

# Analgesics Monitoring using Urine Drug Testing in an Internal Medicine

## Practice: Can it Impact Clinical Decisions?

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### Abstract

Guidelines on the use of chronic opioid therapy (COT) for non-cancer pain outline the need for urine drug testing (UDT). For clinicians not primarily focused on pain management, performing UDT in a small number of patients may not be a priority. However, with increasing drug abuse and misuse, it seems imperative that all physicians prescribing controlled substances monitor patients receiving these medications. To this end, New Snellville Clinic, LLC, Snellville, Georgia, an Internal Medicine practice, began random UDT all patients on chronic opioid therapy and psychotropic medications. In addition, as a part of the testing protocol, the clinic makes an assessment of the risk of the patient misusing their medication based on various factors including past medical and social history, aberrant behaviors, requests for early refills or the need for escalating doses of medication in order to control pain.

To date, 125 patients at New Snellville Clinic, LLC had urine drug testing performed. Results appeared normal in 58 patients, meaning these patients did not have an illicit or un-prescribed drug present, the prescribed drug or its metabolites were present and they were likely to be taking their medications as prescribed. Sixty seven patients had abnormal results. Of those 67 patients, 34 out of 67 had drugs or their metabolites that were not prescribed by the Clinic; 25 out of 67 did not have the prescribed pain medication present in their urine; 21 out of 67 had normalized drug levels that were inconsistent with their prescriptions based on a proprietary methodology and 5 out of 67 had illicit drugs present. Please note that patients can have more than one abnormal UDT result.

Of the 125 patients who were assessed for risk, 87 were thought to be not at risk for medication misuse and 38 were thought to be at risk. Comparing UDT results with assessments of risk, 42 out of 87 (48%) patients who were not thought to be at risk had an abnormal urine test. In those patients thought to be at risk for medication misuse 25 out of 38 (66%) had an abnormal urine test.

These results, though from a single practice, illustrate the need for urine drug testing in all patients on controlled medications. Even clinicians who only have a limited number of chronic pain patients should monitor medication adherence.

### Objectives

1. To assess the clinic's ability to identify patients who may be misusing their medications based on screening techniques other than urine drug testing
2. To evaluate how urine drug testing results impacted the clinical management of clinic patients

### Methods

Between the period of July 2010 and January 2011, patients who were on controlled substances and had a urine drug test ordered were identified by the clinic as compliant (thought to be adherent patients) or non-compliant (likely non-adherent patients) based on the clinic's screening methods. The methods used by the clinic included: aberrant behavior screening, past history, refill patterns, adverse reactions reported to prior pain medications and the patient asking for specific medications. This identification occurred prior to the urine drug test being sent for analysis.

In the patients whose test results appeared abnormal, the charts were then reviewed. The review looked at the subsequent visit the patient had after the urine drug test to see if clinical decision making changed based on the test results.

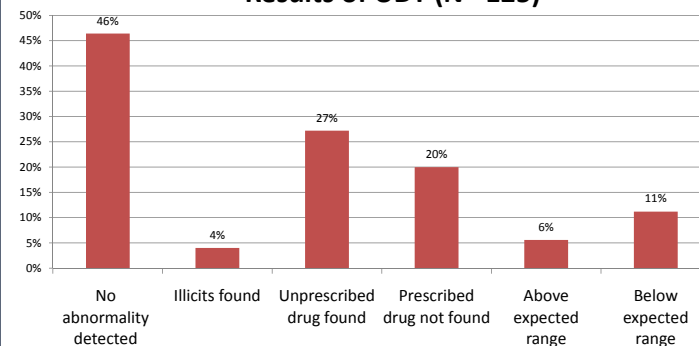
### Results

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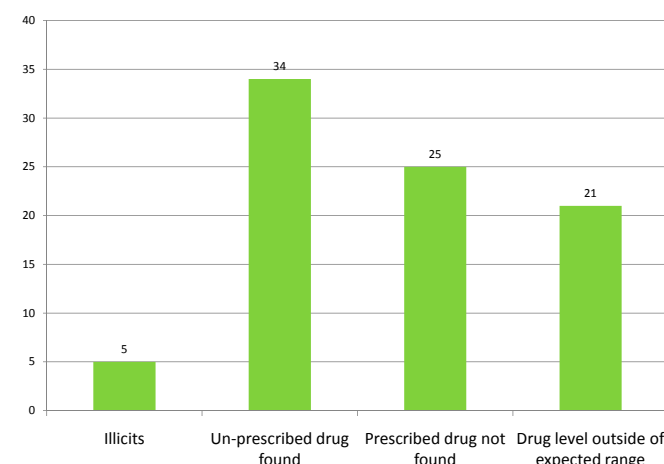
Of the 67 patients with UDT results that appeared abnormal, 34 had drugs or their metabolites that were not prescribed by the Clinic; 25 did not have the prescribed pain medication present in their urine; 21 had drug levels that were inconsistent with their prescribed doses based on a proprietary methodology and 5 had illicit drugs present. Please note that patients can have more than one abnormal UDT result.

### Results of UDT (N= 125)



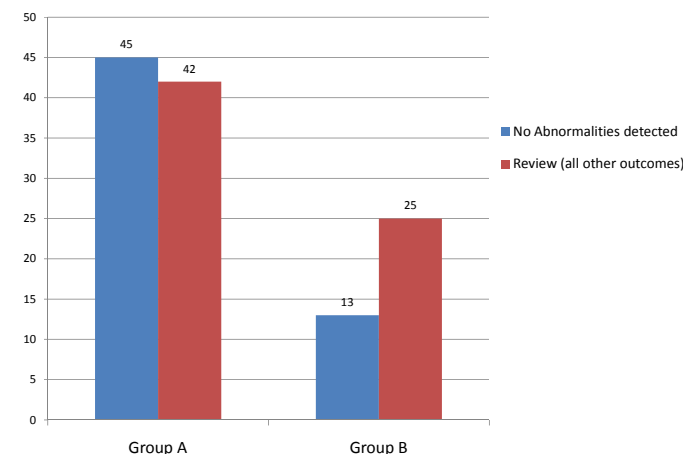
### Results Continued

#### Abnormal UDT (N=67)



In comparing the clinic's predictions of likely adherent and likely non-adherent patients, in the group thought to be adherent, the prediction appeared correct in 45 out of 87 patients (52%). In those patients thought to be likely non-adherent, the clinic's prediction was consistent with urine drug test results in 25 out of 38 patients (66%).

#### Actual Compared to Expected Outcomes



Following identification of patients with abnormal test results, charts were reviewed and the subsequent visit was assessed to see how the test result impacted further clinical decision making. Forty-one charts were able to be included in this review process. There were two deaths in this group. The deaths were due to their illnesses and not drug overdoses. Three patients had been referred to other physicians for surgical intervention

### Results Continued

In the group with un-prescribed drug found, most involved benzodiazepines (N=10). Some patients had forgotten to mention they were taking these drugs and in six of these cases, the lab requisition was missing the medication even though the patient had listed the drug in current medications. Four patients had either hydrocodone, oxycodone or fentanyl present that they had not mentioned being prescribed. Of this group, three patients were tested on their first visit and never returned for a subsequent appointment. These three patients were also found to have an illicit drug present. The fourth patient was referred for counseling.

In patients where illicit substances were found, two had Tetrahydrocannabinol (THC) present and the treatment plans were changed so that they were no longer being prescribed opioids. The three other patients were referred for substance abuse assistance.

For the twenty-one patients that had drug levels above or below the expected range, the treatment plan did not substantially change but the results of the urine drug test were reviewed with the patient. In two cases, the opioid was changed from hydrocodone to oxycodone as the prescribed drug did not appear to be helping.

In the group of patients with prescribed medications not found on urine drug testing (N=25) five patients stated they had run out of their medications early, three never returned for a subsequent visit, and one moved out of state before follow-up. One patient left the practice voluntarily and one had their medication changed to non-opioid management. One was referred to a substance abuse treatment program. With the remaining patients, the pain treatment agreement used in the clinic was reviewed.

### Conclusions

This study illustrates the value of implementing urine drug testing in an internal medicine practice. Even though the majority of the practice is not on chronic opioid therapy, those patients that are on chronic opioid therapy need to be tested as it is difficult to predict which patients may be non-compliant in this population. In addition, information gathered from urine drug testing may influence clinical decision making as evidenced by the number of patients that had their treatment plan changed based on the test results.

### Limitations

This study was conducted in one internal medicine clinic and may not be generalizable. In addition, only one urine drug test per patient was analyzed over the course of the study and may not reflect same results if multiple urine drug tests were analyzed over a longer period of time.