TRAINING UPDATE

Lab Location:	GEC, SGMC & WAH	**Date Distributed:**	2/14/2016
Department:	Core	**Due Date:**	3/14/2016
		Implementation:	**3/15/2016**

DESCRIPTION OF PROCEDURE REVISION

Name of procedure:

Correcting Results GEC.LIS45, SGAH.LIS52, WAH.LIS51 v2

Description of change(s):

Section 4: add TEa

Section 5: edit criteria (part A)

The last revision caused confusion (if result went from normal to abnormal should it be corrected even if the difference is less than TEA?)

Final SOP reads as follows –

A. Criteria for Correcting Results

Results should only be corrected if at least one of the following is true:

- Difference between values exceeds TEa/2
- Repeat result is a critical value
- Results do not belong to the patient

This revised SOP will be implemented on March 15, 2016

Document your compliance with this training update by taking the quiz in the MTS system.

Approved draft for training (version 2)

Non-Technical SOP

Title	**Correcting Results**	
Prepared by	Marie Sabonis	Date: 12/21/2009
Owner	Marie Sabonis	Date: 12/21/2009

Laboratory Approval		
Print Name and Title	**Signature**	**Date**
Refer to the electronic signature page for approval and approval dates.		
Local Issue Date:	Local Effective Date:	

Review:		
Print Name	**Signature**	**Date**

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1. PURPOSE

Whenever an error on accepted (released) results is discovered, the corrected results are called to the appropriate area. This procedure describes the steps to correct a result in the LIS and enter the call documentation.

2. SCOPE

Any reports that require correction will be processed via this procedure. No results should ever be deleted. The correction process documents the previous report as a comment after the corrected result.

3. RESPONSIBILITY

All technical staff will maintain current knowledge of this function.

4. DEFINITIONS

OEM	Online Result Entry
MEM	Manual Result Entry
LIS	Laboratory Information System
M-ACC#	Modify Accession Number Prompt
WBC	White Blood Cell
NRBC	Nucleated Red Blood Cell
A/M/D/P/R	Accept/ Modify/ Display/ Preliminary/ Reject
CRW	Credit Test Request without Update of Patient Data
UCRR	Urine Creatinine
CLR	Creatinine Clearance
CREAT	Creatinine
BMP	Basic Metabolic Profile
TEa	Total Allowable Error; TEa is the amount of error that can be tolerated without invalidating the medical usefulness of the analytical result.

5. PROCEDURE

A. Criteria for Correcting Results

1. Results should only be corrected if at least one of the following is true:
   - ~~Values that change from normal (within the reference range) to abnormal or vice versa~~
   - Difference between values exceeds TEa/2
   - Repeat result is a critical value
   - Results do not belong to the patient

~~2. Results that do NOT need correction~~
   - ~~Both values are within reference range (normal)~~
   - ~~Both values are outside the reference range (abnormal)~~
   - ~~Difference between values is less than TEA~~

B. Core Laboratory

This procedure is to be used to correct any reported erroneous result. DO NOT CREDIT OR CHANGE REPORTS VIA LIS FUNCTION OER. Using either function OEM, keyboard, or keyboard MEM, the Medical Technologist/Technician corrects the result. The individual correcting the result will take the following steps:

1. **Call the appropriate nursing unit, outpatient area, emergency department, or physician, as soon as the error has been discovered, and report the error to the nurse, physician assistant, or physician caring for the patient.**

2. Access the accession number in function MEM or OEM, using M-ACC# to correct the resulted test.
   Note: When modifying ANY result(s) you MUST press *ENTER* through each result field until you reach the 'ACCEPT, MODIFY, REJECT?' prompt before making any changes. Once at the prompt, type M to Modify and make the appropriate changes.

   This process is required to assure that any calculations associated with the corrected test results will be re-calculated. See examples below and refer to step 4 for proper call documentation.

   a. Example of correct process

   The UCRR result needed to be changed.
   ENTER was pressed until the ACCEPT, MODIFY, REJECT prompt was reached.
   M (Modify) was typed and *ENTER* pressed until test result that needed to be changed.
   The correct value was keyed and *ENTER* pressed through the remaining prompts.
   Note that the calculated test CLR has been re-calculated.

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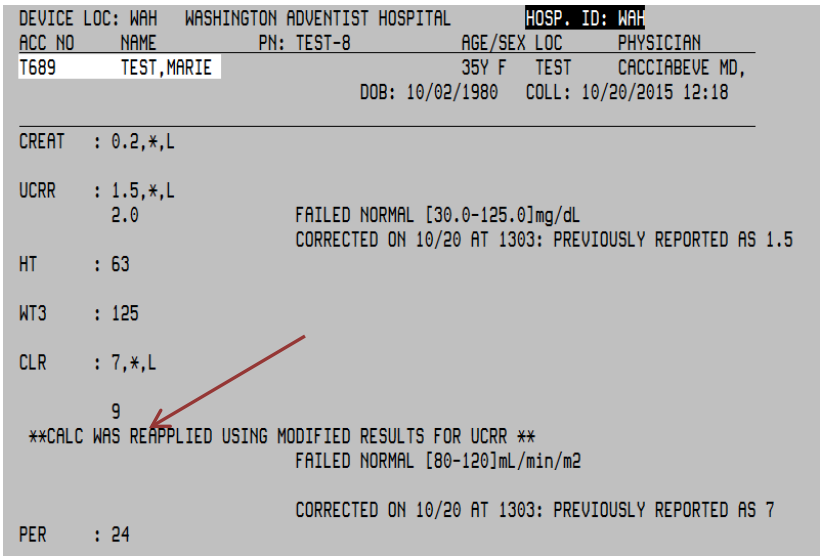

```
DEVICE LOC: WAH   WASHINGTON ADVENTIST HOSPITAL        HOSP. ID: WAH
ACC NO     NAME          PN: TEST-8          AGE/SEX LOC      PHYSICIAN
T689       TEST,MARIE                        35Y F   TEST     CACCIABEVE MD,
                                    DOB: 10/02/1980   COLL: 10/20/2015 12:18

CREAT   : 0.2,*,L

UCRR    : 1.5,*,L
          2.0               FAILED NORMAL [30.0-125.0]mg/dL
                            CORRECTED ON 10/20 AT 1303: PREVIOUSLY REPORTED AS 1.5
HT      : 63

WT3     : 125

CLR     : 7,*,L

          9
 **CALC WAS REAPPLIED USING MODIFIED RESULTS FOR UCRR **
                            FAILED NORMAL [80-120]mL/min/m2

                            CORRECTED ON 10/20 AT 1303: PREVIOUSLY REPORTED AS 7
PER     : 24
```

b. Example of incorrect process

The BMP was resulted and the CREAT result needed to be changed.
After typing in M-ACC#, *ENTER* was pressed until the CREAT test was reached and the CREAT result was changed. Then *ENTER* was pressed until the ACCEPT, MODIFY, REJECT prompt was reached.
Note that the GFR calculation did **NOT** update as it should have since the creatinine value is used for the calculation of the GFR.

```
MANUAL RESULT ENTRY

ACC. NO.: M-T691

SOD: 147,*,H

K:      4.2

CL:     102

CO2:    23

BUN:    47,*,H

CREAT:  0.2,*,L
        0.4         FAILED NORMAL [0.6-1.3]mg/dL
                    FAILED DELTA: 0.2 10/20/2015 1218 T689
                    ACCEPT (Y/N)? : Y
                    CORRECTED ON 10/20 AT 1351: PREVIOUSLY
                    REPORTED AS 0.2
GLUC:   102

CA:     8.9

AGAP:   26,*,H
        26          FAILED NORMAL [5.0-15.0]

GFR:     >90
         NO NEW RESULTS FOUND FOR GFR
 **UNABLE TO CALCULATE GFR, NO CHANGES FILED FOR GFR**

GFRA:    >90
         NO NEW RESULTS FOUND FOR GFRA
 **UNABLE TO CALCULATE GFRA, NO CHANGES FILED FOR GFRA**
```

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(ORDER: BMP)

ACCEPT (A), MODIFY (M), DISPLAY PRIOR (D), PRELIM (P), OR REJECT (R)?

Note: The ACCEPT, MODIFY, REJECT prompt **MUST** be reached before selecting M (Modify) to make changes. This ensures that any applicable calculations will update.

3. The laboratory corrects results for two primary reasons:
   (1) to replace the incorrect results with the correct results, a simple exchange of results, or
   (2) when we have been notified that the tested specimen did not belong to the patient. In this situation, the incorrect results are replaced with an English Text code such as WPT (Wrong patient tested, please disregard these results).

4. For both corrections, the computer will generate an automatic message, "Previously reported as xxx" which leaves the incorrect results attached to the patient's chart.

   a. To enter correct numeric results:

   1) With cursor flashing underneath the incorrect result, type in the correct result, and append the call documentation as free text with the full name of the person taking the report and the date and time.

      GLU: 100
      You Type 180-; SUE SMITH 110515 1830

      Note: When correcting multiple results within a panel (such as BMP or CBC) call documentation is appended to each result that was changed.

   2) After pressing the enter key, the system will append the following messages to the result:

      GLU: 180
      SUE SMITH 110515 1830
      CORRECTED ON 01/06/02 AT 0930:
      PREVIOUSLY REPORTED AS 100

   3) **Accept** the change at the A/M/D/P/R prompt.

   b. To enter English Text code in place of erroneous numeric values:

   1) With cursor flashing in the result entry field, type in the English text code and append the documentation of who was called and the time.

      GLU: 100
      You Type WPT-; SUE SMITH 110515 0930

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2) When enter is pressed, the system will append the following statement to the result:

GLU: *(No result will show beside the test code due to the English Text Code)*
Wrong Patient Tested, please disregard these results, SUE SMITH 110515 0930.
CORRECTED ON 01/06/02 AT 0930:
PREVIOUSLY REPORTED AS 100

3) **Accept** the change at the A/M/D/P/R prompt.

5. Complete a Quality Variance (QV) form and attach a copy of the revised report.

C. Microbiology

This procedure is to be used to correct any finalized erroneous microbiology result. The Medical Technologist/Technician will correct the results in the Microbiology Result Entry GUI application. The LIS will automatically generate a corrected report statement to attach to new result.

Note: Changes made to preliminary results will not generate a corrected statement. Changes to quantity will not generate a corrected statement.

The individual correcting the result will take the following steps:

1. Call the appropriate nursing unit, outpatient area, emergency department, or physician, as soon as the error has been discovered, and report the error to the nurse, physician assistant, or physician caring for the patient.

2. Enter the corrected result.

   a. From the Gateway screen select **Microbiology Result Entry** by double clicking or highlight it and press **enter**.

   b. Enter the Accession number and press **enter**.

   c. Verify the correct test is highlighted and press **enter** to select it.

   d. In the Microbiology Result Entry screen select the correct tab for the test that needs to be corrected.
      1) Direct Exam- Wet Prep, Gram Stain, Malaria (ALT+D)
      2) Culture Entry- Blood Culture (ALT+L)
      3) Susceptibility- Drug sensitivities (ALT+U)

   e. Use the **up-arrow** key to move the cursor over the incorrect result. The result will have a blue box around it.

   f. Press the key for the correct result. (If you don't know the correct result key, press F8 to make the keyboard visible and select the key from there)

g. Press the semicolon twice to free text and then type "Called to < full name> <date> <time>". *Example:* ;;CALLED TO SUE SMITH 110515 1600

h. Press **Arrow-down** to exit that observation line. The correct result will now appear, followed by the contact information, followed by: CORRECTED OR AMMENDED ON <date> AT <time>: PREVIOUSLY RESULTED AS <previous result>".

3. Complete a Quality Variance (QV) form and attach a copy of the revised report.

D. The Laboratory Supervisor or In-charge tech will assure that the following has been accomplished when a corrected result has been issued:

1. The resulting technologist/technician will notify the nurse, physician assistant or the physician of the corrected result.

2. A Quality Variance (QV) form must be initiated whenever a corrected report has been issued, and a copy of the revised report attached to the QV form.

3. The supervisor or designee will review all corrected reports through the LIS.
   a. A Corrected Result report is automatically produced daily via the LIS and sent via email to the Medical Director and Core Laboratory supervisors.
   b. The Supervisor verifies that a QV form has been completed and includes documentation of how the error occurred and any action to prevent re-occurrence.

4. Use function **CRW** to credit all orders that did not have valid results, i.e. WPT, QNSR.

Note: **QV forms should not be initiated in the following instances:**

- When a result is modified after verification, by appending hemolysis to the original result.
- When the value of the original result has not been changed such as when a comment is appended to the answer.
- When a LIS calculated correction is performed (example, WBC corrected for NRBC).
- When clumped platelets are observed on a blood smear.

E. A hospital incident report is initiated in cases where nursing admits that they drew the blood from the wrong patient.

6. RELATED DOCUMENTS

None

7. REFERENCES

SunQuest Systems Functions Training Manual, 7/3/2001

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8. REVISION HISTORY

Version	Date	Reason for Revision	Revised By	Approved By
		Supersedes SOP LIS039.002		
000	12/10/15	Section 4: add UCR, CLR, CREAT Section 5: add criteria for corrections (part A), specify process and add examples to step B.2, edit format for call documentation, add note for correcting panels, replace PI form with QV Footer: version # leading zero's dropped due to new EDCS in use as of 10/7/13.	M Sabonis	M Sabonis
1	2/1/16	Section 4: add TEa Section 5: edit criteria (part A)	L Barrett	M Sabonis

9. ADDENDA AND APPENDICES

None