

# VACCINE MANAGEMENT PROTOCOL [VMP] 2022

Name of Practice

Address, Phone

Vaccine Service Provider (VSP) Number

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## Equipment

### Purpose Built Vaccine Refrigerator (PBVR)

*NB: the information below needs to be included for each registered fridge in the practice*

**This Surgery has a Purpose Build Vaccine Refrigerator - Add fridge/s type/s (include make model capacity) and year/s purchased** that is fully compliant with 'National Vaccine Storage Guidelines 2019 - Strive for 5', 3rd Edition, including:

- Min/Max temp display with reset button oversighted by practice nurse
- Has 2 levels of temperature evidence to continuously monitor PBVR temperatures
  - **Name type of Data** logger
  - Portable Min/Max Thermometer /inbuilt display
- Only permits the additional storage of blood and blood products in the PBVR (**pathology specimens must be stored in a separate fridge**)

- Has an easily recognised audible alarm that will activate when there are deviations outside the recommended temperature range of +2°C to +8°C (section 5.3 pg. 35 *Strive for 5 3<sup>rd</sup> Ed*)
- Is serviced every 12 months to ensure it is in good working order (*Section 5.7 pg. 18 Strive for 5, 3rd Edition*), last attended **add full date**

## **Temperature monitoring**

### **Inbuilt or portable Min/Max thermometer**

- Manual temperature monitoring recorded **twice daily and signed** - on commencement and prior to closure of the practice by **name or position** (Available at Australian Government Department of Health website: [www.health.gov.au/immunisation](http://www.health.gov.au/immunisation)).
- Thermometer is **reset** after each temperature recording
- Check and consider the vaccine refrigerator temperature each time before opening the refrigerator door and retrieving a vaccine (section 5.6 pg.41 *Strive for 5 3<sup>rd</sup> Ed*)
- Records are kept **Add where these records are kept**
- If using portable Min/max thermometer and data logger, they are co-located in the PBVR
- The min/max probe needs to be contained in an empty vaccine box with the Product Information insitu (section 9.2 dot point 5. p.65 'Strive for 5' 3rd Ed)
- **Alarm systems activated to alarm outside +2°C to +8°C**

### **Portable Min/Max Thermometer and Coolers**

- **How many** thermometers to monitor the **how many large coolers** (plus an additional thermometer for each PBVR in the practice)
  - Ensure coolers are solid-walled or vaccine specific soft-walled insulated containers such as Esky™, Willow™ or Coleman™
  - Ensure adequate cooler storage for all vaccines held in the PBVR
  - Ensure one thermometer for the PBVR and one for each of the coolers
- Thermometer accuracy slush test and change of battery is recommended at least every 6 to 12 months or as specified by the manufacturer. Slush test and battery change attended on **add date** (section 4.4 pg. 27, and 5.4 pg. 38, *Strive for 5 3<sup>rd</sup> Ed*)
- **List how many** ice packs are stored in the freezer (ensure enough for cooling down the cooler/s whilst sweating for packing). If more are required, they are stored **where**
- Has insulating material e.g., polystyrene chips and/or bubble wrap **stored where**
- The practice **does/does not** have a back-up power supply e.g., generator or battery/solar back-up

**NB: Fluctuations up to +12.0°C, lasting no longer than 15 minutes, as may occur during stock take or restocking, are acceptable and do not need to be reported (section 2.2, 'Strive for 5' 3rd Ed)**

### **Data Logger**

- Data logger is set to record **how often** to monitor temperature performance (Section 4.2 pg. 21 'Strive for 5' 3rd Ed recommends 5-minute intervals)
- Ensure measurements are in Celsius not Fahrenheit
- Data logger is downloaded **Add how often e.g., daily/weekly (twice daily if Quirks fridge)**
- Data logger downloads are kept **Add where kept e.g., in electronic or paper file**
- All staff are trained on how to download data logger and interpret readings
- The instructions for **add type of data logger** data logger use are kept in **add where instructions kept**
- Data logger is checked regularly, and batteries changes according to manufacturer instructions - last changed **add date**

### **PBVR Maintenance**

- Any problems are reported to **name and phone number** for repairs
- PBVR seal checked regularly and kept clean by **name/position of who is responsible**
- Has an annual report that states that all components of the PBVR are checked and audited yearly **add company and date last checked** (appendix 2, p.75 'Strive for 5' 3rd Ed)
- All supporting equipment i.e., digital thermometers, cooler and ice/gel packs are audited yearly by **name/position of who is responsible**

### **PBVR Location – (Section 5.2, p.34 'Strive for 5' 3rd Ed)**

- The PBVR is located **add where it is located** room near an internal wall
- Not exposed to sunlight or heat
- Placed with adequate air flow to the back and sides of the PBVR

### **Signage**

Power source is labelled clearly 'DO NOT TURN OFF' i.e., **list 3 places: e.g., power box, refrigerator door and power point** (section 5.3 p.35, 'Strive for 5', 3rd Ed)

- Has minimum correct signage on refrigerator door (appendix 6, p.85 'Strive for 5 3rd Ed')
- Has internal signage that is easily seen without opening door
- Has current National Immunisation Program schedule easily visible

# Communications

## Current contact details displayed

- Queensland Health Immunisation Program (QHIP), Public Health Unit, Primary Health Network, power supplier and fridge mechanic and/or technician phone numbers clearly displayed on or near PBVR and kept current **where are they stored**
- Nominated person's name and nominated reliever's name clearly documented **where**

## People Involved

- Primary person responsible for vaccine management is **name of who is responsible**
- Secondary person is **name of who is responsible**
- Recording the PBVR both am and pm is **name of who is responsible or position** responsibility
- Checking and rotation of vaccine stock is **name of who is responsible or position**
- Ordering vaccines is **name of who is responsible or position**
- Receiving is **name of who is responsible or position**

## Ordering vaccines

- Ordering is done **when** (e.g., 1<sup>st</sup> week of each month)
- Vaccine orders must include:
  - VSP name, VSP number and contact details
  - Confirmation that vaccines have been stored between +2°C and +8°C
  - Vaccine stocktake including quantity and expiry date and number needed to order
- Advise QHIP if the Practice will be closed when delivery is expected and arrange another delivery time.
- Keep vaccine stock to a minimum
- Note that QHIP and the PHU do not provide cold chain advice for private vaccines

## Receiving Vaccines

- Vaccines must only be received and signed for by **who, name or position**
- Unpack immediately checking that the correct type / number of vaccines have been received
- Check that the vaccines have been packed correctly
- Check that the cold chain has not been broken by checking the cold chain indicator
- Rotate stock so that oldest expiring vaccines are moved to the front and used first
- Do all of this as quickly as possible so that fridge is not open long

## Disposal of Vaccines

- QHIP vaccines can only be disposed of on advice from **QHIP/ Public Health**
- This includes expired vaccines and vaccines degraded due to a cold chain breach
- The Practice uses correct waste disposal containers
- The Practice uses sharps containers and disposal using **name of company** in accordance with the *Waste Reduction and Recycling Regulation 2011*

## Reporting

- Striving for +5°C is recommended for vaccine storage, i.e., vaccines are stored and transported within the recommended temperature range of +2°C to +8°C at all times, within a maximum of five degrees range in temperature variation
- Temperature fluctuations up to +12°C, lasting no longer than 15 minutes, as may occur during stock taking or restocking, are acceptable and do not need to be reported (see section 2.2, p.13 '*Strive for 5' 3<sup>rd</sup> Ed*)
- **However, if the temperature is outside +2°C to +8°C for a greater amount of time, report to QHIP immediately via email [QHIP-ADMIN@health.qld.gov.au](mailto:QHIP-ADMIN@health.qld.gov.au)**

## Documentation related to vaccine management

- This Vaccine Management Protocol is current at **add date** easily accessed and seen and stored next to the PBVR
- All QHIP documentation is current with the latest contact details, easily accessed and seen **add where they are stored**
- All equipment and the PBVR Product Information and warranties are easily accessed and seen **add where they are stored**
- All audits, reference materials i.e., *Strive for 5 3rd Edition* and Clinic vaccine management procedures including this Vaccine Management Protocol is easily accessed and seen and **stored where**

## Care of vaccines in the PBVR

- The PBVR is only for vaccines
- Most vaccines are destroyed by freezing
- Vaccines are kept in their packaging and PBVR light is kept off (vaccines are degraded by light)
- Vaccines are stored in baskets that have fenestrated openings to allow space between baskets for good air circulation. The baskets must indicate the name of vaccines that it holds
- It is a legal requirement for vaccines to be left in their original packaging

- Leave a 5cm space free at the back of the fridge for airflow and to ensure that no vaccine box can adhere and be frozen against the back wall of the fridge
- Diluents must be used at the same temperature as the vaccine. Diluents that are warmer will affect the potency of live vaccines
- To meet the minimum thermal mass requirement of the PBVR (check product guideline) or where there are only a few vaccines in the PBVR, consider a bottle or 2 (never more) of salty water in the bottom of the PBVR to assist with maintaining the desired temperature
- Apply the *Strive for 5, 3rd edition* recommended stickers on the perimeter of the glass door i.e., warning stickers etc. Aim to leave the glass door free of too many occluding pieces of documentation so the vaccines are easily seen
- Always restock vaccines into a PBVR when it is at the correct temperature and do so as quickly as possible
- Always note the time the PBVR takes to recover to +5°C (ideally 5-10 mins)

## Managing a Cold Chain Breach (checklist p.94 'Strive for 5', 3<sup>rd</sup> Ed)

**Most PBVRs have glass doors and it takes approximately 20 minutes to exceed +8°C degrees in the event of a power failure. For this reason, the MNPHU advise the use of insulation to cover the glass door to slow the warming process, and in doing so providing more time to prepare eskies and enhance the potential to preserve the vaccines.** The Practice uses **note type of insulation** as insulating material to cover the glass fronted door to retain chill. Ensure the door is kept closed to prolong maintenance of the correct temperatures and prepares for decanting the vaccines into monitored eskies. If cooled bottles of water are available these can be placed in the fridge to help increase the cold mass and maintain the temperature for longer.

**During a power failure the PBVR digital temperature display is lost.** In this situation the Practice needs to ensure a battery-operated minimum/maximum thermometer probe is insitu in the PBVR immediately to continually monitor the temperatures during the power outage and apply insulation over the glass door to hold in the chill.

### Cold Chain Breach

- Isolate vaccines immediately in the fridge aiming to keep temperatures between +2°C and +8°C
- Place sign on refrigerator door '**Power out. Do not use vaccines. Keep door closed.**'
- Inform all staff in the Practice immediately

- Closely monitor the refrigerator temperature using a battery-operated minimum/maximum thermometer or portable data logger
- Consider placing insulating material over glass to retain chill and minimise rate of temperature rise
- If the temperature rises to +8°C:
  - Move vaccines to a prepared cooler, cold box or portable purpose-built vaccine refrigerator.
  - Ensure all vaccines are packed, insulated and monitored with a digital thermometer in an empty vaccine box (section 9.3, p.64 '*Strive for 5*', 3rd Ed)
  - **WARNING:** The cooler can rapidly reach the desired temperature but is **prone to freezing in the first 2 hours** so monitor every 15 minutes until temperature has stabilised. Vaccines which are not monitored are likely to require discard
- **Complete the CCB Reporting Form and email to QHIP- QHIP-ADMIN@health.qld.gov.au**
  - Provide VSP number, time and date of CCB
  - Report min and max temps and duration of the CCB or how long the PBVR has been out of normal temperature range
  - When the PBVR thermometer was last reset
  - Probable cause of CCB i.e., power outage due to storm or electrical works or door left open overnight etc
  - Report any other concerns
  - If there has been a power failure also check:
    - Reason why power off
    - Ring power provider on to determine how long the power will be out by contacting phone **add power supply company and phone number**
    - If the power switch has just tripped on the mains circuit breaker reset. If unsuccessful contact the electrician and report to **name and phone number**
    - Hard walled Eskies are stored **where stored**
    - Ice/gel packs in **where stored**
    - Bubble wrap in **where stored** and if not enough use polystyrene chips

#### **Conditioning ice/gel packs – (Section 9.2, p.63 '*Strive for 5*', 3<sup>rd</sup> Ed)**

- Take from **where** and lay out on a tea towel to sweat (about 20 mins) then suitable for use
- If no time put packs in a sink of cold water for 5 minutes, then use

#### **When power is returned**

- Record the refrigerator temperature

- Reset the temperature monitor
- Record the time power is returned
- Ensure the refrigerator temperature has returned to between +2°C and +8°C before returning vaccines
- **Do not use or discard vaccines until advice from the Public Health Unit is given**
- **Metro North Public Health Unit - phone 3624 1111**
- Monitor the refrigerator closely in case damage has occurred

## Education in Vaccine Management

### Education and training in Vaccine Management

- All staff should understand the rationale for storing vaccines at the correct temperature
- All staff recognise that recall for re-vaccination can be prevented by a high standard of vaccine management process by each person in the Practice
- Records are kept for staff attending an initial and annual education and training session in vaccine management
- Contact your Public Health Unit or Primary Health Network for education and on-line training sessions
- Access QIP for routine vaccine ordering
- VMP must be updated annually
- Vaccine service providers are required to carry out a vaccine storage self-audit at least every 12 months. **Add date** of last annual vaccine storage self-audit (see appendix 2 Strive for 5', 3rd Ed)
- If purchasing a new fridge or moving location – advise Public Health – 48hrs of data log readings and updated VMP will be required before vaccine order can be submitted

Refer to '*Strive for 5' 3<sup>rd</sup> Ed*' best practice guidelines in conjunction with this practice's VMP

[https://beta.health.gov.au/sites/default/files/national-vaccine-storage-guidelines-strive-for-5\\_0.pdf](https://beta.health.gov.au/sites/default/files/national-vaccine-storage-guidelines-strive-for-5_0.pdf)

**Yellow Fever Vaccination Provider** (delete this section if not applicable)

Australian Government Accredited Yellow Fever Vaccination Centre QLD: **number**



Current Yellow Fever Vaccination Provider (name)	Yellow Fever Vaccination Course (YFVC) certificate completion date	YFVC certificate provided to MNPHU (Yes/No)	YFVC certificate renewal date (3 year after completion)

To register new Yellow Fever vaccination providers, or to notify change of practice details, the *Change/s to Registered Details Yellow Fever Vaccination Centre (YFVC)* form within Yellow Fever Information ([Registration and qualifications | Queensland Health](#)) **must** be downloaded, completed and emailed to MNPHU.

**Signature of primary person responsible for vaccine management**

**Signature of Practice Manager**

**Name:**

**Name of Practice Manager:**

**Date:**

**Date:**

**Signature of secondary person responsible for vaccine management**

**Name:**

**Date:**