Rating contingency management sessions that reinforce abstinence using

the Contingency Management Competence Scale

David M. Ledgerwood, Ph.D. & Nancy M. Petry, Ph.D.

University of Connecticut Health Center

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Address all correspondence to: Nancy M. Petry, Professor, University of Connecticut Health Center, 263 Farmington Avenue, Farmington, CT 06030-3944. Email: Npetry@uchc.edu

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Overview

Contingency management (CM) approaches are based on principles of operant conditioning. According to this theoretical framework, substance use is maintained via the reinforcing biochemical effects of the substance and the environment. Individuals use substances to obtain positive consequences (e.g., feeling high, fitting in with others) and/or to avoid negative consequences (e.g., painful emotional experiences, withdrawal effects).

The primary goal of CM is to reinforce behaviors incompatible with substance use so that such behaviors will increase in frequency, and substance use behaviors decrease concomitantly. In general, there are four conditions that should be met for CM to be effective: 1) A specific target behavior (e.g., cocaine abstinence) must be selected; 2) The target behavior must be monitored frequently using objective assessments (e.g., urinalysis testing); 3) The target behavior must be reinforced with some tangible reinforcement; and 4) Reinforcement must be withheld when the target behavior does not occur.

CM studies have utilized several different reinforcement systems. This manual focuses on the prize-based CM approach, in which patients earn the chance to win prizes varying in magnitudes of $1 to $100 for providing urine drug screens that are negative for a target drug of abuse (e.g., cocaine). The number of draws earned, and hence chances of winning prizes, increases based upon consecutive samples submitted, with resets in draws earned for positive or missed samples. Numerous clinical trials describe the efficacy of this prize-based CM intervention in reducing substance use in a variety of substance abusing populations (Alessi et al., 2007, 2008; Ghitza et al 2007; Peirce et al., 2006; Petry et al., 2000, 2004, 2005abc, 2006, 2007; Preston et al., 2008; Roll et al., 2006).

As with other forms of therapy, if CM is not designed or administered appropriately it will not have its intended effects of reducing drug use. In terms of design, the basic principles of CM as outlined above must be followed for CM to be effective. Although CM protocols can vary from trial to trial, CM protocols that have been developed and tested in clinical trials should be adhered to strictly when implemented in clinical settings. Some examples of specific CM protocols that are efficacious are noted in Petry et al. (2000, 2004, 2005abc, 2006, 2007) and Peirce et al. (2006).

If the overall magnitude of reinforcement provided is substantially reduced to that reported in these aforementioned studies, or if the testing and reinforcement frequency is decreased, CM will not be as effective in decreasing drug use (Lussier et al., 2006; Prendergast et al., 2006). This manual is not intended to address issues of CM protocol design, and original research articles and other CM manuals should be referred to when developing and implementing a CM protocol for clinical or research settings (Petry et al., 2000, 2004, 2005abc, 2006, 2007; Petry & Stitzer, 2003).

Even when utilizing CM protocols that have been found efficacious in clinical trials, CM may not always be administered in the intended manner. Therapists may not always follow the protocol guidelines, and therapists can have wide variability in their clinical skills, both of which can impact the delivery, and ultimately effectiveness, of CM. This manual describes procedures for rating competence in delivering prize-based contingency management.

It is often difficult to tell whether a treatment delivered by a therapist is consistent with the treatment as it was conceived in a manual. Objective assessment is needed to ascertain whether or not, and to what degree, interventions are delivered in the intended manner. Thus, interactions between therapists and patients should be audiotaped and reviewed by independent raters with expertise in CM delivery.

When training therapists to conduct a new treatment, it is essential that they be given guidance as to how to deliver specific interventions. Although this manual is not intended as a training manual, therapists should be encouraged to review this manual in conjunction with appropriate training materials when learning to deliver CM. This manual provides suggestions regarding optimal and suboptimal delivery of CM that may assist therapists in better administering CM in practice.

The CM rating scale described herein was developed by Petry et al. (under review). Some elements of the scoring system are based on the Yale Adherence and Competency Scale (YACS; Corvino et al., 2000), which can be consulted for additional explanations.

Rating goals

Typically, delivery of therapies is assessed according to both adherence (or quantity) and competence (or quality). In the case of CM, adherence and competence appear to be highly correlated (Petry et al., under review), perhaps in part because of the brevity of CM sessions. Hence, we focus in this manual strictly on assessment of competence, which is a higher order skill. In other words, one cannot be competent without also being adherent.

To assess competence in CM principles, we typically have therapists audiotape their CM sessions. The taped therapy sessions are then evaluated by independent raters, who are trained to rate CM sessions based on objective criteria (See rating form at end of manual). Ratings of sessions are initially conducted by at least two raters, so inter-rater reliability may be established. Once raters achieve inter-rater reliabilities of >.80 on each item of the scale, these raters may then independently evaluate CM sessions. However, inter-rater reliability should continue to be assessed regularly to ensure that drift does not occur.

Raters are specifically instructed to rate the therapist's behavior, rather than the patient's behavior or the patient's response to the therapist's intervention. In some cases, the therapist may accurately perform a specific intervention that the patient may misinterpret or be unwilling to accept. In this case, it is the therapist's delivery of the intervention that is rated, not its reception. An example may be a therapist who appropriately administers a reset in draw contingencies because of a positive sample, but the patient expresses anger at the contingencies. So long as the therapist competently addresses the patient's anger and brings the discussion back to how draws can be earned in the future, this therapist should receive high ratings on the competence items, even when the patient may not be happy during the session.

On the other hand, raters might also be inclined to give higher ratings when an intervention is well received by a patient. For example, a therapist may inappropriately provide prize drawings to a patient (e.g., when the patient tests positive or prior to obtaining the results of the sample), but the patient may be very enthusiastic about winning prizes. In such a case, raters are again reminded that it is the therapist's delivery of the intervention that is to be rated, not how it was received.

In some cases, the patient may initiate discussion related to a particular item that is ranked on the scale. Raters should keep in mind that each item is rated on the quality of and degree to which the therapist facilitated the patient's response consistent with the CM approach. For example, if the patient acknowledged feeling disappointed in his or her recent substance use, the therapist is rated on the degree to which s/he facilitated discussion of the patient's self-report and the degree to which the therapist encouraged further efforts toward abstinence, consistent with the CM approach. Tying in the patient's self-reports of use to consequences associated with the opportunity to draw for prizes would be an example of an intervention that would earn a strong competence score.

Rating system

Initially, the rater assumes a score of '1' ("very poor") for each item, and adjusts the rating upward as the item occurs during the session, depending on the level of competent delivery. Raters are encouraged to note specific examples when the item occurred during the session when possible. In some cases, the item may be addressed more than once in a session, and then the rater would need to average overall ratings for that item across the different occurrences.

Each item is rated on the scale outlined below:

Quality

1 = Very Poor — The therapist's use of this skill was non-evident or unacceptable, incompatible with the CM approach, and potentially counterproductive or toxic.

2 = Poor — The therapist addressed the issue, but in a poor or cursory manner. The therapist handled the intervention in a manner that demonstrated a lack of competence, a failure to understand the issue or its context, or lack of expertise.

3 = Barely Acceptable — The therapist handled the issue in a manner somewhat consistent with the CM approach, but it was clearly not adequate for the situation.

4 = Adequate — The therapist handled the intervention in a way that could be considered acceptable and consistent with the CM approach, and administered it in an 'average' manner.

5 = Good — The therapist administered the intervention or addressed the item in a manner somewhat better than average.

6 = Very Good — The therapist's skill and expertise were very evident in delivering this intervention.

7 = Excellent — The therapist demonstrated mastery and excellence in delivering the intervention. This rating is reserved for truly outstanding implementation of CM approaches.

Scoring Specific Items

There are 12 different items on the Contingency Management Competence Scale (CMCS). Below, scoring instructions are provided for each item.

CM Specific Items

1. To what extent did the therapist discuss outcomes of sample monitoring?

Assessment of substance use via objective measures is a key component in CM interventions. This item refers to the extent to which the therapist provided clear and concrete feedback to the patient regarding the results of his or her drug screen. An excellent response would include:

- Showing the patient the results of that day's test

- A verbal statement of the results, with specific mention of each targeted substance and its results

- A statement of enthusiasm or support

The therapist might, for example, say, *"You see here, your drug test was negative for cocaine today. Great job!"*

Such a response is clear and informative and would receive a score of '7' (assuming that the reinforcement was contingent entirely upon cocaine abstinence; if reinforcement were contingent upon abstinence from other substances as well, mention of results for the other reinforced drugs would be necessary for a high score on this item).

On the other extreme, an example of a very poor response—a "1"-- would be if the therapist does not address toxicology testing at all or merely states something like, *"You didn't use last week, right?"* without any mention of objective indicators of substance use.

A poor response receiving a score of '2' on this item might include some indication that the patient does (or does not) receive prize draws, but the therapist does not tell him/her the reason and does not relate the reinforcement back to the objective indicator of abstinence.

Moderately low scores on this item would include examples such as, *"Your tests keep coming back negative/positive."* This statement does not indicate that the therapist was referring to that day's specific test, nor does it demonstrate that the patient was actually shown the results of the screen or what substances were being tested and reinforced. Such a response may be rated as a '3.'

A '4' or adequate rating would be given if the therapist stated, *"Your test today was negative/positive."* This statement is congruent with CM, but it does not include what drugs were tested, nor does it convey enthusiasm or support.

A '5' rating may occur if the therapist states something to the effect of, *"Good job. Your drug screen was negative today,"* or in the case of a positive sample, *"Sam, I see here that your drug screen today was positive. Can you tell me what happened?"* In both cases, the specific substance(s) was omitted from the discussion, but the outcome of the testing was otherwise

specifically referred to, and the therapist displays some degree of encouragement or concern.

A slightly better rating of '6' may be given if the therapist is a bit more encouraging. For example, the therapist may say, *"Great job, Sam! I see your drug test came back negative again today. You're really doing well."* Or, in the case of a positive result, *"Unfortunately, Sam, you didn't test negative today. I know you were trying really hard since last Wednesday to not use. Can you tell me a bit about what happened?"* In both these cases, the therapist is more supportive than the previous example, and the only aspect missing from the discussions to earn the best possible score is that in neither case is the targeted drug specifically mentioned.

An example of an Excellent or 7 rating to a positive screen would be, *"Sam, unfortunately, your urine toxicology screen did not test negative for cocaine today. I know you were trying really hard since last Wednesday to not use. Can you tell me a bit about what happened?"* The therapist may then go on to discuss the consequences of the positive test in regards to reinforcement, as described in regards to rating item 2.

Please note that when a patient does test positive, it is often best to refer to the sample as "not negative" rather than "positive." The descriptor of "not negative" is softer, and it is less likely to lead to defensiveness on the part of the patient. If the patient him or herself refers to their own sample as "positive," then of course, it is appropriate for the CM therapist to refer to it in that manner.

2. To what extent did therapist state how many draws were earned at this session?

In addition to clearly presenting the results urine drug testing, the CM therapist must also make a connection between the outcomes of objective testing and the consequences of abstinence or substance use. This item refers to the extent to which the therapist clearly told the patient how many prize draws were earned for the present session, and the therapist accurately determined those draws.

Clear statements such as, *"Your drug screen is negative for cocaine, so you earned 5 draws today, one more than last time. Great work,"* could receive a top score of 7, so long as the 5 draws is the correct number of draws given the patient's prior result history. Thus, it is important that the rater is also cognizant of the CM protocol in effect, and the number of draws that could be earned by the patient at that session.

If the therapist informs the patient of the wrong number of draws due, then the item would be rated a 2, or poor. If draws were not mentioned at all, a rating of 1, or very poor, would be given. Thus, if a patient tested positive and earned no draws that day, it is important that the therapist state the consequence of testing positive in terms of draws. An appropriate, and highly rated 7 response in the case of a positive sample for the targeted substance would be, *"John, your drug screen today did not test negative for cocaine, so you won't get any draws today."*

The rater would give a moderately low score of 3 if, for example, the therapist simply said, *"You keep on getting those draws,"* but there was no indication of how many draws were earned. This response doesn't provide the number of draws earned or a contingent link between the draws earned and the results of the urine drug screen.

A moderate score of 4 would be earned if the therapist simply says, *"You earned 5 draws today,"* because this response, although providing the exact number of draws earned, does not convey that the draws earned are related to the negative drug test and/or how the draws escalate.

A score of 5 would be rated if the therapist said something like, *"Your test was negative, so you get 5 draws today."* This response links the number of draws to the results of the test. However, it is imaginable that the response could be clearer, as in *"Your test was negative for cocaine today, so you earned 5 draws,"* which clearly indicates which drug is being tested, and may receive a score of 6. A score of 7 was applied to the first example in this item, and is more encouraging than the responses above.

Similarly, with a positive drug screen, a response of *"Your test wasn't negative today, you don't receive any draws today"* might receive a 5, while the response *"Your drug screen was not negative for cocaine today, so you don't receive any draws today"* would receive a score of 6. A score of 7 in response to a positive drug screen would be more encouraging, such as *"Unfortunately, your drug screen did not test negative for cocaine today, so I can't give you any draws today. Let's talk a bit about what happened. "*

3. To what extent did the therapist state how many draws would be earned at the next session if the client were abstinent?

This item refers to the extent to which the therapist clearly told the patient how many prize draws would be earned at the next session if the patient were to demonstrate abstinence from the target substance(s).

An excellent intervention, receiving a score of 7, might be:

"Next time, when you come in on Wednesday, and if your drug screen is negative, that is it shows us that you have not used cocaine, you will earn 2 prize draws."

This response incorporates several elements, including:

- looking ahead to the next session
- clearly saying the number of draws available
- creating a contingent link between the availability of draws and the consequences of abstinence/use of a specific drug
- expression of enthusiasm and confidence.

A very poor response, receiving a score of 1, would occur if the therapist did not mention future draws at all. If the therapist indicated that the patient has a chance to earn prizes next session, but told the patient the wrong number of draws, this item would receive a rating of 2, or poor.

If the therapist alludes to the fact that the patient will receive draws during the next session, does not say how many draws are possible, and/or does not indicate that the number of draws are contingent on the urine drug screening, the rater should give a rating of 3, or barely acceptable.

A score of 4, or adequate, should be given if therapist clearly states that the patient has the chance to

receive draws at the next session. A more specific intervention is required to receive higher scores of 5 or 6. For example, if the therapist says, *"Next session, you will have the chance to earn more draws if your test is negative,"* or says *"Next session, you will have the chance to earn 6 draws,"* the rater should give a rating of 5. A score of 6 requires a more complete and clear response, such as, *"Next time, if your test is negative, you will have the chance to earn 6 draws."* Finally, a response scored 7 requires a very clear and specific response in which all elements of the contingency are present.

4. To what extent did the therapist assess the client's desire for items in the prize cabinet?

The effectiveness of CM depends on the ability to use positive reinforcement to change behavior. Therefore, the reinforcers offered to patients to encourage their behavior change must be appealing. At every CM session, the therapist should assess the patient's desire for the prize options offered in the prize cabinet, and ask the patient if there are other items that he/she would like to have available for future sessions, regardless of whether or not the patient earned a prize draw at that session.

An excellent intervention by a therapist, receiving a score of 7, might be something like…

"That's great that you won a large prize today. Tell me, do you see anything in the prize cabinet that is appealing to you today? Is there anything you would like to work toward? Is there anything else that you might like to see in the prize cabinet that you don't see now? I'll write your suggestions down, and we'll try our best to get those items in. We're always looking for ideas, especially for the small and large prizes."

A very poor response, receiving a score of 1, would occur if the therapist did not mention prizes at all or was negative toward the patient's prize choices, e.g., *"Why would you want that? It's been sitting in this cabinet forever."*

A poor rating might include any response that limits the patient's choice or is indifferent, but not necessarily negative toward, to the patient's desires, for example…

"Yes, I know we haven't had those Target gift cards in recently, but unfortunately, I just haven't had time to go shopping. There's probably other things in there, though."

This response is dismissive of the patient's wishes and would likely turn him/her off of the prize CM system and would receive a score of 2.

A score of 3 should be given if the therapist mentions the prize cabinet, but does not offer any chance to look inside, does not assess the patient's desire for items, and lacks enthusiasm for the patient's desire for prizes. Such a response might be, *"We've got quite a few prizes available now. I'm sure you'll find something."* Such a response may be a bit invalidating, and should receive a fairly low score.

An adequate score (4) should be given if the therapist assesses the patient's desire for prizes, but does not show the participant prizes contained within the prize cabinet. For example,

"In a couple of days when we meet, you will have the chance to earn 3 prize draws. What would you like to win?"

Scores of 5 or 6 may be given if the therapist shows the prize cabinet and assesses the patient's desire for items, but lacks an appropriate level of enthusiasm for the patient's choices. For example, an exchange that would result in a score of 5 may be:

Therapist: "When we meet next time, you will get 6 draws if your drug screen comes up negative for cocaine. Tell me what sorts of prizes you would like me to have put in there."

Patient: "I'd really like one of those Ipods. Maybe I'll get the jumbo next time."

Therapist: "Okay, I'll see what I can do."

A score of 6 would be reserved for a more enthusiastic interchange:

Therapist: "Next time we meet, you'll be earning 7 draws if you test negative for cocaine. I know you're interested in the tool kit. Take a look in the cabinet. Are there other prizes you'd like to see?"

As described earlier, a perfect score (7) contains all elements, including:

- initiation of discussion of prizes

- showing the patient prize items in the cabinet

- active assessment of the patient's desire for items, and

- expression of enthusiasm over the patient's choices.

5. To what extent did the therapist discuss the client's self-report of substance use or urges or cravings to use?

When patients have been maintaining abstinence as documented by urine toxicology screens, therapists may not be inclined to discuss self-reports of substance use. Even in these situations, discussions of self-reported drug use may be important from both general therapeutic and CM perspectives.

A number of possible scenarios could occur: (a) no self report or objective evidence of use occurs, (b) the patient self reports use of the targeted substance and tests positive for it, (c) the patient tests negative for the targeted substance but self reports use of other, non-targeted substances, (d) the patient tests negative for the targeted substance but self-reports use of that substance, or (e) the patient tests positive for the targeted substance but denies its use. Each of these situations is described below, along with ideal therapist responses.

(a) In perhaps the most common of these situations, the patient will continue to test negative for the target substance and not self report use of this or any other substance. In these instances, the therapist can still inquire briefly about any use or cravings of the target or other drugs. A sample interaction is as follows:

Therapist: "Kim, it's great you are continuing to test negative for heroin. I know you've told me in our last several meetings that you haven't really been tempted to use since you started this program. How about over the last weekend, did you encounter any high-risk situations or have any urges or

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temptations to use heroin or other drugs?"

Patient: "No, I've been feeling really good about not using anything since I started this program. I've not even wanted to touch it."

Therapist: "That is good to hear. If you ever do have any strong urges or if you use heroin or any other drug, it's important that you discuss it in group. We'll all try to come up with ways to help you so you don't use. I want to be sure you keep getting as many draws as possible. Sometimes use of other drugs can eventually lead back to heroin use."

When all evidence indicates that the patient is remaining abstinent, it may be awkward to ask directly about drug use; hence, in the above example, the therapist instead focuses on risky situations and cravings or urges.

(b) Typically, when a patient uses the targeted substance, s/he will disclose that use prior to submitting the sample. For example, a patient will tell the therapist that they don't really want to leave a sample because they know it will test positive and they know they are not going to get any draws that day. Even in these cases, it is important that the therapist encourage the patient to provide the sample and discuss what will happen with respect to the contingencies in effect. For example,

Patient: "Hi, Tom. I just want to tell you that I used cocaine last night. So, I don't really feel like leaving a sample. It's going to be positive, and I know I won't get any draws today."

Therapist: "Thanks, John, for telling me that you used cocaine last night. I really admire you for coming in after you used. I know that is hard to do and it shows you have a real commitment to trying to stop using. I also really encourage you to talk about this lapse in group later today. I still think it's important for you to leave a sample, like you do every time we meet, and once we get the results back, I'll describe how you will again be eligible for draws, hopefully by Wednesday."

Notice how in the above example, the therapist was congratulatory for the positive behaviors the patient was making (attending treatment, being honest about use) and encouraged further discussion of the lapse in another setting. Thus, the discussions about self-reported use need not be intensive in CM, although they certainly could be more involved if CM is being paired with a more involved psychotherapy such as cognitive-behavioral therapy.

Another example of discussions of self-reported drug use when the sample tests positive, thus confirming the patient's disclosure of drug use, is outlined below.

Therapist: "Well, hi, Jim. How was your week?"

Patient: "Not great. I tried really hard, but I used on Friday night."

Therapist: "Really, what did you use?"

Patient: "Cocaine. I went to this party, and there was a lot of rock there. I just couldn't handle it."

Therapist: "Jim, I'm glad you told me about this. It's not easy getting through this addiction, especially when you are surrounded by the stuff. That's why we're here for you."

Patient: "Yeah."

Therapist: "As we expected, your urine drug screen is positive for cocaine, so you won't get any draws today. But, you are working hard, and I know you can do this. If you don't use between now and Friday, you should test negative then and get one draw."

Patient: "I know. I need more help, though."

Therapist: "Here's what I suggest… You have group later this afternoon, right?"

Patient: "Yep."

Therapist: "I encourage you to talk about this lapse in your group meeting, and see if you can talk this through, and get some advice from the other members who have all been through this before. How does that sound?"

Patient: "Not easy. It's kind of embarrassing to be in this spot. I was doing really well. But I see your point. Okay, I'll give it a try."

Therapist: "Good. I have no doubt that you want to give up cocaine, and I know it's hard, but you can do this. I'll see you in two days. Keep focused on your goals of abstinence. If you test negative for cocaine on Friday, you will earn a draw then."

(c) At times, a patient will test negative for the targeted substance, but he or she may have recently used other drugs. Because a CM intervention is unlikely to be testing for non-targeted substances, it is important to inquire about self-reported use of other drugs. Use of substances that are not targeted by the CM intervention may eventually lead to lapses or relapses to use of the targeted substance, which would impact reinforcement rates. An example of an ideal interaction would be:

Therapist: "Kelly, it is great you tested negative for methamphetamine for 2 weeks in a row now. I know you've told me in our last couple sessions that you've not had any urges to use meth or other drugs. How about since I last saw you—any urges or cravings?"

If the patient self-reports no use of the targeted or any other substance, then the discussion could simply wrap up at that point. If, on the other hand, the patient did report a strong urge or use of some other drug, the therapist may state:

Therapist: "Thanks for telling me that you drank a lot on Friday night. I know it isn't always easy to admit that. Drinking won't impact your draws, because they are all based on abstinence from methamphetamine. But, as you know, drinking can often reduce your ability to resist methamphetamine. I know how hard you've been working to stay off of methamphetamine, and you are doing very well with that. I think it would be a good idea to discuss your drinking in group today. Can you do that?"

(d) In rare cases, a patient may test negative for the targeted substance but self-report use of that drug (e.g., the patient may have used the substance on a Friday night, but it was sufficiently metabolized by Monday to read negative). This scenario may occur in cases when patients do not volunteer information about use until it is directly questioned, or in cases in which the patient self-reports use prior to leaving a sample and is surprised when the test comes back negative. Examples of ways to handle these two

situations from a CM perspective are as follows:

Therapist: "Carl, it's great you are continuing to test negative for cocaine. I know you've told me in our last several meetings that you haven't really been tempted to use since you started this program. How about since I last saw you-- did you have any urges or temptations to use?"

This initial interaction is similar to the first example (a) in this section in that tests are coming back negative. However, in this case, the patient had used, but the use was not picked up by the urine toxicology test. The patient, of course, may simply deny the use, but he may also admit to it if questioned.

Patient: "Actually, I did use on Friday night. I'm glad I still tested negative, because you're supposed to still give me draws, right? That's what you told me in the beginning—all my draws are based on the test results."

Therapist: "Yes, that is true. You will get your 7 draws today. I do want to talk with you about your cocaine use, though. Even though you tested negative today, if you use again, it's likely that your next test will be positive, and that would result in your getting no draws that day and a reset in the number of draws to 1 the next time you test negative for cocaine. Maybe you can bring up your drug use in group today, and the other group members can help you come up with some strategies to not use if you are tempted again."

In the above example, the patient would have probably not self-disclosed use if the therapist had not asked directly about it. Patients who are regularly tested for drug use often self-disclose use prior to the testing, and may be surprised by a negative sample. Similarly to what was described earlier, a method to handle this situation is as follows:

Patient: "I'm just here to tell you that I used on Friday night, so I know I'm going to be positive. I don't really feel like giving a sample. I know I won't get any draws today."

Therapist: "Thank you for being so honest about your drug use. I know you don't want to leave a sample, but it's important that we get one on all scheduled visits. As you know, a positive sample for cocaine will mean no draws today, but if you test negative Wednesday, you can earn a draw then, okay?"

Patient: "Okay. I'll give the sample."

The sample then tests negative for cocaine, the target substance.

Therapist: "Jan, this is strange, because you told me you used cocaine on Friday night. In most cases, you would still test positive by Monday, but today for some reason you tested negative. So, in this case, I am going to give you your 7 draws. This is a really unusual event, but like I told you in the beginning of the program, we go by the results of the urine toxicology tests for all the draws. I think it's going to be incredibly important that you talk about your recent lapse in group today. You'll be eligible for 8 draws on Wednesday if you maintain abstinence and test negative for cocaine then. But, if you use again and test positive for cocaine, you'll not get any draws that day, and your draws for your next negative sample will reset to 1. Do you have any questions about what I just told you?"

As noted above, the therapist acknowledged the unusual nature of the situation, but kept the draws

contingent upon the test results. The therapist also encouraged the patient to further discuss her self reports of drug use in the context of groups (or another individual session, as appropriate, given the nature of the other therapy).

(e) Finally, in perhaps the most difficult of the possibilities, a patient may test positive for the targeted substance but deny its use.

Therapist: "Hi, Tom. I got your drug screen results back, and unfortunately, as you see here, it was not negative for cocaine today. Can you tell me what happened?"

Patient: "No way! I didn't use. Those tests are just wrong. You must have mixed up mine with someone else's."

Therapist: "Tom, yours was the only sample I've taken today, and you handed it right to me and I tested it right away. I really don't want to argue with you about this. Like we talked about in the beginning, in this program we have to go by the test results. So, today I can't give you a draw. But, you've shown that you can earn draws. I'm just a bit confused as to why you tell me you haven't been using, but your tests are not coming back negative."

Patient: "I told you-- I haven't been using. Look, I was in a car last night where another guy was smoking crack. Maybe I got some second-hand smoke from him."

Therapist: "I know it's hard to stop using crack, and being around other people who smoke puts you in a tough situation. I would really encourage you to talk about this in group today. Will you do that?"

Patient: "Yeah, I guess so."

Therapist: "You'll have another chance to earn a draw in two days from now. If you stay away from cocaine between now and then, you should test negative then."

As noted in each of these examples, the therapist inquired about actual use or cravings for drugs and tied in self-reports to current or future prize draws in an appropriate manner. Thus, all the above discussions would result in high scores indicative of good competence in CM delivery.

A poor therapist response to any of the above situations would involve not mentioning self-reports of drug use at all, or providing unhelpful responses or responses incongruent with the CM approach. For example, if a patient acknowledges cocaine use, a confrontational response such as: *"Great, so you just ruined your string of abstinences"* would be a very poor response, receiving a score of 1.

A poor response, receiving a score of 2, might be, *"If you tell me you used any drugs, I probably can't let you have any draws."* This statement is not as negative as the response provided score of 1 described above, but it is still incorrect from a CM perspective.

Responses that receive moderate scores would include those that contain some of the ideal elements described earlier, but not all of them. Consider a situation in which a patient tested negative for several samples in a row, but the therapist only cursorily discusses use:

Therapist: "Kim, it's great you are continuing to test negative for opioids. I presume this means you haven't used anything, right?"

Note that the above exchange does not leave it very open for the patient to discuss self-reports of use or temptations. This exchange, therefore, may receive a score of 3.

A slightly better score of 4 may be given for this exchange:

Therapist: "Kim, it's great you are continuing to test negative for opioids. I presume this means you haven't used opioids. Have you had any temptations to use heroin?"

This example is a bit more open for discussion than the earlier one, but it doesn't inquire specifically about other drug use or temptations.

A score of 5 may be given to the following exchange:

Therapist: "Kim, it's great you are testing negative for opioids. You're doing a really good job and are staying away from heroin. How about other drugs—have you used anything?"

In this example, the therapist makes the assumption (perhaps inappropriately!) that the patient has avoided heroin. However, this therapist provides the opportunity for an open exchange regarding temptations or self-reports of other drug use. The exchange is given a fairly good score (5) because many appropriate elements related to opening an exchange about self-reports of drug use are evident. Hopefully, a patient in that situation would then disclose any heroin use or cravings for heroin even if the therapist made an inappropriate assumption that staying away from heroin had been easy for the patient.

A very good response of 6 may be given to: *"Kim, it's great you are continuing to test negative for opioids. You're doing a really good job. How about temptations or urges for heroin or other drugs— have you used anything?"* This conversation allows for a dialogue related to self-reports of use of the targeted and other substances, and doesn't make the presumption that the patient has had no temptations to use heroin. Perhaps the only element that it is lacking is that it is a bit choppy and does not flow completely, because temptations and urges are mentioned, but then the question relates directly to use of substances. Contrast these exchanges with an ideal one given in section a, which would receive a score of 7.

6. If the client self-reported substance use, to what extent did the therapist relate self-report of substance use to objective indicators of substance use?

Please note that this item is scored <u>only IF</u> the patient self-reports use of any substance. If no self-reported substance use occurs, then the item should be rated "N/A" (not applicable).

In cases in which self-report of substance use does occur, these reports may be for use of the (a) targeted substance(s) or (b) other substances.

(a) When discussing self-reports of the **<u>targeted substance(s)</u>**, it is important that the therapist draw a clear link between the patient's substance use and the results of his/her drug screen. For example, a skillful response to self-report of the targeted substance would be as follows:

"I am glad you told me about your recent cocaine use, and I really admire you for coming in today, after having used. That must have been hard to do. As you know, your test is very likely to turn up

positive on the cocaine drug screen, meaning you won't get draws today. However, if you don't use between now and Wednesday, you may test negative then and be eligible for draws again." And, a few minutes later after testing is completed... *"As we anticipated, your test is not negative for cocaine today. We'll keep working on this. I know you are trying very hard. Please bring up your lapse in group today, and hopefully, you will re-achieve abstinence and test negative on Wednesday."*

The above exchange would receive a score of 7 on this competence item.

One very poor response (score of 1) might involve no discussion of the relationship between self-reported use and results of objective testing. Another very poor response might be *"Well, I guess there is really no point in testing you today, then, since you used so recently."*

An example of a poor response (score of 2) might be: *"Whether or not you tell me you used really doesn't really matter in this program—we care about what the drug screen says."* Although all draws are indeed contingent upon the results of the objective tests, the above response was quite dismissive of the patient, and it failed to relate self-reports to objective indicators.

If the therapist acknowledges the patient's self-report of use, but does not relate the self-report to any objective indicators, the rating of 3 (barely acceptable) should be given. An example would be: *"I'm glad you told me you used yesterday. If you don't use between now and Friday, you could earn draws again."* This statement approaches what is likely to happen (e.g., the patient is likely to test negative on Friday if he doesn't use and then earn draws), but it does not link self-reports to urine sample test results, nor does it directly link urine sample test results directly to draws.

To receive an adequate score (4), the therapist must acknowledge the self-report, and must also indicate to the patient how his/her self-report relates to the result of biological testing. A response such as, *"You told me that you used cocaine, and your test is positive today, which confirms what you told me,"* includes both of these elements and would receive a score of 4. It would not receive a higher score because certain other elements, such as encouragement, support and enthusiasm, which should be part of all CM interventions, are not present.

The response provided at the beginning of this section is an example of an excellent response that would receive a score of 7. Scores of 5 or 6 would be given if the response includes a connection between the patient's self-report and objective indicators, and also incorporates some level of encouragement and support.

(b) In cases in which **self-reports of non-targeted substances occur**, ideal responses that would result in scores of "7" on this item include the exchange below. It presumes a CM protocol that reinforces cocaine abstinence.

"Thanks for telling me you drank last weekend. I know it's hard to admit to use when you're in treatment and trying so hard to abstain. It's also great that you managed to not use cocaine even when you were drinking, as I know alcohol has often been a trigger for your cocaine use. Your urine toxicology test did test negative for cocaine today. So, you will earn all your draws, and you are now up to 7. However, I should caution you that if you drink again, you might not be able to refuse cocaine next time. If your urine sample tests positive for cocaine, you'll earn no draws that day, and the number of draws will reset to 1 for your next cocaine negative sample. Do you think you can bring up your drinking in group today?"

A score of 5 may be given to a briefer discussion such as:

"I'm glad you told me you drank last weekend, and drinking can lead to cocaine use. Fortunately, your urine toxicology test did test negative for cocaine today. Because you didn't use cocaine, you will earn all 7 of your draws today. Perhaps you should discuss your other drug use in group today"

The above example is not quite as encouraging as the earlier one. It also does not expressly link self reports of cocaine abstinence to cocaine toxicology testing.

A score of 4 may be something of the effect of:

"All draws in this program are related to negative cocaine tests, as we discussed earlier. However, I'm glad you were able to share with me that you used other drugs."

This example does contingently tie the draws to cocaine use, and it appropriately keeps the self reports of other drug use separate from the negative cocaine results. However, this response fails to relate other drug use to the potential of using the targeted drug.

Examples of poor responses to self reports of other drug use include:

"Admitting to drug use is an important part of recovery. However, other drug use will not impact your urine sample results."

This response may be a 3, because it is technically correct, but it does not expressly describe objective indicators of the targeted substance. It also fails to suggest the potential of use of the non-targeted drug to be a risk factor for use of the target drug.

A score of 2 may be given to: *"Oh, you used alcohol, but at least you didn't use cocaine."*

A response of 1 would be no mention or follow-up after a self-report of non-targeted substances.

7. If the client self-reported substance use, to what extent did the therapist relate self-report of substance use to consequences of positive samples?

Again, this item is only scored if the patient self reported use of one or more substances. If no self-reported substance use occurred, the item should be scored as "not applicable."

As with item 6, this item is relevant if the patient self-reported use of (a) the targeted substance or (b) even a non-targeted substance.

(a) **In the case of self reports of the targeted substance**, the ideal is for the therapist to first link the patient's self-reported substance use to the results of the test, and then relate the test result to the consequences. Consequences may involve denial of reinforcement if the test is positive, or continued reinforcement if the test reads negative. It is important that the patient has a clear understanding why tangible reinforcement is being earned or withheld.

An excellent response, receiving a score of 7, might be…

"As we expected, because your cocaine drug screen was not negative today, you will not be able to

draw for prizes. I am glad you told me you used and expected the test to be positive. I'm also glad you came to treatment today, because I know that can be hard to do after using. Please discuss your cocaine use in group today. If you don't use cocaine between now and Friday, you should test negative then, and again be eligible to earn one draw on Friday."

This response conveys the connection between the results of the positive urine drug screen and the consequences (not receiving prize draws). Further, this response acknowledges the patient for being honest, demonstrates to the patient that the therapist will continue to work with him/her, and affirms the therapist's belief that the patient will be able to achieve abstinence.

An excellent response to the unusual situation when a urine drug screen tests negative, but the patient self-reported recent use of the targeted substance, might be…

"Thanks for telling me you used on Friday. I know that it's hard to admit using, and it can be very difficult to come back to treatment after a lapse. However, your cocaine toxicology screen still read negative today, and as we described earlier, all the draws are contingent upon test results. So, you will still get all 7 draws today. However, I think you should really discuss your lapse in group today, because if you use again, you are likely to test positive and then you would not be eligible for any draws."

At the other end of the spectrum, a very poor response (receiving a score of 1) would be if the therapist did not acknowledge the patient's self-report, or the connection between self-reported substance use and consequences. A score of 1 would also be applied if the therapist was overtly negative, e.g., *"People who use don't deserve to win prizes."*

A poor response (e.g., score of 2) might occur if the therapist simply said, *"Sorry, no draws today."* This response offers no context. It describes a consequence (no draws) but does not provide any rationale that the consequence is because of the positive drug test, which was acknowledged by the patient's self-report. It is also not encouraging and somewhat flippant about the patient's efforts, but not as negative as the response that received a score of 1 above.

A score of 3 may be given if the therapist does not link the self-reports to the objective test results, and in turn to the behavioral consequence (draws). Imagine a scenario in which the patient self-reported use of cocaine but the test came back negative:

"Thanks for telling me you used." Then, later in the session after the result comes back negative:*"You get six draws today for a negative test."*

Thus, although key elements of CM are discussed (albeit briefly), they are not proximally connected to one another, and the self-reports of use of the targeted substance are not linked with the results of the test. The patient would likely be confused and wonder why he was getting draws.

A score of 4 would be given if these two elements are both presented to the patient in a logical manner (e.g., *"You told me your drug screen would be positive, and it is, so unfortunately you receive no draws today"*), but there is no support, encouragement or praise of the patient's efforts. To receive higher scores of 5 or 6, the therapist must provide all of the elements that would receive a score of 4, plus demonstrate some level of support or encouragement. Higher scores would be reserved for more encouraging and smoother exchanges.

(b) In cases in which **self-reports of non-targeted substances occur**, ideal responses that would result in scores of 7 on this item may be:

"I'm really glad you told me about your drinking last night. I am also glad you are here, continuing with treatment. I would really like you to talk about your drinking in group later today. As you know, we test for cocaine, and your drug screen was negative for cocaine, so you do get five prize draws today. Your drinking doesn't result in a reset of your draws, and you have been doing great with cocaine abstinence. But I know, from what you've told me, that alcohol use makes it more likely you would use cocaine. I know you are working hard, and wouldn't want to go back to cocaine use. So, remember, if you do drink, you're more likely to use cocaine, which will result in a positive cocaine screen, and a reset of your draws."

In this response, the therapist notes that, while alcohol does not directly lead to a positive test or a reset of the contingencies, it does elevate the patient's future chance of relapsing to cocaine use. As with self-reports of targeted substances, this response acknowledges the patient for being honest. It also demonstrates to the patient that the therapist will continue to work with him/her, and that the therapist's believes that the patient will be able to achieve abstinence.

A very poor response (receiving a score of 1) would be if the therapist did not acknowledge the patient's self-report, or the connection between self-reported substance use and consequences. A very poor response may also occur if the therapist incorrectly denied draws based on the self report of the non-targeted drug, rather than on the test results for the target drug. For example, if the therapist says, *"I know your tests is negative for cocaine, but since you told me about your marijuana use, I don't think you deserve draws today."* This response ignores the patient's success abstaining from the target substance and inaccurately links draws to self-reported use of a non-targeted substance. Such an interaction should be scored a 1.

A score of 2 may be given to a slightly less negative interchange and one that doesn't inappropriately link self-reports and draws, *"I know your tests is negative for cocaine, but you really need to stop smoking pot or you might start using cocaine again."* Draws are not explicitly mentioned in this statement, and the interchange is poor, because it does not appropriate link self-reports of targeted and other drug use with draws.

A response would receive a score of 3 if the therapist simply states that the self-report of the non-targeted substance does not impact on the consequence of use or abstinence of the targeted substance, but does not offer any discussion of the potential consequences of use of the non-targeted substance.

A score of 4 would be given if the therapist said something like,

"You told me that you drank alcohol last night, but your cocaine drug screen is negative, and we do not test for alcohol. Therefore, you do receive your prize draws today. But I want you to consider that drinking might put you at higher risk of using cocaine in the future. Maybe you should discuss your alcohol use in the next group therapy session?"

This response has all of the basic key elements: acknowledging the patient's self-report, noting the drug screening result, indicating the self-report does not result in losing draws, and cautioning that continued use of the non-targeted substance may lead to a lapse. However, there is little in the way of encouragement of the patient's efforts to abstain from the target substance and few details about the

consequences, should a lapse to the targeted substance occur as a result of use of the non-targeted substance.

To receive higher scores of 5 or 6, the therapist must provide all of the elements that would receive a score of 4, plus demonstrate some level of support or encouragement and provide a connection between the use of the non-targeted substance and potential future behavioral consequences in the CM program. Again, more encouraging discussions would receive higher ratings than less encouraging ones, or ones that may be perceived as choppy in delivery.

8. To what extent did the therapist compliment or praise clients' efforts toward abstinence?

Positive reinforcement does not only come in the form of tangible items or prizes. Acknowledgement of a patient's efforts to abstain from cocaine or other substances is also important. In all CM sessions, therapists are expected to encourage the patient to continue to work hard by praising their efforts, regardless of whether their drug screens are positive or negative.

An excellent intervention, deserving a score of 7 for the session, might be…..

"Your cocaine test was negative today. Great job! You worked hard to get to this point."

OR

"Unfortunately, your test today was not negative for cocaine today. I know that you are working very hard to reduce your drug use. I hope that you will continue to come to treatment because I have no doubt that you can be successful in stopping your cocaine use."

Such responses incorporate both praise of the patient's efforts, and a message that the therapist believes the patient has the ability to abstain.

On the other hand, a poor response might be…

"Your cocaine test was negative, but I'm really not happy you missed your group therapy session yesterday. You really need to get with the program."

OR

"Your cocaine test was positive today. So, you blew it. I guess we knew it would be this way. You really need to start working harder on your recovery."

Such responses would receive scores of 1 (very poor) because they are highly negative and convey none of the enthusiasm and support required to encourage behavior change. Indeed, in the first example, the therapist should be focusing on the results of the urine toxicology result, but instead is focused on something that is irrelevant to the CM session (criticism of missing an appointment). In the second example, the therapist's message is belittling, judgmental and conveys no hope for future tests. A score of 1 would also be provided if the therapist never addressed the patient's efforts toward abstinence during the session.

These responses might receive a score of 2 (poor) if the therapist was moderately discouraging or

somewhat dismissive of the patient, without being toxic or critical. An example of poor response may be: "*Your test was positive today. I wish you'd get on track.*" In the case of negative sample, "*I see your test was negative today. I guess that means you're doing okay.*"

Barely adequate scores of 3 may be given if, during the session, the therapist offered no praise of the patient's efforts, but also was not overly critical. "Your test was positive (or negative) today. Let me check how many draws you should get."

Adequate scores (4) should be given if the therapist was only somewhat encouraging, or offered a modest amount of praise for the patient's efforts. For example, if the therapist, after reading the client's negative test results, merely says *"good job"*, such a response might be coded as a 4, because this response provides some level of encouragement.

Higher scores require the therapist to convey a more enthusiasm and support throughout the session. For example, if the patient presents with a positive drug screen for cocaine, a good (5) response might be,

"Well, your cocaine drug screen was not negative today. As long as you keep trying, though, I'm sure you'll get it right."

This response is not as specific as the example of an excellent response presented earlier, meaning it does not quite rise to the level of a response scored a 7. However, such a response is somewhat reassuring, and provides hope.

A score of 6 may be reserved for a more encouraging and direct response, such as when the therapist openly recognizes and acknowledges the patient's hard work. For example,

"Your cocaine drug screen was not negative today, but I know you've been working really hard at trying to stop using cocaine."

9. To what extent did the therapist communicate confidence that clients' efforts will yield success in the future?

Attention to motivation and self-efficacy to change substance use is important in the delivery of CM, as it is in other types of treatment. Some patients are quite successful, but occasionally have a slip. Others seem to struggle to achieve a single negative drug screen (or earn a single prize draw). Still others stop using substances and seemingly never look back. It is important that the CM therapist conveys a sincere belief that the patient can successfully change his/her substance use and earn reinforcers within the context of the CM program. Thus, therapists are rated on the degree to which they communicate that confidence to their patient.

An example of a brief discussion that would lead to a score of 7 (excellent) might be…

"I know that it's a struggle to stop using cocaine. But I've seen you reduce your drug use. You come here every day, and I can see you want to stop using. I believe that you can and will be able to provide a negative drug screen, and I'm here to help you any way I can. And, when you do, you will earn draws and have chances of getting that new TV that you want."

The therapist's response conveys the firm belief in the patient's ability to abstain from cocaine. This response also validates the patient's efforts by acknowledging that recovery from substance abuse is a worthy struggle.

On the other hand, a potentially toxic response, leading to a score of 1, might be:

"Look, you come in here every day, and every day your drug screen is positive. Really, you are just wasting both your and my time here. If you want to stay with this program, you'll need to give me at least one negative drug screen in the next two weeks."

Although it is unlikely that many sessions will be this negatively charged, it is important to remember that therapist interventions that are negative and fail to communicate confidence in the patient's ability to maintain abstinence are detrimental to the patient and are not consistent with a CM model. Not mentioning the patient's abilities or successes in achieving abstinence at all throughout the session would also lead to a score of 1.

Interventions that would lead to poor scores (2) would include an indifferent or very minimal mention about the patient's successes and/or struggles with abstinence. An example may be, *"I guess you were abstinent/using earlier this week."*

Sessions that are barely adequate (3) with regard to communicating confidence are those in which the therapist neither provides a strong message of confidence, nor undermines the patient's self-efficacy by invalidating or belittling their experience. An example may be: *"I hope abstinence gets easier for you over time."*

Adequate sessions (scoring 4) are those in which the therapist offers some modest level of confidence in the patient's ability to abstain. For example, the therapist might say,

"Your drug screen was positive today. But, keep on trying. You're getting there."

In this response, the therapist's aim is to encourage the patient to continue working, but the message offers little in the way of confidence.

A score of 4 may be given to this therapist's statements when the patient tests negative:

"You're doing a good job."

The above statement is encouraging, and clearly rated as adequate, but it does not expressly state in what respects the patient is doing a good job, or how his current efforts will result in future success.

A score of 5 may be given to the following type of statement when a positive sample occurs:

"Although your drug screen was not negative today, I know you can get back on track."

When a negative sample occurs, a 5 score may occur for this expression of encouragement:

"Your drug screen was negative for cocaine again today. Keep up the good work!"

These statements receive ratings higher than a 4 because they are more encouraging and offer more confidence in future successes.

Even higher scores of 6 may be given when the responses express more hope, confidence or enthusiasm. For example,

"Although your drug screen was not negative today, I know you can get back on track. I've seen you re-achieve abstinence before, and I know you can do it again."

Or, in the case of a negative sample:

"Your drug screen was negative for cocaine again today. You're doing a good job in this program. Keep up the good work!"

In these cases, the therapist is positive, attributes the patient's success to his/her own efforts, and encourages the patient to continue those efforts into the future.

The best score of 7 should be reserved for truly skilled communications of confidence. Such an example in response to a positive sample was described earlier. In the case of a negative sample, a score of 7 may be awarded to these statements:

"I'm so proud of your efforts in abstaining from cocaine. You've been abstinent now for 3 weeks in a row. Keep up the good work, and I'm sure you will continue to succeed!"

General Items Scale

Whereas the CM items cover discrete interventions and conversations that ought to occur during the generally brief CM sessions in logical sequences, the General Items are broader. These items cover the therapist's skills and competence throughout the entire CM session.

10. General skillfulness/effectiveness (demonstrates expertise, competence and commitment, engages patient in discussion, interventions made at appropriate times—not missed or made too early).

In addition to assessing skills that are specific to CM treatment, it is also essential that general therapeutic skills are assessed. Without the overall skills of the therapist, the CM-specific interventions may have less effect, because the timing and manner of delivery may be very important to the intervention and the patient's desire to continue in it.

A score of 7 should be given if, throughout the CM session, the therapist demonstrated a mastery of clinical skills in general. Thus, if he/she consistently and appropriately engaged the patient in discussion about his or her substance use, made all interventions at optimal times, and showed commitment to the patient, the session should be rated a 7 with regard to general skillfulness.

On the opposite end of the spectrum, if the therapist made interventions that were entirely inappropriate, confrontational, callous or unprofessional, the session should be rated a 1 (very poor) or 2 (poor) depending on the level of inappropriateness. An example of a score of 1 might be if the therapist berated a patient for being late for session. Such instances are rare in clinical care, but it is important to consider it possible that a session may receive such a score. Similarly, if a therapist made very unhelpful or inappropriate interventions, seemed distracted or disinterested, or did not engage the patient in discussion, the rater should give a relatively low rating ranging from 1 to 3, depending on the degree to which the poor interventions pervaded the session and contributed to an atmosphere lacking in clinical value.

Scores of 4 would be warranted if the therapist's skills were average. Thus, if the therapist seemed reasonably engaged and made more accurate interventions than inaccurate ones, the session should be rated as adequate. Higher scores (5 or 6) would be reasonable if the therapist went beyond the minimum standards of care, creating an environment in which the patient felt secure, and interventions were clinically useful and made at appropriate times most of the time. As described above, excellent scores (7) should be given if the therapist clearly demonstrated mastery during the session, if all of his/her interventions were skillfully made at appropriate times, and no obvious clinical issues were missed or misinterpreted during the session.

11. Maintaining session structure (maintains session focus, sets appropriate tone and structure, appropriate level of therapist activity/directiveness, appropriate duration).

CM sessions are quite structured. There are several behavioral interventions that must be delivered within the confines of specific behavioral principles during a treatment session of relatively short duration. Thus, the structure and focus of the CM session is very important. Sessions that meander and do not adequately focus on the target substance of abuse will not successfully develop a connection between use, abstinence, urine drug screening and behavioral consequences (the reinforcers).

Exceptional sessions (scoring 7) are those in which the therapist incorporates all of the CM interventions described above (items 1 through 9), maintains focus on the CM protocol throughout the

session, appropriately guides the patient through the session, and keeps the session (or the CM component of a longer session) to an appropriate length (usually under 10 minutes).

Sessions that are inadequately structured (scored 1 through 3, depending on the level of inappropriateness) will have none or few of these characteristics. For example, a session that includes most of the CM interventions above, but goes on for 20 minutes because the therapist and patient frequently digress into discussion of events of the past week, might receive a score of 3 (barely acceptable). If the session generally incorporates most of the required CM interventions, and perhaps goes a bit over time because of a couple occasional digressions, the session should be considered adequate (score of 4). Better scores of 5 or 6 should be provided if nearly all CM elements are present, they are presented in an appropriate order and given an appropriate amount of time/attention, and there are few if any digressions.

12. Empathy (conveys warmth and sensitivity, demonstrates genuine concern and a non-judgmental stance, understands and expresses clients' feelings and concerns).

A key element to any psychosocial intervention is empathy. Empathy may be defined as the ability to identify with the feelings of another person. Although behavioral interventions are fairly structured with a focus more on behavior change than on internal emotional states, a non-empathic relationship between the CM therapist and patient may result in less behavior change because the patient will not be able to develop adequate trust with his/her therapist. For this item, raters assess the quality of the therapist's sensitivity and warmth, display of concern, non-judgmental approach, and ability to validate the feelings and concerns of the patient.

As with the other general items, the rating on this item takes into account the entire session. Thus, sessions that are excellent (score 7) in terms of empathy are those during which the therapist demonstrates a mastery in all of the empathy skills. That is, his/her approach flawlessly demonstrates warmth, sensitivity, concern, non-judgmental discussion of substance use and ability to relate to the patient's concerns.

Inadequate sessions (scoring between 1 and 3) are those during which the therapist's approach is the opposite of that described above. Thus, a session during which the therapist seems cold and distant, is judgmental of the patient's actions or is indifferent to the patient's current desires or concerns is one that, depending on its level of toxicity, would be rated between a 1 and 3. Sessions during which the therapist truly approached the client in a manner that is toxic (e.g., ridiculing or confronting the patient) would be rated very poor (1). Sessions during which the therapist's empathy was clearly lacking, but the session could not be considered toxic would be rated poor (2). Sessions during which the therapist shifts between being empathetic and lacking empathy may be rated as poor, barely acceptable (3) or adequate (4), depending on the quality and frequency of empathic responses. Higher scores of 5 or 6 are reserved for cases when empathy is clearly evident throughout most of the session.

References

Alessi, S.M., Hanson, T., Tardif, M. & Petry, N.M. (2007). Low-cost contingency management in community substance abuse treatment settings: A transition to delivering incentives in group therapy. Experimental & Clinical Psychopharmacology, 15, 293-300.

Alessi, S.M., Petry, N.M., & Urso, J. (2008). Contingency management with prize incentives promotes smoking abstinence in residential substance abuse treatment patients. Journal of Applied Behavior Analysis, 41, 617-622.

Corvino, J., Carroll, K., Nuro, K., Nich, C., Sifry, R., Frankforter, T., Ball, S., Fenton, L., & Rounsaville, B. (2000). Yale Adherence and Competency Scale (YACS) Guidelines. West Haven, CT: Yale Psychotherapy Development Center.

Ghitza, U.E., Epstein, D.H., Schmittner, J., Vahabzadeh, M., Lin, J.L., & Preston, K.L. (2007). Randomized trial of prize-based reinforcement density for simultaneous abstinence from cocaine and heroin. Journal of Consulting and Clinical Psychology, 75, 765-774.

Lussier, J.P., Heil, S.H., Mongeon, J.A., Badger, G.L., & Higgins, S.T. (2006). A meta-analysis of voucher-based reinforcement therapy for substance use disorders. Addiction, 101, 192-203.

Peirce, J.M., Petry, N.M., Stitzer, M.L. Blaine, J., Kellogg, S., Satterfield, F., et al. (2006). Effects of lower-cost incentives on stimulant abstinence in methadone maintenance treatment: A National Drug Abuse Treatment Clinical Trials Network study. Archives of General Psychiatry, 63, 201-208.

Petry, N.M., Alessi, S.M., Carroll, K.M., Hanson, T., MacKinnon, S., Rounsaville, B., & Sierra, S. (2006). Contingency management treatments: Reinforcing abstinence versus adherence with goal-related activities. Journal of Consulting and Clinical Psychology, 74, 592-601.

Petry, N.M., Alessi, S.M., Hanson, T., & Sierra, S. (2007). Randomized trial of contingent prizes versus vouchers in cocaine-using methadone patients. Journal of Consulting and Clinical Psychology, 75, 983-991.

Petry, N.M., Alessi, S.M., Ledgerwood, D.M., & Sierra, S. Psychometric properties of the Contingency Management Competence Scale. Manuscript Submitted for Publication.

Petry, N.M., Alessi, S.M., Marx, J., Austin, M., & Tardiff, M. (2005b). Vouchers versus prizes: Contingency management treatment of substance abusers in community settings. Journal of Consulting and Clinical Psychology, 73, 1005-1014.

Petry, N.M., Alessi, S.M., Marx, J., Austin, M. & Tardif, M. (2005). Vouchers versus prizes: Contingency management for treatment of substance abusers in community settings. Journal of Consulting and Clinical Psychology, 73, 1005-1014.

Petry, N.M., Martin, B., Cooney, J.L., & Kranzler, H.R. (2000). Give them prizes and they will come: Contingency management for treatment of alcohol dependence. Journal of Consulting and Clinical Psychology, 68, 250-257.

Petry, N.M., Martin, B. & Simcic, F. (2005). Prize reinforcement contingency management for cocaine dependence: Integration with group therapy in a methadone clinic. Journal of Consulting and Clinical Psychology, 73, 354-359.

Petry, N.M., Peirce, J.M., Stitzer, M.L., Blaine, J., Roll, J.M., Cohen, A., Obert, J., Killeen, T.,

Saladin, M.E., Cowell, M., Kirby, K.C., Sterling, R., Royer-Malvestuto, C., Hamilton, J., Booth, R.E., Macdonald, M., Liebert, M., Rader, L., Burns, R., DiMaria, J., Copersino, M., Stabile, P.Q., Kolodner, K., & Li, R. (2005a). Effects of prize-based incentives on outcomes in stimulant abusers in outpatient psychosocial treatment program: A National Drug Abuse Treatment Clinical Trials Network Study. Archives of General Psychiatry, 62, 1148-1156.

Petry, N.M., & Stitzer, M.L. (2003). Contingency management: Using motivational incentives to improve drug abuse treatment. Treatment Manual, Yale University Psychotherapy Development Center: West Haven, CT.

Petry, N.M., Tedford, J., Austin, M., Nich, C., Carroll, K.M., & Rounsaville, B.J. (2004). Prize reinforcement contingency management for treating cocaine users: How low can we go, and with whom? Addiction, 99, 349-360.

Prendergast, M., Podus, D., Finney, J., Greenwell, L., Roll, J.M. (2006). Contingency management for treatment of substance use disorders: A meta-analysis. Addiction, 101, 1546-60.

Preston, K.L., Ghitza, U.E., Schmittner, J.P., Schroeder, J.R., & Epstein, D.H. (2008). Randomized trial comparing two treatment strategies using prize-based reinforcement of abstinence in cocaine and opiate users. Journal of Applied Behavior Analysis, 41, 551-563.

Roll, J.M., Petry, N.M., Stitzer, M.L., Brecht, M.L., Peirce, J.M., McCann, M.J., Blaine, J., Macdonald, M., Dimaria, J., Lucero, L. & Kellogg, S. (2006). Contingency management for the treatment of methamphetamine use disorders. American Journal of Psychiatry, 163, 1993-1999.

Contingency Management Competence Scale for Reinforcing Abstinence

Tape # _____   **Session #** _____   **Rater:** _____

Date:___ ___/___ ___/___ ___   **Start time:**_____

Therapist:_____   **Stop time:** _____

Client ID:_____   **Session duration:**_____ min.

1 = Very Poor   *The therapist's skill was non-evident (item not addressed) or unacceptable, incompatible with the CM approach, and potentially counterproductive or toxic.*

2 = Poor   *The therapist addressed the issue, but in a poor or cursory manner; the therapist demonstrated a lack of competence, a failure to understand the issue or its context, or lack of expertise.*

3= Barely Acceptable   *The therapist handled the issue in a manner somewhat consistent with the CM approach.*

4 = Adequate   *The therapist handled the issue in an acceptable way, consistent with CM, and in an average manner.*

5 = Good   *The therapist addressed the issue in a manner somewhat better than average.*

6 = Very Good   *The therapist's skill and expertise were very evident in delivering this intervention.*

7 = Excellent   *The therapist demonstrated exceptional mastery and excellence in delivering the intervention.*

1. To what extent did the therapist discuss **outcomes of sample monitoring**?	1	2	3	4	5	6	7	
2. To what extent did the therapist state **how many draws were earned at this session**?	1	2	3	4	5	6	7	
3. To what extent did the therapist state **how many draws would be earned at the next session** if the client were abstinent?	1	2	3	4	5	6	7	
4. To what extent did the therapist **assess the client's desire for items in the prize cabinet?**	1	2	3	4	5	6	7	
5. To what extent did the therapist **discuss the client's self-report of substance use or urges or cravings to use**?	1	2	3	4	5	6	7	
6. If the client self-reported substance use, to what extent did the therapist **relate self-report of substance use to objective indicators of substance use**?	1	2	3	4	5	6	7	NA
7. If the client self-reported substance use, to what extent did the therapist **relate self-report of substance use to consequences of positive samples**?	1	2	3	4	5	6	7	NA
8. To what extent did the therapist **compliment or praise** clients' efforts toward abstinence?	1	2	3	4	5	6	7	
9. To what extent did the therapist **communicate confidence** that clients' efforts will yield success in the future?	1	2	3	4	5	6	7	
General items								
10. **General skillfulness/effectiveness** (demonstrates expertise, competence and commitment, engages client in discussion, interventions made at appropriate times—not missed or too early).	1	2	3	4	5	6	7	
11. **Maintaining sessions structure** (maintains session focus, sets appropriate tone and structure, appropriate level of therapist activity/directiveness, appropriate duration)	1	2	3	4	5	6	7	
12. **Empathy** (conveys warmth and sensitivity, demonstrates genuine concern and a non-judgmental stance, understands and expresses clients' feelings and concerns).	1	2	3	4	5	6	7	