

## GABAPENTIN AND PREGABALIN

Gabapentin and pregabalin are anticonvulsant drugs approved for the treatment of neuropathic pain and epileptic conditions. These medications work by reducing select chemical and electrical activity in the brain that contribute to the sensation of pain.<sup>1</sup> Gabapentin and pregabalin may provide relatively safe neuropathic pain relief to patients when used as prescribed.<sup>2,3</sup> However, these drugs have been shown to have some abuse potential. Gabapentin and Pregabalin can also increase respiratory and CNS depression when taken with opioids analgesics.<sup>2</sup>

Pregabalin and gabapentin can be detected as unchanged parent drug excreted from the kidneys into the urine.<sup>4</sup> Kidney impairment can increase normal detection windows.<sup>5</sup> Both urine and oral fluid testing methods can be used to reliably monitor pregabalin and gabapentin exposure.<sup>6</sup> Pregabalin and gabapentin have two distinct chemical structures that can be differentiated using confirmatory LCMS (quantitative) testing methods.<sup>7</sup> If the patient is taking only gabapentin, then pregabalin should not be detected. Inversely, gabapentin should not be detected if the patient is only taking pregabalin.\*

It is important to note that gabapentin can be administered in large and frequent dosages. It is possible for patients taking their gabapentin as prescribed to have urine analyte values into the millions of nanograms per milliliter(ng/ml).<sup>3</sup>

	Gabapentin	Pregabalin
Common Brand Names	Gralise, Neurontin, Horizant	Lyrica
Analyte Detected with Use	Only gabapentin should be detected	Only pregabalin should be detected
Normal Detection Window	Urine: 2-4 days Oral fluid: 1-2 days	Urine: 2-4 days Oral fluid: 1-2 days
Urine LCMS Values Detected in ng/ml	Values may be detected into the millions when taking gabapentin as prescribed <sup>3</sup>	Values may be detected into the thousands when taking pregabalin as prescribed
Cut off values	Oral Fluid: 20 ng/ml Urine :1000 ng/ml	Oral Fluid: 50 ng/ml Urine :500 ng/ml

\*If the patient is switching from one medication to the other, there may be a period where both gabapentin and pregabalin would be detected during drug testing

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assist with further review of your patient's results**

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**Precision Diagnostics**

4215 Sorrento Valley Blvd.

San Diego, CA 92121

(800) 635-6901

[info@precisiondxlab.com](mailto:info@precisiondxlab.com)

[precisiondxlab.com](http://precisiondxlab.com)



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