Using a Coolbox to Transfer Pfizer or AstraZeneca Vaccine from a Fridge to the MVU

GENERAL PRACTICE COVID19 VAX TEAM
@ THE BRIGHTON RACECOURSE

The temperature must be maintained between 2ºC and 8ºC at all times

1. Firstly, add the **required number** of freezer blocks / frozen gel packs to the coolbox.
    - Ensure the thermometer probe is in the centre of the box, where the vials will be placed.
    - **Pfizer**: add the relevant 'concentrated vaccine vial' 'MVU Pfizer' lunchbox / any sponges (for padding) that will be used and close the lid.
2. Allow the coolbox to **come to temperature and to stabilise (2ºC to 8ºC)** – this may take around 30 mins.
3. Once coolbox temperature stabilised:
    - Remove the required number of vials for the MVU clinic from the fridge.
      N.B. Pfizer: Only take Pfizer vials that have a **'transit time' of less than 6 hours** and those that have **only had one transit** so far (i.e. not vials that we have received via 'mutual aid' from another vaccine site as these have already had the maximum of two transits – one from the depot to the other site, and one from the other site to us).
    - Ensure the 'vial removal from fridge' sheet is completed.
    - **Briefly** open the coolbox lid to add the required number of vials to the coolbox / lunchbox in coolbox.
        - Ensure that the vials are well padded so that they remain upright and movement is minimised.
        - Ensure the vaccine vials are not in direct contact with the frozen cool packs.
    - Check that the thermometer probe is positioned with the vials.
4. All those who transport vaccine from the PCN Designated Site (Racecourse) to end user locations (e.g. MVU), patients' homes and GP practices **must** read these national SOPs (live versions online)
    - SPS SOP PVH7 Transporting Pfizer-BioNTech vaccine from Designated sites (https://www.sps.nhs.uk/articles/transporting-covid-19-vaccine-pfizer-biontech-from-pcn-designated-sites-to-end-user-location/)
    - SPS SOP AVH7 Transporting AZ from PCN Designated Sites (https://www.sps.nhs.uk/articles/transporting-the-covid-19-vaccine-astrazeneca-from-pcn-designated-sites-to-end-user-locations-patients-homes-and-within-the-pcn-grouping/)
    - SPS quick ref cool box guide, on page 2 (https://www.sps.nhs.uk/articles/transporting-covid-19-vaccines-whilst-maintaining-the-cold-chain/)
5. There must be **no returns** to stock of any used or unused vials of the vaccine at the end of the session. Discard any unused vaccine vials into a yellow lidded sharps bin, ensuring the label of the vial packaging is defaced or destroyed before disposal.

Specialist Pharmacy Service

NHS

Cool Box Quick Reference Guide: COVID-19 Vaccines

Maintain the temperature between +2˚C to +8˚	Protect the vaccine from freezing	Protect the vaccine from light	Minimise excessive movement of the vaccine

Choosing Your Cool box

- Consider how you intend to use your cool box
- The cool box must be designed for purpose of transporting and storing vaccines, and be suitably portable

- If frozen cool packs will be used, the cool box should be designed to prevent direct contact between the cool pack and the vaccine to prevent freezing
- The cool boxes and cool packs must be sourced from a recognised medical supply company. Domestic cool boxes must not be used to transport vaccines.
- Obtain data to ensure that your intended use of the cool box will keep the vaccine between +2˚C to +8˚C during its use. You will need to consider:
  - Total intended duration of use
  - Frequency and duration of openings during use (if any)

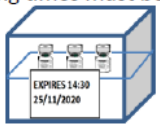
Preparing Your Cool box

- Cool packs should be chilled in accordance with the manufacturer's instructions, to ensure they maintain the right temperature.
- The box and cool packs must be carefully assembled in strict accordance with the manufacturer's instructions
- If frozen packs are specified by the manufacturer, a digital thermometer **must** be used to check the internal temperature of the cool box after the blocks are inserted and with lid closed to ensure it is between +2˚C to +8˚C prior to use.

- If the cool box doesn't include pockets to hold the cool blocks, a thick (1-2cm) layer of insulating material such as crumpled paper towel or bubble wrap must be used to separate the blocks from the vaccine.

Using Your Cool box

- Ensure that only the quantity of vaccines required for each session are removed from the vaccine refrigerator & transferred to the cool box.
- The vials should be placed quickly into the cool boxes and opening times must be kept to a minimum



- Vaccine vials must be packed securely to minimise movement of the vaccine. Bubble wrap or paper may be used for packing.
- Place a digital thermometer or temperature logger in with the vaccines to provide additional assurance that the correct storage conditions are maintained.
- Any unused vaccines left over at the end of a vaccination session must be discarded. They may **not** be returned for future use.
- Keep the length of time the vaccines are stored in a cool box to the minimum required.

https://www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book

Issue 2 - 31/12/20

SOP PVH7

Specialist Pharmacy Service

Transporting Pfizer-BioNTech COVID-19 Vaccine from Designated Sites to end user location

Version:3 20.05.2021 *Supersedes:* 2 *Date effective:* Date for review:

Where the term PCN designated site is used it can be assumed that this covers any designated vaccination site

1. Glossary of terms

Cool Box: Validated medical grade cool boxes and cool packs from a recognised medical supply company, used in conjunction with validated maximum–minimum thermometers. If the cool box is intended to be used for storage with repeated removal of vaccines, the cool box validation must take this into account.

End user location: A location within the same PCN geography where the administration of vaccine takes place e.g., care home

Foundry: a web-based stock control system that is used at PCN Designated Site.

Lead GP: Lead doctor at the PCN Designated Site responsible for the safe and secure handling and management of medicines within the site.

Nominated Responsible Person: named and suitably trained team member at each vaccination site who has been delegated operational responsibility for oversight of ordering, receipt, storage and safe handling of vaccines and medicines by the Lead GP aided by the Primary Care Lead Pharmacist.

PCN Designated Site: An approved local vaccination site that meets the core requirements for COVID-19 vaccination according to the Enhanced Service Specification.

Primary Care Lead Pharmacist: the pharmacist lead for a locality in primary care, as agreed by the Regional Chief Pharmacist and often being the CCG lead pharmacist, who is responsible for supporting the Lead GP to deliver the governance requirements.

Suitably trained members of staff: Staff that have completed the requisite national training and been assessed as competent to undertake the task.

2. Purpose

This SOP describes the process for transporting Pfizer-BioNTech COVID-19 Vaccine (BNT162b2) from PCN Designated Sites to end user location in the same PCN.

3. Responsibility

All steps undertaken in section 4.2 are classed as assembly of medicines and must be undertaken by or under the supervision of a doctor, registered nurse or pharmacist under Regulation 3A of Human Medicines (Coronavirus) (Further Amendments) Regulations 2020. These listed healthcare professionals can work under this regulation to label coronavirus vaccine as long as they are acting in the course of their professional duties for the purpose of the supply of the vaccine.

All those who transport Pfizer-BioNTech COVID-19 (BNT162b2) vaccine from the PCN Designated Site to end user locations must read this SOP.

4. Procedure

Pfizer-BioNTech COVID-19 Vaccine (BNT162b2) vials must remain upright at all times.

4.1. Preparing the cool box

4.1.1. Validated medical grade cool boxes must be used to provide ongoing assurance that the vaccines will be maintained within the cold chain temperature range during transport.

4.1.2. Cool boxes must be suitable for the duration of use.

4.1.3. Cool packs must be prepared according to the manufacturer's instructions prior to commencing this SOP.

4.1.4. The required number of cool packs must be placed in the Cool box according to the manufacturer's instructions.

4.1.5. Position the cool box as close as possible to the fridge.

4.2. Selecting, labelling and packing the vaccine

4.2.1. Care must be taken to minimise exposure of the vaccine to room temperature. The process should be undertaken swiftly and fridge door openings kept to a minimum.

4.2.2. Select the required number of vials from the fridge. It should be the minimum number required for the planned session as no vaccine can be returned at the end of the session. This may be an original pack where smaller packs are available.

4.2.3. If individual vials are selected place them in a suitable container that will keep them from moving and securely hold them in an upright position at all times during transportation. They should be protected from light. An example of a locally sourced suitable container could be a plastic box with foam supports.

4.2.4. Label the container with the following information:

- contents
- expiry date / time (from outer carton from which the vials have been removed)
- allowed journey time (see 4.3.1 and 4.3.2) – if an original pack from the wholesaler is selected only this information is required.

4.2.5. Pack this labelled container into the cool box in such a way that it remains upright and minimises the movement of the vials. If frozen ice packs are recommended by the manufacturer take care to ensure that the frozen ice pack does not come into direct contact with the product.

4.2.6. Collect and pack the associated consumables. See SOP PVH8 and PVH8.2 for more details.

4.2.7. Update the Foundry stock control system.

4.3. Transport of Vaccine to end user location

4.3.1. The MHRA Conditions of Authorisation for Pfizer-BioNTech COVID-19 Vaccine (BNT162b2) under Regulation 174 allow transit of the undiluted vaccine at 2-8 °C either in two journeys each up to 6 hours or one journey up to a maximum of 12 hours. These times are to be taken within the 31 day shelf life.

4.3.2. Pfizer-BioNTech COVID-19 Vaccine (BNT162b2) will have already made one journey to the PCN Designated Site from the wholesaler. This delivery time needs to be taken into consideration to ensure the MHRA Conditions of Authorisation are followed with respect to allowed journey time.

4.3.3. Agitation of the vials should be minimised throughout this time, so care should be taken to place the cool box in the vehicle in such a way so that it remains upright and stable throughout the journey.

4.3.4. The vaccine should be used at the end user location and not returned to stock.

See Appendix 1 for a diagrammatic representation of this SOP

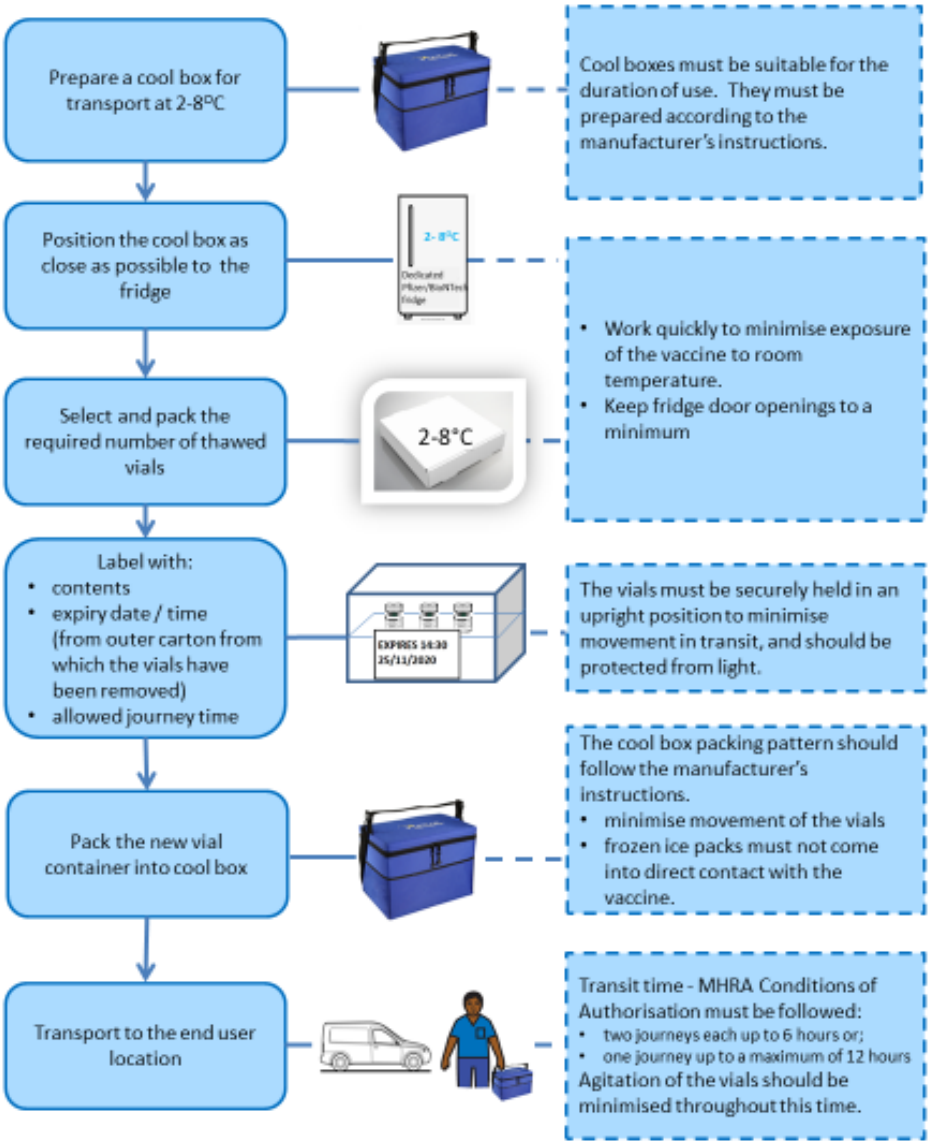
5. Document history

Date	Version	Section	Details
21.12.2020	Version 1.1	4.2.2	Reference to smaller original packs added
21.12.2020	Version 1.1	4.2.4	Reference to smaller original packs added and to see 4.3.1 also added
23.12.2020	Version 1.2	3	Reference to new Regulation 3A added
18.05.2021	Version 2	Title and additional box added	PCN removed Clarification box added as terminology has changed
18.05.2021	Version 2	4.3.4	Clarification that stock cannot be returned to the fridge after transport
21.05.2021	Version 3	4.3.1	120 hours changed to 31 days

Transporting Pfizer-BioNTech COVID-19 Vaccine from Designated Sites to end user location

Version:3 20.05.2021 *Supersedes:* 2 *Date effective:* Date for review:

Appendix 1: Diagrammatic representation of this SOP



SOP AVH7

Specialist Pharmacy Service

Transporting AstraZeneca COVID-19 Vaccine from PCN Designated Sites to end user locations, patients' homes and within the PCN Grouping

Version:3.4 *01.03.2021* *Supersedes:* Version: 33 *Date effective:* Date for review:

1. Glossary of terms

Cool Box: Validated medical grade cool boxes and cool packs from a recognised medical supply company, used in conjunction with validated maximum–minimum thermometers. If the cool box is intended to be used for storage with repeated removal of vaccines, the cool box validation must take this into account.

End user location: A location within the same PCN geography where the administration of vaccine takes place e.g. care home

Foundry: a web-based stock control system that is used at PCN Designated Site.

Lead GP: Lead doctor at the PCN Designated Site responsible for the safe and secure handling and management of medicines within the site.

Nominated Responsible Person: named and suitably trained team member at each vaccination site who has been delegated operational responsibility for oversight of ordering, receipt, storage and safe handling of vaccines and medicines by the Lead GP aided by the Primary Care Lead Pharmacist.

PCN Designated Site: An approved local vaccination site that meets the core requirements for COVID-19 vaccination according to the Enhanced Service Specification.

PCN Grouping: The group of GP practices which collaborate to deliver the COVID-19 vaccination programme which may include established Primary Care Networks, and additional neighbouring GP practices and/or other groups of GP practices working together.

Primary Care Lead Pharmacist: the pharmacist lead for a locality in primary care, as agreed by the Regional Chief Pharmacist and often being the CCG lead pharmacist, who is responsible for supporting the Lead GP to deliver the governance requirements.

Suitably trained members of staff: Staff that have completed the requisite national training and been assessed as competent to undertake the task.

2. Purpose

This SOP describes the process for transporting AstraZeneca COVID-19 Vaccine (ChAdOx1 S [recombinant]) from PCN Designated Sites to end user locations, patients' homes and GP practices in the same PCN Grouping.

3. Responsibility

When individual vials are selected, all steps undertaken in section 4.2 are classed as assembly of medicines and must be undertaken by or under the supervision of a doctor, registered nurse or pharmacist under Regulation 3A of Human Medicines (Coronavirus) (Further Amendments) Regulations 2020. These listed healthcare professionals can work under this regulation to label coronavirus vaccine as long as they are acting in the course of their professional duties for the purpose of the supply of the vaccine.

All those who transport AstraZeneca COVID-19 Vaccine (ChAdOx1 S [recombinant]) from the PCN Designated Site to end user locations, patients' homes and GP practices must read this SOP.

4. Procedure

4.1. Preparing the cool box

4.1.1. Validated medical grade cool boxes must be used to provide ongoing assurance that the vaccines will be maintained within the cold chain temperature range (2°C to 8°C) during transport. Evidence of maintaining the cold chain between 2°C to 8°C can be achieved by using a locally sourced data logger.

4.1.2. Cool boxes must be suitable for the duration of use.

4.1.3. Cool packs must be prepared according to the manufacturer's instructions prior to commencing this SOP.

4.1.4. The required number of cool packs must be placed in the cool box according to the manufacturer's instructions.

4.1.5. Position the cool box as close as possible to the fridge.

4.2. Selecting and packing the vaccine

4.2.1. Care must be taken to minimise exposure of the vaccine to room temperature. The process should be undertaken swiftly and fridge door openings kept to a minimum.

4.2.2. Select the required number of vials from the fridge, this may not be a complete carton. It should be the minimum number required for the planned session.

4.2.3. If individual vials are selected place them in a suitable container that will keep them from moving and securely hold them during transportation. They should be protected from light. An example of a locally sourced suitable container could be a plastic box with foam supports.

4.2.4. Pack this into the cool box in such a way that it minimises the movement of the vials. If frozen ice packs are recommended by the manufacturer take care to ensure that the frozen ice pack does not come into direct contact with the product.

4.2.5. Collect and pack the associated consumables. See SOP AVH3 and AVH3.2 for more details.

4.2.6. Update the Foundry stock control system.

4.2.7. For transport to end user locations go to 4.3; for transport to a GP practice within the PCN Grouping go to 4.4; for transport to a patient's home go to 4.5.

4.3. Transport of Vaccine to end user locations

4.3.1. The vials must not be shaken, so care should be taken to place the cool box in the vehicle in such a way so that it remains stable throughout the journey.

4.3.2. On arrival at the end user location follow the SOP AVH3 for preparation of AstraZeneca COVID-19 vaccine.

4.3.3. Following a vaccination session at one end user location, if the vaccine is then transported to other end user locations (e.g. Care Home A, then Care Home B and on to Care Home C) then the following must be adhered to:

- Partially used vials should not be onwardly transported unless for example when it is essential to vaccinate a small number of patients in each of several Care Homes as part of a "mop up" exercise within a 6 hour period from first puncture to avoid significant wastage. This practice carries some risks and it should be locally assessed against the principles outlined in the Position Statement for vaccination of Care Home residents using COVID-19 Vaccine Astra-Zeneca (AZ)
- Where onward transport of used vials is not appropriate discard the vaccine vials into a yellow lidded sharps bin, ensuring the label of the vial packaging is defaced or destroyed before disposal. The appropriate code for disposal should be recorded on Foundry see section 5.
- For vaccine vials that are unused, there must be evidence of maintenance of cold chain between 2°C to 8°C.

4.3.4. There must be no returns to stock of any used or unused vials of the vaccine at the end of this process. The vaccine must never be returned to the PCN refrigerator after it has left the PCN site

for administration elsewhere. Discard the vaccine vials into a yellow lidded sharps bin, ensuring the label of the vial packaging is defaced or destroyed before disposal. The appropriate code for disposal should be recorded on Foundry see section 5.

4.4. Transport of Vaccine to GP Practices within the PCN Grouping

4.4.1. The vials must not be shaken, so care should be taken to place the cool box in the vehicle in such a way so that it remains stable throughout the journey.

4.4.2. The vaccine should be used as soon as it is received or immediately put in a refrigerator to be administered as soon as possible thereafter. This has been defined as meaning within 24 hours or over the following days.

4.4.3. In this circumstance the following must be adhered to:

- Upon arrival the evidence of maintenance of cold chain between 2°C to 8°C must be checked, verified and retained by the receiving GP practice.
- Vaccines must be put in the correct vaccine refrigerator without delay and stored at 2°C to 8°C until required

4.4.4. At the GP practice follow the SOP AVH3 for preparation of AstraZeneca COVID-19 vaccine.

4.4.5. At the end of the sessions discard any remaining vaccine vials into a yellow lidded sharps bin, ensuring the label of the vial packaging is defaced or destroyed before disposal. There must be no returns to stock of any vials of the vaccine at the end of this process. In addition, the vaccine must never be returned to the PCN refrigerator after it has left the PCN site for administration elsewhere. The appropriate code for disposal should be recorded on Foundry see section 5.

4.5. Transport of Vaccine to patient's home

4.5.1. The vials must not be shaken, so care should be taken to place the cool box in the vehicle in such a way so that it remains stable throughout the journey.

4.5.2. On arrival at the patient's home follow the SOP AVH3 for preparation of AstraZeneca COVID-19 vaccine.

4.5.3. Following administration at the patient's home, the used vaccine vial can be onwardly transported to other patients' homes to administer any remaining doses. See Section 6. Further information. In these circumstances the following must be adhered to:

- Any subsequent administrations must be delivered as soon as practically possible and within 6 hours from the time of first puncture as recorded on the vial label.
- Place the used vial back in the cool box for onward transport. This must be segregated from unused vials and it must be used first.
- Existing local guidance on standard infection prevention control precautions must be followed. This will include hand hygiene with the addition of a requirement to wear a fluid resistant surgical mask. [Exact statement depends on local practice]
- Swab the vial septum with an alcohol swab prior to every dose withdrawn and leave to dry for 30 seconds.
- After administration of each dose, decontaminate the vial and secondary packaging (if applicable) using an alcohol wipe. The cool box should only be decontaminated leaving the home if there is contamination or if the person in the household has a known infectious pathogen.

4.5.4. After all patients' homes have been visited or the 6 hour expiry has been reached there must be no returns to stock of any used or unused vials of the vaccine. The vaccine must never be returned to the PCN refrigerator after it has left the PCN site for administration elsewhere. Discard the vaccine vials into a yellow lidded sharps bin, ensuring the label of the vial packaging is defaced or destroyed before disposal. The appropriate code for disposal should be recorded on Foundry see section 5.

5. Dealing with Problems and Errors related to transporting the vaccine

In the event goods arrive at end user location, patient's home or GP practice:

- damaged
- or there are any other discrepancies e.g. unable to confirm that product has been maintained between 2° to 8°C during transit

Escalate, where necessary, to the Primary Care Lead Pharmacist who can then liaise with the Lead GP at the PCN Designated Site.

Where vaccine is discarded, information must be reported on Foundry with the following codes:

ID	Name	Description	Vaccine/ Medical	Consumables	PPE
1	Contamination	The item (e.g. vaccine, diluent) has been contaminated	x		X
2	Site Fridge/Freezer Malfunction	The item was stored in a temperature controlled environment that failed	X		
3	Transport Breakdown	The item was in transit between locations when the vehicle it was in broke down, resulting in a temperature excursion	X		
4	Excess Stock	Where a vaccination team reach the end of an allotted shift or job, and have surplus vaccines that cannot be returned to stock	X		
5	Expired shelf-life	Where the expiry date for the product in its current state has been exceeded	X		X
6	Waste at Point of Care	Where the prepped dose was refused by the patient	X		
7	Improper Storage	The item had not been stored in accordance with instructions (e.g. left out of fridge)	X	X	X
8	Damaged/Dropped	The item is broken (e.g. vial dropped onto concrete floor)	X	X	X
9	Lost/ Stolen	The item has gone missing and is assumed lost or stolen	X	X	X
10	Refused at Delivery	The item has been delivered in a form that is unusable (e.g. temperature excursion or damaged item)	X	X	X
11	Reconstitution/ dilution /prep error	A mistake was made when drawing up the vaccine, making the dose unusable	X		

6. Further information

This SOP has been developed as a best practice mechanism which has weighed up the risk of impact on vaccine quality and the risk of harm to the patient from accidentally administering contaminated vaccine versus wastage of the vaccine. If this SOP is followed the impact on the quality of the product can be managed and wastage of vaccine minimised.

6.1. Transfer of punctured vials

The SPS position on movement of punctured vials is that it is not advisable but may be appropriate in some specific circumstances. The decision to move punctured vials of the vaccine between end user locations or patients' homes has been made following an assessment of the balance of risk between maintaining the quality of the product versus wastage of the vaccine. The AstraZeneca COVID-19 Vaccine contains no

preservative, there is a risk of harm to the patient from administering accidentally contaminated vaccine. However, in the circumstances where small numbers of patients are being vaccinated, there is the risk that if one vial of vaccine is used per individual patient up to 10 doses could be wasted. Storing the vial in a cool box during transit will slow down any potential microbial proliferation.

6.2. Mutual aid and the transfer of COVID-19 Vaccine between hospital hubs, vaccination centres and local vaccination services

The principles around transport and storage of the AstraZeneca COVID-19 vaccine outlined in this SOP are also applicable in situations where mutual aid has been agreed as appropriate.

See Appendix 1 for a diagrammatic representation of this SOP

For additional guidance to support the use of fridges and cool boxes in the vaccine cold chain please refer to the SPS document - https://www.sps.nhs.uk/articles/guides-to-support-best-practice-for-use-of-fridges-and-coolboxes-in-the-vaccine-cold-chain/

7. Document history

Date	Version	Section	Details
06.01.2021	2	Title	PCN Grouping added
06.01.2021	2	1	Definition of PCN Grouping added
06.01.2021	2	2	GP practices and PCN Grouping added
06.01.2021	2	3	GP Practices added
06.01.2021	2	4.1.1	2ºC to 8ºC added and data logger instructions added
06.01.2021	2	4.2.7	Added navigation of SOP instruction
06.01.2021	2	4.3.2, 4.3.3, 4.3.4	Clarification of use of vaccine at end user locations and onward transport added.
06.01.2021	2	4.4	New section added about Transport of Vaccine to GP Practices within the PCN Grouping
06.01.2021	2	5	New section added about dealing with problems and errors related to transporting the vaccine
14.01.2021	3	Title	Patients' homes added
14.01.2021	3	2	Patients' homes added
14.01.2021	3	3	Patients' homes added
14.01.2021	3	4.2.7	Patients' homes added
14.01.2021	3	4.4	Amended to clarify that vaccine received at GP practice must be used immediately and not stored

Transporting AstraZeneca COVID-19 Vaccine from PCN Designated Sites to end user locations, patients' homes and within the PCN Grouping

14.01.2021	3	4.5	New section added about transporting of vaccine to patients' homes
14.01.2021	3	5	Patients' homes added
14.01.2021	3	Appendix 1	Diagram amended to clarify that vaccine received at GP practice must be used immediately and not stored. Also, patient's home added
15.01.2021	3.1	4.4.3	Added a new paragraph to clarify storage of vaccine in GP practice
15.01.2021	3.1	4.4.4	Previously 4.4.3
15.01.2021	3.1	Appendix 1	Diagram amended to clarify storage of vaccine in GP practice
15.01.2021	3.2	4.3.3	Added reference to Section 6.
15.01.2021	3.2	4.5.3	Added reference to Section 6.
15.01.2021	3.2	6	New section added to clarify rationale for advice on transfer of used vials
15.01.2021	3.2	7	Previously 6
02.02.2021	3.3	4.3.3	Amended to include transfer of partially used vials between Care Homes as part of "mop-up" exercise and link to Position Statement for vaccination of Care Home residents using COVID-19 Vaccine Astra-Zeneca (AZ).
02.02.2021	3.3	4.3.4	Amended to clarify stock return
02.02.2021	3.3	4.4.2	Moved to 4.4.5
02.02.2021	3.3	4.4.3	Clarification on storage of vaccine following receipt from PCN designated site
02.02.2021	3.3	4.4.4	Clarification on storage of vaccine following receipt from PCN designated site
02.02.2021	3.3	6.1	New section to outline SPS position on transfer of punctured vials
02.02.2021	3.3	6.3	Addition of text to state that principles of SOP are relevant where mutual aid has been agreed.
01.03.2021	3.4	7	Numbering corrected to clarify that change described above referred to section 6.2 and not 6.3

Transporting AstraZeneca COVID-19 Vaccine from PCN Designated Sites to end user locations, patients' homes and within the PCN Grouping

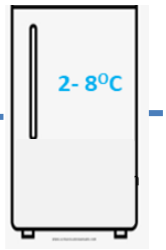
Version:3.4 *01.03.2021* *Supersedes:* Version: 33 *Date effective:* Date for review:

Appendix 1: Diagrammatic representation of this SOP

Prepare a cool box for transport at 2°C to 8°C

Cool boxes must be suitable for the duration of use. They must be prepared according to the manufacturer's instructions.

Position the cool box as close as possible to the fridge



Select and pack the required number of vaccine vials

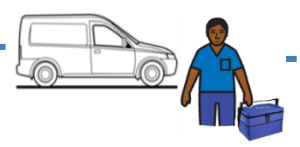
- Work quickly to minimise exposure of the vaccine to room temperature.
- Keep fridge door openings to a minimum allow fridge temperature to recover between openings

Pack the vaccine container(s) into cool box

The cool box packing pattern should follow the manufacturer's instructions.

- Minimise movement of the vials
- Frozen ice packs must not come into direct contact with the vaccine

Transport to the end user location or GP Practices within the PCN Grouping or patient's home



At end user location prepare the vaccine for administration according to SOP AVH3

At GP Practice prepare the vaccine for administration according to SOP AVH3 or follow section 4.4.2 and 4.4.3 if stored temporarily

At patient's home prepare the vaccine for administration according to SOP AVH3 and follow section 4.5 if used vial onwardly transported