

Beaumont

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Urinalysis CATUA Workflow

Document Type: Procedure

I. PURPOSE AND OBJECTIVE:

Urinary Catheter Urinalysis w/Reflex to Culture (CATUA) is a test code specific for inpatients with an indwelling urinary catheter. Microscopic analysis will be performed on samples with positive macroscopic results except for urobilinogen. If criteria are met in the microscopic exam, then a Urine Culture order will reflex in the Laboratory Information System (LIS).

II. SPECIMEN COLLECTION AND HANDLING:

- A. Refer to Laboratory Test Directory (LTD) for detailed collection information.
- B. Refer to Clinitek Chemical Urinalysis procedure [\(TTW Only\)](#).
- C. Refer to ~~Laboratory Examination of Urinary Sediment~~ [Laboratory Examination of Urinary Sediment](#)
- D. Refer to ~~iRICELL Automated Urinalysis procedure~~ [iRICELL Automated Urinalysis procedure](#).
- E. [Refer to Sysmex Urinalysis Series UN-9000N, UN-3000N, UN-2000N Automated Urine Chemistry Analyzer procedure.](#)
- F. Follow the site specific workflow for any Urine Culture containers received.

III. PROCEDURE:

- A. Urine Culture Criteria:
 - 1. White Blood Cells (WBC) > 10 / HPF

2. Squamous Epithelial Cells(SQEP) <500-2 / LPFHPF
3. If BOTH criteria are met for WBC AND SQEP then a Urine Culture is required.

B. Urinalysis:

1. Run the CATUA specimen on the IRIS, [Sysmex UN Series Urinalysis Analyzers](#), or Clinitek according to each procedure.
 - a. The IRIS [and Sysmex UN Series Urinalysis Analyzers](#) will automatically perform a microscopic exam if indicated.
 - b. Specimens run on the Clinitek will require a manual microscopic exam or for the microscopic exam to be run on the IRIS.
2. Criteria for review of CATUA :
 - a. If CATUA sample results are all "negative" or do not have an instrument flag:
 - i. IRIS [and Sysmex UN Series Urinalysis Analyzers](#) results will autofile in the LIS without technologist intervention.
 - ii. Results from the Clinitek will not autofile without microscopic results.
 - b. If any CATUA sample result is "positive" or has an instrument flag:
 - i. IRIS results will be held for review by a technologist according to the ~~iRICELL Automated Urinalysis Procedure and once released from the instrument, a Urine Culture will automatically be ordered by the LIS if the urine culture criteria are met. (See Urine Culture Criteria).~~ [iRICELL Automated Urinalysis Procedure](#)
 - ii. [Sysmex UN Series Urinalysis Analyzers will hold for manual microscopic review or automated microscopic on the UD-10.](#)
 - iii. [Once released from the instrument, a Urine Culture will automatically be ordered by the LIS if the urine culture criteria are met. \(See Urine Culture Criteria\).](#)
 - iv. Clinitek results will require microscopic results to be verified. Once the microscopic results are verified, a Urine Culture will automatically be ordered by the LIS if the urine culture criteria are met. (See Urine Culture Criteria).

C. LIS Downtime:

1. Requires manual review of microscopic exam results to determine if a Urine Culture should be ordered.
 - a. Determine if the criteria for a Urine Culture order are met (see Urine Culture Criteria above):
 - b. If criteria is met, place a urine culture order according to the laboratory downtime procedures.

D. Urine Cultures will be sent to appropriate testing site.

Approval Signatures

Step Description	Approver	Date
Medical Director	Jeremy Powers: Chief, Pathology	5/15/2024
Medical Director	Muhammad Arshad: Chief, Pathology	5/14/2024
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Applicability

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