COUNTY OF LOS ANGELES **DEPARTMENT OF HEALTH SERVICES**

HARBOR-UCLA MEDICAL CENTER

SUBJECT: POINT OF CARE TESTING CONTINUOUS   **POLICY NO. 416C**
AUTOMATED REFRIGERATOR/AMBIENT AIR TEMPERATURE
AND HUMIDITY MONITORING SYSTEM

PURPOSE:
To ensure that the temperature of refrigerators storing Point of Care testing controls and reagents are maintained per manufacturer recommendations. To ensure that the ambient air temperature and humidity levels are maintained per Abbott i-STAT manufacturer recommendations.

POLICY:
1. Harbor-UCLA Medical Center will ensure that Point of Care controls and reagents used in patient testing are stored in refrigerators that meet the manufacturer's recommended storage temperature.
2. Temperature of all Point of Care refrigerators will be monitored by a continuous temperature monitoring system.
3. ONLY Point of Care controls and reagents will be stored in Point of Care refrigerators.
4. Ambient air temperature and humidity levels in all areas where Abbott i-STAT analyzers are in use will be monitored by a continuous temperature monitoring system.
5. The Point of Care staff will provide training on the use of the Rees Temperature Monitoring System to authorized super users, who will then provide training to their nursing staff.
6. In the event a temperature or humidity reading is out of range the alarm will be activated. The Point of Care area and then the respective nursing area will receive a phone alarm notification.
7. The user will acknowledge the alarm on the phone and take appropriate corrective action to ensure the temperature goes back in range.
8. Manual recording of refrigerator and ambient air temperatures and humidity levels will be initiated when the continuous temperature monitoring system is down. The refrigerator temperature readings will be taken from the built-in temperature display located on the bottom of the refrigerators or the MarketLab Traceable Temperature Monitors. The ambient air and humidity levels will be taken from the MarketLab Traceable Monitors beside the Abbott i-STAT analyzers.
9. Out of range events will be reviewed by the Point of Care Clinical Lab Scientist (CLS) and/or Supervisor to ensure appropriate action and documentation takes place.
10. The Point of Care CLS and/or Supervisor will review monthly reports (to be maintained for at least two years).

EFFECTIVE DATE: 9/20   **SUPERSEDES:**
REVIEWED:
REVISED: 9/20
REVIEWED COMMITTEE:

APPROVED BY: _____   _____
Anish Mahajan, MD   Anish Mahajan, MD
Acting Chief Executive Officer   Chief Medical Officer

                          _____
                          Nancy Blake, PhD, RN, NEA-BC, FAAN
                          Chief Nursing Officer

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DEFINITIONS:
Inhibit: To disable the alarm
Input Number: Refrigerator/Ambient Air/Humidity identification number
Reset/Enable: To reactivate the alarm
Rees Monitoring System: Continuous Automated Temperature Monitoring System

I. PROCEDURE:
1. The person answering the call will receive information about specific Alarm Event details and acknowledge the call by following the Rees Alarm Handling Instructions **(Refer to Appendix A).**
2. If these steps are not completely followed, the call will roll over to the next designated phone number.
3. After acknowledging the phone notification, the refrigerator/ambient air/humidity alarm must be inspected, and corrective action must be taken to bring the reading level back in range.
4. If the problem can be immediately resolved, actions shall be documented in the Rees system under the "Explain any YES answer below." **Examples:** "Refrigerator door was open", "Power was unplugged", etc.
5. If the problem cannot be immediately resolved, the unit will notify Facilities Management and inform Point of Care/House Supervisor to inhibit the alarm for more than 15 minutes.
6. If the refrigerator temperature is out of range, remove the controls/reagents for storage in another monitored Point of Care refrigerator. If the refrigerator needs to be repaired, the controls and reagents will be relocated to another Point of Care refrigerator and the alarm will be inhibited for the estimated period of time required for the repair.
7. For Non 24/7 areas, staff will check that the refrigerator doors are properly closed, and the Rees transmitter is plugged in (before and at the end of shift) to minimize after-hours issues.
8. After-hours, weekends and holidays for Non 24/7 areas:
   a. In the event the refrigerator temperature reading is out of range during after-hours or when the clinics are closed, the alarm will be activated and the Nursing Staff Office (NSO) will receive an automated phone alarm notification. The NSO staff will then notify the respective House Supervisor.
   After (4) consecutive alarm phone notifications, (total of 1 hour), the House Supervisor/NSO will:
      i. Notify the on-call Ambulatory Care Nurse Manager
      ii. Inhibit the Rees alarm for a prolonged period of time, (i.e., 24, 48, 96 hours)
      iii. Document in Rees: Date, time and name of Nurse Manager notified
      iv. E-mail HUCLA-POC@dhs.lacounty.gov the input # inhibited for follow-up and/or replacement of reagents on the next business day

   b. The respective Nurse Manager will evaluate the need for immediate corrective action.

   Note: For other non-24/7 areas within the hospital (i.e., PAT, UCC), Refer to Appendix A

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II. DOWNTIME PROCEDURE:

1. **Rees Scientific Downtime - During Business Hours**
   a. When the Rees Scientific system is down and/or Rees digital temperature is not functioning for more than 12 hours, Point of Care staff will communicate to Nursing to initiate the manual recording of refrigerator temperature, ambient air temperature and humidity daily using the built-in temperature display located on the bottom of the Point of Care refrigerators or the MarketLab Traceable Monitors. The ambient air and humidity levels will be taken from the MarketLab Traceable Monitors beside the Abbott i-STAT analyzers. (**Refer to Attachment 1-** *POCT Refrigerator Downtime Temperature Record* **and/or Attachment 2 –** *Room Temperature and Humidity Downtime Logsheet* **for appropriate temperature downtime record sheet).**
   b. If the alarm is persistent or appears to be down due to some mechanical or electrical failure, the user will:
      i. Contact Facilities Management.
      ii. Contact Point of Care who will contact the Rees vendor. Leave a voicemail if there is no answer.
      iii. Document the problem and complete any corrective action on the manual temperature recording logsheets. Logsheets can be found in the Point of Care Procedure manual located on each unit.

III. AUTHORIZED USERS:

1. House Supervisors will have basic plus access to inhibit the alarm for more than 15 minutes.
2. Nursing staff will have basic access to inhibit the alarm for 15 minutes over the phone.
3. Point of Care staff will have super user access to the system.

IV. REVIEW OF FORMS AND CHARTS:

1. **Daily Review**
   a. Daily review of events is performed by Point of Care Supervisor or designee by using the report function (**Refer to Appendix D**).
   b. If the temperature was out of range, the Point of Care Supervisor or designee will investigate and ensure documentation is complete.
2. **Monthly Review**
   a. Monthly reports and graphs along with documented interventions will be printed and filed in the Point of Care binder for two years by Point of Care Supervisor, or designee.
   b. Monthy reports and graphs will be generated utilizing the report function (**Refer to Appendix D**).

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Appendix A: REES ALARM HANDLING INSTRUCTIONS
1. The person answering the call will receive information about specific Alarm Event details and acknowledge the call by following the instructions below. If these steps are not completely followed, the call will roll over to the next designated phone number.
   a. Listen and identify the number and name of the input.
   b. Press 0 to acknowledge the alarm.
   c. Listen for "Acknowledgement received".
   d. Press 5 to End Call.

Appendix B: REES ALARM HANDLING INSTRUCTIONS
1. House Supervisors will log on to the Rees Monitoring System located on the C Drive on the computer. Click on "Rees Systems" to document actions taken.
   a. Click on file "Rees".
   b. Enter your user name and password.
   c. Click "OK".
   d. Click on the "Input Number" that is in alarm to select.
   e. Right click on the "Input Number" and select "Manage Alarm".
   f. Leave the default 15 minute inhibition. Click "OK".
   g. Type user login info on the bottom again, and click "OK"
   h. All questions must be addressed. Additional comments may be added in the box below.
   i. Identify yourself by inputting your employee number.

Appendix C: REES ALARM HANDLING INSTRUCTIONS
1. When controls/reagents are returned to the original input location, Point of Care staff will document and enable the alarm in the Rees system.
   a. Double click on the Rees input number.
   b. Reset/enable alarm.
   c. Enter your user name and password.
   d. Click "OK".

Appendix D: INSTRUCTIONS FOR GENERATING REPORTS
1. To view or print Daily/Monthly temperature record:
   a. Click "Print Daily Highs, Lows, Averages".
   b. Select Inputs (Use ctrl-left-click to select multiple inputs).
   c. Enter Starting Date and Ending Date.
   d. Click "OK".
   e. Print.
2. To view or print an alarm event that occurred on any specific date:
   a. Click "Print selected events".
   b. Enter Starting Date and Ending Date.
   c. Click "OK".
   d. Print.

POCT REFRIGERATOR DOWNTIME TEMPERATURE RECORD

UNIT:	REFRIGERATOR: POCT

1. Record POCT refrigerator temperature **when downtime occurs.**
2. Report temperatures less than 2°C or greater than 8°C to POCT (x66263). Circle actions taken.

Acceptable Temperature Range: Celsius 2° to 8° / Temperature is Rees Monitored

Date	Temp (°C)	Initials	Actions Taken				Comments
			A	B	C	D	
			A	B	C	D	
			A	B	C	D	
			A	B	C	D	
			A	B	C	D	
			A	B	C	D	
			A	B	C	D	
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			A	B	C	D	
			A	B	C	D	
			A	B	C	D	
			A	B	C	D	
			A	B	C	D	
			A	B	C	D	

Actions Taken Legend

A – Notified POCT x66263
B – Notified Facilities Management x68501

C – Reagents and Controls transferred to another refrigerator
D – Reagents and Controls returned to POCT

POCT Supervisor / Date of Review	

Room Temperature and Humidity <u>Downtime</u> Logsheet

Record POCT Temperature and Humidity **when downtime occurs.** Range: 16.5 to 30°C (if out of range – notify POCT Department x66263) Humidity: 5 – 90%

Date	Temperature (°C)	Humidity (%)	Initials	Comments

POCT Supervisor / Date of Review	