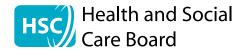
# Guidance on vaccine handling and storage in GP practices





Practice name		
Print name	<b>Iler</b> Signature	Date
Deputy Vaccine Control	<b>er</b> Signature	Date
Practice manager	Oignature	Date
Print namePractice clinical governa	Signature	Date
_	Signature	Date

### **History of changes**

Version number	Change details	Date
V2	Changed layout to improve usability	January 2020
	Updated reporting process for incidents	
	New posters and magnets	

This document updates the guidance on vaccine storage and handling in primary care issued by the Public Health Agency and Health and Social Care Board (Integrated Care) in 2012, and supplements the recommendations in Chapter 3 of *Immunisation against Infectious Disease 2006* (the Green Book).

The guidance applies to all staff involved in the planning or delivery of immunisation programmes in primary care settings. It outlines the minimum standards that are required to ensure that vaccines are stored and managed properly so that immunisations are carried out safely and efficiently, minimising the risk of compromising the effectiveness of vaccines given to patients and thus reducing risk to patients and wastage of expensive medicines.

Primary care practices are expected to align their practice policies regarding vaccine storage and handling.

#### **Summary**

All staff involved in immunisation have a responsibility to ensure that vaccines are handled and stored appropriately. This is to reduce the risk of compromising the quality, efficiency and safety of the vaccine programme and to improve the service for patients.

- There should be a nominated person (Vaccine Controller) in each area, where vaccines are stored, who is trained. The Vaccine Controller has overall responsibility for:
  - 1. Vaccine ordering.
  - 2. Ensuring that vaccines received by the practice from, for example, Movianto or a community pharmacy, have been stored between the recommended temperatures of 2-8°C.
  - 3. Ensuring that vaccine fridge temperature is observed and recorded on a **daily** basis and that vaccines are stored between the recommended temperatures of 2-8°C (Appendix 2).
  - 4. Ensuring data logger readings are reviewed on a **weekly** basis (Appendix 3).
  - 5. Ensuring vaccines leaving the practice (to go to for example satellite practices) are transported in a validated cool box and temperature readings are available on arrival at their destination.
  - 6. Ensuring maintenance of the vaccine fridge (including regular defrosting if it does not have a built in auto-defrost) and associated equipment including thermometers/data loggers.
- Vaccines should be stored between the temperatures of 2-8°C. They may irreversibly lose their effectiveness if they are stored outside of the recommended temperatures. An integral thermometer should be used to measure maximum and minimum temperature daily and a data-logger should also be used as a back-up with readings reviewed on a weekly basis.

- If vaccines are stored outside of the recommended 2-8°C for longer than 20 minutes this is referred to as a significant **cold-chain breach** and immediate action is required.
- Vaccines stored outside of the recommended 2-8°C should be quarantined in a working vaccine fridge until advice has been sought from Medicines Information in your local Health and Social Care Trust (Appendix 1).
- Any cold-chain breach should also be reported to the Health Protection Duty-room on 0300 555 0119.
- If patients have been vaccinated with vaccines following a significant cold-chain breach contact the Health Protection Duty-room on the same day on 0300 555 0119.
- Practices should also contact their local Integrated Care Office for advice on reporting the incident as an Adverse Incident.
- Advice on the need to revaccinate patients when a cold-chain breach has been identified following vaccination will be provided following contact with the Health Protection Duty-room.
- Every person involved in storing and handling vaccines should either attend face-to-face training or complete e-learning on cold-chain management.

#### Introduction

This guidance applies to all staff involved in the delivery of immunisation programmes. It aims to ensure that vaccines are stored and managed properly so that immunisations are carried out safely and efficiently, reducing both risks to patients and wastage of expensive vaccines.

The UK National Health Service spends around £200 million a year on vaccine stock alone. In Northern Ireland this equates to around £6 million a year. Vaccines are sensitive to heat, cold and light and incorrect storage can result in loss of potency of the vaccine which is not reversible. If vaccines are not stored correctly it can result in a patient not being protected and vaccine wastage.

The **cold-chain** is a term used to describe the specific temperature conditions in which vaccines should be kept during storage and distribution to protect against loss of potency. For licensure purposes, vaccine manufacturers have to provide a recommended storage temperature range. For virtually all currently used vaccines the temperature is between 2-8°C and this is stated in the vaccine Summary of Product Characteristics (SPC). The recommended temperature forms part of the manufacturer's marketing authorisation (product license).

When vaccines are exposed to temperatures outside of the manufacturer's recommended range, this is referred to as a **cold-chain breach** and the manufacturer can disclaim responsibility for any apparent failure of those vaccines. One off temperature fluctuations greater than 8°C lasting less than 20 minutes may occur when for example the vaccine fridge is being restocked. In this case the reason for the temperature excursion should be documented on the daily minimum/maximum temperature chart and no further action is required. All other unexplained/reoccurring temperature excursions are significant and require **immediate action**. Significant cold-chain breaches should be reported to

Health and Social Care Trust Medicines Information (see Appendix 1 for contact details of Medicines Information) who will assist the practice in completing a risk assessment to decide whether or not vaccines stored outside of the manufacturer's recommendations will be used. Increasingly the SPCs for some vaccines will contain information on vaccine stability outside of 2°C-8°C. Where this information is available practices can use it to determine whether/not a **single** temperature excursion is likely to have affected vaccine quality. The responsibility and liability of deciding to use vaccines involved in a significant cold-chain breach lies with the immuniser.

All significant cold-chain breaches, especially if vaccines have been administered to patients before the discovery of the cold-chain breach, should also be reported to the Health Protection Duty-room on 0300 555 0119 for assessment of the potential risk to patients. Duty-room staff will provide the practice with verbal recommendations re: vaccine handling and storage in primary care. Practices should also contact their local Integrated Care Office for advice on reporting the incident as an Adverse Incident.

PHA monitoring of cold-chain breach incidents in GP practices reported 75 cold chain breaches between October 2016 and May 2019 across the region; approximately two incidents per month. The incidents resulted in a vaccine loss of £330,000, which is an average of £4,500 per incident. Common causes of preventable vaccine loss as a result of cold-chain breaches includes the vaccine fridge door being left open, the fridge being switched off, poor maintenance of fridge and poor recording and training of staff resulting in delayed reaction to cold-chain breach.

This document provides professionals responsible for vaccinations with guidance for:

- responsibilities for maintaining the cold chain;
- ordering vaccines;
- receipt of delivery;
- storage of vaccines;
- maintenance of the cold chain;
- · incident reporting.

#### Responsibilities for maintaining the cold-chain in primary care

In every general practice where vaccines are stored a **Vaccine Controller** should be appointed. The **Vaccine Controller** should have completed training (online/face-to-face) in vaccine handling and storage/cold chain maintenance and assume overall responsibility for vaccine ordering, receipt, temperature recordings, storage of vaccines and maintenance of vaccine fridge (including regular defrosting if it does not have a built in auto-defrost) and data logger.

There should also be a deputy trained to take over the responsibility of the **Vaccine Controller** in their absence. Health and Social Care Trust employed staff working in a treatment room can take on the role of **Vaccine Controller** in agreement with their line manager, if they have received the appropriate

training. All members of staff involved in maintaining the cold-chain should also have received appropriate training. This includes those directly responsible for:

- the ordering, receipt and immediate refrigeration of vaccines;
- transporting vaccines;
- promoting good practice (eg practice manager);
- administering vaccines (including visiting staff);
- responding to cold-chain breaches.

It is the responsibility of the person transporting and administering vaccines to assure themselves that the vaccine has been stored between 2-8°C prior to administration. This includes staff administering vaccines to patients outside of the practice, for example in their own home/care home setting. Paper copies of daily minimum, maximum and current temperatures should be available for visiting staff to allow them to check and ensure that the cold-chain has been maintained. In addition, as a back-up, a record of the weekly data logger check should be readily accessible. Each practice should have a procedure in place for how to handle a cold-chain breach and everyone's roles and responsibilities should be clearly defined.

#### **Ordering vaccines**

No more than two weeks of vaccine stock should be ordered in advance of use to prevent excess vaccine loss in the event of a cold-chain breach. For some seasonal or annual vaccine programmes (such as flu and shingles) where delivery is directly from the wholesaler/distributor delivery stock can be kept at a **lower level**, as it is possible to order frequently and with shorter notice. Stock should only be ordered if there is sufficient space to store it and allow for adequate air-flow in the fridge (50% capacity).

Regular ordering of smaller amounts of stock will be required from October to March when seasonal flu vaccine will require significant storage space. PPV and shingles vaccine will also usually be required in larger quantities at this time. For the previous three years the highest number of cold-chain breaches was reported in October and November with flu vaccines and the shingles vaccines accounting for the greatest proportion of implicated vaccines. Uptake of these vaccines should be assessed on a weekly basis and practices should not stockpile vaccines. It is particularly important not to stock more than a couple of weeks of the required quantities of shingles vaccine due to the potential for huge financial loss during a cold-chain breach.

#### Receipt of a delivery of vaccines

On arrival at a practice/clinic all vaccines should be handed to the authorised recipient and should be checked against the order/delivery note. This includes vaccines that are delivered or transported from

community pharmacies. They should be visually checked for any obvious signs of damage prior to the authorised recipient signing for them. The recipient should record the vaccine type, brand, and batch number, expiry date and the date and time of receipt. Stock should be rotated to ensure that old stock is moved to the front of the fridge and expiry dates should be checked to ensure that expired vaccines are disposed of as per local protocol.



# Vaccines must be refrigerated immediately in a vaccine fridge and must not be left at room temperature.

There have been significant vaccine losses reported in the past when vaccines have not be placed in a vaccine fridge upon arrival at the practice. Every precaution should be taken to ensure that this **does not** happen. Domestic fridges should not be used to store vaccines. Keeping vaccines in their original packaging protects them from prolonged exposure to ultraviolet light which may lead to loss of potency. Vaccine stock should be rotated to ensure that older stock is placed at the front of the fridge so that it can be used first.

If vaccines are inadvertently left at room temperature they should be moved immediately to a vaccine fridge, quarantined and marked so that they are not used. Medicines Information should then be contacted with details of how long they have been kept outside of the cold-chain so that they can provide advice on whether/not they can be used/should be disposed of. Care should be taken to ensure that these vaccines are not inadvertently administered until after advice has been sought from Medicines Information in your local Health and Social Care Trust (Appendix 1).

Where vaccines are being transported between pharmacies and GP surgeries robust local arrangements should be in place to ensure the cold-chain is not breached.

#### Vaccine fridge temperature recordings

Vaccine fridge temperature recordings should be checked and documented at least daily/ preferably twice daily. Opening and closing of the vaccine fridge door should be kept to a minimum and a reminder (such as the PHA fridge magnet) should be placed on the door. Record keeping should be robust and paper-based copies should be maintained in a folder /log book close to the fridge and easily accessible. Paper recordings should be kept of the date, time, minimum, maximum and current temperature reading (Appendix 2). The vaccine fridge minimum /maximum thermometer should be reset after the temperatures have been recorded. The thermometer should also be reset after periods of high activity. Daily temperature recordings should be kept for a period of five years. All vaccine fridges should be properly maintained and serviced in accordance with the manufacturer's guidelines and it should be clear who is responsible for maintenance and servicing of the fridge, for example the GP practice or the Health and Social Care Trust. Each vaccine fridge should have a unique identifier (such as serial number/asset number) which should be recorded on associated paperwork such as temperature recordings/servicing records. It is important to ensure that satellite vaccine fridges are not overlooked as part of the daily monitoring or servicing schedule.

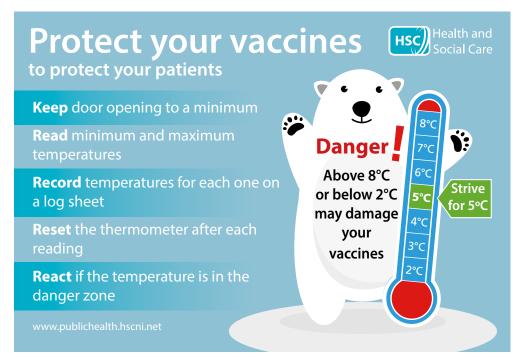
Data loggers should be used so that additional information is available about temperature excursions in the event of a cold-chain breach.<sup>1,2</sup> The data logger should be placed in the vaccine fridge as per manufacturer's guidelines and checked routinely weekly by the Vaccine Controller to ensure that it is working correctly (See Appendix 3 for template to review data logger recordings weekly). This includes checking readings against the paper minimum/maximum temperature readings. Data should be accessible by more than one person in the practice to allow for staff absences. Medicines Information may ask for information provided by the data logger to inform their decision about whether or not vaccines can be used and data loggers should be set at five minute intervals. All clinical staff should know how to download save and file the data logger recordings. Note: The use of a data logger does not replace the need for keeping paper copies of daily/twice daily minimum, maximum and actual

temperature readings (see sample record sheet in Appendix 2). The paper copies should also record when the vaccine fridge temperature has been reset. When the fridge door has been open for longer periods to restock this should also be recorded in the comments sheet.



It is important that all staff know to **react** if the fridge temperature recordings are outside of the recommended 2-8°C for more than 20 minutes.

Fridge magnets and posters are available to remind staff of the importance of reacting if there is a cold-chain breach.



#### Storage of vaccines

#### Vaccine fridges

A vaccine fridge **must** be used for storing vaccinations and domestic fridges must not be used for the storage of vaccines **under any circumstances**. Practices should ensure that they have adequate space to store vaccines required for immunisation programmes at any time of the year. Additional storage capacity may be required for example when the flu programme is being delivered.

When placing vaccines in the vaccine fridge ensure that there is sufficient space left for air to circulate (no more than 50% full) and do not place vaccines near to the side/back wall of the fridge to prevent freezing. It is important that systems are in place to avoid accidental interruption of the electrical supply either by using a switchless socket/marking the socket to ensure that the plug is not accidentally switched off. Vaccine fridges should be placed away from heaters/sunlight in an area that is ventilated and records should be kept of regular maintenance, electrical and calibration tests as per manufacturer's guidelines. Vaccines should not be stored in the door of the fridge and the vaccine fridge should not be used to store anything other than vaccines. Reconstituted vaccines should be stored in accordance with the vaccine SPC/packaging insert. Vaccines are prescription only medicines (POMs) and must be stored under locked conditions (lockable fridge/room).

As mentioned previously, it is important to rotate vaccine stock so that vaccines with the shortest expiry date are moved to the front of the fridge and used first. Keeping individual vaccine fridge stock control books with details of numbers of different types of vaccines and expiry dates will reduce door opening to check stock contents when reordering. It is good practice to note time of restocking on temperature recording charts to explain short periods of temperature variations and door opening should be kept to a minimum. The vaccine fridge should be defrosted in accordance with the manufacturer's guidelines and dates of defrosting (if required) should be recorded.

# Transporting small amounts of vaccines for use in satellite clinics, care homes/patient's own home using short transit times of under two hours

Vaccines used in general practice should be removed from the vaccine fridge immediately before use and vaccines transported outside of the practice for administration should only be transported using a validated cool box (with a minimum/maximum thermometer or data logger). A record of minimum/maximum temperature readings should be kept for a period of five years with the vaccine fridge records that they are associated with the fridge that vaccines will be returned to/kept in. If vaccines are

maintained in the cold-chain (between 2-8°C) they can be returned to the vaccine fridge and marked "use first". Validated cool boxes should be used in accordance with manufacturer's guidelines and care should be taken to prevent direct contact between the cool packs and the vaccines to prevent freezing and damage to vaccines.

Vaccines should not be transported to and from the vaccine fridge to clinics on more than one occasion. Vaccines should be placed in cool boxes directly before leaving to go to vaccination clinics and placed in a vaccine fridge on arrival/left in a validated cool box until they are required. Patients should not be routinely asked to store vaccines (such as travel vaccines)



but if they are required to do so should be given clear instructions on correct storage. Any supply made from a practice to an outlying clinic, care home/patient's home for administration should be made by a trained member of staff with clear instructions on maintenance of the cold-chain. Validated cool boxes should be stored out of direct sun-light during transport.

#### Audit of cold-chain maintenance

It is recommended that the **Vaccine Controller** carries out weekly reviews of temperature readings using the data-logger (see Appendix 3) . In addition to this an annual audit of cold-chain procedures should be completed and areas for improvement should be discussed at team meetings (including training needs of staff involved in cold-chain maintenance.

#### **Training**

All staff involved in maintaining the cold-chain (reception staff, staff recording temperature readings and those administering vaccines), should have read <u>Chapter 3 of The Green Book</u> and have completed either face-to-face training or on-line training on <u>vaccine storage and handling</u>. Staff can register to complete online training and assessment using a Health and Social Care email address. In addition to this the PHA Health Protection Team have developed training slides on Vaccine Handling and Storage that can be accessed via the GP intranet.

#### Reporting cold-chain breach incidents

All significant **cold-chain breach incidents**, such as vaccines stored outside of the recommended 2-8°C for longer than 20 minutes should be reported to Health and Social Care Trust Pharmacy Medicines Information and the PHA Health Protection Duty Room (see Appendix 4).

Health and Social Care Trust Pharmacy Medicine Information is responsible for risk assessment of vaccines that have been stored outside the cold-chain. Vaccines identified as being part of a significant cold-chain breach may no longer within the terms of their marketing authorisation (product license). However, it is sometimes still possible to use these vaccines, which are then referred to as **off-label vaccines**. Health and Social Care Trust Pharmacy Medicine Information will assess whether or not the vaccines have been compromised with the **Vaccine Controller** (in the site where the vaccines are stored) and provide advice on whether they can still be administered to people.

The **PHA Health Protection Team** is responsible for assessing the risk to patients from a significant cold-chain breach incident and carrying out ongoing monitoring of incidents to inform best practice. Incidents are reported to the Health Protection Duty-room for risk assessment, immediate and follow up advice. The PHA Health Protection Immunisation Team will provide advice if vaccines have been administered to patients before the discovery of the cold-chain breach and may require revaccination.

The **HSCB Integrated Care Department** is responsible for delivering the GMS contract with GP practices and providing advice on reporting any adverse incidents. All Adverse incidents should be reported to HSCB. Your Practice Support Manager should be contacted by phone for advice on the Al process.

Details of the process and blank forms for completion are available on the primary care intranet <a href="http://primarycare.hscni.net/general-medical-services-gms/governance-2/risk-management/">http://primarycare.hscni.net/general-medical-services-gms/governance-2/risk-management/</a>

In the event of a cold-chain breach:

- Quarantine all vaccines stored outside recommended 2-8°C but maintain the cold chain until
  further advice has been sought.
- Contact Pharmacy Medicines Information in your local Health and Social Care Trust on the same day that the incident is identified (Appendix 1).
- Report the incident to the Health Protection Duty-room on 0300 555 0119.
- Record all details of the incident.
- Contact your local Integrated Care HSCB Office for advice on the adverse incident (AI) process.
- Implement recommendations provided by PHA following the incident.

If patients have been vaccinated with vaccines following a **cold-chain breach contact the Health**Protection Duty-room immediately on 03005550119.

# Appendix 1: Health and Social Care Trust Medicines Information contact details

SHSCT Pharmacy Medicines Information Office	02838612976 or 02838612709
SEHSCT Medicines Information at Ulster Hospital	02890561445
NHSCT Gillian Smith (Specialist Vaccine Services Technician and Yvonne Rea (senior Pharmacist) – Pharmacy Department, Mid-Ulster Hospital, Magherafelt	02879366755
WHSCT Medicines Information Department at Altnagelvin Hospital.	02871345171 extension 213756
BHSCT NI Regional Medicines and Poisons Information Service (available Monday to Friday 9.00 am to 5.00 pm)	02895040558 (40558) Nirdic.nirdic@belfasttrust.hscni.net

In all cases when more than two products have been exposed to a cold chain failure an email will be requested to confirm: product name (generic/Brand), manufacturer, expiry date, batch number, duration of temperature excursion and temperature recorded over that period.

Up-to-date contact details and further information on vaccine supply can be found in the Vaccine Update which is emailed to practices monthly.

Note- For private vaccinations (such as travel vaccines) advice should be sought directly from the vaccine manufacturer and NOT Health and Social Care Trust services.

## Appendix 2: Daily record of vaccine fridge checks

Nam	e of fa	acility:					
- -ridg	e ide	ntifier:					
Mont	th and	l Year:					
he te empe proce	empera erature edure.	ature sho	ould be	e betw recon	reen 2°C ar	nd 8°C. Check unge, take appi	twice (am and pm) each working day. If the opriate actions as indicated in the written
Date	Time	Current temp	Min temp	Max temp	Thermo meter reset (tick)	Checked by (signature)	Comments (to include details of when fridge was stocked or when frequent opening & closing of door occurred eg baby vaccine clinic)
		•					(doto)

## Appendix 3: Weekly review of vaccine fridge data logger

To be carried out by Vaccine Controller or deputy weekly

Reviewed by:	All OK (no readings outside 2-8°C) or action taken?
	Reviewed by:

# Appendix 4: Action Card – Vaccines exposed to temperatures outside of range

The Public Health Duty Room (03005550119) should be contacted for advice in the event of a significant cold-chain breach. Medicines Information should also be contacted to provide advice on vaccines stored outside of the cold-chain (Appendix 1)

#### Appendix 2: Action Card - Vaccines exposed to temperatures outside of

- **Suspected fridge problems:** Fluctuations outside the range 2-8°C should be investigated. If there is no known reason for a temperature fluctuation (for example the temperature increase is not due to new vaccines being stored or vaccines being removed for clinic) OR if there is a suspicion of sustained increase in temperature:
  - Quarantine stock within cold chain (mark stock but keep in a fridge) until the issue is resolved.
  - Check previous two months of paper copies of minimum/maximum temperature readings and compare to data logger readings
  - If the issue with temperature control cannot be resolved promptly, then vaccines must be moved to another suitable fridge
  - If the stock involves Health and Social Care Trust supplied vaccines, inform the supplying Health and Social Care Trust Pharmacy Department.
  - Consider cancelling, postponing or reducing orders already in the system.
  - Do NOT use any suspect vaccine until situation is clarified. If necessary reschedule vaccination clinics

Contact your local Health and Social Care Trust Pharmacy Department (Medicines Informationsee Appendix 1) for a decision on whether the vaccine can be used or should be destroyed in all circumstances.

2 If vaccines have been inadvertently been left at room temperature on delivery or other circumstances outside routine use in clinic:

Quarantine the vaccines within a fridge ASAP. Contact your local Health and Social Care Trust Medicines Information Department for a decision on whether the vaccines can be used or should be destroyed

## **Appendix 5:**

#### **Defrosting Vaccine Fridge Record**

Date:	Signature

## **Appendix 6: Self-Audit for GP practices on Cold Chain Maintenance**

#### 1. Organisation

(i)	Is there a designated lead / <b>Vaccine Controller</b> in the practice responsible for ordering, receiving and ensuring proper storage and management of the vaccines?			
		Yes	Name:	
		No		
(ii)	Has	s this lead p	erson received training?	
		Yes		
		No		
(iii)			ty designated person for ordering, receiving and ensuring proper storage and f the vaccines?	
		Yes	Name:	
		No		
(iv)	Has	s this perso	n received training?	
		Yes		
		No		
2. F	ridge	es		
(i)	How many fridges do you have in your practice that can potentially be used for vaccine storage?			
		1		
		2		
		3		
		More than	3 (please specify how many)	
(ii)	Hov	w many of tl	nese are used to store vaccines routinely?	
		1		
		2		
		3		
		More than	3 (please specify how many)	

(iii)	Are	the fridges used to store vaccines pharmaceutical/vaccine fridges?
		Yes
		No – domestic type fridge is used - action required to resolve
(iv)	ls th	ne fridge or clinical area locked when not supervised?
		Yes
		No
(v)	Doe	es the practice routinely defrost the vaccine fridge(s)?
		Yes
		No
		Fridge has an auto defrost
(vi)	Doe	es your fridge have a switchless socket?
		Yes
		No
(vii)		ne vaccine fridge serviced regularly and maintained in accordance with the manufacturer's delines?
		Yes
		No
3. M	onit	coring
(i)	ls t	he fridge temperature monitored?
		Twice daily?
		Daily?
		Every other day?
		Weekly?
		Other (please specify)
(ii)	ls t	he fridge temperature noted on a chart and retained for 5 years as part of practice records?
		Yes
		No

(iii)	Wh	at type of thermometer is used to monitor the fridge temperature (tick all that apply)?
		Integral fridge thermometer
		Calibrated external thermometer
		"Stand alone" thermometer
		Other (please state)
(iv)	Are	your thermometer(s) calibrated/replaced annually?
		Yes
		No
(v)	ls th	nere a maximum and minimum temperature displayed on your thermometer(s)?
		Yes
		No
(vi)	Do	you have a Data Logger as a back up to the fridge thermometer?
		Yes
		No
(vii)	ls th	nere a nominated person responsible for monitoring the fridge temperature?
		Yes
		No
(viii)	ls th	nere a nominated deputy responsible for monitoring the fridge temperature?
		Yes
		No
4. W	aste	
(i)	Doe	s the practice have a supply of sharps boxes for disposal of vaccines and sharps waste?
		Yes
		No

<b>5.</b> Tr	ans	port
(i)	Are	these vaccines delivered directly to your practice?
		Yes
		No
If yes	s, ple	ease go straight to Section 6
If no	, ple	ase answer question (ii)
(ii)	Are	your vaccines delivered to a holding centre?
		Yes
		No, delivered direct to practice
If yes	s, ple	ease answer questions (iii). If no go straight to question (iv)
(iii)	Hov	w do you obtain your vaccines from the holding centre?
		Collected by a member of practice staff
		Collected by Health and Social Care Trust nurse (such as Health Visitor or District Nurse)
		Other (please provide details)
(iv)		es your practice have a dedicated and validated cool box used for transporting the vaccines ween sites e.g. from holding centre or to satellite practice?
		Yes
		No
If no	, hov	w are the vaccines transported safely?
6. M	lana	ging problems with the fridge
(i)		here a process in place to manage occasions when the temperature exceeds the maximum or imum recommended value?
		Yes
		No

II)	no do you seek advice from with any queries regarding vaccine stability or related issues? ease tick all that apply
	Public Health Agency Duty Room staff
	Board staff
	Health and Social Care Trust Medicines Information
	Drug Company
	Other (please provide details)

#### **Acknowledgements:**

- PHE colleagues for permission to use content of e-learning
- Mary Loughrey and Matthew Dolan (Previous version of this document)
- Dr. Jillian Johnston (Health Protection Consultant, PHA)
- Mairead Gogarty (Pharmacy Advisor, HSCB)
- Alison Quinn (Health Protection Nurse, PHA)
- Grainne McKeown (Health Protection Nurse, PHA)
- Dr. Heather Livingston (G.P. Advisor, HSCB)
- G.P.C.
- Helen Creighton (Pharmacy, HSCB)

#### References

- Public Health England- Safe & Secure Handling of Vaccines Operational Good Practice Guidance-April 2017 https://medicines.necsu.nhs.uk/cold-chain-guidance-2017/ (Accessed 25th November 2019)
- 2. Green Book Chapter 3v2¬¬\_1 https://www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book (Accessed 25th November 2019)



#### **Public Health Agency**

12-22 Linenhall Street, Belfast BT2 8BS. Tel: 0300 555 0114 (local rate). www.publichealth.hscni.net

Find us on:







