

NEW PANELS AVAILABLE FOR PAIN MANAGEMENT DRUG TESTING

Executive Summary: Selecting the appropriate drug testing panel for monitoring patients requiring chronic pain management can be problematic. Pathology Center in-house urine drug tests are **not appropriate for** (do not detect) the most commonly used contemporary pain management medications. ARUP, our primary reference laboratory, offers several Pain Management urine testing panels. They recently introduced a novel approach which is recommended as a practical, clinician friendly way to monitor chronic pain patients ⁽¹⁾. This testing strategy deploys testing technologies to optimize clinical performance, turnaround time, and cost, and can be obtained with or without a toxicologist's interpretation.

Background:

Selecting the appropriate urine drug testing panel for monitoring patients requiring chronic pain management continues to be problematic for some providers. The intent of this Technical Bulletin is to remind physicians and caregivers of the indications for, and limitations of urine drug tests provided on-site at the Pathology Center, and also through our reference laboratory ARUP.

Indication: For monitoring of chronic pain patients, ARUP very recently has introduced a new "hybrid approach" to pain management testing using immunoassay and time-of flight mass spectrometry (TOF) , performed in parallel, optimized for type and prevalence of drugs (with ARUP test numbers):

- **2007479 Pain Management Drug Panel by High Resolution Time of Flight Mass Spectrometry and Enzyme Immunoassay, Urine.** Expansive panel which includes opioids, benzodiazepines, zolpidem, amphetamine-like stimulants, and methylphenidate (by TOF); and barbiturates, THC, carisoprodol, cocaine, ethyl glucuronide, methadone, PCP, propoxyphene, and tramadol by immunoassay.
Specimen: urine, 4 ml minimum. Performed: 7 days/week. Reported: 1-3 days.
- **2009288 Pain Management Drug Screen with Interpretation by High Resolution Time of Flight Mass Spectrometry and Enzyme Immunoassay, Urine.** Detects same drugs / classes as above.
Specimen: urine, 4 ml minimum. Performed: 7 days/week. Reported: 1-4 days
- Please remember to include the **ARUP** test number and test name with the order.

The intent of this testing strategy is to eliminate follow up testing for immunoassays (when the expected medication is present—confirmation recommended when unexpected medication discovered), and also detect the majority of pain management drugs by TOF, thus optimizing cost, turnaround time, and accuracy. TOF also provides detection of metabolites and thus surreptitious “spiking” of urine with the parent drug. All results are reported as qualitative “PRESENT” or “NOT PRESENT”. Dr. Strathmann, a co-author of the cited reference notes that quantitative results are rarely needed (<3% of specimens) in his experience with over 10,000 cases. Quantitation can be provided for any result desired however, at an additional charge. If the “with Interpretation” panel is selected, the provider provides a medication summary with the specimen, which is then reviewed by a clinical toxicologist, who renders a “CONSISTENT” or “INCONSISTENT” interpretation for all reported medications. Consultation is also available by telephone.

For chronic pain patients taking commonly prescribed medications, ARUP at this time still offers the following panels using traditional assays and approach (screening +/- confirmation performed in series).

- **ARUP 0090448 - Drugs of Abuse 7 panel, Urine, Screen Only:** includes oxycodone plus THC, opiates, cocaine, PCP, amphetamine, MDMA, Ethanol, barbiturates and benzodiazepines.
Specimen: urine, 4 ml. Performed: 7 days/week. Reported: 1-2 days.
- **0092184** Same above with confirmation of positive results. Urine.
Specimen: urine, 8 ml. Performed: 7 days/week. Reported: 1-4 days.
- **2005100** Oxycodone, starts with an immunoassay that detects oxycodone and oxymorphone, and reflexes to a confirmatory test that also detects hydrocodone, morphine, codeine, and hydromorphone. Urine.
Specimen: urine, 4 ml. Performed: 7 days/week. Reported: 1-4 days.
- **2005093** Opiates detects morphine, hydrocodone, codeine, hydromorphone, 6-monoacetylmorphine, oxycodone and oxymorphone. Reflex confirmation. Urine.
Specimen: urine, 4 ml. Performed: 7 days/week. Reported: 1-4 days.
- ARUP also offers additional toxicology tests and panels not listed above.
- Please remember to include the **ARUP** test number and test name with the order.

Indication: For screening for traditional street drugs, Drugs of Abuse in Urine (DAU) testing is offered at Pathology Center. This panel tests for: amphetamines, methadone, barbiturates, benzodiazepines, THC, cocaine, ethanol, and opiates. Positive results for amphetamine class drugs are automatically confirmed because this immunoassay reacts with many commonly prescribed medications, such as pseudoephedrine. **NOTE: This panel does NOT detect common pain management medications: synthetic opiates (including oxycodone, hydrocodone), or newly abused drugs (“incense”, “bath salts”) because it was introduced prior to the use and appearance these medications and substances.**

Specimen: urine, 10 mL. Performed: 7 days/week. TAT: from receipt, 30 min. to 1 hour.

Order as Drug Screen DAU.

REFERENCES:

McMillin GA, Marin SJ, Johnson-Davis KL, Lawlor GB, and Strathmann FG. *A Hybrid Approach to Urine Drug Testing Using High Resolution Mass Spectrometry and Select Immunoassays.* Am J Clin Pathol. 2015;143:234-240.

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