

Safe & Secure Stock Management and Handling of Vaccines in Powys Teaching Health Board Vaccination Centres and Other Community Settings

Standard Operating Procedure.

Document Reference No:	PTHB / MMP 429	
Version No:	9.0	
Issue Date:	April 2026	
Review Date:	April 2029	
Author:	Senior Pharmacy Technician	
Document Owner:	Chief Pharmacist	
Accountable Executive:	Medical Director	
Approved By:	PTHB Vaccination and Immunisation Operational Development Group	
Approval Date:	20/08/2026	
Document Type:	Standard Operating Procedure	Non-clinical
Scope:	PTHB	

The latest approved version of this document is online.
If the review date has passed, please contact the Author for advice.

Version Control:

Version	Summary of Changes/Amendments	Issue Date
1	Initial Issue. - This SOP incorporates the following retired SOPs: SOP 0154 Vaccine Stock Management at Vaccination Centres, Autumn/Winter 2023/24 SOP 0130 Receipt of Covid Vaccine on WIS, SOP 0131 Managing Vaccine Consumables, SOP 0134 Vaccine Fridge Monitoring & Excursions in Pharmacy Stores and Vaccination Centres, SOP 0153 Safe and Secure Stock Management, Handling and Preparation of Childhood Vaccines in PTHB VCs - Inclusion of information regarding Influenza vaccine - The term "nucleoside modified" removed from all strengths of Pfizer Comirnaty® Omicron XBB.1.5▼ as per the regulatory update from Pfizer.	08/04/2024
2	Updates: - Removal of references to pharmacy support, switched to vaccine management and/or member of staff on duty to support vaccine handout. - Removal of section 11 – Issuing Vaccine to District Nurses. - Addition of Abrysvo powder and solvent for solution for injection (RSV Vaccine) - Inclusion of vaccine management responsibilities for registrants - Pharmacy Keys & Security: Inclusion of paragraph to remind staff that the fridge must be locked when the pharmacy area is left unattended. - Receipt of vaccine: RSV included for management via WIS - Stock checks: RSV included for management via WIS. - Data logger download, changed from 56 days to once a week.	19/09/2024

	• Removal of reference to refrigerator SD card download • WIS: Addition of RSV vaccine when receiving vaccine into stock. • Handling vaccine at vaccination centres: Addition: Use blue trays for RSV vaccine • Flu walkabouts: clear instructions to return unused vaccine to pharmacy stores, provided that cold chain maintenance can be demonstrated. • Covid vaccines updated: new variant (JN.1) Covid vaccines added including images of vials. • Addition of Abryvso administration instructions • Removal of Nuvaxovid vaccine administration instructions • Removal of Bimervax vaccine administration instructions	
3	Updates: Section 7.1. Receipt of vaccine. • Addition of identification of Abrysvo (RSV vaccine) in vaccination centres as specific to the adult vaccination programme. Labeling vaccine boxes 'ADULT'	28/01/2025
4	Updates: • Change to title (removal of 'preparation of vaccines) • Removal of consumable stock check requirement • Removal of Section 11. Covid Vaccines & removal of Section 12. Other Vaccines (as COVID-19 vaccines in use in the UK now all have Marketing Authorisations, therefore detailed administration instructions and product characteristics can be found in other documentation e.g., SmPC/PGD) • Removal of appendices relating to administration instructions of vaccines. • Addition Section 10 – Using Multiple Vaccines During a Vaccination Clinic • Addition Section 12 – Managing Covid-19 Vaccine During Hot Weather	09/06/2025

	• Addition – Appendix B – Ambient Temperature Monitoring Log	
5	Updates: • Addition of section 13. Products Requiring Ambient Temperature Storage • Reminder added for appropriately naming data logger downloads when saving. • Addition of use of monitoring forms for vaccine porters. • Addition of appendices – monitoring forms for vaccine porters	01/09/2025
6	Updates: • Section 14. Transport of vaccine, 14.1; Addition of bullet point to plug portable vaccine carriers into the vehicle power source and safely secure unit. Reference to MMP 428 added. • Section 18. Punctured vials of Covid Vaccine; example added for clarification of when it may be appropriate to transport punctured Covid vials between sites.	12/11/2025
7	Updates: • Section 8.4 Stock Management and Fridge Monitoring During Vaccination Sessions – WIS: removal of reference to a limited period (e.g., 24 hours) to edit incorrect WIS entries. Addition of ability to edit WIS entries at any time and to report edits to the Pharmacy Store team for monitoring purposes. • 8.5 Welsh Immunisation System (WIS) – clarity around entering deliveries on WIS from external suppliers but not from internal vaccine transfers. • Section 9 Handling Vaccine in Vaccination Centres and in Community Settings - update regarding number of vaccines that can be handed out to vaccinators e.g. exceptions to the rule.	16/04/2026
8	• Updates: Removal of reference to the nurse administering Covid vaccine	24/04/2026

	doses being solely responsible for entering the batch number onto WIS.	
9	• Addition of Pharmacy Technician responsibilities • Change of email address for pharmacy contact • Summarised section 7.2 • Addition of reference to Vaccination Centre delivery schedule • Summarised section 11.1 • Clarity around process of moving vaccine from Helapet vaccine porters to Labcold Portable Vaccine Carriers during outreach clinics • Clarity around correct use of monitoring logs with vaccine porters at outreach clinics • Inclusion of addition of a green sticker to vaccine boxes returned from outreach and suitable for use • Clarity around marking opened boxes of vaccines stored in the fridge with a cross for easy identification • Clarity around downloading and analysing data logger data from outreach clinics • Deleted process for checking consumable stock levels • Deleted reference to SOPs throughout SOP as included in essential reading listed in section 3 • Responsibility has been assigned to staff managing vaccines to notify vaccinators when multiple vaccines are in use • All reference to use of coloured trays for specific vaccine removed • Appendices A. C & D updated	19/08/2026

Engagement & Consultation

Key Individuals/Groups Involved in Developing this Document

Role / Designation
Senior Pharmacy Technician, Immunisation/Vaccination & Pharmacy Stores
Pharmacy Stores Pharmacy Technician
Vaccination Centre Health Care Support Workers

Circulated to the following for Consultation

Date	Role / Designation
26/02/2024	Chief Pharmacist
	Senior Clinical Lead Nurse, Immunisation & Vaccination
	Head of Service: Public Health Programmes & Projects
	Lead Nurse, Clinical Supervisor & Vaccination Centre Manager, Immunisation & Vaccination (South)
	Lead Nurse & Clinical Supervisor (North)
	Lead Nurses & Clinical Supervisors (South)
	Service Development Manager, Immunisation & Vaccination
11/09/2024	Senior Clinical Lead Nurse, Immunisation & Vaccination
	Lead Nurses & Clinical Supervisors
	Medicines Management Technician
19/09/2024	Vaccination Programme Operational Development Group for update approval
04/06/2024	Head of Service, Community Pharmacy Service
28/08/2025	PTHB Vaccination and Immunisation Operational Development Group
08/04/2026	Vaccination Programme Operational Development Group for update approval
20/08/2026	Vaccination Programme Operational Development Group for update approval

Item No.	Contents	Page
1.	Introduction	8
2.	Objectives	8
3.	Essential Reading	9
4.	Definitions	10
5.	Roles / Responsibilities	11
6.	Training	14
7.	Pharmacy Keys and Security	15
8.	Receipt of Vaccine, Fridge temperature Monitoring & Storage of Vaccine	15
9.	Handling Vaccine at Vaccination Centres & Community Settings	20
10.	Using Multiple Vaccines During a Vaccination Clinic	21
11.	Managing Covid Stock Toward the End of the Day	21
12.	Managing Covid-19 Vaccine During Hot Weather	22
13.	Products Requiring Ambient Temperature Storage	24
14.	Transport of Vaccines	25
15.	Further Information	27
16.	Covid Vaccine Consumables	28
17.	Vaccine Spillage	28
18.	Punctured Covid - 19 Vaccine Vials	28
19.	Monitoring, Compliance, Audit & Review	29
20.	References	29
	Appendices	
A	Vaccination Centre Fridge & Stock Monitoring Log	31
B	Ambient Temperature Monitoring Log	32
C	Labcold Portable Fridge Monitoring Log	34/35
D	Helapet Vaccine Porter Monitoring Log	36

1 Introduction

Powys Teaching Health Board (PTHB) is committed to the safe and secure handling and administration of medicines and vaccines to protect patients and staff.

It is mandatory for all staff members involved in managing vaccines to always follow this standard operating procedure.

The efficacy and safety of vaccines requiring controlled low temperature storage ultimately depend on the safe handling of the vaccine and maintenance of temperatures within the manufacturer's recommended range, typically +2°C to +8°C. If the handling and storage recommendations are not followed, manufacturers can disclaim responsibility for any apparent failure of the product as they will no longer be within the terms of the marketing authorisation (product license).

Vaccines are biological substances that may lose their effectiveness rapidly if they become too hot or too cold at any time. Inadequate temperature control during storage and transport of vaccines or other cold chain pharmaceuticals can reduce the efficacy of the product. This is particularly important during transport and storage of vaccines, as failure to provide the correct storage conditions can result in compromised attainment of a satisfactory level of immunity.

Vaccine failures caused by the administration of a reduced potency vaccine can affect a large number of people, causing risk to patients, embarrassment to the organisation, expense and possible liability. Patient confidence in vaccine products and the vaccination process is diminished if repeat vaccination is required.

In addition to the safe handling of vaccines and maintenance of storage temperatures, stock management Excel spreadsheets must be maintained to satisfy pharmaceutical regulatory requirements.

2. Objective

- To ensure suitably trained and competent vaccination centre (VC) staff safely and securely receipt, store, manage and, where necessary distribute vaccine stocks for administration to patients at Powys Teaching Health Board (PTHB) Vaccination Centres (VCs), outreach clinics and other community settings e.g. care homes, in accordance with pharmacy standards and legislation.

- To ensure that individuals who store, handle or administer vaccines are aware of the requirements to store the vaccine correctly and in line with the recommendations set out in Chapter 3 of the Green Book ([Green Book Chapter 3 v3 0W.pdf \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/61111/green-book-chapter-3-v3-0w.pdf)). This will ensure the integrity of vaccine products and reduce the risk of compromising the quality, efficiency, and safety of the vaccination programme, whilst improving the service for patients.
- To clearly define record keeping requirements in line with pharmacy standards, legislation and Vaccination Programme Wales (VPW) expectations.
- To ensure that staff are aware of fridge/medicine cupboard key security arrangements.
- To ensure that staff understand the importance of fridge temperature monitoring and are competent to undertake this task.
- To understand the procedure for taking appropriate corrective and timely action in the event of a temperature excursion outside of the cold chain range of +2°C to +8°C.
- To ensure that staff understand the principles of stock rotation.
- To ensure that staff understand the importance of expiry date checks.
- To ensure that staff understand the principles around the safe handling of vaccines in accordance with the manufacturer's Summary of Product Characteristics (SmPCs)

3. Essential Reading

For information to support the requirements of this SOP, the following must be read:

- MMP 427 Safe and Secure Management of Refrigerated Medicines / Vaccines
- MMP 428 Use of Labcold™ Portable Vaccine Carriers
- MMP 432 Use and Management of Helapet Vaccine Porters
- MMP 430 Cleaning / Defrosting PTHB Medicines / Vaccine Refrigerators
- MMP 439 Roles, Responsibilities and Training – Vaccine Management in Vaccination Centres and in Community Settings
- MMP 443 Quarantine, Product Recall and Destruction of Vaccines
- MMP 444 Responding to Pharmaceutical Incidents

- MMP 447 Vaccination Team/Pharmacy Store Team Stock Management – Record Keeping

All SOPs can be accessed via the Medicines Management website [Policies, Procedures, Protocols, SOPs and Guidelines - Powys Teaching Health Board](#) or via the Vaccination Centre Teams Channel. SOPs can also be located in the vaccine management SOP folder located in each vaccination centre, also see Section 6 - Training

Summary of Product Characteristics (SmPCs) and Information on Patient Information Leaflet (PILs) updates can be accessed here: [Home - electronic medicines compendium \(emc\)](#)

4. Definitions

- **ATO** – Assistant Technical Officer
- **Cold chain** – is the system of transporting and storing medicines within the recommended temperature range of +2°C to +8°C from the place of manufacture to the point of administration to a patient.
- **Data logger** – an electronic device which allows a detailed analysis of temperature. Data loggers can be used to provide assurance that the cold chain has been maintained and to provide information about the duration of temperature excursions. Data loggers are frequently placed in medicines refrigerators and in vaccine porters during transportation.
- **HCSW** – Health Care Support Worker
- **GPhC** – The General Pharmaceutical Council are the regulatory body for pharmacists, pharmacy technicians and pharmacies in Great Britain.
- **Medicine** – a substance used for treating, preventing or diagnosing disease, for contraception, inducing anaesthesia or modifying normal physiological function.
- **PIL** – Patient Information Leaflet
- **PTHB** – Powys Teaching Health Board
- **Quarantine**-To separate/isolate affected stock from the supply chain, which must be clearly labelled with 'Quarantined – do not use' and dated.

- **SmPC** – Summary of Product Characteristics
- **Supply Chain- term** used to describe the whole cold chain process from the point of receiving the medication into stock, transport, maintaining the medicines and the point of supplying medication.
- **Temperature deviation/excursion** – any incident where the recorded Labcold™ portable vaccine carrier temperature is outside of the recommended range of +2°C to +8°C.
- **Vaccine** – a suspension of attenuated or killed microorganisms (viruses, bacteria or rickettsia) or of antigenic proteins derived from them, administered for prevention, amelioration or treatment of infectious disease.
- **VPW** – Vaccination Programme Wales

5. Roles / Responsibilities

5.1 Senior Pharmacy Technician, Vaccination/Immunisation & Pharmacy Stores (Senior Pharmacy Technician)

The senior pharmacy technician is responsible for:

- Ensuring that this SOP is kept up to date and informing staff of any changes.
- Ensuring clinical governance relating to vaccine stock management is maintained.
- Ensuring that VC staff are trained and competent to perform the duties required of them and that training meets the requirements of the General Pharmaceutical Council (GPhC).
- Ensuring that all VC staff have received relevant training relating to vaccine stock management (see section 5) and, where applicable, are signed off as competent to undertake their duties with minimum supervision (e.g., Healthcare Support Worker (HCSW)).
- Providing any training sessions required to ensure that all staff understand the principles of robust vaccine stock management, according to pharmaceutical standards and legislation.
- Maintaining contact with VC staff and overseeing management of operational vaccine management duties.
- Ensure all staff are aware of actions to take and who to contact if there are any issues with the refrigerator / cold chain.

- To make sure that staff are aware that any vaccines subject to a breach in the cold chain are quarantined until expert advice is sought from the Medicines Management Team.
- Annual vaccine management audits.

5.2 Pharmacy Technician Immunisation / Vaccination & Pharmacy Store

- The pharmacy technician is responsible for the operational management of the pharmacy store and providing advice and support to Assistant Technical Officers and PTHB vaccination teams, under the supervision of the senior pharmacy technician
- Under the supervision of the senior pharmacy technician the Pharmacy Store Technician is responsible for providing and coordinating training for both registrants and non-registrants involved in vaccine management activities. This includes ensuring staff are competent in basic pharmacy procedures, vaccine handling and storage requirements, cold chain maintenance, fridge monitoring processes, temperature recording, escalation of temperature excursions, and completion of all relevant documentation. The Pharmacy Store Technician is also responsible for maintaining training records, providing refresher training where required, and supporting ongoing compliance with local procedures, national guidance, and governance requirements.

5.2 Service Lead

Senior Nurse, Vaccination Service must:

- Ensure all staff read and understand this procedure.

5.3 Vaccination Centre Nurse Leads

- The vaccination centre nurse leads, in collaboration with the senior pharmacy technician, are responsible for ensuring that all appropriate staff for whom they have responsibility (e.g., anyone who has any involvement in vaccine management) have undertaken all necessary training (see section 6) and have read, understood, and adhere to the standards in this SOP.
- The nurse leads are responsible for ensuring that the senior pharmacy technician is provided with the VC vaccine management rota in advance, monthly.

5.4 Other Staff (e.g., registrants and HCSWs)

- With support from the senior pharmacy technician/pharmacy stores pharmacy technician, unregistered staff (HCSWs) must undertake education and training to meet GPhC standards to be able to safely manage vaccines.
- All staff (registered and HCSWs) handling vaccines in VCs and other community settings are responsible for undertaking training to support robust vaccine management and governance (see section 6).
- All staff are responsible for updating the VC training tracker when training has been completed.
- All staff are responsible for reading pharmacy-related SOPs to support the duties outlined in this SOP.
- All staff are responsible for signing and dating the SOP log attached to each SOP when read, or where appropriate updating the VC training tracker to indicate this
- VC staff are responsible for maintaining accurate stock management records, e.g. WIS and stock management Excel spreadsheets (for those vaccines with no functionality on WIS).
- VC staff are responsible for reporting vaccines subject to a breach in the cold chain to the senior nurse lead / lead nurse / senior pharmacy technician / pharmacy stores pharmacy technician.
- VC staff are responsible for quarantining vaccines subject to a temperature breach until expert advice is sought from the Pharmacy Team.
- All staff must understand the importance of good vaccine management and Good Distribution Practice (GDP) and have undertaken the relevant training.
- All staff must be aware of the importance and the need to quickly and efficiently transfer vaccine deliveries to the refrigerator as soon as they arrive on site.
- Prior to handing out vaccine, it is the responsibility of staff to make sure that the vaccine remains within the manufacturer's recommendations for storage.
- All staff are responsible for maintaining effective lines of communication with other team members to support the safe and efficient management of vaccines and all associated processes.

Tasks outlined in this SOP must be clearly assigned to named individuals for each vaccination session.

6. Training

All staff involved with any aspect of cold chain management are responsible for undertaking training and maintaining competencies. Staff can access cold chain and vaccine storage training via ESR:

[070 Cold Chain Training –The safe and secure management of refrigerated medicine](#) (annually)

[000 Vaccine Storage](#) (one-off)

HCSWs (unregistered staff) supporting vaccine management must undertake education and training to meet GPhC standards, e.g. Accredited Level 2 qualification in Stock Management.

New HCSWs must receive adequate training in vaccine management operational duties before being signed off as competent.

Competency checklists can be found here:

[Competency Checklists Vaccine Management](#)

All VC staff involved with transportation of medicines/vaccines must be familiar with Good Distribution Practice (GDP). GDP training is available for PTHB staff. GDP training is undertaken individually in the form of a PowerPoint presentation and is certificated 'in-house'. A GDP training refresher must be completed annually. For information on how to access this training, contact the pharmacy team via

PTHB.VaccPharmacyStoreOrders@wales.nhs.uk

In line with the National Minimum Standards and Core Curriculum for Immunisation Training for Registered Healthcare Practitioners, registrants undertake training in relation to the Legal issues and the Storage and handling of vaccines. These are mandatory modules within the NHS Wales Immunisation Programme which are included within the local Immunisation and Vaccination service training matrix.

Registrants are responsible for identifying their own training needs and will be supported by the senior pharmacy technician / pharmacy stores pharmacy technician.

All staff are responsible for updating the VC Training Tracker promptly when individual training activities or components are completed.

7. Keys and Security

7.1 Overview

Keys to the vaccine refrigerators and medicines cupboard must be kept in a secure location and access made available to authorised personnel only. These are:

- Medicines Management Pharmacy Technicians & Assistant Technical Officers (ATOs)
- VC Leads and Nurses, Senior Nursing Leads for the vaccination service.
- Vaccination Centre Registrants and HCSWs.
- Vaccination Centre Administration Assistants trained in receipt of vaccines.

7.2 Refrigerator/Medicines Cupboard Keys

- Keys must be stored in the designated key safe when the Vaccination Centre (VC) is closed.
- During vaccination sessions, keys must be held by a named member of staff responsible for vaccine management and only handed to another authorised staff member for shift changes or break cover.
- Whenever the vaccine storage area is unattended, including during breaks or lunch periods, the vaccine fridge and medicines cupboard (adrenaline storage) must be locked, and the fridge door secured.
At the end of each day, the named vaccine management staff member must return all keys to the designated key safe.

Keys must not be taken off site.

8. Receipt of vaccine, Fridge Temperature Monitoring and Storage of Vaccine

8.1 Receipt of Vaccine

- All vaccine will be delivered to VCs at a prearranged date and (where known, time) at a temperature of between +2°C to +8°C.
- Vaccine must be transferred immediately from +2°C to +8°C conditions to the VC refrigerator to maintain the cold chain. Ensure that the fridge temperature has been maintained between +2°C and +8°C (see section 8.4).

- Where a delivery note is provided, e.g., from external suppliers, stock must be checked for accuracy (e.g., check that the vaccine type, brand, quantity, batch number and expiry match that of the delivery note). The delivery driver will request a signature for receipt of the delivery via a handheld device.
- The person receiving the vaccine must manually sign, date and add the time on the external supplier delivery notes to acknowledge receipt of the vaccine delivery, and it must be scanned and saved into the appropriate VC folder.
- Ensure the product received is in good condition, e.g., intact; packs are not crushed.
- Stock that has not been stored correctly, e.g., if the cold chain has not been maintained during delivery, should be rejected and returned to the driver. Contact the senior pharmacy technician immediately for advice.
- On receipt, vaccines must be unpacked from the outer cardboard box or vaccine porter but must be kept in the original packaging and placed into the designated fridge immediately and not left at room temperature.
- Where large vaccine deliveries are expected, ensure sufficient refrigerator capacity is available (prior to the delivery) to accommodate vaccines during receipt and storage. When unpacking large deliveries, outer cartons containing vaccines may be placed temporarily in the refrigerator to maintain the cold chain while stock is transferred and organised. Vaccines must not be left at ambient temperature during the unpacking process, as transferring large volumes of stock can take a considerable amount of time and may compromise cold chain requirements.
- When putting stock away, ensure that stock is rotated, e.g., shorter dated stock to the front of the fridge to be used first (see section 8.2)
- Receipt **external** (e.g., from the supplier) vaccine deliveries on WIS, where functionality allows, e.g., COVID, RSV. Note: Flu vaccines will be transferred from the PS and must not be receipted on WIS. Occasionally some RSV deliveries will be transferred from PS stock; these must not be receipted on WIS. Refer to the delivery schedule for confirmation.
- Vaccines delivered from external suppliers which are **not** listed on WIS must be receipted on the VC stock management Excel spreadsheet (see section 8.5).
- The Vaccine Delivery Schedule will indicate when deliveries into VCs are due, on which system to receipt vaccine deliveries e.g., WIS/vaccine management website and where appropriate, the reference number to be used.

- RSV vaccines administered in vaccination centres are for the adult vaccination programme only.
- Covid vaccine consumables will be delivered with the vaccine direct from the supplier, e.g., syringes, Patient Information Leaflets (PILs), ensure that these are safely stored.

8.2 Stock Rotation and Storage

- Rotate stock so that the oldest stock (shortest expiry) is at the front of the fridge to be used first. When checking the expiry date, in most cases the vaccine will expire on the last day of the month. i.e. 05/24 means the vaccine expires at 23:59 on the last day of May. There are some exceptions to this, as vaccines such as the nasal influenza and COVID-19 vaccines expire on a specific date in the month.
- Excessive stockpiling of vaccines must be avoided in case of fridge failure and to reduce potential waste.
- Where possible, ensure that different vaccines are separated in the fridge, e.g., on different shelves.
- Refrigerators should not be over-filled. Sufficient space must be maintained within the fridge to permit adequate air circulation.
- Cool packs should be stored in a separate fridge from the vaccine.
- Food, drinks and clinical specimens must never be stored in the same refrigerator as medicinal products.
- Fridges must be cleaned regularly and defrosted where necessary - see essential reading, section 3.

8.3 Stock Checks

The named person assigned to vaccine management during a vaccination clinic is responsible for checking stock quantities:

- Prior to the start of a vaccination session - record current stock levels on WIS e.g., Covid/Flu/RSV vaccine (also see section 8.5) or on the stock management Excel spreadsheet e.g., MMR vaccine)
- When vaccine is removed from the VC fridge for an outreach clinic, another stock check must be recorded on WIS (or vaccine management spreadsheet) to reflect the reduced number of vaccines in stock within the VC fridge.
- Stock checks must be recorded following vaccine deliveries.
- Stock checks must also be recorded at the end of day NB. Where teams are working at outreach vaccination clinics, the

final VC stock check must be completed when the team returns (in case they have unused vaccine to return to stock).

- Provide a full stock check once weekly (including batch numbers and expiry dates) to the senior pharmacy technician. This stock check will be provided to Vaccination Programme Wales (VPW).

NB. When undertaking stock checks, aim to keep the fridge door open to an absolute minimum, for the shortest possible time. If the fridge temperature begins to rise, then close the fridge door, and wait until the temperature becomes stable again before continuing. **NB. When performing a stock check, be aware that some boxes of vaccines may be part boxes.** Part boxes must be marked with a cross on the front of the box to indicate that they have been opened and that vaccines have been removed.

- Where possible, ask a colleague to perform a second check (e.g., registrant / HCSW) before submitting the final stock count (especially at times of high-volume stock).

8.4 Stock Management and Fridge Monitoring in VCs

- Stock management and monitoring of vaccines are the responsibility of the named member of staff on duty for vaccine management.
- Vaccines must be stored safely and securely in a refrigerator between +2°C to +8°C to ensure that they are not compromised, and efficacy is maintained.
- The temperature within the vaccine refrigerator must be monitored regularly by an appropriately trained individual who is aware of the action to take if a fridge temperature excursion occurs.
- All static fridges in the VCs must contain a data logger, and the data downloaded **once weekly** (unless a fridge temperature excursion occurs before then), the data logger must then be reconfigured – a reminder must be added to the hardback VC diary to ensure that this happens regularly. The downloaded data must be analysed and saved in the relevant Management of Refrigerated Medicines/Vaccines SharePoint folder and named appropriately, e.g., 'CH Vaccine fridge 02/05/2025'. Any temperature excursions must be reported to the VC Lead Nurse and Pharmacy Team immediately, and the vaccine must be quarantined until further notice.
- Fridge temperature readings must be recorded on the Welsh Immunisation System (WIS) twice daily (am and pm). The maximum, minimum and actual temperature must be recorded, then the fridge temperature must be reset.

- Stock checks must be entered as outlined in section 8.3
- Care must be taken when entering data onto WIS, particularly stock levels. It is good practice for a second stock check to be performed by a colleague (e.g., registrant / HCSW) before entering the stock count onto WIS, especially during times of high-volume stock. Incorrect stock counts can affect vaccine orders (e.g., insufficient or too much vaccine may be ordered based on current reported stock levels), which in turn may potentially impact the smooth running of the vaccination service and/or produce waste.
- WIS entry errors are editable. Edited WIS entries will be monitored and must be reported to the Pharmacy Store team.
- A stock monitoring sheet may be used during the vaccination session to keep a running total of the number of vials used and to keep a record of ad hoc fridge temperature monitoring throughout the vaccination session (see Appendix A). There is no requirement to keep this record at the end of the day, but it may be useful to file copies for a week at a time, in case of stock discrepancies.
- When issuing vaccine from the refrigerator, ensure that the fridge door is opened for the minimum amount of time to avoid warm air entering and compromising the temperature.
- In the event of a fridge failure in the vaccination centre, all vaccine must be transferred into vaccine porters to maintain the cold chain. Both VCs have sufficient emergency vaccine porters (Helapet and Labcold) and cool packs on site to support this. NB. Storage of vaccines in a vaccine porter during vaccination sessions in VCs should only be necessary if a fridge failure has occurred. A data logger must be placed into the vaccine porters to record the temperature over time.
Immediate advice should be sought from the VC lead nurse & senior pharmacy technician / pharmacy store technician if a fridge failure occurs.

NB. Vaccine porters may be used to store vaccine during vaccination clinics in a community setting, e.g. at outreach clinics. Data loggers must be used in both types of vaccine porters.
For information on monitoring processes at outreach clinics see section 14 – Transport of Vaccines

8.5 Welsh Immunisation System (WIS)

- Currently (as of September 2026) several vaccines are delivered directly to VCs/PS from external suppliers e.g. ImmForm, IP5 and must be recorded as a delivery on WIS (see section 8.1). NB. Only vaccine delivered directly from an

external supplier must be recorded as a delivery on WIS and the stock check subsequently updated.

- Where vaccine is transferred between sites within the Health Board, for example, as an internal delivery from the Pharmacy Store to Vaccination Centres, then the Pharmacy Store team will add the vaccine movement as a transfer on WIS. On receipt of the stock at the Vaccination Centre, it must not be added to the delivery section of WIS. This is because it has already been received by the organisation (e.g. on WIS) by the Pharmacy Store Team. The stock received must, however, be added to the stock check on WIS immediately on arrival.
- Fridge temperatures must be recorded twice daily on WIS.
- Twice daily stock checks must be recorded on WIS (see also section 8.3).
- Waste must be recorded on WIS.

9. Handling Vaccine at Vaccination Centres & Community Settings during Vaccination Clinics

Vaccines are Prescription Only Medicines (POMs), and therefore, the fridge should always be locked when not in use Vaccine porters must be kept in a secure area and must not be left unattended. Vaccines should never be left unattended once removed from the fridge (e.g., when handed to a vaccinator).

- During vaccination sessions, a vaccine tray must be used to keep vaccines and associated consumables together in one designated place. The required vaccine and consumables should be prepared and issued to the vaccinator by the member of staff responsible for vaccine management and support during the session.
- Only one vaccine should be issued to a vaccinator and present in a vaccination lane at any one time. The exceptions to this are when vaccines are being co-administered (e.g. COVID-19 and Flu, or COVID-19 and RSV), or when a planned catch-up programme is operating alongside another vaccination programme. In these circumstances, it is acceptable for more than one vaccine to be present in the vaccination lane; however, additional care must be taken to prevent administration errors (see Section 10). Where multiple vaccines are in use, a separate vaccine tray must be provided for each vaccine.
- All vaccinees must be provided with a Patient Information Leaflet.
- Vaccines that have been removed from the refrigerator or vaccine porter that have expired (e.g., that have left the cold

chain), cannot be re-used or returned and must be destroyed of according to PTHB disposal of waste regulations. Waste doses must be recorded on WIS or on the VC stock management spreadsheet.

- The named member of staff supporting vaccine management must flag up any issues to the Lead Nurse on duty (or deputy) and where necessary contact the pharmacy team for advice e.g., operational/clinical queries.
- Vaccines must not be handed out on the request of any PTHB department e.g., district nursing teams, peer vaccinators without prior authorisation from the senior pharmacy technician.

10. Using Multiple Vaccines During a Vaccination Clinic

It is important to mitigate the risks associated with administering multiple vaccines during a vaccination clinic; therefore, certain measures must be put in place to minimise the risk of the wrong vaccine/incorrect dose being administered. All staff must be fully engaged in making sure that the vaccination process is safe.

- When planning vaccination sessions, ensure that there is as much separation of the different brands of vaccine as is practically possible, e.g., use separate trays
- Staff supporting vaccine management must inform staff prior to a changeover to different vaccine types.
- Staff supporting vaccine management must be careful when choosing a vaccine from the fridge to hand over to vaccinators.
- Vaccinators must double-check that the vaccine handed to them is the correct vaccine (particularly when different strengths of the same vaccine type are in use e.g., adult vs Children's vaccines)
- Inform admin staff when multiple vaccines are in use and ensure that the correct PILs are available for admin staff to hand out to citizens.

11. Managing COVID Stock Toward the End of the Day

From 3 pm onwards (later, if the shift is longer), the member of staff supporting vaccine management, the admin team on site, and the lead nurse (or deputy), must liaise to identify the number of appointments scheduled for the remainder of the working day, versus how many doses are 'on the floor'.

To avoid waste, vaccine should only be removed from the fridge if it is certain that all the doses will be administered.

11.1 Sharing Covid multidose vials at the end of the day

When sharing vials at the end of the day, place the vial in a designated neutral area (such as an unused vaccination lane, fridge area). The vial should remain in a tray with the required syringes, diluent/adjuvant (if applicable), swabs, and vaccination cards (where in use). Vaccinators should attend the area to draw up their own dose, or a registered practitioner may draw up doses for vaccinators as patients arrive. Syringes must be transported back to the vaccination lane on a separate tray and should not be re-sheathed; instead, they should be carefully returned to the syringe packaging for transport. All preparation must take place under the supervision of the clinical lead/lead nurse, and vaccine doses must only be drawn up when a patient is present. Do not prepare vaccines in advance.

12. Managing Covid-19 Vaccines During Hot Weather

Vaccines must be stored and used within temperatures specified by the manufacturer and MHRA-authorized conditions of use, to ensure their safety, quality and efficacy.

Heat speeds up the decline in potency of most vaccines; therefore, vaccine effectiveness cannot be guaranteed unless they have been stored at the correct temperature.

With increasing temperatures during summer, it is important to consider vaccines to ensure their continued safety, quality, and efficacy.

Monitoring of temperatures in ambient preparation and administration areas is required, e.g., any area where the vaccine is held after removal from cold storage.

Frequent ambient temperature measurements should be taken with a calibrated digital thermometer - see appendix B - Ambient Temperature Monitoring Log).

The higher the temperature, the more frequent the monitoring needs to be:

If the temperature is greater than 22°C in the work area, monitoring should be hourly (see appendix B, Ambient Temperature Monitoring Log).

- Action must be taken to prevent temperatures exceeding 25°C

Where necessary, if ambient temperatures reach 25°C or above, additional measures must be implemented to protect

vaccine integrity (see below). Staff should refer to the relevant vaccine Summary of Product Characteristics (SmPC) for specific storage requirements and temperature guidance for the vaccine being used.

Optimise workflow and work area: Staff responsible for vaccine management at the vaccination clinic must manage workflows from storage to preparation and administration to minimise the time the vaccine is outside cold storage and exposed to elevated temperatures. Remove only one dose at a time from the fridge/Labcold™ portable vaccine carrier/Helapet vaccine porter. Where possible, additional mechanical controls (e.g., portable air conditioning) should be used, either on a temporary or permanent basis, to maintain temperatures within the required range. NB. Use of fans and opening windows will improve conditions for staff but do not normally lower air temperatures, unless they move air from a cooler area to a warmer area. Consider restricting the number of people working or waiting in the vaccine preparation area, and removing non-essential electrical equipment, as this may reduce the temperature slightly.

In extreme circumstances and if temperatures are unable to be maintained below 25°C, it may be necessary to provide the vaccinator with a tray containing a cool pack. Each VC will have a fridge in which cool packs are stored and can be used for this purpose. Contact the pharmacy stores team if extra cool packs are required.

Extra cool packs may be transported in vaccine carriers to outreach clinics during hot weather.

A tray containing the vaccine must be placed on top of the cool pack tray. This should keep the temperature of the vaccine sufficiently cool and below 25 C.

A new cool pack and tray should be provided each time a vaccinator requests a vaccine, or until the cool pack begins to lose its temperature.

Minimise the time the fridge door/Labcold™ portable vaccine carrier/Helapet vaccine porter is open. Repeatedly opening the refrigerator/ vaccine carriers will allow warm air to enter. Make sure fridge doors/ vaccine carrier lids are securely closed as soon as possible after opening.

Previously used cool packs should be cleaned with a Clenil wipe and placed back into the fridge to cool down (do not reuse at the same vaccination clinic until sufficiently cooled). Once the vaccination clinic has ended, all cool packs must be cleaned and placed back into the fridge. The time the cool pack will be ready for next use (e.g., for use in Helapet vaccine porters) must be indicated (24 hours after placing in the fridge).

An informal risk assessment must be undertaken frequently as conditions change. Assessments should take place at the start of, periodically during, and after each vaccination session.

13. Products Requiring Ambient Temperature Storage

Medication must be stored in accordance with the manufacturer's instructions. For ambient temperature storage, recommendations are between 15 and 25 degrees Celsius.

Vaccination Centres holding medication requiring ambient temperature storage include adrenaline, contained within anaphylaxis kits.

Both hot and cold temperatures can physically change medication, which can adversely affect their potency; therefore, temperature monitoring must take place in those areas storing medication requiring ambient temperature storage conditions, e.g. +15°C to +25°C. The recorded data must be saved in the relevant vaccine management Teams folder for easy retrieval.

Documenting a daily log of ambient temperatures in medication storage areas is a requirement of Health Inspectorate Wales (HIW) and is subject to inspection. This requirement is also stipulated in Patient Safety Notice (PSN055) (see Appendix B – Ambient Temperature Monitoring Log).

During periods of hot weather, ambient temperatures must be monitored more frequently, as per Section 12.

Process:

- Record ambient temperature daily using a thermometer (VCs and at outreach clinics)
- If the temperature reaches +22°C, then monitoring must occur more frequently, as per Section 12.

For anaphylaxis kits:

- If the ambient temperature in the work area reaches +22°C, then a data logger must be placed inside the anaphylaxis kit, or in the case carrying the anaphylaxis kit.
- During heatwaves, data loggers must be used with anaphylaxis kits routinely.
- Consider using cool packs with the anaphylaxis kits or purchasing 'cool bags' to keep the anaphylaxis kits at the correct ambient temperature. NB. Anaphylaxis kits must not be stored in vaccine porters or any other cooling system where the temperature is maintained between +2°C and +8°C
- The data logger must remain with the anaphylaxis kit for the duration of the hot weather spell and downloaded as at the end of the vaccination clinic.
- Save the data logger download in the relevant Teams channel and inform the pharmacy store team of any temperature excursions.
- The pharmacy team will analyse the data and where appropriate recommend that the product expiry date be reduced. Instructions will be provided to the VC team lead with the reduced expiry date which will need to be added to a 'reduced expiry date' label. The label must be placed onto the affected anaphylaxis kit close to the original expiry date. It should not obscure any other information on the anaphylaxis kit. Alternatively, the Pharmacy team may recommend disposal of the adrenaline and will provide a replacement.

14. Transport of Vaccine

14.1 Community Settings/Walkabouts

A reference number must be raised by VC staff for all vaccine leaving the vaccination centre and the details added to the vaccine management Excel spreadsheet.

- Vaccine may be transported to planned outreach clinics using calibrated Labcold™ portable vaccine carriers. For larger volumes of vaccine, validated Helapet vaccine carriers may be packed with vaccine to be used as a storage unit at +2°C to +8°C until the vaccines are required. When required (e.g., when the Labcold™ portable vaccine carriers are running low on vaccine, the vaccines can be transferred from Helapet vaccine carriers and into Labcold™ portable vaccine carriers. Do this in bulk to avoid opening and closing the Helapet vaccine porter multiple times.
- Labcold™ portable vaccine carriers transported in vehicles must be plugged into a power source for the entire journey and secured to avoid movement during transportation (see

MMP 428 Use of Labcold™ Portable Vaccine Carriers for detailed information).

- Unused vaccine returned to the VC from a community setting can be placed back into stock provided that the cold chain can be assured e.g., where the Labcold™ portable vaccine carrier has remained between +2° to +8°C and can be evidenced from the manual temperature log or where a data logger download demonstrates that the cold chain has been maintained between +2°C to +8°C. A green sticker must be placed on all boxes of returned vaccine. Returned vaccine must be placed at the front of the fridge to be used first at the next vaccination clinic. NB There are limits on the number of times some Covid vaccines can be transported - check the SmPC for details or contact the pharmacy team. Note: Ensure that the quantities of vaccine transported to clinics within a community setting do not exceed the number of planned appointments for that day. It is important to check with the Lead nurse the quantity of vaccines that need to be packed for that day.
- Vaccine required for mop-ups or 'walkabouts' e.g. flu vaccine, can be transported using a validated Helapet vaccine porter and a data logger.
- A data logger must be used with both types of vaccine porters.
- Temperature monitoring must take place when Labcold™ vaccine carriers are used. The temperature of the unit must be recorded on the temperature monitoring log (see appendix C) several times throughout the day. If the temperature remains stable throughout the day, then the data logger must be downloaded and saved in the relevant folder. If a temperature deviation is displayed on the Labcold™ temperature monitoring screen at any time throughout the day, then the data logger must be downloaded, analysed and appropriate actions taken.
- A Helapet vaccine log must be completed where using Helapet vaccine carriers in community settings (see Appendix D)
- Data loggers used with validated Helapet vaccine porters must be downloaded at the end of the day (or sooner if necessary), analysed and saved. Any temperature anomalies must be reported to the Lead Nurse/pharmacy team, and the vaccine must be quarantined until further notice.
- All data logger downloads must be saved in the relevant folder on Teams. Saved data must be named appropriately to ensure easy retrieval e.g. name of venue / date / vaccine porter used (i.e. Helapet/Labcold).
- Vaccine may be removed from the fridge on multiple occasions for use in a community setting PROVIDING that a Labcold™ portable vaccine carrier/validated Helapet vaccine porter and data logger is used and that the cold chain can be assured

e.g., the Helapet data logger data is downloaded and analysed on return to the VC / the Labcold™ temperature monitoring log provides assurance that the temperature has remained between +2°C to +8°C for the duration that it has been outside of the VC.

NB. **All** cold-chain products that have been taken into the community and have been returned to the fridge must be easily identifiable; therefore, the box must be marked with a green sticker. This must be done every time the box of vaccine is returned to the fridge from a community setting.

NB. There is no requirement to transfer or receipt vaccines on WIS to outreach clinics / walkabouts / mop-ups, **where a Labcold™ portable vaccine carrier is being used to store the vaccine** (a record of vaccine movement between sites will be documented on the VC vaccine management Excel spreadsheet). However, stock checks must be updated on WIS or the vaccine management spreadsheet whenever vaccine is removed from and returned to the VC.

15. Further Information

For all vaccines:

- Once all the doses have been withdrawn from a vial / administered from a pre-filled syringe / nasal spray, or if the expiry has been exceeded, discard the used vaccine vial/syringes/nasal spray into a yellow lidded sharps bin.
- Empty outer cartons must be disposed of in a secure manner e.g., into the recycling waste stream.

Safety Check

Prior to issuing vaccines at a vaccination session, inspect for:

- Any obvious breakages.
- No evidence of cracks in glass, leakage, or other damage.
- The contents of the vial are fully thawed (i.e. Covid vaccine).
- The vaccine contains no visible particles.

16 Vaccine Consumables

- COVID-19 vaccine consumables and Patient Information Leaflets (PILs) will be supplied to sites in quantities that match the number of vaccine doses ordered.

- Stocks of consumables should be stored in a suitably clean, dry environment, and in a manner that supports safe working and ease for access and stock checks.
- Stocks of consumables which are not actively in use should be stored in a single location within each VC wherever possible.
- If there are any discrepancies on receipt of a consumable order, immediately inform the senior pharmacy technician.
- In the unlikely event that stocks of consumables may be insufficient to support scheduled vaccinations, this must be raised with the VC lead nurse and the senior pharmacy technician / pharmacy Store pharmacy technician as a matter of urgency.
- Any other consumables required for vaccination clinics must be ordered by VC teams separately.

17 Vaccine Spillages

- If spillage of vaccine occurs, gloves should be worn, and the spillage soaked up with paper towels immediately. These should all be put into a yellow clinical waste bag.
- Sharps should be put into a sharps bin for disposal.
- The area should then be cleaned according to the local Disinfection Policy.
- Spillage on the skin should be washed off thoroughly using soap and water.
- Splashes in the eyes should be irrigated with sterile 0.9% sodium chloride solution and medical advice sought immediately. Report via Datix and escalate to the lead nurse.

18 Punctured Covid Vaccine Vials

Punctured vials of Covid vaccine may be transported in a validated vaccine porter at +2 °C to +8 °C (see SmPCs for information on transportation times for each vaccine, as they differ) e.g., when transporting vaccine between care homes during mop-up phases, to avoid wasting doses.

However, the vaccines contain no preservative, and the method of puncture cannot preclude the risk of microbial contamination, so Specialist Pharmacy Service (SPS) advises that transport of punctured vials should not be routine.

The decision to move punctured vials of vaccine between locations within the same legal entity must include an assessment of the risk of microbial contamination and proliferation versus risk of wastage

and loss of opportunities to administer vaccines at alternative locations.

Any decision to move punctured vials must be made locally under the direction of the Chief Pharmacist. The specific circumstances will be taken into account, using appropriate risk control measures such as temperature control, infection prevention and control, and a means to identify that the vial has been punctured.

19. Monitoring Compliance / Audit / Review

Compliance with this SOP will be audited during annual pharmacy audits in vaccination centres.

This SOP will be reviewed every three years or earlier should changes to legislation or to practice indicate otherwise.

20. References

PTHB MMP 010 Safe and Secure Management of Refrigerated Medicines and Vaccines [Medicines Management - SOPs - All Documents \(sharepoint.com\)](#)

Electronic Medicines Compendium [Home - electronic medicines compendium \(emc\)](#) accessed 03/06/2025

Specialist Pharmacy Service. Handling of Covid-19 vaccines, published 26/03/2025 [Handling of COVID-19 vaccines – SPS – Specialist Pharmacy Service – The first stop for professional medicines advice](#) accessed 03/06/2025

Appendix A



Vaccination Centre Fridge & Stock Monitoring v5

Date:	FRIDGE MONITORING (REPORT EXCURSIONS TO PHARMACY STORE TEAM IMMEDIATELY)				
VC:	MAX Temp	MIN Temp	Actual Temp	Reset (tick)	Signature (+ Any Comments)
Mid-Morning TIME:					
Lunchtime TIME:					
Mid Afternoon TIME:					

Vacc. Lane No	Time vaccine Removed from Fridge	Removed By (PRINT NAME INITIALLY, THEN INITIAL GOING FORWARD)	No. of Vials/ Syringes Removed from Fridge								
				Name of Vaccine:	Name of Vaccine:	Name of Vaccine:	Name of Vaccine:				
INITIAL COUNT:											
	:		1								
	:		1								
	:		1								

Vacc. Lane No	Time Vial Removed from Fridge/ Porter	Removed By (PRINT NAME INITIALLY, THEN INITIAL GOING FORWARD)	No. of Vials/ Syringes Removed from Fridge	Name of Vaccine:	Name of Vaccine:	Name of Vaccine:	Name of Vaccine:	Name of Vaccine:	Name of Vaccine:	Name of Vaccine:	Name of Vaccine:
	:		1								
	:		1								
	:		1								
	:		1								
	:		1								
	:		1								
	:		1								
	:		1								
	:		1								
	:		1								
	:		1								
	:		1								
	:		1								
	:		1								
	:		1								
	:		1								

Appendix B

Ambient Temperature Monitoring Chart Month _____

Ambient temperatures should be monitored at least 3 times daily (preferably morning, midday and close of play).
If the ambient temperature rises above 22°C, hourly monitoring must be undertaken using the additional columns below.

[illegible]

22															
23															
24															
25															
26															
27															
28															
29															
30															
31															

Appendix C



PORTABLE FRIDGE TEMPERATURE MONITORING LOG

V3

Date		
Portable fridge identifier number		
Location		
Time fridge turned on & datalogger placed inside		
Time fridge reached stable temperature +2 °C- +8 °C		
Name and quantity of Vaccines		
Time (take 6 temperature readings over the course of the day) For excursions PTO.	Temperature	Comments

GIG
CYMRU
NHS
WALES

Bwrdd Iechyd
Addysgu Powys
Powys Teaching
Health Board

V3

[illegible][illegible]

Appendix D



HELAPET VACCINE PORTER LOG

V2

Date	
Helapet vaccine porter identifier / number	
Venue Location:	
Time vaccine placed in Helapet vaccine porter	
Time data logger placed inside vaccine porter	
Name and quantity of Vaccines	

Time vaccine removed from Helapet						
Name of vaccine						
Number of vaccines removed						

Name & Quantity of Vaccines returned to VC:

Cold Chain Assured: Y / N if No, confirm that vaccines have been quarantined: Y / N

COMPLETED BY:

DATE:

(Scan and save a copy in the relevant file)

