

Contingency Management *for* Unhealthy Alcohol Use in HIV

FIRST TRIAL

Social Worker/Research Coordinator
Financial Incentives, Randomization with
Stepped Treatment (FIRST) Trial Intervention
Training Manual

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Study Overview	3
Background on Unhealthy Alcohol Use	3
Background on Contingency Management	5
Important Behavioral Principles Used in Contingency Management	6
Study Orientation	7
Format and Guidelines for Sessions	11
Initial Session – Week 0	12
Personal Needs Assessment Form and Verifiable Activities	17
The Next CM Session – Week 3	20
Typical Sessions – Weeks 6 and 9	25
Last (Termination) Session – Week 12	30
Goal-related Activities: General Considerations	32
Other and General Issues	38
Patients with Low Literacy	38
Intoxicated Patients	38
Patients who Deny Drinking with a Positive BAC or PEth	39
Unexcused Absences	40
Excused Absences	43
Referral for Additional Services	45
Cheating Prevention	45
Timing of CM Visits and Related Logistics	46
Possible Activities	47
Online Resources	50
Appendix: Reinforcement Possibilities	51
Personal Needs Assessment Form	56
Reminder Slip	57
Activity Log	58

Study Overview

The goal of the intervention in the **Financial Incentives, Randomization with Stepped Treatment (FIRST)** trial is to foster alcohol abstinence and reduce alcohol-related adverse health effects in HIV-positive individuals with unhealthy alcohol use. If patients work toward and achieve important goals, their alcohol, HIV and health outcomes may also improve. Patients receiving this treatment will receive twelve weeks of individualized therapy that focuses on reinforcing recent alcohol abstinence (in two manners: breath and bloodspot alcohol tests) and making progress toward addressing medical conditions that are adversely impacted by alcohol.

This manual is written for training Social Workers and Research Coordinators in this treatment paradigm. Supplemental resources for contingency management (CM) should be referred to as needed and include: Petry (2000) for a review article about CM and Petry (2012) for designing CM programs.

Background on Unhealthy Alcohol Use

Unhealthy alcohol use is a major preventable public health problem resulting in over 100,000 deaths each year and costing society over 185 billion dollars annually. The effects of unhealthy alcohol use have far-reaching implications not only for the individual drinker, but also for the family, workplace, community, and the health care system.

Prevalence and Impact in HIV-positive Patients

The prevalence of alcohol use disorder in patients with HIV is high. In a national sample of patients with HIV, 8% to 12% were classified as heavy drinkers, a rate approximately twice that of the U.S. national average. The rates are even higher for a diagnosis of lifetime alcohol use disorders, with estimates of 26% to 60% in people living with HIV/AIDS, as compared with 14% to 24% in the general population.

The impact of alcohol use on HIV treatment outcomes is substantial. Patients with alcohol use disorders delay seeking treatment for HIV. Alcohol problems in HIV-positive patients are associated with poor adherence to antiretroviral (ART) medications. While ART adherence in the general HIV-positive population ranges from 60% to 70%, estimates for adherence in HIV-positive at-risk drinkers is significantly lower at 42%. The risk for non-adherence increases with greater levels of alcohol consumption. One study revealed a 2.7 times increase in non-adherence in frequent heavy drinkers. A Veteran's Aging Cohort (VACS) study found that medication adherence was lower on days in which patients drank heavily, and on the following day, and alcohol consumption was the most significant predictor of ART medication non-adherence. Heavy drinking in HIV-positive patients is also associated with poor treatment response as evidenced by lower CD4 lymphocyte counts and higher HIV RNA. In turn, individuals who have stopped drinking have an improved response to HIV therapy. Heavy drinking is also associated with lower retention in HIV care.

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Background on Unhealthy Alcohol Use (*continued*)

Spectrum of Alcohol Use/Terminology

Patients in HIV clinics represent the entire spectrum of unhealthy alcohol use. They range from at-risk drinkers, who are also at risk for injury and illness, all the way up to patients with alcohol use disorders. This intervention focuses on HIV-positive individuals with any level of unhealthy alcohol use.

Alcohol Consumption Categories:	
Abstainers	Drink no alcohol
Lower-risk	Drink within NIAAA guidelines (men <=65 years old: <=14 drinks per week or 4 per occasion; men >65 years old and all women: <=7 drinks per week or 3 per occasion).
Unhealthy Alcohol Use	
Medical Risk	Alcohol consumption in someone who has a medical condition that is adversely impacted by alcohol.
At-risk (Hazardous)	Exceed NIAAA consumption guidelines (men <=65 years old: >14 drinks per week or 4 per occasion; men >65 years old and all women: >7 drinks per week or 3 per occasion). Alcohol use puts them at risk for injury/illness or social problems.
Harmful (Problem)	Currently experiencing problems (medical/social) related to alcohol; often exceed NIAAA guidelines for lower-risk drinking.
Alcohol Use Disorder	Meet criteria for alcohol use disorder based upon formal criteria such as DSM-5.

The methods you use to suggest making changes to drinking may relate, in part, to the patient’s alcohol consumption patterns. For the purposes of this treatment, the goal is for the patient to move toward no, or very low-risk, levels of drinking. Patients will earn reinforcers by being able to demonstrate, via biological testing, that they have not drunk, or drunk very minimally, between visits. They can also earn reinforcement for completing specific steps related to addressing at-risk or higher levels of alcohol use, or medical problems they may have that are impacted by drinking.

Background on Contingency Management

Contingency management (CM) interventions are based upon principles of behavioral modification. These procedures stem from token economy approaches that were developed over forty years ago. The behavioral principles are centered on three basic tenets:

1. The environment is arranged such that target behaviors (in this case, alcohol abstinence and making steps toward improving conditions that are adversely impacted by alcohol) are **readily and objectively detected**.
2. **Tangible reinforcers are provided whenever adherence with the target behaviors are demonstrated.** In the intervention for this study, a patient is given a chance to win a prize associated with financial value whenever she or he has evidence of abstinence or makes progress toward addressing a medical condition that is adversely impacted by alcohol. The prizes are varying denominations of VA coupons that can be redeemed to purchase items at the local VA Canteen Store.
3. **When the target behaviors do not occur, rewards are withheld.** Sometimes slight punishers may also be delivered (reductions in the amount of rewards received) when patients fail to provide alcohol negative samples or fail to make progress on their goal areas.

Numerous studies conducted over the past twenty years demonstrate the efficacy of CM procedures in a variety of settings, including the VA, and in patients with HIV and who use substances. Frequently, CM is provided in combination with standard clinical care. These studies consistently find that providing positive rewards can have two main beneficial effects: (a) retaining patients in treatment for longer periods of time, and (b) reducing substance use (i.e., opioids, marijuana, benzodiazepines, nicotine, and alcohol; e.g., Higgins et al., 1994; Petry et al., 2005). The present study is designed to extend these effects and to determine if reinforcing alcohol abstinence and addressing medical conditions that are adversely impacted by alcohol will also improve health outcomes in HIV-positive patients.

Note: The VA recognizes CM as an evidence-based treatment, and in 2011 the Deputy Undersecretary of Health for Operations and Management authorized funding for implementation of CM programs within the VA. Nationally, more than 100 VA addiction specialty clinics have adopted CM programs to address substance use, serving thousands of veterans.

Important Behavioral Principles Used in Contingency Management

1. **Immediacy.** Learning occurs best when each time the target behavior occurs it is followed by reinforcement without delay. Two behaviors in this study, providing a negative breath sample and providing evidence of completing a step toward a health goal, will be reinforced when they occur in the sessions.

The issue of immediacy is a concern in the other behavior we will be reinforcing in this particular study: providing a negative phosphatidylethanol (PEth) sample. PEth is created on the surface of red blood cells in the presence of alcohol and thus reflects alcohol use over the prior twenty-one days, with higher levels corresponding with higher levels of alcohol use. However, PEth results must be sent for laboratory analyses, resulting in an inherent delay in our ability to reinforce them. We have therefore designed methods in an attempt to minimize delay for reinforcement of PEth negative (<8 ng/mL, which reflects no or minimal drinking) samples. Specifically, patients will draw for their prize earnings assuming their blood test will be negative, but the actual prizes will not be delivered until the blood test results are returned and test negative. In this manner, we attempt to balance reinforcing negative blood tests somewhat immediately with ensuring that the objective evidence is available.

2. **Reinforcement magnitude.** The greater the amount of the reinforcement, the more likely it is to alter behavior. In this study, we are using similar magnitudes of reinforcement that have been demonstrated to positively impact behavior. Patients can earn up to an expected average of \$460 in VA Canteen coupons if they provide all negative breath and blood (PEth) alcohol samples and complete all activities over twelve weeks. Some may even earn more, if they are lucky in their draws!
3. **Escalating reinforcement and reset features.** As patients continue achieving the target behavior (e.g., longer periods of abstinence, continued progress toward addressing medical conditions that are adversely impacted by alcohol), escalating reinforcers are arranged. This is necessary to ensure ongoing sustained change in behavior. If patients fail to achieve the target behavior, their reinforcement schedule resets to the original (before escalation) low amount. In this manner, patients have a strong incentive to continue with the desired behavior once their reinforcers have increased, as they do not want to reset to a low level.

Study Orientation

In order to implement the study and explain to others what we are doing, you will need to be familiar with the goals and objectives as well as the methods of this study. You can obtain more detailed information from the study protocol and the FIRST Trial Research Coordinator manuals.

Briefly, we are trying to test a treatment method that is designed to enhance patients' motivation to achieve abstinence (or near abstinence) from alcohol and engage in specific activities related to addressing their medical conditions that are adversely impacted by alcohol. Patients who are assigned to this intervention will receive tangible incentives when they achieve **ANY of the three goals** below:

1. **Abstinence** from alcohol at the CM visit, defined as a breath alcohol concentration (BAC) <.003 g/dl on a breathalyzer
2. **Abstinence (or near abstinence)** from alcohol for about twenty-one days before the CM visit (PEth value < 8 ng/mL)
3. Verified evidence of making **progress** toward addressing their unhealthy alcohol use or a medical condition that is adversely impacted by alcohol.

The more of these three behaviors patients achieve, the more incentives they will receive.

Patient's visits occur every three weeks. Patients are tested at each visit for alcohol with a breathalyzer (BAC), to evaluate for recent alcohol use, and PEth, to evaluate for alcohol use over the past twenty-one days. They also set goal-related activities at their visits that they can realistically achieve between visits.

The CM is provided on an individual basis. The treatment period is three months in duration, so patients can earn reinforcers over the twelve weeks from when they start the study. In total, patients meet up to five times with the therapists (weeks 0, 3, 6, 9, and 12) and can earn reinforcement at each of these visits.

The reinforcers consist of the chance to draw slips of paper from a fishbowl, and each slip is associated with a dollar amount of a potential prize, ranging from \$0 to \$100. Money is not handed directly to patients. Instead patients get coupons to the VA Canteen in the dollar amounts that they draw. Not all picks result in VA Canteen credit. Specifically, the fishbowl contains 100 slips of paper. Twenty slips state "**Good job!**" but are not associated with VA Canteen credit. Sixty-four slips will state "**Medium prize,**" fifteen will state "**Large prize,**" and one states "**Jumbo prize.**" The Medium prizes are worth \$5 at the VA Canteen; the Large prizes are worth \$25 at the VA Canteen; and the Jumbo prizes are worth \$100 at the VA Canteen. As the patient achieves more abstinence and makes progress toward addressing medical or psychological conditions adversely impacted by alcohol, the reinforcers (number of draws from the fishbowl) escalates; patients have increased chances of winning Large and Jumbo prizes.

At the first visit, in order to pick from the fishbowl, the patient's BAC must test negative for alcohol.

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Study Orientation (*continued*)

Because positive BAC results are rarely obtained, most patients will be eligible for one or more draws for each BAC sample they provide. The reinforcement schedule at the first session is based on breathalyzer test results such that participants who provided a BAC <0.003 g/dL will complete their first draw from the fishbowl. Patients who provided a BAC ≥ 0.003 g/dL, will not be rewarded with any draws during this first visit. We expect positive BACs to rarely occur though.

In subsequent visits, patients also earn draws based on PEth testing. Expedited PEth testing takes 3 days to process. Most patients will conduct drawings during their CM visit and place them “on hold.” Their ability to collect those prizes will depend on results of the PEth tests. As long as a BAC test is <0.003 g/dL, the patient will be allowed to make their PEth draws at the CM session (range five to eight additional draws), and put any earnings derived from those draws on hold until the results of the PEth test come in. (If the BAC test is ≥ 0.003 g/dL, the patient will not be eligible to earn any draws for PEth for that visit; draws for a negative PEth (very unlikely given the positive BAC) will be made when they have a negative BAC (within a week or at the next CM session). Thus, patients with negative BACs will know what they won (in terms of VA coupon amounts) if their PEth test comes back as negative. If the PEth result is positive (>8 ng/ml), then the amounts from those draws will be forfeited, but the patient will still retain the amount earned from the draws for a negative BAC. As soon as the results become available, the Social Worker will notify the patient via telephone of the PEth result and remind them of the value of their earnings drawn at the CM session. If the PEth result is negative, the patient will have the option to come in and pick up their prizes at that time, or wait until their next session.

Patients will also win draws if they complete certain “activities” and those activities are verified. The activities include participating in additional treatments for unhealthy alcohol use or for a medical condition that is adversely impacted by alcohol. Such treatments, or steps toward obtaining those treatments, will need to be confirmed through specific **objective verification**. Objective verification will include such things as documentation of attendance at an AA or NA meeting or completion of an online training module to address unhealthy alcohol use (based on a printed certificate). Likewise, patients can win draws if there is objective evidence that they have made progress toward addressing a medical condition that is adversely impacted by alcohol. These medical conditions include: (1) HIV, (2) smoking, (3) hepatitis C virus (HCV), or (4) depression. Patients will receive draws from the fishbowl if they provide proof or there is evidence in the electronic medical record of, for example: an undetectable HIV viral load in a patient who had previously been detectable; attending a smoking cessation session; filling a prescription for a smoking cessation medication; filling a prescription for an HCV treatment medication; or filling a prescription for a new antidepressant. They may also attend a medical or behavioral health appointment related to one of these conditions to earn this activity-related reinforcement. Objective proof of making such progress must be verified in order to earn draws from the fishbowl. *If a patient has a BAC ≥ 0.003 g/dL, they will need to return on a separate day and demonstrate a BAC <0.003 g/dL to be able to conduct draws and earn rewards.*

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Study Orientation (*continued*)

The reinforcement schedule for visits depends on 1) BAC testing, 2) PEth testing, and 3) completion of an activity to address alcohol use and/or a medical condition impacted by alcohol. However, reinforcement for each behavior is not possible at each visit, due to the nature of some of the behaviors. In other words, it is not possible for PEth values to be negative at the first visit, as a positive PEth value is needed to enter the study. Similarly, patients will not get credit for having completed a health activity prior to the initial visit. The first visit, therefore, only reinforces negative BAC testing. The additional reinforcement should be discussed at this visit, such that patients understand reinforcement possibly increases markedly after the initial visit.

The reinforcement schedules by week are outlined in the tables in the appendix (*on page 50*). The **Tracking Form**, also in the appendix, provides a reference for each reinforced behavior and how many draws patients can earn for it.

Reinforcement is withheld or reduced if a patient does not meet these goals. If their BAC is ≥ 0.003 g/dL, patients do not earn any breath alcohol draws that day, and they likely will not be eligible for rewards based on PEth. Draws for a negative PEth (very unlikely given the positive BAC) and the completed activity will be made when they have a negative BAC (within a week or at the next CM session). If their blood alcohol (PEth) result comes back >8 ng/mL, they do not get to keep the draws for PEth they made at the associated session. If they fail to complete their activity goal, they also will earn no draws for that behavior that day, and the next time they successfully achieve that goal, the reinforcement amount for that behavior resets to its lowest level. Also, if their BAC ≥ 0.003 g/dL, they will need to return within one week and demonstrate a BAC < 0.003 g/dL to be eligible to draw and receive rewards based on completed activities. They can elect to wait until their next scheduled meeting or set an interim visit; regardless, they need to provide a negative BAC (< 0.003) to receive any draws. The tables in the appendix outline all the possible permutations. If the BAC is above the legal limit, the patient should be escorted to a unit capable of retaining him/her or allowed to contact a family member who can transport the patient home. Local and national VA policies on the management of intoxicated patients should be followed.

For the purposes of understanding the schedules, the Tracking Form outlines the three behaviors and reinforcement for each. It is important that you review it carefully and understand what each cell refers to, as this will be the primary form for collecting study data related to CM. It also clearly but briefly outlines the specific reinforcement schedules for each behavior.

Draws for negative breathalyzers start at **one** and increase by **one draw** for each consecutive negative sample provided. Because there are five sessions (at weeks 0, 3, 6, 9, and 12) over twelve weeks, patients can earn up to five draws for a negative breathalyzer by the last session (i.e., session twelve). ***If they provide a positive breath sample at any session, they earn no draws for negative breath samples at that session. The participant will need to provide a negative BAC to be able to receive draws and any rewards for PEth and/or activities.*** The next time they come to a session and provide a negative breath sample, they

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Study Orientation (*continued*)

earn only one draw, as the draws reset. If they **miss a session** without calling in advance or having a valid excuse (a documented medical or legal appointment or emergency, confirmed by an objective source), their draws for negative breath samples also reset back to 1 draw for the next negative BAC they provide. Specifically, patients must call at least twenty-four hours in advance to reschedule their visit or provide documentation from an urgent/emergent medical visit for an excused miss to be granted. If there is an excused absence, the draw schedule does not reset.

Draws for a negative PEth start at a higher number – **five**, because this is a harder behavior to achieve. To get a negative PEth, patients must abstain, or nearly abstain, from drinking for about three weeks. So, negative PEth draws start at five and also increase by one for each consecutive negative sample provided. Because it takes at least a couple of weeks for this result to become negative after a sustained period of not drinking, patients do not earn draws for PEth results in the first session. These samples may be reinforced as soon as the second session. The manual will describe these draws, and how they are earned and awarded, in greater detail in the next chapters.

Finally, patients will select a specific activity related to a goal area of: reducing or stopping drinking, stopping smoking, having an undetectable HIV viral load (if previously detectable), or initiating treatment for HCV or depression (if previously untreated or undertreated based on a PHQ-9 score >9). They select their first activity in the initial session, and if they complete it by the second session, they earn **three draws** in that session (week 3). The number of draws increases by one for each consecutive activity they complete during the sessions. If they fail to complete an activity, or miss a session without a valid excuse, these activity draws also reset to three draws the next time they attend a session and provide evidence they completed an activity. (See section f, page 35 for tips on selecting activities).

Throughout the twelve weeks, it is important to continuously remind patients how much they have to gain by achieving and remaining abstinent and completing their activities – not only in terms of greater chances of winning prizes but also in terms of increased self-esteem and healthy lifestyle.

The next sections of this manual will describe how the sessions are to be structured and the methods for selecting and reinforcing completion of goal-related activities.

Format and Guidelines for Sessions

CM sessions will usually be about fifteen minutes, although the first sessions may last a bit longer (thirty minutes) as the Social Worker explains the CM to patients. The general steps are as follows:

1. The Research Coordinator performs BAC (all sessions) and collects PEth (except at initial therapy visit as will be collected to determine study eligibility). These tests will generally be performed by the Research Coordinator unless other arrangements have been made.
2. The Research Coordinator shows the patient the results of the BAC.
3. The participant conducts draws with the Social Worker for BAC if $<.003$ g/dL.
4. The participant conducts draws with the Social Worker for PEth testing (except at week 0); amounts earned from PEth will be put “on hold” until lab tests the sample.
5. The Social Worker conducts Personal Needs Assessment (week 0 only).
6. The Social Worker sets and reviews efforts and activities toward alcohol abstinence and addressing medical conditions adversely impacted by alcohol.
7. The Social Worker verifies activity completion (except initial visit at week 0).
8. The participant conducts draws with the Social Worker based on activities toward addressing medical conditions adversely impacted by alcohol (except initial visit at week 0).
9. The Social Worker completes the Reminder Slip to review the number of draws earned at this session, the number of potential draws at next session, and the date and time of next session.

During the CM sessions, it is important to maintain an upbeat and positive attitude. The Social Worker should give patients praise for coming to treatment, even if they report drinking. Tell them they are doing a great job for attending therapy and for any other positive accomplishments they report (e.g., feeling better, accomplishing goals, alcohol abstinence, etc.). Also, maintain an encouraging and enthusiastic attitude when they are drawing from the fishbowl. *Note:* Participants should be instructed to return slips to the fishbowl after completing each batch of draws (e.g., after completing draws for BAC and before drawing for PEth).

These guidelines for CM sessions are just that – guidelines. The initial sessions are likely to be somewhat different due to the need of helping patients come up with a plan for abstinence, deciding upon which alcohol-related health behavior they would like to address and understanding the CM. In the following pages, the initial sessions are outlined more specifically. Over time, as the patient adapts to the structure, session length should be about fifteen to twenty minutes. Short CM sessions are sufficient, and usually preferred.

Initial Session – Week 0

The Social Worker (or other trained clinician) will begin the session by introducing him/herself, welcoming the patient to the study, discussing the audiotaping procedures (if audiotaping consent was obtained), and reviewing the limits of confidentiality. Next, the Social Worker will provide a brief rationale for the intervention and the structure (sessions once every three weeks). ***For example, a brief rationale is as follows:***

Social Worker: “The goal of this treatment is to help you become abstinent, or nearly abstinent, from alcohol and improve areas of your health that may be negatively impacted by alcohol. Today, we will try to determine your priorities in terms of what areas you most want to work on. These may include stopping drinking completely, getting your HIV viral load undetectable, quitting smoking, improving your mood, or getting treatment for Hepatitis C.”

As noted above, you will describe that a major focus of this treatment is to help patients stop or greatly reduce drinking alcohol and improve their health. Patients can earn the most number of draws, and greatest amount of reinforcers, if they cease drinking. Nevertheless, because not all patients want to stop entirely and our methods for detecting alcohol use cannot distinguish between low levels of drinking and abstinence, it is important to realize that substantial reductions in drinking to low-risk levels is also appropriate in some cases. However, the safest recommendation, from both a reinforcement and health perspective, is to cease drinking entirely.

From the intake evaluation, you will have a good sense of the impact of alcohol on the patient’s health, and their medical conditions that are impacted by alcohol such as detectible HIV viral load, non-adherence to antiretrovirals, smoking, HCV, and depression. The Social Worker will mention that at each session you will help them come up with things they can do to stop drinking and to address medical problems that are adversely impacted by alcohol. The Social Worker will also inform and remind patients that they can earn draws and win prizes in the form of VA Canteen coupons by working on their own problem areas. The concept of winning prizes will have been described in the consent form. Show them the fishbowl and report the probability of winning Medium (\$5), Large (\$25) and Jumbo (\$100) prizes. Tell them they can earn up to fifty-nine drawings over the next three months if they provide all negative breath and PEth samples and complete all their activities. The discussion may go something like this:

Social Worker: “Each week you will decide upon things that you think will be helpful for you to stop or minimize drinking alcohol and work on a medical condition that is negatively impacted by alcohol. If you make progress in this area between our visits and we can verify that progress, you can win prizes. In addition, if all your breath and PEth tests come back negative for alcohol, you can also win prizes. For every measure of success, you get to draw at least once from the fishbowl, sometimes more! You can draw up to fifty-nine times if you complete all your activities, and all your breath and PEth tests come back negative during the twelve weeks of treatment. With fifty-nine draws, you can win lots of good prizes. The slips range from encouraging statements to ones worth \$5, \$25 and up to \$100. When you win a money slip, you get a coupon to the VA

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Initial Session – Week 0 (continued)

Canteen, and you can spend it on anything. You will have a good chance of earning a \$100 Jumbo prize if your samples are all negative and you complete all your health goals. We will talk more throughout the session about ways you can win VA Canteen coupons. Have you been to the Canteen recently, and is there anything there you want?"

Structure for Initial CM Session ~*Reminder: CM sessions should be digitally recorded*~

1. The Research Coordinator performs BAC (in session or before).
2. Discuss or show the results of the BAC.
3. The participant conducts draws with the Social Worker for BAC if $<.003$ g/dL.
4. The Social Worker describes role of PEth testing and draws that will be put “on hold” at next visit if they abstain completely or nearly completely between this visit and the next.
5. The Social Worker conducts Personal Needs Assessment to determine goal area.
6. The Social Worker discusses goals of reducing drinking and medical conditions adversely impacted by alcohol, and sets a specific verifiable activity toward a goal that the patient can realistically achieve before the next session.
7. The Social Worker informs patient about draws they can earn for completing activities at the next visit.
8. The Social Worker visits the VA Canteen with the patient so they can see what they can obtain for \$5, \$25, and \$100 (or more, as they can earn over \$400). If the patient earned a VA Canteen coupon for a negative BAC, encourage him/her to spend it on something or save toward a larger item. Show enthusiasm for whatever the patient wants to spend his/her earnings on, and tie in how increasing draws can result in the patient obtaining those items.
9. The Social Worker completes the Reminder Slip with the patient to review the number of draws earned at this session, the number of potential draws at next session, and the date and time of next session.

After the initial description of the treatment, the Social Worker should describe the alcohol testing procedures (from both breath and blood [PEth] samples) and how they relate to earning draws. You will then collect the first samples, if this was not already done immediately before the session. **For example, the discussion may go like this:**

Social Worker: *“Each time right before you meet with me, you will leave a breath sample and a blood sample from a finger prick at the lab. Both will be tested for the presence of alcohol, and if they test negative for drinking, you can earn draws from the fishbowl and coupons to the VA Canteen. We can start with the breath sample, which detects any drinking in the past three to four hours and possibly up to twelve hours if you drank heavily the night before coming here. Obviously, we don’t want you to come here if you are intoxicated, right? Your breath samples need to read below 0.003 to earn reinforcement. So, let’s see what your breath sample reads, okay?”*

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Initial Session – Week 0 (continued)

Patient blows into breathalyzer, and result is 0.00. (**Note:** The breath sample could also have been done by the Research Coordinator immediately before the therapy session.)

Social Worker: “Great, as I expected, your breath sample is negative. You will always earn at least one draw from the fishbowl for providing a negative breath sample at our sessions. You can also earn MORE than one draw for negative breath samples, so long as you come to all your scheduled sessions and leave negative samples. The draws you earn start at one and increase by one for each session in a row you leave negative breath samples. So, next time we meet, you can get two draws for a negative sample. Let’s do your first draw, for today’s negative breath sample, okay?”

Patient draws from bowl and pulls out a slip that states “Medium.”

Social Worker: “That’s great! You won your first \$5 VA coupon. I’ll give it to you now. And remember, next time we meet, you may even get double or more earnings if that breath sample is negative too. Sound good?”

Patient: “Definitely. I’ve never gotten a VA coupon for doing anything in treatment before.”

Social Worker: “I know. This is a different type of treatment. It is designed to help you reduce your drinking and improve your health. Now, let’s talk about other ways you can earn more draws.”

Patient: “Okay, I’m listening.”

Social Worker: “We also will collect a blood spot from you before each session, like you did when starting this study. It’s from a finger prick. We send that sample to the lab, and they use a special test, called PEth, to detect drinking in the past three weeks. This test will almost certainly read negative if you don’t drink at all for a three week or longer period. If you drink just a little, maybe one or two drinks total, over the course of three weeks, it may or may not test negative. If you drink a lot, it will definitely come back positive. The safest way to ensure you get draws is to not drink entirely between our sessions. Does abstaining seem like something you can do? If you can, you’ll get five draws at our next session if that PEth test comes back negative.”

Patient: “I never wanted to abstain completely. I know I’m supposed to cut back, and I can do that. But I want to be able to have a beer every once in a while.”

Social Worker: “I can understand that, but I also think it’s important that you really get your drinking down to a level that it won’t impact your health. There is not a magic number of drinks you can have that minimizes health impacts or that tests negative on this PEth test. When you drink, if you don’t drink more than one beer, and don’t do that more than a couple times between now and the next time we meet, you may test negative on the PEth test and earn five draws. Again, it’s most likely you’ll test negative if you don’t drink at all. And, many people find that once they start drinking, one drink can turn into two, and so on. What do you think about trying no drinking for just the next three weeks and seeing how that goes? That should pretty much guarantee you the five draws.”

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Initial Session – Week 0 (continued)

Patient: “Well, if it’s just for three weeks, I can give it a try.”

Social Worker: “Trying is all we’re asking. Try not drink at all for the next three weeks. If you do drink, be sure not to drink more than one beer, and not more than one or two days. The less you drink, the more likely you can earn these draws.”

Patient: “Okay.”

Social Worker: “There is one more way you can earn draws in this treatment. That is by doing an activity related to reducing alcohol use, smoking, or improving your health or mental health. I see from your study intake forms you smoke, and have a detectable HIV viral load, and Hepatitis C. Which of these areas would you most like to work on?”

Patient: “I would definitely like to get my HIV under control.”

Social Worker: “That is an important goal. I see you are on antiretrovirals now. Have you been taking them as prescribed?”

Patient: “Well, sometimes. I lost my last prescription and haven’t been able to have it refilled yet.”

Social Worker: “That would be a good area to work on. How about this? Between now and our next visit, you call the HIV clinic and get a new prescription and start taking your meds again. If you can start your medication and get your viral load undetectable before your next appointment, we can check in the computer and see you did this, and you’ll get three draws for doing so.”

Patient: “I can do that. I’ve been meaning to anyway. I just haven’t gotten around to it.”

Social Worker: “That is the point of our drawing system! Giving you extra motivation to do things that will improve your health.”

Patient: “That’s why I’m here too. I’ve got to get my viral load down.”

Social Worker: “That is a good attitude. What do you say we go visit the Canteen right now and see what you want to buy with the \$5 you earned today, or what you want to save up for?”

Patient: “You mean right now? We’re going to the Canteen in our session?”

Social Worker: “That’s right. I want to be sure that all patients know where it is and all the great things they can get there with their earnings in this project.”

During the visit to the Canteen, the Social Worker encourages the patient to either buy something right then (an immediate reward if a prize was already won) or consider a long-term option to save toward.

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Initial Session – Week 0 (continued)

Social Worker: “As you can see, there are lots of things you can get here, ranging from small items you can buy after each of our sessions like food, or you could save some or all of your earnings for something big. Remember you can earn up to fifty-nine draws over the next twelve weeks, which can translate to hundreds of dollars of earnings. What do you want to work toward getting?”

Patient: “I think I want to get a new hammer with this money today. I lost mine. Then, I want to work toward a leather jacket.”

Social Worker: “That is a great idea. You can go home with something you’ve been wanting today. And keep the leather jacket in mind if you are tempted to drink over the next couple of weeks, because the best way to earn the most draws is by stopping drinking so your PEth test is negative. Don’t forget to make getting your antiretrovirals a priority too. You may even want to get that prescription filled today.”

They return to the office. The Social Worker then wraps up the session, by reminding the patient of what transpired. The Reminder Slip (see appendix) is introduced as well, detailing the activity, its verification and all the methods by which patients can earn draws.

Social Worker: “At the end of each session, I’ll be giving you this form. It states how many draws you earned and what you earned them for at this session. It also reminds you of all the ways you can earn draws at our next session, which will also be indicated on the form. Do you want to meet on May 21 at 2 pm? Great. I’ll put that down. Here, I also indicated you earned one draw for a negative breath test. As we discussed, you can get two draws next time for a negative breath test, plus five draws if your PEth test is negative as well. And, if you get that prescription for antiretrovirals filled and get your viral load undetectable, you’ll get three draws for that as well. You could even do that today so you don’t forget and get restarted on those meds immediately. Does all that sound good?”

Patient: “Yeah. And I can stop over at the HIV clinic right now. See you in three weeks.”

Immediately after each session, the Social Worker should complete the tracking form in full.

Personal Needs Assessment Form and Verifiable Activities

The first week, the Social Worker completes the Personal Needs Assessment Form with the patient after providing an overview of the treatment. This Personal Needs Assessment Form will allow you to understand the patient's (1) drinking category and drinking habits, and (2) medical conditions adversely impacted by alcohol. It can be used to set activity-related goals and to address alcohol use more generally. In both these contexts, you can use the information obtained from the Personal Needs Assessment Form to discuss with patients how they can earn Canteen coupons.

In the earlier example, the Social Worker did not spend a lot of time on this form, because the patient readily decided his goal area – reducing his viral load. Other patients will be less sure about how they want to focus efforts.

An example of how the review of the Personal Needs Assessment Form goes is like this:

Social Worker: *“I have this form here to review some basic health conditions that people often have issues with when they start treatment. Let’s go over these now so we can decide upon activities that you may want to do that relate to the issues you identify. I’ll then talk with you about the three ways you can earn prizes that we talked about earlier.”*

Patient: *“Okay.”*

Social Worker: *“First I wanted to discuss your drinking. It looks like you drink beer every day and sometimes also have some brandy on the weekends. Is that correct?”*

Patient: *“Yes, but I am not an alcoholic.”*

Social Worker: *“No, I wasn’t saying that; I just wanted to make sure I was starting with the correct information.”*

Patient: *“Uh-huh.”*

Social Worker: *“We know that alcohol can impact the health of individuals with HIV, especially if they have HCV infection too. HCV infection may not be something you think a lot about on a day-to-day basis, but we do know that people who drink alcohol have much worse outcomes from HCV. Even though you are not an “alcoholic,” our goal here is to help you stop, or at least greatly reduce your drinking so that you don’t suffer poor health outcomes from HCV and HIV. And, if you do reduce your drinking, you can win VA Canteen coupons over the next twelve weeks. As you told me earlier, you really want a motorcycle helmet from the Canteen. What do you think you can do so that your breath and PEth tests comes back negative for alcohol at the next visit in three weeks?”*

Patient: *“Well, I am not sure if I can stop completely, but I really would like to win that \$100 ticket so I can get that helmet I’ve been wanting. I may have to tell my buddies that I just can’t drink anymore.”*

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Personal Needs Assessment Form and Verifiable Activities (continued)

Social Worker: “That is a good plan. Telling your friends you aren’t drinking anymore, and staying away from people who are drinking, can help you earn that helmet. Let’s also review your health status and any other medical problems you may have that could benefit from quitting alcohol. I understand that you smoke?”

Patient: “Well, yeah, only about five to six cigarettes a day. Those things are too expensive!”

Social Worker: “Have you ever tried to quit?”

Patient: “Nah, not really. I quit for a bit when I was in prison but that was a while back. I figured if I keep it at under ten cigarettes a day, something else is going to get me but not cigarettes.”

Social Worker: “So it sounds like you have been able to quit in the past and that you understand that it can have bad effects on your health. Even ten cigarettes a day can add up, both in terms of cost and health consequences. Have you spoken with your doctor about perhaps getting a medication to help you stop smoking? Did you know that the VA has classes to help you stop?”

Patient: “I didn’t know that, but I don’t really want to stop smoking.”

Social Worker: “Okay, we’ll put that area on hold then. Do you mind if we talk a bit about your liver?”

Patient: “I don’t have any problems with my liver.”

Social Worker: “Did you know that you have Hepatitis C?”

Patient: “Yeah, but they told me it wasn’t bothering my liver yet and they thought the treatment would mess with my depression.”

Social Worker: “Did you know that there are new treatments that can cure Hepatitis C and get it out of your body even if you have depression?”

Patient: “For real?”

The review of the Personal Needs Assessment Form should go as this, with the Social Worker taking a non-judgmental approach and asking about potential problem areas – alcohol consumption, detectable HIV viral load, smoking, liver disease including untreated HCV, and depression. Once all the relevant areas are reviewed, list the areas in which concerns exist at the bottom of the form. For the above patient, these may include drinking alcohol, smoking, untreated HCV and depression. Because the patient overtly stated he did not want to stop smoking, this social worker would elect not to focus on that area initially. From the areas your patient identifies, encourage him/her to select the one in which s/he would most like to focus his/her efforts.

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Personal Needs Assessment Form and Verifiable Activities (continued)

Social Worker: “Earlier I described how you can win prizes for completing activities. Now, I’ll show you how that will work. From our review, it looks like you may have some concerns about Hepatitis C and depression. In addition, you drink and smoke at least a little. For now, let’s pick one of these areas on which you most want to focus your efforts in treatment. If you make progress in that area, you can select another to work on later.”

Patient: “Well, eventually, I want to learn about that new hep treatment. But it’s the depression that’s really bothering me right now. I think I need to deal with that first.”

Social Worker: “Okay, so let’s put ‘depression’ down as the first main goal area you want to work on, and hepatitis after that. What we’re going to do each week from now on is have you decide on something you want to do to improve your mood. So, that may be something like going to a therapist or talking to your doctor about starting medications for depression. If you do the activity you select and bring back proof to me that you did it, you’ll get to draw for prizes. Do either of those activities sound like something you may want to try between now and when we meet again in three weeks?”

Patient: “Well, I’m already seeing a therapist. She thinks I should talk to my doctor about medication. I tried to take an antidepressant once, but I haven’t been on one for years.”

Social Worker: “Is that something you think you might like to try—making and keeping an appointment with your doctor to see if you should be on meds?”

Patient: “Yeah, I think that may help. Even if it doesn’t help, it won’t hurt, right?”

Social Worker: “No, it certainly won’t hurt to talk to your doctor about this. Do you want to stop at the front desk now, and see if you can get an appointment before our next visit? If so, that can be your first activity, and for it, you’ll earn three draws at our next session.”

Patient: “Okay. I’ll stop up front and see if I can get an appointment in the next couple weeks.”

Social Worker: “Great!”

This activity, if an appointment with the doctor can be scheduled prior to the next study visit, will be formalized on a Reminder Slip at the end of the session. Patients can be rewarded for attending such a visit to address their mental health. However, reinforcing this patient for seeing the therapist he is already seeing for depression, for example, is not going to move him along in resolving issues with depression. Scheduling an appointment with his doctor for eight weeks from now might be useful, but attending that appointment before the week 9 visit would allow him to earn reinforcement for doing something more meaningful between this and the next study visit. Over the next three weeks, he could read about depression online, or do CBT homework from his ongoing depression treatment.

The Next CM Session– Week 3

Prior to the next CM session (and each subsequent session) the Research Coordinator should provide the Social Worker with the patient’s previous contract. The Social Worker should be aware of the potential draws the patient could earn if s/he completes and verifies all the assigned activities.

The session should adhere closely to the guidelines in terms of format. Again, this format is:

1. The Research Coordinator performs BAC and collects blood sample for alcohol testing (PEth).
2. The Social Worker discusses results of the BAC.
3. The participant conducts draws with the Social Worker for BAC if $< .003$ g/dL.
4. The participant conducts draws with the Social Worker for PEth testing to be put in “on hold.”
5. The Social Worker reviews and reinforces efforts toward alcohol abstinence.
6. The Social Worker assesses and verifies progress toward addressing medical conditions adversely impacted by alcohol.
7. The participant conducts draws with the Social Worker based on progress toward addressing conditions adversely impacted by alcohol.
8. The Social Worker sets new activity toward goal(s).
9. The Social Worker completes the Reminder Slip to review the number of draws earned at this session, the number of potential draws at next session, and the date and time of next session.

Reviewing and Reinforcing Efforts Towards Alcohol Abstinence

The Social Worker after welcoming the patient to the second session, reviews the patient’s progress since the last session. For instance, see if the patient was able to have any periods of abstinence. If so, what helped them to not drink? How did they feel when they didn’t drink? Did they feel better? In what way? What changes did they notice because they weren’t drinking? What made it hard to not drink?

Social Worker: “Mr. Jones, how did you do with your drinking since the last time we met?”

Patient: “I was going to tell you, I did really well the first week since we last met. I didn’t drink at all that week. Then, it was my girlfriend’s birthday and I took her out for steak and wine, which is her favorite. Also, last weekend was Memorial Day, so I hung out with my friends and we drank a couple of beers, but no liquor.”

Social Worker: “I see, so the first week you didn’t drink at all. That is great! What made you decide not to drink that week? What helped you stay away from the alcohol?”

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The Next CM Session– Week 3 (continued)

Patient: “Well, I thought about all the stuff you were telling me about my liver and stuff. I decided to take a different bus so I didn’t have to walk past the liquor store on the corner.”

Social Worker: “So it sounds like thinking about your health and going home a different way helped you avoid drinking. Did you feel any different on the days when you didn’t drink?”

Patient: “Not really. It’s not like I get all drunk and pass out. Those days are behind me. I just like to have a beer or two in the afternoon so I can relax and hang out with friends.”

Social Worker: “Were you able to relax with friends during that week that you didn’t drink?”

Patient: “Yeah, I actually got together with my cousin. I haven’t seen him in years.”

Social Worker: “Okay, so that first week without drinking was good. And you could even do something fun with your cousin without drinking, right?”

Patient: “Yes. I don’t drink with my cousin because he has cirrhosis and all that.”

Social Worker: “It’s important to learn how to be with people and have fun without drinking. I’m glad you could do that. Then, it was your girlfriend’s birthday the next week, followed by a holiday, and you drank both those days. And your cousin’s cirrhosis may be a good reminder why you don’t want to drink too much. Did you think about not drinking even though you knew those events were coming up?”

Patient: “I thought about it, but I knew it would be hard. My girlfriend likes wine, as I mentioned. And it was her birthday. Memorial Day is also a day I always hang out with the guys. They all drink.”

Social Worker: “Learning to have fun and have celebrations without drinking may be critical. Our goal in this treatment is for you to minimize, or even better, completely stop drinking. That way, you’ll be able to win the most amount of prizes, and you might even get that motorcycle helmet you have your eye on. Remember what I told you last time we met. There are three ways to earn prizes in this program. The first is to come here, as you’ve done, and give a negative breath alcohol sample at your appointment. You did that right before our session, and it was 0.”

Patient: “That’s right.”

Social Worker: “Excellent! You earn two draws today for a negative breathalyzer. Last session you learned one draw for a negative breathalyzer, and this week, your draws go up one more to two draws. Let’s have you draw your two slips now and see what you won!”

Patient rolls up sleeves, shows palms of his hand, and draws two slips from the bowl. He draws a “Good job!” and a “Medium” prize slip.

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The Next CM Session– Week 3 (continued)

Social Worker: “Great! You got a Medium, so that is a \$5 coupon to the Canteen. Do you think you’ll want to spend that today on something or save up for the helmet or something else?”

Patient: “Oh, it’s just \$5. I’ll probably go get a snack after this because I’m starving.”

Social Worker: “That’s a good idea. You’ve certainly earned it. Here is your coupon. Now, let’s talk about ways you can earn even more draws. If you come to our appointment in three weeks and give another negative breathalyzer, you’ll get three draws. Sound good?”

Patient: “Three draws, huh? Yeah, that’s pretty good. Hopefully, I won’t get three Good jobs.”

Social Worker: “Good jobs slips still mean you did a good job, coming to your appointment and giving three negative breath samples in a row. To earn even more draws, you need to have a negative PEth alcohol test. Today, we collected a blood sample from you, like we did in the beginning of this study. The results from that sample will come back in about three days. I’ll call you when I receive them. If they indicate that your drinking has gone way down compared to when you started this program, you will get the earnings from the five draws I’m going to give you now. I don’t know if your PEth result will be negative or not. It sounds like you may have drank a bit over the past two weeks, and in that case it may not test negative, but you did go a whole week without drinking. In any case, there is no harm in giving you the five draws to see what you would have won had you not drank over the last three weeks. So, go ahead and make five draws now. For these draws, I’m just going to record the results. I won’t be able to give you any coupons from these draws this session, but if your PEth result does come back negative, I will keep any coupons on hold for you. Go ahead – and good luck with these draws!”

Patient: “I hope it’s my lucky day!” He draws and gets two Good jobs, one Medium and one Large.

Social Worker: “Wow! It was your lucky day! You got a Large! That means \$25, plus another \$5, for \$30 in total on hold. I can’t give you these coupons yet, but they will be here waiting for you if your PEth test comes back negative. Even if it doesn’t come back negative this time, now you know how much you can win by stopping drinking.”

Patient: “Figures that I got the Large for that, and not for my breath test.”

Social Worker: “You never know, though. The more draws you earn, the better your chances of winning more and bigger prizes. Maybe this will give you incentive to not drink between now and our next session so you can get five or more draws then too! Do you have any ideas about things you can do to ensure you can get a negative test on the blood spot sample next time we meet? Are there other ways you can handle a dinner out with your girlfriend or time with friends who are drinking?”

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The Next CM Session– Week 3 (continued)

Note: In this case, the patient may very well have had a positive PEth result, but the Social Worker still encouraged the patient to draw for a possibly negative result. The therapist framed the large winnings in a positive manner, whether or not the patient would actually get the coupons, and tied in future earnings to negative PEth samples.

The next portion of the session focuses on reviewing the activity from the prior session, collecting verification of completing the activity, and awarding the picks from the fishbowl (if any). The Social Worker also discusses the patient’s experience with and reactions to progress since the last session.

Social Worker: “Mr. Johnson, let’s review your activity. I know at our first session, you set up an appointment with the clinic’s mental health provider last week. Did you attend it?”

Patient: “Yes, I did. I met with Dr. Phelps last week. She suggested that I talk to my provider about prescribing an antidepressant medication.”

Social Worker: “Okay, great. Let me check the system here for that appointment. Yes, I see you did attend. That is fantastic! You earned three draws for going to see her.”

Patient draws three times, after being reminded to roll up sleeves and show palms prior to drawing.

Patient: “Of course, another Good job, Good job. And a Medium. I forgot, how much is a Medium?”

Social Worker: “A Medium is \$5. Hey, that’s not bad. You won \$10 for sure today – \$5 for your negative breath sample and \$5 for doing your first activity. And, you will get \$30 more if your PEth test comes back negative. No matter what, you’re walking out of here with the \$10. You could get a decent lunch for that or save it for something bigger. What are you thinking now about what you are going to do with your earnings?”

Patient: “Hmmm. That is true. \$10 is getting closer to other things. And even though, like you said, I probably won’t get that \$30 because I probably drank too, I could save this \$10 and get another \$10 or more next time, right?”

Social Worker: “Absolutely. The more you work on your goals and reduce your drinking, the greater your chances of winning big amounts! I’ll go over all those details at the end of the session. Let’s talk a little bit now about what you want to do to continue addressing your depression between now and the next session. You mentioned that the mental health provider suggested that you start an antidepressant. Have you done that yet?”

Patient: “No. She talked about it, but did not prescribe it yet. I’m kind of afraid of taking it. What if it makes me feel weird?”

Social Worker: “You can discuss those fears with Dr. Phelps. She can tell you about the side effects.”

Patient: “Yeah, she’s done that before. That’s why I’m worried. I’m not so sure I really want to take more meds.”

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The Next CM Session– Week 3 (continued)

Social Worker: “Well, I think if Dr. Phelps prescribes it for you, she will do so to help you feel better. You won’t know that unless you try it, though. If it does make you feel weird, or you have a bad side effect, you can always discuss it with her and stop taking it if you want. She can then discuss alternatives with you. What do you say? Do you think it would be a good idea to talk to Dr. Phelps about an antidepressant medication?”

Patient: “I guess I could try it.”

Social Worker: “Trying it is all we’re asking. How about for your activity between now and the next time we meet, you meet with Dr. Phelps and discuss a prescription? If I see in the medical system that you received and filled the prescription, I’ll give you four draws at our next session. If Dr. Phelps does not prescribe anything for you, then I will give you credit for the activity for just attending the appointment with her. Sound good?”

Patient: “I can do that. I’ll at least give it a try.”

Social Worker: “That sounds good. So, to review, I have this Reminder Slip here we can fill out. If you come back in three weeks from now, on June 15, let’s say at 2 pm again, you can get three draws for a negative breathalyzer, and you’ll get four draws if you got and filled a prescription for an antidepressant, or if you attended the appointment and no medication was prescribed. We can talk then about how things are going for you, and you can also give your doctor a call if you have any questions or concerns about the medication before then. I’ll write that down here. Then, about the blood test for alcohol, I will call you in about three days, when I get the results back. If they are negative, you’ll have \$30 from those five draws in our “bank account” I’m holding for you. If that result is not negative, I can’t give you that \$30, but you can earn five more draws at our appointment on June 15. If your PEth test comes back negative after that appointment, you’ll get those earnings in a few weeks. That is really the way to earn the most from this program – come to your appointments and give all negative samples, and do the activities that we decide upon.”

Note: At the end of the session, the Social Worker should be sure to give the patient the Reminder Slip, keeping a copy for your records. Complete the tracking form in its entirety for that session and ensure that appropriate information is entered into REDCap by the Research Coordinator, indicating all draws provided and their results. Once the PEth results arrive, the Research Coordinator can complete the appropriate rows on the tracking form, indicating those results and the date the Social Worker called the patient, as well as the date s/he received those earnings, if applicable.

Typical Sessions – Weeks 6 and 9

The next session should be similar to the prior in terms of format. Again, this format is:

1. The Research Coordinator performs BAC and PEth.
2. The Social Worker discusses results of the BAC.
3. The participant conducts draws with the Social Worker for BAC if $< .003$ g/dL.
4. The participant conducts draws with the Social Worker for PEth to be put “on hold” if BAC $< .003$ g/dL.
5. The Social Worker reviews and reinforces efforts toward alcohol abstinence.
6. The Social Worker assesses and verifies progress toward addressing medical conditions adversely impacted by alcohol.
7. The participant conducts draws with the Social Worker for completed activities.
8. The Social Worker sets the next activity.
9. The Social Worker completes the Reminder Slip to review the number of draws earned at this session, the number of potential draws at next session, and the date and time of next session.

Review and reinforce efforts toward alcohol abstinence and breath and PEth sample results

Most often, the breath and blood sample will be collected immediately before the session. The Social Worker should review the breath sample results in addition to reviewing the prior sessions’ record, the tracking form, and the Reminder Slip. These materials should be provided by the Research Coordinator. In this manner, the Social Worker will know the number of draws due for samples submitted prior to the patient coming into the session.

At the start of the session, discuss the patient’s self-reported drinking since the last session. Did the patient have any periods of abstinence? If so, what helped him not drink? How did he feel when he didn’t drink? Did he feel better? In what way? What changes did he notice because he wasn’t drinking? What made it hard to not drink? Did he drink in the past day? How frequently and how much did he drink since the last session?

An example, following from the prior case, follows:

Social Worker: “Hello, Mr. Jones. It’s good to see you. How have things been going for you since we last met?”

Patient: “I’m good. I haven’t drank at all since our last meeting. I was thinking about some of the things you said in our first meeting. You know, about how alcohol might affect my depression. And my HIV. Or my hepatitis. Sometimes I get really depressed just thinking about all my health problems. Drinking doesn’t really help any of it. Not even when I’m drinking at little – just for fun. And I also wanted to earn more of the draws. I was really bummed that I didn’t get to keep that \$30 from the PEth test. This time, I wanted to be sure I get to keep whatever I draw.”

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Typical Sessions – Weeks 6 and 9 (continued)

Social Worker: “That is really good to hear! Going three whole weeks without drinking is a big step. You must be really proud of yourself for that.”

Patient: “Yeah, I guess so. It wasn’t easy at times. My girlfriend drinks a lot. It’s hard not to want to drink when she’s got a bottle of wine.”

Social Worker: “I’m sure that was difficult. How did you manage to not drink when she was?”

Patient: “I just told myself I wasn’t going to do it. I don’t really like wine. She never has beer or anything else. So, if I didn’t buy it, we wouldn’t have any at home. I tried to not go out with the guys since we last met too. I knew it would be even harder to avoid drinking around them.”

Social Worker: “That was a very good plan. You avoided a lot of people you used to drink with, and you didn’t buy any more beer or liquor for your house. You also didn’t drink any wine, even though your girlfriend was. Did you talk with her about why you’re cutting back, or about this program?”

Patient: “She knows I’m in this program. And that I’m winning prizes. I told her I could win more if I stopped drinking. I thought I’d give it a try, at least for the next few weeks.”

Social Worker: “How about her drinking? Do you think she’d consider cutting back too?”

Patient: “I don’t want to go there. She drinks every day. I never even did that. I don’t think she’s an alcoholic, but she drinks a lot. She doesn’t want to stop, though. I don’t think she ever would.”

Social Worker: “She may not want to stop drinking, but do you think you could talk with her about not drinking at home, or at least not when you are at home? Are there ways she could support you in not drinking?”

Patient: “I don’t know. That’s a tough one. She thinks it’s great, about the prizes and all. But I just want to focus on myself right now. If she drinks in front of me, it doesn’t bother me as long as I don’t have beer around.”

Social Worker: “Not keeping beer and other liquor at home will be important for you then. I know you mentioned you didn’t buy any, but do you have any around your house that may tempt you?”

Patient: “No. That wouldn’t last long around my house!”

Social Worker: “Okay, well, at least that problem is solved then. If you don’t buy more and don’t hang out with your drinking buddies, you can stay focused on testing negative on both the breath and alcohol tests. Let’s do those now.”

Note: Assuming the breath sample was negative...

Social Worker: “As you thought, your breath sample is negative for alcohol and you earn three draws today for that. Let’s have you roll up your sleeves and do those draws now. Let me see your palm opened first. That is one of our rules, as you know.”

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Typical Sessions – Weeks 6 and 9 (continued)

Patient: “Yup. Here goes. Good job, Medium – Yes! And, another Good job.”

Social Worker: “Hey, that is good. \$5 today just for a negative breathalyzer. You get more draws for the PEth test, and as you know you get to keep whatever earnings you make today if they come back negative, hopefully early next week. So, it’s five draws for the PEth test now.”

Patient: “Come on! Big money! One, two, three, four, five. First one is Medium. Another Medium. Good job. Another Medium! And, the last one, another Good job. Darn.”

Social Worker: “That’s still \$15! I’ll put that amount in the “bank” for you. I’ll let you know when you can get it once I get the PEth results back. As you said, it’s very likely to be negative this time if you didn’t drink at all for three weeks. Now, let’s talk about your depression. Did you get and fill a prescription and start taking the antidepressant?”

Patient: “Yes, I did. I have the bottle right here. I did start taking it, but just yesterday for the first time. I have to admit, I am still worried about it. I just don’t like putting all these drugs in my body.”

Social Worker: “I can understand that, but I also think you’ve been suffering from depression for a very long time. You been seeing a therapist for a couple of years now, and although it’s helping, it doesn’t seem to be enough. The mental health folks thought you ought to give the medication a fair try. I’m glad you got the prescription filled and took one dose. What do you think? Can you keep that up and try taking it every day between now and our next appointment?”

Patient: “I guess so.”

Social Worker: “I can’t use taking meds as your activity for the next session, because I have no way of verifying that. But, I do think it’s very important that you try the medicine and take it regularly. I can give you the four draws you earned for filling that prescription. Do you want to do those now?”

Patient: “Okay. Good job. Medium. Good job. Large! Yes, I got a Large!”

Social Worker: “I’m so happy for you. That’s \$30!”

Patient: “Pretty good for one day.”

Social Worker: “And, you can get even more next time, especially if those PEth tests come back negative. Let’s talk now about what activity you’d like to do between now and next time I see you. It can be another type of activity related to working on your depression, or it can be one related to addressing your HIV or Hepatitis C, as I know you also mentioned those as being troublesome for you.”

Patient: “They are. Sometimes when I think about them, it just makes me more depressed. Like, why even bother. I know I have to take HIV meds. I’m doing that. But I don’t see why I have to go all those other appointments. Every time I go to a doctor, that one wants me to see another one!”

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Typical Sessions – Weeks 6 and 9 (continued)

Social Worker: “So, I hear you are taking HIV meds, and that is great. That is very important for keeping your viral load low. What other appointments have you been recommended to make?”

Patient: “You know, a hepatitis nurse, my HIV doctor, and let’s not forget about mental health now too!”

Social Worker: “I see. That is a lot of appointments. When was the last time you saw a provider for Hepatitis C?”

Patient: “That’s the thing. I don’t see why my HIV doc can’t take care of it. Why do I have to see someone separate for hep?”

Social Worker: “I’m sure that if your HIV doctor recommended a hepatitis specialist it was for a good reason. Maybe there is something he is unsure about, and he wants another specialist to look at. Is that what happened? The last time you saw your HIV doctor he wanted you to see someone else for hepatitis?”

Patient: “Yeah. I don’t remember the nurse’s name he wanted me to see. I never made that appointment.”

Social Worker: “That is something that could be a perfect activity for next time. Let me pull up your medical chart and see if there is a note about who he referred you to. Yes, I see it right here. Mr. Greene; he is a nurse practitioner here in the clinic. I can find his number too. Why don’t you stop at the front desk right now, and see if you can get in to see him. If they have an appointment before our next session and you attend, that will get you five draws. What do you say? I think it would be fantastic to see what he has to say about the new treatments for hep, and if you can benefit from them.”

Patient: “Really? That’s what you want me to do? Go to another appointment?”

Social Worker: “If you really don’t want to see a hep specialist, even five draws won’t make you go. But if your medical problems are making you feel depressed and worried, then it’s best to see what he has to say. Making the appointment is the first step in that direction.”

Patient: “I’ll stop at the desk on my way out.”

Social Worker: “I think you’ll be glad you did. After you talk to them, let’s see whether he can see you before the next time we are scheduled to meet.”

Patient (after checking at the desk): “No, that won’t work. They can’t fit me in until July 6.”

Social Worker: “Well, attending that appointment can be the activity for your final week with me. Between this and our next session, we’ll need to come up with something else. One thing you might want to consider is reading up a bit about the new Hep C treatments. I have a couple of websites that are good. Here (hands him a list). How about you read them, and print out some of the information and come to me with at least three questions about Hep C that you want to ask Mr. Greene?”

Patient: “Okay. That sounds fair. I can just print out some pages for these and come up with questions?”

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Typical Sessions – Weeks 6 and 9 (continued)

Social Worker: “Yes, but remember this is for you, and for your health. So spend some time researching Hep C, and maybe its interactions with alcohol. Print out what you find to be the three most informative pages, websites, or sections for me. And come prepared with three specific questions to ask Mr. Greene based on what you read or what you want to know.”

Patient: “I can do that.”

Social Worker: “One thing that really helps depression is feeling you are taking control over things in your life. Learning more about Hep C, and its new treatments, will help you feel a bit more in control about it. Not drinking can also help you feel more in control of your life and your health.”

Patient: “I know. I’ve felt better, physically and mentally, by not drinking these past few weeks.”

Social Worker: “Those are things I like to hear! Let’s keep those good and healthy feelings going. Here is our reminder sheet for our fourth session. You can earn four draws if you breath sample is negative, and six if your PEth sample this week and next time are negative, and five draws for printing out your three favorite Hep C websites and writing down three specific questions for your appointment with the hepatitis provider. Fifteen draws! And I’ll call you in a few days with the PEth results. Hopefully, you’ll get that \$15, plus more earnings from fifteen more draws next time I see you!”

At the end of the week 9 session, mention that termination is approaching (see below).

After the session, the Social Worker should complete the tracking form in full. The Research Coordinator should enter all information into REDCap (i.e., number of draws earned; whether activity was completed; planned activity prior to week 12).

Last (Termination) Session – Week 12

Many patients are somber about CM ending. The CM, even if brief, has been a significant positive aspect of their lives, and it is now ending. Therefore, the Social Worker should inform the patient at the second to last session (week 9) that termination is approaching to provide the patient with the opportunity to reflect and express any feelings or thoughts regarding the upcoming transition.

After reviewing the breathalyzer result and prior PEth results along with the final activity contract, award the patient his or her draws and any prized earned. Earnings from PEth draws, as always, are put on hold until the results come in. This process should take ten to fifteen minutes. The rest of the session can focus on helping the patient evaluate their experiences and establish goals for the future.

During this process, it may be helpful to review with the patient all of his or her activity contracts and breath and PEth results. This review process may help the patient see changes and progress made since the start of CM. Also, alcohol abstinence can be reviewed to help the patient note periods of abstinence, notice any slips, and gain a better understanding of his or her sobriety and progress over the past three months. *The following questions may be used as a guide in this process:*

1. What goals did they accomplish?

Initially, what goals did they have for treatment? Did they make significant progress on any goal areas? What parts were easy, and what more difficult? Do they plan to keep setting goals and making small progress on them weekly?

2. Alcohol Abstinence

Were there any periods of abstinence? How long? If they were able to not drink for some period, what helped? How did they manage it? What changes did they notice when they weren't drinking? Was it enjoyable? What helped them not drink? What made it hard? Do they have any plans to stop drinking?

What did they learn about themselves during treatment?

Overall

What did they think of this program before they started? How did it change across time? What influenced the change in perception of the program?

What did they like best about the program? What did they like least? Would they recommend it to friends? What helped them the most? Why?

Overall, this discussion should end with the question of where the patient goes from here, and how to keep the successes going. If the final PEth result comes back positive, the patient will have the opportunity to come back for the Motivational Enhancement Therapy sessions with the Social Worker and Addiction Physician Management. If the PEth is negative, the patient will be congratulated and encouraged to continue with their successful efforts.

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Last (Termination) Session – Week 12 (*continued*)

Some patients may attribute success they have had to the wisdom, concern, and thoughtfulness of the Social Worker. For example, a patient may say, “You’ve helped me so much, I really can’t thank you enough.” However, these remarks implicitly deny the role and actions taken by the patient during treatment and prevent the patient acknowledging responsibility for progress made. While the Social Worker cannot stop a patient from expressing their gratitude, be sure to reframe the patient’s accomplishments in a way that empowers the patient to see the change and see himself or herself as the agent of change. This can be done by simply indicating the patient’s own contributions to treatment.

Patient: *“Thank you so much for all you’ve done for me. If it weren’t for you, I would never have done so well. You really helped me.”*

Social Worker: *“Thank you Mr. Wells, but really you were the one putting in all the hard work. The good things that are happening now in your life are the result of your efforts.”*

Goal-related Activities: General Considerations

a. Building upon prior activities.

Each session's activities should build upon those from the previous sessions and promote further progress and new goals. Examples of how subsequent weeks progress were shown above, and more examples are described below. *This discussion may initiate with something like the following:*

Social Worker: *"It sounds as though you are doing a really good job reducing your drinking. That is great! You will want to keep that up in order to earn more draws at the next visit. Often, I know, when people smoke, they are also more likely to drink and vice versa. I think last time we met, you were working on getting medications to help you stop smoking, and stopping smoking may make you less likely to have urges for drinking. How did that go? Did you get those meds?"*

Patient: *"I talked to my doctor and he gave me a prescription for nicotine patches and gum, but I don't like the taste of the gum. I am using the patch – you can check in the computer. But I'm still smoking."*

Social Worker: *"It sounds like the patch was a good start for you, even though you are still smoking. Did you talk to your doctor to see if there are other flavors or gum or other alternatives like the lozenges?"*

Patient: *"No, my next visit isn't for a month."*

Social Worker: *"Okay, well you can stop at the front desk to see if they can see you earlier, or even give you some advice about alternatives to the gum. When they gave you the patch and gum, what did they tell you to do if you didn't stop smoking while using them?"*

Patient: *"I don't really remember. I thought it was going to be easier to stop with the patch, but it doesn't seem to be helping much at all. I guess they did mention a smoking cessation group."*

Social Worker: *"Yes, there is a smoking cessation group here in this building on Tuesdays at 4 pm. Would you like to sign up for that?"*

Patient: *"I guess so. That might help."*

Social Worker: *"It has helped a lot of people to stop smoking. Let's put that down for your next activity. If you go to that group next Tuesday, you'll get five draws next time I see you. Since we are able to see that you filled your nicotine patch prescription, you can draw from the fishbowl now four times."*

The drawing occurs next. Following the selection of slips, the conversation may continue as usual.

b. The goal is for the patient to succeed (but not reinforce what the patient is already doing well).

This therapy is based on principles of positive reinforcement. We would like every patient to be abstinent from alcohol and complete their activities between CM sessions. So, when something does not work out,

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Goal-related Activities: General Considerations (*continued*)

try something new. In contrast, patients who are doing well at accomplishing a particular goal should be encouraged to continue in that same fashion. Therefore, if they are going to one or two AA meetings each week, you can continue to assign weekly meetings between the next CM sessions.

Although we want patients to succeed, we also want to use drawings as an incentive to move them along a little further than they may move without the tangible rewards (*see Building on Prior Activities*). You may encourage patients who have attended two AA meetings weekly to go for three meetings per week. However, if the patient seems unsure or unwilling to try for three, then you should back down. Attending two AA meetings per week for three weeks is probably very good progress, and we would prefer that the patient continues succeeding at that level, rather than increasing the number of meetings and the patient failing at it.

Often, patients will overestimate their own abilities and want to set unreasonably ambitious activities, such as attending five meetings a week every week for the next three weeks. Unless the patient has already successfully attended multiple meetings in a week, you should not set such difficult activities. ***What you can say instead is:***

Social Worker: “Ms. Singleton, it’s great that you want to go to five meetings every week. I think that would be wonderful. However, since this is your first time at AA in a very long time, how about if you go to one meeting between now and next time I see you, you can draw three times next session. If you go to more than one meeting, that’s even better, but to make sure you get your drawings, why don’t we try one to start with?”

c. Two-time rule

Another strategy that has been useful in encouraging successful completion of activities is to have a “two-time rule.” If a patient fails to complete any particular activity twice, then that activity is no longer one that you will keep setting. For example, a patient may state for two sessions in a row that s/he wants to see a doctor for Hepatitis C treatment. But, two sessions in a row, s/he comes back and states that s/he did not have time or for whatever reason the activity was not completed. You then would focus on another activity, and possibly even another goal area.

If patients continuously fail at a task, they may become disheartened, which in turn may result in them not even attending the CM sessions. Often, they have good intentions of doing a task, but their inability to complete it may represent ambivalence. In this case, the patient may be unsure that s/he really wants to get HCV treatment. ***What you might try instead is:***

Social Worker: “Ms. Singleton, it seems as though this might not be a good time for you to start Hep C treatment, or maybe you’re not sure if you really want to do it. Why don’t we try some other activities? If in a couple of weeks you still want to start Hep C treatment, you can certainly do it then.”

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Goal-related Activities: General Considerations (*continued*)

d. Keep focused on goals. Reassessment of goal areas as needed.

Another concept to keep in mind is that the goal areas for each patient should be focused. While a patient may be talking about his or her specific activities and things that happened between sessions, you may need to redirect them. An example of this may be a patient who is describing his problems with a significant other in detail. He may be relating specifics of a recent argument with his partner. **You may have to redirect some conversations, by stating something to the effect of:**

Social Worker: *“It sounds like you’re still having problems with your partner. But let’s talk a bit about what you’re going to do next week to stop drinking. You have abstinence down as your main goal area. What do you want to do between now and your next visit to make sure you reach your goal?”*

You also will need to reassess goal areas on occasion. Once sufficient progress on a goal area is completed, a new goal area may need to be selected. **An example of reassessing goal areas is below:**

Social Worker: *“It sounds like you were able to successfully start Hep C treatment. That is great! Let’s think about what new goal area you want to work on now. I remember when you started this program you mentioned that maybe you wanted to stop smoking. Do you think you want to consider asking your doctor about starting some medications for smoking cessation?”*

Patient: *“No, I tried one about five years ago, and I didn’t like the way I felt.”*

Social Worker: *“If you didn’t like one medication, there are more now, and some people even stop smoking without medications. Is this still an area you want to work on – stopping smoking?”*

If the patient is no longer interested in that goal, then consider another, such as addressing depression.

e. Verifications

The types of verifications for activities have been described above and are also included in the chart in the appendix. The basic principle is that you want to be able to objectively verify activities that patients select. Objective verification means an outside source or proof of activity completion is obtained. The most straightforward example is a dated receipt or a documented visit or prescription in the Computerized Patient Record System (CPRS).

Some things cannot be objectively verified (or at least not easily), such as taking medications. You can encourage patients to do these things on their own, and verbally praise their efforts in such areas. At the same time, offer other suggestions of activities that can be verified for the purpose of the draws.

Because tangible items are provided for compliance, some patients may try to “cheat the system,” and provide forged verification. They may, for example, bring back a signed slip from an AA meeting, but sign it themselves. While preventing all instances of cheating is unrealistic, you should be aware that it may occur and try to prevent it from happening whenever possible.

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Goal-related Activities: General Considerations (*continued*)

Here are some methods for handling cheating when you suspect it:

One way to prevent cheating is to let the patients know you are well aware that it may happen and that you are doing everything you can to stop it. So, in the case of a signed AA slip, the Social Worker should require a first name and phone number of the chair or person signing it. You can, and should, follow up with phone calls at least a couple of times. You can even do so with the client there.

Another approach to handling cheating is described in the next section about patients who do not want to do anything or who are not working very hard at the activities. Often, discussions about this issue are useful, and reminding patients that this procedure is meant to help them – they can get as much or as little out of the program as they put into it.

If it becomes very obvious that verification for an activity has been fabricated, you do not want to provide drawings for it. ***You may handle these situations in the following manner:***

Social Worker: “Mr. Williams, I appreciate that you want to get your drawings, but I can’t accept this AA signature sheet because I saw you filling it out in waiting room before you came in. So, why don’t we decide on something you really want to do for the next session?”

Patient: “So, you mean I can’t draw for this?”

Social Worker: “No, you can’t get the draws for AA attendance. Let’s find something else you really want to do before the next session, okay?”

Often other professional staff may verify activities. However, if speaking with outside staff, be sure to be conscientious of confidentiality requirements, as described in the good clinical practice training. Never provide information about the patient, unless you have obtained written releases of information.

While professional staff can be used to verify activities, **you should not allow other patients or personal friends or family members of patients to verify activities.** This practice is prohibited because patients may coerce others to “cover” for them, or alternatively, another person, if upset with a patient, may state the patient did not do the activity to get him or her in trouble. Although it is often tempting to list a phone call or a letter from a parent or friend as verification (e.g., for medication adherence or attendance at AA meetings etc.), this should always be avoided because of the possibility of discord.

f. Selection of activities and handling resistance to activities

Introducing the activities.

Please stick to the list of activities provided in the manual. These have been specifically chosen due to their therapeutic value for patients in the **FIRST Trial**. To help patients choose from this list, use the technique from Motivational Interviewing called Elicit-Provide-Elicit:

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Goal-related Activities: General Considerations (*continued*)

Elicit from the patient what activities can improve their health, i.e. “What are some healthy activities you can imagine doing to assist you with the concerns we identified when we completed your Personal Needs Assessment?”

If some of the activities elicited from the patient appear on the **FIRST** list, then reflect the responses and identify (**Provide**) those that appear on the **FIRST** list of activities, i.e. “You identified x, y, z – these are excellent activities that can improve your health; in addition, you mentioned a, b, c and those also happen to be on this list of activities that will earn you rewards.”

Elicit from the patient which of those he/she would you like to choose.

If none of the activities **Elicited** from the patient appear on the **FIRST** list, then reflect those and **Provide** the list of activities as an opportunity to improve one’s health AND earn rewards, i.e. “You identified x, y, z – these are excellent activities that can improve your health. Here’s the list of activities that not only improve your health but also earn you rewards.”

Elicit from the patient which of those he/she would you like to choose.

Some patients may not be enthusiastic about selecting or doing activities. They may continuously state that they cannot think of any activities they want to do and they may reject all the possibilities that you suggest for activities. This type of resistance should be taken seriously, because it may mean that the patient may be in danger of dropping out of the treatment and study completely.

The Social Worker can discuss openly and honestly with the patient what they would like to accomplish. Have them come to the next session with different activities that they want to do, within the spirit of the program and for which objective verification is possible.

For participants who are not excited about any of the activities, the lack of excitement or ambivalence about the list of activities is likely due to the patient’s belief that: (a) he/she is unable to complete them, (b) he/she believes they are not worth completing, or (c) a combination of both beliefs.

Ask the patient to rank-order five activities that he/she thinks are of most value to his/her health. Use the **Importance and Confidence Rulers** to enhance motivation to complete the one ranked first.

For example: “You ranked going to an AA meeting as your highest ranked activity. On a zero to ten scale where zero means not important at all and ten means the most important imaginable, how important is going to an AA meeting to you?” After the patient provides the number (X), ask why X and not (one less than X), e.g. “Why is going to an AA meeting a four and not a three?” If the patient doesn’t identify the CM draws as one of the reasons, then bring it up as an additional reason. Then ask: “On a zero to ten scale where zero means no confidence and ten means complete confidence, how confident are you that you will go to an AA meeting?” After the patient provides the number, ask why X and not (one less than X), e.g. “What makes your confidence to attend an AA meeting a four and not a three?” Then ask, “What would it take to raise your confidence above a four?” Reflect the response and troubleshoot identified challenges.

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Goal-related Activities: General Considerations (*continued*)

Another approach that has worked well with patients who act as though they are scorning the procedures is to state frankly that they can make a joke of this or they can get something out of it. The choice is theirs. They will only get out of the program what they put into it. **An example is:**

Social Worker: *“Ms. Sheffield, I know you don’t think that these activities are very useful to you. So, maybe you should decide upon activities that WILL be useful for you.”*

Another related problem is that of patients who only want to draw, and therefore select the easiest activities that they can, with little or no motivation to really change their lifestyles. Although the goal of the activities is to have patients succeed, we do not want to reward them for doing simply the same things they have been doing for years. One approach that has worked in these cases is to tie together two activities into one, and they need to do both to earn the reinforcement. This approach was outlined earlier, as patients called for appointments AND also had to attend them to earn the reinforcement.

Lastly, **for patients who refuse to select any activity:** Affirm the patient’s autonomy and ask permission to explain the implications of his/her decision with respect to CM earnings.

For example: *“At the end of the day, you are the one who decides what is in your best interest to do. I just want to be sure you have all the information you need to make the best decision possible. Would it be okay if we reviewed what your decision means in terms of your available earnings?”*

If the patient consents, thank him/her and state: *“If you decide that you don’t want to do any of the activities on the list, that means you’ll not only miss the opportunity to make X draws at our next CM session, you’ll also miss out on a total of Y draws overall.”* Multiply Y by \$8 and state: *“That’s an average of about \$XX you won’t have towards buying that (desired item). With that in mind, what do you think about taking another look at the list?”*

If the patient doesn’t consent, provide an amplified reflection (in a matter-of-fact tone with no sarcasm whatsoever): *“After reviewing the list of the activities, you’ve decided that they’re so unappealing that you’d rather give up an average of about \$XX in earnings towards that (desired item) than do any of them.”*

Hopefully, the patient will try something new that may assist in developing lifestyle changes. Also, remind them that the real focus should not be what they win in the drawings, but how they may use these activities as an opportunity to improve their life. By selecting meaningful activities, patients can win in both ways – personally and by getting prizes.

Other and General Issues

Patients with Low Literacy

Approximately 10%-15% of patients are functionally illiterate. While the majority can read and write to some degree, many have a hard time with complex written language. You will have a sense of each patient's reading ability from the intake evaluation. The patient writes the activity contracts, as then he/she may remember it better and feel more in control of their selections. In some cases, the Social Worker may write the contract or draw pictures to remind the patient of his or her activities for the upcoming week, or you can tape record the activities, as we have also done for patients who are blind, depending on the preference of the patient.

When using written language, be sure to write legibly on the contracts, using block capital letters and simple words whenever possible. You can gauge their level of writing and reading ability by reviewing their contracts, which you will photocopy at the end of each session.

Intoxicated Patients

Patients who provide a positive breathalyzer test and/or who are intoxicated

If a patient shows up intoxicated for a CM session, the session is to be canceled and rescheduled for a later date. The draw schedules for BAC and likely PEth will be reset due to intoxication. Treatment is not beneficial to patients when they are intoxicated. From our experiences, we anticipate that patients presenting for CM sessions while intoxicated will be a low frequency event.

In addition to canceling the appointment and asking the patient to leave the clinic, encourage the patient to call the AA or NA Hotline, a sober friend, or his/her sponsor if possible. Also, the patient is to arrange for transportation home via a significant other, cab, or friend. They are not to operate a motor vehicle or bicycle while intoxicated, as they are a danger to themselves and others. Police or ambulance may be contacted if the patient attempts to drive away or is so grossly intoxicated that he/she may not be able to safely return home.

Patients who report recent drinking, but have a negative breathalyzer

As long as the patient does not have a positive breathalyzer, they can complete their draws. Although patients' self-report and providers' clinical judgment have no bearing on the reward (draw) schedule in CM, patients should be praised for their candor and for appearing for the CM session, especially when they are not expecting to conduct draws and earn rewards. The patient may question why PEth draws are being conducted despite his/her admission of drinking. Reflect the concern and ask permission to explain the rationale from the behavioral perspective. That is, the draws are conducted because: (a) the test is the exclusive judge of reward in the CM system (and we cannot change the rules we presented to you at the time you agreed to be in the study), (b) if the test is positive, the patient will be made aware of the missed opportunity (the amount you earned from the draws) related to the patient's drinking behavior. Associating the patient's drinking behavior with missed earnings will reduce the appeal of drinking, and (c) if the test is negative, they will receive the rewards for having limited/reduced their drinking even though they may not have been completely

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Other and General Issues (*continued*)

abstinent. In this case, be sure to note that total abstinence is the best (most certain) option for earning rewards for BACs and PEth.

Regardless of the value of the slips drawn for PEth, always remind patients of the escalation process. In that way, even if the draws yield no monetary value (all Good Job! slips) the patient is aware that his/her drinking did not come without a cost, i.e. they re-set the draws. Do the math with the patient to demonstrate the power of escalation and re-set.

For example: Say a patient has a positive PEth at week 3. Not only are the value of the five PEth draws unavailable to him/her, but the number of future draws is also far lower. That is, instead of earning $5+6+7+8=26$ draws for consistent abstinence, that positive PEth at week 3 means the patient earns $0+5+6+7=18$ draws. At nearly \$8 per draw, that difference of eight draws is a missed opportunity to earn an average of \$64 (and that's if the five draws at week 3 were all Good Job! slips).

Here are the calculations of missed opportunities for positive PEths at weeks 6, 9, and 12:

Positive PEth at week 6: $5+0+5+6=16$ draws... not just a missed opportunity to make six draws at week 6, but a missed opportunity to make ten more draws overall. That's an average of almost \$80 in missed earnings.

Positive PEth at week 9: $5+6+0+5=16$ draws... not just a missed opportunity to make six draws at week 6, but a missed opportunity to make ten more draws overall. That's an average of almost \$80 in missed earnings.

Positive PEth at week 12: $5+6+7+0=18$ draws... instead of twenty-six draws. That's an average of almost \$64 in missed earnings.

Patients who Deny Drinking with a Positive BAC or PEth

This may be one of the more difficult situations to handle. We always go by the results of the objective tests for awarding draws. **An example appears below:**

Social Worker: "Mr. Pruitt, unfortunately your PEth test from our last session was not negative for alcohol, as we discussed a couple weeks ago by phone."

Patient: "I know. I told you then your test was wrong. Even you said it couldn't always tell how much people drank. I haven't drank in over a month!"

Social Worker: "Mr. Pruitt, like we talked about earlier, we have to go by what the test results say, and for some people it may take even longer than three weeks of no drinking for that test to read negative. So, unfortunately, you won't be able to keep that "Large" prize you drew when you were here at our last session. But you have shown that you can get draws. Your breath sample is negative, and you can still get the four draws for that, and for attending an AA meeting too, if you did that."

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Other and General Issues (*continued*)

Patient: “Yeah, but I haven’t had a drink in over four weeks! Could it be my mouthwash or something making it still read positive?”

Social Worker: “I know it is hard to stop drinking altogether, and some people may require longer than others to get a negative test. Mouthwash won’t register on our test. But if you don’t drink at all between today and our next session, your PEth result should definitely be negative then.”

In this example, the patient denied drinking and brought up the potential of an invalid test result. Rather than arguing with the patient or offering to retest the patient, the Social Worker instead brought up the program rules – that all draws are based on the test results. The Social Worker also brought the conversation back to how draws can be won in the future, rather than focusing on the loss of reinforcement or the patient’s denial of drinking.

If a participant refuses to provide a BAC or PEth sample, the sample will be considered positive. The patient earns no draws that day, and draws reset at the next session. If a PEth test is collected but unable to be processed, have the patient return as soon as possible to provide another sample.

Unexcused Absences

Another difficult situation can arise when a patient fails to show up for a scheduled session or refuses to provide a scheduled sample. In some such situations, the patients realize that their draws will reset, especially if they have been reminded several times throughout the CM program that missed samples will result in resets. In other cases, patients may deny knowledge of the reset criterion for missed samples, or try to argue for an exception to the rule. **Responses to these situations are as follows:**

Patient Knows Reset Will Occur

An example of a dialogue that may occur when an unexcused absence occurs but the patient is prepared for a reset in reinforcement is outlined below.

Social Worker: “Hi, Mr. Smith. Good to see you today. I missed you at the last session when we were scheduled to meet.”

Patient: “Yeah, I know. I was supposed to come in, but I overslept.”

Social Worker: “I see. I’m glad you made it back in, though. Sometimes it’s hard to come to treatment after missing a session.”

Patient: “No, I just overslept that day. I’m not dropping out. This program is doing too much for me.”

Social Worker: “I’m glad to hear it. Have you drank at all since I last saw you?”

Patient: “No. I have been really good. I didn’t drink at all.”

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Other and General Issues (*continued*)

Social Worker: “I did see your breath sample was negative, so you get one draw for that today.”

Patient: “Yeah, I knew it would be. I remember you telling me that I had to reset if I missed a session.”

Social Worker: “That is great that you aren’t drinking and you remember the rules about resets.”

Patient: “Yeah, you told me about that.”

Social Worker: “Had you given me a call last week when you woke up, I could have rescheduled your appointment for a little later in the day. Then, you would not have needed to reset.”

Patient: “I guess I just knew I blew it, and I didn’t feel like coming in anyway.”

Social Worker: “Just keep that in mind for the future. If you know you’re going to miss an appointment, at least give me a call, and I’ll see what I can do to help you out. The good news is that you get one draw today for a negative breath result. Let’s have you roll up your sleeves and see what you get!”

Patient: “Hey, at least I got a Medium!”

Social Worker: “Great! Are you still planning on saving up for a TV or do you think you’ll want to spend that today on something at the Canteen?”

Patient: “Well, I’m still hoping for that TV, but today, I’m probably going to get some food.”

Social Worker: “Sounds good. And you will get five draws for your PEth test today, but we’ll save those winnings until the results come back.”

The session would proceed as usual, and the activity draws (if applicable) would also reset to three due to the unexcused missed session.

As noted in the preceding example, the patient was not surprised or upset about draws resetting. When patients are adequately informed of the reset contingencies, they will be less likely to contest them when they occur. However, some patients may still get upset when resets occur, as shown in the next example.

Patient Denies Knowledge of Reset Criteria and Tries to Argue for an Exception

One of the most difficult aspects of CM sessions is when patients are upset about the rules and try to ask for exceptions. This situation can get tricky related to unexcused absences, especially if the rules are gray. Thus, it is highly recommended that you try to outline potential situations that could arise and how these situations ought to be handled prior to beginning your CM program. If the rules are known ahead of time, it is much easier to refer an unhappy patient toward them. At the same time, remind the patient that the rules were designed for a reason. You have to follow them, but at the same time you want to do everything you can to help the patient so that they can get all the reinforcement possible.

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Other and General Issues (continued)

Social Worker: “Hi, Mr. Rucker, how are you today?”

Patient: “Oh, pretty good, I think.”

Social Worker: “That is good to hear. I missed you at the last session. What happened?”

Patient: “My car broke down on the way in here.”

Social Worker: “Really? That’s too bad. Did you get it fixed?”

Patient: “Yeah, it was just some belt. My buddy fixed it yesterday.”

Social Worker: “That’s good, but I wish you had called me to let me know. I was expecting you.”

Patient: “My cell got cut off a few months ago, and I don’t have a phone. It’s hard to call.”

Social Worker: “I see, but without calling in or my knowing anything about your whereabouts, I have to count that as a missed appointment.”

Patient: “What does that mean?”

Social Worker: “Like we talked about earlier, if you need to miss an appointment for any reason, you need to let me know. A missed sample resets your draws. So, we got your breath and blood samples today, and your breath sample is negative, so you’ll get one draw for that and five draws for the PEth sample, but of course, I can’t give you those earnings until the sample results come back in about three days.”

Patient: “You gotta be kidding me! My car breaks down and now you’re making me go back to one draw when I was up to four for the breath samples and like seven for the PEth samples? That’s not fair!”

Social Worker: “I know it might not seem fair to you right now, but we did talk about this during our first visit. We really need you to come in for all your scheduled samples and sessions for you to stay at the high number of draws.”

Patient: “Forget this. This is ridiculous. I’m just going to quit this program then.”

Social Worker: “I know you are upset, and I know this isn’t good news. But quitting the program probably isn’t in your best interests either. You are already here, and you get at least the draw for you negative breath sample, as well as three draws if you finished your activity, and the five draws, with results on hold, for the PEth test. That is certainly better than no draws. And next time I see you, the draws will go up.”

Patient: “Can’t you make an exception? Jeez. I haven’t missed a single other appointment.”

Social Worker: “I know you haven’t, and I know how well you are doing. I also know you can continue to do well. Why don’t we go ahead and do those draws?”

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Other and General Issues (*continued*)

In the preceding example, the Social Worker was delicate in terms of her discussion of approaching the missed appointment, the reset, and the request for an exception. ***If the patient continued to push the concept of an exception, the therapist could have responded something to the effect of the following:***

Social Worker: “I know how unfair it seems. But just imagine if we let everybody have exceptions. We would no longer have any rules, and this whole program would be meaningless.”

Or...

Social Worker: “Let’s try to focus on the positive. You have won a lot of good prizes already, and if I remember correctly, you also got a Large the very first time you drew from the bowl. So there is no saying you might not win some good prizes today too!”

Lumping or Splitting Draws During a CM Session

Draws should be split and not lumped. Just like birthday presents, it is best to get a bunch rather than one big one. Lets say, for example, that a patient gets three draws for a negative breathalyzer and five for completing an activity. Rather than having the patient do all eight draws at once (lumping), split the draws into two different events. For instance, you can say, “Ok, now you get the three draws for your negative PEth. Wow, you got a \$5 coupon and two good jobs! Ok, now let’s do your five draws for attending the HCV treatment group. Wow, you got another \$5 coupon.”

Guiding Patients on Saving Up of Coupons

You should not necessarily encourage patients to save up coupons. You should let the patient decide which gives them more satisfaction. Although our clinical intuition suggests that we should encourage saving because an important part of recovery is learning to delay gratification, the research on saving coupons versus spending them suggests that it’s best to let the patient decide whether to save or spend. That is, CM’s goal is to make behaviors like abstinence and healthy activities as immediately rewarding as possible so they can compete with the unhealthy behaviors (which are immediately rewarding and have long-term harms). So, if the patient derives the most satisfaction from spending, he/she should spend. Likewise, if he/she is more satisfied by saving for a larger cost item, then he/she should save. In either case, always inquire about how the patient will use (and derive satisfaction from) the rewards. This helps him/her associate their abstinence and healthy activities with rewards.

Excused Absences

There are times when patients have legitimate reasons for not coming to session. If the patient were negative prior to and following an absence, samples during the excused absence are considered to continue (i.e., not break) the string of abstinence. The patient will then not reset to the original low number of draws. Thus, when the patient returns from an excused absence, he will essentially return to the level of draws where he left off with no penalty.

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Other and General Issues *(continued)*

The best example of an excused absence is when a patient is in a controlled environment such as a jail or hospital. Sometimes, patients must travel out of town for a legitimate reason (e.g., a funeral), and other times they will have an important appointment on their scheduled session day. The best way to handle an excused absence is to try to reschedule the CM visit the same week, but this will not always be possible. The principle in dealing with excused absences is to remain flexible and supportive, but at the same time ensure the patient is not avoiding coming to the clinic when he might have a positive sample.

In the beginning of CM programs and occasionally throughout them, the Social Worker wants to impress on your patients that if they cannot meet with you for a scheduled appointment, they need to let you know. A phone call may suffice. As long as the patient calls, he or she may be excused for appointments, court dates, or even child care problems. The decisions about what constitutes an excused absence need to be considered, in conjunction with clinic rules and regulations, before initiating a CM program. Patients need to know what to expect if they fail to attend a session.

If the absence involves some sort of appointment, you should encourage patients to bring in documentation that the appointment was kept, if it is not already in the electronic system. You may need to exert clinical judgment and consult with others (primary therapists, supervisors, etc.) in some cases.

What follows is an example of how to handle a single missed sample due to an excused absence. In this situation, the patient was up to five draws prior to the absence.

Social Worker: *“Hi, Ms. Parker. Good to see you today. How did things go in court on Tuesday?”*

Patient: *“Oh, okay, I guess.”*

Social Worker: *“I see. Well, thanks for letting me know about the court date ahead of time, so that we could excuse your missed session on Tuesday. As you know, if you ever can’t be here, it’s important to let me know ahead of time so that we don’t have to reset your draws. You’re up to a high number of draws now, so you have a lot to gain by coming to all your appointments. You get four draws for your negative breath result and seven draws for your PEth test. As always, you get to keep the results from the four breath sample draws today, and any earnings for the PEth draws I’ll keep on hold until those results come back. Let’s start with the four breathalyzer draws.”*

The patient rolls up her sleeve and shows her palm prior to drawing.

Patient: *“Good job. Good job. Medium. And a Large!”*

Social Worker: *“That’s great! You drew a Large and Medium today. That’s \$30!”*

The remainder of the session would then proceed as usual.

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Other and General Issues *(continued)*

Referral for Additional Services

No single substance use disorders treatment approach has been shown to be effective for all patients, as individuals present with a wide range of complex situations. Many individuals have comorbid medical and/or psychiatric problems that if left unaddressed may interfere with their recovery. Therefore, during the course of treatment, a patient may be in need of additional care.

When a patient exhibits a significant degree of problems, impairment, or dysfunction in an area that is not being addressed sufficiently, **referral to another provider for additional services is warranted and allowed in the study**. For example, a patient with an opioid use disorder who is still actively using heroin would potentially benefit from a referral to a methadone program. Other referrals could include case management, family counseling, psychiatric medication evaluation, or AA/NA meetings.

Furthermore, some patients may already be receiving additional services such as methadone maintenance, outpatient group therapy, or family counseling. At the appropriate times, it is acceptable to inquire in a supportive manner about the patient's perceptions and satisfaction regarding these services. In general, Social Workers should be supportive of patient's efforts to seek additional services, and seeking and receiving such services can be set as an activity.

Cheating Prevention

It is possible that an occasional patient will try to cheat on the prize-picking procedure. Prevention of cheating requires that the Social Worker always be vigilant in observing and controlling the picking procedure.

The following guidelines are suggested:

- Be alert to any attempts at distraction. Have the patient remove outer clothing with long sleeves and/or roll up long shirt sleeves on the arm they will use to pick. Have the patient show you the palms of their hands prior to picking.
- Have patient place all slips on the table immediately after picking.
- Have patient turn palms of their hands toward you after picking.
- Place picked slips immediately back in the fishbowl that you can always see and control while patients are around.
- Inventory the slips at least once per month and preferably more often (e.g., once per week) to make sure you have the proper number of slips (100).
- Social workers should audit the fishbowl for slips that have developed identifiable markings; those slips should be replaced with new slips.

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Other and General Issues (*continued*)

Timing of CM Visits and Related Logistics

- Initial Social Worker CM visit ideally will occur within three days after randomization but may occur up to seven days after randomization.
- Follow-up CM visits should occur every three weeks over three months (five total sessions), but may occur up to one week earlier or later.
- CM visits should be digitally recorded; the Research Coordinator will then be responsible for saving them on the VA share drive.
- Whether CM visits occur, the associated behaviors and rewards should be tracked and entered into REDCap by the Research Coordinator upon completion of the CM visit.

Possible Activities			
TARGET	POSSIBLE ACTIVITIES	VERIFICATION	CONSIDERATIONS
Alcohol	Completion of online alcohol counseling module http://www.drinkerscheckup.com https://www.rethinkingdrinking.niaaa.nih.gov/ https://www.hiv.va.gov/patient/daily/alcohol-drugs/overview.asp https://vetchange.org/home/index2	Printouts, with questions answered or highlighted, lessons learned described, or certificate of completion	Patient needs computer access and Social Worker needs available websites
	Attend an evaluation for alcohol treatment (e.g., visit with a psychiatrist)	Electronic medical record review	Appointment needs to be available prior to next study session
	Fill a prescription for a medication to treat alcohol*	Electronic medical record review	Patient must already have a script prior to assigning this as an activity
	Attend one or more Alcoholics Anonymous (AA) meeting*	Signed slip (s) with meeting leader's name/phone number	Identify local meetings. Decide on specific meetings to attend.
	Find an AA sponsor*	Signed slip with name/number; Social Worker would call to verify	Only possible if patient is already engaged in an AA meeting
	Attend a mental health appointment for alcohol use	Electronic medical record review	Appointment needs to be available prior to next study session
	Complete counseling worksheets for alcohol treatment (as provided by any mental health provider)	Completed worksheets	Need to have specific worksheets on hand
HIV	Fill an antiretroviral medication prescription**	Electronic medical record review	Patient must already have a script
	Complete an online program about ART adherence https://www.hiv.va.gov/patient/treat/decisions-index.asp	Printouts, with questions answered or highlighted or certificate of completion	Patient needs computer access and Social Worker needs available websites
	Attend HIV support group	Signed/date slip by group leader	Need to have local HIV support groups
	Achieve an undetectable HIV viral load if previously detectable (>200 copies/mL)	Electronic medical record review	Patient needs to be on correct med to achieve this in 3 weeks' time. Must have a discussion with MD prior to setting VL level

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Possible Activities			
TARGET	POSSIBLE ACTIVITIES	VERIFICATION	CONSIDERATIONS
Smoking	Attend smoking cessation group	Signed form by group leader or electronic medical record review	Must know local availability
	Get smoking meds or OTC aids	Electronic medical record review or receipt for OTC	Must have a script for an Rx, or must be able to review OTCs
	Complete an online smoking cessation course https://smokefree.gov/veterans https://www.publichealth.va.gov/smoking/smokefreevet.asp https://www.hiv.va.gov/patient/daily/smoking.asp	Printouts, with questions answered or highlighted or certificate of completion	Patient needs computer access and Social Worker needs available websites
	Provide a negative carbon monoxide (CO) sample via study CO monitor (provided)	Submission of a CO negative sample	Research Coordinator must ensure test can be completed promptly
HCV	Attend an HCV appointment	Electronic medical record review	Can combine set and attend an appointment if appropriate♦
	Initiation of HCV treatment	Electronic medical record review	Can only do this if already approved for HCV treatment
	Attend an HCV support group	Signed/dated slip by group leader	Must know local availability
	Read about HCV online https://www.hepatitis.va.gov/hcv/patient.index.asp https://www.hepatitis.va.gov/hcv/patient/quiz.asp	Printouts, with questions answered or highlighted or certificate of completion	Patient needs computer access and Social Worker needs available websites

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Possible Activities			
TARGET	POSSIBLE ACTIVITIES	VERIFICATION	CONSIDERATIONS
Depression	Attend a mental health appointment (with a provider in the HIV clinic or mental health)	Electronic medical record review	Appointment must be set within the time frame between study visits
	Initiate or add medications for depression	Electronic medical record review	Need a prescription
	Complete counseling worksheets for depression treatment (as provided by any mental health provider)	Completed worksheets	Need to have specific worksheets available
	Complete online course on depression or review materials https://www.veterantraining.va.gov/apps/movingforward/index.html https://www.hiv.va.gov/patient/daily/mental/overview.asp	Printouts, with questions answered or highlighted or certificate of completion	Patient needs computer access and Social Worker needs available websites

*Only for those with Alcohol Use Disorder according to Mini-SCID

**Only for those with detectable viral load and who do not have an active prescription for ART

Scheduling alone may be very easy for many patients; this activity can be combined such that setting and attending an appointment that is scheduled in the next 3 weeks is reinforced, when appropriate and possible.

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Possible Activities *(continued)*

Other activities may also be possible, but the Social Worker should consult with a Research Coordinator or investigator prior to setting activities beyond those defined above. We need to ensure the activities are within the scope of the health and alcohol behaviors this study is designed to address, and that there is objective verification possible.

In cases in which a patient (or provider) thinks an activity beyond those above may be appropriate, bring it to a CM supervisor's attention. However, you need to set a specific activity before the patient leaves each session. Therefore, have the patient select one of these preapproved activities at the current session. They may be able to include the other new activity at their next session, after you clear it with the CM supervisor.

Online Resources

Alcohol:

<http://www.drinkerscheckup.com/>

<https://www.rethinkingdrinking.niaaa.nih.gov/>

<https://www.hiv.va.gov/patient/daily/alcohol-drugs/overview.asp>

<https://vetchange.org/home/index2>

HIV:

<https://www.hiv.va.gov/patient/treat/decisions-index.asp>

Smoking:

<https://smokefree.gov/veterans>

<https://www.publichealth.va.gov/smoking/smokefreevet.asp>

<https://www.hiv.va.gov/patient/daily/smoking.asp> (workbook link at bottom of web page)

HCV:

<https://www.hepatitis.va.gov/hcv/patient/index.asp>

<https://www.hepatitis.va.gov/hcv/patient/quiz.asp>

Depression:

<https://www.veterantraining.va.gov/apps/movingforward/index.html>

<https://www.hiv.va.gov/patient/daily/mental/overview.asp>

Reinforcement Schedule Overview

METRIC			
	Breathalyzer Test <0.003 g/dL	PEth test <8 ng/mL	Activity
Purpose	Current alcohol use	Recent alcohol use, reflecting past 21 days	Progress toward addressing alcohol use or medical condition impacted by alcohol
Visits potentially rewarded	Week 0, 3, 6, 9, 12	Week 3, 6, 9, 12	Week 3, 6, 9, 12
Initial reward	1 draw	5 draws	3 draws
Potential increase between visits	1 draw	1 draw	1 draw
Maximum associated draws at week 12	5 draws	8 draws	6 draws

$BAC = (1+2+3+4+5) = 15$

$PEth = (5+6+7+8) = 26$

$Activity = (3+4+5+6) = 18$

Initial Visit at Week 0		
	Week 0 Result	Week 0 Draws
BAC	<0.003 g/dL	1
	>=0.003 g/dL	0
PEth	n/a	0
	n/a	0
Completed Activity with Verification	n/a	0

Visit 1 at Week 3			
	Week 0 Result	Week 3 Result	Week 3 Draws
BAC	<0.003 g/dL	<0.003 g/dL	2
	>=0.003 g/dL	<0.003 g/dL	1
	<0.003 g/dL	>=0.003 g/dL	0
	>=0.003 g/dL	>=0.003 g/dL	0
PEth	n/a	<8 ng/mL	5*
	n/a	>=8 ng/mL	0
Completed Activity with Verification	n/a	Yes	3

*Earnings from PEth draws are not awarded until result comes back

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Reinforcement Schedule Overview (continued)

Visit 2 at Week 6				
	Week 0 Result	Week 3 Result	Week 6 Result	Week 6 Draws
BAC	<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	3
	>=0.003 g/dL	<0.003 g/dL	<0.003 g/dL	2
	<0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	1
	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	0
	>=0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	1
	>=0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	0
	<0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	0
	<0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	0
PEth	n/a	<8 ng/mL	<8 ng/mL	6*
	n/a	>=8 ng/mL	<8 ng/mL	5*
	n/a	<8 ng/mL	>=8 ng/mL	0
	n/a	>=8 ng/mL	>= 8 ng/mL	0
Completed Activity with Verification	n/a	Yes	Yes	4
	n/a	No	Yes	3
	n/a	Yes	No	0
	n/a	No	No	0

*Earnings from PEth draws are not awarded until result comes back

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Reinforcement Schedule Overview (continued)

Visit 3 at Week 9					
	Week 0 Result	Week 3 Result	Week 6 Result	Week 9 Result	Week 9 Draws
BAC	<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	4
	<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	0
	>=0.003 g/dL	<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	3
	>=0.003 g/dL	<0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	0
	<0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	<0.003 g/dL	2
	<0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	0
	>=0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	<0.003 g/dL	2
	>=0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	0
	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	1
	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	0
	>=0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	1
	>=0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	0
	<0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	1
	<0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	0
	<0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	1
<0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	0	
PEth	n/a	<8 ng/mL	<8 ng/mL	<8 ng/mL	7*
	n/a	<8 ng/mL	<8 ng/mL	>=8 ng/mL	0
	n/a	>=8 ng/mL	<8 ng/mL	<8 ng/mL	6*
	n/a	>=8 ng/mL	<8 ng/mL	>=8 ng/mL	0
	n/a	<8 ng/mL	>=8 ng/mL	<8 ng/mL	5*
	n/a	<8 ng/mL	>=8 ng/mL	>=8 ng/mL	0
	n/a	>=8 ng/mL	>= 8 ng/mL	<8 ng/mL	5*
	n/a	>=8 ng/mL	>= 8 ng/mL	>=8 ng/mL	0
Completed Activity with Verification	n/a	Yes	Yes	Yes	5
	n/a	Yes	Yes	No	0
	n/a	No	Yes	Yes	4
	n/a	No	Yes	No	0
	n/a	Yes	No	Yes	3
	n/a	Yes	No	No	0
	n/a	No	No	Yes	3
	n/a	No	No	No	0

*Earnings from PEth draws are not awarded until result comes back

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Reinforcement Schedule Overview (continued)

Final Visit at Week 12						
	Week 0 Result	Week 3 Result	Week 6 Result	Week 9 Result	Week 12 Result	Week 12 Draws
BAC	<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	5
	<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	0
	>=0.003 g/dL	<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	4
	>=0.003 g/dL	<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	0
	<0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	3
	<0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	0
	>=0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	3
	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	0
	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	<0.003 g/dL	2
	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	0
	<0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	<0.003 g/dL	2
	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	0
	>=0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	<0.003 g/dL	2
	<0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	0
	<0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	1
	<0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	0
	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	1
	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	0
	<0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	1
	<0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	0
	>=0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	1
	>=0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	0
	>=0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	1
	>=0.003 g/dL	>=0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	0
<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	<0.003 g/dL	1	
<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	<0.003 g/dL	>=0.003 g/dL	0	

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Reinforcement Schedule Overview (continued)

Final Visit at Week 12						
	Week 0 Result	Week 3 Result	Week 6 Result	Week 9 Result	Week 12 Result	Week 12 Draws
PEth	n/a	<8 ng/mL	<8 ng/mL	<8 ng/mL	<8 ng/mL	8*
	n/a	<8 ng/mL	>=8 ng/mL	<8 ng/mL	>=8 ng/mL	0
	n/a	>=8 ng/mL	<8 ng/mL	<8 ng/mL	<8 ng/mL	7*
	n/a	<8 ng/mL	<8 ng/mL	>=8 ng/mL	>=8 ng/mL	0
	n/a	<8 ng/mL	>=8 ng/mL	<8 ng/mL	<8 ng/mL	6*
	n/a	>=8 ng/mL	<8 ng/mL	>=8 ng/mL	>=8 ng/mL	0
	n/a	<8 ng/mL	>=8 ng/mL	>=8 ng/mL	<8 ng/mL	5*
	n/a	<8 ng/mL	>=8 ng/mL	>=8 ng/mL	>=8 ng/mL	0
	n/a	>=8 ng/mL	>= 8 ng/mL	>=8 ng/mL	<8 ng/mL	5*
	n/a	>=8 ng/mL	>= 8 ng/mL	>=8 ng/mL	>=8 ng/mL	0
Completed Activity with Verification	n/a	Yes	Yes	Yes	Yes	6
	n/a	Yes	No	Yes	No	0
	n/a	No	Yes	Yes	Yes	5
	n/a	Yes	Yes	No	No	0
	n/a	Yes	No	Yes	Yes	4
	n/a	No	Yes	No	No	0
	n/a	Yes	No	No	Yes	3
	n/a	Yes	No	No	No	0
	n/a	No	Yes	No	Yes	3
	n/a	No	No	Yes	No	0

*Earnings from PEth draws are not awarded until result comes back

FIRST TRIAL

Personal Needs Assessment

1. Study Eligibility Category (to be completed by Research Coordinator)

Note: Patient may meet criteria for 1 and 2 or 2 and 3. Patient cannot meet criteria for 1 and 3.

- 1. AT-RISK DRINKING** – Greater than 14 drinks per week or greater than 4 drinks per occasion in men and greater than 7 drinks per week or greater than 3 drinks per occasion in women and those over 65.
- 2. MEDICAL CONDITION IMPACTED BY ALCOHOL** as evidenced by one of the following:
(Check all that apply)
 - Detectable HIV viral load
 - Tobacco use disorder or smoking regularly
 - Detectable HCV virus
 - Liver fibrosis with a FIB-4 >1.45
 - Patient Health Questionnaire score greater than 9
 - Current prescription for a psychoactive medication that interacts with alcohol-including benzodiazepines, opioids, antipsychotics, antidepressants, sleeping medications and muscle relaxants.
- 3. ALCOHOL USE DISORDER** – Meets DSM-5 criteria for alcohol use disorder, not in remission.¹

2. Alcohol Needs Assessment

Is the participant interested in becoming abstinent? _____

What type of services would be helpful? _____

(e.g., 12 step meetings, finding a sponsor, web-based counseling, reading material, other program; please describe)

3. Assessment of Medical Conditions Adversely Impacted by Alcohol

Does the patient:

Smoke

Or have:

A detectable HIV viral load

Untreated Hepatitis C

Depression

ASSESSMENT: List areas that need attention in patient’s life:

1. Alcohol _____

2. Smoking _____

3. HIV _____

4. HCV _____

5. Depression _____

These areas should be used for prioritizing the major goal areas for CM.

Comments:

F1RST TRIAL

Reminder Slip

- ✓ You earned _____ draws today for providing a negative sample.
- ✓ You can earn _____ draws at your next session if negative.
- ✓ You made an additional _____ draws today. You can collect those earnings when lab results are back (about _____) or at your next session with a negative sample.
- ✓ These draws can increase to _____ for your next negative lab sample.
- ✓ You earned _____ draws today for completing an activity.
- ✓ If you _____ (verification: _____), you will earn _____ draws at your next session.
- ✓ In total, you can earn up to _____ draws at your next session on _____ at _____ am/pm.

The more draws you earn, the greater your chances of winning Large and Jumbo prizes!

YOU CAN DO IT!

Patient Signature

Staff Signature

Date

Please call _____ at _____ - _____ - _____ if you cannot make this appointment.

Missed sessions reset draws.

Visit	Date	BAC Result	Draws if < 0.003 g/dL	BAC Draw Results	PEth Draws* (5-8)	Peth Draw Results (Do not award until confirmed)	Date PEth Results Received	PEth Result	Date Called Patient	Date Gave Pt Earnings for PEth (if < 8 ng/mL)	Activity Assigned	Verification	Last Activity Completed	Activity Draws Earned (3-6)	Activity Draw Results (Provide Day Verified)	Notes (if applicable)
0			(1-5)	Provide this day	(5-8)					(if < 8 ng/mL)				(3-6)	Provide Day Verified	
1				GI\$0 ___ Med\$5 ___ Lg\$25 ___ J\$100 ___		GI\$0 ___ Med\$5 ___ Lg\$25 ___ J\$100 ___							Yes No		GI\$0 ___ Med\$5 ___ Lg\$25 ___ J\$100 ___	
2				GI\$0 ___ Med\$5 ___ Lg\$25 ___ J\$100 ___		GI\$0 ___ Med\$5 ___ Lg\$25 ___ J\$100 ___							Yes No		GI\$0 ___ Med\$5 ___ Lg\$25 ___ J\$100 ___	
3				GI\$0 ___ Med\$5 ___ Lg\$25 ___ J\$100 ___		GI\$0 ___ Med\$5 ___ Lg\$25 ___ J\$100 ___							Yes No		GI\$0 ___ Med\$5 ___ Lg\$25 ___ J\$100 ___	
4				GI\$0 ___ Med\$5 ___ Lg\$25 ___ J\$100 ___		GI\$0 ___ Med\$5 ___ Lg\$25 ___ J\$100 ___							Yes No		GI\$0 ___ Med\$5 ___ Lg\$25 ___ J\$100 ___	

Draws start at lowest number listed and increase by one for each consecutive negative sample or activity completed and verified. Unexcused missed sessions result in a reset of BAC draws to 1 for next negative sample.