Drug of Abuse Panel Test Information

Our state-of-the-art analytical platform utilizes automated technology and tandem mass spectrometric analysis (LC-MS/MS) for the qualitative and quantitative screening and measurement of drugs of abuse and pain medications. The automated liquid handling system used for sample preparation allows for faster turnaround time and lessens the possibility of human errors. The assay screens for the parent drug and/or its specific metabolites based on the molecular ion and a specific fragment ion characteristic of the molecule with a further level of specificity attained from the HPLC-retention time. Specimens are both screened and confirmed for drugs of abuse and information on concentration of drug in the samples provided. Results are reported as drug 'detected' or 'not detected' and the concentration provided for each detected drug. A low urine sample volume (less than 1 mL) is required to perform the testing. Urine is an ideal biologic specimen for determining the presence of certain drugs and its metabolites in the patient's system due to its increased window of detection. Our tandem mass spectrometric analysis (LC-MS/MS) is a rapid technique that enables simultaneous multi-drug screening and accurate confirmation of the drug's presence. This fast testing window allows us to provide test reports faster than many other laboratories and in general, same day reporting. Drugs measured in this assay include:

Amphetamines: Amphetamine, MDA, MDEA, MDMA, Methamphetamine

Barbiturates: Butalbital, Pentobarbital, Phenobarbital, Secobarbital

Benzodiazepines: α-hydroxyalprazolam, Alprazolam, Clonazepam, Diazepam, Flunitrazepam, Flurazepam, Lorazepam, Midazolam, Nordiazepam, Oxazepam, Temazepam

Buprenorphine/Metabolite: Buprenorphine, Norbuprenorphine

Phencyclidine

Cannabinoids: THC-OH, THC-COOH

Cocaine/Metabolite: Benzoylecgonine

Muscle Relaxants: Carisoprodol, Meprobamate

Methadone/Metabolite: EDDP, Methadone

Nicotine/Cotinine: Cotinine

Opiates: 6-MAM, Codeine, Fentanyl, Hydrocodone, Hydromorphone, Meperidine, Morphine, Naloxone, Naltrexone, Norfentanyl, Normeperidine, Oxycodone, Oxymorphone, Sufentanil, Tramadol

Sample Type:
Urine, random collection

Volume:
5 – 10 mL
200 mcL (minimum)

Specimen Preparation:
Refrigerate.

Stability:
Refrigerated: 7 days
Frozen: 1 month

Methodology:
Quantitative liquid chromatography-tandem mass spectrometry (LC-MS/MS)

Reporting Units:
ng/mL

Cutoff Values:
See report

Shipping Conditions:
Refrigerated (cold pack), next day.

Testing Schedule:
Mon-Sat, 1st shift. Specimens received after 10 AM will be ran the next day. There is no testing on Sundays or holidays.
Turnaround time: Typically 24 hours after the sample has been received by the Mass Spectrometry laboratory.

CPT Codes:
Amphetamines: 80325; **Barbiturates:** 80345; **Benzodiazepines:** 80346; **Buprenorphine/metabolites:** 80348; **Phencyclidine:** 83992; **Cannabinoids:** 82542; **Carisoprodol/Metabolite:** 80369; **Cocaine/metabolite:** 80353; **Methadone /metabolite:** 80358; **Nicotine/Cotinine:** 80323; **Opiates:** 80364

Contact Information:
Clinical Mass Spectrometry
Tel: 513-636-4203
Fax: 513-803-5014
Email: pathology@cchmc.org
Website: www.cincinnatichildrens.org/mass-spec

Shipping Address:
Clinical Mass Spectrometry Facility, MLC 7019
Division of Pathology and Laboratory Medicine
Cincinnati Children's Hospital Medical Center
240 Albert Sabin Way
Cincinnati, Ohio 45229-3039