



MEMORANDUM #110

TO: UNC Hospitals Attending Physicians, Housestaff, Nursing Coordinators,
Department Heads and Supervisors

FROM: Catherine Hammett-Stabler, Ph.D., Director, Core Laboratory
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Herbert C. Whinna, MD, PhD, Director, McLendon Clinical Laboratories

DATE: October 15, 2012

SUBJECT: **Benzodiazepine Confirmation Testing Moves In-house**

The Core Laboratory announces the introduction of benzodiazepine confirmation testing effective October 12th, 2012. Currently, this testing is sent to the Mayo Medical Laboratories (Rochester, MN). Testing will be performed in the Special Chemistry Section using liquid chromatography-tandem mass spectrometry (LC-MS/MS). Benzodiazepines are metabolized extensively which means the parent drug is usually not detected in urine. Instead, the drug's metabolites are used to reflect ingestion of the drug. The exception is lorazepam as seen in the following table listing the benzodiazepines and respective compounds found in urine that will be reported.

Benzodiazepine	Compound reported
Alprazolam	Alpha-hydroxyalprazolam
Chlordiazepoxide	Nordiazepam, oxazepam
Clonazepam	7-aminoclonazepam
Diazepam	Nordiazepam, oxazepam, and temazepam
Flunitrazepam	7-aminoflunitrazepam
Flurazepam	Hydroxyethylflurazepam, Desalkylflurazepam
Lorazepam	Lorazepam
Midazolam	Alpha-hydroxymidazolam
Triazolam	Alpha-hydroxytriazolam

Each of the compounds listed as reported quantified when present at 50 ng/mL or greater.

Ordering information: this test should be ordered to confirm a urine benzodiazepine screen.

Test ID – BENU C Test Number - 490 CPT Code - 80154

Requests should be submitted as an add-on to the original urine drug screen order within 3 days of its testing to assure availability (note: specimens are discarded after 4 days).

Specimen Requirements: 5 mL of random urine.

Availability: Testing will be performed once per week. STAT testing is not available.

Reporting and Interpretation: Results at or above 50ng/mL will be quantified and reported in ng/mL. Results less than (<) the cutoff of 50 ng/mL will be reported in that manner just as we report our in-house screens, unlike MML which reports these as “negative”.

As a reminder, testing performed by McLendon Clinical Laboratories is for medical purposes only, and neither urine drug screening results nor confirmation results can accurately predict the dose, route, or time of ingestion for the compound detected. These results indicate past exposure only.

For questions or more information regarding this test, please contact Dr. Hammett-Stabler or Robert Mills at 966-2361.