Integrating Tobacco Dependence Treatment into the Health Care Delivery System
Building and Sustaining Services

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Mayo Clinic Nicotine Dependence Center
Learning Objectives

• At the end of the presentation the participants will be able to
  • Discuss key factors for integrating tobacco dependence treatment into a health care system
  • Describe methods for program evaluation including outcome measurements
Clinical Practice Guidelines

“...the failure to assess and intervene consistently with all tobacco users continues despite substantial evidence that even brief interventions can be effective among many different populations of smokers”
Case for “Specialist” Treatment

• Specialists are important for disseminating new treatments

• Changes in health care comes largely from patient advocates and medical specialists

• Specialists are at the forefront of quality improvement efforts

• Provides a resource to non-specialists in treating tobacco dependence
• A Tobacco Treatment Specialist is a professional who possesses the skills, knowledge and training to provide effective, evidence-based interventions for tobacco dependence across a range of intensities.
Interaction between the Provider and the Patient
Integrate treatment into health care delivery system

Integrated multidisciplinary team

Recruit patients
Educate providers,
get the word out

Documentation
Finances/billing

Outcome evaluation
Quality improvement
Center for Innovation

- Research for Mayo Clinic’s Center for Tobacco-Free Living
  - “Don’t lecture me”
  - I already know smoking is bad
  - Let me tell my story
  - I’m ambivalent, but don’t push me
  - I’m not sure if I’ll be able to stop
Guiding Patients to Tobacco Dependence Treatment

National Consumer Demand Roundtable (CDR) Convened three times between December 2005 and June 2006. One goal was:

- Identify and catalyze feasible innovations in product design, promotion, research funding, practice and policy that could significantly improve the use, reach and impact of current evidence-based treatments

http://www.tobacco-cessation.org/resources/resources.html
Talking with Health-Care Providers

• Integrate into chronic disease management
  • Screening
  • More intensive works better
  • Be prepared for relapse

• Describe cost effectiveness and improved outcomes

• 5 A or AAR models
Cost Effectiveness Measurements

• Cost per Quality Adjusted Life Year Saved
• Overall Health Care Costs Saved
• Return on Investment

“Gold Standard” of health care cost-effectiveness
Comparably Very Cost Effective Relative to other Disease Prevention Screenings

Cost Per Life Year Saved

- Tobacco - $3,539
- Hypertension - $5,200
- Pap Smear - $4,100
Bedside counseling

• Nurse Initiated Tobacco Use Protocol
  • Provides screening, education and intervention
  • Bedside Nurse can order
    A. Nicotine Replacement Patch to treat withdrawal
    B. Consult with a Tobacco Treatment Specialist (TTS)
**Electronic medical record**

### Tobacco Use

- **Tobacco Use**
  - Includes current or past use

- **Current Tobacco Use**
  - If "yes" for Tobacco Use, is patient currently using?

- **Tobacco Stop Date**
  - If patient not currently using, document stop date (numeric mm/yyyy). May estimate exact date.

  *Current user: assess past year use, product & quantity*

- **Tobacco Use Past Year**

- **Cigarettes Per Day**
  - US Pack = 20 cigs/Canada Pack = 25 cigs

- **Spit/Smokeless Tobacco**
  - Enter total # (can + pouch) per wk

- **Cigar/PIPE Use**
  - If "yes" order NDC Consult to determine patch strength.

### Exclusion Criteria for Nicotine Patch Therapy (check all that apply)

- Nicotine Patch Allergy
- Currently On NRT
- No Tobacco > 29 Days
- Self Report Pregnant
- Deferred Per Service

If any box checked, patch therapy not indicated, discuss NDC Consult.

If no boxes checked, discuss both patch therapy & NDC consult.

### Nicotine Screen Result

Document what is to be ordered.

### Resource for questions: Nicotine Dependence Center
- Reminder: Order Nicotine Dependency Consult (NDC), ed pamphlet & patches via RN Baseline F/U orderset

[Image of the electronic medical record interface]
# Dose Response Relationship for Counseling

Efficacy Increases with Time

<table>
<thead>
<tr>
<th>Total amount of contact time</th>
<th>Odds ratio (95% CI)</th>
<th>Estimated abstinence rates (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No minutes</td>
<td>1.0</td>
<td>11.0</td>
</tr>
<tr>
<td>1-3 minutes</td>
<td>1.4 (1.1, 1.8)</td>
<td>14.4 (11.3, 17.5)</td>
</tr>
<tr>
<td>4-30 minutes</td>
<td>1.9 (1.5, 2.3)</td>
<td>18.8 (15.6, 22.0)</td>
</tr>
<tr>
<td>31-90 minutes</td>
<td>3.0 (2.3, 3.8)</td>
<td>26.5 (21.5, 31.4)</td>
</tr>
<tr>
<td>91-300 minutes</td>
<td>3.2 (2.3, 4.8)</td>
<td>28.4 (21.3, 35.5)</td>
</tr>
<tr>
<td>&gt;300 minutes</td>
<td>2.8 (2.0, 3.9)</td>
<td>25.5 (19.2, 31.7)</td>
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Integrating into the Health-Care Delivery Systems

• Mechanisms for referral and feedback

• The medical record

• Prescribing medication

• Outcomes and evaluation
Referral and Feedback

• Referrals as regular clinical practice
  • Automate systems whenever possible

• Feedback to referrer

• Referral resources for other patient problems
Medications

• Coordination with prescriber

• Protocol or medication guidelines

• Make it “easy” for patients (fax, pick-up, call-in, etc.)
The Medical Record

- Tobacco use status should be documented every visit

- Tobacco dependence documentation
  - Should support diagnosis of dependence
  - Provide important elements of the history
  - Enunciate treatment plan
Evaluating Your Program

Outcomes and Quality Assurance
Outcomes

• A hospital based tobacco dependence treatment programs sees 1000 patients per year. They conduct 6 month follow-up to ask if the patient is abstinent from tobacco. They accurately report quit rates of 25%, 35% and over 60%.

• How is this possible?
Outcomes

- 1,000 patients seen for intake
- 800 set a quit date
- 700 completed the program
- 600 were contacted for follow-up
  - Of those 250 reported they were abstinent for the past 7 days
  - 225 reported they were abstinent since attending the program
- Of these 600, 400 completed the program
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<th>Continuous abstinence (225)</th>
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<td>28.25%</td>
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<td>700 patients who completed the program</td>
<td>35.7%</td>
<td>32.1%</td>
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<td>600 patients contacted</td>
<td>41.7%</td>
<td>37.5%</td>
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<td>400 patients contacted who completed the program.</td>
<td>62.5%</td>
<td>56.25%</td>
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Outcome Calculation

• All people evaluated are counted
  • Whether set a quit date or not

• People are contacted by telephone between 5-7 months and 11-13 months
  • 3 calls are attempted
  • Anyone not contacted is counted as positive for tobacco use

• Outcomes are reported on an intent-to-treat basis.
Other Important Outcome Variables

- Who were the people who came to the program?
  - Preparation vs. all stages
  - Level of dependence
  - Motivation
    - Recovering from a heart attack
    - Compare with patients with psychiatric disease?

- Are they similar to the people in my program?
Resources

• PACT Guide Reimbursement for Smoking Cessation
  • http://www.endsmoking.org/

• Key elements and model benefits (to guide decision makers in offering tobacco treatment benefits to employees, beneficiaries, etc.)
  • http://www.tobaccoprogram.org/pdf/cftfk-keyelements.pdf
References


