



# Success Rate of a Pharmacy Managed Smoking Cessation Program in a Community Pharmacy Setting

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## Introduction

- Tobacco abuse is the single most preventable cause of illness and death in the United States
- Currently, it is estimated that the United States has 50 million adult cigarette smokers
- Smoking contributes to a wide range of diseases, including different types of cancers, chronic obstructive pulmonary disease (COPD), coronary heart disease, stroke, and peptic ulcer disease
- Pharmacists can play an active role in smoking cessation by identifying and helping patients quit smoking.
- Pharmacists can help to determine appropriate behavioral and medication therapies as well as preventing drug interactions associated with smoking cessation.

## Methods

- Design**  
Single center, prospective, pilot study conducted at the CVS Health Connection of CVS/pharmacy in Washington, DC.
- Inclusion Criteria**
- Age  $\geq$  18 years of age
  - Smokes at least  $\frac{1}{2}$  pack (10 cigarettes) or more per day for at least 6 months
- Exclusion Criteria**
- Pregnancy/breast feeding
  - History of alcohol dependency/substance abuse within the past year
  - Smokeless tobacco user
  - Subjects who have participated within the last month in any form of behavioral or pharmacological smoking cessation program

## Objectives

- Assess the effectiveness of a pharmacist managed smoking cessation program on patients' ability to remain smoke-free after quitting.
- Assess patients' knowledge about smoking consequences and treatment.

## Program Description

- The program is composed of 6 sessions with a 3-month follow-up (See Table 1 for details)

Table 1: Program Description and Time Line

Appointment Timeframe	Session 1 Initial Consult	Session 2 Quit Date	Session 3 Quit Date Follow-up	Session 4 1-4 weeks after quit date	Session 5 4 weeks after quit date	Session 6 6-8 weeks after quit date	3 Month Follow-up
Day 1	2 weeks from Initial Consult	Quit Date	2-4 days after quit date	1-4 weeks after quit date	4 weeks after quit date	6-8 weeks after quit date	3-months after quit date
Session Agenda	<ul style="list-style-type: none"> <li>Assess willingness to quit</li> <li>Quality of Life (SF-12)</li> <li>Pre-Education Test</li> <li>Discussion of behavioral and pharmacotherapy</li> <li>Set and plan for Quit Date</li> <li>Trigger logging</li> </ul>	<ul style="list-style-type: none"> <li>Focus on Quitting</li> <li>Review tracking logs</li> <li>Review and learn new behavioral modifications</li> </ul>	<ul style="list-style-type: none"> <li>Re-evaluate and discuss behavioral and pharmacotherapy</li> <li>Encourage patient to continue quitting</li> <li>Encourage patient to continue quitting</li> </ul>	<ul style="list-style-type: none"> <li>Follow-up with the quitting process</li> <li>Help get through withdrawal process</li> <li>Encourage patient to continue quitting</li> <li>Encourage patient to continue quitting</li> </ul>	<ul style="list-style-type: none"> <li>Continuing with the Quitting process</li> </ul>	<ul style="list-style-type: none"> <li>Re-evaluate and discuss behavioral and pharmacotherapy</li> <li>Encourage patient to continue quitting</li> <li>Encourage patient to continue quitting</li> </ul>	<ul style="list-style-type: none"> <li>Re-evaluate and discuss behavioral and pharmacotherapy</li> <li>Encourage patient to continue quitting</li> <li>Encourage patient to continue quitting</li> </ul>
Monitoring Parameters	assessed at every visit, which include: blood pressure, pulse, weight, adverse drug reaction evaluation (if applicable), cardiovascular risk/ symptoms, nicotine withdrawal symptoms, and carbon monoxide levels.						

## Preliminary Results

- Enrollment**
- Began in November 2003
  - Screened 30 patients
  - Enrolled 6 patients into the program
- Patient Demographics**

Sex		
Male	0	
Female	6	
Total	6	
Race		
African American	6	
Age (Years)		
18-39	0	
40-59	5	
$\geq$ 60	1	
Fagotrom Test (points, 0 - 10)		
6	2	
7	3	
8	1	
Prior Quit Attempts		
1	2	
$\geq$ 2	4	

## Patient Characteristics

Weight (pounds)	181
Blood Pressure (mmHg)	124/79
Pulse (bpm)	59
Pre-Education Test Score	8 out of 11 (72%)
Hypertension	2
Diabetes	1
Obesity (BMI $\geq$ 30)	4
Dyslipidemia	3
Hormone Replacement Therapy	1
Chronic Bronchitis	1

## Current Therapies

Behavioral Modifications Only (Cold Turkey)	2
Nicotine Replacement Transdermal Patch	2
Nicotine Replacement Transdermal Patch plus Bupropion	1
Bupropion	1

## Study Endpoints

- Abstinence (percentage after 3 months)
- Relapse rate (percentage after 3 months)
- Change in quality of life (SF-12 form)
- Change in patient knowledge (tobacco IQ test)
- Patient satisfaction with program (survey)

## Carbon Monoxide Monitoring

- Used to aid in patient motivation
- Machine determines carbon monoxide level and % carbon monoxide bound to hemoglobin
- Three main categories: green (non-smoker), yellow (light smoker; 1 pack or less/day), red (heavy smoker)



## Preliminary Conclusion

- The results from this study better will define the role of community pharmacists in playing an active role in health promotion and disease prevention.
- This study will determine the feasibility of implementing a smoking cessation program within a chain pharmacy.
- Carbon Monoxide detection may provide a useful, pharmacist managed tool to encourage smoking cessation.
- There is an expanding need for community-based, pharmacist managed, smoking cessation programs

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