**LOURDES HOSPITAL**

**169 Riverside Drive**

**Binghamton, New York 13905**

**LAB MANUAL**

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**SUBJECT: Provider Performed Urine Sediment Microscopy**

 **ORIGIN DATE: 2/10/2016**

**REVIEWED: 6/11/2021 REVISED: 6/6/2017**

**REGULATORY REFERENCES: CROSS REFERENCES:**

**POC.04400, POC.06910, POC.06850, POC.06875**

**NYS, CAP, JCAHO**

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**POLICY** Provider performed urine sediment microscopy is a moderately complex test that requires the use of a microscope. Testing must be performed on a urine specimen obtained during the patient’s visit to the practitioner. Microscopic examination of urine is a common testing procedure used to detect renal disease and/or urinary tract disease.

Microscopic exams are performed by the provider (MD, PA, FNP). A patient’s urine sample can be examined under the microscope by preparing a centrifuged aliquot of urine. The sediment can be applied to a Kova slide and viewed under the microscope. The cellular composition can be viewed under high power (40X) to determine the number of red blood cells (RBC’s) and white blood cells (WBC’s) present in the urine specimen.

The provider will participate in proficiency testing provided by the lab.

**PROCEDURE:**

SPECIMEN TYPE: A fresh urine specimen should be collected in a clean, dry container that is properly labeled with two patient identifiers. Specimens more than 2 hours old should not be tested. Samples that may experience a delay in testing should be refrigerated and examined within 8 hours of collection.

REAGENTS AND MATERIALS:

1. Kova Urinalysis slides
2. Urinalysis centrifuge tubes
3. Plastic pipettes
4. Centrifuge
5. Microscope with direct light source

IDENTIFICATION and LABELING: the patient specimen will be identified and labelled using 2 identifiers, patient name and date-of-birth.

TEST PERFORMANCE:

1. Allow urine to come to room temperature prior to testing.
2. Perform hand hygiene and don gloves.
3. Mix the urine specimen. Pour approximately 12 ml (or total volume if less than 12 ml) of urine into a properly labeled (patient name and date of birth) centrifuge tube.
4. Centrifuge the tube in the centrifuge at (1500-2200 rpm) for 5 minutes.
5. Decant the supernatant into a sink or receptacle.
6. Gently re-suspend the sediment in the remaining supernatant.
7. Use a plastic pipette to transfer the sediment to a Kova slide.
8. Examine the urine sediment on high power for red blood cells and white blood cells.
9. Count 10 fields and report the average number of cells per high-power field.

LIMITATIONS: Inaccurate results may be caused by one or several of the following:

1. Testing specimens that have been held unrefrigerated for more than 2 hours
2. Specimens that are not centrifuged long enough or longer than 5 minutes.
3. Extremely dilute urine specimens where no sediment is obtained.
4. Specimens that are not examined with the proper lighting

RESULT REPORTING:

Results must be recorded in the patient’s chart as follows:

**RBC**: None, 0-5, 5-10, 10-20, 20-50, >50 (per HPF)

**WBC:** None, 0-5, 5-10, 10-20, 20-50, >50 (per HPF)

**Electronic Authorizations:**

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