



Pharmacy Department Policy Medication Temperature Monitoring and Response

A. EFFECTIVE DATE :

08/17/2021

B. PURPOSE :

To provide a mechanism of monitoring and response plan for medication storage refrigerators and/or freezers.

C. POLICY :

1. Medications (“*Drugs and biologicals*”) shall be stored under proper conditions of security, segregation, and environmental control at all storage locations. (*Public Health Code Section 19 – 13 – Dv c.*)
2. Medication storage refrigerators and/or freezers will be monitored with automatic temperature sensors.
3. All drugs requiring refrigeration shall be stored separately, and there will not be any food stored in the medication refrigerator.
4. Temperature excursions require immediate response and investigation to ensure product stability.
5. Emergency backup power shall be provided for all medication refrigerators and Freezers in JDH Inpatient Pharmacy and OP Pharmacy. In the event of a power outage, UHPSI pharmacy will follow steps outlined in *Emergency Preparedness Addendum – Refrigerator Downtime Procedure*.
6. All refrigerators and freezers in the Pharmacy must be paired with a continuous monitoring electronic temperature device (i.e. Stanley – Aeroscout)

D. SCOPE :

This policy applies to all John Dempsey Hospital (JDH), UMG, and UHPSI locations where medication refrigerators and/or freezers are deployed.

E. DEFINITIONS :

None

F. MATERIAL(S) NEEDED :

- Alert Beeper
- Stanley - MobileView electronic monitoring system
- Aeroscout temperature sensors

G. PROCEDURE :

Pharmacy Event Triggers:

Impacting all refrigerators under category: Pharmacy Refrigerator/Pharmacy Freezer/Pharmacy -80 Freezer – A MobileView Event will trigger when environmental conditions within a monitored device fulfills a warning

threshold criteria within 0.5°C of the upper and lower reference range (*i.e.* 2.5°C -7.5°C for Pharmacy Refrigerator category) as outlined below:

- Pharmacy Refrigerator categorized devices will trigger *Warning Alerts* outside of range **T<2.5°C or 7.5°C<T**
- Pharmacy Freezer categorized devices will trigger at Warning range of **T<-25°C or -10°C<T**
- Pharmacy -80 Freezer categorized devices will trigger **T>-40°C or -86°C<T**
- After 15 minutes of monitoring device reporting a warning threshold, an *Out of Range* event will trigger
- Once an initial alert fires, events will recur every 15 minutes until the device monitor is taken off-line, or asset returns back within range.
- After 15 minutes of monitoring device reporting an acceptable temperature threshold, an *In Range* event will trigger

Alerting:

Once an *Out of Range* event is triggered, the following occurs:

- Device "Business Status" in Stanley MobileView is updated to *Out of Range*
- ECC is notified via Instant Notifier Application Event and ECC will call X5131 (Pharmacy IT) number that rolls over to on-call cellphone.
- SMS/text alert will go to Pharmacy IT, 24x7 Central Pharmacist pager, and assigned management.

Upon return to *In Range* condition, the following occurs:

- Device "Business Status" in Stanley MobileView is updated to *In Range*
- ECC is notified via Instant Notifier Application Event and ECC will call X5131 (Pharmacy IT) number that rolls over to on-call cellphone.
- SMS/text alert will go to Pharmacy IT, 24x7 Central Pharmacist pager, and assigned management.

Automated Alerts:

- Automated alerts are built out within Event actions. For Each Pharmacy Asset out of range/in range event, Pharmacy IT, management and other predefined staff-members receive an automated alert via E-mail and or text message.
- Contact will be periodically managed to ensure that the appropriate parties are receiving alerts for condition monitoring
- Automated alert will go to Pharmacy IT, 24x7 pharmacist beeper, and first line management of that area.
 - i. IP pharmacy & JDH clinics within the upper main campus: Associate Director of Pharmacy Operations
 - ii. OP Pharmacy & OP clinics: Associate Pharmacy Director for Ambulatory Services
 - iii. UHPSI & offsite UMG Clinics: UHPSI Pharmacy Manager

Automated Beeper Alert: In addition to regular SMS/E-mail alerts defined above, a separate Pharmacy Pager event will fire to alert the pharmacist on duty of an asset out of range event.

- Pharmacist is to make positive contact with Pharmacy IT personnel and ensure *Out of Range* event is being addressed. Pharmacy IT personnel will report the status of the device, and develop an action plan to resolve out of range event, if such is warranted.

Points of Contact (POC):

Points of Contact: Defined at level of the asset, on the Stanley MobileView Server

- b. All devices will have Pharmacy IT number, x5131 as the Primary Point of Contact. ECC will be notified via Instant Notifier Alert to contact Pharmacy IT directly at all hours at the point of warning level excursion. The x5131 number will route to the Pharmacy IT on-call telephone.

- c. For Off-Site devices, ones otherwise inaccessible by Pharmacy IT staff, after initial Alert, the on-call Pharmacy IT staff will contact the operator to notify the emergency contact designated for the respective impacted clinic. The emergency contact will be directed to reach out to on-call Pharmacy IT resource via x5131 to coordinate a planned response.
- d. For on-site devices, and ones accessible by Pharmacy IT, the Pharmacy IT on-call and pharmacist will coordinate the planned response and send an email of response summary to appropriate DL list.

Alert response actions:

- Should integrity of monitored asset be deemed unstable to safely store medicine in controlled reference conditions.
 - The Pharmacy IT will coordinate efforts to sequester medication, facilitate its transfer, and temporarily store in a monitored equivalent unit within the Pharmacy.
 - If there is an impact of potential excursion, the product will be denoted in quarantine until an assessment is conducted to determine product integrity and its release back into dispensing stock.
 - During the next business day, or sooner, Pharmacy IT will enter an emergency work order with ECC and arrange follow-up with facilities to assess need for repair.
 - Pharmacy IT will label the device to not allow storage and send a message to the appropriate DL summarizing events.
 - Pharmacy IT will enter an SI describing the event.

QA Verification of central monitoring system:

- A daily assignment if provided to the pharmacy technician daily to record the temperature of medication containing refrigerators and freezer devices physically located inside the Pharmacy.
- This documentation will be completed electronically through a documentation tool known as Simplifi 797.

H. ATTACHMENTS :

None

I. REFERENCES :

- Public Health Code Section 19 – 13 – Dv. c.
- UConn Health Pharmacy Services Inc. Clinical Procedure 2.61a2, Emergency Preparedness Addendum – Refrigerator Downtime Procedure

J. SEARCH WORDS :

Stanley – MobileView, Aeroscout, Medication, Refrigerator, Freezer, Temperature

K. ENFORCEMENT:

Violations of this policy or associated procedures may result in appropriate disciplinary measures in accordance with University By-Laws, General Rules of Conduct for All University Employees, applicable collective bargaining agreements, the University of Connecticut Student Code, other applicable University Policies, or as outlined in any procedures document related to this policy.

L. STAKEHOLDER APPROVALS :

On File

M. COMMITTEE APPROVALS :

None

N. FINAL APPROVAL :

- | | |
|---|---------------------------|
| 1. <u>Andrew Agwunobi, MD (Signed)</u> Andrew Agwunobi, MD, MBA UConn Health Chief Executive Officer | <u>10/14/2021</u> Date |
| 2. <u>Anne D. Horbatuck, (Signed)</u> Anne D. Horbatuck, RN, BSN, MBA Clinical Policy Committee Co-Chair | <u>10/15/2021</u> Date |
| 3. <u>Scott Allen, MD (Signed)</u> Scott Allen, MD Clinical Policy Committee Co-Chair | <u>10/6/2021</u> Date |
| 4. <u>Caryl Ryan (Signed)</u> Caryl Ryan, MS, BSN, RN Interim Chief Operating Officer, JDH VP Quality and Patient Services & Chief Nursing Officer | <u>10/6/2021</u> Date |

O. REVISION HISTORY :

Date Issued: 8/21