

5 Minutes to Impact: Menu Additions to Industrial Lab's LC-MS/MS Menu

Description:

The following drugs have been added to the Industrial Lab's test menu along with the cutoff:

- Fentanyl/Norfentanyl: with a lower cutoff of 2 ng/mL (from 10 ng/mL)
- Xylazine: 50 ng/mL
- Mitragynine: (Kratom) 10 ng/mL
- Carisoprodol (Soma®, Vanadom®): 50 ng/mL
- Pregabalin (Lyrica®): 500 ng/mL
- Gabapentin (Neurontin®): 500 ng/mL
- Tianeptine & MC5 Metabolite: 10 ng/mL
- Cyclobenzaprine (Flexeril®, Amrix®): 50 ng/mL
- Ritalinic Acid is the major metabolite to accompany our current Methylphenidate test (Ritalin®, Methylin®, Concerta®): 50 ng/mL

Test Requirements:

Sample Type	Urine
Collection Device	Standard Urine Collection Cup or Vacuum Tube
Sample Storage	Refrigerate after collection prior to shipping to DTPM.
Sample Shipping	Ship tightly capped device and chain of custody documentation overnight to DTPM. Biological shipping status must be used.
Rejection Criteria	Missing or discrepant information on the Chain of Custody form, sample leakage, or visible indication of compromised sample integrity

Xylazine

- Xylazine is not for human consumption. It is used in the veterinary industry as a non-opioid tranquilizer.
- Street name is Tranq.
- Xylazine is added to illicit opioids, such as fentanyl, and is reported to lengthen the euphoric effects of fentanyl.
- It is a central nervous system depressant that causes drowsiness, amnesia, slow breathing, slow heart rate, and dangerously low blood pressure.

Commercial Name	Common Forms	Common Ways Taken	DEA Schedule
None	N/A	Combined with illicit opioids that are injected, snorted, swallowed, or inhaled.	N/A

	Possible Health Effects
Short-Term	Drowsiness, slow breathing, slow heart rate, lower blood pressure
Long-term	Skin lesions, abscesses, coma, death
Withdrawal Symptoms	Irritability, anxiety, restlessness, dysphoria, tachycardia

Source: <https://nida.nih.gov/research-topics/xylazine#:~:text=In%20the%20event%20of%20a,is%20frequently%20combined%20with%20opioids.>

Kratom (Mitragynine)

- DEA lists this as a Drug of Concern.
- Kratom is not controlled under the Controlled Substance Act; however, there are some states that regulate or prohibit possession and use of Kratom.
- Active ingredients are mitragynine and its metabolite, 7-hydroxymitragynine. We currently test for mitragynine.
- Street names are Kratom, Thang, Kakuam, Ketum and Biak.
- Source is leaves from a tree native to Southeast Asia.
- Consumption of the leaves produces opioid-like stimulant effects in low doses and sedative effects in high doses. Can lead to psychotic symptoms, psychological dependency and addiction.

Commercial Name	Common Forms	Common Ways Taken	DEA Schedule
None	Fresh or dried leaves, powder, liquid, gum	Chewed (whole leaves), eaten or brewed as a tea. Occasionally smoked.	Not Scheduled

	Possible Health Effects
Short-Term	Nausea, dizziness, itching, sweating, dry mouth, constipation, increased urination, loss of appetite. Low Dose: increased energy, sociability, alertness High Dose: sedation, euphoria, decreased pain.
Long-term	Anorexia, weight loss, insomnia, skin darkening, dry mouth, frequent urination, constipation, and hallucinations with long-term use at high doses in some users.
Withdrawal Symptoms	Muscle aches, insomnia, hostility, aggression, emotional changes, runny nose, jerky movements

Source: <https://nida.nih.gov/research-topics/commonly-used-drugs-charts#Kratom>, [FDA and Kratom | FDA](#)

Carisoprodol (Soma®, Vanadom®)

- Street names are Ds, Dance, Las Vegas Cocktail (Soma and Vicodin combo), Soma Coma (Soma and Codeine combo).
- Prescribed as a skeletal muscle relaxant.

Commercial Name	Common Forms	Common Ways Taken	DEA Schedule
Soma®	A prescription drug marketed since 1959 as a centrally acting muscle relaxant for relief of acute, painful musculoskeletal conditions.	Pill	Schedule IV

	Possible Health Effects
Adverse Reactions	Central nervous system related effects such as drowsiness, dizziness, vertigo, ataxia, tremor, agitation, irritability, headache, depressive reactions, syncope and insomnia. Carisoprodol may also adversely affect cardiovascular (tachycardia, postural hypotension and facial flushing), gastrointestinal (nausea, vomiting, hiccup and epigastric distress), and hematologic systems. It may cause extreme weakness, transient quadriplegia, difficulty in speech, temporary loss of vision, double vision, dilated pupils, agitation, euphoria, confusion, and disorientation.
Overdose	Carisoprodol overdose has resulted in stupor, coma, shock, respiratory depression, and death.
Withdrawal Symptoms	Abdominal cramping, insomnia, headache, and nausea.

Source: https://www.deadiversion.usdoj.gov/drug_chem_info/carisoprodol/carisoprodol.pdf; <https://www.justice.gov/archive/ndic/pubs10/10913/10913p.pdf>

Pregabalin (Lyrica®)

- Pregabalin is an anti-epileptic drug that slows down impulses in that brain that cause seizures
- Street names are Buds, Budweisers, Fizers.
- Causes feelings of euphoria, happiness, excitement, calmness, and a “high” similar to marijuana.

Commercial Name	Common Forms	Common Ways Taken	DEA Schedule
Lyrica®	A prescription drug used to treat various types of nerve pain (diabetic neuropathy, shingles caused by herpes zoster) as well as epilepsy, fibromyalgia, and spinal cord injuries.	Capsule	Schedule V

	Possible Health Effects
Adverse Reactions	Dry mouth, constipation, edema, breast enlargement, weight gain, dizziness, drowsiness, loss of balance or coordination, problems with memory or concentration, tremors, and vision problems (blurred vision or double vision).
Overdose	Seizures and death.
Withdrawal Symptoms	Diarrhea, insomnia, headache, and nausea.

Source: <https://www.drugs.com/medical-answers/lyrica-controlled-substance-narcotic-3571636/>; <https://www.medicalnewstoday.com/articles/lyrica#cost>;
https://www.publichealth.hscni.net/sites/default/files/Pregabalin%20Guidance%20Booklet%20A4%20Final%20Web_0.pdf; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7688538/>

Gabapentin (Neurontin®)

- Gabapentin is prescribed to treat seizures and nerve pain
- Street names are Gabbies, Johnnies.
- Causes feelings of euphoria, happiness, excitement, calmness, and a “high” similar to marijuana.

Commercial Name	Common Forms	Common Ways Taken	DEA Schedule
Neurontin®	A prescription drug used to treat various types of nerve pain (diabetic neuropathy, shingles caused by herpes zoster) as well as epilepsy, fibromyalgia, and spinal cord injuries.	Capsule	Not Scheduled

	Possible Health Effects
Adverse Reactions	Anxiety, panic attacks, insomnia, fever, chills, body aches, double vision, swelling in legs, dizziness, drowsiness, balance problems, nausea, vomiting
Overdose	Fast heartbeat, low blood pressure, nausea, vomiting, impaired coordination, coma, death.
Withdrawal Symptoms	Diarrhea, insomnia, headache, and nausea.

Source: <https://www.webmd.com/drugs/2/drug-9845-8217/neurontin-oral/gabapentin-oral/details>; <https://www.drugs.com/neurontin.html>

Tianeptine

- Street names are Zaza, Tia, Tianna, Gas-station heroin.
- Prescribed in Europe and some Latin America countries for depression, asthma, irritable bowel syndrome.
- Abused in the U.S. for its euphoric properties similar to other opioids.

Commercial Name		Common Forms	Common Ways Taken	DEA Schedule
None		While tianeptine is available for use in other countries, tianeptine has not been approved by the United States Food and Drug Administration (FDA) for any medical use nor are there any commercial uses for tianeptine in the United States.	Bulk powder, pills	Not Scheduled
		Possible Health Effects		
Adverse Reactions		Adverse respiratory, neurological, cardiovascular, and gastrointestinal effects, agitation, nausea, vomiting, tachycardia, hypertension, diarrhea, tremor, and diaphoresis.		
Overdose		Confusion, respiratory depression, coma, death.		
Withdrawal Symptoms		Rebound depression and anxiety, insomnia, body aches, chills, hot-flashes, flu-like symptoms, involuntary muscle jerking		

Source: https://www.deadiversion.usdoj.gov/drug_chem_info/tianeptine.pdf, <https://sdtreatmentcenter.com/tianeptine/withdrawal/>

Cyclobenzaprine (Flexeril®, Amrix®)

- A central nervous system (CNS) muscle relaxant intended for short-term use in the treatment of pain, tenderness, and limitation of motion caused by muscle spasms.
- Used non-medically to induce euphoria and relaxation. Often taken in combination with other illicit drugs to produce or enhance psychoactive effects.

Commercial Name	Common Forms	Common Ways Taken	DEA Schedule
Flexeril, Amrix	CNS muscle relaxant	Pill	Not Scheduled

	Possible Health Effects
Adverse Reactions	Drowsiness, dry mouth, dizziness, blurred vision, confusion, anxiety, agitation, psychosis, abnormal thinking, hallucinations.
Overdose	Respiratory depression, coma, death.
Withdrawal Symptoms	Nausea, headache, malaise

Source: https://www.deadiversion.usdoj.gov/drug_chem_info/cyclobenzaprine.pdf

Methylphenidate (Ritalin®, Methylin®, Concerta®)

- Ritalinic Acid is the major metabolite of Methylphenidate.
- Methylphenidate is a central nervous system (CNS) stimulant used to treat individuals who are diagnosed with Attention Deficit Disorder (ADD) or Attention Deficit Hyperactivity Disorder (ADHD).
- Street names are Skippy, Smarties; Kibbles & Bits; Diet Coke; R Pop; Coke Junior; Jif; Study buddies.
- Ritalin is abused for the stimulant effects it produces, including appetite suppression, wakefulness, euphoria, increased focus, and increased attentiveness.
- Our panel tests for both methylphenidate and ritalinic acid to ensure reliable detection in urine test samples

Commercial Name	Common Forms	Common Ways Taken	DEA Schedule
Ritalin, Methylin	Prescription drug methylphenidate	Pill, snorted powder	Scheduled II

	Possible Health Effects
Adverse Reactions	Psychotic episodes, agitation, hostility, panic, aggression, suicidal or homicidal tendencies, cardiovascular complications, can cause severe psychological addiction.
Overdose	High fever, convulsions, and cardiovascular collapse may precede death
Withdrawal Symptoms	Depression, anxiety, extreme fatigue known as a “crash”

Source: <https://www.dea.gov/sites/default/files/2020-06/Stimulants-2020.pdf>