DELIVERING SMOKING CESSATION SERVICES WITHIN HEALTH ORGANIZATIONS

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We Are Penn State
Major Smoking-caused Diseases

Cancer (lung and many other sites)
Cardiovascular disease (MI, stroke etc)
Chronic respiratory diseases (COPD)

Smoking adversely affects virtually every organ of the body
The impact on health is enormous

Single biggest cause of premature death

After age 35, every additional year of smoking shortens the smokers’ life by 3 months

% survival from age 35

Age

Non-smokers

Cigarette smokers

58% 10 years

81%
5 As (and an R) of Smoking Cessation

- **ASK**: Do you use any tobacco products?
- **ADVISE**: “As your clinician I want to advise you that the single best thing you can do for your health is to quit smoking. We have new more effective treatments and I would like to help. “
- **ASSESS**: (motivation and dependence)
  - Do you have any interest in quitting smoking?
  - How many cigs/day do you smoke? How many minutes after waking do you smoke your first of the day?
- **ASSIST**: Offer medication advice and counseling support: This can include telephone and internet support.
- **ARRANGE**: Follow-up to monitor progress and side effects
- **RE-TREAT**: If they go back to smoking
“3 A’s” (and an R)

**Ask** about tobacco use EVERY TIME

**Advise** by saying “The single best thing you can do for your health is to quit smoking”

**Assess** willingness to make a quit attempt “Are you interested in quitting smoking?”

**Refer** to specialist service (counselor, quitline, website, useFax-to-Quit form)
Key Predictors of Dependence

Number of Cigarettes Per Day
Time of First Cigarette

- Within first 30 minutes of wakening
- Wake up during the night

What Happens When You Stop Smoking?
- Withdrawal begins a few hours after last dose
- Usually peaks in a few days, up to 1 week
- Last about 3-4 weeks
- Occasional “Cravings” continue for longer (but each one is very brief)

(50% of smokers report cravings at 6 months)
Heaviness of Smoking Index (HSI)

On the days that you smoke, how soon after you wake up do you have your first cigarette?
A. Within 5 minutes (3 points)  
B. 6-30 minutes (2 points)  
C. 31-60 minutes (1 point)  
D. After 60 minutes (0 points)

How many cigarettes do you typically smoke per day?
A. 10 or fewer (0 points)  
B. 11-20 (1 point)  
C. 21-30 (2 points)  
D. 31 or more (3 points)

SCORING:
0-2: low addiction
3-4: moderate addiction
5-6: high addiction
Smoke-free hospitals require temporary tobacco abstinence.

Illness motivates smokers to try to quit.

Intervention may help them to succeed.

Hospitalized smokers are accessible for treatment.
Inpatient Counseling for Smokers at Penn State Hershey Medical Center

**EMR screening at intake:** All new inpatients have a tobacco use history coded into the EMR at intake.

**Referal to Respiratory Care:** On a daily basis, all new inpatients who have used tobacco in past 30 days are referred to RC and an RT will try to do a bedside consultation.
Figure 1. Harvard Vanguard Medical Associates work flow for interventions with smokers.

http://www.plosone.org/article/info:doi/10.1371/journal.pone.0041649
Conclusion from Meta-analysis

High intensity behavioural interventions that begin during a hospital stay and include at least one month of supportive contact after discharge promote smoking cessation among hospitalised patients.

The effect of these interventions was independent of the patient's admitting diagnosis and was found in rehabilitation settings as well as acute care hospitals.

Change in lung function in smokers who quit versus those continuing to smoke in the US Lung Health Study

- Sustained quitters
- Continuing smokers

FEV₁ (litres)

<table>
<thead>
<tr>
<th>Year</th>
<th>Sustained Quitters</th>
<th>Continuing Smokers</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2.78</td>
<td>2.78</td>
</tr>
<tr>
<td>1</td>
<td>2.83</td>
<td>2.73</td>
</tr>
<tr>
<td>5</td>
<td>2.71</td>
<td>2.48</td>
</tr>
</tbody>
</table>

- 31 ml/yr
- 62 ml/yr
Why it’s worth stopping smoking

This diagram shows the benefit to your lungs if you stop smoking.

- Lung function gets worse as you get older, but normally only very slowly and very slightly (Non-smoker line).

- In smokers, lung function can get worse much more quickly. For example, the diagram shows a smoker who becomes disabled with emphysema (Smoker line).

- If you stop smoking, you reduce the damage to your health, and may continue to breathe well (Quit at 45 line).

If you or someone you know would like help to quit smoking call:
800-243-1455
and ask for The Penn State Tobacco Intervention Program

Note: This graph shows the FEV₁ loss rate for a susceptible smoker, but other smokers will have different rates of loss, thus reaching “disability” at different ages.

Adapted from:
- Fletcher, BMJ 1977
The First Law of Smoking Cessation

\[ E = N \times S \]

- The number of ex-smokers
- The number of smokers trying to quit
- The chances of success of each
What does this mean?

1. Motivate as many smokers to try to quit as possible
2. Ensure that they have access to the best possible help if they wish to use it
3. Motivate them to use the most effective method available
The Second Law of Smoking Cessation

The best chance of success at stopping smoking is by using a combination of:

- a) stop-smoking medication
- b) professional advice and support
This is a systems issue affecting many more than just the clients.

Smoking prevalence is high among staff in the healthcare system and their families.

It also has a knock-on effect on the families of clients in the healthcare system.

It is the system and the culture within the system that needs to be changed. This will create a lasting effect.
Barriers to Tobacco Dependence Treatment

Lack of staff training
“not my role” – go to a specialist elsewhere

Staff fear that patient’s will misuse NRT or smoke while taking NRT

Staff who smoke – normalize smoking, staff may help patient’s access cigarettes, program may sell cigarettes

Restrictive formulary or coverage of the cost of medications

Limited income and cannot afford OTC medications (nicotine replacement therapy etc)
What has been learned about treating tobacco in the healthcare system?

Tobacco treatment can be successfully integrated into all types of healthcare.

Most clients want to address tobacco use.

Treating tobacco does not cause clients to leave treatment early or dislike their clinician.

The greatest resistance often comes from staff.

Tobacco-free grounds policies are challenging to implement, but create a sustainable culture.

NRT helps treat withdrawal symptoms.

Now is the time for all health services to treat tobacco with the seriousness it deserves.
Vision (JF)

For state-of-the-art tobacco dependence treatment to be fully integrated into the healthcare system
Steps to integrating tobacco into your system

Obtain senior management support to do a better job of treating tobacco dependence

Set up a tobacco policy committee and make sure you are on it and at least one supportive senior medical colleague is on it

Ensure that at least the 3As and an R become a standard part of all patient contacts (like measuring BP), and are recorded in the chart

Ensure that the organization has a smoking policy that includes smoke-free grounds

Integrate 5As and an R into the Electronic Medical Record.
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Become a tobacco champion

Every health organization needs a tobacco champion. Someone who will encourage senior management to integrate tobacco treatment into the organization. You cannot do it all alone, but by persuading and educating senior management you can save hundreds of lives.
WARNING: Smoking can kill you.
Foulds J, Schmelzer AC, Steinberg MB. Treating tobacco dependence as a chronic illness and a key modifiable predictor of disease. *International Journal of Clinical Practice* 2010 Jan; 64(2): 142-146.