Adjunctive Mood Management for Telephone-Based Smoking Cessation in Primary Care "Quit Smoking Tele-health"

Principal Investigator: Jennifer M. Gierisch, PhD, MPH
Version Date: February 12, 2018

Contents

Attachments

Appendix 7, Safety Protocol
Appendix 8, Follow-up Letters (Manual cover letter, Follow-up call reminder letters, Unable to reach for follow-up assessment letter, Intervention call reminder letter, 9-Month Check-in letter, Can't reach for intervention call letter, and Saliva Collection letter)
Appendix 9, Abbreviated Follow-up Assessment Survey

Purpose

The overarching aim of the study is to combine the potency of co-delivered mood management and the reach of proactive telephone-delivered interventions by testing the telephone delivery of behavioral mood management for smoking cessation among smokers with current depression and chronic medical illness.

Background and Significance

Cigarette smoking is the single greatest cause of preventable deaths in the US;[1] and military service is a risk factor for smoking.[2,3] In VA, patients with chronic medical illnesses represent an important and prevalent population on which to focus smoking cessation efforts.[4] Smoking cessation among patients with chronic medical illnesses substantially decreases morbidity and mortality;[5-7] yet, many patients with these illness continue to smoke.[6] There is a strong interrelationship between depression and chronic medical illness.[8,9] Depression can derail smoking cessation. Smokers with histories of depression are more likely to relapse after a quit attempt; have higher nicotine dependence; suffer negative mood symptoms from withdrawal; are less likely to sustain quit attempts and suffer greater smoking-related morbidity and mortality than the general smoker population.[10-12] Even patients with low levels of depressive symptoms, are more likely to relapse from smoking cessation than non-depressed smokers or those with a history of depression.[13,14]

Despite the barriers they face, smokers with depression are motivated to quit smoking.[15] Smokers with depression may respond better to smoking cessation interventions augmented with mood management adjuncts such as mood management counseling than to standard cessation counseling.[16,17] Yet, the augmentation of smoking cessation with behavioral mood management is not yet firmly established. A recent Cochrane review of smoking cessation interventions for patients with depression deemed the strength of the evidence as **LOW** for interventions augmented with behavioral mood management. While the overall impact of adding behavioral mood management was positive, **further study was deemed necessary.**[17] Moreover, most of these trials delivered interventions in person, rather than by telephone, potentially limiting reach.

Improving reach of smoking cessation efforts and removing barriers that limit access and participation to effective interventions is critical in order to impact cessation rates at the population level. While telephone quitlines are accessible to many smokers and can engage motivated smokers, **proactive recruitment and proactive telephone counseling** are essential elements of successful evidence-based telephone-delivered interventions.[18] Generally, longer and more intensive cessation interventions are more efficacious. Persons with depression likely require more intensive, longer smoking cessation treatments.[19] Current telephone-based interventions such as quitlines have proven high reach but are unlikely to have the potency needed to cause significant cessation rates in depressed smokers.

In the study proposed here, we intend to combine the **potency of co-delivered mood management** and the **reach of proactive telephone-delivered** interventions by testing the telephone delivery of behavioral mood-management for smoking cessation among smokers with current depression and chronic medical illness. Proposed is a randomized comparative effectiveness trial with a two-group design in which 350 Veteran smokers with depression and chronic medical illness will be randomized to either: **1) smoking cessation plus adjunctive behavioral mood management** (SMK-MM group), an intervention that includes a proactive tele-health intervention that combines evidence-based smoking cessation counseling augmented with behavioral mood management and a tele-medicine clinic for accessing nicotine replacement therapy (NRT), or **2) smoking cessation telephone counseling control** (SMK CONTROL), a contact-equivalent control that provides the same smoking cessation telephone counseling intervention augmented with health education (instead of mood management) and a tele-medicine clinic for accessing NRT.

Design

The proposed study is a randomized trial to compare a 10-session, telephone-delivered behavioral mood management adjunct to a state-of-the-science smoking cessation program (SMK-MM) to a contact-equivalent smoking cessation and health education control (SMK Control) for effects on sustained abstinence from smoking among depressed Veterans with chronic disease. Veterans with current tobacco use and chronic disease will be identified from patient records at Durham VA Health Care System (Durham VAHCS). Veterans will be sent an introductory letter signed by the principal investigator that describes the study and asks for their participation. Veterans who do not decline may be called and asked if they currently smoke and if they are willing to quit smoking in the next 30 days. They will also be screened for depression. Eligible patients will be randomized to one of two arms: SMK *Control (N=175) or SMK-MM intervention (N=175)*. Participating patients will be surveyed at 6-month and 12-month post-randomization. The primary outcome is self-reported prolonged abstinence at the 6-month follow-up (Figure 1).

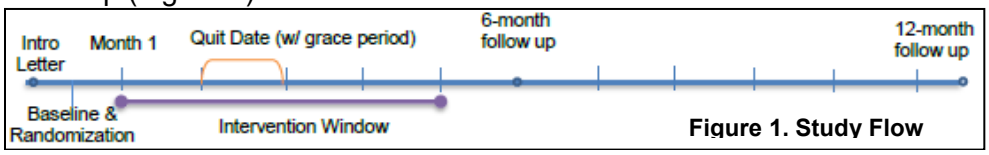


Figure 1. Study Flow

Accordingly, the specific aims of the study are:

1. To evaluate the impact of adjunctive mood management intervention on cigarette abstinence rates among Veterans at the 6- and 12-month follow-ups.
2. To evaluate the impact of adjunctive mood management on depressive symptoms among Veterans at the 6-month and 12-month follow-ups.
3. Assess whether change in self-efficacy, as well as positive and negative affect mediate the impact of adjunctive mood management on smoking cessation in Veterans at 6- and 12-month follow-ups.
4. Evaluate the cost and relative cost-effectiveness of the adjunctive mood management intervention.

Selection of Subjects

Study Setting

Durham VAHCS will be the recruitment site from which patients will be identified. In FY 2010, 53,661 unique Veterans received care at Durham VAMC. About 30% of these patients (approximately 16,100 Veterans) currently smoke cigarettes. Conservatively, 40% of these smokers have a history of significant depressive symptoms, yielding approximately 6,500 Veteran smokers with a lifetime history of depression.[20] We will screen and consent individuals until we meet the sample size of 350 subjects enrolled. We anticipate a 22 month recruitment period.

Eligibility Criteria

Patients must meet **all** of the following inclusion criteria:

1. Enrolled in the Durham VAHCS and associated Community Based Outpatient Clinics (CBOCs) for ongoing care
2. Current tobacco smokers willing to quit smoking in the next 30 days
3. Having received a diagnosis of a qualifying chronic illness (i.e., cancer, cardiovascular disease, hypertension, diabetes, COPD)

4. Have significant burden of depressive symptoms (i.e., meets DSM threshold for ≥ 3 of the nine MDD criterion symptoms at the threshold of "more than half the days" (one symptom must be depressed mood or anhedonia; endorsing "some days" meets criteria for self-harm) and endorse functional impairment OR receive a summary score 10 or above on PHQ-9. [63,64]

Patients who meet **any one** of the following exclusion criteria will be excluded:

1. Active diagnosis of psychosis or dementia or other memory loss condition in their medical records
2. Severely impaired hearing or speech
3. Lack of telephone access
4. Enrollment in another research study that might affect the main outcomes of this study
5. Terminal illness
6. Behavioral flags
7. Active suicidal ideation flags
8. Endorses self-harm and greater than minimal risk of suicide

Subject Recruitment

Patients clinically diagnosed with chronic medical illnesses and receiving care in the Durham VAHCS will be identified from CPRS using a data pull for the following health conditions using currently available identification codes:

Cardiovascular Disease; e.g.
Ischemic Heart Disease, Coronary Artery Disease, Peripheral Artery Disease, Carotid Artery Disease, Myocardial Infarction, Aortic Valve Disease, Atrial Fibrillation, Congestive Heart Failure, Abdominal Aortic Aneurysm, or Stroke (includes Transient Ischemic Attack, Cardiovascular Accident, Cerebrovascular Accident).

Cancer; e.g
Malignant neoplasm of lip, oral cavity, and pharynx, Malignant neoplasm of digestive organs and peritoneum, Malignant neoplasm of respiratory and intrathoracic organs, Malignant neoplasm of bone, connective tissue, skin, and breast, Malignant neoplasm of genitourinary organs, Malignant neoplasm of other and unspecified sites, or Malignant neoplasm of lymphatic and hematopoietic tissue.

Diabetes Mellitus

COPD; e.g.
COPD with acute exacerbation, Chronic airway obstruction, not elsewhere classified, asthma, bronchiectasis, bronchitis/with emphysema/decompensated, emphysema, or
Chronic obstructive asthma.

Hypertension; e.g.
Essential Hypertension, or Secondary Hypertension.

Patients meeting the criteria will be identified to the study team. Medical records for these patients will be reviewed; an abstraction form will be completed (See Appendix 1). At the time of abstraction, patients will be deemed potentially eligible or ineligible based on disease

criteria and smoking status as recorded in CPRS. Potential participants will be sent an introductory letter signed by the PI that describes the study and informs them that they may be called and asked to complete a telephone survey unless they call a toll-free number to refuse participation (See Appendix 2). Approximately five business days after the mailing, patients who have not called the toll-free number to decline participation may be called by a research assistant (RA) or other trained study team member to request their participation in the research study and screen for eligibility. When leaving voice mail or answering machine messages for patients, the team member will be discrete and maintain the patient's privacy by stating only that he/she is calling from the Durham VAHCS. No information regarding the patient's health condition or smoking status may be included in the message. For patients who are currently abstaining from smoking or aren't ready to quit, we will ask the patient's permission to re-contact them about study participation in the future. The study team member will obtain informed consent (Appendix 3) as noted in the **Consent Process** section below. Once subjects are consented, the baseline survey (Appendix 4) will be completed over the telephone. Once patients have been screened, consented, enrolled, and have completed the baseline survey assessment, the call will be either be transferred to or a message left for, depending on immediate availability, a non-blinded staff member to notify the patient of which of the 2 treatment groups they are randomized: SMK Control (N=175) or SMK-MM intervention (N=175). The project's statistical team will perform the entire study randomization before patient enrollment begins. Randomization will be stratified by sex and depressive symptoms using criterion based PHQ-9 scoring, (≥5 criterion symptoms, consistent with MDD, vs < 5 criterion symptoms, consistent with subsyndromal or persistent depressive disorder) and a blocked randomization technique will be used to ensure balance between groups.

In addition to direct-recruiting as detailed above, we may employ self-referral or provider referral. *Self-referral* would involve placing posters and brochures in clinic waiting rooms and other common areas, as well as on the closed-circuit television. VA clinicians may also give these brochures to patients who may be interested in the study. To facilitate *provider referral,* we may meet with primary care providers to inform them about the study and give study information by email and paper forms. We may set up a consult for referring patients to the study within the electronic medical record.

Consent Process

The trained study team member will obtain informed consent to participate after describing the aspects of the study. Potential participants will be told that their participation is voluntary, and they may choose not to answer any questions that they find too sensitive. Participants will not sign an informed consent form; rather, this study will operate under a Waiver of Documentation of Informed Consent. As part of the consent process, participants will provide consent for use of voice recordings so that counseling calls may be monitored for intervention fidelity. Participants may refuse permission to record and still participate in the study.

Study Intervention

Patients will receive the following intervention components:

1. Introductory letter: A letter from Dr. Gierisch to introduce the study and make an appeal to the patient to quit smoking.

2. Combination Nicotine replacement Therapy (NRT): United States Public Health Services Update of Clinical Practice Guidelines on the Clinical Treatment of Tobacco Use and

Dependence (USPHS CPG) recommends the utilization of a combination of a long acting nicotine formulation (patch) and a short acting nicotine formulation (gum or lozenge,).[21] At the third telephone counseling session, counselors will discuss the types of NRT available and the side effects of each type of NRT with patients. NRT may be discussed in earlier counseling calls if initiated by the participant. Counselors will tailor amount and delivery type of NRT based on number of cigarettes smoked per day (using an established protocol[22]). The counselor will enter a research note and the NRT prescription in the patient's electronic medical record. This note will be reviewed by study pharmacist, Dr. Jenny Legge, and the NRT will be provided, as appropriate, by the Durham VAMC pharmacy. In the rare case of a contraindication, the study pharmacist will review the patient's medical record, formulate a plan for NRT distribution, and send a CPRS note to the patient's primary care provider that details the plan. The primary care provider will then have the opportunity to discuss the plan with the study pharmacist (See Appendix 5). The patient's usual VA prescription co-payments will apply to NRT. The subject may decline NRT.

3. Telephone counseling (described below)

Telephone Counseling

Both groups will receive up to10 sessions of telephone counseling and a participant manual. Counseling session will be completed over about 5 months on an approximately twice a month schedule tailored to the individual patient's needs. All counseling contact will be complete prior to the conduct of the 6-month follow-up survey. Some participants may not complete 10 sessions because they will have timed out of their intervention window. The counseling content of each group is described in the following paragraphs and delineated in Appendix 6.

Smoking cessation counseling (Both Groups):

Both groups will receive smoking cessation telephone counseling and smoking cessation content will be delivered at parallel times. The counseling intervention is based on standard techniques that have been shown to be efficacious for smoking cessation, and is informed by behavioral treatment principles,[2] Social Cognitive Theory,[23] and Motivational Interviewing.[24] The counseling intervention and participant workbook were adapted from our previous successful telephone counseling intervention that targeted chronically ill Veterans (IIR-05-202).[25] The treatment protocol is consistent with the Public Health Service Clinical Practice Guide[26] and was tailored to the Veteran population based on principles of evidence and consensus-based clinical practices, and our own experience conducting telephone counseling.

Mood management enhancement (Mood Management Group):

In the SMK-MM enhanced arm, behavioral mood management will be integrated into the evidence-based smoking cessation counseling. We successfully used this integrated approach in our pilot; this approach has been used in other smoking studies with depression-history-positive patients.[27,28] The mood-management sessions are informed by Cognitive Behavior Therapy (CBT) and emphasize psycho-educational and skills-based approaches to CBT. CBT has been used extensively to address mood management. The behavioral mood management approach we tested in our pilot was informed by "Cognitive Behavioral Therapy for Depression in Veterans and Military Servicemembers",[29] a therapist manual developed by the VA, and a self-help guide to controlling depression, which has been evaluated in other depression studies.[30] Specifically, SMK-MM enhancement includes behavioral activation, cognitive

restructuring (working with automatic thoughts, problem solving, and behavioral skills (i.e., activity scheduling, relaxation training/controlled breathing). The SMK-MM-enhanced participant manual will also include additional worksheets developed for our pilot based on Lewinsohn's self-help guide to controlling depression.[30] The main objective of the worksheets will be to provide Veterans with an opportunity to gain mastery over selected behavioral and cognitive skills thought to facilitate mood management. As is customary in CBT, homework based on the worksheets will be discussed during counseling calls.

The Quit Coach will ask at the start of each session if the participant is agreeable to having the session recorded. This verbal confirmation that the participant knows and agrees to be recorded will be obtained and recorded in Illume at the start of each recorded session.

Recordings will be used for treatment fidelity purposes only. Drs. Fish and Gierisch will monitor all 10 sessions for the first 3 participants assigned to the counselor, and then up to 5 randomly selected sessions per month for the remaining intervention delivery period to provide ongoing training and supervision. They will monitor protocol adherence using checklists of key counseling components.

Health education control condition (Healthy Lifestyles group)*:*

In the contact-equivalent health education condition, participants will receive parallel smoking cessation content on the same schedule as in the MM-enhanced arm; however, health education content will supplant the MM content. The educational content will be based on the VA National Center on Health Promotion and Disease Prevention's "Health Living Messages" on such topics as being safe, eating wisely, getting recommended immunization and screening tests, and being involved with your health care. Participants also will receive chronic-disease-specific self-management information.

Study Instruments

1. Chart Abstraction: Using an automated data pull of computerized patient medical records, we will collect demographic and contact information (name, date of birth, full social security number, mailing address, and telephone numbers). The data pull will filter for subjects who meet inclusion criteria based on provided ICD-9 or -10 codes for the health conditions listed above. The data pull will exclude for those conditions listed previously. Prior to contacting potential participants, study staff will complete a brief medical chart review to check for any exclusion criteria that may have developed since the time of the data pull. Patients will not be eligible to be contacted for study participation if their medical record documents an active diagnosis of psychosis, dementia or other memory loss condition, a hearing and/or speech impediment that would preclude patients from using a telephone, enrollment in another research study that might affect the outcomes of this study, terminal illness, behavioral flags, or active suicidal ideation flags.

2. Eligibility Screening: Patient's will be screened for current smoking, willingness to quit in 30 days, and depression. Depression will be measured using the 9-item PHQ.[31] Patients who score as having major depression will be encouraged to speak with their doctor or a counselor and will be provided with Durham VAHCS mental health resources. For patients who express an endorsement of suicidal ideation (endorsement of question #9 on the PHQ-9) and score more than minimal risk on the P4[19] or who show clinical warning signs of elevated risk of self-harm (e.g., expression of intent to harm self, severe depression, significantly agitated, disordered thought, perceived burdensomeness on others) the RA will engage the Safety

Protocol. (See Appendix 7 for details.) Those qualifying and interested will be consented via telephone.

3. Baseline Survey: Patients who consent to participate will complete the baseline survey that assesses demographics, smoking history and current smoking including e-cigarettes, use of other tobacco or nicotine-based products, nicotine dependence, self-efficacy to quit smoking, contraindication for NRT, health care provider advice for quitting, attitudes lung cancer screening, pain, and depression severity. Participants will be asked to respond to three questions (four for women under the age of 50 years) to determine if they are contraindicated to receive NRT (i.e. high blood pressure not controlled by medication, chest pain, and wear dentures or have jaw problems). For women under the age of 50 years old, they will be asked if they are planning to get pregnant in the next 6 months. If the participant responds YES to high blood pressure not controlled by medication and recent chest pain, then the participant must receive physician approval prior to receiving NRT (as detailed on the Study Intervention section).

4. Six (6) and 12 Month Surveys: Two follow-up surveys will be administered by phone by a study team member blinded to randomization. One survey will be administered approximately 6 months after enrolling. There will be another follow up survey about 12 months after enrolling. The follow-up surveys will include assessments similar to those used in the baseline and will also include measures assessing smoking status, use of intervention materials (e.g., NRT, worksheets), and, at the 6-month follow-up, intervention acceptability (e.g., intervention appropriateness, suitability, effectiveness, and convenience).

Should the participant be unavailable to complete the full set of follow-up questions, we will offer an abbreviated survey version including only questions relating to our primary and secondary outcomes as well as cigarettes smoked per day for a reduced incentive payment. This abbreviated version is comprised of approximately 14 questions taking about 5 minutes. Either we may complete this abbreviated follow-up survey by phone or mail, prioritizing phone efforts as it would allow us the opportunity to answer participant questions or address concerns. Should staff be unable to contact the participant to complete either the full or the abbreviated set of questions by phone by week 3 of a 4-week window of opportunity, we will mail a no-contact letter to the participant. In the letter, we will ask the participant to call in to complete the full set of follow-up questions for the full incentive payment by the closing date. To increase the response rate, we will offer to these non-responders the option to complete an enclosed mail-in abbreviated follow-up survey for a reduced incentive payment. On the mail-in version, we will replace the PHQ-9 with the PHQ-8 as the measure for depression. As we have not been able to reach these participants by phone, we anticipate being unlikely to reach non-responsive subjects for appropriate follow-up should they indicate thoughts of self-harm. We will include the phone number for the Veteran's Crisis Line on the letter accompanying the abbreviated survey. Despite mailing the survey at three of 4 weeks, we will continue attempts to reach participants by phone until the window closes to make every effort to complete the full set of follow-up questions. Should the participant return or complete the abbreviated survey, we will enter the responses into the survey software and label the remaining questions as "missing" data handling as such. Should we either successfully reach a participant who mailed in an abbreviated survey or a participant changes their mind about wishing to complete the full set of questions within the window of opportunity, we will complete the full questionnaire with them by phone. In this case, we will set aside the previously submitted abbreviated survey responses for that time point and distribute the full incentive payment.

Surveys for this protocol are administered by study staff using the standard Durham, NC HSR&D survey tool "Illume". Running on top of Microsoft IIS, Illume is a commercial web application configured to use https addresses. The application uses a Microsoft SQL server database to store both survey questions, and the answers provided to them. The servers are operated under the auspices of VA OI&T personnel, who patch, back up, monitor, and update

the servers, their supporting operating system instances, and their virtual machine instances, in accordance with established VA research policies and OI&T practices, including having the physical servers in a secured server room with restricted access, a UPS infrastructure, and adequate cooling. HSR&D has a software maintenance contract for Illume to ensure access to patches/fixes from the providing corporation, DatStat. The "Illume" application has been evaluated by VISN6, whose personnel have run an "AppScan" on the application, and approved its use at HSR&D. Mail-in follow-up surveys will be entered into the survey tool as soon as possible by blinded study staff.

Measures
Medical data, including diagnosis, will be collected from the patient's medical record.

Outcome measures

Primary outcome
Prolonged abstinence: In keeping with the Society for Research on Nicotine and Tobacco recommendations for measuring abstinence, we use prolonged abstinence as our main outcome and allow for a grace period around quit date. During the 6- and 12-month follow-ups, patients will be asked about prolonged abstinence, "Since [date of randomization plus 90 days] have you ever smoked at least a part of a cigarette on each of 7 consecutive days, that is 7 days in a row?" and "Since [date of randomization plus 90 days] have you smoked any in each of 2 consecutive week, that is 2 week in a row?"[32]

We also will assess prolonged abstinence via another established single-item measure to assess if a more simplified manner of assessing prolonged smoking abstinence yields similar resutls.[66] This item is, "Have you smoked at all since (date of randomization plus 90 days)?" with responses of: a. No, not at all; b. 1-5 cigarette; or c. More than 5 cigarettes. Answering "a" or "b" would categorize a respondent as achieving prolonged abstinence.

Secondary outcomes
Point prevalent abstinence: At each follow-up (6-and 12-month), patients will be asked whether they have smoked a cigarette, even a puff, in the past 7 days and, if no, will be asked whether they have smoked a cigarette, even a puff, in the past 30 days.

Biochemical Verification
Saliva samples will be collected from participants who report not smoking in the last 7 days to biochemically validate self-report smoking status. Samples will be collected by mail within a 2-week window following the telephone interview.[33] Participants are sent instructions, saliva vials, a brief tobacco use assessment (that includes the use of nicotine replacement therapies in the prior week), and a postage-paid, padded envelope for returning the sample to the Durham VA Medical Center project coordinator so that receipt of samples can be tracked for participant payments. Participants self-reporting non-smoking who mailed in a follow-up survey will have the saliva sample kit express mailed to them in an attempt to reduce the turnaround time between self-report and sample collection. A reminder call will be made by the Project Coordinator to participants mailed a sample kit inquiring about kit receipt, inviting questions, reinforcing return by the deadline, reminding about including the completed questionnaire and the incentive payment upon receipt. Samples will be stored in a secure VA research freezer at the medical center. Next, samples will be sent to an independent laboratory for analysis. Saliva samples will be analyzed for the presence of cotinine using a standard cut point of 16 ng/ml to determine abstinence. This method of analysis has been used in many of our prior smoking

cessation studies and yields response rates that are comparable to in-person collection methods (i.e., 70%).[81] A blind sample of 5% will be run again to assure test accuracy of saliva samples. Tubes will be re-labeled prior to shipment with a unique barcode, not the participant's study ID. Following sample analysis, the independent laboratory will be responsible for destroying the samples. The project coordinator will maintain the crosswalk between the two codes. Coded samples will be sent by trained study team members in accordance with the standards of practice outlined in Research Transporting and Shipping Biological Specimens, SRS SOP 202. Results of the saliva samples will be returned to study staff via a password protected Excel spreadsheet attached to an encrypted email sent from the laboratory to the study coordinator.

Participants will receive $20 incentive for returning the saliva sample.

PHQ-9 Patient Depression Questionnaire:

Patients will be asked the frequency with which they experienced symptoms indicative of depression in the past two weeks. This measure can be used to assess DSM criterion symptoms for MDD, assess depression severity, and assess suicidal ideations.[31] The PHQ-9 performs similarly across sociodemographic groups (i.e., age, race, sex) and mode of administration (e.g., patient self-report).[34] For participants responding using the abbreviated mail-in follow-up survey, they will be administered the PHQ-8.

Background Measures

(See Appendix 4 for all assessment survey items and Table 1 for timing of measures.)

Demographics: Age, race, gender, education, marital status, finance, and employment status will be assessed.

Smoking history/Current smoking: Patients will be asked number of cigarettes currently smoked per day on average, number of serious quit attempts (quitting for at least 24 hours) in the last six months and use of e-cigarettes.

Use of Other Tobacco & Nicotine Products: We will also ask if and how often they use the following tobacco or nicotine products: smokeless tobacco (e.g., snuff, dip), cigars, regular pipe, and electronic cigarettes.

Nicotine dependence: We will use the 6-item Fagerstrom Test for Nicotine Dependence.[35]

Health Care Provider Advice for Quitting: Patients will be asked if they've seen a health care provider in the past 12 months. If yes, they will be asked if they were advised to quitting smoking.

Perceived Stress and Coping: The Rhode Island Stress and Coping Index (RISCI) is a 12-item measure with two subscales: perceived stress and perceived coping.[36] The RISCI measures general stress and coping responses rather that situation-specific responses, and has been widely used in smoking cessation studies. A sample stress item reads "I felt there was not enough time to complete my daily tasks" and a sample coping item reads "I successfully solved problems that came up" (1=never to 5=most of the time).Quality of life: Patients will be asked the Euro-Qol (EQ-5D-5L) to rate 5 symptoms (e.g., mobility, self-care) on a 5-point scale (1=not at all to 4=very much). [37]

Contraindications to NRT: Participants will be asked to respond to 3 questions (4 for women under the age of 50 years) to determine if the patient is contraindicated to receive NRT. The study pharmacist will review all NRT requests for contraindications and formulate an appropriate plan based on revealed contraindications.

Body Mass Index (BMI): We will collect from the electronic medical record participant's weight and height measures to calculate BMI.

Table 1. MEASURES	Month		
	0	6	12
BACKGROUND VARIABLES			
Demographics	X		
BMI	X		
Smoking history	X	X	X
Use of other tobacco/ nicotine products	X	X	X
Nicotine dependence	X		
Smoker identity	X	X	X
Quality of life (EuroQol)	X	X	X
Perceived stress and coping	X	X	X
NRT contraindications	X		
Health care provider advice to quit	X		
Pain	X	X	X
Lung cancer screening	X		
Positive and negative affect scale	X	X	X
CHAOS measure	X	X	X
Desire to quit	X		
Abrupt vs. gradual cessation		X	X
Global self-efficacy	X	X	X
Situational self-efficacy	X	X	X
Other mood or smoking cessation aids	X	X	X
PROCESS MEASURES			
Intervention - counseling		X	
Use of NRT		X	X
OUTCOME MEASURES			
Prolonged abstinence		X	X
Point prevalence abstinence		X	X
Depression (PHQ-9)	X	X	X

Additional Psychosocial Measures

Self-efficacy - Global self-efficacy to quit smoking: A single item will assess "How confident are you that you will be able to quit smoking?" (1=Not at all confident to 4= Very confident).[38] The use of a global measure is supported by previous studies in which multiple-item SE questionnaires formed a unifactorial construct.[39]

Situational Self-efficacy: A 12-item measuring situations that tempt people to smoke.[40] Participants will be asked, "Please indicate whether you are sure that you could *refrain* from smoking in each situation". Response options are: Not at all sure, Not very sure, More or less sure, Fairly sure, and Absolutely sure."

Desire to quit: Patients will be asked four questions about their desire and determination to change smoking behavior (α= .81).[41]

Smoker Identity: We will use two items to assess the degree to which a participant considers themselves a smoker over the course of the intervention.[61, 62]

Positive and Negative Affect Scale (20-item PANAS): Participants will be asked to report positive and negative affect. Items will be introduced by the stem "I'd like to know how you feel right at this moment. Your answer choices range from *Not at All* to *Extremely*. I'll read you a list of words, and for each one, please tell me to what extent you feel that way **right now** (0= not at all to 4=extremely). [42]

Confusion, Hubbub, and Order Scale (CHAOS): A 6-item scale designed to address consistency of daily routine, ability to plan, and anticipate future activities, and being on time.[67, 68]

Use of other mood or smoking cessation aids: Patients will be asked if they used other mood (antidepressants use and type, psychotherapy use and dose) or smoking cessation counseling outside study.

Abrupt Versus Gradual Cessation: A single item will assess the nature of smoking cessation behavior.[65]

Process measures

Use of smoking cessation self-help materials and counseling: Patients will be asked how much of the self-help manual they read, and how useful the self-help manual was in helping them to try to quit smoking.

Use of intervention materials: Patients will be asked how useful the counseling calls were in helping them to try to quit smoking and if they would recommend the program to a friend who was trying to quit smoking. They will be asked if they used NRT and, if so, what type and what their level of adherence was with NRT.

Economic Analysis

Cost assessment: Cost assessment will be conducted from an implementation perspective, meaning only costs that will be incurred if the intervention were to be implemented throughout the VA are considered.

Direct costs: Cost assessment consists of three components: training, telephone counseling labor input, and cost of NRT. We will collect both the trainer and trainee time needed to train the counselor to conduct the smoking cessation counseling calls. The counselor will log the total time needed for each counseling call including pre-call preparation and post-call tasks, like making patient notes. We will track time for unsuccessful call attempts and re-attempts. Aggregate time data will be multiplied by the counselor's per-minute wage and further inflated by 30% to account for fringe benefits to derive direct telephone counseling cost. We will obtain unit cost of NRT from the Durham VA Pharmacy and apply this cost for the patients prescribed NRT in each study arm.

Indirect costs: The VA also incurs costs such as administrative costs, custodial costs, utilities, etc., that cannot be attributed to specific health services (i.e. indirect cost). The VA's Health Economics Resource Center recommends allocating indirect costs as a percentage of direct cost.[44] In previous research, we used administrative data from the VA Decision Support System to obtain direct and indirect cost for telephone-based services provided at the Durham VAHCS. We used these cost figures to calculate a direct-to-indirect cost ratio of 0.59.[45] We will apply this multiplier to the direct cost to derive total counseling time cost. Total costs will be divided by number of patients in the intervention and control arms to derive average counseling cost per patient.

Cost-effectiveness: Two cost-effectiveness ratios commonly calculated in the smoking cessation economics literature are cost per quitter and the gold standard of cost per life-year saved or quality-adjusted life years (QALY) saved.[46] We, too, will calculate cost per quit and cost per QALY for this study. To derive cost per quit we will take the total intervention cost and divide it by the 6-month and 12-month quit rates observed in each arm. An often used approach to derive effectiveness in smoking cessation cost-effectiveness analysis is to extrapolate quit rates to increases in life expectancy or QALYs.[46] We will use the increase in QALYs due to smoking cessation provided by Fiscella and Franks[47], stratified by sex and age at quitting, to extrapolate QALYS from quit rates in our study. Fiscella and Franks' estimates mees cost-effectiveness guidelines established by the US Preventive Services Task Force because they provide quality-adjusted life expectancy, and because an annual discount rate of 3% is applied. The total cost derived for each arm will be divided by the total gain in QALYs extrapolated for each treatment arm to derive the cost-effectiveness ratio for both arms.

Sensitivity Analyses: We will conduct sensitivity analyses to assess robustness of cost-effectiveness results by distributions of labor rate and counseling time costs, NRT cost, and potential QALY gains from quitting.

Risk/Benefit Assessment

The study is completely voluntary; participants are informed that they are free to refuse to answer any items on the questionnaires or questions form the interview that they do not wish to answer. They are also informed that they are free to decline participation in any procedure and can withdraw from the study at any time.

There are no known psychological hazards or risks associated with completing questionnaires, but it is possible that some distress or discomfort may be caused by answering study questions. There is a potential risk associated with the loss of confidentiality of study data. Risks also include discomfort related to quitting smoking. Quitting smoking will cause nicotine withdrawal that may lead to headaches, nausea, irritability, weight gain, difficulty concentrating, poor sleep, increased appetite increased anxious or depressed mood, and craving for cigarettes.

Participants may choose nicotine replacement therapy (NRT). There are risks associated with the use of NRT. Minimal risks associated with wearing a nicotine patch include skin irritation, dizziness, lightheadedness, increased heart rate or blood pressure, nausea or vomiting. Participants must get VA physician authorization prior to receiving NRT if they have uncontrolled high blood pressure or taking medication for depression.

While participants may benefit from quitting smoking, there are no guaranteed benefits to the individual participant and no immediate benefits of the proposed research to others. There are potential benefits to others from the information generated that potentially will be helpful in increasing reach of smoking cessation strategies and developing more effective treatment interventions for smoking cessation for Veteran smokers. In our opinion, the anticipated benefits of this study outweigh the potential risks.

Adverse Events

Quitting smoking should enhance rather than jeopardize health status, and potential serious adverse events (SAE) for participants in this project are not expected. Regardless, we will minimize potential risk by careful screening of potential participants. Those with contraindications for NRT will be reviewed and cleared by the study pharmacist prior to issuance of appropriate NRT.

The PI and project manager will oversee monitoring activities. There will be several ongoing mechanisms for monitoring and reporting of adverse events: 1) ongoing participant contact via study personnel, 2) a toll-free number provided to participants to report concerns related to study participation; 3) regular meetings between the PIs and study personnel.

Prior to initiation of any smoking cessation aid, participants will be informed again of the potential risks and side-effects associated with NRT or other medication. Participants also will be able to call directly via the study toll-free number to report AEs. This toll-free number, directed to the project coordinator's phone, will be provided to all participants upon entry into the study.

All adverse events will be reviewed and patients evaluated as necessary by the Study Physician to determine whether the AE is study related. In addition, study staff will provide patients with any applicable referral numbers. This and other instructions will be provided at the beginning of the study. The project manager will follow up with participants in a timely manner to ensure that the event has been resolved and document actions taken.

The PIs will meet regularly with study personnel to discuss participants' reactions to the intervention, proper delivery of the intervention, and any adverse events. Monthly meetings between the investigators and the project manager will allow for ongoing progress reports, including the number of participants currently involved in the study groups, attrition rates, and scheduled data collection from participants, as well as notification and review of any AEs. The investigative team will classify AEs as "health threatening" or "non-health threatening" events and "possibly attributable" or "non-attributable" to the intervention. Some subjects may not complete all scheduled phone calls or follow-up surveys. This is expected and will not be considered an AE.

Current VA policy regarding reporting of AEs will be followed.

Costs and Payments to Subjects

Patients in this study may be paid up to $100. Patient will receive $30 for completing each follow-up survey and for those reporting not smoking, $20 for submitting saliva samples to confirm smoking status. For subject's completing an abbreviated version of the follow-up survey, they will be compensated $5 for their time. The patient's usual VA prescription co-payments will apply to NRT.

Compensation is for the time and effort the patient invests to 1) complete the follow-up surveys and 2) where applicable, obtain a saliva sample, package and return it to the study team. Without compensation, patients may not complete these two outcome measures for the study. Patient's may choose to decline payment.

Data

All patient information collected in the context of this research study, and even the fact than an individual is participating in the study, will be considered confidential. The following steps will be taken to ensure confidentiality and safe handling of all data:

1. Access to all participant data and information will be restricted to authorized personnel.
2. Participants will not be identified by name in any reports or publications, nor will data be presented in such a way that the identity of individual participants can be inferred.
3. Each participant will be assigned an anonymous study ID which will be used on all study forms and within the study database.
4. All study personnel will maintain certification with the Durham VAHCS IRB that they have completed training in research ethics and confidentiality.

With respect to paper based records:

1. All study records that contain participant information will be kept in secured, locked areas when not in use.
2. Such materials, when in use, will be kept safe from public scrutiny
3. Materials that need to be discarded will be destroyed.

Information Security

Actual access is accomplished by adding the individuals' domain IDs to study specific, and often directory or database specific, or role specific, security groups within the Active Directory. For this research study, HSR&D COIN OIT support personnel policy is to accept requests for access to data from principle investigators or their delegated project coordinators. The requests are captured in the VA's instance of service Desk Manager from Computer Associates. The names for those for whom access is requested must be on a copy of the appropriate study's IRB-approved staff listing on file with the center's Program Specialist before access is granted.

Data will be maintained in a secured server room within the Durham VA Medical Center, room FG104, Building 1. Data are backed up directly to tape. Most backups run daily, Monday through Friday. Most tapes are retained indefinitely pending resolution of some questions around VA Research data retention policy. Tapes created at the NC Mutual building, via Symantec Backup exec, are moved from the server room to a separate room, also equipped with an intrusion alarm, keypad, and PIV card access. From there, the tapes are moved to an Iron Mountain storage facility, after being locked in purpose-made tape cartridge carriers. Future backups may involve data backed up to near-line storage, at the Durham VAMC using EMC Networker software and associated hardware, which is then replicated to Richmond, Virginia, at another Region 3 data center then backed up to tape which is again sent to an Iron Mountain facility.

Primary survey data will be gathered and entered by study staff using the commercial product “Illume” from the DatStat Corporation. Access to the data collected is through various tools provided by DatStat. Illume provides additional levels or granularity of restriction to the data, beyond what is provided via Active Directory groups. “Illume”, running on top of Microsoft IIS, is a commercial web application configured to use https addresses. The application uses the Microsoft SQL server database previously mentioned, to store both survey questions, and the answers provided to them. The “Illume” application has been evaluated by VISN6, whose personnel have run an “AppScan” on the application, and approved its use at HSR&D.

Individual workstations, desktop PCs or laptops, are patched using the VA standard, SCCM from Microsoft. Laptops and desktop PCs are encrypted using the VA standard tool Symantec’s SEE. Workstations are equipped with anti-virus and firewall software.

Data Destruction

Records will be retained in accordance with the VA records control schedule.

Data Access Termination

OI&T personnel remove personnel’s IDs from the groups at the direction of the project coordinators and principal investigators. Termination of access will be requested when someone departs the project team.

Incident Reporting

Any suspected or confirmed loss of VA information will be reported to the Durham VAHCS R&D, Privacy Officer, and Information Security Officer within 1 hour of awareness of the issue and done so using the VHADUR Research Events Report e-mail group: VHADURResearchEventReport@va.gov. In addition, the study PI and Bradley Dokter, HSR&D Computer Scientist will be notified of suspected or confirmed loss of VA information.

Confidentiality and Privacy

Of primary importance in all study activities will be the security and protection of patients’ private health information (PHI). The responsibility of protecting this information begins the moment a member of the study team accesses information about a patient and does not ultimately end until project data sets are destroyed and/or anonymized in accordance with the VA records control requirements.

All information will be kept confidential as provided by law. Confidentiality is maintained by numerically coding data. Data connecting the numerical code with identifying patient information will be stored in password-protected databases and will be accessible only to pertinent research staff. All databases will reside on the secure VA network.

All hard copies of identifying information will be kept in a secure file cabinet in a locked office on VHA property. Identifiers will be destroyed at study end in accordance with the VA records control schedule. All data will be entered and saved directly to a password protected database. Research data, including access to the study database, will be limited to current research staff. Removal of access to the research study data will be accomplished for study personnel when they are no longer a part of the research team.

All interviews and intervention contacts will be conducted by trained study staff, and data will be directly entered into a VA computer located on VA property. In case of unforeseen computer or network failure, staff will complete hard copies of surveys. The staff member will enter the survey data once computer or network connectivity is achieved. Hard copies of the survey will be filed. Counseling sessions will be digitally recorded and saved to a secure network. The recordings of the sessions will be kept in accordance with VA records and control schedule, and only study staff will listen to the recordings.

Saliva specimen tubes will be labeled with the unique study ID number only. Specimens will be returned to the project coordinator. Bulk samples will be hand carried by the project coordinator or research assistant to the Duke University Nicotine Research Program. Results from the cotinine test will be transferred from Duke to the VA statistician by way of a FIPS 140.2 compliant encrypted thumb drive that will be hand carried both ways by either the project coordinator or research assistant. A Data Use Agreement is in effect between the Durham VAMC, HSR&D and the Duke University Nicotine Research Program.

Safety Monitoring - Handling of Unexpected or Adverse Events

The individuals responsible for safety monitoring will be the PI, the project manager, and the Study Physician. The Study Physician for this trial is John Williams, Jr., M.D. As Study Physician, Dr. Williams will ensure participants are medically cleared to participate in this trial and review all reports of adverse events sent by the study coordinator and evaluate the patient as necessary to determine whether corrective action is needed.

Interviewers and counselors will be trained and instructed to contact the study coordinator immediately if the participant informs them of the occurrence of an adverse event. The study coordinator will inform the principal investigator, and a report of all adverse events will be included in progress reports submitted to the IRB. Serious adverse events for participants will be reported according to current VA policy. Additionally, theft or loss of data, unauthorized access of sensitive data or storage devices, or non-compliance with security controls will be handled promptly in accordance with current VA policy.

The risks to participants in this study are minimal. Risks may include psychological distress after quitting smoking, and skin irritation or headaches resulting from use of the nicotine patch for those patients who opt to use NRT. In the event that a participant experiences problems due to NRT, he/she will be instructed to contact his/her primary care physician. This and other instructions regarding use of nicotine replacement and side effects associated with use of NRT will be provided to the subject.

It is also possible that the interviews with participants will increase their psychological and emotional distress. A toll-free number will be provided to participants to report concerns related to study participation, to ask questions, or to withdraw consent. If a participant experiences extreme distress while on the telephone with study staff, the counselor or interviewer will provide them with appropriate referral numbers. The study measure of depression, the Patient Health Questionnaire (PHQ-9), will be administered at screening and follow-up. For patients who express an endorsement of suicidal ideation (endorsement of question #9 on the PHQ-9) and are greater than minimal risk on the P4 or have who show clinical warning signs of elevated risk of self-harm (e.g., expression of intent to harm self, severe depression, significantly agitated, disordered thought, perceived burdensomeness on others) the RA will arrange a warm transfer to the Veteran Crisis Line. (See Appendix 7 for details.)

There will be several ongoing mechanisms for monitoring non-medical adverse events (e.g., anxiety related to the smoking cessation intervention, depression). This monitoring will be facilitated by: 1) a toll-free number provided to participants to report concerns related to study participation; 2) ongoing patient contact via interviewers and telephone counselors; and 3) monthly meetings between the investigators, including study physician, and project team in which progress reports are reviewed. The PI or qualified Co-Investigator will conduct regular supervision meetings with the counselors to discuss participants' reactions to the intervention, any adverse events, and proper delivery of the intervention.

Data Analysis and Statistical Considerations

Data Summary

Descriptive statistics, including graphical displays, will be used to summarize all study variables, both overall and by intervention group. Evidence of imbalance in baseline characteristics will be noted and discussed as to whether they are clinically significant. As recommended by CPMP guidelines[71], we will consider sensitivity analyses adjusting for these baseline characteristics to ensure that an observed intervention effect is not due to this baseline imbalance. We will construct individual and mean trajectory plots of the longitudinal outcome variables (e.g., PHQ) to understand their general trends over the study period. In addition, we will explore the variability and correlation structure of the longitudinal outcome variables. All statistical analyses will be performed using the SAS software package; the Durham HSR&D Center of Innovation maintains the current SAS release on our system.

Intent-to-Treat Analysis.

All primary and secondary analyses focus on the effect of SMK-MM as compared to control. We, therefore, plan to use the intent-to-treat assumption for all analyses; participants will be analyzed as part of the group to which they are randomized, regardless of intervention adherence.

Analyses

Hypothesis 1.1: Prolonged abstinence rates will be significantly higher among Veterans in the SMK-MM group as compared to those in the control group.
Hypothesis 1.2: The 7-day point prevalence abstinence rates will be significantly higher among Veterans in the SMK-MM group as compared to those in the control group.

As described in Section E.10.1, rates of cigarettes abstinence (prolonged abstinence) will be assessed at 6- and 12-month follow-ups. Abstinence will be measured as a dichotomous variable that indicates whether patients have been abstinent or not. The same analysis approach will be used to test both prolonged and 7-day point prevalence abstinence rates. Self-report of abstinence will be validated with cotinine saliva testing.

We will use logistic regression[48] to test for a between-group difference in abstinence rates at 6 months. This logistic regression model can be written as: $\text{Logit}(p_i) = \beta_0 + \text{SMK-MM}_i * \beta_1$, where p_i represents the probability that patient *i* has abstained from smoking at the 6-month follow-up. In this model, SMK-MM_i is the intervention group indicator; therefore, β_1 represents the log-odds ratio of smoking abstinence in the SMK-MM group as compared to the control group. For each of the abstinence outcomes, we will formally evaluate the intervention effect by testing that β_1 differs from zero and report the odds ratio ($\exp(\beta_1)$) and 95% CI of the odds ratio. An odds ratio significantly greater than 1.0 provides evidence that SMK-MM group patients have higher prolonged abstinence rates. The model will also include stratification variables (gender, number of depression symptoms) as recommended in the Committee for Proprietary Medicinal Products guidelines.[49]

Sustainability, or longer term effects of the intervention, will be examined by comparing abstinence rates between groups at 12 months. We will model change in abstinence rates at baseline, 6, and 12 months using generalized linear models with a logit link fit with GEE (Generalized Estimating Equations).[50] The regression coefficients from this model have essentially the same interpretation as those from a cross-sectional regression analysis (e.g. logistic regression) but are more appropriate as they properly incorporate the within-subject correlation that is inherent in the longitudinal structure of the data. The model will be fit using the SAS procedure GENMOD (SAS Institute, Cary, NC).

Hypothesis 2.1: Veterans in the SMK-MM group will experience significantly less negative effects on depressive symptoms post cessation attempt as compared to the control group.

A general linear mixed model will be used to estimate changes in PHQ scores over time and test the secondary hypothesis. Because of the small number of time points, we will apply an unstructured covariance matrix to take into account the within-patient correlation between repeated measures over time. The predictors in the model will include a dummy coded time effect and an indicator variable for the intervention interacting with the time effect. The model will have the form: $Y = \beta_0 + \beta_1*(\text{month6}) + \beta_2*(\text{month12}) + \beta_3*(\text{SMK-MM*month6}) + \beta_4*(\text{SMK-MM*month12})$. This model assumes the groups have equal baseline means, which is appropriate for a randomized controlled trial and is equivalent in efficiency to an ANCOVA model.[51] Additionally, the model will include the stratification variables. We plan to estimate the parameters in the model using the SAS procedure MIXED (SAS Version 9.2, Cary, NC).

Hypothesis 3.1: The relationship between adjunctive mood-management intervention and smoking cessation will be mediated by self-efficacy, and positive and negative affect

If there is a significant intervention effect on smoking cessation (i.e., if β_1 is significantly different from zero in the first model above in Hypothesis 1.1), then we also plan to examine whether change in self-efficacy and affect mediate the impact of the intervention. This aim can be addressed under the general framework of mediation. We propose to conduct this mediation analysis using the MacArthur approach, a modification of the traditional Baron & Kenny criteria, developed for use specifically in randomized clinical trials.[52,53] By the MacArthur definition, the potential mediator must be evident during or post-treatment; therefore, for example, the change in patient self-efficacy measures between baseline and 6-months will be considered as potential mediators. The outcome will be patients' abstinence at 12-months. We will first fit a model to examine the correlation between the mediator (C) and the SMK-MM group: $C = \gamma_0 + \gamma_1*SMK\text{-}MM$. We also fit a model that examines the relationship between the mediator and the probability of abstinence (p): $logit(p) = \beta_0 + SMK\text{-}MM*\beta_1 + C*\beta_2 + C*SMK\text{-}MM*\beta_3$. Improvements in patient self-efficacy and affect will be considered to account for improvements in abstinence rates if there is evidence that γ_1 is not equal to zero, and if either β_2 or β_2 are not equal to zero.

Missing Data. Because main predictors of interest are collected at baseline, we do not anticipate much missing data in these variables. We do, however, anticipate missing values in the longitudinal outcomes owing to dropout, death, inability to reach patient, or item non-response. If the missing values are related to other measured patient factors, such as age, gender, or employment status, then multiple imputation provides a framework for incorporating information from these auxiliary variables while still preserving a parsimonious main treatment effect mode[54]: the Panel on Handling Missing Data in Clinical Trials recommends this framework.[55] We will follow multiple imputation methods presented in Hedeker et al for missing abstinence outcomes.[56] Depending on type and scope of missing data for other longitudinal variables, multiple imputation will be conducted with SAS procedure PROC MI[57] or the SAS macro IVEware. In the unique situation of paper-based collection of the PHQ-8 at follow-up, we will conduct a sensitivity analysis where the missing ninth item is imputed with the follow-up sample mean.

Sample Size Considerations:

The sample size estimate is based on the primary hypothesis of the trial, which is that prolonged abstinence rates at the 6-month follow-up will be significantly higher among Veterans in the SMK-MM group as compared to the control group. The sample-size estimate is based on a Z-test for the difference in proportions, assuming a two-sided type I error rate of 5% and power of 80%. While we did have 20% quit rates in IIR 05-202 for the total study population, the

7-day point prevalence rate for those with clinically meaningful depression was only 17%. These quits rates are higher than those reported in the literature, [29,31] raising concern that they may be somewhat anomalous. Thus, we derived quit rates for the proposed study from the broader smoking cessation literature. In a recent Cochrane review of smoking cessation interventions among those with depression, abstinence rates ranged from 0-24%, with an average of 9.7%. As a second approach, we tried to derive an estimate more specific to the Veteran population. The largest trial to date of Veteran smokers (not selected for depression) exposed to telephone counseling and NRT yielded 14% prolonged abstinence rates.[58] We then searched the literature for a correction factor that would convert this 14% prolonged abstinence rates into a cessation rate among depressed patients. A meta-analysis of quit rates among smokers with a history of depression demonstrated a 34% lower odds of long-term abstinence compared to non-depressed patients (OR=0.66; 95% CI 0.53, 0.82).[11] If we extrapolate a 34% correction factor to the 14% prolonged abstinence rate, we get an expected rate of 9.7% prolonged abstinence for our depressed control group. In our meta-analysis, the mean differences between mood-enhanced intervention and non-mood enhanced comparator was 10%; this differences jumped approximately 15% when NRT was used.[16]

Based on results these studies, we estimate the 6-month prolonged abstinence rate to be approximately 10% in the contact-equivalent control condition, and 22% in the SMK-MM group. With 146 Veterans in each group, we will have 80% power to detect this difference (12%) in prolonged abstinence rates. We anticipate a drop-out rate of 15% by 6 months; therefore, we plan to enroll 175 Veterans in each group to achieve adequate power. Because 7-day point prevalence rates are generally ~ 25% higher than prolonged abstinence rates,[59] we estimate the 6-month, 7-day point prevalence abstinence rate to be approximately 13% in the control group (10% x 1.25=13%). With 175 Veterans randomized to each group, we will have 80% power to detect a difference of 13% in 7-day point prevalence rates at 6 months.

Given our planned sample size, we also examine the power and detectable difference for Hypothesis 2.1 (depressive symptoms) evaluated at the 6-month follow-up using methods from Borm et al.[60] Using data from our previous studies, we estimate common baseline standard deviation of 6.7, and correlation between baseline and 6 months of 0.7. With 175 Veterans randomized to each group and a type-I error of 0.05, we will have 80% power to detect a differential improvement of 1.6 in depression severity, corresponding to an effect size of 0.24.

Literature Cited

1. Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000. *JAMA : the journal of the American Medical Association.* Mar 10 2004;291(10):1238-1245.
2. Brown DW. Smoking prevalence among US veterans. *Journal of general internal medicine.* Feb 2010;25(2):147-149.
3. Klevens RM, Giovino GA, Peddicord JP, Nelson DE, Mowery P, Grummer-Strawn L. The association between veteran status and cigarette-smoking behaviors. *Am J Prev Med.* Jul-Aug 1995;11(4):245-250.
4. Yu W, Ravelo A, Wagner TH, et al. Prevalence and costs of chronic conditions in the VA health care system. *Medical care research and review : MCRR.* Sep 2003;60(3 Suppl):146S-167S.
5. Critchley J, Capewell S. Smoking cessation for the secondary prevention of coronary heart disease. *The Cochrane database of systematic reviews.* 2004(1):CD003041.
6. Critchley JA, Capewell S. Mortality risk reduction associated with smoking cessation in patients with coronary heart disease: a systematic review. *JAMA : the journal of the American Medical Association.* Jul 2 2003;290(1):86-97.
7. Lerman C, Patterson F, Berrettini W. Treating tobacco dependence: state of the science and new directions. *J Clin Oncol.* Jan 10 2005;23(2):311-323.
8. Goldston K, Baillie AJ. Depression and coronary heart disease: a review of the epidemiological evidence, explanatory mechanisms and management approaches. *Clin Psychol Rev.* Feb 2008;28(2):288-306.
9. Voinov B, Richie WD, Bailey RK. Depression and chronic diseases: it is time for a synergistic mental health and primary care approach. *The primary care companion to CNS disorders.* 2013;15(2).
10. Tsoh JY, Humfleet GL, Munoz RF, Reus VI, Hartz DT, Hall SM. Development of major depression after treatment for smoking cessation. *Am J Psychiatry.* Mar 2000;157(3):368-374.
11. Ziedonis D, Hitsman B, Beckham JC, et al. Tobacco use and cessation in psychiatric disorders: National Institute of Mental Health report. *Nicotine & tobacco research : official journal of the Society for Research on Nicotine and Tobacco.* Dec 2008;10(12):1691-1715.
12. Hitsman B, Papandonatos GD, McChargue DE, et al. Past major depression and smoking cessation outcome: a systematic review and meta-analysis update. *Addiction (Abingdon, England).* Feb 2013;108(2):294-306.
13. Niaura R, Britt DM, Shadel WG, Goldstein M, Abrams D, Brown R. Symptoms of depression and survival experience among three samples of smokers trying to quit. *Psychol Addict Behav.* Mar 2001;15(1):13-17.
14. Leventhal AM, Piper ME, Japuntich SJ, Baker TB, Cook JW. Anhedonia, depressed mood, and smoking cessation outcome. *Journal of consulting and clinical psychology.* Feb 2014;82(1):122-129.
15. Siru R, Hulse GK, Tait RJ. Assessing motivation to quit smoking in people with mental illness: a review. *Addiction (Abingdon, England).* May 2009;104(5):719-733.
16. Gierisch JM, Bastian LA, Calhoun PS, McDuffie JR, Williams JW, Jr. Smoking cessation interventions for patients with depression: a systematic review and meta-analysis. *Journal of general internal medicine.* Mar 2012;27(3):351-360.
17. van der Meer RM, Willemsen MC, Smit F, P. C. Smoking cessation interventions for smokers with current or past depression. *Cochrane Database of Systematic Reviews.* 2013(8).

18. Stead LF, Perera R, Lancaster T. Telephone counselling for smoking cessation. *The Cochrane database of systematic reviews.* 2006;3:CD002850.

19. Dube P, Kurt K, Bair MJ, Theobald D, Williams LS. The p4 screener: evaluation of a brief measure for assessing potential suicide risk in 2 randomized effectiveness trials of primary care and oncology patients. *Primary care companion to the Journal of clinical psychiatry.* 2010;12(6).

20. Strine TW, Mokdad AH, Balluz LS, et al. Depression and anxiety in the United States: findings from the 2006 Behavioral Risk Factor Surveillance System. *Psychiatr Serv.* Dec 2008;59(12):1383-1390.

21. VHA Pharmacy Benefits Management Services. Recommendations for Use of Combination Therapy in Tobacco Use Cessation April 2009. http://www.healthquality.va.gov/tuc/tuc_combination_therapy.pdf.

22. Bars MP, Banauch GI, Appel D, et al. "Tobacco Free with FDNY": The New York City Fire Department World Trade Center tobacco cessation study. *Chest.* 2006;129:979-987.

23. Bandura A. *Social Foundations of Thought and Action: A Social Cognitive Theory.* Englewood Cliffs, NJ: Prentice Hall, Inc.; 1985.

24. Miller WR, Rollnick S. *Motivational Interviewing: Preparing People to Change Addictive Behavior.* New York, NY: Guilford Press; 1991.

25. Bastian LA, Fish LJ, Gierisch JM, Rohrer LD, Stechuchak KM, SC G. Comparative effectiveness trial of family-supported smoking cessation intervention versus standard telephone counseling for chronically ill veterans using proactive recruitment *Comparative Effectiveness Research.* 2012;2012(2):45-56.

26. Fiore MC, Jaen CR, Baker TB, et al. *Treating Tobacco Use and Dependence: 2008 Update.* Rockville, MD: Department of Health and Human Services, Public Health Service; 2008.

27. Hall SM, Munoz RF, Reus VI, et al. Mood management and nicotine gum in smoking treatment: a therapeutic contact and placebo-controlled study. *Journal of consulting and clinical psychology.* Oct 1996;64(5):1003-1009.

28. van der Meer RM, Willemsen MC, Smit F, Cuijpers P, Schippers GM. Effectiveness of a mood management component as an adjunct to a telephone counselling smoking cessation intervention for smokers with a past major depression: a pragmatic randomized controlled trial. *Addiction (Abingdon, England).* Nov 2010;105(11):1991-1999.

29. Wenzel A, Brown GK, Karlin BE. *Cognitive Behavioral Therapy for Depression in Veterans and Military Servicemembers: Therapist Manual.* Washington, DC: U.S. Department of Veterans Affairs; 2011.

30. Lewinsohn PM, Munoz RF, Youngren MA, Zeiss AM. *Control Your Depression: Reducing Depression Through Learning Self-Control Techniques, Relaxation Training, Pleasant Activities, Social Skills, Constructed Thinking, Planning Ahead, and More.* New York, NY: Fireside; 1986.

31. Spitzer RL, Kroenke K, Williams JB. Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. Primary Care Evaluation of Mental Disorders. Patient Health Questionnaire. *JAMA : the journal of the American Medical Association.* Nov 10 1999;282(18):1737-1744.

32. Hughes JR, Keely JP, Niaura RS, Ossip-Klein DJ, Richmond RL, Swan GE. Measures of abstinence in clinical trials: issues and recommendations. *Nicotine & tobacco research : official journal of the Society for Research on Nicotine and Tobacco.* Feb 2003;5(1):13-25.

33. Murray DM, McBride C, Lindquist R, Belcher JD. Sensitivity and specificity of saliva thiocyanate and cotinine for cigarette smoking: a comparison of two collection methods. *Addictive behaviors.* 1991;16(3-4):161-166.
34. Kroenke K, Spitzer RL, Williams JB, Lowe B. The Patient Health Questionnaire Somatic, Anxiety, and Depressive Symptom Scales: a systematic review. *General hospital psychiatry.* Jul-Aug 2010;32(4):345-359.
35. Pomerleau CS, Carton SM, Lutzke ML, Flessland KA, Pomerleau OF. Reliability of the fagerstrom tolerance questionnaire and the fagerstrom test for nicotine dependence. *Addictive behaviors.* 1994;19(1):33.
36. Fava JL, Ruggiero L, Grimley DM. The development and structural confirmation of the Rhode Island Stress and Coping Inventory. *Journal of behavioral medicine.* Dec 1998;21(6):601-611.
37. Brooks R. EuroQol: the current state of play. *Health policy (Amsterdam, Netherlands).* Jul 1996;37(1):53-72.
38. Shiffman S, Balabanis MH, Paty JA, et al. Dynamic effects of self-efficacy on smoking lapse and relapse. *Health psychology : official journal of the Division of Health Psychology, American Psychological Association.* Jul 2000;19(4):315-323.
39. Baer JS, Holt CS, Lichtenstein E. Self-efficacy and smoking reexamined: construct validity and clinical utility. *Journal of consulting and clinical psychology.* Dec 1986;54(6):846-852.
40. Etter JF, Bergman MM, Humair JP, Perneger TV. Development and validation of a scale measuring self-efficacy of current and former smokers. *Addiction (Abingdon, England).* Jun 2000;95(6):901-913.
41. Crittenden K, Manfredi C, Lacey L, Warnecke R, Parsons J. Measuring readiness and motivation to quit smoking among women in public health clinics. *Addictive behaviors.* 1994;19:497-507.
42. Watson D, Clark LA, Tellegen A. Development and validation of brief measures of positive and negative affect: the PANAS scales. *J Pers Soc Psychol.* Jun 1988;54(6):1063-1070.
43. Reference removed.
44. Phibbs CS, Bhandari A, Yu W, Barnett PG. Estimating the costs of VA ambulatory care. *Medical care research and review : MCRR.* Sep 2003;60(3 Suppl):54S-73S.
45. Allen KD, Oddone EZ, Coffman CJ, et al. Telephone-based self-management of osteoarthritis: A randomized trial. *Annals of internal medicine.* Nov 2 2010;153(9):570-579.
46. Ronckers ET, Groot W, Ament AJ. Systematic review of economic evaluations of smoking cessation: standardizing the cost-effectiveness. *Medical decision making : an international journal of the Society for Medical Decision Making.* Jul-Aug 2005;25(4):437-448.
47. Fiscella K, Franks P. Cost-effectiveness of the transdermal nicotine patch as an adjunct to physicians' smoking cessation counseling. *JAMA : the journal of the American Medical Association.* Apr 24 1996;275(16):1247-1251.
48. Hosmer DW, Lemeshow S. *Applied Logistic Regression.* Second ed. New York: John Wiley & Sons, Inc.; 1989.
49. Committee for Proprietary Medicinal Products (CPMP): points to consider on adjustment for baseline covariates. *Stat Med.* Mar 15 2004;23(5):701-709.
50. Zeger KY, Liang SL. An overview of methods for the analysis of longitudinal data. *Statistics in Medicine.* 1992;11:1825-1839.
51. Fitzmaurice GM LN, Ware JH. . *Applied longitudinal analysis. .* Hoboken, NJ: Wiley-Interscience; 2004.

52. Kraemer HC, Kiernan M, Essex M, Kupfer DJ. How and why criteria defining moderators and mediators differ between the Baron & Kenny and MacArthur approaches. *Health psychology : official journal of the Division of Health Psychology, American Psychological Association.* Mar 2008;27(2 Suppl):S101-108.

53. Kraemer HC, Wilson GT, Fairburn CG, Agras WS. Mediators and moderators of treatment effects in randomized clinical trials. *Archives of general psychiatry.* Oct 2002;59(10):877-883.

54. Collins LM, Schafer JL, Kam CM. A comparison of inclusive and restrictive strategies in modern missing data procedures. *Psychological methods.* Dec 2001;6(4):330-351.

55. Panel on Handling Missing Data in Clinical Trials. *The Prevention and Treatment of Missing Data in Clinical Trials.* Washington, D.C.: The National Academies Press; 2010.

56. Hedeker D, Mermelstein RJ, Demirtas H. Analysis of binary outcomes with missing data: missing = smoking, last observation carried forward, and a little multiple imputation. *Addiction (Abingdon, England).* Oct 2007;102(10):1564-1573.

57. Schafer JL. *Analysis of Incomplete Multivariate Data.* Boca Raton, FL: Chapman & Hall; 1997.

58. An LC, Zhu S-H, Nelson DB, et al. Benefits of Telephone Care Over Primary Care for Smoking Cessation: A Randomized Trial. *Archives of Internal Medicine.* 2006;166(5):536-542.

59. Hughes JR, Carpenter MJ, Naud S. Do point prevalence and prolonged abstinence measures produce similar results in smoking cessation studies? A systematic review. *Nicotine & tobacco research : official journal of the Society for Research on Nicotine and Tobacco.* Jul 2010;12(7):756-762.

60. Borm GF, Fransen J, Lemmens WA. A simple sample size formula for analysis of covariance in randomized clinical trials. *Journal of clinical epidemiology.* Dec 2007;60(12):1234-1238.

61. Shiffman S., Tindle H., Li X., Scholl S., Dunbar M., Mitchell-Miland C. Characteristics and smoking patterns of intermittent smokers. Exp. Clin. Psychopharmacol. 2012;20:264–277.

62. Pulvers K, Scheuermann TS, Romero DR, Basora B, Luo X, Ahluwalia JS. Classifying a smoker scale in adult daily and nondaily smokers. Nicotine Tob Res. 2014;16(5):591-599.

63. Katon WJ1, et al. Collaborative care for patients with depression and chronic illnesses. N Engl J Med. 2010 Dec 30;363(27):2611-20. doi: 10.1056/NEJMoa1003955.

64. Arroll B, Goodyear-Smith F, Crengle S, et al. Validation of PHQ-2 and PHQ-9 to screen for major depression in the primary care population. Ann Fam Med 2010;8: 348-53.

65. Choeng Y, et al. Does how you quit affect success? A comparison between abrupt and gradual methods using data from the International Tobacco Control Policy Evaluation Study. Nicotine Tob Res. 2007 Aug;9(8):801-10.

66. West R, et al. Outcome criteria in smoking cessation trials: proposal for a common standard. Addiction. 2005 Mar;100(3):299-303.

67. Wong, Mitchell D. et al. "The Association Between Life Chaos, Health Care Use, and Health Status Among HIV-Infected Persons." *Journal of General Internal Medicine* 22.9 (2007): 1286–1291. *PMC*. Web. 24 Oct. 2017.

68. Zullig LL, Shaw RJ, Crowley MJ, Lindquist J, Grambow SC, Peterson E, et al. Association between perceived life chaos and medication adherence in a postmyocardial infarction population. Circ Cardiovasc Qual Outcomes. 2013;6(6):619–625. https://doi.org/10.1161/CIRCOUTCOMES.113.000435. [PubMed]

Appendix 4, Assessments Survey

ASSESSMENTS SURVEY

[If participant is unable to commit to completing the full set of assessment questions, ask, "Whether you've quit smoking or not, would you be willing to answer just a few questions to help us out? It would take about 5 minutes and we'd be happy to send you a $5 thank-you payment for your time to express our gratitude."]

R) Point Prevalence Abstinence (6- and 12-MONTH ONLY)

First, I'd like to start by asking you some questions about your smoking habits right now.

R1. Have you had a cigarette, even a puff, in the past 7 days?
1 = YES
0 = NO
777=DK
888=REF

R2. [If no to R1] Have you had a cigarette, even a puff, in the past 30 days?
1 = YES
0 = NO
777=DK
888=REF

S) Prolonged Abstinence, Hughes (6- and 12-MONTH ONLY)

S1. Since [DATE OF RANDOMIZATION + 90 days] have you smoked at least part of a cigarette on each of 7 consecutive days, that is 7 days in a row?
1 = Yes
0 = No
777 = DK
888 = REF

S2. Since (DATE OF RANDOMIZATION + 90 days) have you smoked any in each of 2 consecutive weeks, that is 2 weeks in a row?
1 = Yes
0 = No
777 = DK
888 = REF

T) Prolonged Abstinence, Russell (6- and 12-month ONLY)

T1. Have you smoked at all since (DATE OF RANDOMIZATION + 90 days):
A) No, not at all
B) 1-5 cigarette
C) More than 5 cigarettes?

(If no to R1) Congratulations on quitting smoking. As we mentioned at the beginning of the study, we would like to get a sample of your saliva. We will use the saliva to test how much nicotine you have been exposed to. Giving a saliva sample is voluntary. If you return the sample, we will send you $20 as a thank-you for your time and effort. I'll tell you more about that toward the end of our call.

A) Smoking History (BASELINE ONLY, except as noted)
[BASELINE: Now I am going to ask you some questions about your smoking **history**.]
[6- and 12-MONTH: Now I'm going to ask you some questions about your smoking in the last 6 months.]

A1. **[Ask at all time points]** [Baseline: "Have you ever..."; 6- and 12-months: "In the last 6 months have you..."] made a serious quit attempt and stayed off cigarettes for at least 24 hours?
1 = YES
0 = NO [Jump to A3]
777=DK [Jump to A3]
888=REF [Jump to A3]
999=Missing

A2. **[Ask at all time points]** How many serious quit attempts of at least 24 hours have you made in the past [Baseline: "...year"; 6- and 12-months: "...6 months"]?
Specify: _____
777=DK
888=REF
999=Missing

V) Cigarettes per Day
[Baseline: Always ask; 6- and 12-month follow-up, ONLY ask if participant indicated recent smoking from R1, R2, S1, OR S2.]

[Baseline: "I just asked about how many cigarettes you smoke per day. Now I'd like to get a little more specific and get an exact number"]

V1. On average, how many cigarettes do you smoke each day? (For RA: If they state a range or it varies, clarify by saying "on your heaviest day".)

W) Current Depression (PHQ 9) (6- and 12-MONTH FOLLOW-UP ONLY)
The next questions are about your emotional health. Some questions may be difficult to think about. That's okay as there aren't any "right" or "wrong" answers. Be as honest as you can.

I'm going to read to you a list of statements. Over the last 2 weeks, how often have you been bothered by any of the following problems?

(Instructions to RA: Read statements. If they say no, code as "not at all." If they say yes, ask, "How often? Several days, more than half the days, nearly every day? "

	Not at All 0	Several Days 1	More than Half the Days 2	Nearly Every Day 3	DK 777	REF 888	Missing 999
1. Had little interest or pleasure in doing things?							
2. Felt down, depressed, or hopeless?							
3. Had trouble falling or staying asleep, or sleeping too much?							
4. Felt tired or had little energy?							
5. Had a poor appetite or overate?							
6. Felt bad about yourself-or that you are a failure or have let yourself or your family down?							
7. Had trouble concentrating on things, such as reading the newspaper or watching television?							
8. Moved or spoke so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual?							
9. Had thoughts that you would be better off dead or of hurting yourself in some ways?							

10. (If *any* of the above PHQ-9 questions were answered with "several days" or more frequently, ask...) How difficult have these problems made if for you to do your work, take care of things at home or get along with other people?

    0 = Not difficult at all
    1 = Somewhat difficult
    2 = Very difficult
    3 = Extremely difficult
    777 = Don't Know

    888 = Refused

    999 = Missing

    IF THE PARTICIPANT ENDORSES QUESTION #W9 (ANSWERING SEVERAL DAYS OR MORE), YOU WILL ASK THE P4 SCREENER ASSESSING RISK OF SELF-HARM AT THE END OF THE SURVEY. FOR NOW...

    "It sounds like things have been hard for you lately. I'd like to come back to that later to get some additional information to make sure you are safe."

    [If participant is only completing the previous questions (abbreviated survey version), ask, "Thank you for taking the time with those questions. Would you be willing to hang in there to complete the rest of the questions? It would take about 25 more minutes and we'd send you a total of $30 for your time."
    If yes, "Thank you. We appreciate your help." Proceed with the remaining questions.
    If no, skip to the abbreviated survey closing language or the P4 Screener to assess for the risk of self-harm if indicated by their responses on the PHQ-9 above.]

Pack years:
The next couple of questions I'm getting ready to ask is about your overall smoking history.

A3. Keeping in mind that you may have stopped and started several times, overall how many years have you smoked?

    ___ ___ years

    777=DK
    888=REF
    999=Missing

A4. During all the time that you smoked, how many cigarettes did you smoke per day on average? If you did not smoke every day, you may answer with the number of cigarettes per week, per month or per year

    Day ____

    Week____

    Month____

    Year ____.

777=DK
888=REF
999=Missing

A5. **[Ask at 6- and 12-month follow-up and ONLY if A1=yes,]**

In the last 6 months, what was the longest period of time you were able to stay off cigarettes?

____Days

____Weeks

____Months

777=Don't Know, 888=Refused, 999=Missing

U) Gradual Versus Abrupt Smoking Cessation (6- and 12-MONTH ONLY)

U1. On your most recent quit attempt, did you stop smoking suddenly or did you gradually cut down on the number of cigarettes you smoked?''

1 = stopped suddenly

2 = cut down gradually

Q) Other Tobacco/Nicotine Products

The next set of questions is about your use of other tobacco products.

	Everyday	Somedays	Rarely	Not at all
Do you now use chewing tobacco, snuff, dip, or snus every day, some days, rarely, or not at all?	1	2	3	4
Do you now smoke a regular pipe filled with tobacco every day, some days, rarely, or not at all?	1	2	3	4
Do you now smoke cigars, cigarillos, or little filtered cigars every day, some days, rarely, or not at all?	1	2	3	4

B) E-Cigarettes

B1. Now let's talk about electronic cigarettes. Do you use an electronic cigarette every day, some days, rarely, or not at all?

1=Every day
2=Some days
3=Rarely
4=Not at all
777=DK
888=REF
999=Missing

C) Nicotine Dependence – Fagerstrom Test for Nicotine Dependence (BASELINE ONLY)

The next question is about your smoking habits **right now**.

C1. How soon after you wake up do you smoke your first cigarette?

3 = WITHIN 5 MINUTES
2 = 6-30 MINUTES
1 = 31-60 MINUTES
0 = AFTER 60 MINUTES
777=DK
888=REF
999=Missing

C2. Do you find it difficult to refrain from smoking in places where it is forbidden (e.g. in church, at the library, cinema, etc.)?

1 - Yes
0 – No
777=DK
888=REF
999=Missing

C3. Which cigarette would you hate to give up?

1 - The first one in the morning
0 - All others
777=DK
888=REF
999=Missing

C4. How many cigarettes a day do you smoke?

0 - 10 or less
1 - 11-20
2 - 21-30
3 - 31 or more
777=DK
888=REF
999=Missing

C5. Do you smoke more frequently during the first hours after waking than during the rest of the day?

1 - Yes
0 – No
777=DK
888=REF
999=Missing

C6. Do you smoke if you are so ill that you are in bed most of the day?

1 - Yes
0 – No
777=DK
888=REF
999=Missing

D) HCP Advice for Quitting (BASELINE ONLY)

Ok, thank you. Now let's touch briefly on doctor's appointments.

D1. In the PAST 12 MONTHS have you SEEN a medical doctor?

1= Yes
2= No, [skip question D2 and go to E]
777=DK
888=REF
999=Missing

D2. During the PAST 12 MONTHS, did any medical doctor ADVISE you to stop smoking?

1= Yes
2= No
777=DK
888=REF
999=Missing

E) Smoker Identity

On a scale from 1 to 10 where 1 means completely disagree and 10 means completely agree, how much do you agree with the follow statements?

E1. I consider myself a smoker.
E2. If someone were to casually ask if I were a smoker, I would say yes.

F) Desire to Quit (BASELINE ONLY)

Let's take a moment to discuss how **much you would like** to quit smoking.

F1. At present, how ***much*** do you want to cut down the number of cigarettes you smoke'?

1=Not at all
2=A little
3=Some
4=Very much
777=DK
888=REF
999=Missing

F2. How ***determined*** are you to cut down?

1=Not at all determined
2=A little determined
3=Somewhat determined
4=Very determined
777=DK
888=REF

999=Missing

F3. ***How much*** do you want to quit smoking?

1=Not at all
2=A little
3=Some
4=Very much
777=DK
888=REF
999=Missing

F4. If you plan to quit smoking, ***how determined*** are you to quit?

1=Not at all determined
2=A little determined
3=Somewhat determined
4=Very determined
777=DK
888=REF
999=Missing

G) Global Self-efficacy

Now that we are done with that, let's move on to the next question.

G1. On a scale from 1 to 7, where 1 is "not at all confident," and 7 is "very confident", how confident are you that you will be [BASELINE: "able to quit"; 6- and 12-MONTH: "able to quit or stay quit"] smoking completely in the next 6 months?

NOT AT ALL CONFIDENT					COMPLETELY CONFIDENT		
1	2	3	4	5	6	7	999=Missing 777=DK888=REF
So you would say you're not confident					So you would say you're completely confident		

H) Situational Self-efficacy (Etter Measure)

The following are some situations in which certain people might be tempted to smoke. Please indicate whether you could *refrain* from smoking in each situation.

Response options are:

Not at all sure
Not very sure
More or less sure
Fairly sure
Absolutely sure.

For RA use if needed:
777=DK
888=REF
999=Missing

Internal stimuli

H1. When you feel nervous
H2. When you feel depressed
H3. When you are angry
H4. When you feel very anxious
H5. When you want to think about a difficult problem
H6. When you feel the urge to smoke

External stimuli

H7. When having a drink with friends
H8. When celebrating something
H9. When drinking beer, wine or other spirits
H10. When you are with smokers
H11. After a meal
H12. When having coffee or tea

I) Euro-Qol (EQ-5D-5L)

Let's move on to talking about your health. For the next group of questions, please select the statements that best describe your health TODAY.

I1. Let's start by talking about **Mobility.** Would you say:
1= You have no problems in walking about
2= You have slight problems in walking about
3=You have moderate problems in walking about
4=You have severe problems in walking about
5= You are unable to walk about
777=DK
888=REF
999=Missing

I2. The next statement is about **Self-Care.** Would you say:
1= You have no problems washing or dressing yourself
2= You have slight problems washing or dressing yourself
3=You have moderate problems washing or dressing yourself
4=You have severe problems washing or dressing yourself
5= You are unable to wash or dress yourself
777=DK
888=REF
999=Missing

I3. The next statement is about **Usual Activities (e.g. work, study, housework, family or leisure activities).** Would you say:
1=You have no problems doing your usual activities
2=You have slight problems doing your usual activities
3=You have moderate problems doing your usual activities
4=You have severe problems doing your usual activities
5=You are unable to do your usual activities
777=DK
888=REF
999=Missing

I4. The next statement is about **Pain/Discomfort.** Would you say:
1=You have no pain or discomfort
2=You have slight pain or discomfort
3=You have moderate pain or discomfort
4=You have severe pain or discomfort
5=You have extreme pain or discomfort
777=DK
888=REF
999=Missing

I5. The next statement is about **Anxiety/Depression.** Would you say:
1=You are not anxious or depressed
2=You are slightly anxious or depressed
3=You are moderately anxious or depressed
4=You are severely anxious or depressed
5=You are extremely anxious or depressed
777=DK
888=REF
999=Missing

J. Positive and Negative Affect Scale

I'm now going to ask you about some words that describe different feelings and emotions. Please indicate YES or NO if you felt this way during the ***past few weeks***.

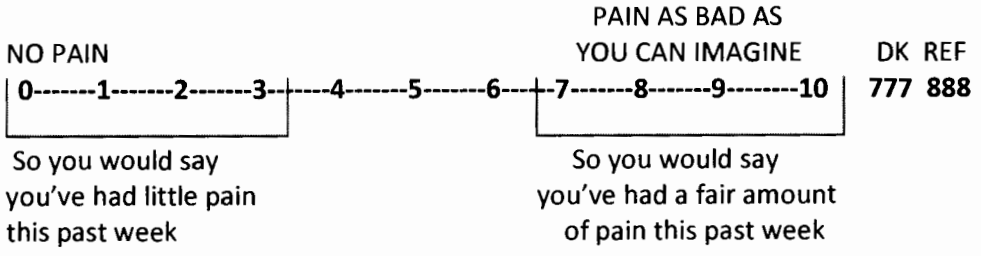
[If NO, code 1 = Very slightly or not at all]

[If YES, "To what extent did you feel this way?
2 = A little
3 = Moderately
4 = Quite a bit
5 = Extremely]

How often in the past few weeks did you feel...	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely	Don't Know	Refused	Missing
Interested	1	2	3	4	5	777	888	999
Distressed	1	2	3	4	5	777	888	999
Excited	1	2	3	4	5	777	888	999
Upset	1	2	3	4	5	777	888	999
Strong	1	2	3	4	5	777	888	999
Guilty	1	2	3	4	5	777	888	999
Scared	1	2	3	4	5	777	888	999
Hostile	1	2	3	4	5	777	888	999
Enthusiastic	1	2	3	4	5	777	888	999
Proud	1	2	3	4	5	777	888	999
Irritable	1	2	3	4	5	777	888	999
Alert	1	2	3	4	5	777	888	999
Ashamed	1	2	3	4	5	777	888	999
Inspired	1	2	3	4	5	777	888	999
Nervous	1	2	3	4	5	777	888	999
Determined	1	2	3	4	5	777	888	999
Attentive	1	2	3	4	5	777	888	999
Jittery	1	2	3	4	5	777	888	999
Active	1	2	3	4	5	777	888	999
Afraid	1	2	3	4	5	777	888	999

K) **Pain Measures**

K1. Thank you for working through that last series of questions. Let's take a moment to discuss pain you may be experiencing. On a scale from 0-10 where **0 is no pain** and **10 is pain as bad as you can imagine**, please rate your pain when it was at its worst in the last week.



L) Stress & Coping (RISCI)

I'm now going to read to you a set of statements about how things have been going for you lately. Please respond either never, seldom, occasionally, often or most of the time.

In the ***last month***. . .

	Never	Seldom	Occasionally	Often	Most of the time	REF	DNK	Missing
1. How often have you felt there was not enough time to complete your daily tasks.	1	2	3	4	5	777	888	999
2. How often have you felt that you had more stress than usual.	1	2	3	4	5	777	888	999
3. How often have you taken on more than you could handle.	1	2	3	4	5	777	888	999
4. How often have you felt overwhelmed.	1	2	3	4	5	777	888	999
5. How often have you were pressured by others.	1	2	3	4	5	777	888	999
6. How often have you felt stressed by unexpected events.	1	2	3	4	5	777	888	999
7. How often have you had no time to relax.	1	2	3	4	5	777	888	999

8. How often have you successfully solved problems that came up.	1	2	3	4	5	777	888	999
9. How often have were you able to cope with unexpected problems.	1	2	3	4	5	777	888	999
10. How often have were you able to cope with difficult situations.	1	2	3	4	5	777	888	999
11. How often have you felt able to meet demands.	1	2	3	4	5	777	888	999
12. How often have you felt able to cope with stress	1	2	3	4	5	777	888	999

Z) Measure of Life CHAOS

We'd like to better understand your lifestyle. Please tell us how true or false the following statements are for you.

	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely	DK/Ref/ Missing
My life is organized	1	2	3	4	5	999
My life is unstable	1	2	3	4	5	999
My routine is the same from week to week	1	2	3	4	5	999
My daily activities from week to week are unpredictable	1	2	3	4	5	999

Keeping a schedule is difficult for me	1	2	3	4	5	999
I don't like to make appointmetns too far in advance because I don't know what might come up	1	2	3	4	5	999

X) NRT Use and Adherence (6- and 12-month follow-up ONLY)

Thank you. Moving on.

X1. Over the last 6 months, have you used any of the following to help you quit smoking or stay quit?

Nicotine Patch (If yes, ask questions 2 and 3)

Nicotine Lozenge (If yes, ask questions 4 and 5)

Nicotine Gum (If yes, ask questions 4 and 5)

X2. [If PATCH used] In the last 6 months how many days have you used the patch?

X3. [If PATCH used] On average, on the days that you used the patch, how long did you wear the patch each day?

24 hours/all day

Took it off only to sleep

Other (please specify)

N/A (NOT USING PATCH

Don't Know

Refused

Missing

X4. [If GUM or LOZENGE used] In the last 6 months, how many days have you used the NRT gum or lozenge?

X5. [If GUM or LOZENGE used] On average, on the days that you used the NRT gum or lozenge, how many lozenges have you used or pieces of gum have you chewed?

M) Other Non-NRT Counseling and Medications Use

The next few questions are about any help you may have received with quitting smoking or your mood in the past. [6- and 12-months ONLY: "Please note we are interested in help you may have received **outside** of the Quit Smoking Tele-Health program."]

M1. [BASELINE: In the past 3 months...] [6-MONTH or 12-MONTH: Not including calls with your Quit Smoking Tele-Health Coach {insert name}, in the past 6 months...], have you had any visits to a counselor, therapist, or other health provider for help with quitting smoking?

1 = YES
0 = NO
777=DK
888=REF
999=Missing

M5. (6- and 12-MONTH ONLY) Not including calls with the Quit Smoking Tele-Health Quit Coach, have you used a Quit Line for help with quitting smoking?

1 = YES
0 = NO
777 = DK
888 = REF
999 = MISSING

M6. (6- and 12-MONTH ONLY) In the last 6 months, have you used a text or email quit smoking support service such as Text 2Quit or QuitVet?

1 = YES
0 = NO
777 = DK
888 = REF
999 = MISSING

M2. [BASELINE: "Are you taking..."] [6- and 12-MONTHS: "Not including the patches, gum, or lozenge nicotine replacement medications you may have received through the Quit Smoking Tele-Health Quit Coach, in the last 6 months, have you used..."] any prescription medication to help with quitting smoking?

1 = YES
0 = NO
777=DK
888=REF
999=Missing

M7. (If yes, to M2) What medication did you use?

Chantix
Xyban/bupropion
Patch from a source other than Quit Smoking Telehealth
Gum or lozenge from a source Quit Smoking Telehealth
Nicotine inhaler

M3. [BASELINE: "Are you seeing..."] [6- and 12-MONTHS: "Not including the calls with your Quit Smoking Tele-Health Coach {insert name}, in the last 6 months, did you see..."] a counselor, therapist, psychotherapist, or other mental health provider to help with mood or depression?

1 = YES
0 = NO
777=DK
888=REF
999=Missing

M4. [BASELINE: "Are you taking..."] [6- and 12-MONTH: "In the last 6 months have you taken..."] any prescription medication to help with mood or depression??

1 = YES
0 = NO
777=DK
888=REF
999=Missing

N) Demographics (BASELINE ONLY)

Now, I would like to get some background information about you.

N1. What is your date of birth?

N2. What is your sex?
1=Male
2=Female
777=DK
888=REF
999=Missing

N3. Which one or more of the following would you say is your race? (Check all that apply)
1=American Indian or Alaskan Native
2=Asian
3=Black or African American
4=Native Hawaiian or other Pacific Islander
5=White
6=Other: Please list
777=DK
888=REF
999=Missing

N4. Are you Hispanic, Latino/a, or Spanish origin?
0=No, not Hispanic, Latino/a or Spanish
1=Yes, I consider myself to be Hispanic, Latino/a or Spanish
777=DK
888=REF
999=Missing

N5. What is your current marital status?
1=Married or Living as married
2=Divorced
3=Separated
4=Widowed
5=Single, never married
777=DK
888=REF
999=Missing

N6. Without giving exact dollars, how would you describe your household's financial situation right now? Would you say that:
1=After paying the bills, you still have enough money for special things that you want.
2=You have enough money to pay the bills, but little spare money to buy extra or special things.
3=You have money to pay the bills, but only because you have cut back on things.
4=You are having difficulty paying the bills, no matter what you do.
777=DK
888=REF
999=Missing

N7. Which one of the following best describes your current work status?
1=Working Full Time
2=Working Part-Time
3=Unemployed, searching for work
4=Unemployed, not searching for work
5=Homemaker
6=Retired
7=Disabled
8=Student
777=DK
888=REF
999=Missing

N8. What is the highest level of education that you have completed?
1=Grade school/junior high
2=Some high school
3=High school graduate or equivalent (GED)
4=Trade/technical/vocational school
5=Some college credit but no degree
6=Associate's degree (AA or AS)
7=Bachelor's degree (BA or BS)
8=Post graduate work or graduate degree
777=DK
888=REF
999=Missing

O. Contraindications to nicotine replacement therapy (BASELINE ONLY)
I only have a few questions left. As part of the Quit Smoking Telehealth program, we are offering the nicotine patch and other forms of nicotine replacement products to participants who are seriously thinking about quitting smoking. For this reason, I need to ask you some questions about your health.

O1. Do you have high blood pressure that is not controlled by medication?
1 = YES
0 = NO
777=DK
888=REF
999=Missing

O2. Have you had any recent instances of chest pain or heart attack?
1 = YES
0 = NO
777=DK
888=REF
999=Missing

O3. Do you currently wear dentures or have jaw problems?
= YES
0 = NO
777=DK
888=REF
999=Missing

O4. For women less than 50 years of age, "Are you pregnant or plan to become pregnant in the next 6 months?" **[Question shown if female and < 50 years of age]**
1 = YES
0 = NO
777=DK
888=REF
999=Missing

P) Lung cancer screening (BASELINE ONLY)
"The next few questions are about a new test for lung cancer. Lung cancer screening, using a yearly CT scan, is recommended for **some, but not all,** adult smokers. The CT has the potential for both benefits and harm. Medical experts recommend that patients who are eligible for lung cancer screening have a discussion to see if lung cancer screening is the right choice for them. I would like to find out your opinions on lung cancer screening. There are no right or wrong answers. "
P1. Of the following people, which people would you be willing to discuss lung cancer screening with? **[Ask all three options and mark Yes or No]**

Physician 1=Yes 0=No 777=DK888=REF 999=Missing
Nurse 1=Yes 0=No 777=DK888=REF 999=Missing
Non-medical person who is trained to answer questions about lung cancer screening 1=Yes 0=No 777=DK888=REF 999=Missing
Other: Please specify_____

P2. Now imagine a typical visit **with your primary care physician**, scheduled to address your ongoing medical problems. Your doctor often addresses preventive care at these scheduled visits, including vaccinations and cancer screening. Lung cancer screening is one of the topics that needs to be discussed during this visit. It will need to be covered along with all the other concerns, exams and the like that happen during a typical visit with your primary care doctor.

Now imagine a visit **with a non-medical person who is specially trained** to address any concerns you may have about lung cancer screening. This person is able to devote 10-15 minutes to talk to you just about this one screening test. He/she can talk about what the procedure is like and the potential benefits and harms. If the lung cancer screening test is abnormal and the next steps to follow-up on these findings. This discussion could be done on the same day as another medical appointment and wouldn't require and extra trip to the doctor.

a) Which of these two scenarios do you prefer?
Talking about lung cancer screening with your primary care physician during a typical visit
Talking about lung cancer screening with a non-medical person with special training in lung cancer screening
777=DK
888=REF
999=Missing

b) What is you main reason for selecting that scenario?

P3. At our medical center, we are considering a number of options to deliver information about lung cancer screening to patients. Of the following options, which ways would you like to learn about lung cancer screening? **[Ask all options and mark Yes or No]**
In a group with other patients who are considering lung cancer screening 1=Yes 2=No 777=DK 888=REF 999=Missing
In person 1-on-1 1=Yes 0=No 777=DK888=REF 999=Missing
Educational materials you can access at home 1=Yes 0=No 777=DK888=REF 999=Missing
Other, please specify: _____

P4. Of the following options, what types of visual aids would you find helpful to learn more about the benefits and harms of lung cancer screening? **[Ask all options and mark Yes or No]**

Print communications	1=Yes	0=No	777=DK888=REF	999=Missing
Video	1=Yes	0=No	777=DK888=REF	999=Missing
Interactive computer interface	1=Yes	0=No	777=DK888=REF	999=Missing

Other: Please specify_____

Y) Process Measures: Intervention (6-MONTH ONLY)

We would like to hear about your recent experiences with Quit Smoking Telehealth smoking cessation program. You received up to ten telephone counseling sessions where you talked with a quit coach about smoking. These next questions are about your experience with those telephone calls. Please keep in mind that there is no right or wrong answer.

Y1. Do you remember receiving the telephone calls from the Quit Smoking Telehealth Coach?

1 = YES

0 = NO (SKIP REMAINING PROCESS QUESTIONS)

Y2. On a scale from 0 to 4 where (0) is not at all helpful and (4) is very helpful, how helpful was the Quit Smoking Telehealth program in helping you quit smoking?

0 1 2 3 4 777=DK 888=REF

So you would say not at all — So you would say very much

Y3. On a scale from 0 to 4 where (0) is not at all and (4) is very much, how much did the Quit Smoking Telehealth program fit your lifestyle.

0 1 2 3 4 777=DK 888=REF

So you would say not at all — So you would say very much

Y4. On a scale from 0 to 4 where (0) is not at all and (4) is very much, how useful were the skills you learned in the Quit Smoking Telehealth program.

0 1 2 3 4 777=DK 888=REF

So you would say not at all — So you would say very much

Y5. On a scale from 0 to 4 where (0) is definitely not recommend and (4) is definitely recommend, how much would you recommend the Quit Smoking Telehealth program to veterans who are trying to quit smoking.

0 1 2 3 4 777=DK 888=REF

So you would say not at all — So you would say very much

Y6. What did you think about the number of sessions or telephone calls you received from the Quit Smoking Telehealth Coach?

1=Way too few

2=A little too few

3=Just about right

4=A little too many

5=Way too many
REF/DK

Y7. What did you think about the length of the sessions with the Quit Smoking Telehealth coach?

1=Way too short
2=A little too short
3=Just about right
4=A little too long
5=Way too long
REF/DK

At the beginning of the coach calls, we sent you a participant booklet.

Y8. Do you recall receiving the booklet?

1 = YES
0 = NO (SKIP REMAINING BOOKLET QUESTIONS)
DK/REF (SKEP REMAINING BOOKLET QUESTIONS)

Y9. How often did you use the participant booklet during the coaching calls?

0 = Never
1 = Seldom
2 = Occasionally
4 = Often
5 = Most of the time
(If never, skip next question.)

Y10. On a scale from 0-4, where 0 means not at all useful and 4 means very useful, how useful were the materials in the booklet during the coaching calls?

0 1 2 3 4 777=DK 888=REF

So you would say not at all

So you would say very much

Y11. How often did you use the participant booklet between coaching calls?

0 = Never
1 = Seldom
2 = Occasionally
4 = Often
5 = Most of the time
(If never, skip next question.)

Y12. On a scale from 0 to 4, where 0 means not at all useful and 4 means very useful, how useful were the materials in the booklet between coaching calls?

0 1 2 3 4 777=DK 888=REF

So you would say not at all

So you would say very much

Y13. Did you show the booklet to anyone else?

1 = YES
0 = NO
REF/DK

(MOOD MANAGEMENT PARTICIPANTS ONLY)

I am going to name skills that were covered during the program and ask about your experiences with learning and practicing each of these skills

Me time (Doing fun activities for yourself)
Progressive muscle relaxation (The relaxation exercises in which you tensed and relaxed different areas of your body)
Mini practices (Quick way to relax and calm yourself, a smaller version of Progressive Muscle Relaxation)
Examining your thoughts (In which you gave some consideration to how you might look at things differently)
Three good things (Reminding yourself to focus on a few positives in your day, every day)
Identifying and using rewards (Giving yourself a well-deserved pat on the back for reaching your goals)

Y14. On average, how often have you used or practiced this skill?

	Not at all*	Once or twice	Once a month	Once a week	Every Day
Me time	0	1	2	3	4
Progressive muscle relaxation	0	1	2	3	4
Mini practices	0	1	2	3	4
Examining your thoughts	0	1	2	3	4
Three good things	0	1	2	3	4
Identifying and using rewards	0	1	2	3	4

*If response is "not at all" skip the next two questions for that skill (select "not applicable" response)

Y15. On a scale from 0 to 4 where 0 is not at all useful and 4 is very useful, how useful was this skill in helping you quit smoking?

	Not at all useful				Very useful	Not applicable	DK/Ref
Me time	0	1	2	3	4	666	999
Progressive muscle relaxation	0	1	2	3	4	666	999
Mini practices	0	1	2	3	4	666	999
Examining your thoughts	0	1	2	3	4	666	999
Three good things	0	1	2	3	4	666	999
Identifying and using rewards	0	1	2	3	4	666	999

Y16. On a scale from 0 to 4 where 0 is not at all useful and 4 is very useful, how useful was this skill in helping you manage your mood?

	Not at all useful				Very useful	Not applicable	DK/Ref
Me time	0	1	2	3	4	666	999
Progressive muscle relaxation	0	1	2	3	4	666	999
Mini practices	0	1	2	3	4	666	999
Examining your thoughts	0	1	2	3	4	666	999
Three good things	0	1	2	3	4	666	999
Identifying and using rewards	0	1	2	3	4	666	999

(ALL PARTICIPANTS)
We'd like to hear a bit more about your experiences with the Quit Smoking Telehealth program.

Y17. Please tell me what you found helpful about the program?

Y18. In particular, what most helpful?

Y19. What was least helpful?

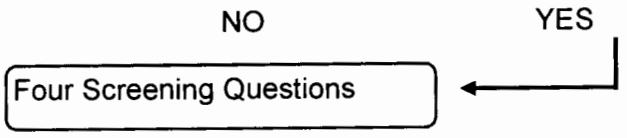
Y20. Were there other things that we could have added to the program to make it more helpful for you?

Probe: Were there any topics that we did not cover that would have been useful to you?

Y21. Is there any other feedback you have for use about the Quit Smoking Telehealth Program?

P4 Screener

Have you had thoughts of actually hurting yourself?



1. Have you ever attempted to harm yourself in the past?

NO YES

2. Have you thought about how you might actually hurt yourself?

NO YES → [How? _____]

3. There's a big difference between having a thought and acting on a thought. How likely do you think it is that you will act on these thoughts about hurting yourself or ending your life some time over the next month?"

   a. Not at all likely _____
   b. Somewhat likely _____
   c. Very likely _____

4. Is there anything that would prevent or keep you from harming yourself?

   NO YES → [What? _____]

Risk Category	Shaded ("Risk") Response	
	Items 1 and 2	**Items 3 and 4**
Minimal	Neither is shaded	Neither is shaded
Lower	At least one item is shaded	Neither is shaded
Higher		At least one item is shaded

[For participants scoring in the "lower" and "higher" risk categories, engage the study safety protocol.]

[For participants scoring in the "minimal" risk category: "It sounds like things have been hard for you lately. Thoughts of harming yourself are nothing to be ashamed of AND should be taken seriously. If you ever want to talk with someone who is SPECIALLY trained to help veterans with thoughts of self-harm, you may talk to your doctor, counselor, or call the VA crisis line at any time, day or night. The VA crisis line number is 1-800-273-8255. Press 1 when prompted. Would you like a moment to write that number down?"]

Exit (6- and 12-MONTH)

(If sending a saliva sample kit) Again, congratulations on quitting smoking. We will send you a saliva sample kit. You can expect to see the package containing the sample kit within a week or so. While there are instructions in the package, do not hesitate to call if you have questions. The phone number will be with the instruction page. Providing the sample is, again, completely voluntary. If you return it, we will send you a $20 thank-you for taking the time to collect the sample and mail it back to us.

[IF COMPLETED FULL SURVEY] We'd like to send you a $30 thank-you for taking the time today to talk with me. May I confirm your mailing address? (Compare to tracking.) Expect that check to arrive within the next 4-6 weeks if you do not have direct deposit set up with the VA.

[IF COMPLETED ABBREVIATED SURVEY] We'd like to send you a $5 thank-you for taking the time today to talk with me. May I confirm your mailing address? (Compare to tracking.) Expect that check to arrive within the next 4-6 weeks if you do not have direct deposit set up with the VA.

(6-Month ONLY) We will be contacting you again in 6 months to complete another set of questions similar to those you did today. May I confirm the phone number(s) I have for you are up to date? (Compare against tracking.) You will again receive a $30 thank-you payment for completing those questions.

Thank you again for your time today and thank you for participating in this research study. Do you have any questions for me? ANSWER PATIENT'S QUESTIONS.

Exit (BASELINE)

Thank you so much for taking the time to talk with me. Do you have any questions for me? ANSWER PATIENT'S QUESTIONS.

You will be getting a package in the mail from the Quit Smoking Telehealth project in the next week or so. I would like to confirm that the address we have for you is correct. Is your address: **CONFIRM ADDRESS [Update tracking database if necessary]**

What are other phone numbers we can use to reach you if we cannot reach you at (confirm current number)? **[Update tracking database if necessary]**

Home number: _____

Cell phone number: _____

Work phone number: _____

What is your preferred time and day to be called?

Is there alternate contact information in case we are unable to reach you? **[Document name and telephone number in tracking database].**

Name: _____ **Phone:** _____

At some point, someone from the study may need to call you back to clarify some of your answers. Would that be okay?

1=YES
0=NO
777=DK
888=REF

That is all the questions I have. Let me transfer your call to [Jennifer Chapman, Project Manager, **OR** Margaret Falkovic, Interventionist, depending upon availability], so she can tell you what group to which you've been randomized. If we get her voicemail, I'll leave a message and she will call you back as soon as possible. She'll also arrange for your first coaching call. If for some reason we get disconnected, please feel free to call me back at (919) 286-0411 extension (provide your extension) or the Project Manager,

Jennifer Chapman, at the local number or 1-888-878-6890 ext. 5648. **[Confirm patient has the correct contact information]**

I also want to mention that if you have any questions or problems during the study, please contact Jennifer Chapman.

Thank you again for talking with me today. I am going to transfer your call to [Jennifer or Margaret]. **[TRANSFER CALL]**