

TEST UPDATE

Platform Changes for Urinalysis Testing

UVMHC

Effective 11/09/2023, the UVMHC Laboratory will be changing the platform for automated chemical and sediment urinalysis from the Arkray Aution 4050 to the Sysmex UN-3000. The Sysmex UN3000 platform is composed of three modules: Siemens CLINITEK Novus (chemical), Sysmex UF-5000 (sediment flow cytometer), and Sysmex UD-10 (sediment digital imaging system). Comparisons between the new UN-3000 and old Arkray Aution 4050 platforms show very good correlation of results both for chemical and sediment analysis.

All UVMHN laboratories will be standardizing the ordering and resulting of urinalysis testing. This standardization includes:

- Updating the naming of the urinalysis tests
- Updating to reporting
- Updated criteria for reflexing the UA to culture
- A new orderable, UA Cascade to Culture

Test Name Updates:

| Updated Orderable Name | Epic Code | Atlas Code | Mayo Access ID | Order LOINC |
|--|-----------|------------|----------------|-------------|
| UA Chemical Only | LAB3695 | ARKUA | N/A | 24356-8 |
| UA Sediment Only | LAB3696 | ARKUMI | N/A | 24365-9 |
| UA Chemical & Sediment | LAB348 | ARKCOM | N/A | 24356-8 |
| UA Sediment + Reflex to Culture | LAB9896 | LAB9896 | N/A | 24365-9 |
| UA Chemical & Sediment + Reflex to Culture | LAB14286 | LAB14286 | N/A | 24356-8 |

Reporting Updates

Chemical Reporting:

| Component | Normal Result | | Abnormal Result | |
|--------------|---------------|----------------|---------------------------------|-----------------------|
| | Current | New | Current | New |
| Urobilinogen | Normal | 0.2, 1.0 mg/dL | 2.0, 3.0, 4.0, 6.0, >=8.0 mg/dL | 2.0, 4.0, >=8.0 mg/dL |

Sediment Reporting:

| Component | Normal Result | | Abnormal Result | |
|-----------|---------------------------|-----------|--|----------------------|
| | Current | New | Current | New |
| WBC | 0-3/hpf | No change | 4-10, 11-50, >=50/hpf | 4-9, 10-50, >=50/hpf |
| Crystal | Not reported if None Seen | No change | Type and Number as Few, Moderate, Many | Only Type |
| Cast | Not reported if None Seen | No change | Type and Number as Few, Moderate, Many | Only Type |

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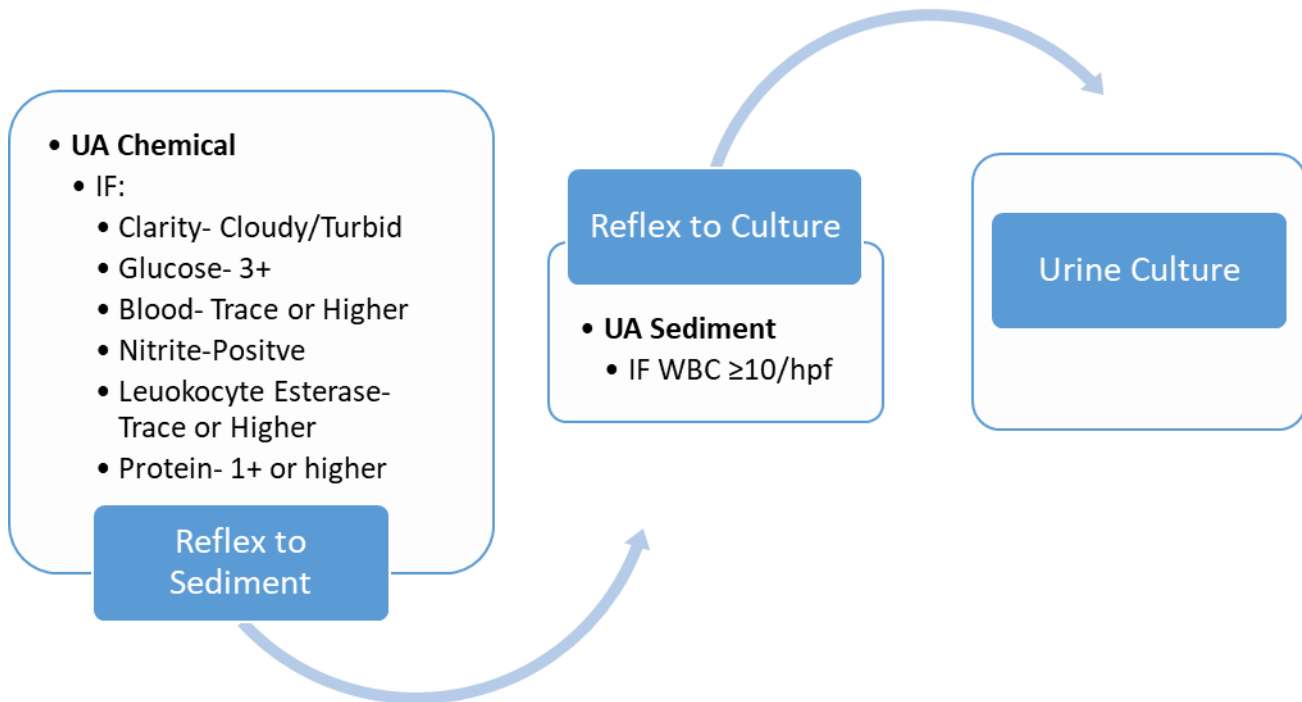
UVMHC

Reflex Criteria Update:

| Reflex to Culture Criteria | |
|--|---|
| Current | New |
| UA Sediment with ≥ 4 /hpf WBC present | UA Sediment with ≥ 10 /hpf WBC present |

New UA Cascade to Culture Test:

The new test, UA Cascade to Culture, includes a chemical analysis and, depending on the results, can reflex a sediment analysis. If the sediment contains ≥ 10 /hpf WBCs, then a culture will be reflexed.



The Bacterial Culture, Urine test is also available as a stand-alone orderable and can be ordered directly in specific clinical circumstances (i.e. pregnant women, neutropenic fever, and neonates).

| Orderable Name | Epic Code | Atlas Code | Mayo Access ID | Order LOINC |
|--------------------------|-----------|------------|----------------|-------------|
| Bacterial Culture, Urine | LAB239 | URC | FAH5109 | 630-4 |

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UVMMMC

| New Orderable | Epic Code | Atlas Code | Mayo Access ID | Order LOINC | CPT Code |
|---|-------------|-------------|----------------|--------------|-----------|
| UA Cascade to Culture | LAB14587 | LAB14587 | N/A | 58077-9 | 81003 |
| Result Components | Epic Code | Atlas Code | Mayo Access ID | Result LOINC | Notes |
| Color | 12301000937 | UCOL | N/A | 5778-6 | |
| Clarity | 12301000938 | UCLAR | N/A | 32167-9 | |
| Glucose | 12301000939 | UGLU | N/A | 25428-4 | |
| Bilirubin | 12301000940 | UBIL | N/A | 5770-3 | |
| Ketones | 12301000941 | UKET | N/A | 2514-8 | |
| Specific Gravity, Urine | 12301000942 | URSG | N/A | 5811-5 | |
| Blood | 12301000943 | UBLD | N/A | 5794-3 | |
| Urobilinogen | 12301000946 | UURO | N/A | 20405-7 | |
| Nitrite | 12301000947 | UNIT | N/A | 5802-4 | |
| Leukocyte Esterase | 12301000948 | ULEU | N/A | 5799-2 | |
| Protein | 12301000945 | UPROT | N/A | 20454-5 | |
| pH | 12301000944 | UPH | N/A | 5803-2 | |
| Specimen Requirements: | | | | | |
| Container | Specimen | Temperature | Collect/Submit | Min Vol | Stability |
| Sterile Container | Urine | Refrigerate | 12 mL | 5 mL | 1 day |
| Collection Information: | | | | | |
| Clean catch specimen preferred. | | | | | |
| First morning voided urine preferred. | | | | | |
| Samples greater than 8 hours old may be unreliable. | | | | | |

If you have any questions or concerns about these changes, please contact the Medical Director of Clinical Chemistry at UVMMMC, Dr. Clayton Wilburn, at (clayton.wilburn@uvmhealth.org).

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