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CH-2.22 Drugs of Abuse Testing Attach1 Triage Screen Characteristics

Please note: UDS orders are restricted to acute care only. For routine drug screens, please see UDSR.

For consultation on drug screen interpretation or ordering, please contact a CLS Clinical Biochemist at 403-770-3549 or 403-770-3759.

Drug of Abuse in Urine	Positive Cut- off Level (Biosite 2004)	Min & Max. Detection Time in Urine* (Verstrate 2004)	Drugs Detected			False Positives Percent of Screen tests NOT confirmed by GC-MS (Kadehjan 2001)
			Good Reactivity	Moderate Reactivity (Concentration dependent)	Poor Reactivity (Will most likely be negative unless in large levels)	
Amphetamines (stimulant amines)	1000 µg/L	1 d to 3 d (small dose) 6 d to 9 d (large dose)	d-Amphetamine d-Methamphetamine (Crystal Meth)	MDA MDEA MDMA (Ecstasy)	Fenfluramine Methylphenidate (Ritalin)	<30% False Positive Rate Herbal products with ephedra and high levels of sympathomimetic amines such as cough and cold medications (ephedrine, pseudoephedrine), phenylpropanolamine) cause false positives.
Barbiturates	300 µg/L	1 h to 4 d (Short Acting) 7 d to weeks (Long acting)	Most	Phenobarbital Glutethimide	Aminoglutethimide Hexobarbital Thiopental	<10 % False Positive Rate Ethosuximide and Thiamylal (overdose levels)

Drug of Abuse in Urine	Positive Cut-off Level (Biosite 2004)	Min & Max. Detection Time in Urine* (Verstrate 2004)	Drugs Detected			False Positives Percent of Screen tests NOT confirmed by GC-MS (Kadehjan 2001)
			Good Reactivity	Moderate Reactivity (Concentration dependent)	Poor Reactivity (Will most likely be negative unless in large levels)	
Benzodiazepine	300 µg/L	3 d to weeks (depends on the benzodiazepine used)	Alprazolam Clonazepam Diazepam Flunitrazepam Flurazepam Lorazepam Triazolam	Metabolites of thienodiazepines Chlorodiazepoxide Clobazam Oxazepam Temazepam Midazolam	Clorazepate Zaleplon Zolpidem Zopiclone	<2 % False Positive Rate Thiomerosal, Tolfenamic acid, and diphenhydramine (overdose levels)
Cocaine-Metabolite	300 µg/L	2 d to 4 d (occasional use) 22 d (depends on frequency and intensity of use)	Benzoylcegonine		Ecognine Cocaine Cocaethylene	<1 % False Positive Rate
Opiates	300 µg/L	0.5 d to 3 d (small dose) 11 d (large dose)	Morphine, Codeine, Heroin	Hydrocodone Hydromorphone 6- MAM (heroin metabolite) Thebaine	Semi-synthetic and synthetic opioids: Meperidine Oxycodone Oxymorphone Buprenorphine Fentanyl Tramadol Pentacozine	<1 % False Positive Rate Quinolone antibiotics
Cannabinoids	50 µg/L	1 to 7 d (occasional use) 95d (chronic use)	11 -nor-9-carboxy-delta 9-tetrahydrocannabinol			<3 % False Positive Rate Eefavirenz (anitviral) Proton Pump Inhibitors (eg. pantoprazole, rabeprazole)

* Detection windows for drugs in urine depend on several factors including dose, frequency of use, drug solubility and half life.

REFERENCES:

Alere. 2016/09. Alere Triage TOX Drug Screen Product Insert. 26327enM Rev.C.

Kadehjan LJ. 2001. Performance of five non-instrumental drug testing devices with challenging near cut-off specimens. J of Analytical Toxicity. 25:670-679.

Verstrate AG. 2004. Detection times of drugs of abuse in blood, urine and oral fluid. Ther Drug Monit. 26(2):200-205