Implementing MAT Services for Tobacco Cessation in Integrated Care Settings

Innovation Community

Setting the Stage:
Today's Moderator

Madhana Pandian
Associate
SAMHSA-HRSA Center for Integrated Health Solutions

Slides for today’s webinar will be available on the CIHS website:

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Listserv

Look for updates from: mat_ic@nationalcouncilcommunities.org
Setting the Stage:
Today's Facilitator

Aaron Williams
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Setting the Stage:
Today's Presenters

• Christine Garver-Apgar, PhD.
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  Program and Policy Analyst, Behavioral Health & Wellness
  Program, University of Colorado, Anschutz Medical Campus

Pharmacotherapy Objectives:

- Describe the FDA-approved tobacco dependence medications
- Provide data on efficacy of medications for smoking cessation
- Discuss special considerations for specific groups
- Identify strategies for implementation of MAT for nicotine dependence.

Evidence-Based Tobacco Cessation

The U.S. Department of Health & Human Services -
Public Health Service Clinical Guideline: Treating Tobacco Use and Dependence - 2008 Update

“Counseling and medication are effective when used by themselves for treating tobacco dependence. The combination of counseling and medication, however, is more effective than either alone”.

Tobacco Cessation Treatment Strategies

<table>
<thead>
<tr>
<th>Treatment Format</th>
<th>Abstinence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unaided</td>
<td>4-7%</td>
</tr>
<tr>
<td>Self-help</td>
<td>11-14%</td>
</tr>
<tr>
<td>Quitline</td>
<td>11-15%</td>
</tr>
<tr>
<td>Individual counseling</td>
<td>15-19%</td>
</tr>
<tr>
<td>Group counseling</td>
<td>12-16%</td>
</tr>
<tr>
<td>Medication alone</td>
<td>22%</td>
</tr>
<tr>
<td>Medication + counseling</td>
<td>25-30%</td>
</tr>
</tbody>
</table>

Source: Fiore et al., 2008
Nicotine differs from other drugs of abuse since a greater percentage of those who try it become daily users than those who try other drugs.

Tobacco Smoke Delivery and Absorption

- Cigarettes can readily deliver approximately 1-2 mg of nicotine
- Reaches the brain within 10 seconds after inhalation
- 90% of nicotine is absorbed through inhaled or “mainstream” smoke directly from a cigarette rather than second-hand or “sidestream” smoke

Sources: Benowitz, 1999; Henningfield, 1984

Nicotine Withdrawal Effects

- Irritability, frustration, anger
- Anxiety
- Difficulty concentrating
- Restlessness, impatience
- Depressed mood
- Insomnia
- Increased appetite

Most symptoms:

- Appear within the first 1-2 days
- Peak within the first week
- Decrease within 2-4 weeks

Sources: Hughes, 2007; USDHHS, 2010

Cessation Pharmacotherapy

Tobacco Cessation Medications

The only medications approved by the Food and Drug Administration (FDA) for tobacco cessation are:

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

The only medications approved by the Food and Drug Administration (FDA) for tobacco cessation are:

- Nicotine inhaler
- Bupropion SR tablets
- Varenicline tablets

Safety of NRT

- No interactions with most psychiatric medications
- Safe in presence of cardiovascular disease
- Effective for patients with chronic obstructive pulmonary disorder (COPD)
- Safe while individual is still smoking
- General precautions:
  - Within 2 weeks of a heart attack
  - Serious arrhythmia
  - Uncontrolled hypertension
  - Peptic ulcers
  - Insulin-dependent diabetes
  - Severe or worsening angina

Sources: Ferguson et al., 2011; Moore et al., 2009.
Nicotine Patch

- Nicotine is absorbed through the skin
- Sold without a prescription
- Do not cut in half
- Apply a new patch every 24 hours

NRT Patch Dosages and Application

<table>
<thead>
<tr>
<th>NicoDerm CQ (OTC)</th>
<th>Generic (OTC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patch strength</td>
<td>Duration</td>
</tr>
<tr>
<td>21 mg/day</td>
<td>6-8 weeks</td>
</tr>
<tr>
<td>14 mg/day</td>
<td>2-4 weeks</td>
</tr>
<tr>
<td>7 mg/day</td>
<td>2-4 weeks</td>
</tr>
</tbody>
</table>

Possible side effects:
- local skin reaction, insomnia

Patch Application: Tips for Clients

- Peel off ½ of the adhesive backing
- Apply adhesive exposed side to skin
- Peel off remaining backing
- Press firmly with palm of hand for 10 seconds
- Make sure patch is firmly adhered to skin
- Do not cut the patch in half
- Carefully dispose of patch after removing

Nicotine Gum

- Sugar-free chewing gum base
- Available in different flavors
- Absorbed through the lining of the mouth
- Available in two strengths
- Sold without a prescription
- May not be a good choice for people with jaw problems, braces, retainers, or significant dental work

Nicotine Gum Dosages

- Scheduled dosing increases success with this treatment
  - <20 cigarettes per day
    - 2 mg gum every 1-2 hours
  - >20 cigarettes per day or smoke within 30 minutes of waking up
    - 4 mg gum every 1-2 hours
  - Slowly taper dosing as tolerated over 8 to 12 weeks
  - No less than 9 doses and no more than 24 doses per day

Nicotine Lozenge

- Sugar-free lozenge
- Available in different flavors
- Absorbed through the lining of the mouth
- Available in two strengths
- Sold without a prescription
- Use 1 lozenge every 1 to 2 hours
- Possible side effects are mouth/throat soreness or indigestion
Gum/Lozenge: Directions for Use

- Chew each piece slowly until the gum releases a peppery taste or a slight tingling occurs
- "Park" the gum between cheek and gum to allow for absorption across the buccal mucosa
- Resume chewing when taste or tingle fades
- When tingle returns, stop chewing and park gum in a different place in mouth
- Repeat process until the tingle is gone (about 30 minutes)

Nicotine Nasal Spray

- About 100 doses per bottle
- Quickly absorbed through the lining of the nose
- Sold with a prescription as Nicotrol NS

Nicotine Inhaler

- Absorbed through the lining of the mouth
- Allows for similar hand-to-mouth ritual of smoking
- Sold with a prescription
- Possible side effects are throat/mouth irritation, coughing, and runny nose

Label Update: Nicotine Replacement Therapy

<table>
<thead>
<tr>
<th>Previous Label</th>
<th>Current Label</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drug Facts Labeling</strong></td>
<td><strong>Drug Facts Labeling</strong></td>
</tr>
<tr>
<td><strong>Warnings</strong></td>
<td><strong>Warnings</strong></td>
</tr>
<tr>
<td>Do not use.</td>
<td>None.</td>
</tr>
<tr>
<td>• If you continue to smoke, chew tobacco, use snuff, or use a different NRT product or other nicotine-containing products.</td>
<td>The &quot;Do not use&quot; statement has been removed.</td>
</tr>
<tr>
<td><strong>Directions</strong></td>
<td><strong>Directions</strong></td>
</tr>
<tr>
<td>• Stop smoking completely when you begin using the NRT product.</td>
<td>Begin using the NRT product on your quit day.</td>
</tr>
<tr>
<td>• It is important to complete treatment. Stop using the NRT product at the end of a specified number of weeks. If you still feel the need to use the NRT product, talk to your doctor.</td>
<td>• It is important to complete treatment. If you feel you need to use the NRT product for a longer period to keep from smoking, talk to your healthcare provider.</td>
</tr>
</tbody>
</table>

Bupropion SR Tablets

- Does not contain nicotine
- The tablet is swallowed whole, and the medication is released over time
- Sold with a prescription as Zyban or generic
- Initial dose of 150 mg/day for 3 days, followed by 150 mg twice daily for 6-12 weeks

Bupropion Side Effects and Precautions

- Side effects include:
  - Insomnia (35-40%)
  - Dry mouth (<10%)
  - Agitation, decreased appetite, dizziness, headache, nausea
- Avoid recommending to individuals:
  - With eating disorders
  - At increased risk for seizures
  - Diagnosed with bipolar disorder
  - With concomitant or recent use (past 2 weeks) of MAO inhibitors
- Take precautions for individuals with schizophrenia
**Varenicline**

- Does not contain nicotine
- The tablet is swallowed whole
- Sold with a prescription only as Chantix
- People who take Chantix should be in regular contact with their doctor
- Initial dosing is 0.5 mg/day for 3 days and then twice daily for 4 days. For next 11 weeks, dosing is 1 mg twice daily

**Side Effects and Precautions**

- Side effects include:
  - Nausea
  - Headache
  - Insomnia and abnormal dreams
  - Constipation and flatulence
- Precautions for individuals:
  - Operating heavy machinery
  - With kidney or cardiac problems
  - Taking insulin, asthma medications, or blood thinners

**Pharmacotherapy Efficacy**

Abstinence rates compared to placebo at 6 months or greater post-quit

<table>
<thead>
<tr>
<th>Medication</th>
<th>Number of Trials (People)</th>
<th>Estimated Risk Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRT</td>
<td>117 (51,265)</td>
<td>1.6 (1.5-1.7)</td>
</tr>
<tr>
<td>Bupropion</td>
<td>44 (13,728)</td>
<td>1.6 (1.5-1.8)</td>
</tr>
<tr>
<td>Varenicline</td>
<td>14 (6,166)</td>
<td>2.3 (2.0-2.6)</td>
</tr>
</tbody>
</table>

Source: Patnode et al., 2015

**NRT Efficacy**

Abstinence rates compared to placebo at 6 months or greater post-quit

<table>
<thead>
<tr>
<th>Medication</th>
<th>Number of Studies (People)</th>
<th>Estimated Risk Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patch</td>
<td>43 (19,586)</td>
<td>1.6 (1.5-1.8)</td>
</tr>
<tr>
<td>Gum</td>
<td>56 (22,581)</td>
<td>1.5 (1.4-1.6)</td>
</tr>
<tr>
<td>Lozenge</td>
<td>7 (3,405)</td>
<td>2.0 (1.6-2.4)</td>
</tr>
<tr>
<td>Inhaler</td>
<td>4 (976)</td>
<td>1.9 (1.4-2.7)</td>
</tr>
<tr>
<td>Nasal Spray</td>
<td>4 (887)</td>
<td>2.0 (1.5-2.7)</td>
</tr>
</tbody>
</table>

Source: Perera et al., 2012

**Long-Term (36-month) Quit Rates for Cessation Medications**

Sources: Silagy & Stead, 2004; Hughes, Stead, & Lancaster, 2004; Gonzales et al., 2006

**Combination Therapy**

Use of two or more forms of tobacco cessation medications can improve cessation rates
Abstinence rates compared to single medication at 6 months or greater post-quit

<table>
<thead>
<tr>
<th>Medication</th>
<th>Number of Studies (People)</th>
<th>Estimated Risk Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patch + Other NRT vs. Patch only</td>
<td>9 (4,664)</td>
<td>1.34 (1.2-1.5)</td>
</tr>
<tr>
<td>Patch + Bupropion vs. Bupropion only</td>
<td>4 (1,991)</td>
<td>1.2 (1.1-1.5)</td>
</tr>
</tbody>
</table>

Source: Perera et al., 2012

Pre-Cessation Nicotine Replacement

Studies show individuals who used NRT before their quit date:
- Did not experience any significant side effects
- Experienced an increase in their quit rates
- Were twice as likely to maintain their abstinence at 6 months

Sources: Schiffman & Ferguson, 2008; Rose, Herskovic, Behm, & Westman, 2009

Considerations for Specific Groups

Women and Pregnancy and Nursing Mothers
- NRT is not as effective with women
  - Women may need more intensive behavioral and pharmacological support
- Pregnant/nursing mothers
  - Pharmacotherapy should only be considered when behavioral treatments fail
  - Treatment must be monitored by a physician
  - Although NRT exposes woman to nicotine, it does NOT expose her to the other harmful chemicals in tobacco

Youth
- NRT is a consideration for youth who are clearly nicotine dependent
  - Use is “off-label”
  - Must present a clear desire to quit
- Evidence and recommendations are mixed

Cessation Medications for Persons with Mental Illnesses and Addictions
- Higher levels of nicotine dependence
- There is no medical reason not to use cessation medications
  - First line treatments are recommended for all
- Comfortable detox for temporary abstinence
- Recent trials of varenicline for schizophrenia and depression
  - Effective
  - No greater side effects
Implementation Strategies

Step 1: Developing a Focused Message

- Create an agency/office wide tobacco cessation system.
- Ensure that every patient at every clinic visit tobacco use status is queried and documented.
- Appropriate referrals, resources, and follow up are always provided.
- Tracking system in place.

The 5A’s Model

- Ask: "Have you ever smoked or used other tobacco/nicotine products in the past month?"
- Assess: "When was the last time you smoked or used other tobacco/nicotine products?"
- Advise: Make a quit date or "Would you like to quit?"
- Arrange: Provide education and relevant materials
- Ask: "Is the patient ready to talk about smoking cessation?"
Low Burden, Low Compliance

<table>
<thead>
<tr>
<th>Study</th>
<th>ASK</th>
<th>ADVISE</th>
<th>ASSESS</th>
<th>ASSIST</th>
<th>ARRANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAP 2014</td>
<td>91.1%</td>
<td>NA</td>
<td>NA</td>
<td>50.3%</td>
<td>NA</td>
</tr>
<tr>
<td>Park 2015</td>
<td>77.2%</td>
<td>75.6%</td>
<td>63.4%</td>
<td>56.4%</td>
<td>10.4%</td>
</tr>
<tr>
<td>Guttik 2001</td>
<td>56.9%</td>
<td>80.9%</td>
<td>NA</td>
<td>21.8%</td>
<td>1.8%</td>
</tr>
<tr>
<td>DePue 2002</td>
<td>44.0%</td>
<td>26.0%</td>
<td>NA</td>
<td>10.0%</td>
<td>5.0%</td>
</tr>
<tr>
<td>HLER 2011</td>
<td>79.5%</td>
<td>52.7%</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Lebruns-Harriss 2015</td>
<td>98.9%</td>
<td>68.9%</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Land 2012</td>
<td>56.5%</td>
<td>83.8%</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Quinn 2009</td>
<td>100.0%</td>
<td>77.0%</td>
<td>NA</td>
<td>41.5%</td>
<td>NA</td>
</tr>
</tbody>
</table>

Step 2: Securing Buy-in

- Buy-in from executive-level management and staff is critical
- Develop a culture that promotes cessation
- Identify staff champions – individuals to organize clinic or office tobacco cessation efforts

Provider Barriers

- Time constraints
- Lack of training
- Competing demands, goals
- High volume, difficult to develop long-term relationships
- Lack of reminder systems

Form a Committee

- Directors (HR, Facilities, Clinical/Medical)
- Environmental services
- Key employee groups
- Key client groups
- Security
- Pharmacy
- Health & Wellness Coaches

Staff Buy-In is Critical

- Brief provider training is a cost effective way to improve patient health outcomes and quality of life.
- Staff training increases the belief in and provision of cessation services.
- Psychiatric staff—including those in addictions treatment—smoke at higher rates than the general population, but...
- Tobacco free policies and their accompanying supports increase successful quit attempts for both clients and staff.

Wellness Workflow: Key Ingredients

- Site Champion (e.g. wellness, co-occurring)
- Front desk/ administrative assistants
- Clinician/ medical assistant
- Peer recovery specialists/ patient navigators
- Physician/ prescriber
- Community referral sources
Clinic Checklist: 
Staff Resources and Knowledge

- Have staff been assigned clear roles and responsibilities for interventions?
- Are clinicians knowledgeable in discussing risks, benefits of quitting, physiological & emotional processes during quit attempts?
- Are clinicians familiar with setting realistic goals for quitting (cessation & harm reduction)?
- Are staff & clinicians aware of internal & external resources?
- Are staff & clinicians familiar with referral process to cessation programs?

Tobacco Cessation Workflow

Step 3: Find the Agency’s Growth Edge

- Assess patient population: Have a good understanding of the populations the community, center, etc. serves
- Evaluate the current system: How can the Clinical Guidelines be implemented into what you’re already doing?
- Where can a health systems change have the biggest impact?

Clinical Information Systems

- Template design
- Incorporate provider reminders
- Mirror clinical workflow to maximize efficiency
- Data retrieval for monitoring and evaluation

Step 4: Awareness & Education

- Provider/Staff Tobacco Cessation education 101.
- Staff training on Clinical Guidelines: 5A’s and/or 2A’s & R
- Material resources and brochures

FTND and HSI

1. How soon after you awake do you smoke your first cigarette?
2. Do you find it difficult to refrain from smoking in places where it is forbidden (e.g. church, library, work, airplane)
3. Which cigarette would you hate to give up? (Morning/Other)?
4. How many cigarettes a day do you smoke?
5. Do you smoke more during the morning than during the rest of the day?
6. Do you smoke when you are so ill that you are in bed most of the day?
Step 5: Plan for Sustainability

Questions to Consider:
- How should we build upon existing tobacco related services?
- How do we ensure that staff support these services and carry them out?
- How do we track cessation interventions?

Source: An Implementation Guide for Community Health Centers

Community Resources and Policies

- Utilize existing resources such as the Florida Quitline, AHECs and local tobacco free groups
- Promote tobacco free worksites, campuses, sidewalks, indoor and outdoor facilities
- Promote policies that expand cessation benefits
- Good Neighbor policies

Peer Support

- Evidence-based information about the effectiveness of peer support programs
- Step-by-step instructions to create a successful and sustainable peer support program

http://www.bhwellness.org/resources/toolkits/

Self Management Support

- Patient-centered care
  - Responsive to patient preferences, needs, and values
- Engaged, empowered patients
  - Tools and resources for self-care
  - Education and skills training
  - Referrals to community resources
  - Follow up

Resources

http://smokingcessationleadership.ucsf.edu/


Tobacco Registry

A promising option for comprehensive structured care and coordinated counseling
2- to 4-fold increase in the adoption of evidenced-based tobacco use treatments (counseling and pharmacotherapy)

Ripley-Moffitt et al 2015
Questions?

8-Month Activity Schedule

- 4-monthly didactic webinars
  - May TBD
  - June, TBD
  - July TBD
  - August TBD
- Group Calls: July, August
- August Close out Webinar

Thank you for joining us today. Please take a moment to provide your feedback by completing the survey at the end of today’s webinar.

If you have additional questions/comments please send them to:

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Madhana Pandian – madhanap@thenationalcouncil.org