

Evaluation of EDDP (Methadone metabolite) results

Cut-off value

100 µg/L

Cross-reactivity

100% with EDDP, < 1% with Methadone and EMDP.

Metabolism

Methadone is rapidly absorbed after oral administration. It undergoes demethylation to up to 8 different metabolites, DDP (2-ethylidene-1,5-dimethyl-3,3-diphenylpyrrolidine) and EMDP being the primary metabolites.

EDDP will account for 3–25% of the dose in the urinary excretion for the first 24 hours. Urinary excretion of the unchanged drug is dependent on pH, with increased excretion in acid urine. Excretion is relatively slow, and EDDP may be present in urine at levels above the cut off for 2 days after the last dose.

Half-life

Methadone half-life:

- After a single dose 10–25 hours
- Long-term therapy 13–55 hours

No information is available for the half-life of EDDP.

Reasons for the assay

Using an assay for EDDP rather than methadone in urine prevents methadone recipients 'spiking' their urine with a trace of methadone and passing their methadone to others. Some patients are fast metabolisers of methadone and may give negative results for methadone assays. These patients' urine will be positive for EDDP.