

IQ200 SPRINT EDITING

- St. Joseph Medical Center Tacoma, WA
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 PSC

PURPOSE

To provide instruction for editing Urinalysis results on the IriCell iQ200 Sprint.

BACKGROUND

All sample results outside established auto-release limits appear on the analyzer worklist. Review and editing of the results is required prior to reporting.

RELATED PROCEDURES

- | | |
|----------------|--|
| R-W-UA 2024-02 | Microscopic Urine Manual Exam |
| J-W-UA1031-00 | Microscopic Urinalysis on the iQ200 |
| J-PR-U 1030-00 | Editing Microscopic Results on the iQ200 |
| J-W-UA1034-02 | Performing Dilutions on the iQ200 |

STEPS

- Click on the Work List button on the top right of the monitor to display unreleased samples.
 - Note:** Samples with normal results falling within established limits for auto-release are transmitted directly to the LIS and autoverify.
- Click on a specimen accession number to open the results.

Review System Flags

- Review system flags displayed in RED on the right side of the screen. Flagging issues must be resolved before reporting results. Select Delete Flagged Specimen, or Review Flagged Specimen. Then select Accept.
 - Actions to resolve common flags are listed below in: Resolving System Flags.
 - If a flag is non-recoverable, only "Delete Flagged Specimen" is displayed.
 - By selecting REVIEW FLAGGED SPECIMEN and ACCEPT, you confirm you have resolved the flagging issue.

Editing Microscopic Images Using Auto-Release

- Click the orange **Edit** button to begin editing images. Note: Check the Edit Mode (orange button on bottom left) is in FULL EDIT. If in Turbo Edit, click on the button to change the mode.
- Click on the first YELLOW highlighted category. Only yellow categories will be reviewed. Note: Colored Range Indicator Bars have the following meaning:
 - Green Range Indicator: Results are normal range and do not need to be reviewed.
 - Red Range Indicator: Results are abnormal enough to make little clinical difference if edited.

- **Yellow Color Range Indicator:** Results are borderline low or high, or have questionable results and review is required.
6. Click on the first Yellow category. If more than 50% of the images are correct, you do not need to re-classify the incorrect images.
 - **EXCEPTIONS to the 50% Rule: (All incorrect images must be reclassified.)**
 - All Casts except Hyaline
 - NSE, REEP, TREP
 - SPRM
 - Crystals: LEUC, CYST, TYRO, any unusual or unidentifiable forms.
 - OVFB, FAT
 - TRCH
 7. To re-classify an image to a NEW category:
 - Click on the NEW (Correct) category where the image is to be moved.
 - Then click on the image.
 - Save any remaining images by clicking on the name of the original category.
 - **NOTE:** Remember that leaving the screen prior to completing the previous step (Saving Remaining Images) will send all images on the screen to the NEW category when you exit the screen.
 8. Continue to review all yellow categories.
 9. UNCL (Unclassified) category: Only reclassify the following images.
 - Images that DO NOT have a category created. (Do not move an image if the category already exists.)
 - All REEP, TREP, CASTS must be reclassified.
 10. Review the Urine Culture Indicator Checklist to the right of the screen. If any Chemistry or Microscopy result is RED, look for bacteria (BACT) in the background of the images, and Edit the grading.
 11. If Trichomonas is suspected, check for the following and perform a manual review under the microscope:
 - WBC images that may be shaped like trichomonads (pear shaped)
 - Increased WBC's present with bacteria and/or yeast absent
 - Negative nitrite
 12. When completed, briefly repeat reviewing each particle and concentration checking for editing errors. Adjust if necessary.
 13. Correlate the final microscopic results with the chemistry results and perform necessary confirmatory testing. Edit the chemistry results if indicated.

Parameter	Result	Confirm by:
Protein	Pos	Check for casts, and numerous cellular elements
Blood / RBCs	Pos/Neg	If a discrepancy in results is present between the occult blood reading and the microscopic RBC's, perform Hemastix testing to confirm.
Leukocyte Esterase	Pos	Check for WBC's
Nitrite	Pos	Check for presence of bacteria.
Bilirubin	Pos	Perform Ictotest to confirm, or if reagent unavailable, enter the phrase comment ICTO in the LIS.
pH >8.0	>8.0	Perform SSA testing to confirm the accuracy of the protein result.
Clarity	Abnormal	Check for increased levels of cells, crystals, or casts.
Color	Abnormal	If Red, check for blood, RBCs or hemolysis. If Amber, check with Ictotest. Other abnormal colors may be due to dietary choices or medicinal usage.

14. If the chemistry results need to be edited (i.e. discrepancy in urine color, or due to confirmation testing, follow the steps listed in the section, Editing Chemistry Results.
15. When the final review is complete, click Accept. Results will be transmitted to the LIS.
16. Review the transmitted results in the LIS and enter footnotes or comments prior to validating the results.

TECHNIQUES AND TECHNICAL NOTES

Editing Chemistry Results

- After opening the sample results on the Work List, select OTHER.
- Click the Edit chemistry button.
- To edit a result, click the drop down button next to the parameter being edited.
- Select the new result from the drop down list. The new value is highlighted in yellow, indicating that a change was made.
- If the result is changed from normal to abnormal, check the box to the right of the result.
- Enter a comment in the Comment field identifying the change made and your tech ID (i.e. Color changed from Red to Yellow, 333.)
- Click the OK button to validate the changes. (Note: All changes to results will be documented on the Audit Trail on the final report.)

Resolving ID Errors and Consolidating Chem and Micro Results

Note: If an ID ERROR occurs, the correct sample identifier must be entered before proceeding.

- If an ID flag is present, the chemistry and microscopy results will be separated on the worklist.
- After opening each of the sample results on the Work List, select Review Flagged Specimen.
- Enter the specimen ID in the Specimen identifier edit box on both reports.
- Check the Consolidate microscopy and chemistry check box and select OK.
- The software will search for the other half of the results and consolidate the results. If the system cannot find the other half, a pop up error message will alert you.
- Click Accept.
- The screen refreshes and displays the new consolidated specimen results. The consolidated results can now be edited for release.

Separating Chem/Micro Results for iQ Dilution

Note: When a dilution for the microscopic is needed, it is important to separate the chemistry results from the original microscopic, so that the original microscopic results can be deleted. Warning: Do not run the diluted sample on the Velocity.

- After opening the sample results on the Work List, select OTHER.
- Select Separate chemistry and microscopy results, and OK.
- The prompt "Click Accept to separate chemistry and microscopy results" appears in Red. Click on ACCEPT.
- Both results will be available on the Work List for review.
- From the worklist, select the original microscopic results and select Delete.
- Testing can then be performed on the diluted sample on the iQ200.

Resolving System Flags

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Note: Follow techniques and tips listed below for these more common instrument flags. Other flags can be found in the individual user manuals for each of the instruments.

- **FLOW:** The flow cell may be obstructed.
 - Reject the flag to remove results from the worklist.
 - Run the control rack with Cleaner and Diluent to clear the obstruction.
 - Repeat the specimen.
 - If FLOW errors continue: Remove the in-line sample filter. Replace with the backup filter while the original filter is being cleaned.

- **HIGH CONCENTRATION:** The specimen contained a high concentration of particles.
 - Separate the chemistry and microscopic results by selecting OTHER.
 - Select “Separate Chemistry and Microscopy Results” and OK.
 - REJECT the microscopic results.
 - Prepare an appropriate dilution for the iQ Sprint. Do not run the diluted specimen on the Velocity. See work instruction, Performing Dilutions on the iQ200, J-W-UA1034.
 - Run tubes of diluent before and after the dilution to prevent carryover.
 - Edit the microscopic results using the steps below and accept the results.
 - Open and review the chemistry results from the worklist and edit or accept the results.

- **SHORT SAMPLE:** The specimen volume is insufficient for testing.
 - Reject results, and repeat with additional sample or recollect specimen.

- **CARRYOVER:** The specimen is too concentrated and may cause carryover to the next sample in the rack.
 - Dilute the concentrated sample as listed above in High Concentration, if applicable. See work instruction, Performing Dilutions on the iQ200, J-W-UA1034.
 - Load a blank diluent tube before and following any visibly cloudy or bloody specimen.

- **POSSIBLE AMORPHOUS:** Significant amorphous crystals present and are causing interference with classification of microscopic results.
 - Dilute the concentrated sample and run tubes of diluent before and after the dilution to prevent carryover. See work instruction, Performing Dilutions on the iQ200, J-W-UA1034.

- **ID:** Barcode read error. Edit correct barcode
 - Click on Clear Flags and enter the Accession number in the Specimen Identifier box. Click OK and ACCEPT.

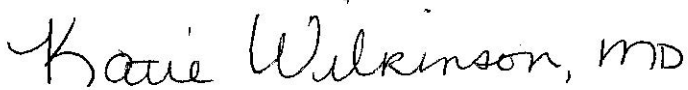
- **SPERM PRESENT:** Evaluate the images and confirm the images are accurate. Sperm, if present, will be reported regardless of age or sex of the patient. Follow the instructions for reporting sperm in work instruction, R-W-UA 2024, Microscopic Urine Manual Exam.
 - Special confirmation is required for samples collected from females, children, the elderly, or those thought to be in a vulnerable environment. Confirmation includes two tech review of the images, the original specimen label, and may also include repeat analysis by manual microscopic using a fresh aliquot from the sample. Save an image of the sperm to have it print on the worksheet.

- **PREVIOUS SPERM PRESENT:** The previous sample may have contained sperm. There may be carryover to THIS sample. If sperm is present in THIS specimen:
 - Repeat the sample with a blank diluent tube before and after the sample to rule out carryover.

REFERENCES

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1. iChem Velocity Operator's Manual, Iris Diagnostics Division, 11/2011.
2. iQ200 Series Operator's Manual, Iris Diagnostics Division, 07/2012.

DOCUMENT APPROVAL Purpose of Document / Reason for Change:			
New document, New instrument			
<input type="checkbox"/> <i>No significant change to process in above revision. Per CAP, this revision does not require further Medical Director approval.</i>			
Committee Approval Date	<input checked="" type="checkbox"/> Date: <input type="checkbox"/> N/A – revision of department-specific document which is used at only one facility	Medical Director Approval (Electronic Signature)	 12/6/13