

FLETCHER ALLEN HEALTH CARE

PATHOLOGY & LABORATORY MEDICINE

TEST UPDATE: URINE SCREEN FOR METHADONE

TEST NAME: Methadone Screen

ASSAY INFORMATION:

As of October 1, 2009, the Fletcher Allen Health Care Laboratory will begin offering a urine screen for methadone. This test will be performed on the Biosite Triage, which is a fluorescence immunoassay system and is the system currently used for urine drugs of abuse screening. If you have any questions regarding this test, please contact Dr. Greg Sharp in the Chemistry Laboratory at 847-5115 or via email at gregory.sharp@vtmednet.org.

CLINICAL APPLICATION:

Methadone is a medication affecting the central nervous system that is used by clinics and hospitals as a treatment of narcotic withdrawal and dependence. Methadone relieves withdrawal symptoms from heroin, morphine and other opioid drugs and reduces an addict's opiate craving. In addition, it has abusive potential because it produces morphine-like drug dependence. Detection of methadone can play a role, along with other clinical information, in maintenance treatment of addicts and monitoring for drug abuse. The threshold for detection is 300 ng/mL. The assay is insensitive to the main methadone metabolite, EDDP (2-ethylidene-1,5-dimethyl-3,3-diphenylpyrrolidine).

METHOD:

The Triage TOX Drug Screen is a competitive fluorescence immunoassay used for the qualitative determination of parent compound and major metabolites of drugs of abuse in urine specimens. After addition of a urine sample to the sample port of the test device, the urine passes through a filter. The sample moves by capillary action into the reaction chamber and is allowed to react with fluorescent antibody conjugates or mix with fluorescent drug cognates within the reaction chamber to form a reaction mixture. After an incubation period, the reaction mixture flows through the test device detection lane. The presence of drug or the drug metabolite in the urine specimen prevents binding of the fluorescent conjugates to the solid phase on the detection zone. Excess urine washes the unbound fluorescent conjugates from the detection lane into a waste reservoir. The Triage Meter reads the fluorescence bound to the detection zone and reports a positive or negative.

LIMITATIONS:

- This test provides only a preliminary or presumptive result (cutoff concentration 300 ng/ml). Clinical consideration and professional judgment must be applied to any drug of abuse test result, particularly in evaluating a preliminary positive result. In order to obtain a confirmed analytical result or detection of metabolites, a more specific alternate chemical method is needed. Gas Chromatography/Mass Spectroscopy (GC/MS) or Liquid Chromatography/Mass Spectroscopy are the common confirmatory methods.

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ORDERING INFORMATION:

Test Code: UMETD

Test Name: Methadone Screen

Sample Requirements: 10 ml urine. Freshly voided urine specimens should be collected in a clean, previously unused glass or plastic container. Specimens should be refrigerated if testing is not performed within 4 hours of collection. Specimens are stable for 48 hours if refrigerated. Specimens should be frozen if longer storage is required. The Fletcher Allen Health Care Laboratory stores positive urine specimens for one week frozen in case confirmatory testing is requested by the ordering clinician.

Expected Value/Interpretation: This screen is for medical purposes only. Samples from individuals not prescribed Methadone should produce a negative result.

Bracket Code: 5440

CPT Code: 80101

Price: Please contact Laboratory Customer Service (847-5121 or 1-800-991-2799) for pricing information.

Effective Date: October 1, 2009

References: Triage TOX Drug Screen – Product Insert – Biosite Incorporated, San Diego, CA. ©2008 Inverness Medical.