

**BLOOD SCIENCES
DEPARTMENT OF CLINICAL BIOCHEMISTRY**Title of Document: *Urine Drugs of Abuse Screening – Summary Information*Q Pulse Reference N^o: BS/CB/DCB/TOX/8Version N^o: 1

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Urine Drugs of Abuse Screening – Summary Information

The Toxicology laboratory provides urine drug screening for common drugs of abuse. This service is intended to support clinical decision-making, for example as part of a substance misuse programme. These methods are not suitable for medicolegal or workplace testing.

Range of Screening

Immunoassay testing for the following drugs or drug groups. Summary information on assay cross-reactivity is given on page 2.

Opiate group
Amphetamine group
Benzodiazepine group
Methadone metabolite
Cocaine metabolite

Available as a separate request:

Cannabis (THC metabolite)

Sample integrity is assessed by measurement of urine creatinine. Creatinine <2.0 umol/L indicates a dilute sample (reported with a comment)

Confirmation Testing

Confirmation testing by Liquid Chromatography- tandem Mass Spectrometry (LC-MS) is routinely performed for **opiates** or **amphetamines**, following an initial positive screening result.

Opiate confirmation includes:

Morphine, 6-Monoacetylmorphine (metabolite of heroin), codeine, dihydrocodeine, oxycodone

Amphetamine confirmation includes:

Amphetamine, methamphetamine, MDMA, MDA

Notes:

Immunoassay screening methods provide a preliminary positive analytical result in the presence of the relevant drug or drug groups. Results are reported as positive or negative using commonly used clinical cut-off concentrations for each drug group.

Clinical consideration and professional judgement should be applied to any drugs of abuse test result, particularly where further confirmation testing is not performed.

For further information please contact:

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Immunoassay Cross-reactivity Summary

Assay	The following substances will produce a positive result at clinically relevant concentrations in urine (Not an exhaustive list)
Opiates group	Morphine Codeine Dihydrocodeine Oxycodone may produce a positive result at higher concentrations (shorter detection time-window)
Amphetamine group	Amphetamine Methamphetamine MDMA (ecstasy) may produce a positive result at higher concentrations (shorter detection time-window)
Benzodiazepines group	Diazepam Desmethyldiazepam Temazepam Oxazepam Nitrazepam Midazolam Other benzodiazepines and their metabolites may cross-react to a variable extent
Methadone metabolite	EDDP (primary metabolite of methadone)
Cocaine metabolite	Benzoylecgonine (major metabolite of cocaine)
Cannabis metabolite	Delta-9 THC-carboxylic acid This is the primary urinary metabolite of delta-9 tetrahydrocannabinol, THC. The method also detects other THC metabolites. The method does not detect cannabidiol (CBD), or synthetic cannabinoids (Spice)

The following drugs do not produce a positive result in any of our screening assays. Testing by LC-MS can be performed in individual cases, if specifically requested:

- Ketamine
- Tramadol and O-desmethyltramadol
- Oxycodone (at lower urine concentrations)
- MDMA (at lower urine concentrations)