Urinalysis/ 107 MYOGLOBINURIA

Copy of version 1.0 (approved and current)

Last Approval or Periodic Review Completed	7/25/2023
Next Periodic Review Needed On or Before	7/25/2025
Effective Date	8/15/2021

Uncontrolled Copy printed on 4/22/2024 6:38 PM

Printed By Taneisha Wallace

Organization Howard University Hospital

Comments for version 1.0
Initial version

Approval and Periodic Review Signatures

Type	Description	Date	Version	Performed By	Notes
Periodic review	Lab Director	7/25/2023	1.0	Ali Mousa Ramadan MD	
Periodic review	Core Lab Manager	7/25/2023	1.0	Yoseph Belay (106074)	
Approval	Lab Director	8/15/2021	1.0	Ali Mousa Ramadan	
Approval	Laboratory Operations Manager	8/13/2021	1.0	Wendell McMillan	
Approval	Quality Coordinator	8/1/2021	1.0	Lorraine Foster	Initial electronic version

Version History

Version	Status	Type	Date Added	Date Effective	Date Retired
1.0	Approved and Current	Initial version	7/20/2021	8/15/2021	Indefinite

HOWARD UNIVERSITY HOSPITAL
DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE

STANDARD OPERATING POLICY AND PROCEDURE MANUAL

Urinalysis/107 **AMMONIUM SULFATE TEST FOR MYOGLOBINURIA**

PURPOSE:

An 80% solution of ammonium sulfate precipitates hemoglobin and some denatured myoglobin. The undernatured myoglobin remains in the supernatant and can be tested for with Hemastix. Myoglobinuria occurs with conditions involving destruction of muscle such as with crush injuries severe or unaccustomed exercise, heat stroke, and electric shock, trauma and including myocardial infarction. This test differentiates hemoglobinuria and myoglobinuria after a test for occult blood is positive, but few or no red cells are seen in the microscope.

REAGENTS AND SUPPLIES

1. Ammonium Sulfate
2. 5N Sodium Hydroxide (20 Grams Sodium Hydroxide/100 ML/Distilled Water)
3. Hemastix or Other Chemstrip with Hemoglobin
4. Filter Paper

EQUIPMENT:

Centrifuge

SPECIMEN:

A freshly collected urine specimen is ideal for testing. This test can also be done on 24 hour collection specimens.

PROCEDURE:

1. Filter urine specimen.
2. Dissolve 2.8 gm ammonium sulfate in 5 ml urine to produce an 80% saturated solution.
3. Adjust pH to 8.0 by adding a few drops of 5N sodium hydroxide.
4. Centrifuge mixture and insert hemastix into the supernatant for 10 seconds.
5. Rinse the hemastix with water.
6. Allow 30 seconds to elapse before comparing with color chart.
7. Read the hemoglobin portion of the color chart.
8. If the supernatant is positive, myoglobin is PROBABLY present. DO CONFIRMATION TEST

Confirmation Test:

1. Add 1 gm of ammonium sulfate to supernatant prepared above to precipitate myoglobin.
2. Centrifuge the mixture.
3. Insert the hemastix and compare with the color chart.

INTERPRETATION/RESULTS:
If hemastix is NEGATIVE, myoglobin is present (myoglobin has precipitated). Report as positive. A positive hemastix indicates a negative myoglobin. Report as negative.

Entering results in the computer:
OPERATION OF NOVIUS LIS SYSTEM- URINALYSIS

1. After signing on, activate TESTS by clicking once.
2. Activate WORKLIST.
3. Under WORKLIST ID box enter test profile : UA STOOLS
    - Additional worklists can be activated by entering the first letter of the profile and a list of all the profiles under this letter will be displayed. Use the up/down arrow to find activate profile.
4. Once the profile is selected, activate ADD box to enter the profile in the WORKING BOX.
5. Activate the SEARCH button. All pending results for the activate profile will be activated in numerical order.
6. Enter the number of the sample to be entered in the upper left hand corner or be searching for the number in the listed order.
7. Activate the ENTER INDIVIDUAL RESULTS Button, and then enter the results.
8. Select COMP/SAVE box to file results.
9. To activate a listing of all pending tests in a profile click on WORKLIST, then enter the code of the profile in the WORKLIST ID box, and then click on the ADD to enter into the menu. From the SAMPLE ID VIEW box use the arrow to scroll and click on ORDERED TEST ID VIEW, the

QUALITY CONTROL:
A commercially prepared urine chemistry controls IRISpec CA/CB are available and must be run with each patient sample. Both positive (IRISpec CA) and negative (IRISpec CB) must be run and

verified. Failure to generate the acceptable results will invalidate the test results. Document QC results in the QC chart.

HOWARD UNIVERSITY HOSPITAL
DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE

STANDARD OPERATING POLICY AND PROCEDURE MANUAL

Urinalysis/107 **AMMONIUM SULFATE TEST FOR MYOGLOBINURIA**

REFERENCES:

1. Bauer, J., Ackerman, P., Toro, G., Clinical Laboratory Methods, C.V. Mosby, 1977.

2. Graff, L.A., A Handbook of Routine Urinalysis, J.B. Lippencott Company, 1982.

3. Strasinger, S.K., Urinalysis and Body Fluids, F.A. Davis Company, 1982.

HOWARD UNIVERSITY HOSPITAL
DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE

STANDARD OPERATING POLICY AND PROCEDURE MANUAL

Urinalysis/107 **AMMONIUM SULFATE TEST FOR MYOGLOBINURIA**

Replaces Core Lab/Urinalysis/419/2006/2. Approval and revision of documentation maintained electronically