

**To:** Clients of URMCLabs

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**Re:** Addition of Urine Creatinine to Buprenorphine Test

**Date:** 4/13/2012

Beginning Tuesday May 1, 2012 the Regional Toxicology Laboratory will begin reporting urine Creatinine with the Buprenorphine assay. In addition, the Total Buprenorphine/Creatinine and Total Norbuprenorphine/Creatinine Ratios will be calculated and reported. Knowing the urine creatinine and drug/creatinine ratio is helpful when the patient's hydration status has to be considered in interpreting drug test result. This new report will be offered with no additional charge.

A sample report will look as follows:

* CREAT, UR	155	20-300	mg/dL	S
* BUPRENORPHINE, UR	4	Cutoff is 3	ng/mL	S
* BUPREN GLUC, UR	70	Cutoff is 5	ng/mL	S
* TOTAL BUPREN, UR	55		ng/mL	S
* TOTAL BUP/CREAT, UR	35		ng/mg	S
* NORBUPRENORPHINE, UR	49	Cutoff is 3	ng/mL	S
* NORBUPREN GLUC, UR	314	Cutoff is 2	ng/mL	S
* TOTAL NORBUPREN, UR	269		ng/mL	S
* TOTAL NORBUP/CREAT, UR	174		ng/mg	S

Total Buprenorphine is calculated buprenorphine-equivalent.  
Total Norbuprenorphine is calculated norbuprenorphine-equivalent.  
Testing performed using Tandem Mass Spectrometry (LC-MSMS).  
Cutoff denotes lower limit of quantitation.

Some points to note:

- Total Buprenorphine is the sum of buprenorphine concentration and the buprenorphine-equivalent concentration of buprenorphine glucuronide, the latter is calculated based on the molecular weight of the glucuronide. Therefore, the calculated value of Total Buprenorphine, in buprenorphine-equivalent will be lower than the sum of buprenorphine and buprenorphine glucuronide. A similar calculation is performed to obtain Total Norbuprenorphine.
- If one of the components is less than the cut-off, the less than will be treated like a zero value and the Total and Ratio will be calculated.
- If both components are less than the cut-off the Total and Ratio will not be calculated.
- If a component is > 4000 ng/ml the Total and Ratio will not be calculated.

If you have any questions or need assistance with this information, please contact Dr. Tai Kwong via the methods listed above.