

# DRUG TESTING: Access to Creatinine Levels



## Q. Are creatinine levels an essential measurement in drug testing?

A. Creatinine numerical values can actually represent important client information (particularly for problematic clients producing ongoing dilute samples).

NADCP does not have a policy position that states that courts should not be concerned about creatinine measurements (the actual numerical results). We do have a policy position recommending that courts not use urine *drug* concentrations in case adjudication, as detailed in the Fact Sheet “Urine Drug Concentrations: The Scientific Rationale for Eliminating the Use of Drug Test Levels in Drug Court Proceedings.”<sup>1</sup>

In a U.S. study done in 2005 that included over 22,000 participants, the average, normal urine creatinine level (in samples taken from adults and children, from many different ethnic groups, at all times during the day, etc.) was 130 mg/dL. That urine creatinine level is more or less a benchmark against

which all urine samples can be judged. It can be helpful for courts to determine whether the dilute samples occur episodically (i.e., once in a while). The rapidly changing and significantly high and low urine creatinine levels exhibited by some court clients are not typical. If an individual is able to produce a “normal” urine creatinine level (say 130 mg/dL or above) on some days, it could be argued that exceedingly low creatinine levels (less than 20 mg/dL) at other times are not due to any type of disease process or physiological malady. In other words, if a client is capable of producing “normal” urine creatinine levels at least some of the time, this suggests that the dilute collections are not associated with a disease-related problem or medication the person may be taking. It suggests that the episodic dilute results are related to sample tampering (such as precollection hydration) in order to avoid drug use detection—a relapse flag.

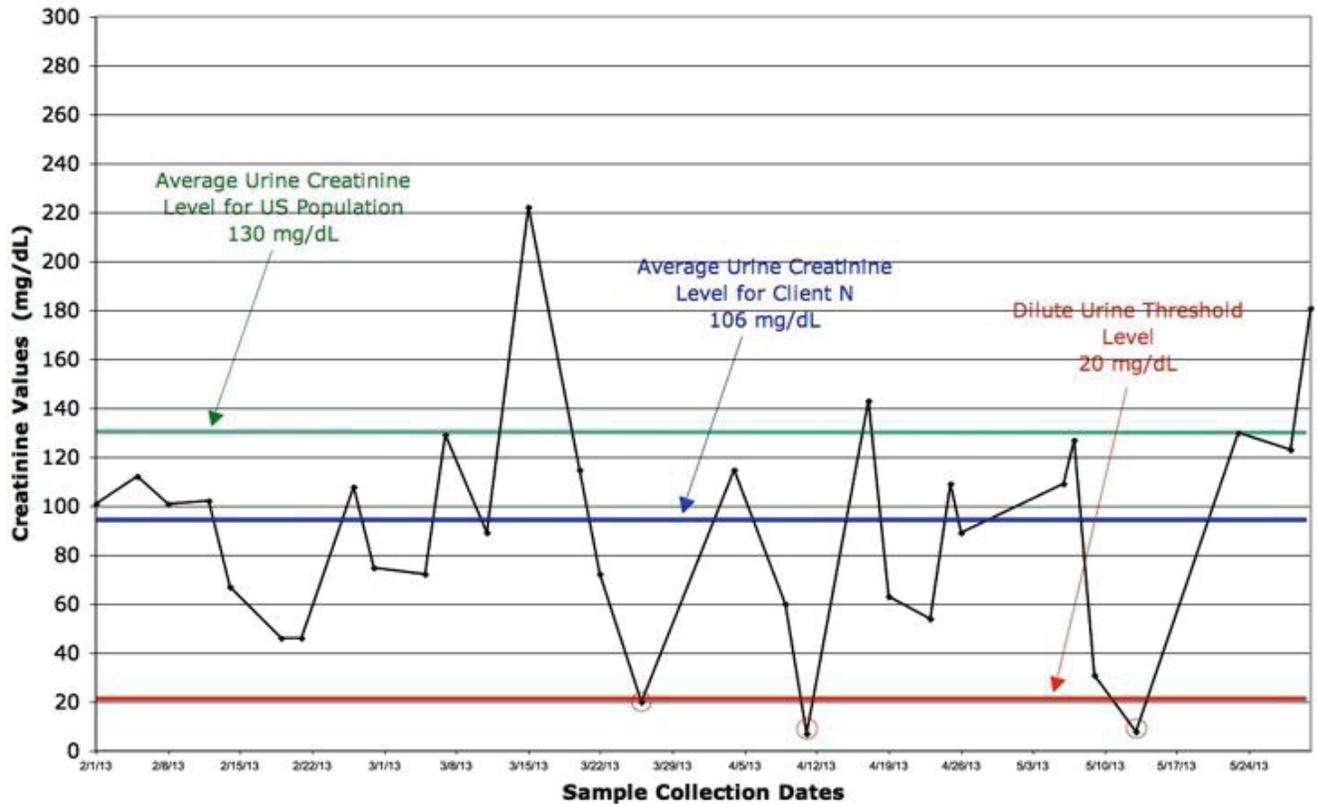
Let’s step back for a moment and remember that the fundamental goal of drug testing in a treatment court environment is to enable the court to evaluate a participant’s compliance with program requirements—in other words the participant’s abstinence from prohibited substances. If the court is unable to reliably monitor abstinence, the ability to use rewards/incentives and sanctions as treatment interventions is all but lost. If the court is unable to identify a relapse, it is powerless to intervene therapeutically to change undesired behavior. A dilute sample (regardless of whether it is intentional or not) prevents the court from evaluating compliance by assessing abstinence.

<sup>1</sup> January 2004, Vol IV, No 1. See <https://www.ndci.org/resource/publications/fact-sheets/>.

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## Urine Creatinine Data, February Through May 2013



The graph shows actual creatinine concentrations for a client, plotted over time. Having the actual creatinine levels allowed the court to demonstrate potential relapse events (occurrences in which the client produced dilute samples with less than 20 mg/dL), while also demonstrating that the client was capable of producing urine samples with acceptable creatinine levels. This documentation became a powerful tool both for treatment and for guiding the court in appropriate intervention strategies. Confronting the client with this dramatic data helped break down this participant's denial.



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