Procedure   
Dignity Health Central Coast Service Area

**SUBJECT**: Urine Eosinophils

**ORIGIN**: Urinalysis

**NUMBER**: 7500.U.20

|  |  |  |
| --- | --- | --- |
| **Applies to:** | | |
| Santa Maria Campus,  Marian Regional Medical Center | Arroyo Grande Campus,  Marian Regional Medical Center | French Hospital Medical Center |
| St. John’s Pleasant Valley Hospital | St. John’s Regional Medical Center | |

# Principle:

To assess the number of eosinophils present in a patient’s urine sample for use in diagnosing a variety of clinical conditions affecting the kidney or urinary tract such as drug hypersensitivities, interstitial nephritis, interstitial cystitis, transplant rejection, and parasitic infections.

# Specimen Collection:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sample Type | Container | Minimum Volume | Storage Temperature | Stability |
| Random Urine | Labeled sterile urine container | 10mL (4 mL pediatric) | Room temp  2-8ºC | 2 hours  24 hours |

# Materials:

|  |  |  |
| --- | --- | --- |
| **Reagents / Media** | **Supplies / Materials**   * Conical urine tubes for centrifugation * Cytocentrifuge funnels and slides * Wright’s Stain | **Equipment**   * Centrifuge * Cytocentrifuge |

# Quality Control:

## Frequency

Slides are assessed each day for proper stain in the Hematology Department. Eosinophils must always appear as a segmented neutrophil (usually bi-lobed) with bright orange granules.

# Procedure:

## Spin down entire random sample and pour off supernatant.

## Prepare cytospin specimen. See Cytospin Procedure 7500-H-20.

## Stain the air dried smear of sediment using the Wescor Stainer procedure 7500-H-21.

## Report a percentage of eosinophils seen. Report all significant cellular elements in the LIS.

# Interpretation of Results:

Normal Reference Range: No Eosinophils seen

1% - 5% is indeterminant

Greater than 5% is highly indicative of acute interstitial nephritis.

# Results:

Results are reported as a percentage:

<1%

1%-5%

>5%

# References:

Muriithi, Angela K, Nasr, Samih H. and Leung, Nelson. Utility of Urine Eosinophils in the Diagnosis of Acute Interstitial Nephritis. Clin J Am Soc Nephrol. 2013 Nov 7; 8(11): 1857-1862.