FROEDTERT PHARMACY POLICY

Title: Investigational Drug Temperature Monitoring and Temperature Excursion
Entities Impacted: FHMF( ) FMLH(x) FMCWCP( ) FHWB( )

Effective Date: 08/03/2011
Revised Date: 9/25/2020
Policy Number: (WAS AD33.001)

PURPOSE: This policy describes procedures for temperature management for Investigational Product (IP) by the Investigational Drug Service (IDS) at Froedtert & Medical College of Wisconsin.

DEFINITIONS: A.

B.

POLICY:

A. IDS is responsible for monitoring the temperature of all medication refrigerators, freezers, and ambient temperature in areas where IP is stored.

B. All IP will be maintained within the recommended temperature ranges described below to ensure integrity and potency of the product. All refrigerators, freezers, and ambient temperature locations used for the storage of IP require temperature monitoring. All refrigerators and freezers in Froedtert Hospital are supplied with power connected to a backup generator, in the event of power outage.

C. If a transfer of IP occurs between two locations where the transfer path does not exit the interior of our controlled facility, temperature will not be monitored. See Investigational Drug Transport policy PHRM.IDS.105 for any transfers that leave the interior of our facility. IDS will not monitor temperature of IP shipped directly to patients.

D. IDS will not monitor the temperature of IP after it has been dispensed to the research patient, or the patient's representative.

RELATED POLICIES/ PROCEDURES:

A. Investigational Product Temperature Documentation

1.) Temperatures of IP stored in refrigerators, freezers and ambient storage temperature locations are recorded utilizing a wireless temperature monitoring system. Each wireless temperature monitoring probe is calibrated on an annual basis.

2.) The wireless system will record the temperature every 4 minutes, and document the temperature every 15 minutes.
3.) IDS will not utilize sponsor provided temperature logs.
4.) Temperature reports will be run for the previous month on the nearest business day to the 1st of the new month. The monthly temperature reports will be uploaded to Vestigo® and will be available for monitor review. Temperature reports for mid-month data will not be run for individual monitor visits. This data will be available at the next monitoring visit.
    a. In the event of an audit or study close-out, an exception will be made and a report will be run to provide the most up to date temperature reports.
5.) IDS will not use sponsor provided monitoring equipment and will not accept or operate monitoring equipment provided by sponsors or study teams.
6.) IDS does not have permanent liquid nitrogen storage, but will accept liquid nitrogen dry vapor shippers and sponsor provided monitoring equipment for nitrogen shippers.

B. Temperature Ranges and Alarms

1) All storage locations for IP will be maintained according to standard temperature ranges as defined by United States Pharmacopeia (USP) standards within USP standard 33-NF28 Sections 10.30.10, 10.30.40, 10.30.60 and according to USP <1079>.

- For temperature measurements that are reported and recorded, temperatures will be rounded to the nearest whole degree Celsius.
- Room Temperature: 20 to 25°C (excursions between 15-30° are allowed as defined in section E)
- Refrigerated: 2°C to 8°C
- Freezer: -25° to -10°C
- Ultra-Low Freezer: ≤ -90 to -70°C

2) Any request to comply with temperature conditions or temperature limits other than the above standard ranges will be denied unless the request is supported by robust data to justify the request. This determination will be made at the discretion of the IDS manager.

3) If a refrigerator or freezer malfunctions causing temperatures to exceed the acceptable range, IDS will transfer IP to a similar working, monitored unit. The temperature and condition of the malfunctioning unit will be observed for at least 24 hrs prior to returning IP to that unit.

4) In the event a storage area's temperature exceeds the acceptable range, IDS will transfer IP to a similar temporary secure storage location where the temperature will continue to be monitored continuously until the issue causing the temperature deviation in the primary storage area can be corrected. The primary storage area will be observed for at least 24 hrs before returning IP to that area.

5) Alarms and notifications will be generated for any temperature readings outside of the ranges defined above. Email and pager notification will result per department of pharmacy policy "Wireless Monitoring of Medication Storage".

6) IDS will be notified of any alarms pertaining to storage areas containing IP.

7) IDS will maintain an on-call response to temperature alarms.

C. Not Reporting Limit

If the wireless system detects that a sensor device has not checked in, the system goes into alarm state and it will send an email or text page to the system administrator. Upon receiving this notification, the system administrator will attend to the affected storage area and determine the cause and resolve it.

D. Humidity Conditions

Humidity conditions will not be routinely monitored. If strict humidity control beyond typical conditions at Froedtert Hospital is required, the drug must be stored in a container provided by the sponsor and validated to protect the article from moisture vapor, per USP guidelines, and/or a suitable humidity monitoring device must be provided by the sponsor.

E. A Reportable Temperature Excursion is Defined as:

- Room Temperature: a temperature deviation of $\geq 5^{\circ}$ C from the acceptable temperature ranges described in procedure (B), sustained for a continuous period of 30 minutes or longer or a temperature deviation of $< 5^{\circ}$ C sustained for longer than 24 hours.

- Refrigerated, Freezer, and Ultra-Low Freezer: a temperature deviation of ≥ 1˚ C from the acceptable temperature ranges described in procedure (B), sustained for a continuous period of 30 minutes or longer.

F. Sponsor Notification of Temperature Excursion

- In the event of a temperature excursion as defined in procedure (E), the sponsor will be notified with the Froedtert Investigational Drug Services Investigational Product (IP) Temperature Excursion Form.

- In the event of a temperature excursion, IP in question will be quarantined in the appropriate storage conditions until the IP is deemed acceptable for use by the sponsor and/or sponsor representative. The quarantined inventory will be separated from other IP and clearly marked as not for patient use.

- Monitors, sponsors, or the study team are expected to respond to temperature excursion notifications within two business days.

- All e-mail and other communications with the study monitor regarding the temperature excursion should be retained in the study folder located on the secure electronic (I:) drive or the study binder.

G. Temperature Excursion During Shipment to Site

- Temperature excursions during shipment of IP to Froedtert will be managed according to sponsor instructions.

AUTHORS:

APPROVAL: **Approved: FMLH Pharmacy Leadership Team 9/25/2020**
Approved: Human Research Operations Committee 9/24/20

ATTACHMENTS/APPENDICES:

A. IDS temperature Excursion Form

Investigational Drug Services Investigational Product (IP) Temperature Excursion Form

IDS/IRB Number:	Site Number:
Sponsor:	Protocol Number:
Primary Investigator:	
Type of Excursion: ☐Related to Shipment to Clinical Site (complete section 1) ☐Related to On-Site Storage (complete section 2)	

1. Shipment Excursion	
Shipment Number:	**Has the Investigational Product been quarantined at its specified storage temperature?** ☐ Yes ☐No
Was temperature monitor information downloaded? ☐ Yes ☐No	
Date/Time shipment contents were put into site storage/quarantine:	
Temperature monitor Report attached to this Report? ☐ Yes ☐No	
Shipment Record attached to this Report? ☐ Yes ☐No	

2. On-site Storage Excursion			
Date of Excursion:	**Storage Location:**		
Overall Maximum Temperature:	**Overall Minimum Temperature:**		
Length of time excursion (in minutes):			
Has the Investigational Product been quarantined at its specified storage temperature? ☐ Yes ☐No	**Were any patients dosed with affected IP?** ☐ Yes ☐No		
Date/Time affected IP was put into quarantine:			
Temperature monitor Report attached to this Report? ☐ Yes ☐No			
Investigational Product Name	**Lot Number**	**Number of Units Affected**	**Comments/Other**
☐Check if continued on additional pages			

Cause for Excursion and Additional Comments:

Information Completed by:	
Name:	**Email Contact:**
Signature:	**Date Reported:**

Sponsor Response Received: ☐ Yes ☐No	
Date of response receipt:	