents within a few weeks of smoking 2 cigarettes per week
- The more a person smokes, the more nicotine receptors they develop, so they need an increased number of cigarettes to manage the symptoms of withdrawal
- Avoiding withdrawal is the reason many continue to smoke
DSM V: Tobacco Use Disorder

• A problematic pattern of tobacco use leading to clinically significant impairment or distress, as manifested by at least two symptom criteria occurring within a 12-month period.

• Three levels of severity based upon number of symptoms present (at least 2 must be present)
  – Mild: 2-3 symptoms
  – Moderate: 4-5 symptoms
  – Severe: 6 or more symptoms
Tobacco Use Disorder: Diagnostic Criteria

1. Taken in larger amounts or over longer period than intended
2. Persistent desire or unsuccessful efforts to cut down or quit
3. Great deal of time spent to obtain or use
4. Craving
5. Recurrent use resulting in failure to fulfill major role obligations
6. Use despite persistent social or interpersonal problems
7. Giving up or reducing important activities because of use
8. Recurrent use in physically hazardous situations
9. Use despite persistent physical or psychological problems
10. Tolerance
11. Withdrawal
## Widely Used Drugs of Dependence

<table>
<thead>
<tr>
<th>Drug and Action</th>
<th>Number Who Used in the Past Month (12 years and older)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heroin</td>
<td>289,000</td>
</tr>
<tr>
<td>Methamphetamines</td>
<td>595,000</td>
</tr>
<tr>
<td>Cocaine</td>
<td>1.5 million</td>
</tr>
<tr>
<td>Marijuana/Hashish</td>
<td>19.8 million</td>
</tr>
<tr>
<td>Alcohol</td>
<td>16.5 million heavy drinkers</td>
</tr>
<tr>
<td>Nicotine</td>
<td>66.9 million</td>
</tr>
</tbody>
</table>

Source: Substance Abuse and Mental Health Service Administration: Results from the 2013 National Survey on Drug Use & Health: Summary of National Findings.
Challenges to Stopping Tobacco Use

• 69% of US smokers say they want to quit
• Half of quit attempts fail in the first week
• Substance use and psychiatric disorders
• Strong nicotine dependency (first cigarette within 30 min. of waking)
• Living/socializing with other smokers (less social support in quitting)
• Lack of confidence in ability to quit
In Summary

• Tobacco use is a relapsing disorder that starts in childhood
• Fits the definition of a chronic condition or disease
• Needs a long-term management approach
Effective Clinical Strategies

The PHS Guideline provides evidence for three major strategies for intervening with patients in the clinical setting:

1. Counseling
   - Routine, brief interventions with all patients
   - More intensive behavioral counseling, including telephone counseling

2. Pharmacological support

3. Systems support

PHS Guidelines, 2008
Objectives

Provide a framework for care providers to assist patients in quitting tobacco use:

• Assess and document tobacco use status of every patient
• Provide quitting intervention to all tobacco users
• Treat behavioral/psychological aspects of tobacco addiction with behavioral interventions
• Treat biologic aspects of tobacco addiction with pharmacotherapy

PHS Guidelines, 2008
Counseling
Recommendations

• Providing smokers with practical counseling (problem solving skills/skills training)

• Providing support and encouragement as part of treatment.

  1. Motivational Interviewing

  2. Cognitive Behavioral Strategies
Motivational Interviewing

A patient-centered counseling intervention focusing on exploring a tobacco user’s feelings, beliefs, ideas, and values regarding tobacco use in an effort to uncover any ambivalence about using tobacco.
Cognitive Behavioral Strategies

Rearrange environmental cues or triggers

• **Trigger** — situation, behavior, thought or mood commonly associated with smoking or dipping

• **Setting a goal of self-management:**
  
  – For patients to systematically practice using coping strategies to not smoke or dip in identified trigger situations
Quitting tobacco consists of three phases:
- Pre-Cessation (Getting ready)
- Cessation (Quitting)
- Relapse Prevention (Maintenance)
Pharmacological Support
Who Should Be Offered Pharmacotherapy?

- All smokers trying to quit should be offered medication, except when contraindicated or for specific populations for which there is insufficient evidence of effectiveness:
  - Pregnant women
  - Light smokers
  - Adolescents

- Use of pharmacotherapy doubles long term quit rates

- Pharmacotherapy + counseling increases success
First-line Medications

• Varenicline (Chantix)*
• Bupropion (Zyban/Wellbutrin)*
• Nicotine patch
• Nicotine gum
• Nicotine lozenge
• Nicotine inhaler*
• Nicotine spray*

*Rx Only
Medications

- Varenicline (Chantix)-Chantix acts at sites in the brain affected by nicotine and may help in two ways:
  - Providing some nicotine effects to ease the withdrawal symptoms and
  - Blocking the effects of nicotine from cigarettes if they resume smoking

- Bupropion (Zyban/Wellbutrin)-decreases desire to smoke. Can be used with nicotine replacement products.
Nicotine Replacement Therapy (NRT)

Patch, gum, lozenge, inhaler*, spray*

- Alleviates nicotine withdrawal symptoms
- Can be used individually or combined
- Safe in Acute Coronary Syndrome
- Studies show can be used while patient is still smoking

*Rx only
Nicotine Patch: Long Acting

- Slow onset, produces steady nicotine levels for most of the day
- Prolonged withdrawal relief
- Simplest to use
- Best adherence
- No control of nicotine levels
- No way to respond to craving through day
Short Acting NRT

• Rapid onset but shorter duration
• Nasal spray: most rapid (5-10 minutes) but can cause local irritation
• Nicotine gum, lozenge, oral inhaler: absorbed through oropharynx (20-30 min.)
• Can regulate blood levels by adjusting use
• Often fail to administer often enough
• Patient education on proper use
NRT Dependence?

- NRT dependence potential is low: not absorbed through the lungs, does not mimic a cigarette’s rapid delivery of nicotine to arterial circulation which contributes to addictiveness

- Patient education: important to explain this to the patient, so it will not be a barrier to trying NRT
Systems

Incorporating Best Practices Into Patient Care
### Treatment Efficacy

<table>
<thead>
<tr>
<th>No clinician</th>
<th>10.8% est. abstinence rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>One clinician type</td>
<td>18.3%</td>
</tr>
<tr>
<td>Two clinician types</td>
<td>23.6%</td>
</tr>
<tr>
<td>Three or more</td>
<td>23%</td>
</tr>
</tbody>
</table>

Source: PHS Guideline, 2008
## Treatment Efficacy x Contact Time

<table>
<thead>
<tr>
<th>Contact Time</th>
<th>Estimated Abstinence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>No minutes</td>
<td>11% est. abstinence rate</td>
</tr>
<tr>
<td>1-3 minutes</td>
<td>14.4%</td>
</tr>
<tr>
<td>4-30 minutes</td>
<td>18.8%</td>
</tr>
<tr>
<td>31-90 minutes</td>
<td>26.5%</td>
</tr>
<tr>
<td>91-300 minutes</td>
<td>28.4%</td>
</tr>
<tr>
<td>&gt; 300 minutes</td>
<td>25.5%</td>
</tr>
</tbody>
</table>

*Source: PHS Guideline, 2008*
Two Key Questions to Ask Patients

- “Do you smoke?”
- “Do you want to quit?”

Follow up questions with PHS Clinical Practice Guideline recommendations.
PHS Clinical Practice Guidelines

*The 5 A’s*

- Ask
- Advise
- Assess
- Assist
- Arrange

REREFER
Clinicin’s Actions to Help Patients Quit Tobacco Use

**ASK** every patient about tobacco status—document in medical chart

Current tobacco user?

Yes

**ADVISE** to quit

No

**ASSESS:** Ready to quit?

Yes

**REFER** to tobacco treatment specialist

OR

**ASSIST** by providing:
- Help patient set a quit date
- Personalized advice
  - Review prior quit attempts
  - Anticipate challenges
  - Prepare environment
- Pharmacotherapy as appropriate
- Information on community programs

**ARRANGE** follow-up

Abstinent at follow-up?

Yes

- Congratulate on success
- Review/reinforce reasons for quitting
- Adjust pharmacotherapy, as appropriate

No

Assess reasons for failure and:
- Consider referral for more intense counseling
- Reassess pharmacotherapy
- Advise to make another quit attempt

No recent quit, congratulate and reinforce reasons for quitting

Patient is not ready to quit and requires motivational intervention. Review:
- Relevance of quitting
- Risks of tobacco use
- Rewards of quitting
- Roadblocks to quitting
- Repetition of above strategies

Source: UMHS Tobacco Treatment Guideline, March 2012
Resources

- USPHS 2008 Tobacco Treatment Guidelines

- CDC Best Practices for Comprehensive Tobacco Control

- Association for the Treatment of Tobacco Use and Dependence (ATTUD)

- University of Michigan Tobacco Consultation Service
  www.mhealthy.umich.edu/tobacco

- NAQC Quitline Map http://map.naquitline.org
Contact Information

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