

Managing vaccine storage during power failures: Advice sheet for vaccine service providers

If there is a power failure during business hours:

- Phone the utility company to ascertain approximately how long the power will be interrupted;
- If the health care facility is part of a shopping centre or other complex, ensure that management is aware of the need to keep the power cut to a minimum;
- If a safety switch (Residual Current Device) has tripped, reset it. If it trips again contact an electrician.

Power failures and domestic refrigerators:

- For power failures of 4 hours or less, keep the vaccines in the refrigerator, keep the door closed, and closely monitor its temperature;
- For power failures of more than 4 hours, or if the refrigerator temperature reaches 14°C, then the vaccines need to be transferred to either a pre-designated safe storage fridge (such as a hospital or pharmacy fridge), or to a ready-prepared cooler together with conditioned ice/gel packs as described in the *National Vaccine Storage Guidelines: Strive for Five* pages 29-30. Continue to monitor the temperature of the vaccines by placing a minimum/maximum thermometer probe inside a vaccine box with the vaccines inside the cooler.

Power failures and purpose built vaccine refrigerators

Purpose built vaccine refrigerators (particularly those with glass doors) may lose their chill quicker than a domestic fridge, often in as little as 20-30 minutes. Vaccine service providers should know how long their brand of refrigerator will hold a temp of +2°C to +8°C in the event of a power failure by contacting the manufacturer.

In the event of a power failure during business hours:

- If the power failure is unlikely to be longer than the time it takes for the brand of purpose built vaccine refrigerator to lose its chill, then keep the door closed, and closely monitor its temperature;
- If the purpose built vaccine fridge is glass-fronted then place a thick blanket over the front of the fridge. **(Ensure that the blanket does not cover the motor and does not reduce fridge ventilation)**;
- For longer power failures or if the refrigerator temperature reaches 14°C, then the vaccines need to be transferred either to a pre-designated safe storage fridge (such as a hospital or pharmacy fridge) or to a ready-prepared cooler together with conditioned ice/gel packs as described in *National Vaccine Storage Guidelines: Strive for Five* pages 29-30. Continue to monitor the temperature of the vaccines by placing a minimum/maximum thermometer probe inside a vaccine box with the vaccines inside the cooler.

NB: To protect against unexpected power failures outside business hours, vaccine service providers with glass-fronted purpose built vaccine fridges might want to consider placing a thick blanket over the front of the fridge at the close of business each day, and then remove it at the start of business. The blanket may slow down the rise in temperature in the event of a power failure. **(Ensure that the blanket does not cover the motor and does not reduce fridge ventilation)**.

Vaccine service providers with purpose-built vaccine refrigerators are also urged to have an 'auto-dialler' alarm system installed. If the temperature of the fridge moves out of the safe +2°C to +8°C range outside business hours then the auto-dialler sends an electronic alert to a sequence of designated phone numbers. The alerted staff member can then intervene earlier and possibly prevent the loss of vaccine. Most manufacturers of purpose-built vaccine fridges offer an auto-dialler system as part of their standard package or as optional extra.