Temperature Log for Refrigerator – Fahrenheit **DAYS 1–15**

Monitor temperatures closely!

- 1. Write your initials below in "Staff Initials," and note the time in "Exact Time."
- 2. Record temps twice each workday.
- 3. Record the min/max temps once each workday—preferably in the morning.
- 4. Put an "X" in the row that corresponds to the refrigerator's temperature.
- 5. If any out-of-range temp, see instructions to the right.
- 6. After each month has ended, save each month's log for 3 years, unless state/local jurisdictions require a longer period.

Month/Year_____ VFC PIN or other ID #_____

Facility Name_

Take action if temp is out of range—too warm (above 46°F) or too cold (below 35°F).

- 1. Label exposed vaccine "do not use," and store it under proper conditions as quickly as possible. Do not discard vaccines unless directed to by your state/local health department and/or the manufacturer(s).
- 2. Record the out-of-range temps and the room temp in the "Action" area on the bottom of the log.
- 3. Notify your vaccine coordinator, or call the immunization program at your state or local health department for guidance.
- 4. Document the action taken on the "Vaccine Storage Troubleshooting Record" on page 3.

Day of Month		1		2		3	4	5	6	7	8	9	10	11	12	13	14	15
Sta	iff Initials																	
Exa	act Time	AM	PM	AM F	M	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM
			1		1						/							
Min/Max Temp (since previous reading)					× .		and the second se			and the second se		and the second sec	and the second se			and the second se		
Da	nger! Temperatu	res ab	ove 4	46°F ar	e to	o warm! V	Vrite any o	ut-of-rang	e temps ar	nd room t	emp on the	lines belo	w and call	your state	or local he	ealth depa	rtment imn	nediately!
	46° F																	
ES	45°F																	
MPERATUR	44° F																	
	43°F																	
MPE	42°F																	
ΤE	41° F																	
Air	n for 40° 40° F																	
3LE	39°F																	
PTABLE	38°F																	
CE	37°F																	
AC	36° F																	
	35°F																	
Da	nger! Temperatu	res be	low	35°F ar	e to	o cold! W	rite any ou	ıt-of-range	temps an	d room te	mp on the	lines below	w and call	your state	or local he	alth depai	rtment imn	nediately!
CTION	Write any out-of-range temps (above 46°F or below 35°F) here:																	
ACI	Room Temperature																	

If you have a vaccine storage issue, also complete "Vaccine Storage Troubleshooting Record" found on page 3.

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IMMUNIZATION ACTION COALITION 1573 Selby Avenue • St. Paul, MN 55104 • 651-647-9009 • www.immunize.org • www.vaccineinformation.org

Adapted with appreciation from California Department of Public Health

Technical content reviewed by the Centers for Disease Control and Prevention www.immunize.org/catg.d/p3037F.pdf - Item #P3037F (8/13)

Temperature Log for Refrigerator – Fahrenheit **DAYS 16-31**

Monitor temperatures closely!

- 1. Write your initials below in "Staff Initials," and note the time in "Exact Time."
- 2. Record temps twice each workday.
- 3. Record the min/max temps once each workday—preferably in the morning.
- 4. Put an "X" in the row that corresponds to the refrigerator's temperature.
- 5. If any out-of-range temp, see instructions to the right.
- 6. After each month has ended, save each month's log for 3 years, unless state/local jurisdictions require a longer period.

Month/Year _____ VFC PIN or other ID #_____

Facility Name_

Take action if temp is out of range—too warm (above 46°F) or too cold (below 35°F).

- 1. Label exposed vaccine "do not use," and store it under proper conditions as quickly as possible. Do not discard vaccines unless directed to by your state/local health department and/or the manufacturer(s).
- 2. Record the out-of-range temps and the room temp in the "Action" area on the bottom of the log.
- 3. Notify your vaccine coordinator, or call the immunization program at your state or local health department for guidance.
- 4. Document the action taken on the "Vaccine Storage Troubleshooting Record" on page 3.

Da	y of Month	16		17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Sta	aff Initials																	
Exact Time		AM F	РМ	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM
	n/Max Temp nce previous reading)																	
D	anger! Temperat	ures al	DOVe	e 46°F are	e too warr	n! Write aı	ny out-of-ı	ange tem	ps and roo	om temp o	on the line	s below a	nd call you	ur state or	local heal	th depart	ment imm	ediately!
	46° F																	
ES	45°F																	
L R	44°F																	
RAT	43°F																	
M PERATURES	42°F																	
Ë	41° F																	
Air	n for 40° 40° F																	
BLE	39°F																	
CEPTABLE	38°F																	
CCE	37°F																	
Ă	36° F																	
	35°F																	
	anger! Temperat	tures b	elov	w 35°F are	e too cold	! Write an	y out-of-ra	inge temp	s and roo	m temp o	n the lines	s below an	id call you	r state or	local heal	th departi	ment imm	ediately!
ACTION	Write any out-of-range temps (above 46°F or below 35°F) here:																	
A C	Room Temperature																	

If you have a vaccine storage issue, also complete "Vaccine Storage Troubleshooting Record" found on page 3.

Vaccine Storage Troubleshooting Record (check one) CRefrigerator Freezer

Use this form to document any unacceptable vaccine storage event, such as exposure of refrigerated vaccines to temperatures that are outside the manufacturers' recommended storage ranges. A fillable troubleshooting record (i.e., editable PDF or WORD document) can also be found at www.immunize.org/clinic/storage-handling.asp.

	-		,								
Date & Time of Event If multiple, related events occurred, see Description of Event below.	Storage Unit Tempera at the time the problem wa	ture as discovered	Room Temperature at the time the problem was discovered	Person Completing Report							
Date:	Temp when discovered:		Temp when discovered:	Name:							
Time:	Minimum temp:	Maximum temp:	Comment (optional):	Title:	Date:						
 Description of Event (If multiple, related events occurred, list each date, time, and length of time out of storage.) General description (i.e., what happened?) Estimated length of time between event and last documented reading of storage temperature in acceptable range (35° to 46°F [2° to 8°C] for refrigerator; -58° to 5°F [-50° to -15°C] for freezer) Inventory of affected vaccines, including (1) lot #s and (2) whether purchased with public (for example, VFC) or private funds (Use separate sheet if needed, but maintain the inventory with this troubleshooting record.) At the time of the event, what else was in the storage unit? For example, were there water bottles in the refrigerator and/or frozen coolant packs in the freezer? Prior to this event, have there been any storage problems with this unit and/or with the affected vaccine? Include any other information you feel might be relevant to understanding the event. 											
Action Taken (2)											
 Action Taken (Document thorous) When were the affected vaccines plocal health department and/or th Who was contacted regarding the IMPORTANT: What did you do to 	olaced in proper storage conditi e manufacturer[s].) incident? (For example, superv	ons? (Note: Do not discard the isor, state/local health departme	vaccine. Store exposed vaccine in proper condition	ns and label it "do not use" until after you can o	discuss with your state/						
Results • What happened to the vaccine? W	as it able to be used? If not, wa	s it returned to the distributor? (Note: For public-purchase vaccine, follow your sta	te/local health department instructions for vac	cine disposition.)						

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Vaccine Storage Troubleshooting Record (check one) CRefrigerator Creezer

Use this form to document any unacceptable vaccine storage event, such as exposure of refrigerated vaccines to temperatures that are outside the manufacturers' recommended storage ranges. A fillable troubleshooting record (i.e., editable pdf or WORD document) can also be found at www.immunize.org/clinic/storage-handling.asp

Date & Time of Event If multiple, related events occurred, see Description of Event below.	Storage Unit Tempera at the time the problem wa		Room Temperature at the time the problem was discovered	Person Completing Report			
Date: (see below)	Temp when discovered: 4	5°F	Temp when discovered: 77°F	Name: Nancy Nurse			
Time: (see below)	Minimum temp: 38°F	Maximum temp: 53°F	Comment (optional): temp is approx	Title: VFC Coordinator	Date: 6/24/13		

Description of Event (If multiple, related events occurred, list each date, time, and length of time out of storage.)

• General description (i.e., what happened?)

• Estimated length of time between event & last documented reading of storage temperature in acceptable range (35° to 46°F [2° to 8°C] for refrigerator; -58° to 5°F [-50° to -15°C] for freezer)

Inventory of affected vaccines, including (1) lot #s and (2) whether purchased with public (for example, VFC) or private funds (Use separate sheet if needed, but maintain the inventory with this troubleshooting record)
 At the time of the event, what else was in the storage unit? For example, were there water bottles in the refrigerator and/or frozen coolant packs in the freezer?

At the time of the event, what else was in the storage unit? For example, were there water bottles in the refrigerator and/or frozen co
 Prior to this event, have there been any storage problems with this unit and/or with the affected vaccine?

Prior to this event, have there been any storage problems with this unit and/or with the a
 Include any other information you feel might be relevant to understanding the event.

At 8 am on Monday (6/24/13) morning when clinic opened, identified 4 temperature excursions over the weekend in refrigerator with readings as high as 54°, 50°, 49° & 53°F in primary vaccine storage unit #1. Recordings taken every 15 min on calibrated digital data logger overnight. Data logger probe in glycol located in middle of refrigerator with vaccines.

Total time out of range: approximately 3 hrs - maximum temp 53°F (see attached document of continuous temp readings)

Inventory of vaccines: see attached

Water bottles in refrigerator door. No vaccine stored in freezer. No problems with storage unit prior to Saturday night. Thunderstorms in area over weekend may have affected power.

Action Taken (Document thoroughly. This information is critical to determining whether the vaccine might still be viable!)

- When were the affected vaccines placed in proper storage conditions? (Note: Do not discard the vaccine. Store exposed vaccine in proper conditions and label it "do not use" until after you can discuss with your state/local health department and/or the manufacturer[s].)
- Who was contacted regarding the incident? (For example, supervisor, state/local health department, manufacturer-list all.)
- IMPORTANT: What did you do to prevent a similar problem from occurring in the future?

Vaccines currently stored appropriately at 45°F. Refrigerator and vaccines labeled "Do Not Use."

My State Immunization Program contacted at 8:30 am. Spoke with Victor Vaccine. Provided Victor with details of event and list of vaccines. Vaccine to remain guarantined until we hear back from Victor.

Called electric company and confirmed 2 short power outages during weekend.

Checked refrigerator seals - called refrigerator maintenance company to replace seals.

Checked plug on unit — placed tape over plug to prevent inadvertent dislodging. Plan to purchase plug guard.

Plan to follow up with Immunization Program on data loggers with alarms that could be sent to coordinator and back-up phones.

Results

• What happened to the vaccine? Was it able to be used? If not, was it returned to the distributor? (Note: For public-purchase vaccine, follow your state/local health department instructions for vaccine disposition.)

Late on Monday, I talked with Victor regarding continued use of vaccine. Victor had checked with manufacturers which confirmed that vaccine is acceptable for use. He told me that vaccine could therefore be removed from quarantine. I discussed the entire situation with Susie Supervisor and Dr. Director (clinic medical director) who agreed that we could put vaccine back in use.

Vaccine Storage Troubleshooting Record (check one) VRefrigerator

Use this form to document any unacceptable vaccine storage event, such as exposure of refrigerated vaccines to temperatures that are outside the manufacturers' recommended storage ranges. A fillable troubleshooting record (i.e., editable pdf or WORD document) can also be found at www.immunize.org/clinic/storage-handling.asp

Date & Time of Event If multiple, related events occurred, see Description of Event below.	Storage Unit Tempera at the time the problem wa		Room Temperature at the time the problem was discovered	Person Completing Report			
Date: 7/16/2013	Temp when discovered: 2	8°F	Temp when discovered: 77°F	Name: Nancy Nurse			
Time: 8:00 am	Minimum temp: 28°F	Maximum temp: 42°F	Comment (optional): temp is approx	Title: VFC Coordinator	Date: 7/15/13		

Description of Event (If multiple, related events occurred, list each date, time, and length of time out of storage.)

• General description (i.e., what happened?)

• Estimated length of time between event & last documented reading of storage temperature in acceptable range (35° to 46°F [2° to 8°C] for refrigerator; -58° to 5°F [-50° to -15°C] for freezer)

• Inventory of affected vaccines, including (1) lot #s and (2) whether purchased with public (for example, VFC) or private funds (Use separate sheet if needed, but maintain the inventory with this troubleshooting record)

• At the time of the event, what else was in the storage unit? For example, were there water bottles in the refrigerator and/or frozen coolant packs in the freezer?

- Prior to this event, have there been any storage problems with this unit and/or with the affected vaccine?
- Include any other information you feel might be relevant to understanding the event.

When checked main clinic fridge (in lab) at 8:00 am on Tuesday, 7/16/2013, digital readout on data logger read 28°F. Data logger located in center of fridge with probe in glycol. Review of computer readings (taken every 15 minutes) showed steady drop in temps from 42°F at 8:15 pm (7/15/2013) to 28°F reading discovered when arrived at clinic on Tuesday morning (7/16/2013). Readings hit 34°F at 11 pm (7/15) and 32°F at 2 am (7/16). Total time out of recommended storage temps = 9 hours, with 6 hours at freezing or below (see attached document of continuous temp readings). Inventory of vaccines attached.

Water bottles in refrigerator door and crisper area. No vaccines stored in freezer. No recent adjustments to temp controls and no previous temp excursions noted with this refrigerator before 7/15.

Action Taken (Document thoroughly. This information is critical to determining whether the vaccine might still be viable!)

- When were the affected vaccines placed in proper storage conditions? (Note: Do not discard the vaccine. Store exposed vaccine in proper conditions and label it "do not use" until after you can discuss with your state/local health department and/or the manufacturer[s].)
- Who was contacted regarding the incident? (For example, supervisor, state/local health department, manufacturer-list all.)
- IMPORTANT: What did you do to prevent a similar problem from occurring in the future?

Upon discovery, vaccines marked "Do Not Use" and stored in 2nd clinic fridge (in exam room #3 at 41°F). Also placed "Do Not Use" note on main fridge in lab. Notified Susie Supervisor about the issue. Contacted Victor Vaccine at My State Immunization Program at 8:30 am. Provided Victor with details of event and list of vaccines in fridge. Victor said to maintain vaccines in 2nd fridge and that he would check with manufacturers to determine next steps.

Called Jim's Appliance Repair to examine fridge. Repairman found and replaced faulty thermostat in unit.

Reset data logger on center shelf in fridge with probe in glycol.

Results

• What happened to the vaccine? Was it able to be used? If not, was it returned to the distributor? (Note: For public-purchase vaccine, follow your state/local health department instructions for vaccine disposition.)

After fridge thermostat repaired, monitored temps in empty fridge for 1 week, per state requirements. Fridge maintained 38°-40°F temps for entire week. Submitted repair documentation and data logger readings to Victor Vaccine for approval and ordered replacement vaccines. Victor had checked with manufacturers who confirmed that all vaccines in fridge EXCEPT MMR were no longer viable and should be returned per state policy guidelines. MMR may be used because pkg insert allows storage down to -58°F. Discussed entire situation with Susie Supervisor and clinic director, Dr. Director, who agreed on continued use of MMR. Will continue to monitor fridge closely to watch for pattern of temp fluctuations indicating potential problem with thermostat. If problems, contact Victor Vaccine for advice on purchasing new fridge meeting criteria for appropriate vaccine storage.

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