

JUVENILE COURT HEALTH SERVICES PHARMACY PROCEDURES

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Subject: ROUTINE STORAGE AND HANDLING OF VACCINES (Y-D-01, Compliance Indicator #10)		Original Issue Date: 08/20/12	Procedure # 038
		Supersedes: 9/1/12	Effective Date: 1/30/13
Departments Consulted: DHS Pharmacy Affairs	Approved By: (Signature on File) Pharmacy Supervisor (Signature on File) Medical Director	Approved by: (Signature on File) Health Services Administrator	

PURPOSE

To ensure proper storage and handling of vaccines in the pharmacy and to assure that patients are administered viable vaccines.

POLICY

Pharmacy staff shall adhere to the guidelines regarding proper storage and handling of vaccines.

PROCEDURE

- A. All biologics (Vaccines) will be stored in the pharmacy refrigerator or freezer per manufacturers' recommendations.
- B. Pharmacy staff shall ensure that the following steps occur:
 1. A trained person oversees the vaccines and trained back-up person is designated
 2. Refrigerators used to store vaccines shall be maintained at a temperature between 35-46° F (2-8°C), and freezer at 5°F or below ($\leq -15^\circ$ C). The temperature should be set at mid-range to achieve an average of 40°F for the refrigerator and 0° F in the freezer.
 3. Refrigerators and freezers, used to store vaccines, will have two functional thermometers (primary and backup).
 4. Place thermometers in a central area of each refrigerator and freezer.
 5. A separate calibrated data logging digital thermometer should be used to monitor temperatures of the medication/vaccine refrigerator and freezer. The calibration certificate should be valid for at least two years. Thermometers will be replaced every two years or prior to expiration of the calibration certificate (whichever occurs first).
 6. Check refrigerator/freezer temperatures twice a day (when pharmacy opens and prior to closing) and document on the temperature log. Document the temperature, exact time, and initials of the person verifying the temperature on the log.

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7. Take immediate action to correct any out-of-range temperatures (e.g., adjusting the thermostat in small increment) and document the results of these actions. Mark any vaccines exposed to out-of-range temperatures (i.e., "Do Not Use") and isolate at the proper temperature. i.e., transfer to a certified back-up storage unit. Notify the pharmacy supervisor to contact Customer Support Services for guidance. Be prepared to provide the following information:
 - o Amount of vaccine in stock (type and # doses)
 - o Vaccine lot numbers
 - o Date and time of last documented refrigerator/freezer temperatures
 - o Upload of temperature data from the thermometers
 - o For multi-dose vials note the date the vial was opened

8. Food or laboratory specimens should not be stored in the refrigerator/freezer used for vaccines. Medications should be stored on a separate shelf.

9. Vaccines should be stored in the center of the unit with air space between them to allow for proper air circulation. Store vaccines away from the cold air outlet from the freezer to the refrigerator (usually located at the top of the refrigerator compartment).

10. Keep all the vials and single-dose syringes in the original manufacturer boxes. Do not store vaccines in the doors, vegetable bins, or against the walls of the storage unit.

11. To minimize temperature fluctuations, place several water bottles in the doors of the refrigerator and freezer. Ice packs can also be stored in the freezer.

12. Plug the refrigerator into an outlet where it cannot be accidentally disconnected. Verbally inform staff, including maintenance staff that the unit is not to be unplugged. Label the refrigerator, electrical outlets, fuses, and circuit breakers on the power circuit with information that clearly identifies where vaccines are stored and the steps to be taken in case of power interruption.

13. Conduct physical inventory of vaccine monthly (more frequent if necessary) or prior to placing a vaccine order. Vaccines due to expire within 90 days may be transferred to another facility with the permission of Los Angeles County Immunization Program. Complete the Vaccine Transfer form and contact Customer Support Services to arrange transfer of vaccines.

14. Store and rotate vaccines according to expiration dates and use vaccines with the shortest expiration dates first. **Do not dispense expired vaccines.**

15. Label and separate pharmacy purchased vaccines from vaccines received from other programs e.g., VFC, Healthy Way LA, patient assistance programs, etc.

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C. In the event of a power outage or vaccine storage unit failure refer to Policy and Procedure P045 (**Emergency Power Outage Appliance Failure**)

D. Packaging Vaccine for Transport

1. Follow Pharmacy Policy and Procedure #039 "Vaccine Transport Short-term Storage" when transporting vaccines to another facility/pharmacy/hall/camp.
2. Ensure the following steps are taken prior to transport:
 - a) Chill the cooler 1 - 2 hours prior to use by placing ice packs/gel packs inside of the cooler. Place a thermometer in the cooler to determine if the temperature is in the recommended range.
 - b) Check the temperature of the cooler prior to placement of vaccines.
 - c) Place a barrier e.g. shredded paper, crumpled brown paper bags, or Styrofoam peanuts at the bottom of the container. This will prevent accidental freezing.
 - d) Vaccine not tolerant of freezing temperatures should be packed farther away from the ice packs.
 - e) Contents should be packed as follows: ice/gel packs, barrier, vaccines, thermometer, another layer of barrier, and ice/gel packs.
 - f) Pack vaccines in their original packing and on top of the barrier.

E. Quality Assurance

1. Train all clinic staff on the principles of vaccine storage and handling as well as provide a review of the policy and procedures annually.
2. Orient new employees on basic storage and handling policies and procedures.
3. Complete the Vaccine Storage & Handling Self-Assessment monthly to ensure compliance with VFC vaccine storage and handling principles. To receive a copy of the Self-Assessment, contact the Customer Support Services.
4. Complete a Vaccine Storage and Handling In-service provided by the Immunization Program Nurse Consultant. Contact the Nurse Consultant for dates and times.

Any questions regarding vaccine storage and handling issues should be forwarded to the Area Field Unit for clarification.

Los Angeles County Immunization Program

Customer Support Services (323) 869-8080

Clinical Support Services (213) 351-7800