Checklist for Safe Vaccine Storage and Handling

Are you doing everything you should to safeguard your vaccine supply? Review this list to see where you might make improvements in your vaccine management practices. Check each listed item with either YES *or* NO.

COVID-19 vaccine storage temperatures may differ from other vaccines, possibly affecting the choice of storage units and temperature monitoring devices. See the COVID-19 Vaccine Addendum in CDC's *Vaccine Storage & Handling Toolkit* at www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf.

Establish Storage and Handling Policies

YES NO 1. We have designated a primary vaccine coordinator and at least one alternate coordinator to be in charge of vaccine storage and handling at our facility.

YES NO 2. Both the primary and alternate vaccine coordinator(s) have completely reviewed either CDC's Vaccine Storage & Handling Toolkit (www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf) or equivalent training materials offered by our state or local health department's immunization program.

YES NO 3. We have detailed, up-to-date, written standard operating procedures for general vaccine management, including procedures for routine activities and an emergency vaccine retrieval and storage plan for power outages and other problems. Our procedures are based on CDC's Vaccine Storage & Handling Toolkit and/or on instructions from our state or local health department's immunization program.

YES NO 4. We review these policies with all staff annually and with new staff, including temporary staff, when they are hired.

Manage New Vaccine Shipments and Inventory

5. We maintain a vaccine stock record (see sample in "Resources Section" of CDC's Vaccine Storage & Handling Toolkit [www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf]), to log in new vaccine shipments and document the following:

YES NO a. Vaccine name and number of doses received

YES NO b. Date we received the vaccine

YES NO c. Condition of vaccine when we received it

YES NO d. Vaccine manufacturer and lot number

YES NO e. Vaccine expiration date

YES NO 6. We document periodic (e.g., weekly or monthly) inventory checks to verify the quantities and condition of vaccines being stored.

Use Proper Storage Equipment

YES NO 7. We store vaccines in separate, self-contained units that refrigerate or freeze only. If we must use a household-style combination unit, we use it only for storage of our refrigerated vaccines, maintaining frozen vaccines in a separate stand-alone freezer.

YES NO 8. We store vaccines in units with enough room to maintain the year's largest inventory without crowding.

YES NO 9. We never store any vaccines in a dormitory-style unit (a small combination freezer-refrigerator unit with the freezer compartment inside the refrigerator).

YES NO 10. We use an appropriate temperature monitoring device (TMD) for ***each*** vaccine storage or transport unit.

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www.immunize.org/catg.d/p3035.pdf • Item #P3035 (8/21)

YES NO 11. We use only calibrated TMDs that have a Certificate of Calibration Testing* ("Report of Calibration") and are calibrated every 2 to 3 years from the last calibration testing date or according to the manufacturer's suggested timeline. If storing Vaccines For Children (VFC) vaccine, our TMD is a digital data logger (DDL).

YES NO 12. We have planned back-up storage unit(s) in the event of a power failure or other unforeseen event.

*Certificate of Calibration Testing ("Report of Calibration") with calibration measurements traceable to a laboratory with accreditation from the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) signatory body.

Ensure Optimal Operation of Storage Units

YES NO 13. We have a "Do Not Unplug" sign (e.g., www.immunize.org/catg.d/p2090.pdf) next to the electrical outlets for the refrigerator and freezer and a "Do Not Stop Power" warning label (e.g., www.immunize.org/catg.d/p2091.pdf) by the circuit breaker for the electrical outlets. Both signs include emergency contact information.

YES NO 14. We perform regular maintenance on our vaccine storage units to assure optimal functioning. For example, we keep the units clean, dusting the coils and cleaning beneath the units as recommended by the manufacturer.

Maintain Correct Temperatures

YES NO 15. We always keep at least one accurate (+/- 0.5°C [+/- 1°F]) calibrated temperature monitoring device (TMD) with the vaccines in the refrigerator and a separate calibrated TMD with the vaccines in the freezer.

16. We use a temperature monitoring device (TMD) that

YES NO a. is digital and has a detachable probe that has been buffered against sudden temperature changes by being immersed in a vial filled with liquid (e.g., glycol, ethanol, glycerin), loose media (e.g., sand, glass beads), or a solid block of material (e.g., aluminum, Teflon®).

YES NO b. includes an alarm for out-of-range temperatures.

YES NO c. has a low-battery indicator.

YES NO d. has a digital data logger that indicates current, minimum, and maximum temperatures.

YES NO e. can measure temperatures within +/- 0.5°C (+/- 1°F).

YES NO f. has a logging interval (or reading rate) that can be programmed by the user to measure and record temperatures AT LEAST every 30 minutes.

YES NO 17. We maintain the refrigerator temperature at 2–8°C (36–46°F), and we aim for 5°C (41°F).

YES NO 18. We maintain the freezer temperature between -50°C and -15°C (-58°F and +5°F).

YES NO 19. We set the thermostat for the refrigerator and the freezer at the factory-set or midpoint temperatures.

YES NO 20. We keep extra containers of water in the refrigerator (e.g., in the door and/or on the floor of the unit where the vegetable bins were located) to help maintain cool temperatures. We keep ice packs, ice-filled containers, or frozen water bottles in the freezer to help maintain cold temperatures and to have frozen water bottles available for conditioning in the event of an emergency.

Maintain Daily Temperature Logs

YES NO 21. If we are using a TMD (preferably a digital data logger or DDL) that records minimum and maximum temperatures, we check and record these temperatures first thing in the morning during each workday when our practice is open. (See IAC's temperature logs at www.immunize.org/handouts/temperature-logs.asp.)

YES NO 22. If we are using a TMD that does not record minimum and maximum temperatures, we check and record the current temperatures of the refrigerator and freezer at least twice each workday. (See IAC's temperature logs at www.immunize.org/handouts/temperature-logs.asp.)

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YES NO 23. We consistently record temperatures on the log either in Celsius or Fahrenheit. We never mix temperature scales when we record our temperatures.

YES NO 24. We follow the directions on the temperature log to call appropriate personnel if the temperature in a storage unit goes out of range.

YES NO 25. If out-of-range temperatures occur in the unit, we complete the Vaccine Storage Troubleshooting Record (www.immunize.org/catg.d/p3041.pdf) to document actions taken when the problem was discovered and what was done to prevent a recurrence of the problem.

YES NO 26. Trained staff (other than staff designated to record the temperatures) review the temperature logs weekly.

YES NO 27. We keep the temperature logs on file for at least 3 years.

Store Vaccines Correctly

YES NO 28. We post signs (e.g., www.immunize.org/catg.d/p3048.pdf) on the doors of the refrigerator and freezer that indicate which vaccines should be stored in the refrigerator and which in the freezer.

YES NO 29. We do not store any food or drink in any vaccine storage unit.

YES NO 30. We store vaccines in the middle of the refrigerator or freezer (away from walls and vents), leaving room for air to circulate around the vaccine. We never store vaccine in the doors.

YES NO 31. We have removed all vegetable and deli bins from the storage unit, and we do not store vaccines in these empty areas.

YES NO 32. If we must use a combination refrigerator-freezer unit, we store vaccines only in the refrigerator section of the unit. We do not place vaccines in front of the cold-air outlet that leads from the freezer to the refrigerator (often near the top shelf). In general, we try to avoid storing vaccines on the top shelf, and we place water bottles in this location.

YES NO 33. We check vaccine expiration dates and rotate our supply of each type of vaccine so that vaccines with the earliest expiration dates are located closest to the front of the storage unit, facilitating easy access.

YES NO 34. We store vaccines in their original packaging with the lids closed in clearly labeled containers.

Take Emergency Action As Needed

35. In the event that vaccines are exposed to improper storage conditions, we take the following steps:

YES NO a. We restore proper storage conditions as quickly as possible. If necessary, we label the vaccine "Do Not Use" and move it to a unit where it can be stored under proper conditions. We do not discard the vaccine before discussing the circumstances with our state/local health department and/or the appropriate vaccine manufacturers.

YES NO b. We follow the Vaccine Storage Troubleshooting Record's (www.immunize.org/catg.d/p3041.pdf) instructions for taking appropriate action and documenting the event. This includes recording details such as the length of time the vaccine was out of appropriate storage temperatures and the current room temperature, as well as taking an inventory of affected vaccines.

YES NO c. We contact our clinic supervisor or other appropriate clinic staff to report the incident. We contact our state/local health department and/or the appropriate vaccine manufacturers for consultation about whether the exposed vaccine can still be used.

YES NO d. We address the storage unit's mechanical or electrical problems according to guidance from the unit's manufacturer or a qualified repair service.

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YES NO e. In responding to improper storage conditions, we do not make frequent or large changes in thermostat settings. After changing the setting, we give the unit at least a day to stabilize its temperature.

YES NO f. We do not use exposed vaccines until our state/local health department's immunization program or the vaccine manufacturer has confirmed that the vaccine is acceptable for use. We review this information with our clinic medical director before returning the vaccine to our supply. If the vaccine is not acceptable for use, we follow our state/local health department instructions for vaccine disposition.

If we answer YES to all of the above, we give ourselves a pat on the back! If not, we assign someone to implement needed changes!