

Policy & Procedure Title	Storage and Handling-Emergency Plans	Issuing Date	07/17/2012
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Policy & Procedure Approval Authority	<i>Dave McEwenick</i>		

Policy & Procedure Summary

Every clinic that receives publicly funded vaccine should have an Emergency Management Plan in the event of inclement weather, power outages and/or storage unit failures. All clinics must also have a Vaccine Management Storage and Handling Plan. All staff members should be trained on the policies and procedures of the Vaccine Management and Emergency Management plans.

Policy Statement

Storage and Handling Plans

Clinics can be provided with a template on key vaccine management requirements. All provider vaccine storage and handling plans must be reviewed and updated annually, or more frequently if changes to any information within the plan occur, such as new staff members who have responsibilities specified in the plan. A "review date" is required on all plans in order to verify that they are current. The plan must include the signature, name, and title of the preparer of the document. The minimum required components of the Vaccine Storage and Handling Plan include:

- Name of the current primary vaccine coordinator and at least one back-up coordinator
- General operations for the following vaccine storage and handling practices:
 - Proper vaccine storage and handling practices
 - Temperature monitoring
 - Vaccine storage (e.g. equipment, placement)
 - Vaccine shipping and receiving procedures
 - Vaccine ordering procedures
 - Inventory control (e.g. stock rotation)
 - Vaccine expiration, spoilage, and wastage prevention (e.g. protocol for responding to and reporting vaccine loss)
- Staff training (and documentation of training) on VFC requirements, including proper vaccine storage and handling

Written emergency storage and handling plans must be developed and maintained by every facility and/or clinic. A template form should be used and posted on the vaccine storage unit which includes details of the Emergency Management of Vaccines plan, containing instructions and emergency contact information. An Emergency Management Plan is necessary so that vaccine can be transported to another location if situations occur that make it so vaccines can no longer be safely stored at the facility. Such situations may include:

- A power outage that lasts more than 1 hour;
- A malfunction of your vaccine storage unit;
- A natural disaster
- A building maintenance issue such as a burst water pipe that results in standing water, or;
- Even if your facility has a back-up generator, there may be a time when you will not be able to keep your vaccine storage unit plugged in and operational.

Note: Immediately contact the Indiana Immunization Division in the event of an emergency. NEVER discard vaccine that has been exposed to a temperature excursion unless directed to by the vaccine manufacturer or the Immunization Division.

Every clinic should also have an emergency vaccine retrieval and storage plan. The plan should be easily accessible to staff and identify a backup location where the vaccine can be stored. Considerations when choosing this site include appropriate storage units, temperature monitoring capability and a backup generator. Potential backup locations might include a local hospital, pharmacy, long-term care facility, or the Red Cross.

Providers should keep an adequate supply of packing materials (i.e. coolers/insulated shipping containers, bubble wrap or packing material and frozen water bottles) and calibrated temperature monitoring device(s) to accommodate the facility's vaccine supply, if transport is needed. Follow the steps **procedure details** and **packing order diagram** to ensure proper vaccine transport.

Power outages or natural disasters are not the only events that can compromise vaccine. Forgotten vials of vaccine left out on the counter or doses of vaccine stored at improper temperatures due to a storage unit failure are other examples of how vaccines can be potentially compromised.

Procedure Details

All providers should follow the following steps in the event of an emergency to ensure the viability of all publicly funded vaccines.

Step 1) Provider notifies the Emergency contact person for the site

Step 2) Provider determines if a generator or alternate power source is available. If so, ensure that all steps are followed to maintain the vaccines within the required temperature range for each storage unit.

Step 3) If the power failure will be temporary (less than 1 hour), providers should do the following:

- a. Ensure that the refrigerator and freezer doors remain closed for the duration of the outage.
- b. Document the time of the power outage and the duration of the outage.
- c. Document the room temperature during the outage.

Under these conditions, it is not necessary to remove the vaccines from the storage unit since the rise in temperature could be only slight or insignificant.

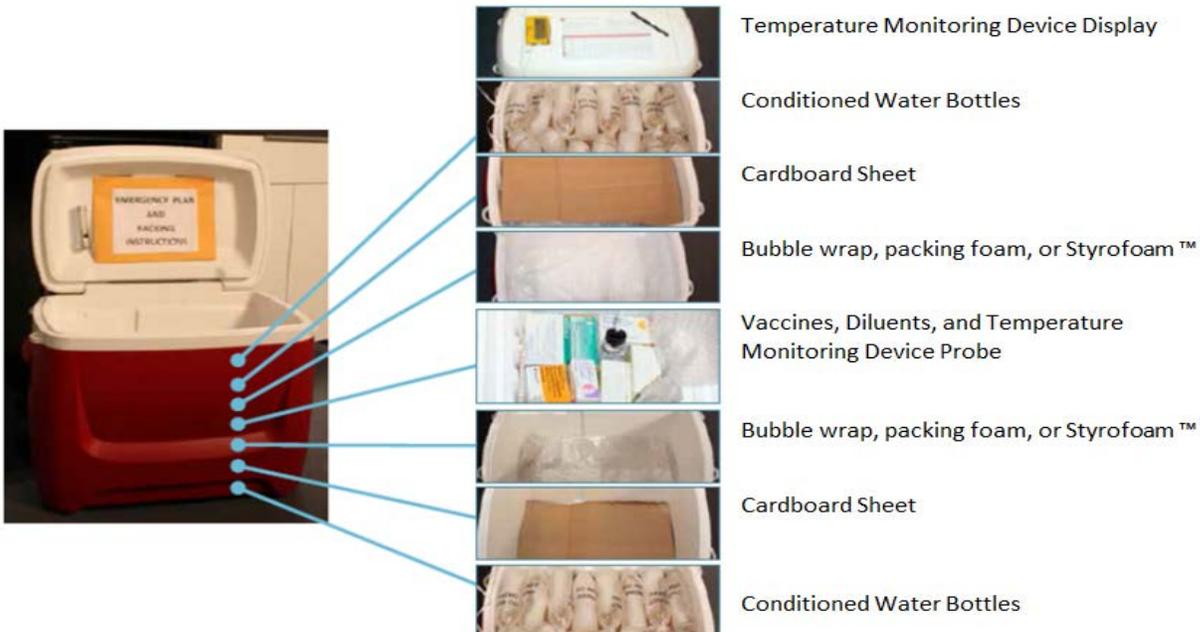
Step 4) If the power or equipment failure is expected to last longer than 1 hour, follow these steps:

- a. Maintain use of generator or alternate power source and ensure that vaccines continue to be stored at appropriate temperatures.
- b. If an alternate power source or equipment is not available, the provider should begin making arrangements to transfer the vaccine to a predetermined emergency storage facility.
- c. The provider should begin packing the vaccine for transfer to the alternate location
 - 1) The vaccine should be placed in insulated transport containers or shipping boxes with refrigerator packs, bubble wrap and a continuous temperature monitoring device. Please refer to the **packing order diagram** for further guidance.
 - i. All inactivated or refrigerator vaccines should be transported at 36° to 46°F (2° to 8°C)
 - ii. All varicella-containing or frozen vaccines should be transported at 5°F (-15°C) or colder. Use of dry ice is not recommended, even for temporary storage or emergency transport.

The CDC and vaccine manufacturer do not recommend transporting varicella-containing vaccines. If these vaccines must be transported, CDC recommends transport with a portable freezer unit that maintains the temperature between -58°F and +5°F (-50°C and -15°C). If varicella-containing vaccines must be transported and a portable freezer unit is unavailable, the vaccine MAY be transported at refrigerator temperature 36° to 46°F (2° to 8°C) for up to 72 continuous hours prior to being reconstituted. Please see the Special Instructions for Transport of Varicella-Containing Vaccines located in the References and Resources section of the policy manual.

- iii. Measles, mumps and rubella vaccine (M-M-R-II) may be transported in a refrigerated or frozen state.
- iv. Diluent does not need refrigeration and cannot be frozen.
- d. If at any time during the power outage or equipment failure, the temperature is recorded **above** or **below** the recommended range, **DO NOT USE** the vaccine until the following steps are taken and the viability of the vaccine has been determined.
 - i. Immediately check the continuous temperature monitoring device for correct placement and operation.
 - ii. Contact the Indiana Immunization Division at (800) 701-0704.
 - iii. Contact the manufacturer of each affected vaccine.
- e. In the event that an outage or equipment failure or if temperatures are **above** or **below** the recommended temperature for an extended period of time **AND** the vaccine was not relocated, immediately contact the manufacturer and the Indiana Immunization Division at (800) 701-0704.

Packing Order Diagram



References & Resources

Centers for Disease Control and Prevention. (2018) Vaccine Storage and Handling Toolkit, Revised January 2018. <https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf>

Centers for Disease Control and Prevention. (13th Edition) Epidemiology & Prevention of Vaccine-Preventable Diseases, Pink Book. Revised 2015. <http://www.cdc.gov/vaccines/pubs/pinkbook/index.html>

Refrigerator/Freezer Temperature Log

Emergency Management of Vaccines Template

Varicella-Containing Vaccines-Special Instructions for Transport (Merck)

Emergency Response Worksheet, Immunization Action Coalition. <http://www.immunize.org/catg.d/p3051.pdf>

Revision History

07/17/2012, Created

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