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Winter Storm Preparedness: Emergency Vaccine Storage and Handling

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1. Checklist for Clinics without Backup Power

- Move all vaccine that is not stored in a location supported by back-up power to your designated alternate site (i.e., logistics, pharmacy, alternate clinics).
- When moving vaccine it must be packed and labeled correctly. Make sure it stays within the proper temp during transport and is placed in an appropriate refrigerator or freezer. Keep a detailed itemized list along with contact information affixed to outside of the transport box for easy identification. Box should be labeled as a “temperature sensitive” and “Refrigerated” or “Frozen” product.
- If possible, decrease immunization operations today in order to have plenty of time to pack and move product. Determine a packing priority list for vaccine in case not all vaccine can be moved.
- If no alternate storage site is available, immediately notify your regional immunization healthcare specialist for assistance.

2. Checklist for Clinics connected to Backup Power

- Make sure all refrigerators and freezers within the clinic are clearly labeled on the outside of the unit.
- Clinics with backup power must VERIFY functionality of all equipment:
 - Make sure refrigerator/freezer is plugged into the designated emergency power (normally the red outlets);
 - Verify all alarm and call systems are plugged into emergency power or they will not be able to operate;
 - If alarm or call system has a battery backup ensure system is charged or has new batteries;
 - Check the automated call system to determine if it is programmed correctly and calls the appropriate designated clinic staff;
 - TEST call and alarm system before departing clinic.
- Verify duty officer alarm response procedures and policies are updated.
- Prepare supplies within the clinic for an emergency movement of vaccine. Validated containers, refrigerator packs, and thermometers, along with packing protocol for responders should be readily accessible.
- Verify AX27L (formerly VaxiCool) is fully charged and plugged into emergency power.
- Verify PX6L chilled belts are fully conditioned according to manufacturer instructions.
- Verify PX1L (formerly VaxiPac) phase change bricks are fully chilled according to instructions and that there are 3 bricks per PX1L. Do not use any other cooling item (frozen or refrigerated packs) with the PX1L.
- Have Storage and Handling emergency plan readily accessible and review with all staff.
- All clinics in potentially low lying areas or in lower levels of the facility that may incur flooding should move vaccine to a higher level location.
- Call continuous temperature tracking system (i.e., Sensaphone, REES) more frequently during the storm, if possible.

3. Resources for Emergency Procedures

Emergency Vaccine Retrieval and Storage Plan Worksheet: Local list of emergency contacts and equipment repair. Should be prepared as part of emergency standard operating procedures, updated as needed and readily accessible to all staff. [Emergency Vaccine Retrieval and Storage Plan Worksheet](#)

Emergency Response Worksheet: Utilize when power failure has occurred to prepare and managed potentially compromised vaccine. [Potentially Compromised Vaccine/TSMP Response Worksheet](#)

Temperature logs: For tracking temperatures of vaccines both when stored in refrigerator and when transporting or storing off site.

Vaccine Storage and Handling Guideline: A 40-page guide to assist clinics in day to day and emergency procedures. All above worksheets, packing procedures, and emergency procedures are outlined in the guide. [Vaccine Storage and Handling Guidelines \(dated 17 June 2013\)](#)

4. Packing Protocols for Moving Vaccine

All packing protocols are available from USAMMA/DOC at:
http://www.usamma.amedd.army.mil/cold_chain_management.cfm

Vaccine packing reminders:

- Always use validated containers (e.g., Endurotherm shipping containers, Styrofoam coolers with at least 2 inch thick walls, Manufacturer shipping containers, PX1L, PX6L, AX27L);
- Always include calibrated thermometer to track temperatures during transport and storage;
- Always document on the outside of the transportation container the vaccine type, date, time, originating facility, phone number and that the contents are fragile and temperature sensitive.;
- Always use insulating barrier (e.g., cardboard wafer, crumpled paper, bubble wrap) between cold packs and the vaccines. Never place vaccine directly on frozen packs;
- Record temperatures hourly when vaccine is outside of a functioning refrigerator or freezer.

5. Procedures for Reporting Vaccine Loss

Sometimes vaccine loss cannot be prevented. If vaccine is suspected to have been outside the safe temperature range immediate action must be taken.

- Segregate and label potentially compromised vaccine as "DO NOT USE". Immediately place in a functioning storage unit, do not leave in malfunctioning refrigerator.
- Record temperatures of refrigerators when vaccine discovered and length of time vaccine was potentially compromised.
- Inventory all the vaccine affected lot numbers, value and complete the Potentially Compromised Vaccine/TSMP Response Worksheet.
- Submit the [Potentially Compromised Vaccine/TSMP Response Worksheet](#) through Service-specific channels, to USAMMA/DOC and to your Regional Defense Health Agency Immunization Healthcare Specialist (<http://www.vaccines.mil/Map>).
- NEVER discard vaccine until it has been confirmed as a loss by USAMMA/DOC.

USAMMA/DOC is the DoD agency responsible for the managing and storage of temperature sensitive medical products. To contact USAMMA/DOC for vaccine loss guidance call: 0700-1700 (EST): 301-619-3017/4318.

For after-hours urgent issues: 301-676-0808/1184, DSN 343.

Email at usarmy.detrick.medcom-usamma.mbx.doc@mail.mil

For more vaccine storage and handling tools visit: http://vaccines.mil/Storage_and_Handling

CDC Vaccine Storage and Handling: <http://www.cdc.gov/vaccines/recs/storage/default.htm>