TRAINING UPDATE

Lab Location:	GEC, SGMC & WOMC	**Date Distributed:**	7/1/2020
Department:	All staff	**Due Date:**	7/31/2020
		Implementation:	**7/7/2020**

DESCRIPTION OF REVISION

Name of procedure:

Error Detection and Correction SGAH.L23 v5

Description of change(s):

Note: The title of this SOP has changed (previously *Clerical Errors, Detection and Resolution*) and the content of LIS procedure *Correcting Results* has been added as an addendum

Header: changed WAH to WOMC; updated title (*to better reflect content*)

Section 1: expanded to include all errors

Section 4: added non-clerical error

Section 5: reformatted & added reference to addendum

Section 6: updated titles

Section 9: added LIS result correction PROCESS (*added requirement to include CBACK and proper format to document calls*)

This revised SOP will be implemented July 7, 2020

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

Non-Technical SOP

Title	~~**Clerical**~~ **Error Detection and Correction** ~~**Resolution**~~
Prepared by	Leslie Barrett Date: 3/18/2009
Owner	Robert SanLuis Date: 7/8/2014

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:	

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1. PURPOSE

This policy is intended to aid in the reduction of clerical errors and provide instructions for correction of ~~clerical~~ all errors when identified.

2. SCOPE

This procedure applies to all aspects of laboratory testing, including specimen collection, lab orders, test performance and resulting. Exception: For Blood Bank, refer to the SOP *Management of Data Entry Errors in the Blood Bank*.

3. RESPONSIBILITY

All technical and non-technical staff involved in data entry must comply with this procedure.

Laboratory managers and supervisors must ensure training and compliance with this procedure.

4. DEFINITIONS

Clerical error - transposed letters/numbers, misplaced scientific notations (decimal points), improper abbreviation, and incorrect spelling or mistranslated computer data entry.

LIS – Laboratory Information System

Non-clerical error – incorrect data due to sample misidentification, instrument process issue, or failure to follow SOP that leads to inaccurate results released for a patient.

5. PROCEDURE

A. Prevention and Detection of Clerical Errors

Step	Action
1	All laboratory-processed requisition slips must be reviewed for completeness and accuracy of data. Information on the slip must match the LIS. If there are discrepancies, the ordering process must be halted, and the originating unit or department must be contacted for clarification. Indicate the corrective action on a Quality Variance form.
2	Before affixing computer generated labels to any specimens, slides, or documents, **verify the Name and Medical Record number**.
3	Upon review of instrument/analyzer printouts, make sure that data is legible and consistent with requested tests.
4	When performing manual entry of results into the LIS or documenting as hard copy: • Verify Patient Name and Medical Record / Accession number. • Carefully re-read text to verify content accuracy and modify if necessary. • Retype the entry if an error is found on reviews. Document incident on a Quality Variance form; print and attach a copy of the corrected report. Give this QV report to the supervisor or designee to review and sign
5	If calculators are used to perform numeric calculation, verify initial results by repeating calculation. Take care when transcribing calculated results into units reported as set up in the LIS. Verify decimal placing, and look for flagging by the LIS for any invalid entries.

B. Correction of ~~Clerical~~ Errors

Step	Action
1	No reported results should ever be deleted. The correction process documents the previous report as a comment after the corrected result.

Step	Action
2	As soon as an error is identified, notify the ordering provider, nurse-in-charge, or the appropriate individual immediately of the correct result or information. All verbal results must be confirmed by the read back process (the person receiving the results will verify the results, by repeating back the patient name, medical record number, test name, and test results, to the laboratory personnel). Any changes to reported data will prompt the LIS to generate the corrected report statement indicating that the results are corrected from: • the previous result was XXXX • **Append the code CBACK (call to and read back by)** right after the corrected result to document: o Name of the person received the corrected report o Date and Time of the notification Refer to the addendum for detailed steps to make corrections in the LIS.
3	All pertinent information is to be documented in the LIS under the test being corrected.
4	Print the corrected report and attach it to the Quality Variance form; submit to the supervisor or designee for review and possible follow up. If the error was due to a mislabeled sample, the QV form must contain the following: • Lab vs nurse mislabel • Name of person from who the blood was drawn • Name of person whose identifiers were on the tube • Photocopies of the specimens that clearly show the label including the collector's ID/initials • How the mislabel was identified • Name of person notified if an RQI occurred
5	All Corrected reports are tracked via a database. Reports are retained as specified in the Retention of Records and Materials policy.

6. RELATED DOCUMENTS

Documentation Technique Policy, QA policy
Quality Variance Forms, QA procedure
Retention of Records and Materials, Laboratory policy

7. REFERENCES

None

8. REVISION HISTORY

Version	Date	Reason for Revision	Revised By	Approved By
		Supersedes SOP L039.001		

Version	Date	Reason for Revision	Revised By	Approved By
000	3/24/2010	Updated owner	L. Barrett	L. Loffredo
001	4/23/2012	Updated owners Section 4: add LIS Section 5: update PI form to Quality Variance form, add read back process to item B.1	L. Barrett	L. Loffredo
002	7/8/2014	Updated owner Section 5: add verification of patient identifiers during manual entry Section 6: updated title Footer: version # leading zero's dropped due to new EDCS in use as of 10/7/13.	L. Barrett	L. Loffredo
3	6/27/2018	Header: add other sites	L Barrett	R SanLuis
4	6/18/2020	Header: change WAH to WOMC; changed title to better reflect content Section 1: expanded to include all errors Section 4: added non-clerical error Section 5: reformatted & added reference to addendum Section 6: update titles Section 9: added LIS result correction PROCESS	L Barrett	R SanLuis

9. ADDENDA AND APPENDICES

Correcting Results in the LIS

Correcting Results in the LIS

A. DEFINITIONS

OEM	Online Result Entry
MEM	Manual Result Entry
LIS	Laboratory Information System
M-ACC#	Modify Accession Number Prompt
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.

B. PROCEDURE

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

B. Core Laboratory

This procedure is to be used to correct any reported erroneous result using either function OEM, keyboard, or keyboard MEM.

1. **Call the appropriate patient care area 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. The correct result must be read back by the person receiving the report** and call documentation recorded in the LIS using proper format**.**
The Text Code **CBACK (call to and read back by)** must be appended next to the result, then use free text (-;) to add the full name of the person taking the report, the date and time and tech code.

   -CBACK-;Sue Smith 072415 1030 1234

   Notes:
   - The call statement MUST have the full name of the person you called and read back, and the date and time you called.
   - If the result is called to a physician, first name is NOT required. Document as ;Dr Last name
   - Do NOT enter any special characters (@, /, #, :, etc.) in the comment.
   - Enter the date as 6 digits in format MMDDYY (example: 032216 for March 23, 2016)
   - Use military time (example: 1400 for 2 PM). Do NOT insert a colon or AM/PM.

2. Access the accession number in function MEM or OEM, using M-ACC# to correct the resulted test.

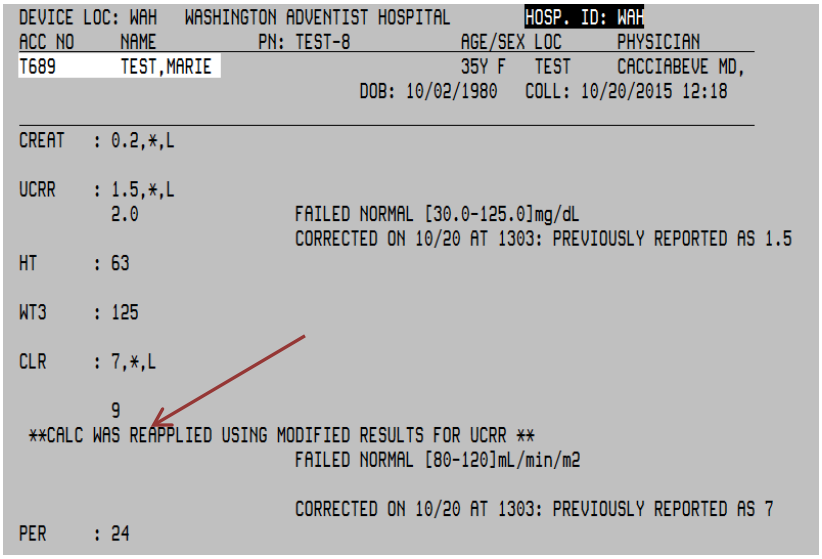
   Note: When modifying ANY result(s) you MUST press *ENTER* through each result field until you reach the 'ACCEPT, MODIFY, REJECT?' prompt before making any changes. Once at the prompt, type M to Modify and make the appropriate changes.

   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.

- Press *ENTER* until the ACCEPT, MODIFY, REJECT prompt is reached.
- Type M (Modify) and press *ENTER* until test result that needed to be changed is reached.
- Key the correct value and press *ENTER* through the remaining prompts. Note that the calculated test CLR has been re-calculated.



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**

(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 associated 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 notified that the tested specimen did not belong to the patient. In this situation, the incorrect results are replaced with the English Text code 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 English text code CBACK and free text with the full name of the person taking the report and the date and time.

GLU: 100
You Type 180-CBACK-; 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
Called to and read back by: 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

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 using 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 follows these 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 and read back by< full name> <date> <time>". *Example:* ;;CALLED TO AND READ BACK BY 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 notified the nurse, physician assistant or the physician of the corrected result.

2. A Quality Variance (QV) form was initiated, 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. To credit all orders that did not have valid results, i.e. WPT, QNSR, refer to the LIS procedure *Credit Without Removing Results*.

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 if nursing admits the specimen was collected from the wrong patient.