

Evaluation of Opiate results

Cut-off value

300 µg/L

Cross-reactivity

This assay detects morphine, heroin (diacetylmorphine), 6-monoacetyl morphine, codeine, dihydrocodeine, hydrocodone, hydromorphone, and oxycodone (in high levels).

This assay will not detect methadone or buprenorphine (a buprenorphine assay is available at an extra charge).

Metabolism

Heroin (half-life = 10 minutes) is rapidly metabolised to 6-monoacetyl morphine and morphine. 80% of the dose is excreted within 24 hours.

Morphine (half-life = 2 hours) is metabolised to morphine-3 and morphine-6 glucuronides. 84% of the dose is excreted within 8 hours.

Codeine (half-life = 3 hours) is metabolised to morphine (except in 10% of the Caucasian population) and norcodeine. 86% of the dose is excreted within 24 hours.

Dihydrocodeine (half-life = 4 hours) is metabolised to nordihydrocodeine and dihydromorphone. 20–30% of the dose is excreted within 24 hours.

Hydrocodone (half-life = 4 hours) is a metabolite of codeine. 26% of the dose is excreted in 72 hours. Hydrocodone is metabolised to hydromorphone.

Hydromorphone (half-life = 1.5–4 hours). 36% of the dose is excreted within 72 hours.

Heroin, morphine, and their metabolites are usually detectable for 36–48 hours following a standard dose.

Interferences

High levels of naltrexone may cause false positive results.