

Georgia Immunization Program Handling of Vaccine During Inclement Weather Conditions

To protect vaccine in storage and to minimize the potential monetary loss from inclement weather conditions such as tornadoes; hurricanes; and tropical, ice, snow, rain, lightening, or wind storms, etc., emergency procedures at both the depot and provider level should be implemented immediately. A part of this implementation should include communication to all providers who receive publicly purchased vaccines, or at least to those in the geographic areas of highest risk.

When the state/local officials or a provider has reasonable cause to believe that weather conditions have the potential to disrupt power and/or flood any office where vaccine is stored, emergency procedures should be implemented IN ADVANCE OF THE EVENT.

In advance of the emergency, all providers should ensure the following:

- A. identification of an alternative storage facility (hospital, packing plant, state depot, etc.), with back-up power (generator), where the vaccine can be properly stored and monitored for the duration of the storm,
- B. the availability of staff to pack and move the vaccine,
- C. the use of appropriate packing containers, cold packs, and dry ice (for varicella vaccine), and
- D. the transport of the vaccine to the secure storage facility.

It is appropriate for providers to suspend vaccinations before weather conditions deteriorate. Sufficient time must be allowed for packing and transporting vaccine BEFORE the storm can adversely affect local conditions.

There are other precautions and appropriate measures one can take to protect vaccine inventories using the emergency procedures described below. The following includes some HELPFUL HINTS AND REFERENCE INFORMATION.

EMERGENCY PROCEDURES

- A. List emergency phone numbers, companies, and points of contact for:
 1. Electrical power company
 2. Refrigeration repair company
 3. Temperature alarm monitoring company
 4. Perimeter alarm repair company
 5. Perimeter alarm monitoring company
 6. Backup storage facility
 7. Transportation to backup storage
 8. Dry ice vendor
 9. Emergency generator repair company:
 10. National Weather Service---Satellite tracking of significant weather is also available at <http://www.goes.noaa.gov/> .
 11. Manufacturers:
 - a. Merck Vaccines: 800-672-6372
 - b. Aventis Pasteur: 800-VACCINE (800-822-2463)
 - c. GlaxoSmithKline: 800-366-8900
 - d. Wyeth Lederle Labs: 800-666-7248
- B. Providers may contact the Georgia Immunization Program (GIP) for assistance in identifying hospitals, health departments or other facilities that could serve as emergency vaccine storage facilities and communicate this information. This might also be done at the district or county level and/or with assistance from the Office of Emergency Preparedness. The GIP will prioritize assistance and communication to target providers in areas at highest risk, e.g., low lying coastal or floodplain areas.

- C. Entering vaccine storage spaces---describe, when necessary, how to enter the building and vaccine storage spaces in an emergency if closed or after hours. Include a floor diagram and the locations of:
1. Doors
 2. Flash lights
 3. Spare batteries
 4. Light switches
 5. Keys
 6. Locks
 7. Alarms
 8. Circuit breakers
 9. Packing materials
- D. Identify whom to call for the following items:
1. Equipment problems
 2. Backup storage
 3. Backup transportation
 4. Security
- E. Identify what vaccines to pack first in an emergency and while the power is still working:
1. Pack the refrigerated vaccines first with an adequate supply of cold packs.
 2. Remove and pack the varicella vaccine, using dry ice, immediately prior to transport.
- F. Pack and transport all vaccine or if that is not possible, determine the types and amount to save; e.g., save only the most expensive vaccines to minimize dollar loss or save some portion of all vaccines to ensure a short-term, complete supply for resuming the vaccination schedule. Priority should be given to those vaccines which would be the most expensive to replace (pneumococcal conjugate, varicella, DTaP/HepB/IPV, Hep B/Hib, MMR).
- G. Follow vaccine packing procedures for transport to backup storage facilities:
1. Open refrigerated units only when absolutely necessary and only after you have made all preparations for packing and moving the vaccine to alternative storage sites.
 2. Use properly insulated containers.
 3. Do not place vaccines that cannot be frozen directly against cold packs. (Note: MMR can be stored frozen or refrigerated.)
 4. Follow vaccine handling guidelines. The following are important tips to remember:
 - Varicella vaccine is fragile and should be used within 72 hours of placing on wet ice or in a refrigerated environment.
 - MMR vaccine can be refrigerated or frozen, but should be kept out of direct light.
 - All other vaccines should be maintained at refrigerator temperature.
- H. Move vaccine to backup storage according to pre-arranged plans. Pre-arranged plans should take into consideration the following:
1. How to load the transportation vehicle
 2. Routes to take
 3. Time enroute
 4. Temperature monitoring (maintenance of temperature log with temperatures checked twice daily) while vaccine is in backup storage
- I. On returning inventory to the clinic/practice/pharmacy, vaccines should be checked carefully and placed in the appropriate refrigerator or freezer compartments. **If the provider is not able to assure viability, GIP should be contacted before using any vaccines that may not be effective for protecting children and/or adults against disease.**