Smoking Cessation: A Step Down Guide and Patient Education

A pilot program targeting gradual nicotine reduction and patient education as a strategy for smoking cessation over five weeks at Bayou Clinic in Bayou La Batre, AL.

By Lauren Auer
D.O. Candidate 2017, William Carey College of Osteopathic Medicine
GE-National Medical Fellowship Primary Leadership Program Scholar, Summer 2014

Abstract

Tobacco abuse is one of the most preventable causes of death in the United States today. Despite rates having declined in recent years, smoking still remains a serious obstacle for primary care providers. After receiving a smoking cessation strategies lecture in my first year of medical school I chose to revitalize one of the strategies and implement it at Bayou Clinic in Bayou La Batre, AL. By doing so I was able to generate recommendations to Bayou Clinic to expand and improve their current tobacco abuse counseling methods. Smoking pre-surveys were given to patients to assess their smoking habits, interest in receiving tobacco abuse counseling and motivation to quit smoking. Interested patients were offered to enroll in pilot smoking cessation program. Pre-survey results found that 84% of patients felt that smoking negatively impacted their health and 77% had been told previously that their smoking is a problem. Interestingly of the patients surveyed 23% did not think that second hand smoke was harmful to the health of others. Patients that enrolled in the nicotine reduction pilot program were successful in reducing their nicotine levels below their original starting values. On average patients were able to reduce their nicotine intake by 0.3 mg of nicotine per cigarette from their original starting value. In a post survey a majority of patients indicated that they were satisfied with the pilot program and planned to continue.

Keywords: smoking cessation, nicotine reduction, patient education
Introduction

I have always been passionate about smoking education and preventative medicine. At a young age I lost my grandmother to esophageal cancer because of her tobacco abuse, prior to which she had lung cancer. She died at age 68 and had been smoke free for five years. While its best if individuals never start smoking, as a physician I need to do all that I can to educate and help those patients that wish to quit. Quitting smoking is one of the single most important ways a patient can positively impact their health.

Bayou La Batre Rural Health Clinic is a non-profit clinic that was founded by Dr. Regina Benjamin, M.D. in 1987. The clinic is located in Bayou La Batre, Alabama a small impoverished Shrimping community on the Gulf Coast. The Bayou Clinic is part of a larger population of Federally Qualified Health Centers (FQHC), which distinguishes health centers that provide comprehensive services in an underserved or impoverished area (HRSA). Additionally, the Bayou Clinic is part of a collaboration of academic, community, and health center partners working to establish the Gulf State Health Policy Center. The Gulf State Health Policy Center is funded by a National Institute of Health Grant to promote integration of community partners with academic research centers. Some of the GSHPC research topics target preventative medicine issues and patient education, which provided a supportive atmosphere for my smoking cessation program.

In my clinical medicine course in medical school we received a smoking cessation strategies lecture. I chose to revitalize one of the strategies and implement it at Bayou La Batre Rural Health Clinic in Bayou La Batre, AL. One of my aims was to assess how many patients I was able to provide tobacco abuse counseling in comparison to the number of patients that visited the clinic that acknowledged smoking on their social history. Based on this I would be
able recommendations for Bayou Clinic to improve their current methodology. I also wanted to assess how feasible this pilot program could be for patients as a strategy for tobacco abuse treatment.

**Background**

In 2012 there were approximately 42.1 million individuals over 18 years old in the United States that were smokers (CDC, 2014). Despite a steady decline in smoking over the years the United State’s smokers make up nearly 13% of the total population. Tobacco abuse is one of the most preventable causes of chronic illness and leads the nation in cause of death each year. An individual’s smoking habit not only impacts their own health and livelihood, but also has ramifications on the nation as a whole. According to the American Lung Association smoking costs the United States approximately $301 billion dollars every year in healthcare expenditures and loss of work productivity (American Lung Association, 2013). Smoking is more common among low-income populations; individuals that are more likely to have healthcare costs covered by Medicare, Medicaid or go uninsured. Campaign for Tobacco Free Kids cites that $40.1 billion of Medicaid coverage is responsible for tobacco abuse (Schmidt, 2014). Smokers are more likely to develop health conditions such as Chronic Obstructive Pulmonary Disease, hypertension, Type II Diabetes, stroke and most cancers. For some disorders there are no cures only a lifetime of management and the treatment cost can be just as devastating.

Primary Care physicians and Community Health Centers represent the “frontlines” of preventative medicine issues such as smoking cessation. Primary Care physicians and community health centers are generally association with impoverished or medically underserved areas associated with higher instances of tobacco abuse. A study preformed by Dr. Michael Ong
at University of California Los Angeles Jonsson Comprehensive Cancer Center found that Primary Care physicians played an important role in helping patients quit smoking. The study found the probability of an individual to quit smoking without receiving counseling to be 6%-10%. Conversely, those who received counseling from their primary care physician were five times more likely to be able to quit (Ong, 2011). This study is not alone in its findings. A randomized trial of 112 primary care physicians and their smoking patients, found that patients the number of patients that received no counseling by their provider and where able to quit in a year was 6%. Those that received counseling in addition to reminders at each office visit had a success rate of 15% (Stuart et. al., 1989).

What makes quitting smoking so difficult? The answer lies in nicotine, a chemical naturally found in tobacco leaves. Nicotine targets nerve receptors throughout the body causing increased heart rate, stroke volume, and induces a transient state of relaxation. Over time the body becomes dependent on nicotine and addiction is established. According to the American Heart Association nicotine addiction is about as difficult to overcome as heroin (American Heart Association, 2013). Given the addictiveness of nicotine it is easy to understand why many patients may fail when suddenly ceasing tobacco use or going “cold turkey”. Withdrawal symptoms can be severe and lead to relapse. This contributes to the patient mentality that they are unable to quit and numerous studies have indicated that nicotine addiction is as much psychological as it is physiological. There is a proposed threshold a blood concentration of 5mg of nicotine per day over a period of days is enough to establish addiction (Benowitz, 1994). Thus, a gradual nicotine reduction plan benefits the patient by allowing their body time to slowly adjust to the new intake levels, but allow patients the satisfaction of continuing to smoke. If
patients are able to reach a nicotine intake value below the proposed addiction threshold they have the opportunity to set themselves up for greater success.

Methodology

Guide Development

The step down guide that was presented in our smoking cessation lectures was used as a strategy at Florida Hospital East Orlando as part of a research study. The problem with the guide was that it was developed in the early 1990’s and some of the cigarette brands on the guide were no longer sold. Additionally, since 1997 nicotine content of cigarettes changed in order to meet the new qualifications for cigarette subtypes: Full, Light, and Ultra-Light. I wanted to update the guide as well as customize it for cigarette brands sold by retailers in the Bayou La Batre area. To accomplish this I visited all cigarette retailers in the area around Bayou Clinic to survey what brands and types were sold. I used the Nicotine, Tar, and CO Content Report of 2007 to reference nicotine contents (Nicotine, Tar and CO Content of Regular and Menthol Cigarette Brands in 2007). The different types of cigarettes were categorized into eleven levels ranging from 1.6mg – 0.4mg of nicotine per cigarette (Appendix, Figure 5 and 6).

Patient Pre Survey

Using the electronic medical records system, eClinical works, I was able to identify incoming patients that had indicated tobacco use on a previous social history. Only patients that had schedule office visits were selected in order to comply with the Health Insurance Portability and Accountability Act Patient Privacy Rule. Identified patients were asked if they would take a survey on their smoking habits. The pre-survey had twenty-five questions that asked about the patients’ knowledge of how smoking affects their health, demographic information, how much they smoke, previous smoking cessation attempts, presence of comorbid conditions and if they
were interested in participation in a program to quit smoking (see Appendix 1). Patients that answered “other” or did not find a suitable response explained verbally and their responses recorded. In addition to the survey questions the patients were asked verbally to describe their motivation to quit using a 1-10 scale, 10 being extremely motivated and 1 being not at all motivated. This response was recorded on the patient’s survey sheet. Patients that did not want to take the pre-survey were asked if they still wanted to receive educational counseling on smoking cessation (See Appendix).

**Patient Education**

After taking the pre-survey patients were asked if they would like to discuss the benefits to quitting smoking and talk about developing a plan to quit. With each patient I reviewed with them the answers to their survey questions. The patient was educated on the negative impacts that smoking has on their body systems as well as the specific harmful effects of nicotine. Also, how smoking elevates the patient’s risks for chronic or life threatening conditions. Individuals were educated on the repercussions of second hand smoke on the health of family members, friends and those around them. I asked the patient what they were spending per pack of cigarettes and using the amount they smoked daily we calculated how much they spent per week, month and year on smoking. I asked the patient to name at least one thing they could put that money towards if they were to quit. For patients who had previous smoking cessation attempts we discussed why it might have been unsuccessful and resources to help them quit smoking. Each of my talking points along with other educational information was compiled onto a handout for the patient to take with them (See Appendix).

**Program Enrollment**
While educating the patients I informed them about the pilot program and explained how the program worked. The patients were asked if they were interested in being enrolled and to select how they would like to follow up during the study. Using the brand of cigarettes the patient currently smoked, we determined their current nicotine intake and selected one level below their starting intake for the next 7 days. Patients were informed that upon reaching the final level (Level 11 0.4mg nicotine) they could either transition to nicotine replacement therapy or beginning cutting back the number of cigarettes smoked per day over time. Each patient was given a copy of the step down guide with written instructions. Before exiting I reviewed the instructions with the patient and asked them to verbalize understanding. On the patient’s survey I indicated the date that they were enrolled as well as assigned the patient a reference number based on the numerical order they were enrolled.

**Patient Follow-up**

Patients were scheduled for weekly follow-ups from the date of their enrollment. Patients who elected to receive follow-up calls were called and asked how they had done the previous week at their new level, answered any questions, and informed of their new level for the upcoming week. If the patient had any concerns or difficulties they were addressed during the phone call. Before ending the call the patient was informed of when I would be calling them next and encouraged to call the clinic at any time. Patients who chose to call in the clinic with their progress were given the clinic’s main line as well as the number to the after hours recording service. Patient progress was recorded on a data spreadsheet in Excel.

**Post Survey**

At the conclusion of the five-week study time frame patients who participated in the step down program were given a post survey of thirteen questions. The survey asked the patients to
again rate their motivation to quit smoking on a scale of 1- Very Unmotivated to 10- Very Motivated. The patients were asked questions about problems or situations they may have experienced in the program as well as asked to rank their satisfaction with the program on the same 1 – 10 scale. Additionally, the patients were asked a series of questions about how smoking and nicotine affect their health. The patient was able to answer: true, false or unsure to for these responses. One question assessed their desire to continue with the step down program and another asked what additional educational information the patient would be interested in receiving at future medical appointments. The post survey was administered over the phone for patients who opted to receive follow-up calls and copies were left with the front desk staff for the patients who elected to phone in their progress.

Results

Patient Pre-Survey

Of the total tobacco abuse patients that came into the clinic from June 16th to July 18th 29 took the pre-survey. The gender ratio of individuals completing the survey: 56% male and 44% female. The types of insurance broke down: Blue Cross Blue Shield 16%, Medicare 13%, Medicaid 26%, Cigna-HealthSpring 10%, No Insurance 19%, Other 3% and dual coverage by Medicare & Medicaid 13%. 83% of patients surveyed had tried previously to quit smoking. 84% of patients agreed that smoking was negatively impacting their health, but interestingly 23% of those surveyed did not feel that second hand smoke was harmful. 77% of patients had been told by another individual that their smoking was a health problem. The most common amount of cigarettes smoked per day was less than one pack at 57% (Appendix, Figure 1). Patients were asked to select from a list of comorbid conditions commonly associated with tobacco abuse in which 76% had at least one condition (Appendix, Figure 2).
**Patient Education**

In the time period from June 16th to July 18th the clinic had 70 patients with office visits that indicated they were smokers on their social history. Of those 70 patients, 41 were provided smoking cessation counseling giving me an encounter rate of 59%. As stated previously 31 patients agreed to take the pre-survey and of those patients, 21 enrolled in the pilot program.

**Program Results**

Of the 21 patients that participated in the pilot program I had 3 withdraw, 4 elect to self-report their progress, and 3 that I was unable to contact for follow up calls (Figure 3, Appendix). Of the 4 patients that chose to call in their progress 0% followed through. This left me with 10 remaining patients. Of the 10 remaining patients all 10 made progress in that they had successfully transitioned to a nicotine level below their original starting value. Participating patients had an average motivation score of 8. Patients were enrolled on a rolling basis over the 4-week period so I was unable to assess an average progress made by patients as a whole. However, I examined the number of patients by levels of improvement in that they were improving below their starting value. I had 2 patients make one level of improvement, 1 patient make two levels of improvement, 4 patients make 3 levels of improvement and 3 patients make four or more levels of improvement. Two patients ultimately made it to the final level and began to reduce their number of cigarettes per day towards quitting. At the end of the five-week period the patients were contacted to inform them that the study was ending, but were counseled individually to establish a continuation plan.

**Post-Survey Results**

Patients who participated in the pilot program were given a post survey. Of the 10 patients participating, 8 patients responded to the post survey and 2 could not be reached. The
average motivation of patients in the post survey was 7.1. 100% of patients agreed that smoking was negatively impacting their health and 13% of patients felt that second hand smoke did not negatively affect those around them. When asked if nicotine was an additive chemical in cigarettes 8 out of 8 patients picked true and when asked if nicotine could contribute to high blood pressure 7 out of 8 patients agreed and 1 patient answered unsure. For overall satisfaction with the smoking cessation program patients averaged 9 and 8.2 when asked how confident they felt that they could quit smoking in the future. The most common complaints in the program were an increased desire to smoke more as well as difficulty affording some brands of cigarettes. All patients surveyed agreed that the follow up calls greatly helped them stay on track with their smoking cessation. In post survey patients were asked how soon after they woke up did they have their first cigarette and these were compared to their pre-survey results (Appendix, Figure 4).

**Discussion**

The results of the pre-survey showed that while many patients are aware of the health consequences there is still more to be done in terms of patient education. It was concerning to see in the pre-survey the number of patients that vehemently believed that second hand smoke was not harmful to other individuals. Those that participated in the smoking cessation program had a much lower rate in comparison, but these were also individuals that had high motivation score. A quick glance of the pre-survey results will show a population of individuals that for the most part are aware of the health risks association with their tobacco abuse, have tried quitting before, but are just not aware of the resources to help them be successful.

The pre-survey results indicated that a greater majority of patients were covered by Medicare, Medicaid or dually covered by both. Prior to 2014 Medicaid in Alabama would not
cover the cost for any smoking cessation treatment by enrollees. Recent changes in state policy have led to Medicaid coverage for smoking cessation. During the smoking counseling many patients were under the impression that they could not afford the nicotine replacement products or medications and were unaware of programs such as the 1800QuitNow or Alabama Quitline that would provide them discounted supplies. They have tried multiple times and ways to quit but have yet to find the right fit. When educating patients I continuously found two themes that motivated patients to make the decision to try again: when they visually saw on paper how much annually their smoking habit was costing them and the knowledge that I would be following up with them and they were free to call me at any time.

My education-encounter rate at the clinic was only 59%, which I attribute to the moderate difficulty that I had identifying smoking patients. Under the eClinical Works system to pull up the patient’s social history is a multi-step process and requires scrolling down to look for where the nurse entered this information. For a busy provider this is not a convenient process to undertake and I can see how bringing up smoking counseling could be easily overlooked.

I was greatly encouraged by the success of the patients that enrolled in the pilot program to have 10 patients make progress was inspiring. What I feel differentiated this program from that described in my smoking cessation lecture was that in this case I was actively following up with patients. By doing so I feel the patients felt they were being held accountable for their participation. Additionally, patients were encouraged to discuss with me any problems they were experiencing so that as a team we could develop a solution. This provider-patient team based approach is what I attribute the success of this study. A notable point was that the four patients who agreed to call in the clinic weekly to report their progress failed to do so and I would imagine, if contacted, that these patients would not have the same success as those receiving the
follow up calls. Another part of the program that I feel contributed to the successful results was the psychology of asking patients to make gradual changes over time. Initially when I would counsel a patient on smoking cessation they were typically guarded and withdrawn. However, when describing that the pilot program would guide them to making better smoking choices to work towards quitting the patients became noticeably more relaxed and engaged.

The post survey results showed the average motivation level to be 7.1, which was down from 8 in the pre survey. I attribute this to the fact that at the time of the post survey the patients were actively engaged in the program and combating the difficulty of quitting. The post survey results did show that there was improvement on patient awareness of the negative health impacts of smoking: pre-survey 88% to 100% post survey. However, the post survey was targeting a smaller subset of the individuals taking the pre-survey. This was also true concerning beliefs on second hand smoke in the pre survey 23% did not believe it to be harmful where as the post survey had only 13%. A strong majority of patients chose the correct answers to questions concerning nicotine’s actions on the body, which indicated the retention of information from the smoking counseling sessions. Hopefully the high patient satisfaction rate will translate to continuation of the program despite the end of the 5-week study. By far the most common complaint of the pilot program was the increased desire to quit for patients that were moving into the lower nicotine levels (0.6mg or lower). Whenever this was encountered the patients were educated on why this was occurring as well as resources to help them battle cravings.

With the completion of my study I was able to provide recommendations to Bayou Clinic to improve how they approached tobacco abuse. My first recommendation was to change how the nurses entered in that a patient was a smoker. On the main page of every patient’s electronical medical record is a list of the patient’s chronic conditions for convenient viewing by
their provider. It was my recommendation that it become clinic policy to list tobacco abuse for any patient that indicated smoking on their social history. This would allow the physician to quickly see that it needed to be reviewed with each patient encounter. This recommendation would greatly benefit the clinic as it was discovered that tobacco cessation counseling was billable to most insurances for reimbursement as long as the session was ten minutes or more in duration.

My second recommendation was to have providers strive for at least a 75% annual encounter-education rate in that they were able to provide tobacco abuse counseling to 75% of smoking patients that come into the clinic. If even a small fraction of these patients were to quit smoking in a year’s time it would be making a great stride in the right direction.

My final recommendation was to encourage providers to make regular follow up calls with patients that had entered into smoking cessation program. Just this small study at Bayou Clinic has clearly indicated the tremendous benefit that these follow up calls can be to patient success. To quote a professor of mine, “Your patients will not care how much you know, until they know how much you care.”

**Conclusion**

As said previously smoking is one of the most preventable causes of chronic illness and death facing healthcare today. Primary Care providers stand on the frontlines in clinics across the country treating patients with the devastating conditions associated with tobacco abuse. After having completed this study I strongly feel that this program is a feasible strategy for healthcare providers to offer their patients.
References
American Heart Association. Why is it so hard to quit? (2013, August 5). Retrieved from Heart.org website:
http://www.heart.org/HEARTORG/GettingHealthy/QuitSmoking/QuittingSmoking/Why-is-it-so-hard-to-quit_UCM_324053_Article.jsp


Appendix:
Pre Smoking Survey

Name: ________________________________ Age: ________ Gender: ____________

1. What is your yearly household income?
   A.) Less than $10,000
   B.) $10,000 - $19,999
   C.) $20,000 - $29,999
   D.) $30,000 - $39,999
   E.) $40,000 - $49,999

2. What type of insurance do you have?
   A.) Blue Cross Blue Shield
   B.) Medicare
   C.) Medicaid
   D.) Health Springs
   E.) Other
   F.) No Insurance

3. What is your ethnicity?
   A. African-American
   B. Caucasian
   C. Hispanic
   D. Asian
   E. Pacific Islander
   F. Other

4. How many children (people under 18 years old) are living with you?
   A. 0
   B. 1
   C. 2 - 3
   D. 4 - 5
   E. 6 or more

5. How many adults (over 18 years old) are living with you?
   A. 0
   B. 1
   C. 2 - 3
   D. 4 - 5
   E. 6 or more

6. Do you currently smoke cigarettes?
   A. Yes
   B. No

7. Do you use an electronic-cigarette?
   A. Yes
   B. No

8. Do you use chewing tobacco?
   A. Yes
   B. No

9. How many packs per day do you smoke?
   A. Less than 1 pack
   B. 1 pack
   C. 1 - 2 packs
   D. 3 packs or more

10. How long have you smoked or chewed tobacco?
    A. Less than 1 year
    B. 2 – 10 years
    C. 11 - 20 years
    D. 21 – 30 years
    E. 31 or more

11. Where do you usually buy cigarettes?
    A. Greer’s Food Tiger
    B. Walgreens
    C. Family Dollar or Dollar General
    D. Gas Station
    E. Fred’s Super Dollar
    F. Online
    G. Other

12. Have you ever tried to quit smoking?
    A. Yes
    B. No

13. How did you try to quit smoking?
    A. Nicotine patch or gum
    B. Stopped smoking or “cold turkey”
    C. Reduce number of cigarettes each day
    D. Medication
    E. Other

14. Has someone told you that your smoking is a health problem?
    A. Yes
    B. No

15. Do you think your smoking is negatively affecting your health?
    A. Yes
    B. No

16. Do you think second hand smoke is harmful to other people’s health?
    A. Yes
    B. No

17. At home where do you usually smoke?
    A. Indoors
    B. Outside
    C. Both indoors and outdoors

18. How soon after you wake up do you have your first cigarette of a day?

19. Do you have one or more of these health conditions:
    (Circle all that apply)
A. Immediately
B. 5 - 10 minutes
C. 11 - 20 minutes
D. 21 – 30 minutes
E. 40 – 60 minutes
F. 60 minutes or more

20. Does someone living with you have one or more of these conditions:

(Circle all that apply)
A. COPD or Emphysema
B. Chronic Bronchitis
C. High Blood Pressure
D. Lung Cancer
E. Heart Disease
F. Asthma

21. When do you feel like you need to smoke the most?

(Circle all that apply)
A. Before work or school
B. During work or school
C. After work or school
D. When I am nervous
E. When I am stressed
F. Socially with family and friends
G. When eating or drinking

22. If you could still smoke, but slowly reduce the amount of nicotine you smoke would you be willing to try quitting?

A. Yes
B. No

23. What has stopped you from wanting to quit?

A. Do not think I am able to succeed
B. Cost of supplies such as patches or gum
C. I do not know how to quit
D. Worried about feeling sick once I quit
E. I do not think I need to quit

24. How did you get to the clinic today?
A. My car
B. Bus
C. Ride from family or friend
D. Walk
E. Bike

25. I have a program to help patients to quit smoking. Would you be willing to participate and can we contact you to see how you are doing? If yes, please write down your contact information:

A. Yes________________________________________________________
B. No
C. I can come or call the clinic and tell how I am doing

Post Smoking Survey
Name: ______________________________________________________

1. Please rate your motivation to quit smoking:
1- not at all  5- unsure/moderately  10- very motivated

2. Have you experienced any of the following while participating in the smoking cessation program?
A. Confusion with instructions
B. Increased desire to smoke
C. Could not find brand I liked in next category
D. Could find brand when I went to purchase cigarettes
E. Could not afford the new brand
F. None of these above

3. I feel that smoking is negatively impacting my health.
Yes
No
Unsure

4. I feel that second-hand smoke is harmful to my family and those around me:
Yes
No
Unsure

5. Nicotine can cause me to have high blood pressure
True
False
Unsure
6 Nicotine is an addictive chemical in cigarettes:
   True
   False
   Unsure

7 What is your satisfaction with participating in the smoking cessation program?

8 How confident are you that you would be able to quit smoking in the future?

9 How soon after you wake up do you have your first cigarette of a day?
   A: _______________________________________
   A. Immediately
   B. 5-10 minutes
   C. 11-20 minutes
   D. 21-30 minutes
   E. 40 – 60 minutes
   F. 60 minutes or more

10 In the handout given to you what information was most helpful for you?
   A. Health Benefits to Quitting Smoking
   B. Financial Benefits to Quitting Smoking
   C. Diagram
   D. Resources to Help You Quit
   E. All the above
   F. I did not look at the handout

11 Do you still plan to continue with the step down smoking cessation program?
   A. Yes
   B. No

12 Were telephone follow-ups helpful in you staying on track?
   Yes
   No
   Indifferent

13 What would you like more information on at your next office visit?
   A. Health Benefits to Quitting Smoking
   B. Financial Benefits to Quitting Smoking
   C. Diagrams
   D. Resources to Help You Quit
   E. Tips to combat cravings
   F. Other

**Figure 1 Amount Patient Smoked Per Day**

![Amount Smoked Chart]

- Less than 1 pack
- 1 pack
- 1-2 packs
- 3+ packs
**Figure 2** Patients With Comorbid Conditions

![Pie chart showing patients with comorbid smoking conditions: COPD/Emphysema, Hypertension, Heart Disease, Chronic Bronchitis.]

**Figure 3** Program Participants Breakdown

<table>
<thead>
<tr>
<th>Program Participants</th>
<th>21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients Withdrawn</td>
<td>3</td>
</tr>
<tr>
<td>Patients Self-Reporting Progress</td>
<td>4</td>
</tr>
<tr>
<td>Failure to Contact</td>
<td>3</td>
</tr>
<tr>
<td>Remaining Patients</td>
<td>10</td>
</tr>
</tbody>
</table>

**Figure 4** Change in Morning Cigarette Time

<table>
<thead>
<tr>
<th>Patient ID Number</th>
<th>Pre-Survey</th>
<th>Post Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Immediately</td>
<td>60 min. or more</td>
</tr>
<tr>
<td>12</td>
<td>11-20 min.</td>
<td>60 min. or more</td>
</tr>
<tr>
<td>13</td>
<td>5-10 min.</td>
<td>5-10 min.</td>
</tr>
<tr>
<td>17</td>
<td>5-10 min.</td>
<td>60 min. or more</td>
</tr>
<tr>
<td>21</td>
<td>11-20 min.</td>
<td>11 – 20 min.</td>
</tr>
<tr>
<td>24</td>
<td>60 min. or more</td>
<td>40–60 min.</td>
</tr>
<tr>
<td>30</td>
<td>Immediately</td>
<td>21-30 min.</td>
</tr>
</tbody>
</table>
**Figure 5 Step Down Guide – Page 1**

Find your current brand of cigarette from the boxes below. For 7 days choose another brand of cigarettes from the next box in order (for example if you are at box #3 choose a brand from box #4).
Each week move to a brand from the next box in the order. Circle or indicate what brand you are moving to each week.
When you complete Box 11 for one week you are ready to quit.

<table>
<thead>
<tr>
<th><strong>1 Nicotine Level</strong></th>
<th><strong>1.6 mg/cigarette</strong></th>
<th><strong>2 Nicotine Level</strong></th>
<th><strong>1.4 – 1.3 mg/cigarette</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic 100’s</td>
<td></td>
<td>Marlboro Menthol 100’s’</td>
<td></td>
</tr>
<tr>
<td>Basic Menthol 100’s</td>
<td></td>
<td>Basic Non Filtered</td>
<td></td>
</tr>
<tr>
<td>Doral</td>
<td></td>
<td>Camel Menthol</td>
<td></td>
</tr>
<tr>
<td>USA Gold 100’s’</td>
<td></td>
<td>Kool’s</td>
<td></td>
</tr>
<tr>
<td>Doral Menthol Specials</td>
<td></td>
<td>USA Gold</td>
<td></td>
</tr>
<tr>
<td>Sonoma 100’s</td>
<td></td>
<td>Sonoma Menthol</td>
<td></td>
</tr>
<tr>
<td>Pall Mall’s 100’s</td>
<td></td>
<td>Sonoma Menthol 100’s’</td>
<td></td>
</tr>
<tr>
<td>Marlboro</td>
<td></td>
<td>Pall Mall</td>
<td></td>
</tr>
<tr>
<td>Crowns Light 100’s</td>
<td></td>
<td>Virginia Slims</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Virginia Slims Menthol</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>3 Nicotine Level</strong></th>
<th><strong>1.2 mg/cigarette</strong></th>
<th><strong>4 Nicotine Level</strong></th>
<th><strong>1.1 mg/cigarette</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic 100’s</td>
<td></td>
<td>Marlboro Menthol 100’s’</td>
<td></td>
</tr>
<tr>
<td>Basic Menthol 100’s</td>
<td></td>
<td>Basic Non Filtered</td>
<td></td>
</tr>
<tr>
<td>Doral</td>
<td></td>
<td>Camel Menthol</td>
<td></td>
</tr>
<tr>
<td>USA Gold 100’s’</td>
<td></td>
<td>Kool’s</td>
<td></td>
</tr>
<tr>
<td>USA Gold 100’s’</td>
<td></td>
<td>USA Gold</td>
<td></td>
</tr>
<tr>
<td>Winston Full Flavor</td>
<td></td>
<td>Sonoma Menthol</td>
<td></td>
</tr>
<tr>
<td>USA Gold</td>
<td></td>
<td>Sonoma Menthol 100’s’</td>
<td></td>
</tr>
<tr>
<td>Kool’s</td>
<td></td>
<td>Pall Mall</td>
<td></td>
</tr>
<tr>
<td>USA Gold Menthol</td>
<td></td>
<td>Virginia Slims</td>
<td></td>
</tr>
<tr>
<td>Winston Full Flavor</td>
<td></td>
<td>Virginia Slims Menthol</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>5 Nicotine Level</strong></th>
<th><strong>1.0 mg/cigarette</strong></th>
<th><strong>6 Nicotine Level</strong></th>
<th><strong>0.9 mg/cigarette</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic 100’s</td>
<td></td>
<td>Marlboro Menthol 100’s’ Mild</td>
<td></td>
</tr>
<tr>
<td>Basic Menthol 100’s</td>
<td></td>
<td>Marlboro Mild</td>
<td></td>
</tr>
<tr>
<td>Doral</td>
<td></td>
<td>Marlboro Menthol 72’s</td>
<td></td>
</tr>
<tr>
<td>USA Gold 100’s’</td>
<td></td>
<td>Pall Mall 100’s’</td>
<td></td>
</tr>
<tr>
<td>USA Gold 100’s’</td>
<td></td>
<td>Pall Mall 100’s’</td>
<td></td>
</tr>
<tr>
<td>Kool 100’s (Super Long)</td>
<td></td>
<td>L &amp; M Full Flavor</td>
<td></td>
</tr>
<tr>
<td>USA Gold 100’s’</td>
<td></td>
<td>USA Gold Lights</td>
<td></td>
</tr>
<tr>
<td>Kool 100’s (Super Long)</td>
<td></td>
<td>Winston 100’s’ Light</td>
<td></td>
</tr>
<tr>
<td>Doral</td>
<td></td>
<td>Winston 100’s’ Light</td>
<td></td>
</tr>
<tr>
<td>Doral Menthol</td>
<td></td>
<td>Winston Light</td>
<td></td>
</tr>
<tr>
<td>Basic Full Flavor</td>
<td></td>
<td>Kool 100’s (Super Long) Mild</td>
<td></td>
</tr>
<tr>
<td>Camel Lights</td>
<td></td>
<td>Kool Mild</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Doral Menthol</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Basic Full Flavor</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Camel Lights</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fortuna</td>
<td></td>
</tr>
<tr>
<td>Nicotine Level</td>
<td>0.8 mg/cigarette</td>
<td>Nicotine Level</td>
<td>0.7 mg/cigarette</td>
</tr>
<tr>
<td>----------------</td>
<td>------------------</td>
<td>----------------</td>
<td>------------------</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Marlboro Blend 27</td>
<td>Basic Menthol 100’s Light</td>
<td>Marlboro Menthol 100’s Light</td>
<td>Virginia Slims Light</td>
</tr>
<tr>
<td>Basic Menthol 100’s Light</td>
<td>Newport 100’s Light</td>
<td>Virginia Slims Menthol Light</td>
<td>Virginia Slims Light</td>
</tr>
<tr>
<td>Doral 100’s Light</td>
<td>USA Gold Menthol Light</td>
<td>L&amp;M Light</td>
<td>Virginia Slims Light</td>
</tr>
<tr>
<td>Newport 100’s Light</td>
<td>Pyramid Light</td>
<td>Misty Slim Menthol Light</td>
<td>Virginia Slims Light</td>
</tr>
<tr>
<td>USA Gold Menthol Light</td>
<td>American Spirit Ultra Light</td>
<td>Misty Slims</td>
<td>Virginia Slims Light</td>
</tr>
<tr>
<td>Pyramid Light</td>
<td>Maverick 100’s Light</td>
<td>Doral Light</td>
<td>Virginia Slims Light</td>
</tr>
<tr>
<td>American Spirit Ultra Light</td>
<td>Marlboro Light</td>
<td>Camel Blue (Light)</td>
<td>Virginia Slims Light</td>
</tr>
<tr>
<td>Maverick 100’s Light</td>
<td>Marlboro Menthol 100’s Light</td>
<td>Basic Menthol Lights</td>
<td>Virginia Slims Light</td>
</tr>
<tr>
<td>Marlboro Light</td>
<td>Marlboro 100’s Light</td>
<td>Basic Lights</td>
<td>Virginia Slims Light</td>
</tr>
<tr>
<td>Marlboro Menthol 100’s Light</td>
<td>Marlboro 100’s Light</td>
<td>Basic 100’s Light</td>
<td>Virginia Slims Light</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nicotine Level</th>
<th>0.6 mg/cigarette</th>
<th>Nicotine Level</th>
<th>0.5 mg/cigarette</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Doral Menthol Lights</td>
<td>Misty Slims Ultra Light</td>
<td>Virginia Slims Ultra Light</td>
<td>Marlboro Menthol 100’s Ultra Light</td>
</tr>
<tr>
<td>Misty Slims Ultra Light</td>
<td>USA Gold Ultra Light</td>
<td>Marlboro Ultra Light</td>
<td>Marlboro Ultra Light</td>
</tr>
<tr>
<td>Misty Slims Menthol Ultra Light</td>
<td>USA Gold Menthol Ultra Light</td>
<td>Pall Mall Ultra Light (Orange)</td>
<td>Virginia Slims Ultra Light</td>
</tr>
<tr>
<td>USA Gold 100’s Ultra Light</td>
<td>Virginia Slims Ultra Light</td>
<td>Virginia Slims Ultra Light</td>
<td>Virginia Slims Ultra Light</td>
</tr>
<tr>
<td>USA Gold Ultra Light</td>
<td>USA Gold Ultra Light</td>
<td>USA Gold Ultra Light</td>
<td>Virginia Slims Ultra Light</td>
</tr>
<tr>
<td>Maverick’s Menthol Lights (Gold Kings)</td>
<td>Virginia Slims Ultra Light</td>
<td>Virginia Slims Ultra Light</td>
<td>Virginia Slims Ultra Light</td>
</tr>
<tr>
<td>Sonoma Ultra Lights</td>
<td>Virginia Slims Ultra Light</td>
<td>Virginia Slims Ultra Light</td>
<td>Virginia Slims Ultra Light</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nicotine Level</th>
<th>0.4 mg/cigarette</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td></td>
<td>11 Nicotine Level</td>
</tr>
<tr>
<td>Basic Ultra Lights</td>
<td>Basic 100’s Ultra Light</td>
<td>Basic Lights</td>
</tr>
<tr>
<td>Camel Ultra Light</td>
<td>Doral Ultra Light</td>
<td>Basic Ultra Lights</td>
</tr>
</tbody>
</table>

CONGRATULATIONS! YOU ARE READY TO QUIT! IT WAS NOT EASY BUT YOU SUCEEDED.

Now you can transition to the nicotine patch and gum. You can work on reducing the number of cigarettes you smoke each day.