

# VACCINE TRANSPORT METHODS

Transport is defined as any movement of vaccine from one location to another. To help maintain the cold chain and viability of state-supplied vaccine during transport, you must pack the vaccine according to one of these three methods below. Always keep the temperature monitoring device with the vaccine at all times, even during transport.

## SUPPLIES THAT MAY BE NEEDED

THE EXACT NUMBER AND TYPE OF SUPPLIES NEEDED IS DEPENDANT UPON WHICH TRANSPORT PACKING METHOD YOUR FACILITY CHOOSES AND WHAT KIND OF COOLER IS USED. SEE THE FOLLOWING PAGES FOR DIAGRAMS AND INSTRUCTIONS ON HOW TO USE THE SUPPLIES LISTED BELOW.



### Temperature monitoring device

- Continuous temperature monitoring device with buffered probe. Use the state supplied LogTag device or your back up device with accuracy of +/-1°F (+/-0.5°C) with a current and valid certificate of calibration testing
- Pre-chill buffered probe for at least 5 hours in refrigerator prior to transport



### Hard sided coolers or Styrofoam™ vaccine shipping containers

- Coolers should be large enough to hold your facility's typical supply of refrigerated vaccines
- Can use original shipping containers from manufacturers or the Epidemiology Vaccine Depot, if available
- Do NOT use soft-sided collapsible coolers
- Outside should be labeled to identify the contents as **"fragile vaccines requiring refrigeration"**



### Water bottles or gel packs

#### Conditioned frozen water bottles

- For medium/large coolers – 16.9 oz. bottles
- For small coolers – 8 oz. bottles
- Freeze water bottles
  - This can also help regulate the temperatures in your freezer, as well
- Before use in transport, condition the frozen water bottles.
  - Place them in a sink filled with several inches of cool or lukewarm water or under running tap water until you see a layer of water forming near the surface of the bottle
  - The bottle is properly conditioned when the ice block inside spins freely when rotated in your hand
- Dry each bottle before use



#### Frozen gel pack

- Ensure there are no tears or holes in the gel packs so the gel inside does not leak onto vaccines

#### Refrigerated gel packs

- Ensure there are no tears or holes in the gel packs so the gel inside does not leak onto vaccines
- Pre-chill gel packs for at least 5 hours in the refrigerator before transport

### Insulating Material

#### Insulating cushioning material

- Bubble wrap, packing foam, crumpled brown packing paper, or Styrofoam™ for a layer above and below the vaccines, at least 1 inch thick.
- Do NOT use packing peanuts or other loose materials that might shift during transport

#### Thin barrier layer

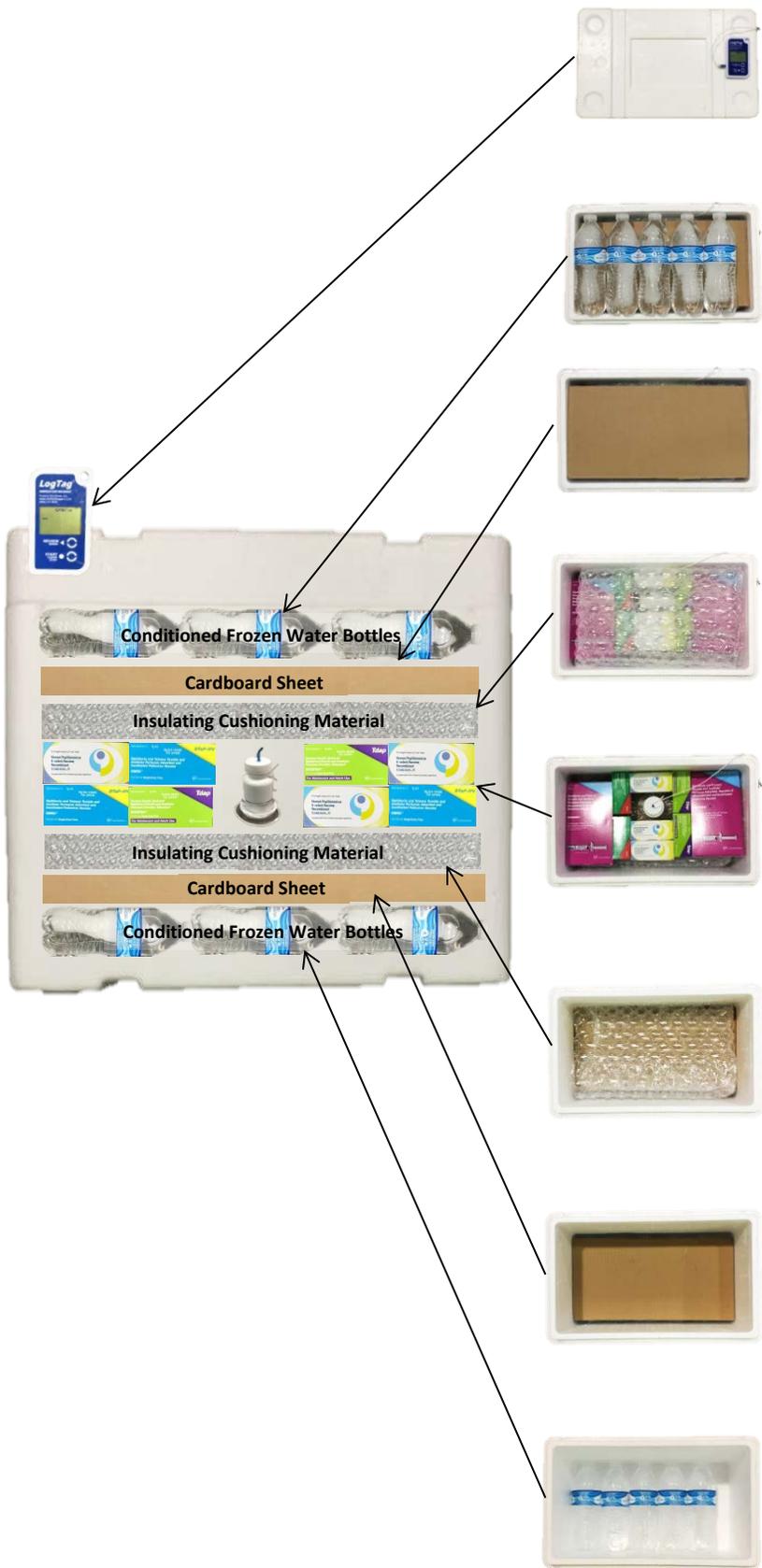
- Thin plastic sheet or paper may be used as a barrier between refrigerated gel packs and vaccine packages



### Cardboard box or sheet

- Cardboard box should be large enough to fit the vaccine supply that is to be relocated, the continuous temperature monitoring probe, and refrigerated gel packs
- Box should fit inside vaccine shipping container with enough room surrounding the box to allow for gel packs inside container

# OPTION ONE: FROZEN WATER BOTTLES METHOD



**Step 8: Close lid** – Close the lid and attach continuous temperature monitoring device display screen to the top of the lid

**Step 7: Conditioned frozen water bottles** – fill the remaining space in the cooler with an additional layer of conditioned frozen water bottles

**Step 6: Cardboard sheet**– another sheet of corrugated cardboard may be needed to support top layer of water bottles

**Step 5: Insulating cushioning material** – cover vaccines with another one inch layer of bubble wrap, packing foam, or Styrofoam™

**Step 4: Temperature monitoring device** - place continuous temperature monitoring device buffered probe in center of vaccines, but keep the device display outside the cooler until finished loading

**Vaccines** – Stack boxes of vaccine and diluents on top of insulating material

**Step 3: Insulating cushioning material** – place a layer of bubble wrap, packing foam, or Styrofoam™ on top. Layer must be at least 1 inch thick and must cover cardboard completely

**Step 2: Cardboard sheet** – Place one sheet of corrugated cardboard over water bottles to cover them completely; pieces should be cut to fit interior dimensions of cooler(s) to be placed between insulating cushioning material and conditioned frozen water bottles

**Step 1: Conditioned frozen water bottles** – line bottom of the cooler with a single layer of conditioned frozen water bottles

## OPTION TWO: INSULATED MATERIAL METHOD



**Step 8: Close lid** – Close the lid and attach continuous temperature monitoring device display screen to the top of the lid

**Step 7: Refrigerated gel packs**– cover with an additional layer of refrigerated gel packs Vaccine packages or doses should never come into direct contact with frozen or refrigerated gel pack

**Step 6: Thin barrier layer** – cover vaccine with a thin barrier layer such as plastic film or paper.

**Step 5: Temperature monitoring device** - place continuous temperature monitoring device buffered probe in center of vaccines, but keep the display device outside the cooler until finished loading

**Vaccines** – Stack boxes of vaccine and diluents on top of thin barrier layer

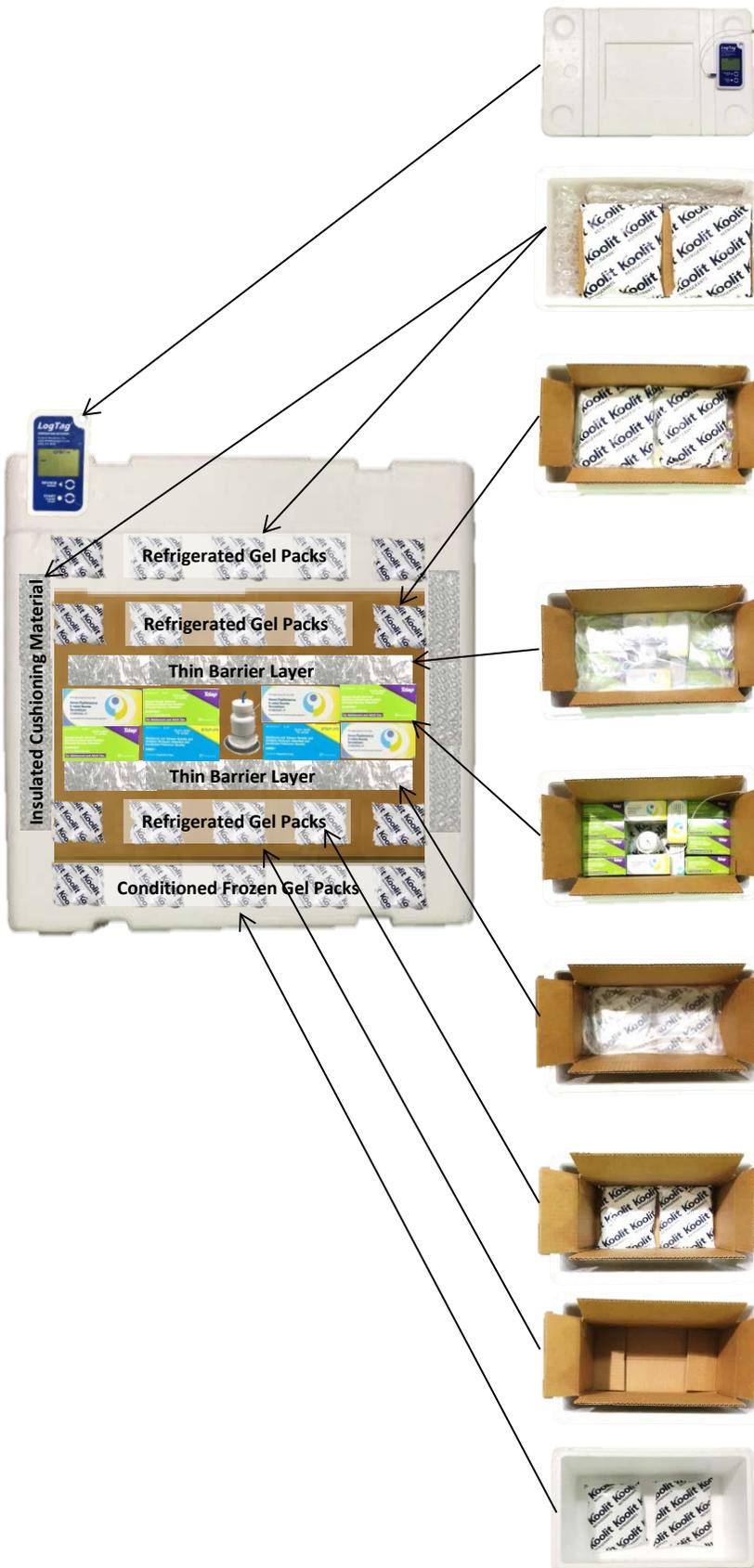
**Step 4: Thin barrier layer** – cover refrigerated gel packs with a thin barrier layer such as a thin plastic film or paper. Vaccine packages or doses should never come into direct contact with frozen or refrigerated gel packs.

**Step 3: Refrigerated gel packs**– cover with a layer of refrigerated gel packs

**Step 2: Insulating cushioning material** – place a layer bubble wrap, packing foam, crumpled brown packing paper, or Styrofoam™ on top of frozen gel packs. Cover the frozen gel packs completely

**Step 1: Conditioned frozen gel packs**– line bottom of the cooler with a single layer of frozen gel packs

# OPTION THREE: CARDBOARD BOX METHOD



**Step 9: Close lid** – Close the lid and attach continuous temperature monitoring device display screen to the top of the lid

**Step 8: Refrigerated gel packs**– Close lid to cardboard box, fill the remaining space in the cooler with refrigerated gel packs, surrounding cardboard box with both padding and insulation, if necessary

**Step 7: Refrigerated gel packs**– Cover box with an additional layer of conditioned refrigerated gel packs. Vaccine packages or doses should never come into direct contact with frozen or refrigerated gel packs

**Step 6: Thin barrier layer** – cover vaccine with a thin barrier layer such as a thin plastic film or paper

**Step 5: Temperature monitoring device** - place continuous temperature monitoring device buffered probe in center of vaccines, but keep the device display outside the cooler until finished loading

**Vaccines** – Stack boxes of vaccine and diluents on top of thin barrier layer

**Step 4: Thin barrier layer** – cover refrigerated gel packs with a thin barrier layer such as thin plastic film or paper. Vaccine packages or doses should never come into direct contact with frozen or refrigerated gel packs

**Step 3: Refrigerated gel packs**– line bottom of the cardboard box with a layer of refrigerated gel packs

**Step 2: Cardboard box** – place the cardboard box inside the cooler and over frozen gel packs

**Step 1: Conditioned frozen gel packs**– line bottom of the cooler with a single layer of frozen gel packs