

# Urine Drug Screening— Creatinine Levels

# **Policy and Procedure**

Reviewed and Revised 05.02.17

Page | 1 of 2

t is the policy and procedure of Ark Counseling to repeatedly and objectively monitor client compliance with the facility's abstinence policy on the use of mood altering chemicals. Monitoring is achieved by means of random urine drug screening and all samples are sent to a licensed reference laboratory that measures the precise <u>quantity</u> of chemicals in the urine. To verify the sample's validity the specimen is also tested for adulterants, tampering, and dilution.

Samples may be requested seven days per week. A urine sample is generally collected in the privacy of the facility bathroom— and a staff member of the same gender may be present in the room.

Ark reserves the right to provide a scholarship to any client who has a financial need. Thus, a client's inability to pay for a urine drug screen is never a valid reason for a client's refusal to provide a urine sample.

At Ark Counseling the standard of care regarding urine drug screens is as follows:

#### Assessment

All clients are given a "Full Drug Screen".

#### Intake

All clients are given a "Full Drug Screen".

### **Treatment**

All clients are given a drug screen: IOP 2-3 times /wk; OP 1-2 times/wk. The days that samples are collected should be random. The drugs that are screened are determined as follows:

- a. All chemicals that have historically been abused (as identified in the Assessment, at Intake, in individual or group sessions, or based upon clinical judgment).
- b. All chemicals that have been positive, or suggestive, in any "Full Drug Screen".

Note: If any sample is positive, suspicious, diluted, adulterated, or tampered with, a follow up sample is always collected at <u>the next treatment appointment</u> unless the clinician believes there is reason to request a faster re-test.

## Discharge

All clients are given a "Full Drug Screen".

Clients shall be informed at the beginning of an assessment, at intake, and at the beginning of a treatment session that a random urine test needs to be taken. A staff member or therapist shall make a good faith effort to remind clients, at the end of a session, that samples are due. Ark holds the same standard as the courts— a client's failure to supply a urine drug test (<u>for any reason</u>) is always regarded as a positive test. An inadequate sample, adulterated sample, or diluted sample is the same as a positive test.

# **Sample Validity**

To verify sample integrity, <u>all</u> samples are assessed for adulterants, tampering, and dilution.

#### Volume

A valid sample requires 5mL of urine—1/4" in the cup.

## Color

At a minimum, the sample must have a light coloration. Clients can monitor the color of their urine by looking at the toilet water after urinating. If the toilet water is completely clear they are drinking too much fluid to have a valid test. They should reduce their intake of fluid.

Samples in the collection container that are colorless are likely diluted.



# Urine Drug Screening— Creatinine Levels

# **Policy and Procedure**

Reviewed and Revised 05.02.17

Page 12 of 2

# **Temperature**

The temperature of fresh urine is identical to core body temperature— $98.6^{\circ}$  F. The urine will gradually lose heat after it is excreted from the bladder but even in a room of  $70^{\circ}$  F will only lose  $\sim$ 2 degrees of temperature in 15 minutes.

Samples in the collection container that are  $> < 1.5^{\circ}$  F of normal body temperature are invalid and deemed positive. Temperature is measured by electronic instruments and/or temperature strips.

## **Creatinine Level**

Creatine resides almost exclusively in skeletal muscle. Small amounts of it are released, at a constant amount and rate throughout the day, and therefore it remains at a relatively constant level in the blood and urine.

Based on a study of nearly 23,000 people in the United States<sup>1</sup> the <u>normal urine creatinine level is 130 mg/dL</u>. The subjects of this study came from both genders, a variety of races and ethnicities, and samples were collected in the morning, mid-day, and evening.

1. Barr D, Wilder L, and Caudill S. (2005). Urinary creatinine concentrations in the US population: implications for urinary biologic monitoring measurements. *Environmental Health Perspectives*. 113(2): 192-200.

With respect to kidney function critical <u>clinical</u> values<sup>2</sup> are as follows:

62.5 - 80.0  mg/dL	Borderline Impairment
52.0 - 62.5  mg/dL	Slight Impairment
42.0 - 52.0  mg/dL	Mild Impairment
28.0 - 42.0  mg/dL	Moderate Impairment
27.9 - 20.0  mg/dL	Significant Impairment— these levels are congruent with acute
	or chronic kidney disease (i.e., glomerulonephritis, chronic
	pyelonephritis, polycystic disease), leukemia, shock. In general, people
	with these levels are either in the ICU or experiencing an autopsy.

2. Van Leeuwen A, Kranptiz T, and Smith L. (2006). Davis's Comprehensive Handbook of Laboratory and Diagnostic Tests  $(2^{nd}$  Edition).

Ultra low urine creatinine levels are not associated with: pregnancy, diabetes, obesity, exercise, hypertension, being vegan or vegetarian. In the context of chemical treatment, abnormally low levels of urine creatinine are associated with anabolic steroid abuse or specimen tampering— in an effort to flush chemicals out of the body and/or reduce the amount that is present in the urine.

Levels below 20 mg/dL are associated with:

- a. post-collection dilution— intentionally adding water or other liquid to the collected sample.
- b. pre-collection dilution— intentionally or unintentionally consuming large quantities of water of fluid prior to urine collection. The rapid ingestion (90 minutes) of 2-4 quarts of water prior to sample collection consistently results in diluting urine creatinine levels to < 20 mg/dL.

The reference lab that Ark Counseling uses has established  $\leq$  20 mg/dL as the benchmark for diluted creatinine levels. This is the standard in MN Courts.

## **Discharge Criteria**

A discharge rating "With Staff Approval" requires 12 weeks abstinence from all mood altering chemicals— unless a client has a valid prescription from a licensed practitioner and the client is taking the prescription as directed. This standard is disclosed as part of the Informed Consent process at Intake and in each Treatment Plan and is in alignment with the DSM 5 remission criteria.