

Provincial Laboratory Services



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Health PEI
One Island Health System

Urine Opiate Screen at Prince County January 22, 2020

This information applies to: PCH Physicians in Emerg, Addiction centers, and Pain clinics

Urine drug screens are designed to identify true negative specimens for each drug target or class. Thus the “urine opiate screen” aims to rule-out the presence of morphine analogues. However as an immunoassay, there is inherent cross-reactivity with related and unrelated compounds to morphine.

The current “urine opiate screen” at Prince County Hospital has low specificity for hydromorphone (Dilaudid), and we are in the process of switching to an assay with improved hydromorphone detection. This change also serves to harmonize opiates testing with QEHL lab. Please be advised the new “urine opiate screen” elicits some cross-reactivity with naloxone, and thus patients treated with Suboxone or Narcan may screen positive for opiates. The cross-reactivity of other relevant compounds is tabulated below.

During the transition period all negative “urine opiate screen” specimens will be confirmed by the new assay already in place at QEHL. Any discrepancies will be communicated by phone. Suspect samples should be sent for confirmatory analysis.

Cross-reactivity of relevant compounds in the “urine opiate screen” offered by Health PEI laboratories.

Compound	Percent cross-reactivity (%)	Approximate urinary concentration to screen positive (300 mg/mL cut-off)
Morphine	100%	300 ng/mL
Codeine	125%	240 ng/mL
Diacetylmorphine	53%	566 ng/mL
Dihydrocodone	50%	600 ng/mL
Hydrocodone	48%	625 ng/mL
Hydromorphone	57%	526 ng/mL
Morphine-3-glucuronide	81%	370 ng/mL
Morphine-6-glucuronide	47%	638 ng/mL
6-monoacetylmorphine	81%	370 ng/mL
Naloxone	10%	3000 ng/mL

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