



**LOS ANGELES COUNTY DEPARTMENT OF HEALTH SERVICES
HARBOR-UCLA MEDICAL CENTER**

SUBJECT: MEDICATION REFRIGERATOR CONTINUOUS AUTOMATED
TEMPERATURE MONITORING SYSTEM

POLICY NO. 416B

CATEGORY: Provision of Care	EFFECTIVE DATE: 5/19
POLICY CONTACT: Jennie Ung, PharmD	UPDATE/REVISION DATE: 5/21
REVIEWED BY COMMITTEE(S): Medication Safety, Environmental Care	

PURPOSE:

To ensure that the temperature of refrigerators and freezers storing medications and vaccines are maintained per manufacturer recommendations.

POLICY:

1. Harbor-UCLA Medical Center will ensure that medications and vaccines stored in refrigerators and freezers meet the manufacturer's recommended storage temperature.
2. Temperature of all medication refrigerators and freezers will be monitored by a continuous temperature monitoring system.
3. Pharmacy will provide training on the use of the Rees monitoring system to authorized super users, who will then provide training to their nursing staff.
4. In the event the temperature reading is out of range, the alarm will be activated, and the respective nursing/pharmacy area will receive a phone alarm notification.
5. The user will acknowledge the alarm on the phone and take appropriate corrective action to ensure the temperature goes back in range.
6. Manual recording of temperatures will be initiated when the continuous temperature monitoring system is down. The temperature reading will be taken from the built-in temperature display located on the bottom of the medication refrigerators and/or freezers. If there is no built-in temperature display, an external thermometer with alarm capability will be used for temperature readings.
7. Out of range events will be reviewed by the unit manager/supervisor to ensure appropriate action and documentation takes place.
8. Unit managers will review monthly reports to be maintained for at least three years.

DEFINITIONS:

Inhibit: To disable the alarm

Input Number: Refrigerator/Freezer identification number

Reset/Enable: To reactivate the alarm


Rees Monitoring System: Continuous Automated Temperature Monitoring system

REVISED: 5/19, 5/21

REVIEWED: 5/19, 5/21

APPROVED BY: 
Anish Mahajan, MD
Chief Executive Officer


Anish Mahajan, MD
Chief Medical Officer


Joy LaGrone, RN, MSN
Interim Chief Nursing Officer



LOS ANGELES COUNTY DEPARTMENT OF HEALTH SERVICES
HARBOR-UCLA MEDICAL CENTER

SUBJECT: MEDICATION REFRIGERATOR CONTINUOUS AUTOMATED
TEMPERATURE MONITORING SYSTEM

POLICY NO. 416B

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 or freezer in alarm must be inspected and corrective action must be taken to bring the temperature back in range.
4. If the problem can be immediately resolved, actions shall be documented in the Rees system under the "Additional comments." **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 the nurse manager/house supervisor to inhibit the alarm for more than 15 minutes.
6. If the anticipated temperature is out of range for greater than ONE hour, the nurse contacts pharmacy for storage recommendations. If the refrigerator/freezer needs to be repaired, the medications will be relocated to another refrigerator/freezer, 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/freezer 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 temperature reading is out of range during after-hours or when the clinics are closed, the alarm will be activated and a nursing staff office (NSO) staff will receive an automated phone alarm notification. The NSO staff will then notify the respective house supervisor. After four (4) consecutive alarm phone notifications (total of 1 hour), the house supervisor/NSO staff will notify the on-call Ambulatory Care nurse manager. **Note: For other non-24/7 areas within the hospital (e.g., PAT, UCC), refer to Appendix A.**
 - b. The respective nurse manager and facilities management staff will meet in the main hospital first and will proceed to the affected clinic together.
 - c. The nurse manager on-call will obtain and sign-out the clinic master keys from NSO, and the keys shall be returned on the same day after each use.
 - d. The refrigerator in alarm must be inspected and corrective action must be taken to bring the temperature back into range.
 - e. The nurse manager should allow at least 15 minutes for the refrigerator to re-calibrate before leaving the area.
 - f. If the anticipated temperature remains out of range for greater than one (1) hour, the pharmacist will provide storage recommendations (i.e., relocation of meds).
 - g. If the refrigerator/freezer needs to be repaired, the medications will be relocated to another refrigerator, and the alarm will be inhibited for an estimated period of time required for the repair.

II. DOWNTIME PROCEDURE

1. Rees Scientific Downtime

- a. When the Rees monitoring system (server) is down and/or Rees transmitter is not functioning for more than 12 hours, pharmacy will communicate to nursing department to initiate manual recording of temperature daily (or twice a day for areas with vaccines) using the built-in temperature display located on the bottom of the medication refrigerators/freezers or external thermometer.
- 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



LOS ANGELES COUNTY DEPARTMENT OF HEALTH SERVICES
HARBOR-UCLA MEDICAL CENTER

SUBJECT: MEDICATION REFRIGERATOR CONTINUOUS AUTOMATED
TEMPERATURE MONITORING SYSTEM

POLICY NO. 416B

- ii. Contact inpatient pharmacy to contact the vendor
- iii. Document the problem and complete any corrective action on the manual temperature recording paper

2. Intranet Downtime

- a. When the Intranet webpage with the "Rees Monitoring *NEW*" icon is down, use Internet Explorer, Microsoft Edge or Google Chrome to access the Rees system (**Refer to Appendix B**).

3. MPX CommWatch Alarm

MPX CommWatch monitors a group of Rees transmitters (i.e. MPX # 132 oversees Rees transmitter # 1 to 16). Pharmacy staff will be notified when an input(s) is offline. Pharmacist will sign into Rees to determine which transmitter is offline. Then pharmacy will contact that unit to inspect the transmitter to ensure it is connected properly (i.e. power outlet or if the wires are intact). Pharmacist will inhibit the MPX number in alarm to stop the calling sequence and document actions.

III. AUTHORIZED USERS:

1. Nurse managers/house supervisors/pharmacist will have basic plus access to inhibit the alarm for more than 15 minutes.
2. Pharmacy technician/nursing staff will have basic user access to inhibit the alarm for 15 minutes.
3. Pharmacy and nursing departments will review the active user list quarterly.

IV. REVIEW OF FORMS AND CHARTS

1. Daily Review

- a. Daily review of events is performed by the area manager/supervisor/designee by using the report function (**Refer to Appendix C**).
- b. If the temperature was out of range, the area manager/supervisor/designee shall investigate and ensure documentation is complete.

2. Monthly Review

- a. Monthly reports andp documented interventions will be printed and filed in the area binder for three years by unit managers.
- b. Monthly reports will be generated utilizing the report function (**Refer to Appendix C**).



LOS ANGELES COUNTY DEPARTMENT OF HEALTH SERVICES
HARBOR-UCLA MEDICAL CENTER

SUBJECT: MEDICATION REFRIGERATOR CONTINUOUS AUTOMATED
TEMPERATURE MONITORING SYSTEM

POLICY NO. 416B

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 follow voice prompts to inhibit alarm.
 - b. Press 0 to acknowledge the alarm.
 - c. Listen for "Acknowledgement received".
 - d. Enter "Input Number" of the area followed by the "#" sign.
 - e. Press 3 to end call.

2. The user will log on to the Rees Monitoring System located on the Intranet under "Clinical Applications", "Rees Monitoring *NEW*" and document actions taken.
 - a. Enter your user name and password. Unit nurse will use the generic login for each unit (Example: "nurse3e" for both username and password).
 - b. Click Go.
 - c. Click on the "Input Number" obtained from the phone call.
 - d. Click on "Manage Alarm".
 - e. Leave the default 15-minute inhibition. Enter generic username/password again. Click "Go".
 - f. All questions must be addressed. Additional comments may be added in the box below.
 - g. Identify yourself by inputting your employee number.
 - h. Type the generic login info on the bottom again and click "Go!".

3. When medications are returned to the original input location, the unit manager must document and enable the alarm in the Rees system.
 - a. Click on the "Input Number".
 - b. Click on "Manage Alarm".
 - c. Select "Reset or Enable", press "Go!".
 - d. Enter your user name and password.
 - e. Click "Go!".



LOS ANGELES COUNTY DEPARTMENT OF HEALTH SERVICES
HARBOR-UCLA MEDICAL CENTER

SUBJECT: MEDICATION REFRIGERATOR CONTINUOUS AUTOMATED
TEMPERATURE MONITORING SYSTEM

POLICY NO. 416B

Appendix B: DOWNTIME ACCESS

Accessing Rees Monitoring System when Intranet webpage is down

- a. Open Internet Explorer, Microsoft Edge or Google Chrome.
- b. On the browser enter "10.106.243.187".
- c. Click "Enter".

Appendix C: INSTRUCTIONS FOR GENERATING REPORTS

1. To view or print Daily/Monthly temperature record:
 - a. Click "Menu" bar.
 - b. Select "Averages Reports".
 - c. Enter starting date and ending date.
 - d. Select Input(s).
 - e. Click "Go!".
 - f. Print.

2. To view or print an alarm event that occurred on any particular date:
 - a. Click "Menu" bar.
 - b. Select "Node Events".
 - c. Enter starting date and ending date.
 - d. Select Input.
 - e. Click "Go!".
 - f. Select "Print List".
 - g. Print.